The Emergence of the Bird in Andean Paracas Art.
c. 900 BCE - 200 CE

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THE EMERGENCE OF THE BIRD IN ANDEAN PARACAS ART,
c. 900 BCE – 200 CE

by

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Abstract

THE EMERGENCE OF THE BIRD IN ANDEAN PARACAS ART

C. 900 BCE - 200 CE

By Mary Brown

Adviser: Eloise Quiñones Keber

In the first millennium BCE, an enigmatic cultural group now known as Paracas inhabited the remote desert coast of southern Peru. Following its disappearance, Paracas culture did not emerge in the historical record until 1927, when three burial centers were scientifically excavated on the arid Paracas peninsula that gave the culture its name. The burials contained over 400 mummy bundles that preserved the only physical remnants of this culture and its unique art forms. When unwrapped, mummy bundles of elite males revealed multiple layers of finely woven and elaborately embroidered textiles and painted ceramics, along with gold objects, feathers, and other finely crafted artifacts. Such items indicate that the individuals were part of a stratified village society whose members participated in complex ceremonial activities. The art works feature figural imagery based, to a great extent, on the numerous species of sea, air, and land fauna of the south coastal area. In fact, avian imagery and costumes, generally understood to represent humans impersonating supernaturals, dominate in Paracas iconography. The intensity of this interest in birds, demonstrated by their prominence in the art forms, indicates that they held special meaning and value in Paracas society.

In addition to art historical methodologies, this project investigates the emergence of avian imagery and costume in Paracas art by employing the approach of evolutionary aesthetics. It interprets these avian subjects and feathered accessories as reflections of evolved aesthetic inclinations, activated and amplified by the rich bird life in the Paracas region, local
ideology, and social needs of the elite members of this hierarchical society. Inspired by the ecology of the Paracas coastal realm, the emergence of the bird in Paracas art initiated a break from an earlier supernatural triad of serpent, bird, and jaguar forged in the first millennium in the Andean highlands. This avian intervention thus reveals a previously unrecognized artistic and ideological agency among Paracas people that demonstrates that they were much more autonomous and inventive than previously acknowledged in scholarship.

My study of the small-scale, coastal Paracas society, frequently overlooked in favor of larger highland cultures such as the earlier Chavin and later Inca, also enriches our understanding of the artistic contributions of the many diverse cultures of the South American Andes and the Pre-Columbian Americas as a whole.
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For the people of the Andes, past, present, and future

For the birds
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INTRODUCTION

The Dissertation Project and its Aims

This dissertation project, “The Emergence of the Bird in Andean Paracas Art,” investigates one of the most widespread and revered subjects in the visual culture of the ancient Americas, the bird. My inquiry began with the question: why were the Pre-Columbian cultures of the Americas so fascinated with birds? Why did birds occupy such an exalted place in the minds, myth, and art of nearly all of the ancient American cultures? What motivated members of these societies to emulate avian beings in costume and ritual performance, and why did feathered garments and accessories emerge as essential elements of elite male costumes?

These queries first led me to an investigation in Mesoamerica, with a study of featherwork and costume in the Aztec culture of late Post-Classic Central Mexico (15th and 16th centuries), followed by research on the characteristics and role of the Principal Bird Deity in the arts of the Maya from the late Pre-Classic through the Classic periods (c. 300 BCE – c. 900 CE) in Mexico and other parts of Mesoamerica. Examining the Principal Bird Deity aimed to understand how the Maya conceptualized this curious hybrid-bird being and arrived at the conclusion that the bird appeared at moments of major temporal transitions, such as the change of an era or transition to the afterlife. The study of Aztec art focused on the production and use of feather art, and revealed a parallel between the motivations and behaviors of men in the human world with those of male birds in the natural world. Understanding this parallel led me to more questions.
about the sources of mental life, including numerous theories that emphasize the innatist approach to knowledge (see section on Methodology and Basis for Research below and Chapter 2).

Turning to South America, and Peru in particular, a search for the first significant appearance of birds and avian costume in the art of the Andes drew my attention to the figural imagery found in the abundant embroidered textiles and painted ceramics of the ancient south coastal village culture of Paracas, c. 900 BCE – 200 CE (fig. 0.1). The term *Paracas* also refers to the desert peninsula on Peru’s south coast where the culture once lived and buried its dead. For nearly three millennia, Paracas textiles and artifacts, indeed the culture itself, lay buried and forgotten on the peninsula; fortunately, however, they were also naturally preserved by the region’s extreme aridity. Paracas culture finally came to the world’s attention in the early 20th century, when three principal burial sites on the Paracas peninsula were scientifically excavated after suffering years of plunder and looting.

The burials contained hundreds of mummy bundles: mummified bodies, placed in baskets, equipped with items and artifacts for the afterlife, and wrapped in multiple layers of woven textiles (fig. 0.2). Some of the bundles, those of the presumably elite males, featured textiles with vividly colored and elaborately embroidered images, believed to represent beings from the Paracas natural and supernatural worlds (fig. 0.3). Upon their discovery, Paracas textiles created a sensation for their arresting patterns, technical excellence, and enigmatic figures. After several subsequent decades of scientific excavations and concomitant discoveries throughout the 20th century, Paracas textiles
came to be considered the pinnacle of the Andean textile tradition for their technical
mastery, inventiveness, and artistry. The textiles were the principal art form of the
Paracas people, and, along with ceramics and other buried artifacts, the only surviving
material record of their culture. As the full scope of the textile and ceramic traditions
came to light during the 20th century, their images of abstract animals, humanoid faces,
and geometric motifs forged an iconographical lexicon of Paracas art that became the
basis for interpreting elements of the culture. Among the embroidered images are an
abundance of birds (fig. 04), some conceived as composite beings with avian elements
such as wings, feathers, and bird feet (figs. 0.5, 0.6) or as humans clothed in feathered
costumes (fig. 0.7).

The Paracas peninsula and its treasures are considered to be among the most
significant archeological finds in the world, yet many questions about the culture have
remained unanswered due to limited scholarly attention to this remote coastal region and
the dearth of in-country resources. My research addresses this lacuna of knowledge by
focusing on one of the outstanding themes in Paracas art: its avian imagery.

**Proposed Contributions**

While describing the artistic and technical brilliance of Paracas textiles, in
particular the avian imagery, is worthy of an in-depth study for its own sake, this project
attempts to go further to uncover more about the Paracas society and its relationship to
birds to discern why its artists created art in a truly unique way in Andean art history. I
argue that the birds, avian-related beings, and avian costumes depicted in Paracas art
represent an innovative and creative departure in Pre-Columbian iconography. In particular, Paracas avian-centered motifs introduced an alternative to the dominant serpent/jaguar/bird hieratic template of the roughly contemporary but more widespread highland Chavín culture of the Early Horizon period (c. 1000 - 200 BCE), which is still generally accepted as the dominant cultural and artistic force in the early formative period of the Andes. Chavín was one of the earliest Andean cultures to forge mythology and imagery based on a hieratic, supernatural animal triad: apparently, the serpent symbolized the realm of the dead and the ancestors, while the jaguar ruled the earthly sphere, and birds were lords of the sky.\(^1\) Even before Chavín, however, prominent animal and bird motifs had appeared in the earliest Andean textiles of Huaca Prieta from the era known as the Cotton Pre-Ceramic period on Peru’s north coast (c. 3000 – 1800 BCE) and continued into the art of the Late Horizon imperial Inka (c. 1438 - 1534 CE).\(^2\)

Although Paracas culture was, therefore, not the first to depict birds and winged figures in its art, the abundance of birds and their special prominence in funerary art is extraordinary in the Andes. Furthermore, I argue that this interest in depicting birds may have come from the combination of an innate human drive to produce art coupled with powerful sensory input from the unique environment inhabited by the people on the Paracas peninsula. This argument is based on 20th and 21st-century research on the


nature of the human mind and an emerging understanding of the role art-making played in our path to becoming modern humans.\(^3\)

The visual record of Paracas textiles, featherwork, ceramics and goldwork also indicates that members of this society were involved in avian ritual performance: activities and ceremonies in which humans clothed themselves in winged and feathered costumes as shown in the textile images. Paracas society may be the first in the Andes to have engaged in such avian-inspired performance. This avian intervention into the dominant Chavín template thus demonstrates a high degree of creativity and autonomy among the Paracas people that has not yet been widely recognized. My research further suggests that avian ritual performance and the high value placed on feathers (evidenced by their inclusion in costumes, ornamentation, and loosely in burials) may also reflect the parallel between the posturing and display behavior of human males and the similar behavior of male birds in nature, sourced from the same evolutionary needs and adaptations.

Invoking the method of evolutionary psychology for this project also adds to the growing conversation about the biological basis of narrative and symbolism, and its attendant art production. From this point of view, my investigation explains avian imagery and ritual as a Paracas innovation emerging from universal human drives and adaptations.

shared mental frameworks, minds that were, nevertheless, also shaped by their unique ecological niche.

The Andean Ecological Triad: Desert, Mountains, Rainforest

The dramatic geography of the Andean region is the source for many elements of the human story that would unfold in its spectacular realm, a narrative that is unique in world history as a result of the combination of latitude, climate, and steep elevation changes. Discussing the Inca Empire, archeologist Michael Mosely explains, “If thriving civilizations had matured atop the Himalayas while simultaneously accommodating a Sahara desert, a coastal fishery richer than the Bering Sea, and a jungle larger than the Congo, then Tahuantinsuyu [the four quarters of the Inca Empire] might seem less alien.”

The spine of the Andes, the world's longest and second highest mountain range, is often referred to as the cordillera, or corridor, for its meandering, vertical stretch from the Caribbean coast along the west coast of South America to Tierra del Fuego in southernmost Chile (fig. 0.8). At its northern extreme in Colombia, the cordillera splits into three branches running south, uniting in Ecuador, and then dividing again into two parallel branches through Peru and Chile (called the Cordilleras Oriental/Negra and Occidental/Blanca, the eastern/black and western/white branches). Off shore, the ancient

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Cordillera de la Costa also meanders down the west coast of the continent, almost entirely submerged by the Pacific Ocean. Remnants of its peaks are visible in the Paracas region as the rocky outcrops known as the Ballestas Islands, off the Paracas peninsula’s coast, and in the highest hills of the Paracas peninsula itself, known in Spanish as *cerros*.  

The Andes meet the Pacific Ocean, where the Humboldt Current moves from south to north, bringing cold water from the southern Arctic Ocean and upwelling the coldest water from the Peru-Chile trench that runs beneath the ocean along the continental shelf. The great wall of the Andes halts the westward advance of rain clouds circulating throughout the Amazon basin to the east. This Andean rain shadow, paired with cold waters from the Humboldt Current that dissolve low-lying clouds before they can become rain, results in the world’s driest desert. Some relief is provided by fog rolling off the Pacific Ocean, creating areas of vegetation called *lomas*, and mountain sourced streams that bring a small measure of moisture to the otherwise arid coastal area.

These conditions formed a long stretch of coastal desert with a touch of ambient

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6 Julio C. Tello Visitor Center, wall text and interpretive diagrams, Paracas National Reserve, Paracas, Peru. Chapter 1, “An Improbable Ecosystem,” will discuss how this ancient geology manifests as multi-colored sands creating the Peninsula’s otherworldly environment.

7 Lumbreras, *The Peoples and Cultures of Ancient Peru*, 4. Most of the moist air generated by high altitude atmospheric conditions in the Andes moves west to the Amazon tributaries and the Atlantic watershed; only about 10 percent of mountain run-off reaches the Pacific Ocean.
moisture and small ribbons of water with attendant vegetation in modest river valleys (fig. 0.9). Despite the aridity, life thrives in the ocean, due to the nutrient rich cold waters meeting the intense low-latitude sun, which generates a massive biomass of phytoplankton supporting enormous fish stocks that, in turn, support large populations of marine mammals and birds. Numerous insect species, reptiles, birds and small mammals such as desert foxes, rodents, and felines reside in the river valleys among the lomas and river-fed oases. When humans arrived to the coastal region, they exploited marine resources and cultivated subsistence crops such as legumes, tubers, maize, and crucially for Andean society and art, cotton. Moseley calls this habitat zone and the cultures and lifestyles it supported the Maritime-Oasis lifeway.8

A mere 50 to 80 kilometers inland from the coast, the rugged Andes begin to rise dramatically, creating another zone known as the Arid-Montane lifeway.9 The rapid and steep rise of the Andes creates numerous microclimates: environments so varied that 84 of the world’s 118 known ecosystems (formed on the basis of different soil types, rainfall, and amount of sunlight) exist within them, making the Peruvian region one of the most biologically diverse on earth.10 A prime example of the genetic diversity generated by the microclimates is the wide differentiation of two staple crops: in Peru, more than 600 varieties of corn and 2,000 varieties of potato are grown.11 This Arid-Montane region

10 Julio C. Tello Site Museum and Visitor Center, wall text and interpretive diagrams.
11 Luis Felipe Villacorta Ostolaza, *The Cultures of Ancient Peru* (Lima: Roberto Geller
includes the *altiplano*, a high, wide plain located between the two branches of the Andean cordillera. In the altiplano, decreased growing seasons due to colder temperatures and scarce rainfall posed a challenge to agriculture that later Andean cultures met by using techniques such as raised beds and terracing (fig. 0.10). As Moseley observed, “the Cordillera is plagued by the problem that where there is land, there is often little or no water, and vice versa.”

Nevertheless, although the amount of land available for farming was greater at high elevations due to the practice of terracing, of the major Andean cultivated crops:

- 90 percent thrive below 1,000 meters and fewer than 20 percent do well above 3,000 meters. This elevational inversion of land availability and crop diversity had a profound and lasting structural effect upon agricultural life, creating far-reaching supply and demand problems that lie at the heart of Arid-Montane adaptations.

Among the multitude of animal species inhabiting the highlands are members of the Andean camelid family (fig. 0.11), llamas, alpacas, guanacos, and vicuñas. While used as pack animals and sources of meat, they are principally sources of the wool fiber that will weave together much of Andean culture, providing an integral foundation for its outstanding textile traditions while connecting coastal and mountain cultures through trade.

The third of the Andean lifeways is the Tropical Forest lifeway. The Peruvian

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Amazon jungle covers the eastern slopes of the Andes, nearly 60 percent of modern Peru, an area of permanent clouds and 90 percent humidity. It is home to spectacular bird species such as the blue and yellow macaw (fig. 0.12), the terrestrial jaguar (fig. 0.13), and amphibious cayman (fig. 0.14). This region thus provides “exotic” goods such as colorful bird feathers and feline pelts. Although distant, some of the animals and plants native to tropical forests appear in highland and even coastal imagery.

The desert, highland, and jungle regions of the Central Andes of the area now defined as Peru, and the cultures they generated, have been the subject of much Andean scholarship, with “Andean culture defined as generalized patterns of adaptation to the varied Andean environments.” 14 In order to survive and harness all available resources, Andean people adopted a strategy of exchange and cultivation in varied ecological zones that the late anthropologist and comparative ethnohistorian John V. Murra (1916-2006) characterized as “vertical archipelagos,” a concept later known in Andean studies as “verticality.” 15 In this system, fibers, first from plants such as cotton and maguey, and later from domesticated highland camelids, were exchanged between the coast and the highlands.

Like the flora and fauna with which they coexist, the somewhat isolated coastal river valleys and distinct, vertical ecological zones differentiated the early peoples of the

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14 Lumbreras, The Peoples and Cultures of Ancient Peru, 6.

Andes into numerous, varied cultures. In the present day, Andean cultural groups are frequently redefined as new discoveries are made. Some of these recent discoveries, such as the large ancient ritual center known as Caral in the Supe River valley of the North Coast, excavated only in the 1990s, have not only established Peru as one of six centers of pristine civilizations that arose independently of outside influence, but have also challenged long-held models about the development of civilization.16

**Historicizing Andean Culture**

Anthropologists have attempted to organize the great puzzle of Andean prehistory into a chronological scheme that is increasingly challenged but still generally accepted in the present day. In order to better understand and explain the progression of numerous cultures in the Andes, in 1962 anthropologist John Rowe devised a sequence for the Andes and an accompanying terminology that is comparatively based on cultural stages in the Ica Valley on Peru’s south coast (fig. 0.15). Rowe’s sequence begins with the Lithic period (c. 10,000 - 3000 BCE), an era marked by geologic stabilization (when earthquakes ceased to occur regularly, allowing for human settlement); the Cotton Pre-Ceramic (c. 3000 – 1800 BCE), the time before the introduction of pottery to the Ica Valley; and the Initial Period (c. 1800 – 1000 BCE), an era marked by the appearance of pottery and the beginning of Chavin influence in this region.17

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Following these three earliest stages is a series of alternating periods labeled Horizon and Intermediate. A widespread “unifying style in the art and culture of various regions that may be associated with the power of a cult, state, or empire” characterize the Horizon periods. These alternate with Intermediate periods of greater “regional diversity.” 18 Three Horizon Periods (the Early Horizon, encompassing highland Chavín and the early phase of coastal Paracas, Middle Horizon highland Tiwanaku and Wari, and the Late Horizon, highland Inca Empire) alternate with the Early and Late Intermediate periods. Although the date range continues to be refined as new discoveries are made, at present the Early Horizon spans the first millennium BCE (c. 900 – 100), encompassing the span of Chavín.

Paracas culture originates in the Early Horizon and extends into the Early Intermediate period, with most scholars in agreement that the culture is gradually replaced by the Nasca by 200 CE. It begins with the first appearance of Chavín influence at Ica and ends with a change in ceramic technology, the replacement of resin painted ceramics by polychrome slip painting. 19

The Role of Peruvian Archeologists

Rowe’s term Early Horizon replaces the earlier term Chavín Horizon, coined by Peruvian archeologist Julio C. Tello in the 1930s. Tello was the first scholar to

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intensively and scientifically study both Paracas and Chavin sites, artifacts, and art forms and to describe and argue for a dominant, pan-regional Chavin influence emanating from its highland ritual center, Chavin de Huantar.\textsuperscript{20} With Tello’s work and concepts as a foundation, other notable Peruvian archeologists such as Raphael Larco Hoyle have concurred that the Early Horizon marks the beginning of complex society in the Andes. It is generally agreed that this process occurred as the cultures of the previous eras coalesced under a unifying religious influence arising from the highland ceremonial center of Chavin de Huantar, although some heterogeneity persisted.

Crucial developments of this era also include the defining characteristics of complex societies, such as large permanent settlements, the emergence of large-scale monumental architecture, intensive food production, social stratification, and widespread distribution of shared art forms and religious practices emanating from Chavin de Huantar. The site consisted only of two major stone structures, the Old and New Temples, presumed to be pilgrimage sites and the location of an oracle. Chavin art style refers to the imagery found carved and incised upon the architecture and stone monuments at the site, as well as the ceramics found in the vicinity. Chavin art is characterized by a distinctive style of abstract, composite images, frequently featuring supernatural creatures with bodies built of multiple combinations of animal parts and dominated by the frontal face of a snarling feline (see Chapter 3, “Early Birds,” and figs. 3.15 - 3.22)

Hoyle first articulated in the 1930s that “a set of beliefs centering around the

\textsuperscript{20} Moseley, \textit{The Incas and their Ancestors}, 20.
feline spread over a wide area, profoundly influencing the diverse peoples who embraced the ideology.”21 This widely accepted hypothesis renders Chavín analogous to other foundational cultures of great civilizations such as the Shang Dynasty in China, the Sumerian civilization in Mesopotamia, and the Olmec civilization in Mesoamerica.22

Assessing the origins of complex society in the Andes, however, is an ongoing process. In the twenty-first century, the relationship among cultures of the Early Horizon is being reassessed to allow for more flexibility and exchange among various groups. A conference, The Dawn of Andean Civilization, held in Washington, D.C. in September 2011, challenged the notion that a single, linear progression generated the center of Chavín de Huantar and its legacy. Conference participants also discussed the concepts of institutional structures of domination and organized corporate leadership, the possibilities that multiple centers of power were spread throughout the region during the Early Horizon, and the presence of non-corporate, family groups as a source for social organization.

Reflecting this conceptual shift, the Early Horizon is now frequently known as the Early Andean Cultural Interaction Sphere. The role played by Paracas within this system continues to emerge as interpretation of their society and art unfold. My research notes how Paracas society, with its compelling visual evidence of avian-influenced beliefs

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21 Rafael Larco Hoyle, as quoted in Burger, “Unity and Heterogeneity within the Chavín Horizon,” in Keating, ed., 111.

separate from Chavín, may have been a more integral agent in this process of the
formation of early Andean society than has been previously recognized.

**The Paracas Realm: Ocean and Desert**

Paracas culture once spanned a 350 kilometer strip of south coastal Peru that
encompassed the coastal valleys of Cañete, Chincha, Pisco, Ica and Acarí, the Río
Grande de Nasca drainage, and the Paracas peninsula. In the Paracas peninsula, wind-
swept sediment and rocky beaches in unearthly tones of red, yellow, and gold rise out of
the deep blue and emerald green of the Pacific Ocean (fig. 0.16). When the Paracas
sands glow in the intense sunlight, the contrasts between the sky and desert are so
dramatic they appear as abstract planes of color rather than topographical landscapes. In
the absence of trees or any ground plants, an inhabitant becomes attuned to the subtle
changes in the different colors of the sediments, the shapes of hills (*cerros*) and changing
patterns of sunlight and cloud shadows on the variegated surface sands (fig. 0.17). Near
the coastal cliffs, the seemingly interminable expanse of sapphire ocean fades into the
sky, glittering with sunlight at mid-day and turning to silver in the evening. The sky, in
turn, parades colors ranging from champagne to lavender to mother of pearl, or
sometimes electric shades of orange. In the mornings and, on occasion, for the duration
of the day in the winter months, enough *loma* moisture will roll off the ocean to turn the
surface sediments to a sticky paste that cakes the bottoms of shoes, while the sky remains

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grey. Under such grey skies, some of the subtler colors in the Paracas sediments emerge (fig. 0.18). Silence prevails: without vehicles or human voices, only the waves beneath precipitous cliff walls, small pebbles washed back and forth by the surf, and the chatter of seabirds are audible. Before catching sight of the ocean and its large community of seabirds and marine mammals, Paracas appears beautiful but empty and barren of life, yet, as will be discussed in detail in Chapter 1, “An Improbable Ecosystem,” both land and sea are rich and complex ecosystems.

Although situated on the Peruvian coast, Paracas is exceptionally dry: the nearest rivers, Pisco to the north and Ica to the south, are separated by 150 kilometers, and the hills of the ancient Cordillera de la Costa have diverted the flow of water away from the Paracas region. In addition, wide, flat areas of sun-soaked Paracas sand warm the ocean air, causing it to rise and expand, generating windstorms as cooler, denser air rushes in to replace it. In August through October, the area is struck with 35-50 kilometer per hour winds that send its sands into frenzy, constantly reshaping the landscape into undulating waves dotted with small, conical mounds.24 So impressive are these windstorms, that the word Paracas means “sand falling like rain” in Quechua, the language of the Inca, who gave this name to the peninsula. Oceanic motion also has an enormous impact on Paracas in the form of the Humboldt Current.

The Humboldt Current generates the world’s largest cold-water upwelling system, a phenomenon in which cold, nutrient-rich water from deep in the ocean is carried to the

surface, replacing warmer, nutrient-poor surface water.\(^{25}\) Although the current’s air-chilling effects prevent life-giving rains, the upwelling results in a continuous supply of microorganisms that provide an abundant food source for fish, which in turn attracts a large community of both marine birds and seafaring human cultures. The maritime resources, principally fish and shellfish, supported a small population on the peninsula of approximately 3,700 individuals, a population estimate based on the number of remaining family houses in the region and an estimated family size of five individuals.\(^{26}\) Irrigation farming was also practiced in the nearby river valleys.

Members of Paracas society settled in nucleated villages on the Paracas peninsula, residing in subterranean dwellings constructed of sand, ash, and mortar. Other shelters were made of whale bones and covered in mats of cotton or other woven organic cloth (fig. 0.19).\(^{27}\) Even today, many homes in the Peruvian coastal region are made of the humblest materials, little more than plywood walls topped with a woven roof (fig. 0.20); some consist of four woven walls held together with sticks and rope.\(^{28}\) On the coast, an


\(^{28}\) Known as *estaras*, “mats,” these woven mats are the housing choice for Peru’s poorest inhabitants. See “Pictures of a Minority of Lima,” posted on November 5, 2011 by Ian Shay, Gustavus Aldolphus College Blog, [https://cice.blog.gustavus.edu/2011/11/05/pictures-of-a-](https://cice.blog.gustavus.edu/2011/11/05/pictures-of-a-).
area without rain or cold weather, the bare minimum is needed for shade and privacy. Some Paracas populations also inhabited the Pisco, Ica, and Nazca river valleys in areas surrounding the Paracas peninsula, and may have traveled to the Paracas peninsula to bury their dead, possibly due to the peninsula’s otherworldly colors and proximity to the ocean, possibly viewed as another sacred realm. They may also have perceived a connection between the large bird populations and the spirit world, as will be discussed in Chapter 4, “Paracas Birds.”

In their world of desert and ocean, the archeological record of textiles, ceramics, and gold reveals that Paracas people yet lived richly, making art and engaging in ritual, farming and fishing, and trading with distant regions. Camelid fiber from the highlands and feathers from the tropical eastern slopes of the Andes appeared in textiles and accessories such as headbands. The population lived in close contact with a variety of indigenous animal species, some of them among the largest and most impressive animals on earth, the cetaceans: whales, dolphins, and porpoises. An enormous population of sea lions resided along the shores, as reptiles, foxes, and small felines scampered on land. Seabird populations numbered in the millions. With this backdrop, ceramic and textile artists transmitted and transformed their observations and experience of the natural world into imagery on the ceramics (fig. 0.21), clothing (fig. 0.22), and mantles (fig. 0.23), all

found among the buried dead. Fortunately, this unique worldview was preserved in the desert sands of Cerro Colorado on the Paracas Peninsula (fig. 0.24), now an archeological site.

**Discovery and Excavation of Paracas Mummy Bundles**

In the absence of a written text, all knowledge of Paracas society is derived from their burials. It is only through the combination of funerary practices and unusual climatic conditions that the remnants of Paracas culture and activities have survived, since the arid climate engendered an unusually high degree of preservation of the textiles and artifacts that accompanied the bodies. Although some preparation of the bodies took place before burial (some organs were removed, skins were treated, bodies were flexed into the fetal position), the mummification of Paracas bodies was largely due to the natural mummification processes resulting from the extreme aridity of the Peruvian south coast.

The Paracas peninsula, now enclosed in the Paracas National Reserve, was only one settlement and burial center in the approximately 350 kilometer strip of coastal desert once occupied by this culture, bordered by the Cañete Valley in the north, including the Chincha, Pisco, Ica, and Acari Valleys, and ending the Rio Grande de Nasca floodplain in the south (fig. 0.25).  

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burial centers were found in the Pisco Valley north of the peninsula and the Ica Valley to the south, in particular the Ocucaje region of the Ica Valley, whose ceramic remains gave rise to a 10-phase chronological sequence that is still used as one chronological template for the first millennium BCE on the South Coast (see Chapter 4 for further discussion of the Ocucaje sequence and its implications for the evolution of ceramic styles).  

A great deal of looting by *huaqueros* (looters) occurred in the late nineteenth century and has continued to the twentieth century throughout the Andean region and, to a lesser degree, into the present day. This illegal activity has significantly disrupted the Paracas burial sites (and those of other Andean cultures), resulting in the loss of many artifacts to private collectors or their placement into public collections without provenance. Fortunately, however, scientific excavations also began in the first decades of the twentieth century before the sites had been completely corrupted by looting. The German museum-worker turned archeologist Max Uhle was involved in the landmark 1911 excavations of the first textiles in the Ocucaje region, following a series of small-scale discoveries associated with Paracas pottery shards, vessels, and one mummy bundle.

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32 See Dorothy Menzel, John H. Rowe, and Lawrence Dawson, *Paracas Pottery of Ica: A Study in Style and Time* (Berkeley: University of California Press, 1964). This ample study includes descriptions, line drawings, and photographs of numerous vessel types and their designs.


discovered, the textiles created an immediate sensation, and Uhle praised them effusively:

Unique in workmanship and character...in these fabrics we find mythological figures and naturalistic designs represented in the same bold style as those painted upon the pottery, in bright colors and beautiful soft tones as we see nowhere else in Peruvian textiles.35

Uhle eventually unwrapped and distributed eight complete mummy bundles to museums in Germany.

The best known and most spectacular of the burial sites, and those that give the culture its name and art style, were the burials of the Paracas peninsula. Their discovery was the work of Peruvian archeologist Julio C. Tello and his assistant Toribio Mejía Xesspe, whose excavations at three separate burial sites from 1925 to 1927 have provided the most extensive body of knowledge of Paracas material culture.36 The first such excavation took place in an area known as Arena Blanca, located on the northern slopes of Cerro Colorado. Led to the site by a huaquero from the neighboring city of Pisco, the formal excavations revealed twenty underground residential units and burials housed in units resembling domestic spaces. The second excavation, at a site known as Cavernas, one kilometer south of


36 For a thorough discussion of the history and discovery of the Paracas peninsula burial sites, including contentious issues related to acquisition of the artifacts, Peruvian politics and their effect on archeological efforts, and internecine rivalries, see Richard E. Daggett, “Paracas: Discovery and Controversy,” in Paul, ed., 35-60.
Arena Blanca, was so named for the cavern-like chambers organized in terraces with mummified bodies placed in the bottom of the pits (fig. 0.26).

On October 25, 1927, the third and ultimately most spectacular find occurred at the burial site known as the Necropolis of Wari Kayan (meaning *ancestral temple*), located on the north slopes of Cerro Colorado between Arena Blanca and Cavernas. This mass burial, widely considered to be one of the most spectacular finds in the history of Andean archeology, contained 429 conical mummy bundles buried in rectilinear, subterranean rooms (in contrast to bottle-shaped Cavernas) giving rise to their label *Necropolis* (fig. 0.27). These Necropolis bundles contained both burial artifacts and the layers of textiles whose embroidered images have become famous worldwide and are the principal record of Paracas cultural life.

One of the first and principal inferences made from the burials was related to differences in social status. The differential treatment of the mummies indicated that the Paracans possessed a hierarchical culture. Elite bundles were constructed for what were apparently village leaders, with the most important people receiving the largest number of textiles and other offerings.37 In these burials, adult males were buried fully clothed in ritual attire, placed in nest-like baskets laden with

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37 “Some burials seem to have had the largest bundle in the center, with medium-sized bundles around it and smaller ones on top, as if the most important person were surrounded by his people. The proportionately larger numbers of everyday and middle-class versus upper-class bundles describe a recognizable social hierarchy. Only large and medium-sized bundles have been opened and all the skeletons inside were reportedly male; presumably the small ones contain mostly females.” Stone, *Art of the Andes*, 3rd ed., 54.
gold, ceramics, animal skins, and shells, all wrapped in woven and embroidered mantles (see fig. 0.28). In their totality, the elite bundles are so impressive that some art historians have considered them works of art in themselves.\textsuperscript{38}

The picture of Paracas society pieced together from decades of archeological evidence is that of a non-state, village-based culture with both burial and habitation sites located in the Paracas peninsula and in neighboring river valleys.\textsuperscript{39} Evidence from settlement patterns as well as mortuary complexes suggests a social organization closest to a complex chiefdom, with rule based on hereditary family lineages.\textsuperscript{40} Many questions about Paracas culture and burials remain unanswered. For example, due to the extremely inhospitable environment of the Paracas peninsula, there is still disagreement over whether the bodies interred in the peninsula cemeteries were those of people inhabiting the site or carried there from nearby river valleys, such as Pisco.\textsuperscript{41}

What is abundantly clear, however, is that throughout the duration of Paracas culture and in all of its geographical regions, a great deal of energy was devoted to concerns of the afterlife. Archaeologists Lisa DeLeonardis and George

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\textsuperscript{38} “Arguably, the mummy bundle can be seen as a work of art in itself, or at least a very telling disposition of other works of art.” Stone, \textit{Art of the Andes}, 3rd ed., 62.


F. Lau explain the burial sites as a reflection of one of the most important elements of Paracas society, ancestor veneration. Evidence for this practice is demonstrated by a number of activities surrounding the preparation of mummy bundles and the nature of their burials. Principally, there is the concentration of resources and amount of labor devoted to preparing the dead for the afterlife through the construction of the mummy bundles. Secondly, the concentration of colored and embroidered textile mantles, garments and headdresses, gold, ceramics, feathers and animals skins in the bundles of certain individuals indicate recognition of the deceased’s higher social standing, a differential status that continued in the afterlife. The burials themselves show evidence that they were repeatedly entered and the mummies within them rearranged, indicating an ongoing concern with their placement; furthermore, the choice to locate burials at a distance from habitation sites indicates that the sites were likely chosen for spiritual over practical reasons. This reverence for their ancestors and concern with furnishing the realm of the afterlife resulted in a stunning material culture.

### Burial Artifacts

Ceramic vessels featuring a variety of craft technologies, style conventions, and iconography were among the most numerous and significant burial artifacts.

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Some scholars consider the Paracas achievement in ceramic art to be one of the most outstanding in ancient Peru, as it transformed Chavín precedents and transferred both technology and iconography to the later and more celebrated ceramic art of Nasca.\(^{44}\) Categorizing Paracas ceramic art, however, has posed a number of challenges. The development of Paracas culture and art were “extremely complex,” not fully clarified by archeological fieldwork, and feature iconography that presents a “confusing array of styles (...) characterized by abstract religious symbols.”\(^{45}\)

Vessels were formed using basic techniques such as modeling and coiling, since the potter’s wheel was unknown in Peru before the arrival of Europeans. Rather than a wheel, artists used a shallow, round bottom plate as a turntable to apply clay coils, or to hand mold, then smooth, scrape, thin, and finish the vessel walls.\(^{46}\) Vessels were fired in simple earthen pits, with firing techniques and

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\(^{44}\) “The widespread influence of Chavin religion and the advanced technology associated with it acted as catalysts for the development of several distinctive regional cultures. Outstanding among these are the Mochica [Moche], which flourished on the north coast, and the Paracas on the south coast that, from similar Chavinoid beginings, passes through a series of evolutionary stages to become the Nasca culture. In many ways, the craft achievements of these two peoples represent the apogee of ancient Peruvian art.” Alan R. Sawyer, *Ancient Peruvian Ceramics: The Nathan Cummings Collection* (New York: The Metropolitan Museum of Art, 1966), 12.

\(^{45}\) Sawyer, *Ancient Peruvian Ceramics*, 12. More archeological fieldwork will be necessary to fully clarify the chronology, regional differences, and cultural relationships between the varied Paracas groups. At the time of writing, Dawn Lohnas, Objects Conservator at the Metropolitan Museum of Art, New York, is examining Paracas post-fire painted ceramics from a material and technical standpoint, looking at pigments and binders to see how they relate to cultural forms of exchange, as well as categorizing changes in the iconography over time. Dawn Lohnas, personal communication, September 8th, 2014.

\(^{46}\) Christopher B. Donnan, *Ceramics of Ancient Peru* (UCLA: Fowler Museum of
applied materials creating varied surface decoration. The Paracas ceramicists, like other early cultures of the Andes, did not need elaborate manufacturing techniques or chemistry to create their ceramic art. Rather, they utilized the materials in their environment and transformed them with artistry and great skill. Archaeologist Christopher B. Donnan explains, “The great achievement of ancient Peruvian potters was the degree to which they were able to master the full potential of available materials and simple techniques in order to produce objects of extraordinary artistic and technological virtuosity.”

Throughout the span of their ceramic tradition, artists worked with both terracotta and white clays to produce ceramics of varied colors, iconography, and styles. The majority of Paracas ceramics were decorated after firing, with plant and mineral resin dyes applied between incised surface lines to build an image in abstract bands (fig. 0.29). Another technique used was negative-resist painting in which pigment applied on the vessel would be removed during firing to reveal an underlying color (fig. 0.30). In a final, transitional stage, clay slips replaced incising and resin painting. Later vessels in this style were molded into the shapes of gourds and painted with monochrome clay slip before firing, resulting in smooth, elegant wares without decoration (fig. 0.31 and fig. 0.32). The

49 Donnan includes a thorough explanation of Paracas ceramic technology, including
introduction of this pre-fire, clay slip, and surface painting, rather than incising, overlaps with the subsequent Nasca ceramic technology and style, and would continue to develop in the Andes over the next 2,000 years.\textsuperscript{50}

Other notable items found in the burials, accompanying and adorning the mummies, included hammered gold accessories such as fine gold headdress items (fig. 0.33). Pyroengraved gourd rattles with familiar Paracas iconography (fig. 0.34) and ceramic bugles (fig. 0.35) suggest an interest in music. The richness of the ceramics and personal adornment contrasts with what is known of the structures of daily life and the built environment, as remains of the residential dwellings suggest they were always modest. Due to a lack of available materials, large-scale architecture or sculpture was nonexistent. Yet it is clear that visual culture was extremely important to these ancient coastal people, and, although some types of material culture may not have been included in the burials or have been lost to time and plunder, the remains indicate that most of the resources and artistic energy of Paracas society were concentrated in the arts of personal adornment, especially textiles.

\textbf{Paracas Textiles}

different types of clay, forming and firing techniques, pre-fire decorating techniques (such as slip painting) and post-fire techniques (such as resin, black pigment, and resist painting). Pyroengraving involves burning an image into an object’s surface with a heated implement.

\textsuperscript{50} Donnan, \textit{Ceramics of Ancient Peru}, 38.
Textiles were, without question, the most outstanding of the burial finds in both quantity and quality, indicating their significance in Paracas society. As art historian Anne Paul notes, “The quality and quantity of textiles surpass the technical skill and numbers of all other artifacts (…) and leave little doubt as to the paramount importance of weaving in this culture.”\(^5^1\) Garments for ritual and everyday use, as well as the many layers creating the mummy bundles represented an enormous amount of time, energy, creativity and resources. Widespread agreement places Paracas textiles at the peak of the Andean textile tradition; an incredible technical achievement for weavers with limited resources working on simple backstrap looms. Tapestry cloth, where designs are created by warp and weft structures within the cloth, appeared in its most technically challenging form: discontinuous warp and weft weaving, a method used only in the Andes and some later, highly refined Persian velvets.\(^5^2\) In addition to displaying the skill of the artist, discontinuous warp and weft allowed weavers to create bold color areas and curvilinear figural imagery that transcended the typical rectilinear motifs imposed by warp/weft tapestry weave (fig. 0.36).\(^5^3\)

The three cemeteries on the Paracas peninsula revealed textile finds made

\(^5^1\) Paul, Paracas Ritual Attire, 5.


\(^5^3\) See Raoul D’Harcourt, Textiles of Ancient Peru and their Techniques (Seattle: University of Washington Press, 1962) for an inventory of Peruvian weaving techniques, including woven and non-woven fabrics, ornamentation, and trimming.
from both cotton and camelid fibers, ranging from plain weave cotton cloth to the most elaborate tapestry weaving. Even modest, plain weave cotton fabric from coastal river valleys represents the culmination of enormous efforts of local production, from cultivation to harvesting, producing plant and mineral dyes, and spinning threads, even before beginning the arduous weaving and embroidery processes. Camelid wool fibers, typically from the alpaca of the highlands, were highly valued for their warmth and ability to absorb and retain color. Obtaining them, however, was an even greater challenge, as the practice required trade with the highlands from a great distance away.

While burials contained nearly equal numbers of men and women, and sometimes children, only certain adult men received the decorated clothing. Women, children, and men of lesser status were wrapped in rough, plain weave cotton cloth, with few accompanying offerings, typically consisting of simple, undecorated pots. In contrast, an elite male was wrapped, as Rebecca Stone describes, “like a bobbin” in headbands, turbans, ponchos, tunics, skirts, loincloths, and shoulder mantles. Some mantles were so large they may have taken from 5,000 to 29,000 hours to produce, and some bundles exceeded seven feet in height.54 The elite males were given far more elaborate decorative textiles, created by using a range of techniques. These included non-loom methods such as looping, knotting, super-structural surface decoration in the form of painted surfaces, non-fiber

54 Stone, Art of the Andes, 3rd ed., 57.
additions such as feathers, and, most importantly, multiple styles of embroidery on the woven cloth.

Anne Paul, an art historian specializing in textiles, points out that while Paracas artists were not the only Andean culture to work in embroidery, their mastery of the technique was unsurpassed in the Andes. She compares the Paracas achievement to the textiles of later coastal cultures from north and central regions in ancient Peru:

Within the ancient Andean world, needlework is not exclusively identified with Paracas Necropolis-style textiles. There are, for example, exquisite cotton Chancay [north central coast, Late Intermediate Period] headcloths worked in monochromatic embroidery on square mesh openwork or on gauze, Chimu [central cloth, Late Intermediate period] textiles with embroidered details, and Inca tapestry tunics with needleworked edgings. But it was only on Peru's south coast that artisans brilliantly exploited the particular advantages of embroidery.55

Simple but multicolored stem-stitch embroidery animates Paracas textiles in three main techniques: the Linear, Broadline, and Block Color styles. As a simple, super-structural technique done on woven cloth, embroidery conferred numerous advantages for fiber artists. An embroiderer could more easily use a wide range of colors for a single image, free figures from the rectilinear constraints of the warp/weft grid (without the challenge of discontinuous warp/weft tapestry weave), outline figures before selecting the colors with which to fill them in

(possibly allowing greater latitude for colors, motifs, and placement of forms, and allow apprentices to assist with some of the work). As Paul further explains:

One of the great advantages of embroidery is that it gives the artist enormous flexibility in depicting detailed motifs, in arranging large numbers of these motifs in different positions on the cloth, and in using color in ways that are not bound to the woven surface of the fabric. Though the results of woven decorative techniques, such as tapestry weave, gauze weave, and double cloth — to say nothing of the various combinations of different weaves — can be indisputably dazzling, complex fabric structures impose certain restraints on patterning that embroidery on plain weave does not. I think that one reason for the primacy of simple stem-stitch embroidery within the Paracas textile tradition was that it permitted the creation of complexities of a different kind.  

The Linear Style was the first Paracas style of embroidery to appear in Cavernas burials. Such a technique was typically employed in other Andean styles as an accent or detail to a garment; in Paracas, however, Linear Style embroidery was used to cover large areas of the ground cloth (fig. 0.37). Red, yellow, green, and blue stitches could be amassed upon a ground cloth, creating areas of solid or multicolor as well as abstract and composite images of felines, serpents, birds, and a mysterious supernatural known as the Oculate Being (fig. 0.38). As its name implies, images in the Linear Style were rectilinear and, despite their method, resemble the look of figures woven into the warp/weft grid of tapestry cloth. They

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57 Stone, Art of the Andes, 3rd ed., 57.
may also feature transparency by revealing figures within larger figures (fig. 0.39). Images are rendered in an “elusive and perceptually disorienting way,” a representational mode that was likely influenced by artistic traditions found in the highland Chavín culture.58 This Linear Style, with its use of red, yellow, green and blue, and depiction of the serpent/bird/feline triad, appeared consistently in Paracas textiles for over 400 years.59

The Broadline Style resembles the Linear Style in technique and execution, but with broader lines of stitching and a wider range of colors (fig. 0.40). Images in the Broadline Style also include the Oculate Being, humanoid figures, serpents, felines, snakes, and avian images.

The third embroidery style, Block Color Style, appeared slightly later but alongside the Linear Style, and both techniques can be found in garments within some of the same mummy bundles.60 Block Color images are found on items of clothing such as headdresses, ponchos, and tunics, where images are stitched onto borders. Their greatest visual effect, however, was achieved on large, rectangular mantles, where Block Color units are typically located on the border brackets or

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58 Stone, *Art of the Andes*, 3rd ed., 58. The Chavín style is largely characterized by non-human images presented as abstract, densely packed composite figures, dualistic imagery in which one figure is revealed as two upon closer inspection or slight adjustment of perspective, and the practice of contour rivalry, in which outlines of figures are shared (see Chapter 3 for a more thorough discussion of Chavín art style). Some elements of Paracas imagery derive from these stylistic conventions inherited from Chavin.


arranged in checkerboard patterns on the ground cloth (fig. 0.41). Stone estimates that there are as many different figure types as there are garments, although rarely does more than one figure type appear on a garment. As the name implies, Block Color images are composed of discreet units of highly colorful stitching that often include extremely elaborate designs. Block Color embroidery utilized front and back stem-stitches to create figural designs with a degree of naturalism unprecedented in Andean textiles, with curvilinear forms that allowed greater expressive freedom inherent in this technique. As a result, Block Color embroidery images are far more varied than those of the Linear Style. Some Block Color figures feature humans with elaborate costumes and accessories (fig. 0.42). Other figures are in a state of flight or trance with an animal companion (fig. 0.43). Many are recognizable species of birds (fig. 0.44), as well as hybrid, zoomorphic conflations of numerous different animal species (fig. 0.45). The Block Color style represents the later phase of Paracas embroidery, during which birds emerged as the dominant subject in the images. Characteristics of the birds and avian motifs are discussed in more detail in Chapter 4, “Paracas Birds.”

The phrase “textile primacy,” coined by art historian Rebecca Stone in relation to Andean artistic practice, describes the great importance of textiles to many elements of Andean culture, and the extremely high level of technical and artistic merit Andean artists attained in this medium. Stone describes how textiles played an economic role as trade

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62 Rebecca Stone-Miller, *To Weave for the Sun: Ancient Andean Textiles* (Boston:
items, possessed spiritual power as offerings to the gods, and served social and political functions by announcing the status of their wearers and their affiliation with certain groups and geographic locations throughout the Andes. Renowned for their technical brilliance, Andean weavers mastered all of the world’s known fiber techniques. Art historians also frequently note the manner in which imagery from textiles influenced designs in other Andean media, such as adobe architectural friezes consisting of rows of geometric patterns and abstract figures, and repeating units of abstract designs (such as would be found in textiles) incised on stone monuments. In the later Wari and Inca empires, in which centralized powers exerted control over many subjects and kept extensive records of tax and tribute, a knotted fiber device known as the quipu was used for complex and accurate records.

Some scholars have identified the quipu as the ultimate expression of how the Andeans “thought in fibers.”63 Other Andean scholars believe that some art forms unique to the Andes, such as the Nasca geoglyphs and the conceptual “ceque lines” of sacred sites that emanate out from the Inca capital of Cuzco, which required an understanding of invisible spatial relations and “thinking in networks and invisible lines,” are an extension of the Andean practice of conceptualizing designs for textiles.64

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64 Pasztory, “Andean Aesthetics,” in Berrin, 63. For more information on the Nasca Lines, see archeoastronomer (astronomer of ancient cultures) Anthony F. Aveni’s *Between the
The processes of creating textiles, from cultivating and harvesting cotton to domesticating, herding, and obtaining camelid fiber, then spinning, dyeing, and weaving the raw materials involved many individuals and represents an integral part of Andean culture in all Pre-Columbian periods. The earliest artifacts in South America — basket fragments and cords — were found in the Guitarrero Cave in the dry, north-central highlands of Peru, dating from the Lithic Period, (c. 10,000 – 3,000 BCE). This ten-thousand-year-old fiber work demonstrates an unusual sequence in which fiber arts predated the appearance of ceramics in the Andes by thousands of years. Although these early textiles did not feature patterns, the well-executed techniques of twisting, looping, and twining suggest that even earlier examples predated their construction. Early textile production was inventive, far ranging and utilitarian, including baskets, fishing nets, and even seafaring boats. Evidence also demonstrates that textiles were believed to have spiritual significance, even a supernatural presence. For example, some of the earliest fibers were used to wrap items buried as offerings, suggesting a belief that the textile assisted the process of sanctification brought about through ritual sacrifice. This practice may have been a precursor for the practice of creating mummy bundles in the Paracas period.

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Previous Literature

Art historical scholarship on Paracas has its roots in the work of the first archeologists in the region, Max Uhle and Julio C. Tello. In its nascent decades, scholarship was somewhat polarized into either iconographical or chronological studies. Much of the scholarship that followed can be understood as variations and expansions of these main concerns, technological analyses of ceramics and textiles notwithstanding. Max Uhle was mainly concerned with establishing a chronology based on pottery fragments, and his legacy would influence later North American Andean scholars. Upon his departure from Peru in 1912, however, the work of Julio C. Tello, his assistant Toribio Mejía Xesspe, and his students pioneered Paracas art historical scholarship with a series of publications from the 1920s through the 1970s.

This “Peruvian School,” lead by Tello, initiated decades of archeological exploration and what has been called “anthropologically informed art historical analysis.” The Peruvian School was interested in iconography more than chronology, analyzing the imagery of early cultures to uncover what they believed to be central Andean themes of “sacrifice, propitiation of nature, initiation, ritual, shamanism, and


power,” the same themes explored by art historians in recent years and the present day.\footnote{70}{Silverman and Isbell, “From Art to Material Culture,” in Silverman and Isbell, eds., 6.}

Tello strongly emphasized the use of ethnographic and ethnohistoric texts from the coastal, highland, and jungle regions in the Andes to interpret the ancient art, an approach that was continued by his colleagues after his death in 1947. Tello, often referred to as the father of Peruvian archeology, is also credited with systematic and effective visual analysis of ancient Andean art and many of the field’s core ideas. One is the belief that an early, pan-Andean religion involving (among other elements) a dominant feline deity, is still widely considered, although challenged and refined.\footnote{71}{Silverman and Isbell, “From Art to Material Culture,” in Silverman and Isbell, eds., 7.}

During subsequent decades in Andean studies, however, archeological studies overshadowed art historical matters, and concerns such as iconography gradually diminished. Intensive archeological studies involved examining settlement patterns, pottery seriation, and deep stratigraphic excavations, which aimed to clarify “valley, regional, and macro-regional relative chronologies,” cultural differences, and the processes involved in cultural change.\footnote{72}{Silverman and Isbell, “From Art to Material Culture,” in Silverman and Isbell, eds., 8.}

publication *Paracas Cultural Elements*.74 Following the deaths of Tello and Carrión Cachot, the Peruvian School and their iconographical pursuits and the method of ethnographic and ethnohistoric analogy were eclipsed by another branch of scholars based in North America. Throughout the 1960s and 1970s, under the guidance of John H. Rowe in what has been called the “Berkeley School,” major publications on Paracas were mainly concerned with chronology; if considered at all, iconography was a tool to help delineate chronology.75 In 1964, foundational works such as *The Paracas Pottery of Ica: A Study of Style in Time* by Dorothy Menzel, John H. Rowe, and Lawrence E. Dawson appeared, establishing a 10-phase chronological sequence for Paracas that is still in use.76 Outside of the Berkeley School, Alan R. Sawyer’s 1966 *Ancient Peruvian Ceramics* also addressed the chronology of Ica Valley ceramics, but offered an alternative paradigm: Early Ceramics, Formative Paracas, Ocucaje Early Paracas Style, Ocucaje Middle Paracas Style,


75 “Interest in ancient art, as art and symbolism, receded as Peruvian Archeology came to have an explicit primary interest in valley, regional, and macro-regional relative chronologies through settlement pattern survey, deep stratigraphic excavations, and pottery seriation intended to elucidate culture history and study culture process.” Silverman and Isbell, “From Art to Material Culture,” in Silverman and Isbell, eds., 8.

76 See Menzel, Rowe, and Dawson. *Paracas Pottery of Ica: A Study in Style and Time.*
Necropolis, Late Paracas Ocucaje, Proto-Nasca, Juan Pablo and Callango Styles. In contrast to his contemporaries, however, Sawyer also published on Paracas iconography, but focused his attention on the image of the feline.

Concerning textiles, notable works from this era include curator Jane Dwyer’s “The Chronology and Iconography of Paracas Style Textiles,” which established a relative chronology for Paracas textiles based on changes in stylistic figures and themes, and related their figural imagery (images in the Block Color Style) to a notion of humans’ transformation, through death, into supernatural beings.

During the 1980s and 1990s, art historians returned to iconographical analysis of Paracas textiles, in particular the Block Color images. Utilizing formal analysis, textile specialist Mary Frame describes the Paracas emphasis on bird, feline, serpent, bean and vegetal imagery as reflective of the culture’s preoccupation with fertility, agricultural production, and regeneration. Anthropologist Anne Peters also analyzed Paracas

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77 See Sawyer, Ancient Peruvian Ceramics.


Necropolis iconography to understand social and ecological relationships within the culture, concluding that the relationships between the animals depicted in the Block Color embroidery style reflect relationships among members of Paracas society. In her survey *Art of the Andes*, widely considered the best available introduction to Andean art history, Rebecca Stone summarized many of the essential ideas about Paracas art, such as the appearance of polychrome ceramics, the mummy bundles, weaving techniques, and embroidery styles, noting in particular what the Paracas artists inherited from Chavin, transformed, and transferred to the later Nasca culture. Stone also stressed the influence of shamanic practice on Paracas imagery, interpreting many of the images in Paracas art, in particular images of beings in flight, as illustrations of the transformation of a shaman on a journey to and from the spirit world, suggesting that the idea of travelling between realms was very important to their religious beliefs.

Anne Paul, who produced the largest corpus of work on Paracas textiles, provides a systematic investigation of the symbolic functions of Paracas ritual attire and funeral mantles from the Necropolis of Wari Kayan, analyzing the images on individual clothing items and the contents of two mummy bundles in their entirety, treating the mummy

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83 Stone’s interest in shamanism in the ancient Andes, including Paracas, is also expressed in Rebecca Stone, *The Jaguar Within: Shamanic Trance in Ancient Central and South American Art* (Austin: University of Texas Press, 2011).
bundle as an analytic unit.84 Paul proposed that the Linear images may have been totemic symbols or mythical ancestors, while Block Color images of fauna represent the three realms of the cosmos: earth, sea, and sky.85 Another of Paul’s most important contributions, expressed in a later publication, and one that departs from the ideas of Rebecca Stone, is her characterization of Paracas Block Color figuration as “ideograms” meant to illustrate qualities such as swiftness, predatory power, and agility, rather than literal objects; thus, an image of a marine creature, possibly a shark, could represent facility in underwater hunting.86

The work of these and other textile scholars establish that the embroidered images reflect Paracas religious beliefs in mythological figures, many conceived of as zoomorphic beings that were accessed by elite males in life and death. My dissertation specifically focuses on the role of birds as a source for symbolism, myth, and meaning in the thinking and art of Paracas people, and considers the question through the lens of evolved human psychology.

**Methodology and Basis for Research**

Establishing a methodology for the Pre-Columbian art history poses a challenge.

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As the venerable art historian Esther Pasztory pointed out in the 2010 College Art Association conference, “Theory, Method, and the Future of Pre-Columbian Art History,” nearly all art theory is based in the Euro-American, or “Western” tradition. Pasztory reminds us that since Pre-Columbian art developed independently of such traditions, it can provide a “test case situation (…) for analyzing what features in all arts seem to have been determined from local cultures and what might be the results of universal processes.” The “universal processes” Pasztory mentions encompass a range of ideas about the origin and contents of the mind and patterns in human thought, some of which involve the generation of animal imagery; these will be discussed in Chapter 2, “Animals in the Mind.”

The absence of texts creates another boundary to our understanding and interpretation of the material. As Pasztory notes, this is not necessarily an interpretive handicap; rather, it calls for the application of new methods. In addition, the absence of a written text does not imply that Pre-Columbian people were illiterate, rather, art was a mechanism for literacy. In a 1992 publication, Writing Without Words: Alternative Literacies in Mesoamerica and the Andes, a collection of established Pre-Columbian scholars explain the interdependence of art and writing, undermining the art/writing dichotomy while expanding the definition of each category. Pre-Columbian scholars

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have long understood that writing need not be defined as a translation of spoken language into arbitrary visual marks; rather, other permanent, visible systems including hieroglyphs, pictograms, and fiber technologies can “communicate meaning directly and within the structure of their own systems.”\textsuperscript{89} As will be discussed in forthcoming sections, Paracas textiles are frequently discussed as highly complex, content and symbol-rich “texts” that were “read” by members of Paracas society. Simply put, the text is in the textile.

For my case study of avian imagery in Paracas art, I employ methodologies that have emerged in the twentieth century and twenty-first centuries: evolutionary psychology and evolutionary aesthetics. Evolutionary psychology is an outgrowth of an older field, evolutionary biology, which explains the diversity of life forms on earth as a result of ongoing evolutionary processes. In brief, it “seeks to understand the psychological and cultural life of human beings in terms of their genetic inheritance as an evolved species.”\textsuperscript{90} Evolutionary psychology sees human behavior as a result of processes encoded in our genes that were perpetuated as a result of an organism’s survival and reproductive success. In the past two decades, the processes involved in art making have entered the conversation and scholars have begun to discuss the origins of art as a biologically-based aspect of human evolution.

\textsuperscript{89} Boone, “Introduction: Writing and Recording Knowledge” in \textit{Writing Without Words}, in Boone and Mignolo, eds., 15.

Two of the most notable thinkers in the field are Ellen Dissanayake, an independent anthropology scholar trained in biology who was the first to publish and promote the evolutionary origins of art, and the late aesthetic philosopher Denis Dutton (1944-2010). In her 1992 book, *Homo Aestheticus: Where Art Comes From and Why*, Dissanayake discusses the production of art as a biological and evolutionary necessity. She argues that the act of making art should be considered along with other universal behaviors such as “aggression, attachment or bonding, parenting, male and female roles, sexual behavior, the incest taboo, and the trait of optimism,” all of which have been treated ethologically.91 Numerous like-minded scholars from cognitive science, aesthetic philosophy, and evolutionary psychology have since expanded upon Dissanayake’s groundbreaking idea. In his 2009 publication, *The Art Instinct: Beauty, Pleasure, and Human Evolution*, Denis Dutton, paralleling Dissanayake, discusses a theory of evolutionary aesthetics that explains human aesthetic preferences as a result of natural selection. These authors are merely two voices among many who utilize evolutionary psychology and other branches of the mind sciences “in an effort to reestablish human nature at the center of any understanding of the arts.”92

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92 Pinker, 417. Pinker, one of the world’s leading cognitive scientists, includes a chapter on the arts in *The Blank Slate: The Modern Denial of Human Nature* and notes the following scholars who are currently working in the field of evolutionary psychology and the arts or have made significant contributions to the field: Brian Boyd, Joseph Carroll, Denis Dutton, Nancy Easterlin, David Evans, Jonathan Gottshall, Paul Hernandi, Patrick Hogan, Elaine Scarry, Wendy Steiner, Robert Storey, Frederick Turner, and Mark Turner.
I adhere to the theory that the creation of art was central to the survival of our ancestors, both as an adaptation for communication and social cohesion and as a by-product of other adaptations. Evolutionary aesthetics claims that we experience as beautiful landscapes, people, and animals that will enhance our chances both of individual survival and the survival of our species: young, healthy human beings, a clean environment with an ample supply of food and water and protection from predators, and animals that reflect a healthy environment. The aesthetic response to these situations guides the choices made by artists, with art becoming an expression of evolutionary needs. When seen through the lens of evolution, art is also related to neurological systems for processing visual and sensory stimuli, emotions related to coping with the mystery of death, a hunger for social status within a group, and mate selection. As will be discussed in detail in Chapter 2, “Animals in the Mind,” an aesthetic interest in animals is also likely to be an element of our evolved psychology: animals’ forms and colors elicit pleasurable emotions, we are awed by their abilities that we do not possess (such as flight, great strength and speed), and, most importantly for adaptive purposes, they play a role in maintaining a healthy environment.

It is my contention that the mental processes shaped by evolutionary aesthetics, when exposed to the bird populations of Paracas, contributed to the emergence of the bird in Paracas art forms. Breaking out of the Andean supernatural triad of serpent/bird/jaguar, the bird will dominate the images in the Block Color style of the Necropolis textiles, the final phase of Paracas art. This methodology is intended to offer another layer to previous iconographic and technical analyses, one that helps explain why the ceramics
and textiles were created in ways that far exceeded utilitarian needs and why birds are such a dominant motif among them.

Outline of the Dissertation

Understanding the region’s ecology is a foundation for understanding the avian imagery. Chapter 1, “An Improbable Ecosystem,” explains how geology and ocean dynamics result in the maritime food chain and the myriad marine and terrestrial creatures of the Paracas Peninsula that are featured in Paracas art. Like nowhere else in the world, numerous factors converge to create the region’s stark contrast between ocean and desert, and a paradise for birds due to an abundant and continuous food supply, protected areas for nesting, and the absence of natural predators. In contrast, Paracas was a severely challenging environment for its human inhabitants. While protein was readily available from the sea, other crucial elements of a healthy diet were eked out of small fertile areas in the adjacent river valleys, and many of the materials needed for their activities could only be acquired through long-range trade. This disparity, between abundant and thriving birds and materially challenged humans, is critical and merits a detailed analysis. The chapter also surveys some of the fauna, birds as well as other creatures, which inhabit and visit the Paracas region and briefly introduces how they appear in Paracas art.

Chapter 2, “Animals in the Mind,” adds a new dimension to the art historical discussion by considering the theory that making art with animal imagery is a part of mental frameworks, including an evolved aesthetic response. The chapter presents several
innatist approaches to understanding the human mind: Jungian archetypes, Structuralism, biophilia, the observations of cultural critic John Berger, evolutionary psychology and evolutionary aesthetics. Evolutionary aesthetics takes up the question of how the aesthetic response and art making behavior were forged in our evolutionary past by querying how art meets survival needs. By summarizing some ideas about humans’ evolved aesthetic response to animals, this chapter lays the groundwork for looking at avian imagery through an evolutionary lens.

Chapter 3, “Early Birds,” discusses concepts of both beauty and the sublime and how they resulted, in part, in the development of the supernatural Andean animal triad of serpent, bird, and feline. Examining some of the earliest Andean cultures from various regions and geographic zones – coastal, highland, village-level, or those with greater social complexity – helps understand which locations and levels of social organization emphasized birds in their imagery. The chapter also notes some unique patterns in the technical and material development of early Andean art, such as the world’s oldest artificial mummies on the coast of what is now northern Chile and the use of gourds as containers before the development of ceramic technology, as seen in the early coastal culture of Huaca Prieta on Peru’s north coast. Finally, the chapter discusses highland Chavín art and its animal imagery, noting the culture’s particular interest in powerful, aggressive animals from varied ecological zones, with a dominant feline deity and birds appearing as secondary supernaturals.

Chapter 4, “Paracas Birds,” notes the beginning of the distinctively Paracas iconographic tradition, noting how coastal artists transformed Chavín iconographical
precedents seen in portable ceramic wares into new forms with strong avian imagery. The chapter posits a possible connection between the Oculate Being (a key Paracas deity with enormous eyes) and the owl, the appearance of the double-headed bird in Linear Style textiles, and the proliferation of birds in the Block Color Style. Recognizing the role of myth as an impetus for the creation of the imagery, it reviews mythic narratives involving birds and bird symbolism documented from cultures outside Paracas for clues about the birds’ possible meanings in Paracas culture. The chapter also categorizes the birds found in the Block Color textiles as birds of prey, land birds, and seabirds, and investigates possible ideas about the origins of supernatural beings with human and bird elements. Finally, the chapter notes the evidence for avian ritual performance in Paracas, quite likely the first appearance of this activity in the Andes.

The fifth and final chapter, “Gendered Feathers,” examines the gendered role of feathers in Paracas and other societies, noting their particularly important role in chiefdoms. It focuses on sexual selection along with natural selection as a principal mechanism driving evolution. Sexual selection has a particularly important role in creating feathers as an adaptation designed to enhance male birds’ sexual desirability. With concepts from sexual selection informing a discussion of feathers as symbols of male power and authority, the chapter explores the possible link between costume and feathered accessories of elite human males and the posturing and display behavior of male birds in the natural world. It also touches upon the origins of socio-political complexity and the role of material culture in communicating ideologies of power.

Much like the tumultuous Andean region itself, the story of Andean prehistory is
dynamic and calls for an equally vigorous interpretation through many lenses: geographic, geological, anthropological, archeological, and artistic. My art historical contribution sheds light on Paracas society and art by probing their intense interest in birds as an expression of an evolved human nature that was shaped by an environment of desert and ocean rich in bird life. I welcome amendments to the tentative conclusions presented herein, but hope that some of the ideas will persevere beyond their hatchling state and take wing to greater heights.
CHAPTER 1
AN IMPROBABLE ECOSYSTEM

“...suffer a sea change, into something rich and strange.”
Shakespeare, *The Tempest*, 1610, Act I, Scene II

Something Rich and Strange

When one first enters Paracas, the presence of life in the region seems completely implausible. The notion that any humans, flora or fauna, could exist among the inhospitable wind-swept sands is, at first, startling. The Paracas peninsula region is an undulating, dry silicone sea of ochre red, yellow, and gold sediments, vivid colors intensified by the tropical sun (fig. 1.1). These multicolored sands blanket hills of condensed salt, creating a surreal and truly unearthly landscape, one so close to the arid, wind-battered surface of Mars that the National Aeronautics and Space Administration (NASA) used the area as a training ground for the first Mars probes. The neighboring Pacific Ocean creates another striking visual anomaly, as the red and gold rocks and sands contrast dramatically with the Pacific Ocean’s emerald and blue (fig. 1.2). In addition, the shoreline near the peninsula is dotted with gnarled islands and rocky outcrops protruding from the Pacific like crooked fingers clawing out of the sea (fig. 1.3).

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93 “When NASA was preparing to send its first probe to Mars, it decided to use Paracas as a training site to [practice interpreting] the photographs that the probe would take of Mars.” Ronald Woodman, “Geology and Physiography,” in *Paracas: Magic Islands*, ed. Walter Wurst (La Molina, Peru: Proislas, 2004), 41.
Today, the environment is recognized as unique in the world and, due to the extreme contrast of desert and ocean and the peninsula’s unusual geology, it is also considered one of the strangest places on earth.\(^{94}\) In contrast, the marine ecosystem is one of the richest in biodiversity and the variegated desert surface is among the world’s most beautiful, if stark, landscapes. Due to the exposed sedimentary layers, Paracas is also an open book of the earth’s geological history and a testament to the true wonder that is the evolution of life on earth.

Taking a long and deep approach to the origins of life on earth begins in unfathomably distant times and places. All organic matter in the cosmos, including human beings, is the result of the coalescence of elements formed and released by the lives, deaths, and collisions of ancient stars. The concept, first alluded to by a Harvard astronomer in 1929, is frequently repeated in popular culture through poetry and music, and was also scientifically demonstrated by a team of astrophysicists in 1957.\(^{95}\) As journalist Dennis Overbye summarizes in an August 6, 2013 article in the New York Times:

> The atoms that compose us are not only the same as the ones in stars — most of them were actually manufactured in stars. Starting from primordial hydrogen and helium, denser elements like iron, oxygen, carbon and nitrogen were built up in a series of thermonuclear reactions


and then spewed into space when these stars died and exploded as supernovas in a final thermonuclear frenzy.96

This lovely scientific fact underscores the interconnection of all organic matter and all beings large and small, to each other, to the earth, and to the distant reaches of the cosmos. From this cosmic perspective, the differences between living beings, including humans and birds, are minimized. Furthermore, the physical and psychological influence of celestial bodies on earthly creatures and life processes becomes more comprehensible when we consider that we are made of the same elements and owe to them our very origins.

On the surface, the Paracas sands certainly appear barren and the Pacific does not immediately reveal the riches within. However, in this chapter, a closer look at the dramatic confluence of climactic, geologic, and oceanic conditions in Paracas reveals that marine and terrestrial life did and still does, indeed, flourish there, and extravagantly so. The ocean supports life from the grand to the delicate, including some of the largest and rarest mammals on earth, the blue whales. In addition, the whale shark, the world’s largest fish, feeds on the bounty of plankton present in the waters. Certain subaquatic ecosystems, such as seagrass prairies made up of flowering plants known to science as sea phanerogams, “few and far between in our world and particularly important as they host peculiar organisms.”97 The shoreline is an intricate assembly of rocks, sand, and


marsh wetlands, well suited to a range of marine and terrestrial life, while the varied
geology of the cliff faces rising out of the sea, from solid, sheer rock cliffs to crumbling
sedimentary layers, creating additional habitats for mammals and birds. Even the region’s
air currents, a result of temperature and pressure changes, impact the fauna, as the
Andean condor uses updrafts to soar in search of food during its summer visits to the
coastal region. The surface layer of sand provides camouflage for desert reptiles and
insects for their consumption, while desert foxes prey upon the reptiles. In nearby river
valleys, pampas cats chase the rodents that are attracted to riverine shrubbery and
vegetation. Every organism, from subaquatic marine life to cliff-dwelling birds and
scampering desert reptiles, is present because of very specific environmental conditions.

This chapter introduces the major elements of the Paracas ecosystem critical to
supporting the region’s life and notes the arrival of two successful species participating in
this ecological niche: human beings and birds. Exploring the relationship between
humans and birds in Paracas, and thus the role the birds played in the iconography of
Paracas art forms, begins with understanding the nature of the physical environment they
shared.

**Humans and Birds**

Two species of complex vertebrates have survived dramatic changes to the earth’s
ecology and surpassed many evolutionary rivals, adapting to nearly every environment on
earth: humans and birds. Although each has different origins and is bound to different
realms and physical limits, both species have managed to thrive in the most varied and
challenging environments.

Some four million years ago, Australopithecus, a bipedal primate understood to be the common ancestor to the hominid line, began moving throughout Africa, eventually giving rise to a line of hominids that would include Homo Sapiens.98 Thus began the long journey of Homo sapiens, an innovative, adaptive, and mobile species possessing consciousness and language, technology, and artistic behavior, qualities that enabled them to ultimately move across enormous landmasses to populate every continent on earth.

The success of humans has been matched by another species, the bird. The “evolutionary versatility” of birds has enabled them to proliferate into over 10,000 known species, the most diverse of all the terrestrial vertebrate classes.99 Birds are found in nearly every environment on planet earth, from the most enriched marine ecosystems to inhospitable deserts, mountain ranges, polar ice caps, and even densely populated urbanized areas, thriving with only their innate abilities such as flight, keen eyesight, and the ability to locate food sources and capture prey in the air and water. Ecologist Mike Unwin reminds us that birds are so “conspicuously present in every sphere of our lives,” it is easy to forget how miraculous their adaptations truly are.

On the west coast of South America, Peru’s varied geography and exceptionally


rich coastal marine ecology combine to form numerous distinct ecosystems that are home to over 1,800 known bird species, second only to the country of Colombia (located at the northern end of the Andean cordillera) that boasts the highest total number in the world. Peru is also home to the highest number of endemic species, or species of birds found nowhere else in the world.\textsuperscript{100} The shallow areas of the Pacific Ocean along the Peruvian coast and its bays, the rocky crevices of the Andean highlands, and tropical forest along the eastern slopes of the Andes all provide ecological niches for this exceptionally large and diverse bird population. An ecological niche is currently understood as the “combination and interactions of environmental and behavioral factors that result in the survival of a species,” as opposed to simply a habitat, or home for an animal or plant.\textsuperscript{101} Ecologists note that one element of a successful ecological niche is inter-species interaction and exchange, and this productive exchange occurs frequently between species as different as human beings and birds.\textsuperscript{102}

In numerous global environments, including Peru, humans and birds have frequently coexisted and forged relationships of a varied character, sometimes cooperative, sometimes adversarial. Yet, myth, art and experience from many human cultures and time periods around the world, from times and places as disparate as the

\textsuperscript{100} Unwin, \textit{The Atlas of Birds}, 7.


ancient Americas to modern Japan, reveal that human beings’ overwhelming attitude toward birds has been one of admiration and respect. Even the most cursory look at the visual arts in geographically and chronologically distinct cultures reveals that birds are a frequent and favorite subject. Bird watching is also a hugely popular activity supporting entire industries of ecotourism, publications, and expensive accessories.

The intelligence and emotional complexity of birds, particularly parrots and crows, is also at play in therapeutic interspecies relationships.\textsuperscript{103} A 2016 article in \textit{The New York Times Magazine} explained how veterans suffering from severe post-traumatic stress disorder, people resistant to traditional therapy or medication, responded well to the company of parrots who were themselves undergoing rehabilitation after trauma, neglect, and abandonment. While animal-assisted therapy is not new, the relationships forged between traumatized humans and emotionally scarred birds is unique for the mutuality of the healing relationship and the “intelligence – at once different from ours yet recognizable – of the non-human part of the equation.”\textsuperscript{104} Both human and bird trauma survivors display nearly parallel symptoms in their behavior, and both can be diagnosed with complex PTSD (post-traumatic stress disorder). When in each other’s company, however, the emotional states of both species improved by measurable standards.

\textsuperscript{103} Charles Siebert, “Of a Feather,” \textit{The New York Times Magazine}, January 31, 2016, 47. Siebert reports scientific evidence showing that mammal and avian brains think and learn using entirely different parts of the brain, but the ratio of brain to body size, or “encephalization quotient” is the same in birds and higher primates. This cerebral anatomy results, in part, in problem-solving and tool use abilities, self-awareness, intention, and complex memory.

\textsuperscript{104} Siebert, “Of a Feather,” 47.
Psychiatrists have yet to pinpoint what the exact healing mechanism is in the relationship, but many attribute the benefits to the directness of the emotional connection between human-bird pairs and the “reparative nature of compassion and empathy” they share.\textsuperscript{105}

The songs of birds, their ability to fly, maneuver in the air and water, and their spectacular feathers and colors (rarely, if ever, matched and never surpassed by artificial methods of reproduction) have long been coveted and included in art and costume. On the south coast of Peru, and particularly the Paracas peninsula, people lived out their days in the company of enormous numbers of birds representing dozens of different species, many of which shared an interest in an abundant food source: fish.\textsuperscript{106} In fact, the exceptional numbers of fish in the coastal waters attracted the enormous diversity of birds to the region and influenced their varied forms, behaviors, and lifestyles. As is true of all life forms in the region, the presence of a huge quantity of fish is not accidental; it is the result of a near perfect combination of topographical elements that owe their existence to the primal forces of the earth. Some of the most popular birds, the pelican and penguin, have been present in Paracas since the Prehistoric era (fig. 1.4).

**The Paracas Ecosystem**

In the central Pacific Ocean, far from the west coast of South America, seafloor spreading between the Pacific and the Nazca plates pressures the oceanic Nazca plate east

\textsuperscript{105} Siebert, “Of a Feather,” 56.

\textsuperscript{106} The Peruvian city of Pisco, 30 kilometers north of Paracas, means “bird” in Quechua, the language of the Incas. The settlement was so named because of the huge bird populations in the region.
against the continental South American plate (See Appendix A, “Tectonics and Paracas Geology,” for a thorough discussion of plate tectonics). This convergence forces the lighter Nazca plate to sink beneath South America, forming a subduction zone at the ocean floor while compressing and thickening South America’s lithosphere (surface crust) into the uplift of the Andes (fig. 1.5).107 The subduction zone and uplift create two geographic features critical to the existence of Paracas: the Peru-Chile trench underneath the Pacific Ocean and the Andes mountains. Along with this process of reshaping is a great deal of environmental change and instability, much of which is still visible in the region.

The morphology of the Paracas region is a tangible testament to the earth’s past and the forces that shaped both the region and our planet as a whole. The area was once covered in tropical vegetation and surrounded by mountains. Following this phase, it was submerged in the ocean as an ancient seafloor, and then ultimately emerged from the water to become a variegated desert. Due to the lack of vegetation or tree cover, the layers of geology from these numerous different phases are still visible in the present day. The region exposes some of the oldest rocks on the planet, crumpled and churned up from their point of origin deep within the earth’s crust. Some date from the pre-Cambrian era, 600 million years ago, a time when life existed only as single-celled organisms and humble worms and algae (fig. 1.6).108 Other layers come from the more recent

Carboniferous Era, 320 million years ago, at which time Paracas was part of the supercontinent Gondwana, located 60 degrees south of the equator (fig. 1.7). 109 During this era, Paracas was a swampy area populated by large insects, reptiles, and amphibians, surrounded by an ancient mountain range, the Cordillera de la Costa (fig. 1.8). 110 Since the Carboniferous Era, crustal movement has plunged the region into the ocean and raised it again in several cycles; fossils of marine life are present in large numbers as evidence of the submerged periods (fig. 1.9).

Fissures in the ground near cliff edges are reminders of the constant pressures churning through the earth (fig. 1.10). The re-shaping of Paracas continues; a 2007 earthquake off the coast of Peru toppled a land bridge formerly known as the Cathedral, until very recently one of the area’s iconic attractions (figs. 1.11 and 1.12). The region, like all of earth’s topography, owes its existence to a combination of forces originating in the dynamic molten realms beneath the thin, solid crustal layer of the earth. 111 Thus, South America and its subtropical desert, including the Paracas region, emerged on land and underwater with the formation of the Peru-Chile trench beneath the Pacific and the rise of the Andes on land, setting the stage for numerous species of flora and fauna to populate this environment.

Another factor, the motion of the oceans, is critical to creating this unique world.

109 Julio C. Tello Site Museum and Interpretive Center, wall text.

110 Julio C. Tello Site Museum and Interpretive Center, wall text.

Just as differences in magma temperatures in the mantle drive convection currents in the earth’s molten layer, different oceanic and atmospheric temperatures create enormous currents that move water and air around the globe. The ocean and atmosphere are “two fluids constantly interacting, exchanging water.” Coastal Peru is the northern extension of the Humboldt Current, a wind-driven current originating to the southwest of South America in the cold southern realms of the Pacific Ocean near Antarctica, named after the early 19th-century explorer Alexander von Humboldt who mapped the current and documented its temperature. Humboldt himself was keen to point out that he did not discover the current, as Andean people had been navigating with the current for thousands of years. As the warm trade winds encounter the Andes, they are directed north, carrying the current in tow. Upon reaching Peru, warmer air temperatures carry the winds west to the central Pacific, drawing enormous quantities of surface water away from the coast in a process known as Ekman transport (fig. 1.13). The transfer of water away from the coast results in upwelling, a phenomenon in which cold, nutrient dense water is brought from the lower layers of the ocean (in this region from the great depths

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113 Julio C. Tello Site Museum and Interpretive Center, wall text.

114 Julio C. Tello Site Museum and Interpretive Center, wall text.

of the Peru-Chile trench) to the surface.¹¹⁶

This deep ocean water contains an extremely high level of nutrients, a result of the decomposition of organisms that have died in the upper layers of the ocean and settled on the bottom. Cold water is denser than warm water, keeping nutrients afloat on the surface. At the surface, the nutrients meet the extreme ultraviolet sunlight found in the tropical latitudes, creating a bounty for phytoplankton (planktonic plant life found on the surface that photosynthesize to create food) and zooplankton (small animal plankton that feed on phytoplankton).¹¹⁷ Populations of zooplankton, in turn, provide an abundance of food for small fish such as anchovies. Anchovies reproduce quickly and in great numbers, and are one species providing a bounty for larger avian and terrestrial fauna in the region.

This series of relationships constitutes the base of the food chain and is known as primary production, a system fundamental to the success of life in the region. While upwelling and the associated primary production is key, it is not the only factor in the great success of the Peruvian coastal marine ecosystem. This is underscored by the fact that the world’s oceans contain other examples of upwelling along plate boundaries resulting in rich eastern coastal marine ecosystems – the California Current in North America, Canary and Benguela Currents in Africa’s Atlantic coast – yet the production in

¹¹⁶ NOAA, “Large Marine Ecosystems of the World: Humbolt Current: Large Marine Ecosystem #13.”

¹¹⁷ NOAA, “Humbolt Current: Large Marine Ecosystem #13.”
Peru’s coastal marine environment is truly exceptional.118 Other factors must be at work; indeed, Peru’s coast possesses the additional benefit of two key features found nowhere else in the world: its low latitude and the effects of El Nino.119

The Peruvian coast benefits greatly from its position near the equator and from the effects of the El Nino Southern Oscillation (ENSO). According to oceanographers such as Andrew Bakan and Scarla Weeks, the location at a low latitude amplifies the effects of Ekman transport, resulting in a greater quantity of water carried offshore by relatively little wind, creating an exceptionally “benign environment” of rich upwelled water in a calm, non-turbulent marine habitat.120 In this system, a continuous supply of nutrients remains in the upper layers of the ocean, undisturbed, to support the food chain. The El Nino Southern Oscillation (ENSO) also periodically results in an infusion of warm water from the central Pacific, a significant disruption to the environment. This disruption appears to have positive effects for the ecosystem since it seems to interfere with long-term development of potentially negative effects: “the cyclic ‘re-setting’ of the system by ENSO perturbations may tend to interrupt malignant growth of adverse self-amplifying feedback loops within the dynamics of the ecosystem.”121

All of these factors combine to result in the region becoming the superstar world

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120 Bakun and Weeks, “The Marine Ecosystem off Peru”: 291.

121 Bakun and Weeks, “The Marine Ecosystem off Peru”: 292.
producer of fish, as further expressed by Bakun and Weeks:

The marine ecosystem located off the coast of central and northern Peru has stood as the “world’s champion” producer, by far, of exploitable fish biomass, generally yielding more than 20 times the tonnage of fishery landings produced by other comparable regional large marine ecosystems of the world’s oceans that operate under similar dynamic contexts and are characterized by comparable, or even greater, basic primary production.122

In a striking contrast, ocean currents provide a bounty under the water yet desiccate the coast. The conflation of oceanic air masses and mountains in other areas of earth typically results in a huge quantity of rainfall and dense coastal rainforest.123 On the west coast of South America, air masses move along the warm equatorial latitudes, soaking up large quantities of moisture as they travel toward Peru’s coast. However, before this warm air current meets the steep slope of the Andes, the chilling effects of cold coastal water condenses the air, which saps its moisture. The air is then heated as it moves across the flat areas on land, resulting in warm, dry winds that toss about the layers of accumulated sediments along the coast. David Wilson summarizes these ecological conditions as follows:

The environmental setting of the Peruvian littoral [coastal zone] is one of the most interesting in the world. The narrow strip of land sandwiched between the colder waters of the Peru Coastal Current and the high Andes is located at the appropriate latitudes for high humidity and dense tropical vegetation. Instead, the terrestrial sector benefits only slightly from the moisture contained within the tropical air masses sweeping across the

122 Bakun and Weeks, “The Marine Ecosystem off Peru”: 293.

123 For example, in the coastal area along the northwest of North America, moisture-heavy ocean air from the Pacific collides with the Olympic mountain range on Washington State’s Olympic peninsula, resulting in a carpeting of dense, heavy forest that is the world’s only temperate rainforest. See Charles M. Proctor, An Ecological Characterization of the Pacific Northwest Coastal Region (Washington, D.C.: The Service, 1980).
Current. Striking the cold waters of the Current, the air condenses and loses much of its moisture-carrying capacity, only to heat up again as it moves across the land. Because of this, little or no rain is ever recorded on the coast, and the land presents one of the bleakest desert scenes anywhere in the world.124

This unusual situation has resulted in the Peruvian coast becoming one of the world’s driest environments, and the Paracas region is the ideal example of a Pacific subtropical coastal desert.

The barren landscape is not completely untouched by surface water, however. Rivers originating in the Andes separate the land into valleys. The varying dynamics of each river (amount and consistency of water flow, area of the floodplain, number of tributaries, for example) all have implications for the populations that settled around them and depended, in part, on the river valleys for survival.125 Even these rivers did not reach Paracas, however: the hilly remnants of Cordillera de la Costa, an ancient mountain range, direct the Pisco and Ica Rivers away from the Paracas region.126 These river valleys and the varied topography they generate still determine modern political boundaries in Peru. Paracas, for example, is located in the Department of Ica. Ica is bordered to the north by the Department of Lima and to the South by the Department of Arequipa, departments whose borders are delineated by the Quebrada River and the Acari River, respectively. South of Ica, the coastal desert nearly disappears as the Andean

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foothills reach almost to the seashore, forming a “markedly different geographic and cultural character” that separates this population zone from its northern neighbors.\textsuperscript{127}

Throughout the climate changes of the Late Pleistocene (c. 125,000 – 10,000 BCE), humans dispersed throughout the globe, possibly in response to the adaptive pressures created by a fluctuating climate.\textsuperscript{128} The dating of the first arrivals to South America is a matter of constant debate and revisions, with the debate emphasizing “chronology, place of entry, and migration routes, which places emphasis on the dates, localities, and diffusion of artifact styles”; convincing evidence, to be discussed shortly, places the presence of humans in South America to at least 12,500 years ago and assumes multiple routes and points of entry.\textsuperscript{129} Current evidence indicates that the Late Pleistocene climate was amenable to human habitation and likely similar to the conditions of the present day, while the “post-Pleistocene climate does not appear to have varied sufficiently to have been in itself a major impetus for cultural change.”\textsuperscript{130}

\textsuperscript{127} Silverman, “The Formative Period on the South Coast of Peru,” 100.


\textsuperscript{129} Tom Dillehay, “Profiles in Pleistocene History,” in Handbook of South American Archeology, ed. Helaine Silverman and William Isbell (New York: Springer Science, 2008), 29. Dillehay notes that while “entry” studies remain important, in recent years, scholars are shifting their focus to subsequent dispersion and colonization of the continent and the patterns of social and economic development that set the stage for the cultural developments in the subsequent Holocene period, including the emergence of civilization: “Because South America is one of only a few places in the world where pristine civilization developed early, we need to understand cultural developments during the Pleistocene and Holocene transition to identify the first pulses towards social complexity.” Dillehay calls this the “exit” approach.

\textsuperscript{130} Rick, “The Character and Context of Highland Preclassic Society,” in Keating, ed.,
By 11,000 years ago, on the coast of Peru, river valleys and loma meadows supported populations who left behind material remains revealing a diet of fish, lizards, and small birds; they did not appear to be hunting the medium-sized herbivores that existed in the area at this early time. Upon arriving at the coast, hunters became fishers and thrived on the rich marine resources. Tom Dillehay describes the varied ecologies within reach of the coast, which perpetuated the “maritime foraging” strategy through the end of the Late Pleistocene and into the Holocene epoch:

Specialized maritime residential settlements along the coast of south Peru and north Chile had access to a wide array of marine and, to a lesser extent, terrestrial species. These Pacific communities lived in an environment where littoral, arid plains and hilly habitats were within easy reach of any given site. Not only were there rich marine resources, but the rugged Andean topography provided a vertical heterogeneity in terrestrial resources. As a result, sustained maritime foraging tradition persisted throughout the late Pleistocene and Holocene (...).

Archeologists such as Michael Moseley credit the sea with supporting the earliest Andean populations on the north and central coast in a hypothesis known as the Maritime Foundations of Andean Civilization, (MFAC), best expressed in Moseley’s publication, *The Incas and their Ancestors*. The Maritime Foundations of Andean Civilizations theory underscores in a general way the enormous importance of the coastal ecosystem for the human presence in the region. Furthermore, new evidence indicates that the rich

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131 Dillehay, “Profiles in Pleistocene History,” in Silverman and Isbell, eds. 38.

resources of the coast may have attracted and supported the first settlers to arrive in both North and South America. Once settled, many early populations made the transition from tribal groups into chiefdoms, a form of social and economic organization based on kinship, in which leadership is placed in the hands of certain senior members of selected houses; this social structure is typical of non-industrial, non-state societies such as Paracas.134

Fauna in the Paracas Environment

Primary production is the first note in the great symphony of life in Paracas. The cold-water plankton soup brings abundant life to water, land, and air. The special ecosystem is now enclosed in the Paracas Reserve, a 3350 square kilometer area of desert and sea established in 1975 as a final refuge for some of the rarest creatures on earth. To date, over fifteen hundred species have been recorded in the reserve.135 Beneath the ocean’s surface, the ecology includes “every kind of submarine habitat and biological community to be found along coasts that run parallel to the Humboldt Current,” supporting at least four hundred species of fish native to its cold waters.136 Among these species are huge quantities of anchovies and sardines, as well as fish such as the sole, white toyo, and bonito.137 Rare marine reptiles also thrive in the reserve’s waters, with

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134 See, for example, Mary W. Helms, Access to Origins: Affines, Ancestors, and Aristocrats (Austin: University of Texas Press, 1998), 4.


137 The Nature Conservancy, “Paracas National Reserve,” http://www.nature.org/ourinitiativesRegions/southamericaPlacesWeProtect/ (accessed January
four of the seven known species of sea turtles (the Green, Ridley, Leatherback, and Hawksbill) spending part of their lives in the waters off the Paracas shores. Marine mammals are also attracted to the plankton and fish-enriched waters, with thirty-four of the eighty-four known species of cetaceans (whales, dolphins, and porpoises), including the blue whale, black porpoise, spiny porpoise, black and long-nosed dolphins appearing in the waters adjacent to Pisco and Paracas, making Paracas “possibly the world’s richest area in terms of cetacean diversity.”

Where the water meets the land’s edge, underwater habitats include the giant kelp forests, red seaweed, and the only marine sea grass prairies on the Peruvian coast, sheltering schools of small fish and seahorses, among other creatures (fig. 1.14). Muddy, sandy bottom sediments harbor shrimp, razor clams, worms, delicate and colorful mollusks and sea anemones, sea urchins, starfish, and algae, and small to medium-sized octopi. Remarkably, many of the fish and other marine creatures recently found in Paracas frequently earn the label, “new to science.”

Above the water line, the rocky shoreline and craggy islands provide places for crustaceans to hide and thrive, protected from the thrashing waves, as well as the perfect habitat for colonies of sea lions whose populations number in the hundreds, the largest colony in the southern Pacific Ocean (fig. 1.15). Paracas protects the extremely rare

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South American sea otter, an animal whose population has barely recovered after being hunted to near extinction during Colonial times.\textsuperscript{141} Like other marine mammals and birds in Paracas, sea lions and fur seals enjoy an abundance of food, a minimum of natural predators (apart from humans), and protected habitats in which to find mates and raise offspring, allowing their numbers to greatly increase when undisturbed by human activity.

On the peninsula’s sandy surfaces and nearby river valleys, small rodents, reptiles, and terrestrial mammals scratch out a living. The peninsula’s sands camouflage scampering lizards that thrive on the area’s flying insects. Spiders, scorpions, and other insects that do not require vegetation can be found, particularly under rock clusters. Desert coastal foxes (fig. 1.16), solitary opportunist, stalk the sands for small reptiles and carrion. Outside the Paracas Reserve in the nearby irrigated river valleys, a species of small wild cat, the striped and spotted pampas cats (fig. 1.17), prowl for similar prey, as well as the insects, rodents, and small birds that are attracted to the seeds and other by-products of agriculture. Pampas cats will occasionally appear closer to the coast when the food sources in their more typical habitats may be scarce.

**Paracas: “A Kingdom of Birds and Waves”**

Paracas truly belongs to the birds. In the worlds of one author, it is a “kingdom of

\textsuperscript{141} Hooker, “Subaquatic Wildlife,” in Wurst, ed., 74.
birds and waves.” Since terrestrial mammals such as foxes and pampas cats were scarce and elusive, and the human populations remained relatively small, with homes frequently underground in retreat from the sun and sandstorms, neither land animals nor humans dominated the environment. Birds, however, thrived. As with local marine mammal species such as the sea lion, abundant food, perfect habitats for breeding, and the relative absence of major predators created conditions in which bird populations exploded. Some seabirds, such as the Guanay cormorant, a medium to large-sized dark bird with a white underbelly, slender neck, long fishing beak, and spectacular diving ability, once existed by the tens of millions.

Nineteenth-century travelers to the region noted that that flocks of these and other sea birds could “blot out the sun and darken the skies.” So numerous were the cormorant populations, that over the roughly 18,000 years during which they lived in the area, their guano (un-eroded due to the lack of rainfall) created piles 40-50 meters thick that were used as premium fertilizer by the ancient inhabitants of Peru through the Inca times and, in the modern industrial era, mined for commercial export. An account by an observer from the 1930s gives a vivid picture of the visual and psychological effect created by this enormous number of birds:

A dark flock of cormorants over the ocean seems to form an immense float that can be seen from many miles in the distance. At other times, when the cormorants fly to their feeding areas, they form a solid river of

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birds that flows uninterrupted, passing over the waves. The surprised observer can wait four to six hours for the entire flock to pass.\footnote{Julio C. Tello Site Museum and Interpretive Center, wall text. The industrial fishing industry took a massive toll on the cormorant populations. After the “guano boom” of 1869-1900 subsided due to resource depletion, industrial fishing for anchovies began, diminishing the cormorant food supply so severely that their numbers plummeted to 700,000 by 1983.}

On land, assemblies of birds can still become so large that they truly blanket the shoreline and rocky island outcrops (fig. 1.18). When not completely carpeted by birds, the tinted desert and colorful beaches provide the perfect backdrop to amplify the visual and aural effects of large groups of birds and the beauty of individual creatures (figs. 1.19 and 1.20).

Some bird species, such as the cormorant, have been known to forge working relationships with humans. Astute and agile divers and swimmers who can catch one large fish at a time, cormorant fishing was once a common practice in parts of China, Japan, Europe, and possibly ancient Peru, and still takes place in thirteen cities in Japan and Guilin, China.\footnote{Christine E. Jackson, “Fishing with Cormorants,” Archives of Natural History 24, no. 2 (June, 1997): 190.} In modern Guilin, untethered birds accompany fishermen upon their boats and when prompted, will dive for fish with a string around their neck to prevent them from swallowing their catch, then return to the surface and release the fish into the possession of their human companions. While the fishing birds receive a portion of the catch, they are certainly not dependent on this relationship for their survival; thus, they may benefit in some other way that is not immediately obvious. Although cormorant
fishing is not currently practiced in Paracas, another adept diving and fishing bird, the pelican, appears to have an amicable relationship with other local fishermen. The area’s fishermen regularly share some of their catch, an activity both parties appear to enjoy and appreciate (fig. 1.21). Cormorants and pelicans, which maintain strong populations in Paracas in the present day, are merely two of over two hundred species of birds that flourish in the region.

Seabirds, shorebirds, wetland waders, or migratory birds, all species have found their ecological niches: crevices in the cliff faces and rocky offshore islands, beachfront rookeries in layered, porous sediments, coastal marshes, or sandy, pebbled and rocky shores. The birds thrive, feeding on algae, fish, squid, crustaceans, and for some, rodents, insects, or carrion. The rocky nooks of the offshore Ballestas Islands are breeding grounds and home to numerous notable species. One of the most popular attractions for birdwatchers today is the endangered Humboldt penguin, second only to the Galapagos penguin as the world’s northernmost penguin species, medium-sized flightless birds that totter clumsily on land but can dart about like missiles underwater in pursuit of sardines and anchovies (fig. 1.22).\(^{146}\) The extremely rare, diminutive Peruvian diving petrel can also be seen in the Paracas waters, making the area one of only two known habitats for the bird remaining on the Peruvian coast (fig. 1.23).\(^{147}\) The Peruvian booby (fig. 1.24), a medium to large-sized seabird with a grey body and wings speckled with white feathers,


\(^{147}\) Byers, *Birds of Peru*, 18.
a white neck and head, and a long grey beak, was one of the region’s original guano producing birds and still thrives in great numbers (although significantly reduced due to depleted anchovy stocks).

The area is also a refuge and critical habitat for two hundred and fifteen species of migratory birds, including some considered to be among the world’s most beautiful, such as elegant terns and South American terns (fig. 1.25), much admired for their streamlined bodies with long, tapering tails and wings, pure white feathers with sharply delineated black caps. The Franklin’s gull (fig. 1.26) appears by the tens of thousands in Paracas during December and January; in one estimate, this seasonal group is nearly the entirety of the world’s known population.148 Some of these migratory species spend their entire lives traveling the thousands of miles from the north to the south poles, relying on midpoint areas such as Paracas to rest and refuel. They navigate the entire globe by knowing exactly “where to rest, how long to stay, and when to leave,” a process that may include sensitivity to the earth’s magnetic poles, the constellations, global wind patterns and smells, but is largely still a mystery to humans.149 Some of the smallest migratory birds, such as the delicate sandpipers (who, despite their tiny bodies, have one of the longest global commutes), find the rocky beaches and lagoons of Paracas, located a mere nine degrees south of the equator, to be a perfect rest zone, nearly the midpoint in the flight to and from the Arctic to Tierra del Fuego. There, they gather in large numbers and use their

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149 Julio C. Tello Site Museum and Interpretive Center, wall text.
small but efficient beaks to probe the sand for tasty, nutritious morsels (fig. 1.27).  

Also along the shores, but staying year round, are numerous local species. One striking bird is the oystercatcher, a large black shorebird with a long, bright orange beak used to search the sands for worms and open shellfish (fig. 1.28). Oystercatchers also stand out with bright orange rings around the eyes and thick, sturdy legs. The South American flamingo can be seen in the shallow water wetlands, unmistakable with its long legs, large, algae-filtering beak, S-curve neck, and distinctive plumage, stained pink by the large amounts of algae they consume in these waters (fig. 1.29).

Another highly attractive local species is the Inca tern, a medium-sized seabird with a bright red beak, red feet, and white facial “moustache” feathers that curl along the face, contrasting with dark and medium grey feathers of the birds’ faces and bodies (fig. 1.30). Inca terns breed in large numbers in cliff rookeries in Paracas, with populations numbering in the several thousands; their chatter is audible along the cliffs and the birds create an impressive spectacle when taking off en masse to fishing grounds at sea. Inca terns are common along other areas of the Peruvian coast as well; a colony estimated at over two thousand lives underneath a restaurant on a pier in Lima, creating such a loud and dominating presence that they seem to have claimed both the restaurant and pier as their own territory.

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While the seabirds dominate Paracas in sheer numbers, some impress not with their great quantity but with their enormous size. One of the largest birds on earth, the grand Andean condor (fig. 1.31), lives in the highland valleys and peaks along the Andes but appears in the area during the Southern Hemisphere’s winter months, impressing with size, strength, and soaring flight rather than massive numbers. Like the seabirds, they are attracted by the abundance of food in the region, feeding on the remains of animals, mainly sea lions that perished during the colder southern winter months or the bodies of unlucky pups that did not survive infancy.151 The Andean condor, a scavenger and member of the carrion-feeding vulture family, is the world’s largest flying bird, weighing up to thirty five pounds, with a wingspan exceeding ten feet on the largest individuals.152 The soaring condor, able to remain in the air for extended periods of time due to its ability to drift off air currents, makes a spectacular silhouette when seen from the ground: enormous, outstretched wings end in flight feathers that sift the wind and help the great bird change directions while in flight (fig. 1.32). Other distinguishing features of the condor include a fleshy protuberance on the adult male’s beak, called the caruncle, and a ring of white feathers around the neck forming a collar that will also frequently appear in condor images in Paracas art (fig. 1.33). When seen at close range, one can see the condor’s enormous, hooked beak designed for tearing flesh from dead carcasses, huge


152 National Geographic, “Andean Condor.”
reptilian feet for sturdy walking on rocky and unstable mountainous ground, and a thick, tough skin on the head and neck that can endure the blistering Andean sun (fig. 1.34).

The Aplomado falcon is an equally striking, if more modestly sized, raptor that can be seen in the Paracas area. This small to medium sized bird possesses a sharply curved raptorial beak and talons, and can be recognized in the air by its angular wings that taper smoothly to a point (fig. 1.35). Aplomado falcons impress with their distinctive striping, sometimes called banding, on the wings and tail. Another striking feature, and one frequently recreated on pictorial depictions of the bird, is the arrow shaped mark around the eye, resembling an eye mask (fig. 1.36). Like the condor, the Aplomado falcon is not a permanent resident of Paracas but visits the region frequently to take advantage of the enormous food supply: its prey includes smaller sea and shore birds, fish, rodents, and sometimes carrion.¹⁵³ Skillful and dramatic aerial hunters, falcons amaze with high-speed dives, sometimes accompanied by acrobatic, mid-flight twists. With a seemingly preternatural precision, falcons can pinpoint prey from great distances, even underwater, and will deftly coordinate and execute their flight to seize a smaller bird or a fish near the water’s surface while both are in motion.

During the day, the desert sands conceal a species of crepuscular/nocturnal birds, which will become active at dawn, dusk, and during the night: the nightjar. This species hunts insects and small rodents in the earliest light of day, the fading light of dusk, and at night under the moon and stars. By day, they shelter in underground desert burrows,

occasionally appearing during the light when frightened by predators or sensing the proximity of food or a mate. The nightjar is a small bird with speckled plumage, striping on the wings and tail that sometimes draws comparisons to the plumage of a falcon, long whiskers resembling those of a feline, and a wide, smooth beak with a small hook at the end (fig. 1.37). The nightjar’s eyes, deep, dark, and round, are large in proportion to its head and display a startling effect when seen at night under the light of the moon (fig. 1.38). The Peruvian burrowing owl, also active at night, is so named for its habit of nesting in underground burrows. Its earth-colored plumage and mottled, sandy features allow the bird to blend easily into its surroundings. The owls also possess arresting yellow eyes dotted with black pupils (fig. 1.39).

One of the most important birds in the region is also one of the smallest: the hummingbird. Of the hundreds of species of hummingbirds in Peru, several, including the Amazalia hummingbird (fig. 1.40), are frequently encountered in the river valleys of the coastal regions. With long, nectar sipping beaks, they move between flowering plants in coastal river valleys to find food, and in the process, pollinate the plants, helping to maintain fertility and abundance in their ecosystems. Hummingbirds dazzle with their range of bright, iridescent colors, darting speed, and agility in flight. With wings that beat so quickly they are almost invisible and an ability to instantly change direction mid-air, darting up and down, forward and backward, or hovering in the same location to sip nectar, their movements can appear to be supernatural.

Ecology in Paracas Art
In vibrant fiber colors and complex designs, the abundance and complexity of life in Paracas manifests strongly in the culture’s equally complex iconography. Beings from the sea, land, and sky, described above, populate Paracas works of art, reflecting the ecological diversity of the Paracas environment and the population’s intense interest and awareness of the plants and animals whose environment they shared. All phases of ceramic and textile art, and artifacts in other media, feature images from elements of the intricate Paracas ecosystem, in particular the fauna. Intricate and colorful inventions appear in all three embroidery styles, Linear, Broadline, and Block Color, during all phases of Paracas textile production for approximately a millennium. As in the early stage of ceramics, flora and fauna first appear in textiles of the Linear Style in a more understated manner as the abstract serpent/bird/feline triad (see fig. 0.39 for an example of Linear Style). In later phases of embroidery, images become far more elaborate, blossoming in the Block Color Style from the Necropolis cemeteries, c. 600 BCE – 200 CE (see fig. 0.44, for example). In this final phase of Paracas textiles, natural and supernatural images dominate. Elements of the ecosystem are stitched into the cloth as a multitude of animal species, combinations of different animals, and humans dressed in elaborate animal costume. These images are both fascinating and frustrating. While they reveal glimpses into imaginations fired by creative interpretations of the ecological realm, they nevertheless appear exasperatingly inscrutable at first look.

The intricate Block Color images beg for interpretation, as the meaning(s) they possessed must have been profound. Assuming that the designs are, indeed, symbolic, art historians have assigned a bewildering array of labels to the range of images. Mary
Frame lists “mythological beings, demons, impersonators, trophy-head warriors, supernaturals, and cult objects” as some of the most frequent depictions. Frame extracts meaning from the images by relating them to concepts of self-sacrifice, fertility, and transformation, relying on visual evidence from the Block Color figures themselves, such as skeletal bodies, implements that she interprets as sacrificial knives, agricultural symbols, and figures in various phases of transformation, to build her argument. Frame does not address fauna or avian imagery specifically in this work, as her article was intended for a volume addressing the presence of sacrifice in the ancient Andes and, thus, her attention was directed toward evidence for such activities.

Anne Peters, however, focused her analysis on the range of flora and fauna in the iconography, noting the absence of an array of Paracas species from the images that appear in the garments and an emphasis on others, such as large, predatory animals, some of which, such as the condor and whale shark, are prominent in Paracas imagery in general, though not as frequently encountered in the ecosystem as other animals. Peters hypothesized that since elite men wore the figures in life, ritual, and death, the animals selected for representation were most likely related to the positions these men held in Paracas society. She concluded that the top predators in the Block Color textiles were symbolically associated with male positions of social power, such as hunters and/or

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Anne Paul describes the Block Color images as *ideograms*. The term is related to the linguistic term *logograms*, characters from written language representing whole words. In contrast to logograms, ideograms represent not words, but entire concepts. Paul’s contention is that the flora and fauna in Block Color textiles represent concepts and the powers associated with the different realms of land, sea, and sky, such as ruling and/or protecting an agricultural field, diving into a watery realm (sometimes associated with the afterlife), or interfacing with the realm of the gods (the sky). Paul has provided an iconographic analysis of 112 garments from scientifically excavated bundles in the Museo Nacional de Arqueología, Antropología, e Historia del Perú, Lima, of which “sixty-one percent are birds, fourteen percent are felines, ten percent are snake-like creatures; smaller percentages are fish, camelids, rodents, monkeys, and lizards.”

The Block Color figures also feature intriguing costumes. Anne Paul describes 258 human figures, “human impersonators” that appear in Block Color style, nearly unrecognizable as people due to their elaborate animal attire (fig. 1.41 and 1.42). Paul coined the term “human impersonators” to describe these figures, who, she believes, imitated “cult images and spirits at religious festivals [that included] dancing, chanting, and invocations of natural forces.” Of these costumes, twenty-three percent are based

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158 Paul, “Paracas Necropolis Textiles: Symbolic Visions of Coastal Peru,” in Townsend,
on birds, eleven percent on felines, four percent on fish, three percent on snakes, four percent on vegetation, three percent on foxes; twelve percent are identified as shamans, thirteen percent combine attributes of two or more animals, and the remaining twenty-seven percent are described as “all other anthropomorphs.”

One celebrated textile displaying an abundance of impersonators and ecological relationships is a unique specimen consisting of a woven ground cloth painted with multicolored grinning faces, the Oculate Being (see Introduction and Chapter 4), bordered by figures created in a knitting technique (fig. 1.43). Known as the “Brooklyn Mantle” due to its location in the Brooklyn Museum, this textile is renown, in part, for its depiction of what appears to be an agricultural cult participating in a ritual procession, enveloped by elaborate flora and fauna from the Paracas environment (fig. 1.44). Interpretations vary; however, some of the generally accepted ideas about this piece parallel Anne Paul’s ideas about humans acting as impersonators for supernatural beings:

The ninety figures decorating the border, created by needle knitting, have been interpreted as a microcosm of life on Peru’s South Coast two thousand years ago, with a particular focus on agriculture. Many of the images illustrate native flora and fauna as well as cultivated plants. Costumed figures may represent humans impersonating gods and acting as intermediaries between the real and supernatural worlds. Severed human trophy heads are shown as germinating seeds, suggesting the practice of ritual sacrifice and the interconnected cycles of birth and death.

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Human trophy heads, as mentioned above, are frequently understood as another icon of fertility and regeneration, and will be discussed again in Chapter 4.

Paul also identified “zoomorphic conflations,” in which one animal’s traits are combined with those of another animal, often the wings of a bird (fig. 1.45). The conflations also frequently feature fish tails and serpentine characteristics, or other traits that represent an animal’s specific powers.¹⁶¹ The bird species depicted are quite diverse and will be discussed in Chapter 4. The fish is usually identified as the enormous whale shark and felines are securely identified as pampas cats; the snakelike beings, however, are too inventive and varied in their representations to be associated with a particular species of serpent.¹⁶² Plants, cultigens from the irrigated valleys such as aji peppers, lima beans, lúcuma fruits, jícama (a type of coastal tuber) and sweet potatoes also appear, typically combined with an animal or human figures (1.46 and 1.47).¹⁶³

Paul concludes that this ecologically-based Block Color iconography reflects the presence of nature and agricultural cults within Paracas society, with leaders harnessing the powers associated with animals from the realms of the earth, sea, and sky, and illustrating their cult affiliation and leadership role by displaying the Block Color icons.


Her analysis and line of reasoning imply the presence of ritual in Paracas society, although they depict only the actors in such rituals and not the rituals themselves. In the two main categories of Block Color images Paul delineated, fauna and human impersonators, birds are the most frequently depicted and varied of all species represented.

The streamers emanating from figures are ubiquitous in Paracas art (fig. 1.48). I propose that these emanations, growing from the orifices and bodies of the full range of Paracas figures, from humans to zoomorphic conflations in all three embroidery styles, stress the miracle of growth that occurs underground, where seeds germinate to create trailing vines bearing food and the dead are regenerated for the afterlife. Many of the streamers end in trophy heads, new animals, serpents, or even small hybrid beings dense with ornamentation (see fig. 0.3).

Block Color embroidery also provides records of additional elements of Paracas costume lost to time or theft, such as hammered gold and copper alloy head ornaments. Items such as forehead ornaments, round disks, and nose ornaments have been found within the mummy bundles (fig. 1.49). Items such as these are illustrated in vivid and inventive colors on the faces and bodies of Block Color figures also holding other ritual paraphernalia such as possible feather fans and wands, with long headdresses flowing as they fly across the mantles with curvilinear, fluid grace (fig. 1.50). The parallel between the embroidered images and found objects has implications for the nature of Paracas ritual activity, which will be discussed further in Chapter 4.

Thus, images concentrated with complex costume and dense with flora and fauna,
particularly relating to growth, regeneration, and connections between all manner of beings, dominate in Paracas ceramic and textile iconography. The greatest abundance, variety, and detail was found in the textiles of the late Necropolis Block Color figural images. While numerous animal species appear alone, in combination with other animals, or as elements of costumes, birds — the most abundant creatures in the Paracas environment — predominated as the most frequently represented animals in Paracas art.

The analyses presented by Paul, Peters, and Frame, among others are based on formal analysis of the imagery and all have great merit. The aim of this study, however, as will become evident in the next chapters, is to offer a different approach, one that queries the origin of the culture’s interest in the natural world and, most spectacularly, the birds of their environment.
CHAPTER 2
ANIMALS IN THE MIND

“In the distant future I see open fields for more important researches. Psychology will be based on a new foundation, that of the necessary acquirement of each mental power and capacity for gradation. Light will be thrown on the origin of man and his history.”

Charles Darwin, *On the Origin of Species*, 1859

**Bird into Image: A Long Process**

Tackling their environment with hominid wiles, early Andean people harnessed the potential of available materials and resources to meet their survival needs and, like birds, established both settled communities and nomadic groups. Early populations succeeded, in part, as a result of aptitudes present within the modern body and human mind, what many now understand to be modularized abilities forged by millennia of environmental and social pressures. The structures of our physical bodies and many of our behaviors have long been explained by the processes of evolution; the same may be true of cognitive processes.

Queries into the nature of mind have been given multiple labels over time, including Jungian archetypes, structuralism, biophilia, and most recently, evolutionary aesthetics. This chapter discusses these theories, to probe the idea that the modern mind has innate content, an inclination to produce art, and an affinity for the natural world. Evolutionary aesthetics, the most recent among these theoretical approaches, is the most pertinent to my discussion and emphasizes the role of natural selection in shaping the inclinations that I propose evolved to generate avian imagery in Paracas art.
Charles Darwin himself first hinted at the utility of evolutionary theory for understanding human psychology. However, a strand of thought eventually labeled the Standard Social Science Model (SSSM) would come to dominate intellectual life in the 20th century.\(^{164}\) Closely related to the Standard Social Science Model is cultural relativism. Cultural relativism stresses the belief that every aspect of human differences and inequalities can be attributed to cultural and environmental differences. Franz Boaz, considered the father of modern anthropology, popularized the concept (although he did not invent the term). With Boaz as a precedent, successive waves of anthropologists expounded relativist views throughout the twentieth century, without looking for common cultural threads or considering which elements of culture were the result of human nature.

It would take decades and numerous controversial publications, such as the biologist Edward O. Wilson’s *Sociobiology: The New Synthesis* (1975), before evolutionary psychology and evolutionary aesthetics were forged into coherent theories in the early 1990s and twenty-first century.\(^{165}\) One of the first and strongest voices to consider Darwinian concepts in relation to the arts is Ellen Dissanayake, whose series of publications provide successive articulations of the theory of art as an evolutionary

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\(^{165}\) See Edward O. Wilson, *Sociobiology: The New Synthesis* (Cambridge, MA: Harvard University Press, 1975). Due to the acrimonious debate sparked by this publication, the term “Sociobiology” has faded from use, but many of Wilson’s claims are still debated, persisting in fields such as behavioral ecology, behavioral genetics, and evolutionary psychology.
adaptation.\textsuperscript{166} Following Dissanayake, aesthetic philosophers Denis Dutton and Stephen Davies, cognitive scientist Stephen Pinker, and evolutionary psychologists Leda Cosmides and John Tooby have all taken up the question of the role evolution played in human aesthetic preferences. Other, long-established areas of art historical theory, such as landscape and ecological aesthetics, have also recently turned to the role of evolution to support their claims.\textsuperscript{167}

Evolutionary arguments remain contentious. Some query the rationale of cause and effect they claim. For example, anthropologists have not agreed upon the evolutionary impetus for bipedalism, a fundamental trait of the human species and the source of numerous survival advantages.\textsuperscript{168} Philosopher of science and critic of evolutionary psychology David J. Buller also cautions against the use of “just-so stories,” known to science and philosophy as the “ad hoc fallacy,” unverifiable and irrefutable explanations for a biological or behavioral trait of humans or other animals.\textsuperscript{169} Buller


\textsuperscript{168} Dr. Timothy Pugh, personal communication, February 5, 2016.

further notes how rapidly genetic changes can occur within a species, and the exceptional fluidity and plasticity of the human brain, which undermine evolutionary psychology’s basic claim that the modern mind crystallized during the Pleistocene epoch and has remained unchanged ever since.

Respondents to evolutionary arguments, such as David Barash (University of Washington) and Robert Kurzban (University of Pennsylvania), reply that the ad hoc fallacy criticism is simply a derogatory way to refer to a scientific hypothesis, which by definition is uncertain and requires testing and refinement. They counter that “just-so stories” should not be eliminated from science; instead, one should strive to find the stories that offer the best explanations. Furthermore, while the mind continues to evolve, certain biological realities, such as the need for food and shelter and different reproductive roles, have not changed and unquestionably influence our behavior.

Bridges between biology and culture can also complete our understanding of evolved human nature, and Pinker cites four principal bridges between them. These approaches include cognitive science (the interdisciplinary study of the mind and its processes), cognitive neuroscience (the study of how cognition and emotion are carried out by different modules and systems in the brain), behavioral genetics (how genes affect evolutionary psychology’s foundational text.

behavior), and evolutionary psychology (the study of mental processes as evolved adaptations and what these adaptations accomplish in an ultimate, evolutionary sense). Biological explanations are appealing, to some, because they can provide a deep understanding to questions about the human situation.

The ethological approach has much to offer the humanities. As Pinker expresses, it can explain the “difference between saying that something just is and explaining why it had to be that way as opposed to some other way it could have been. (...) Our understanding of ourselves, and our cultures, can only be enriched by the discovery that our minds are composed of intricate neural circuits for thinking, feeling, and learning, rather than blank slates, amorphous blobs, or inscrutable ghosts.”

Nevertheless, scholars in the humanities have frequently greeted this approach with indifference or even hostility. Pinker, and others, see the humanities/science dichotomy as a relic of mind/body dualism established in early modern Europe by philosopher René Descartes (1596-1650), calling the biological approach to the mind the “last wall to fall.” Alva Noë, a scholar trained in philosophy, cognitive science, and neuroscience, also points out that Descartes was, to some degree, foreshadowing the claims of modern neuroscience. Noë’s 2009 book, Out of Our Heads: Why You Are Not Your Brain, confronts the explanatory limits of even the most current mind science. The

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172 Pinker, The Blank Slate, 72.
173 Pinker, The Blank Slate, 30.
cognitive and neurosciences state that the mind is an immaterial substance housed in the brain, not a Ghost in the Machine/immaterial soul; rather, our minds are the immaterial result of the firing of neurons and transmission of chemical messengers housed in the brain. Yet Noë reminds us that this concept is not so different from Descartes’ Ghost in the Machine: “Descartes thought that the thinking thing inside of us had to be immaterial; he could not conceive of how flesh could perform the job. Scientists today suppose that it is the brain [neurons, synapses, chemicals, and electricity] that is the thing inside of us that thinks and feels. But the basic idea is the same.”

Notwithstanding its limits, by utilizing the ethological approach, a deeper understanding of avian imagery and costume in Paracas art, the ultimate goal of this dissertation is possible. It will take the study further than simply stating the obvious: that Paracas artists depicted birds and avian elements in their art and costume because birds are prominent in the Paracas environment. Evolutionary psychology will also provide some explanation for the larger aesthetic systems of Paracas textiles, not simply the avian imagery. It will also advance possible reasons why these textiles are so stunning to people far removed from their makers and wearers in place and time. Furthermore, these methods are particularly useful when approaching the art of a culture that has no written text to analyze and whose corpus of art for study is limited by accidents of survival. With this approach, Paracas avian imagery will be placed in the context of broad cognitive

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structures that are explained, at least in part, by our biologically-based, genetically inherited, evolved human nature.

I am aligned with the evolutionist stance as an interpretive tool and invoke some of their arguments herein because I find their logic of natural selection to be the most compelling in the case of Paracas. I also believe the theory more broadly explains why animals, and particularly birds, continue to surface and persist in human thought, culture, and art.

Crucial to these methodologies is the idea that biology can also inform the humanities and social sciences; a concept referred to by scholars such as biologist Edward O. Wilson and cognitive scientist Stephen Pinker as “consilience.”176 Consilience, the unification of biological concepts with the humanities, is invoked when evolutionary theory is used to explain human psychology and culture, including art in general and, for my study, animals as the subject of art. I propose that evolutionary principals may generate a deeper understanding of avian imagery and costume in Paracas art, the ultimate goal of this dissertation. It will take the study further than simply stating the obvious: that Paracas artists depicted birds and avian elements in their art and costume because birds are so prominent in the Paracas environment.

Paracas avian imagery will be viewed within the context of broad cognitive structures that I contend are explained, at least in part, by our biologically-based,

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genetically inherited, evolved human nature. While the chapter certainly does not attempt to resolve the millennium-spanning debate over the role of nature vs. nurture in shaping human minds and behavior, it defines the terms of my investigation: how evolved tendencies contributed to the production of animal art and the ubiquity of the bird. In brief, the evolved structure of our minds helps explain how the bird became an image.

Animals in the Mind I: Jungian Archetypes

Debates on the source of knowledge and the content of our minds date to the great philosophical debates of Classical Greece. Plato laid the foundation for the philosophy of Rationalism, the belief in the existence of a realm of absolute truth, accessible independently of experience by reason or insight. One central claim of Rationalism, the thesis of Innate Knowledge, excludes even insight in favor of the belief that knowledge is pre-possessed as part of a rational human nature. The ultimate source of this innate knowledge, however, remains elusive. Ideas have ranged from a previous existence on earth, a divine source, and natural selection. In contrast, the Empirical approach, formulated by Plato’s student Aristotle, emphasizes observation, sensory experience, and


179 Markie, “Rationalism vs. Empiricism.”
the physical world as the source of knowledge. These questions are so entrenched in Western thought that a contemporary philosopher of mind, Jesse Prinz, states that the “entire history of Western philosophy can be viewed as a set of elaborate footnotes on this seminal debate.”

In the 20th century, some of Plato’s ideas have re-emerged in the field of psychiatry. Swiss psychiatrist and psychotherapist Carl Jung (1875-1961) formulated the theory of archetypes, the idea that certain symbols, images, and thought patterns are universal and manifested in dreams, folklore, myth, literature, religion, and art. Jung believed these archetypes to be innate, universal, hereditary structures of the collective unconscious, the psychological heritage of knowledge and experience shared by all humans, just as we share the same basic anatomical structures. Jung, however, was not concerned with matters of evolution as the origin of the collective unconscious.

180 Markie. “Rationalism vs. Empiricism.” The School of Athens, a fresco painted by Raphael from 1509-1511 in the Stanza della Signatura of the Vatican’s Papal Palace, places Plato and Aristotle on the central axis. In the image, the Rationalist Plato, dressed in lavender and red robes (emblematic of the intangible elements of the ether/air and fire), points up, a reference to the immaterial world of ideas and knowledge his philosophy describes. Aristotle, the Empiricist, is dressed in blue and brown (a reference to the tangible realms of water and earth), gestures down to the realm of the physical world from which experiential knowledge derives.


183 Jung’s concept of archetypes has, nevertheless, resurfaced in such terms. In Archetype Revisited: An Updated Natural History of the Self (Abingdon-on-Thames: Routledge, 2002), Jungian Analyst and evolutionary psychiatrist Anthony Stevens connected archetypes with the process of natural selection.
In addition to modern psychiatric practice, Jung’s idea of archetypes influenced the humanities and social sciences, informing numerous studies of mythology, folklore, tradition, and religious systems.\textsuperscript{184} His critical idea was that the archetypes were elements of the collective unconscious that help humans structure their experience of the world. This concept echoes one Rationalist claim, that experience draws out, but does not forge, knowledge already present within the human psyche.

A 2014 article, “On the Relationship Between Birds and the Spirits of the Dead,” from the \textit{Journal of Society and Animals}, philosophy professor Christopher M. Moreman uses the Jungian concept of the archetype to explain the “practically universal” yet “ambivalent” connection between birds and the realm of the dead.\textsuperscript{185} This ambivalence refers to the celebration of birds as symbols of life, renewal, and fertility as often as they are portrayed as portents of death, the souls of the deceased, and the transporters of souls. Anecdotal evidence and documented narratives for these various and ambivalent associations between birds and the spirit world are widespread in human life (see Chapter 4 for more extensive discussion of narratives involving birds and death).

Moreman believes that birds address an archetypal need to cope with the inevitability and irreversibility of death, stating that “birds represent an aspect of human nature: the denial of death as finality through a desire for renewal, transformation, and


rebirth.” While their ability to fly certainly creates a multitude of associations with transcendence and the spirit world, Moreman also mentions some of the other natural qualities (physical characteristics, sounds, and behavior) that are often cited as the cause of the widespread association of birds with the spirit world as both regenerated souls and the omens of death. Owls and nightjars, for example, are often labeled as portents of death due to their nocturnal activities and otherworldly sounds. In contrast, the visible emergence of life from bird eggs, the (to human ears) joyful nature of certain bird songs, their associations with the arrival of the sun during the dawn chorus, and the appearance of many species at the return of spring have also given rise to associations with renewed life. In addition, birds’ (sometime) bipedalism, the direct stare with which they can engage a person, and the resemblance of some of their sounds to human voices and language have also contributed to widespread associations between birds and the reappearing souls of deceased human beings. The diving abilities of seabirds are also a factor, since the water, like the sky, is a mysterious and inaccessible realm. In numerous cultures (the Greeks, Romans, some Siberian cultures, and the Maya), the realm of the dead was a watery underworld.

Some of the language relating to Jungian archetypes and the collective unconscious, such as human psychic unity, will resurface in the thought of the Structuralists, who emerged in Europe in the middle decades of the twentieth century.

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Like analyses of Jungian archetypes, structuralist analyses can also inform an understanding of avian imagery from the innatist perspective.

**Animals in the Mind II: Structuralism**

Structuralism had its origins in the work of the Swiss linguist Ferdinand de Saussure (1857-1913), widely considered the father of modern linguistics, who perceived that certain patterns, grammar, and transformation rules were common to many languages, leading him to believe that such generalities were the manifestations of shared mental frameworks. During the mid-20th century, the French anthropologist Claude Lévi-Strauss (1908-2009), and others, posited the claims that like linguistic structures, some mental structures also generated myth, language, folklore, and narrative, among other cultural phenomena. Later known as structuralists, they claimed that all humans have an innate capacity for creating and recognizing the same components of myth, such as symmetry, inversion, equivalence, homology, congruence, identity and union. Except for structures that guard against incestuous relations, Darwinian concepts do not typically enter into the origin of these structures. Nevertheless, Lévi-Strauss was still attacked for “reducing culture to biology.”

Animals factor into structuralist thought principally as metaphoric classificatory

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189 Dissanyake, *Homo Aestheticus*, 75.
labels for group and kinship relations, which often include birds. Two of Lévi-Strauss’s most famous works dealing with rational, classificatory schema, *Totemism* (1962) and *The Savage Mind* (1964), “sought to discredit the distinction between primitive and scientific mentalities (…) by demonstrating the preeminence of logical classification in all human thought.”

To this end, *Totemism* opens with the chapter, “The Totemic Illusion,” in which Lévi-Strauss dispels with earlier notions of totems as emblematic of “primitive” thought that failed to recognize boundaries between the human and natural world. Instead, Strauss claims, totemic classification is a manifestation of an innate human need to categorize and label groups and make use of metaphor, and the natural world provides readily accessible material with which to do so. Thus, a hypothetical Parrot Clan and Emu Clan do not actually believe they are parrots or emus, respectively, but perceive their inter-clan differences to be analogous to the differences between the birds with which they identify. In a 1936 study of the Nuer culture of the southern Sudan region, E.E. Evans-Pritchard discovered an association between twins and birds – “a twin is not a person, he is a bird” – based on the belief that both twins and birds have an intrinsic connection to the realm of the divine.

The structuralist approach demonstrated how animal classification schemes in

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culture had social applications. Ralph Bulmer identified the classification scheme of the cassowary in New Guinea that revealed both the distinction between the domain of the field and the forest and the avoidance of sexual relations between brothers and sisters. S.J. Tambiah analyzed animal classification of food prohibitions in Thailand as they related to martial restrictions. Their work is aligned with structuralism in that it reveals the intensity of human interest in classifying and ordering experience in a systematic way and assigning metaphors from the animal world.

**Animals in the Mind III: Cultural Critic John Berger**

Artist, critic, novelist, essayist, and cultural critic John Berger has thought a great deal about animals and art. In “Why Look at Animals,” he describes how, when the first symbols and images emerged from human minds and hands during the Pleistocene, they reflected an intense awareness of the natural world, particularly fauna. He reminds readers that the limited relationships many modern humans experience with nature and animals reflect industrialization and increased urbanism. Berger believes that the attitude toward animals as a source of food, raw materials, and labor, is a product of the industrial era, stating that “animals first entered the imagination as messengers and promises.”

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For millennia, animals were our constant, non-verbal companions, fulfilling essential survival needs, including labor, food, and materials for housing and clothing. Animals also were endless sources of myth and metaphor. Berger notes that human cultures from the Greeks to the Hindus utilized animal metaphors in calendrics and creation myths, respectively.”

Although one of human beings’ defining abilities is the capacity for symbolic thought, Berger reminds us that the some of the first symbols were animals; “what distinguishes men from animals was born of their relationship with them.”

Herbivores, birds, and human-bird, human-animal hybrids were ubiquitous in the earliest art forms in Upper Paleolithic Europe. In upper Paleolithic art, birds appear in painting and sculpture along with tigers, bison, woolly mammoths, horses, bulls, women’s bodies, vulvas, and phallic imagery. Notable examples include an owl in Chauvet Cave, France, from 30,000 BCE (fig. 2.1), a mammoth ivory water bird (fig. 2.2) from Swabia, Germany, (c. 30,000 BCE), mammoth ivory pendants in the shape of birds from Siberia (fig. 2.3), dating to c. 25,000 BCE, and a bird-headed man with a bird-topped staff (fig. 2.4) from Lascaux, France (c. 18,000 – 14,000 BCE).

In his essay, “The White Bird,” from The Sense of Sight, a volume of art criticism and aesthetics, Berger’s poetic discussion of a bird in local folk art interweaves aesthetic

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197 Berger, About Looking 7.

emotion with art production, and hints at their innate origins. The subjects of the essay are the white birds carved from wood that decorated his home village of Haute Savoie, France, and are found throughout Europe during the coldest winter months. He describes these smooth, simple birds made by local residents — symbols of hope, joy, and renewal — as nothing short of survival necessities during the most physically and psychologically challenging time of the year. As works of art, the crafted birds elicit the same aesthetic emotions as those mysterious and numinous moments in nature wherein beauty is encountered.

Concerning natural beauty, Berger has approached the idea that the perception of beauty in the natural world plays a functional role in our existence, such as the fertility associated with flowers, the sexual power perceived in a bird’s plumage (see Chapter 5), the relief from darkness provided by a full moon, and the longing for hearth and companionship that accompany a sunset that encourages a return to the safety of home and family; Berger also lists water, rocks, trees, and birds among the natural elements found to be beautiful. 199 While not fully embracing the idea that perception of beauty is intertwined with an object’s function, Berger, nevertheless, cannot deny the “constants” that have surfaced as beautiful, worldwide, natural forms and birds among them. A source for this view can be found in the biophilia hypothesis.

Animals in the Mind IV: Biophilia

The German scholar Erich Fromm of the Frankfurt School of critical theory was the first to use the term “biophilia,” literally the “love of life or living systems.” A social psychologist, psychoanalyst, sociologist, and humanist philosopher, Fromm used it to describe the intrinsic attraction of human beings to all that is alive and vital. This concept supports humans’ aesthetic interest in animals, beings whose life forces are profoundly and directly expressed in actions unencumbered by self-conscious reflection, or constrained by the posturing endemic to human behavior. For example, the thundering power of a migrating herd, the spectacle of flocking birds, the mating instincts of male herbivores resulting in dramatic antler bashing, and the devotion of mother mammals to feeding and protecting their offspring all strike an emotional cord with most humans.

The concept and term were expanded and popularized by biologist Edward O. Wilson in the 1984 publication *Biophilia*, in which he explains this inclination to seek out, care for, and nurture living things as a biologically evolved need, present in humans because it is necessary for our survival. Wilson defines biophilia as “the urge to affiliate with other forms of life,” both flora and fauna, as an integral part of the human species and critical to our survival. In the 1993 publication *The Biophilia Hypothesis*, edited by Edward O. Wilson and Stephen R. Kellert, “The Biological Basis for Human

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Values of Nature,” Kellert outlines nine “hypothesized dimensions of the biophilia tendency…indicative of the human evolutionary dependence on nature as a basis for survival and personal fulfillment,” and cites gene-culture coevolution as a “plausible explanation for the origin of biophilia.” Aesthetics is among these nine values, as evolutionary aesthetics states that humans’ positive experience of beauty (for the sake of brevity, defined as that which is pleasing and desirable) is linked to what is beneficial for our survival. Biophilia, thus, helps explain why the forms of nature appear to be a default choice for metaphors, since we need the natural world to survive and, until very recent human history, our lives were inextricably linked with the processes of nature and immersed in nature’s many and varied forms.

In short, aesthetic responses do not in or of themselves produce art. To better understand how the possible archetypes, metaphors, aesthetic emotions, and biophilia might contribute to avian imagery, we must also address how art-making behavior came to be an essential element of humanity.

**Animals in the Mind V: Evolutionary Psychology**

Evolutionary psychology and evolutionary aesthetics would not exist without the

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204 Kellert, “The Biological Basis for Human Values of Nature,” in Kellert and Wilson, eds., 33.
insights of evolutionary theory. Somewhat like the processes, anatomies, and mental
traits they explain, the insights of evolution rest upon centuries of cumulative learning.
The Pre-Classical Greeks possessed the idea that one animal could descend from another
(Empedocles), though they did not understand the mechanism by which this change
through descent occurred.\textsuperscript{205} The idea of the origin of species by a divine creator was still
dominant into the first decades of the eighteenth century, as is evident in the famous
taxonomy of species put forth by the Swedish scientist Carl Linnaeus in \textit{Systema Naturae}
of 1735, based on the belief that variations in species are the result of a divine plan.\textsuperscript{206}

In the second half of the eighteenth century, however, within the culture of
scientific inquiry accompanying the European Enlightenment, a series of major
breakthroughs led to a key precursor of evolutionary thought with Jean-Baptiste
Lamarck’s 1809 theory of the transmutation of species. In a dramatic foreshadowing of
mature evolutionary thought, Lamarck’s theory states that over time, animals would
change their forms to become new species, although the process by which this occurred
still eluded Lamarkian theorists.\textsuperscript{207}

The critical breakthrough occurred when English naturalists Charles Darwin and
Alfred Russel Wallace jointly forged the theory of evolution in the 1830s in which they


proposed that one of the primary mechanisms by which evolution occurred was natural selection. The fundamentals of natural selection state that 1) in a given population, more individuals are born than can be supported in an environment, 2) variation exists among members of a species, and if certain traits aid the survival of an individual in its environment, it will survive long enough to reproduce and its traits will be passed on to the next generation of offspring, 3) an accumulation of these changes over time will result in changes within the population and, ultimately, the diversity of all life forms on earth.\(^{208}\) By one calculation, “A variant that produces one percent more offspring would increase in frequency from 0.1 percent to 99.9 percent of the population in just 4,000 generations.\(^{209}\)

The changes to a species that result from natural selection are called “adaptations,” defined as “features that helped previous members of a species survive and reproduce more successfully than others and passed on, by them, to their descendants.”\(^{210}\)

Darwin and Wallace’s initial theoretical formulation was not without major flaws, as neither Darwin nor Wallace understood genes as the source of individual variation and Darwin believed in the incorrect Lamarkian concept that an individual’s traits (such as strong leg muscles from vigorous exercise) acquired during a lifetime could be passed on to offspring. These misconceptions would be undone by the work of German scientist and


\(^{210}\) Davies, *The Artful Species*, 231.
Augustinian friar Gregor Mendel, who uncovered the role of genes in determining inheritable traits.\textsuperscript{211}

With the knowledge of genetics solidified in the early 20th century, from the 1920s to the 1940s, the modern evolutionary synthesis was forged. Within this synthesis, the mechanisms of evolution were expanded to include the origins of initial variation in populations, upon which natural and sexual selection depended. These included random mutations in genetic material, the reshuffling of genes through sexual reproduction, migration of genes between populations (gene flow), and randomly through the process of genetic drift (the phenomenon in which genes are left behind by individuals due to chance events, such as a natural disaster that randomly eliminates a large percentage of the population). Other key concepts emerging from the evolutionary synthesis are fitness, defined as an organism’s potential for reproductive success, as well as inclusive fitness, “a gene-centered version of fitness” that also considers the genes passed on by an individual’s relatives, and spandrel, a “by-product of an adaptation” that is not directly related to fitness.\textsuperscript{212} The elegant explanatory power of evolutionary theory has made it the unifying concept of the life sciences. The theory is continuously validated and fine-tuned in its accuracy as more about genes and chromosomes are discovered.

Evolutionary psychology was organized into a scholarly discipline in the 1990s and emerged as a major theoretical perspective at the beginning of the 21st century.\textsuperscript{213}


\textsuperscript{212} Davies, \textit{The Artful Species}, 84.

\textsuperscript{213} Leda Cosmides and John Tooby, “Evolutionary Psychology: A Primer,” Center for
When considering the human mind, evolutionary psychologists take the extremely long view: the approximately four million years of evolution that may have resulted in the modern human mind. Evolutionary psychology stresses that innate mental structures are adaptations resulting from natural and sexual selection. The principal founders of the field are Leda Cosmides, a psychologist and neuroscientist, and John Tooby, an anthropologist. Cosmides and Tooby consider the mind as “a set of information-processing modules that were designed by natural selection to solve adaptive problems faced by our hunter-gatherer ancestors.”

Included in the field of evolutionary psychology is the emerging field of evolutionary aesthetics.

Animals in the Mind VI: Evolutionary Aesthetics

What are the evolutionary functions of aesthetics and art? What problem may art have solved for our ancestors? Dissanayake posed these questions before anyone else did. She observed that art making meets all the characteristics of behaviors shaped by natural selection. The arts are found in all human cultures, give pleasure to both their creators and audience, consume a large portion of available resources, and arise spontaneously in children; thus, she argues for art as an adaptation, far more integral to the human species than simply an outgrowth of higher intelligence or symbolic thinking.


214 Cosmides and Tooby, “Evolutionary Psychology: A Primer.”

Dissanayake considers art as a constellation of behaviors that result in “making special.” “Making special” distinguishes an object, action, or series of actions from ordinary usage or occurrence: the perfect symmetry of a Pleistocene handaxe (some of which show no evidence of ever having been used), the use of brilliantly colored or otherwise striking stones for tools (such as archaic North American bannerstones, which function as weights for spear throwers but like the Pleistocene handaxes often show no signs of having been used), the choice of vividly colored shells for personal adornment, the preference for ordered patterns of sound in music and movement in dance. Dissanayake recognizes the role of “making special” in the enhancement of rituals that build social cohesion, which ultimately resulted in a more successful society.

Regarding “making special” to be of critical evolutionary importance, Dissanayake asserts that it was the means whereby the earliest human artists ensured the following advantages:

(...) technology “worked” by deliberately reinforcing it with emotionally satisfying, special elaboration and shaping. Thus, in the history of the human species, it is not only the development of language or the invention of technological “means of production” that has made us anomalous or unique. Our invention and application of what might be called the “means of enhancement” or “means of refinement,” for an infinity of possible objects and occasions - is equally impressive and equally deeply engrained in human nature.216

Dissanayake is motivated by a keen awareness of the integral role of art in the lives and activities of nonindustrial and Non-Western societies, and thus her ideas have special relevance to the ancient Peruvian art of Paracas. In addition, her approach also levels the

hierarchy of word over image, noting that literacy and the concepts it records represent a mere blink in the four-million-year timeline of human history.

Others trained in the mind sciences, notably cognitive scientist Stephen Pinker, have suggested that art is a by-product, or spandrel, of numerous other adaptations. One adaptation he identifies is the hunger for status, which drives people to compete and excel in order to distinguish themselves from others, often by demonstrating talent and skill (not necessarily related to tasks of survival) such as making art.217 Another is the adaptation to craft and design items for greater functional utility, which then transfers to creating artifacts featuring symmetry and enhancement that are among the characteristics Dissanayake defines as “making special.”218 Pinker also understands visual and auditory forms of art as examples of a culturally produced “pleasure technology – a way to purify and concentrate pleasurable stimuli and deliver them to our senses.”219

Denis Dutton’s approach, which he labels “Darwinian aesthetics,” is the most thoroughgoing attempt to link aesthetics and art with survival. Dutton’s argument states that aesthetic responses to the world, artifacts of utility, and other human beings (in both appearance and behavior) are adaptations. The principles of evolutionary aesthetics state that we derive pleasure and seek out habitats, people, situations, and relationships that enhance our chances of survival (ultimate cause, in evolutionary terms), and these experiences became infused with a powerful and positive aesthetic response (proximal

217 Pinker, The Blank Slate, 405.
218 Pinker, The Blank Slate, 405.
219 Pinker, The Blank Slate, 405.
cause). Dutton recognizes that the link between psychology and the arts was perceived long ago by the Greeks, with Aristotle’s recognition of universals in art linked to a universal human nature, a view shared by the eighteenth century philosophers David Hume and Immanuel Kant.220

Evolutionary aesthetics clearly predicts human preferences for certain types of landscapes and architectural settings and structures, including fertile fields and partially enclosed, protected spaces, such as cloisters and porches. Regarding landscape, Dutton’s chapter “Landscape and Longing” clarifies how an emotional response to green landscapes with combination of savannas and groves of trees, plus a water source, some herbivores, and birds – later to become an aesthetic response – had key survival consequences for Pleistocene humans. Others, such as Jay Appleton and Grant Hildebrand, believe that some of the motifs in both architecture and landscape architecture are rooted in the search for the optimal human habitat. Appleton and Hildebrand’s “prospect and refuge theory” states that open grasslands dotted with trees, water sources, animals, flowering and fruiting plants, all viewed from a protective enclosure, are appealing to humans because of our evolutionary past and are mimicked to varying degrees in architectural design.221

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220 Denis Dutton, “Aesthetics and Evolutionary Psychology,” in The Oxford Handbook for Aesthetics, ed. Jerrold Levinson (Oxford: Oxford University Press, 2003), 698. The biophilia hypothesis, previously described, and Stephen Pinker also share this view. Among the adaptations Pinker cites is the pleasure of experiencing adaptive objects and environments, such as a supremely hospitable landscape or warm, crackling fire.

221 See Appleton, The Experience of Landscape; Hildebrand, Origins of Architectural Pleasure; Gordon H. Orians and Judith Heerwageen, “Evolved Responses to Landscapes” in
In *The Artful Species*, aesthetic philosopher Stephen Davies addresses the aesthetic appreciation of animals, specifically, as a possible adaptation. First, he considers the evolutionary origins of the aesthetic response, noting its utility as a way of intensifying behaviors and preferences that carry survival consequences. Like Dissanayake and Dutton, Davies sees human aesthetic responses as a complex network of emotions including attraction and pleasure, sometimes infused with complicating, conflicting emotions such as awe and fear. He attributes the responses to the pressures of both natural and sexual selection (see Chapter 5 for an introduction to sexual selection). Like John Berger and others before him, such as Jared Diamond, he prefaces his discussion by summarizing the inextricability of early human history from that of animals.222

Davies echoes Berger’s sentiments about the supreme importance of animals to our survival and well-being, noting that our relations with them range from the aesthetic to the “gustatory, sartorial, scientific, religious, sporting, and therapeutic.” 223

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222 In his Pulitzer-Prize winning book *Guns, Germs, and Steel* (New York: W.W. Norton and Company, 1997), biologist and ad-hoc historian/sociologist/anthropologist Jared Diamond concluded that the availability of certain animals for domestication helped forge the agricultural revolution in the river valleys of what is now West Asia, and played a key role in shaping future geopolitics. He also demonstrates that wherever these animals traveled, surplus agriculture, and the settled cities it makes possible, immediately followed. Due to the large swath of land of roughly the same latitude stretching west to Europe and North Africa and east to Central Asia, resulting in approximately the same day length and climate in these regions, these animals could flourish when relocated there, ultimately giving the people and cultures of “the West” an advantage in technology that would later result in European global domination.

223 Davies, 80.
judgments of animals, positive or negative, would have helped shape the destinies and ultimate survival of our distant ancestors, and these preferences would have been inherited by the offspring of successful parents.
CHAPTER 3
EARLY BIRDS

“Without free animal life, I believe we lose the spiritual equivalent of oxygen.”
- Alice Walker

The Art of Birds

During the Spring 2014 term at the SUNY Fashion Institute of Technology in New York City, students in the Visual Display and Exhibition Space Design explored how birds influence fashion in their exhibit, “Fowl Play.” FIT students researched the forms and behaviors of a variety of bird species; then with the help of materials gathered from the showroom of the local feather merchandiser, The Feather Place, transformed mannequins into birds. More precisely, the mannequins became woman-bird hybrid creatures (fig. 3.1). It is difficult to imagine a more direct and eloquent expression of humans’ continuing aesthetic interest in birds than this stunning display. The bird-mannequins appear all the more vital and intriguing when seen in contrast to the urban environment of Manhattan’s Seventh Avenue in the world just outside the exhibition space.

In the ancient Andes, evidence for an interest in birds first appears in the material culture of coastal settlements with an early level of social and economic development. Beginning with the Cotton Pre-Ceramic Era, some four millennia ago (see fig. 0.15 for date ranges), it proliferated millennia later in Paracas ceramics and textiles with abundant avian motifs and continued for several centuries thereafter. In the art of the earliest
Andean cultures, birds were one of many creatures depicted, along with sea creatures and insects. During the Early Horizon, they became one element of the supernatural animal triad of serpent/bird/feline that would be reiterated throughout the Pre-Columbian Andes from ancient through Inca times at European contact. While Chapter 2 considered the theoretical basis for an evolved aesthetic response to animals, this chapter further explores why certain animals were preferred over others as the subjects of Andean art, and why certain cultures, most notably coastal cultures, were so strongly attracted to birds. Although ecological context was certainly a dominant factor, I propose that another impetus might have been the importance of religious over political concerns.

**The Natural World as Metaphor**

The “beautiful” is not the only aesthetic response elicited by the natural world. The concept of the aesthetic sublime, as distinct from the beautiful has a long history, from the Greek philosophers through eighteenth-century British philosophy,\(^\text{224}\) to the Romantic literary and artistic movements of the late eighteenth and early nineteenth centuries. Its most popular and enduring definition came in the eighteenth century in the writings of Immanuel Kant (1724-1804), Georg W.F. Hegel (1770-1831), Arthur Schopenhauer (1788-1860), and Edmund Burke (1729-1797). Burke, notably, diverged from contemporaries as weighty as Kant by addressing the physiological basis for this

\(^{224}\) Albert Hofstadter and Richard Kuhns, eds, *Philosophies of Art and Beauty: Selected Readings in Aesthetics from Plato to Heidegger* (Chicago: University of Chicago Press, 1964). The sublime, for some, is not separate from beauty but a higher and greater form of it.
aesthetic emotion, one he considered more intense than mere pleasure. Burke also diverged from Kant by claiming that it is not a transcendent emotion, but a recognition of one’s minuteness, weakness, and limitations in the presence of something enormous in size, strength, and scale. For example, it might emerge when encountering nature on a greatness of scale beyond the human capacity for comprehension, such as the rugged peak of a lofty mountain, or the awe of a seemingly infinite expanse of land or sea; or, as an element of danger: a thunderstorm on land or sea, a raging river or waterfall, or the power of a wild animal.

Evolutionary aesthetics also addresses the sublime by recognizing that, in a dangerous situation, attraction tinged with fear has adaptive advantages as a warning tool. A graceful but deadly jaguar, for example, would elicit a powerful response based on the interplay of these emotions, giving a human being pause to take in the animal’s beauty, but only at a distance. A closer encounter with a jaguar would elicit a different survival emotion, fear (which is not an aesthetic response), triggering a cascade of physiological effects intended to help the individual survive a dangerous situation. Thus, the concept of the sublime can help explain why more dangerous animals, landscapes, and situations could be attractive to humans, even if they might actually endanger one’s survival.

Aesthetic responses are often expressed in art through the use of metaphor, and the material world of iconography often has its origins in the metaphors forged by the mind. The phrase “the natural world as metaphor” has been used by at least two

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prominent Pre-Columbian art historians to describe the manner in which some Mesoamerican artists utilize “the meanings and patterns of nature for human ends.”

Perceptions from evolutionary psychology also echo this observation. As noted by Hart and Long, “humans use metaphors to explore their relationship with nature. Our ability to make and understand metaphors likely evolved along with our ability to create and understand language.” In the ancient Andes, as elsewhere in the world, numerous and varied animals were selected as metaphors for supernaturals, but with the rise of agricultural societies, three animals appeared most consistently: the feline, bird, and serpent.

To introduce the first Andean supernatural animals, art historians have widely agreed upon some fundamentals of ancient Andean concepts of the natural world that were harnessed by animal imagery. Ulla Holmquist Pachas discusses the ancient agriculturalists’ particular need for constant reassurance that the earth’s natural cycles would continue. The world upon which they depended was divided into terrestrial, subterranean, and celestial zones, each seen as a divine place: the source of food, realm of the dead, and sources of rains (in areas of the Andes where rain falls), respectively,

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symbolized by creatures such as the feline for the land, spiders and serpents for the subterranean world, and birds of prey in the skies. Art historian Vanessa Drake Moraga, among others, also identifies the feline, bird, and snake as the principal pre-Columbian trilogy representing the earth, sky, and underworld. While she notes the variability of use and symbolic flexibility of the animals in the triad, as they are “endlessly recast and renewed in art and myth, acquiring new gradations of meaning and local identity as the historical context unfolds,” the animals of the triad were both ubiquitous and enduring, still present in the Andes in the present day as icons of high status and spirituality.

In this chapter, the questions now become: Do certain levels of social and political/economic organization prefer certain types of animals in myth and the visual arts? Which elements of human psychology are at play in the generation of this imagery? Under what environmental conditions does avian imagery emerge most strongly and pervasively out of the Andean triad? Can one find biological underpinnings to an aesthetic response to birds, specifically, and are these responses adaptive?

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Looking for connections between humans and birds begins with the experience of South America’s first inhabitants. While mammals have shared the world with birds from the end of the Mesozoic era, over the last 40,000 years, birds very likely would have been the constant companions of some of the earliest intellectually and anatomically modern individuals to arrive in the American continents. The first people to arrive in the Americas likely traveled by sea in small groups, utilizing hide kayaks and other small seafaring vessels to travel during periodic migratory waves to the Americas between 40,000 to 13,000 years ago, relying for their survival on what was likely a coastal marine environment.

These early travelers, already dependent on fishing for survival, most certainly would have witnessed birds thriving in this shared coastal environment, as they have done for millennia ever since. Kelp forests would have also supported seabirds, attracted to the enormous numbers of small fish harbored by the kelp fronds that would feed on small crustaceans and microorganisms. Coastal areas typically include estuaries that harbor large populations of birds living together in colonies. Thus, the earliest travelers to the Americas would have witnessed birds flying, diving, and fishing, deftly navigating the coastal environment, and mastering the acquisition of resources that both humans and birds depended on for survival, such as small fish, shellfish, and crustaceans. Colonies of seabirds certainly qualify as an index of environmental health, since only rich marine ecosystems can support such great quantities of birds. An attraction to sea and shore birds as signifiers of a clean, thriving ecosystem would have thus served the proto-Americans well during the coastal journeys.
Evolutionary aesthetics also notes humans’ appreciation for animals that thrive in environments that are materially challenging to them; once again, birds, and especially seabirds, qualify in this category, since although the coastal ecosystem was rich in calories and nutrients in the form of kelp and marine creatures, the sea can frequently be a dangerous and inhospitable place for human beings. Birds, however, live and fish at sea in relative ease and comfort. Additionally, a large population of seabirds at rest is an indication that the weather and sea are stable and will be for some time, and no predators are immediately present. In contrast, a large flock of birds taking off from the water or shore en masse indicates that a predator may be near or a storm is approaching. Flight, an ability we do not possess, may have been the most powerful sensory trigger of all, eliciting in humans the feeling of awe at the grace, freedom, and possibility it allows. In short, birds are indicators of the health and relative tranquility or turbulence of the shared coastal ecosystem on which the earliest travelers relied, therefore, an sensitivity and attunement to birds would have been an adaptive response.

Other aesthetic reactions to animals may not have been directly adaptive, but may have been activated by other human emotions linked to our own biological imperatives. Striking avian displays related to courtship, mating, and parenting may resonate strongly with humans. Witnessing the intricate dances and displays of marine and shore birds, such as the penguin, Peruvian boobies, albatross, and flamingo, can evoke interest and possibly fascination, as this behavior touches upon the evolved human desire for partnership that assists with survival. While it would be inappropriately anthropocentric
to attribute the emotions humans experience to the reproductive activities of birds, many species care for their eggs and chicks in a manner that resembles devotion.

In addition, birds’ flight skills, underwater diving and swimming ability, and group flight and movement patterns activate human neural networks sensitive to movement and pleasurable visual stimuli. Aestheticized terms for birds abound in the formal names for numerous bird species: the elegant tern, for example. Birds are also models of efficient anatomical design. Darwin and Wallace themselves arrived at their breakthroughs, in part, while admiring the design of birds. Their beaks, in particular, have evolved forms appropriate for varied food sources, such as the Galapagos finches.

Bird sounds, signals, and chatter are also highly evocative. The chatter of birds in the morning at the beginning of a new day, known to bird watchers as the dawn chorus, links bird sounds with the return of the sun. In addition, bird sounds are also “emblematic of particular landscapes, seasons, and life patterns,” even if this association only registers on a subconscious level. For example, Stephen Davies points out that in the second movement of Beethoven’s Sixth Symphony, the composer utilizes the sounds of a quail, cuckoo, and song of the nightingale, sounds which “precisely locate the listener at a border where coppice woodland meets arable land,” an extremely desirable and hospitable habitat. While sounds such as these can elicit wonder and delight, the call of owls and nightjars, in contrast, are associated with darkness, the

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231 Davies, *The Artful Species*, 84.
mysterious, and the eerie, further underscoring the complexity of the aesthetic response to birds’ sonorous as well as physical and behavioral characteristics. I can attest from personal experience that the behavior of roosting, in which a large group of birds will flock together and gather in a tree, sometimes in such great numbers that they resemble living leaves on the branches, is truly an overwhelming sensory experience to behold. In addition, the call of geese in formation flying south is an instant and powerful signal of the end of summer and the encroaching fall and imminent drop in temperature.

Upon their arrival to South America during the final phase of the Pleistocene epoch, humans dispersed into varied social groups following differentiated patterns of social organization. Tom Dillehay explains that during the transition between the Pleistocene and the Holocene epochs, most populations were nomadic due to changes in climate and the availability of resources or social conflict, with some populations settling for longer periods in areas that offered protection and an abundance of resources, which was often near a water source. Material remains of early human populations settlements in deltas, bays, riverine estuaries, and lakeside environments also points toward early, long-term exposure to birds, since birds also thrived in these types of environments. Additionally, the life patterns of the early arrivals described by Dillehay match the concept of biophilia extremely well. Early foraging societies survived because of an inherent attraction to rich and vital environments laden with life, including birdlife.

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Thus, it comes as no surprise that these early inhabitants, dictated by their environments and a certain level of social and economic organization, would have been keenly interested in animals, further priming the adapted social, learning, myth making, and art-making minds toward noticing and appreciating birds.

Areas of ancient Peru offer a fertile test situation in which the end of human biological evolution overlaps with the beginning of history, civilization, and culture. Coastal Peru is now recognized as one of the world’s first six centers of pristine civilizations, defined as areas where civilization arose independently of outside influence.233 This is an area fraught with contention in scholarship, as much of the material evidence is fragmented or emerged damaged from looting, while new discoveries continually revise and contest conceptions of human activity in ancient coastal Peru. Nevertheless, a strong archeological record exists that includes early images. Animals are the first to appear, yet that imagery changed as cultures became more “human-centric” in their social processes, such as becoming more socially stratified.234

Among the most significant rituals that appear in Peru are those surrounding death. Such activities are prime candidates for “making special” through enhancement

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with personal adornment, visual art, dance, and music, which according to the argument set forth by Ellen Dissanayake enhanced the efficacy of ritual. When “making special” occurs, often by adding images to an item, animal and plant imagery motifs are often the first to be selected, sometimes literally, as in the placement of animal parts in graves. This choice suggests that some connection between the animal’s body and the transition to the afterlife was perceived by these ancient peoples, as seen in places as diverse as Late Pleistocene Europe and South Africa.

The Lithic (c. 10,000 – 3,000 BCE) through the Cotton Pre-Ceramic (c. 3,000 - 1,800 BCE) periods in the Andes were innovative periods in which the world’s first mummies were created, and utilitarian objects were “made special” by the addition of imagery. At this stage of archeological knowledge, it appears that village cultures of non-state sociocultural complexity, including Paracas, drew most heavily on animals for mythic imagery. The most abundant avian imagery is found in the cultures along the coast with the most exposure to birds, beginning very early, on the north coast, and later flourishing with Paracas on the south coast. Of the materials that have survived on the coast and highlands from as early as 10,000 BCE, images of birds appear on textiles and gourds, and some details of monumental architecture. In the Andes, items such as nets, baskets, small cotton containers, and dried gourds filled the technological and artistic niche usually occupied by ceramic technology in other areas such as the Ancient Near East and Asia, since Andean ceramic vessels appeared at a comparatively late date in world history, c. 1800 BCE. This delay has been attributed to the interdependence

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between the development of ceramic technology and agriculture. Due to the extreme
geography of the Andes, the advance of agricultural practice was a “long and arduous”
process requiring reinvention with each distinct geographical zone (described in the
Introduction). ²³⁶

My inquiry deals only with the cultures that foreshadowed both the material
activities and avian imagery of Paracas. These include the Chinchorros culture of the
Lithic period (c. 10,000 – 3,000 BCE, see fig. 0.15) in northern Chile and central Peru
and their mummification practices; Huaca Prieta, a northern coastal fishing village of the
Cotton Pre-Ceramic period (c. 3,000 – 1,800 BCE, see fig. 0.15) with notable animal
imagery in their textiles and gourds; and highland Chavín of the Early Horizon (c. 900-
200 BCE, see fig. 0.15), still considered the “mother culture” of the Andes with a bold
and distinctive art style dominated by animal imagery. ²³⁷ This early interest in preserving
the dead, most often accompanied by animal imagery, illustrates concepts from an
incipient Andean worldview and possibly early religious narratives, iterated in various
ways through the imagery of the serpent, bird, and feline. Accompanying the sacred
animal triad are images of the union of the three animals, transformations from one

²³⁶ Moseley, The Incas and their Ancestors, 100.

²³⁷ My discussion does not attempt a survey of every archeological site and specimen of
material culture from 10,000 BCE to the Paracas period, as such an endeavor is outside the scope
of this study and would be quickly outdated as new discoveries continue to surface.
animal into another, hybrid creatures between a human and an animal, and human beings with feline, bird, and serpent features.

**Early Mummies: Chinchorros**

While Paracas mummies are unique in form and content, mummification in the Andes has a long history that begins in the Lithic period (see the chart in fig. 0.15) and continued through all subsequent periods, including the late Prehispanic Inca culture. The first evidence of the practice of artificial mummification of humans comes from two early coastal cultures, the Chinchorros of northern Chile (c. 5,000 BCE) and a settlement at La Paloma in Central Peru (c. 4,000 BCE), where elaborate and sophisticated embalming techniques “reflect ancient and profound Andean beliefs that the deceased had to be physically intact to enter the afterlife and join the realm of the ancestors.” This ancient belief in the preparation of individuals for an existence in the afterlife, deemed “critical to the rise of Andean civilization,” would be further developed and elaborated by Paracas culture.

Chinchorros culture emerged at the end of the Pleistocene epoch, some 11,000 to 10,000 years ago. Small groups settled where the Atacama Desert meets the Pacific coast in ecological conditions very similar to those of the Paracas environment, a rich marine

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238 Moseley, *The Incas and their Ancestors*, 93.

239 Moseley, *The Incas and their Ancestors*, 94.
ecosystem next to a desert, with limited fresh water resources in the form of small rivers traversing the desert from the Andean highlands (fig. 3.2). At this time and place, the climate was nearly the same as the during the Paracas period in the later first millennium BCE, although there may have been more water in the area due to late Pleistocene deglaciation.240 As fisher-folk and seaside hunters and gatherers, Chinchorros people formed permanent settlements and exploited the rich marine resources of the Pacific, which included seaweed, fish, mollusks and crustaceans, marine mammals, and birds, a “relatively unique” sedentary, year-round existence based on maritime resources rather than agriculture.241 Areas of fresh water also provided the opportunity to grow cotton and reeds for twining mats and cords used in utilitarian activities such as fishing and gathering items that likely included kelp and shellfish, as well as other activities of a more sacred and symbolic nature: mummifying and enshrouding the dead.242


242 Moseley, The Incas and their Ancestors, 93. Moseley describes the embalming practiced in this culture and notes evidence that suggests the mummified bodies were kept above ground for some time and attended to by the living before they were eventually buried. Moseley also notes that bodies were often buried in groups of adults and children that may be family groups. This practice indicates an intense respect for family lineages and the veneration of ancestors. Similar claims have been made about Paracas burials, in which bundles were gathered in groups that included women and children as well as adult males.
The world’s first artificial mummification was practiced by the Chinchorros culture around 5,000 BCE.243 The modest grave goods that accompanied these mummies included some shell necklaces, animal bones, hunter/gatherer tools, and in rare cases, harpoons. The mummies themselves, however, were highly decorated, differentiated into two types, one featuring body paint and clay death masks colored in red and black pigments from natural materials, the other employing shrouds made of bird skins sewn together with cactus needles and vegetal threads (fig. 3.3). Other mummies had cords of naturally colored fibers wound around their heads. The choice of bird skins as mummy encasements might be explained by the availability of large marine birds in this coastal location. Yet the people also had other materials at their disposal: the larger, thicker skins of marine mammals, for example, or shells that could have been assembled into garments. Bird skins were their choice.

Chinchorros settlements were too small in population to develop hierarchies, and very little distinction is evident between the members of society who were mummified. Thus, issues of status do not appear to be at play here. Rather, the practice demonstrates two evolved processes central to human nature: the need to understand and cope with death, and the linking of funerary ritual to the creation of art, behaviors that arise in nearly all human cultures in varying ways. Mummies may have been a coping mechanism, a way for bereaved individuals to deal with the loss of a family member by

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vivifying the individual with artistic masks and bodily features. It is evident from the choice of bird-skin shrouds that birds played a role in this process of vivification; however, the exact nature of the relationship may remain a mystery, since there are no written records or historical accounts accompanying the twentieth-century archeological finds.

The Earliest Birds: Huaca Prieta

The search for early imagery now moves to the north and north-central coast of Peru, to a dynamic phase of cultural development in the Cotton Pre-Ceramic period of the second millennium BCE (c. 3000 -1800 BCE). Due to the rising sea levels at the end of the Pleistocene, there is a gap in the archeological record until about 3000 BCE. This is the approximate date that divides the Cotton Pre-Ceramic from the earlier Lithic period. At this time, sea levels stabilized, allowing for better preservation of archeological sites and the formation of the Andean ecological triad of desert, highlands, and jungle. The Cotton Pre-Ceramic was a period of great achievements in the human sphere, including the development of agriculture to supplement subsistence activities (harvesting marine resources, fishing, hunting, and gathering), animal domestication, and increasingly complex economies. These developments also had implications for the visual arts and monumental architecture. The Cotton Pre-Ceramic period included the largest constructions of the time in the Western Hemisphere, at Caral, excavated in the 1990s by Peruvian archeologist Ruth Shay Solís.244 Located on the Peruvian coast and used for

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244 See Ruth Shady Solís, Jonathan Haas, and Winifred Creamer, "Dating Caral, A
both civic and ceremonial uses, the site provides evidence for increasing social complexity and stratification.245

Archaeologists credit the Cotton Pre-Ceramic period with the emergence of civilization in the Andes, albeit in a particularly Andean manner, that is, influenced by environmental extremes. Civilization is typically defined as “an advanced stage of cultural development” that includes art, increasing complexity in trade, technology, society and religion, as well as rationalized social inequality, power held by a minority, social integration, and conformity to the group.246 In Peru, just as agriculture and ceramics followed an unusual trajectory, the development of civilization itself took an unusual path, as Peru’s environmental extremes encouraged “separation, fission, and autonomous activity, and thus ethnic heterogeneity.”247 Within this heterogeneity, however, there is evidence for a shared set of beliefs involving animals, which surfaced in the early arts.

Art production, according to Moseley, was integral to the emergence of Andean civilization. While a constellation of art-making behaviors had been part of the human experience for nearly 30,000 years, with the changes to human life patterns brought on by forging civilization, the range of artistic expression greatly expanded. New materials

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245 Jeffrey Quilter, “Late Pre-Ceramic Peru,” Journal of World Prehistory 5, no. 4 (December, 1991): 394. Bird bones were frequently used as instruments.

246 Moseley, The Incas and their Ancestors, 99.

became available, such as cultivated cotton, while increasingly settled and organized communities initiated long-range trade networks to acquire exotic goods from far away regions. Among the traded items were feathers from the Amazonian rain forest or shells from warm waters near the equator, key components of “making special” in the Andean area. The Cotton Pre-Ceramic period also saw the first appearance of distinctively Andean materials, methods, and imagery that surfaced in Paracas and persisted into Inca times, such as textile primacy, abstraction, dualism, interlocking double-headed beings, and composite images. Furthermore, with an increase in social stratification, some of the functions of art changed to serve the needs of an elite ruling class, and the iconography thus changed as well.

Textiles were the most important art form in the Andes from the Pre-Ceramic period onward. Due to the increase in the cultivation of cotton as well as its widespread utility when transformed into items ranging from garments to bags and dwellings, twined cotton remains are found at all major Cotton Pre-Ceramic sites. With the marked increase in textile production during this period, many such items also took on a new, aesthetic dimension. In a remarkable demonstration of conceptual skills, symbolic thinking, and aesthetic sensitivity, the utilitarian fiber arts of the early coast now included images that would continue to appear in Andean art for millennia, offering a glimpse into an early stage of Andean folklore heavily imbued with animal symbols.


Among the animals Moseley identified are double-headed serpents and birds and composite images with features of diverse animals, which he believes were analogous to the supernatural “griffins and unicorns” of other world folklore traditions. Among these images is one of the earliest and most iconic Andean images, a bird of prey.

Wings spread wide, a large hooked beak seen in profile, with an X-ray view of a coiled snake in its body, in a reconstructed image a raptor emerges from the twisted strands of an ancient twined cotton textile (fig. 3.4). The artist who made this piece came from the small coastal village of Huaca Prieta in the Chicama Valley, just north of the modern Peruvian town of Trujillo, one bead in a long strand of coastal communities that once lined Peru’s north coast during the Cotton Pre-Ceramic Period (see fig. 3.2). The thirty years of archeological investigations by Dr. Junius Bird reveal nearly continuous human occupation at Huaca Prieta from c. 2500 BCE to 750 BCE and intensive use of the two earliest domesticated plants in north/central coastal valleys of Peru, cotton and gourds.

This small item, one of 9,000 twined cotton cloths found discarded in a midden, represents the culmination of thousands of years of Andean productivity in fibers. In fact, prominent art historian Rebecca Stone calls these items the “the height of pre-loom fiber art virtuosity,” in which the all the technical challenges of cotton twining were

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In twining, the weft yarns are twined around the warps rather than interlaced with them, as in weaving. Images were created in the resulting twined textile by using colored fibers. Stone further comments on the Huaca Prieta textiles as indicators of highly sophisticated powers of visualization and conceptualization. She notes how the horizontal zigzag patterns on the bird’s wings reveal that it was created in a sideways rather than an upright position, which required the ability to conceptualize an image before and during the twining process. The payoff for this more challenging choice is to animate the wings with horizontal bands, as if they were in flight. Thus, the difficult technique was used not only to create the condor, but also to emphasize the powers of flight the bird possessed, clearly a central aim of the artist and one that may have added symbolic weight to the item.

This early avian iconography and Andean aesthetic also appears in two tiny, decorated gourds from Huaca Prieta, which were found in burial sites next to midden piles and wrapped inside cotton pouches. Incising and pyro-engraving, a process of burning an image into an object’s surface with a hot instrument, created the surface designs. Among the images appearing on the surfaces and lids of these gourds are...
double-headed birds (fig. 3.6). The images, abstract geometric renderings of human faces, birds, and serpents, are cleverly and adeptly fitted to the shape of the vessels, again revealing a high level of visual conceptualization. After re-creating these images in drawings, Junius Bird presented them to art historians as evidence of a long-standing Andean art tradition, noting that “the work of art was not that of a beginner or someone experimenting in gourd carving, and the character of the designs indicated a well-established traditional art style.” Bird hesitated to suggest that there was any special significance assigned to certain animals by the Huaca Prieta artists, as the sample size was simply too small to reach a general conclusion. Beyond a general inclination for depicting birds, they reveal an early idea of a principal Andean power animal, the highland condor, which might have played a role in assisting with the transition to death.

**Chavín: Site and Architecture**

The term “Chavín” refers to a highland settlement, Chavín de Huántar, the culture group and religious beliefs associated with it, and the art style originating from the site. The highland culture of Chavín produced some of the most distinctive animal imagery in the Americas, as well as early Andean deities that developed and flourished in a range of examples of Andean folk art.

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256 Bird, “Pre-Ceramic Art from Huaca Prieta, Chicama Valley,” 29.


animal supernaturals expressed in a visual language of monumental stone.\textsuperscript{259} The site has been identified as an area that hosted itinerant Andean pilgrims from different ecological zones.

The site’s chronology is still debated, but recent research suggests that occupation of Chavin began as early as the Initial Period, c. 3000 BCE, with ceremonial activity intensifying around 1000 BCE and thriving until about 400 BCE.\textsuperscript{260} As previously discussed in the Introduction, Chavin culture is generally considered to be the dominant and unifying culture of the Andes during the Early Horizon, c. 900-200 BCE. The central ceremonial site is located in the north-central region of the Andes at an altitude of about 10,330 feet (3150 meters above sea level), in an area of intense sunlight and dramatic light/dark contrasts, spectacular clouds and skies, soaring mountain peaks, and fresh water sources in the form of rushing rivers and hot springs (fig. 3.7).

Located at the confluence of two rivers, the Mosna and the Huanchesca, Chavin de Huántar is near two of only ten total east/west mountain passes that connect the three main ecological zones of the Andes (coast, highlands, and rainforest). This juncture lies in the region between the Andean Cordilleras Blanca and Negra, at the head of a great north/south longitudinal valley, the Callejon de Huaylas, which eventually drains into the

\textsuperscript{259} Mary Weismantel, “Inhuman Eyes: Looking at Chavin de Huantar,” in \textit{Relational Archaeologies: Humans, Animals, and Things}, ed. Christopher Watts (London: Routledge, 2013), 23. Weismantel notes that while camels were common in the highlands as pack animals and sources of fiber and meat, they were never used for agriculture like the oxen, bulls, and other beasts of burden of the Ancient Near East. Thus, one fundamental difference between the Andean and Judeo-Christian world is that social systems were not based on animal domestication.

Amazon River. The site is also near a pass leading west to the Santa River valley, a waterway that eventually reaches as far west as the Pacific Ocean. Chavin’s access to both low and high altitude valleys also allowed the resident population to cultivate both lowland maize and highland potatoes, and to trade with both the Pacific coast and eastern Amazonian jungle, creating an ideal situation for the exchange of goods, ideas, and images.

This combination of geographic features also distinguishes the site of Chavin as a spiritual center. This geographic confluence creates a location known in the Quechua language as a “tinkuy,” the joining of contrasting elements. It represents one example of the essential dualities of the universe perceived by Andean peoples. The meaning assigned to a tinkuy is an example of the widespread concept of sacred geography, the ancient American belief that certain landscapes are imbued with spiritual power, that spirits and deities reside within the land, and humans have a dynamic and interdependent relationship with the landscape upon which survival and social cohesion depend. The presence of the tinkuy, along with stunning views of mountain peaks and local hot springs, helps explain why the location became a thriving ceremonial center and


monumental temple site in addition to an area of trade and diverse cultivation of essential foods.264

While there were apparently some permanent residents at Chavín, due to the nature of the monumental architecture and sculpture and the lack of evidence for long-term habitation, scholars agree that the site’s most important role was as a pilgrimage and ceremonial center.265 At this pivotal geographic crossroads, Chavín was in an ideal position to both receive visitors and pilgrims from distant places, along with their material goods from all three ecological zones.266 This resulted, in part, in an iconography rich in flora and fauna from areas as varied as the Pacific coast and the Amazonian rainforest. Much of the imagery has survived, incised on stone monuments that are integrated with the principal architectural structures of Chavín de Huántar, the Old Temple (c. 900-500 BCE) and New Temple, added to the previous structure c. 500-400 BCE (see the diagram in fig. 3.8).

**Chavín: Stones, Style, and Birds**

Chavín style, while idiosyncratic, became the primary diagnostic tool for identifying the scope of the culture’s influence in the Andes outside of the highland

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A foundational study by anthropologist John Rowe helped explain some of the stylistic features of Chavín art by comparing them to the literary phenomenon of the kenning, which is the creation of comparisons by substitution. In its original context of Norse literature, poets would attempt to outdo each other by layering kenning over kenning, or alternately, using kenning that referred to a story the listener was presumed to know, in increasingly complex layers of allusions. A similar phenomenon in visual form might explain the concentration and layering of imagery found in Chavín art.

Rowe’s stylistic analysis, now contested by some, nevertheless laid the foundation for subsequent visual analysis. Numerous anthropologists and art historians have distilled its essentials into the following characteristics, summarized by archeologist Richard Burger:

1) Fundamentally representational, with intentionally mystified natural forms
2) Main figures reduced to a series of simple curves, lines, and scrolls
3) Wild animals and other creatures shown in rigid formalized poses with other essential details (idealization)
4) Metaphorical substitution (snakes taking the place of hair, and fanged, jawless (agnathic) faces at joint and transition points in figures
5) Profile faces of animals shown with flared nostrils, a grimacing face, bared fangs, and upward-looking pupils
6) Modular design units repeated to form complex motifs
7) Anatropic organization, in which design elements can be rotated 180 degrees and still be visually meaningful
8) Two adjacent profile faces arranged in such a way that they can create a third face seen frontally

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9) Modular width: the organization of designs in relation to an imagined framework of parallel horizontal bands
10) Bilateral symmetry in relation to a vertical axis.²⁶⁹

These stylistic components are employed to create images of snarling, hostile animals, humans transforming into predatory animals, and hybrid monsters growling with aggressive energy. It is apparent from Chavín iconography that powerful predator animals, such as the jaguar (fig. 3.9) harpy eagle (fig. 3.10), serpent (fig. 3.11), and an Amazonian cayman (fig. 3.12) played a large role in their spiritual lore, as great effort was taken to recreate these animals in the monuments of sacred temples.

Some of the older imagery appears at the sunken circular court, located in front of the Old Temple between the building’s flanking arms. The animal triad reveals itself once again in details carved on the lower-court relief panels. The area was encircled with images showing pairs of jaguars with fanged faces and raptor talons (fig. 3.13), located below another procession of human shamans progressively transforming into hybridized jaguars, possessing feline fangs, raptor talons, snake hair, and holding the hallucinogenic San Pedro cactus (fig 3.14). Stone explains this imagery as a depiction of actual rituals performed by shamans in transformative trances.²⁷⁰

More sculpted examples of human/jaguar transformations, but executed in a very different carving style, were found in the over 40 tenon (pegged) heads, with deeply carved features showing the stage of the transition from human to jaguar. Sculpted to

project from a wall, nearly in the round, these illustrations of human/animal transformation were once attached to the exterior of the New Temple (fig. 3.15). As in the Old Temple relief panels, the New Temple tenon heads depict a transformative ritual ceremony, likely the trance of a shaman, in which the human to jaguar transformation plays a central role.

Within the Old Temple is a monumental incised stone, the Lanzon, featuring an anthropomorphic deity, likely the principal deity of the Old Temple (fig. 3.16).271 One of Chavín’s most important pieces, the Lanzon is located at the end of a narrow, dark passageway within the semi-subterranean temple, a restricted and restrictive space into which only a small group of people could enter. Upon arriving at the end of a darkened tunnel, the details, carved in low-relief upon the stone, only emerge when a viewer has methodically maneuvered around the stone, perceiving it gradually, one side at a time, always in conditions of limited light. An opening in the temple structure above the Lanzon, which would not only conceal a person but amplify a human voice, suggests that this deity may have functioned as an oracle. 272 The Lanzon figure features a human body combined with elements of felines, serpents, and possibly raptors. Feline or raptor claws on the hands and feet, fangs, and serpents substituted for hair. Upturned, “pendant” irises and an upturned nose with round, flared nostrils are also characteristic of Chavin art and appear on this deity.


272 Quilter, Treasures of the Andes, 45.
The *Tello Obelisk* (fig. 3.17), another celebrated Chavín stone sculpture connected to the Old Temple, depicts a different top predator, the cayman. This obelisk is frequently cited as the example of a sculpture with iconography of fauna drawn from all three geographic regions of Peru: coast, highlands, and jungle, combining “tropical forest and coastal symbolism, as did the temple and the cult themselves.” The cayman is accompanied by a multitude of schematic flora and fauna, suggesting that this being might be the originator of these plants and animals.

The *Raimondi Stela* (fig. 3.18), a work not found in its original site but likely associated with the New Temple, is often considered the most exemplary specimen of Chavín art style. The anthropomorphic being on this piece (known as the “Staff God”) shares some of the features of the *Lanzon*, evoking the animal triad: feline fangs, and feline/raptor claws, serpent hair and emanations, and upturned irises and nostrils. However, this figure is depicted frontally, holding two stylized staffs consisting of profile heads and upside down faces topped with other stylized elements: scrolls resembling clouds or water, or possibly plants. One of the stone’s most remarkable features is its anatropic organization (legibility in two directions): when the image is inverted, its headdress becomes a series of reptilian faces nested and embedded within one another.

Despite the intricacy with which it is carved, however, the images on the *Raimondi Stela*, like other Chavín incised sculpture, are barely visible to untrained human

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273 Quilter, *Treasures of the Andes*, 47.

274 Quilter, *Treasures of the Andes*, 47.
eyes, suggesting that people were not the primary audience for the images; deities from
the spirit world may have been the intended audience. The figure depicted is generally
identified as the Staff God, a deity associated with agricultural fertility due to the vegetal
fronds of the staffs.\textsuperscript{275} These examples demonstrate how the Chavín cult was intensely
interested in animals, but transformed them into hybrid supernatural beings. Even the
mighty jaguars of the Old Temple were equipped with raptor talons to enhance their
power. Serpents are ubiquitous as substitutes for hair and bodily emanations, and, due to
the site’s unusual location at a crossroads, imagery of Amazonian power animals such as
the cayman also appear. The feline, however, remains the central power animal.

Impressive birds and hybrid bird beings are also featured in the Chavín Old
Temple, but in a secondary role. A raptor with outstretched wings is found in a panel
along an eastern section of the Old Temple (fig. 3.19). While the outstretched wings are
reminiscent of a bird ascending in flight, this body position also provides a format to
display a concentration of interlocking fangs and faces. With exemplary Chavín incising,
the avian being is kenned with thirty-two profile eyes and fanged agnathic jaws within
four articulated feather wings, one full profile face, and two composite faces within the
body. The outline of the bird itself features a large hooked beak, a tuft of three feathers
upon the head, long talons, and a round \textit{cere} on top of the beak, all characteristic features
of eagles. This image recalls, to some degree, the Huaca Prieta raptor with outstretched
wings of the Cotton Pre-Ceramic period. In Chavín style, however, there is an

\textsuperscript{275} Stone, \textit{Art of the Andes}, 3rd ed., 40.
intensification of composite imagery through the use of kennings, and the bird prickles with aggression and ferocity, emphasizing the potential aggression of the animal. Despite the extreme attention to detail, as with the more famous incised stones from the temple, the image is barley visible to human eyes suggesting that this creature may be a guardian in the spirit world.

The Old Temple also contains an eagle in a very different style, carved nearly in the round and projecting from the architecture into the viewer’s space with commanding force (fig. 3.20). This eagle head exaggerates some of the animal’s features used in predation, such as huge eyes and flesh-tearing beak, carved with the typical Chavín pendant irises and a powerful, hooked beak with the eagle’s cere. This sculpture also conveys strength and power through a remarkable economy of means, without the complex kennings and hybridity typical of the incised images.

Two of the most famous and iconic avian figures from Chavín appear, or barely appear, at the entrance to the New Temple. Etched on the columns known as the Black and White Portal that frame the temple entrance, once again the two winged figures are so lightly incised as to be barely visible (fig. 3.21). When recreated in a roll-out, typical Chavín features become evident: two formidable bird/human hybrid beings are present, both featuring a multitude of kenned and composite faces embedded within their wings, bodies, and ankles, each holding staffs with interlocking rows of teeth (fig. 3.22).

Large, hooked beaks indicate these are birds of prey. The combination of human arms and legs, avian beaks and wings, and feline/raptor talons strongly indicates they are hybrid supernatural creatures. In addition to hybridity, oversized heads and eyes are
typically indicative of an Andean supernatural being. One may be a supernatural crested eagle with female attributes; another may be a male supernatural hawk with sky associations. Aggressive features permeate the image, including the genitalia indicated by fang or tooth-like appendages on the right figure.

Like the *Raimondi Stela* and the *Lanzon*, with their frightening and hostile imagery, the images may have emerged from an aesthetic response close to the sublime. While the sublime is most often used in the context of describing landscapes, animals such as the jaguar and harpy eagle possess a frightening intensity and the ability to kill a person, which adds an element of fear to our admiration of their strength, grace, and power. As residents of the rainforest at some distance from the ceremonial center, these animals might also have possessed an aura of mystery that was intriguing while also threatening, another element of the sublime.

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CHAPTER 4

PARACAS BIRDS

“What wild creature is more accessible to our eyes and ears, as close to us and everyone in the world, as universal as a bird?”


**Making Meaning from Birds**

Long before the Paracas culture record begins, the material culture of Chinchorros and Huaca Prieta reveals that early Andeans were creating meaning in their lives by enhancing death with elaborate artificial mummies and including images in small textile offerings. While scholars such as Junius Bird were cautious in their claims regarding the nature of the narratives associated with these ancient artifacts, it is clear that a level of meaning must have been attached to them, much of it based on elements of the natural world. In the Early Horizon period (see fig. 0.15 for date ranges), making meaning and using the natural world for metaphor continued in the monumental stone art of highland Chavín, integrating symbols from the three Andean ecological zones. Although its subjects were hybridized and diverse, Chavín culture placed an emphasis on the jaguar. When birds appeared, they emphasized their more threatening aspects, such as the talons and hooked beaks of the great raptors, likely to underscore their role as guardians. While the art and lore of Chavín exerted a strong influence over the beginning of Paracas art, the coastal artists ultimately took a very abrupt turn away from the highland prototypes, particularly with inventive avian imagery that likely accompanied a new, more locally-inspired folklore with a dramatic interest in birds.
In Paracas, as elsewhere, elements of folklore can be glimpsed in ceramics and textiles, breaking the otherwise total silence left by the grave goods. Great meaning is also attached to social and familial relations in village chiefdoms such as Paracas, relationships that necessitate a language of symbols. Several studies mentioned herein have already posited some of the values of Paracas society, such as establishing social hierarchies, assuring the continuation of agricultural fertility, and venerating their elite in life as well as death through the practice of ancestor worship.277

This chapter focuses on the role of the bird in these and other possible value systems and narratives. In Paracas, avian imagery in ceramic and textile art was likely related to status in life and the power to navigate the spirit world in death. Birds also accompany trophy heads, which -- collected, preserved, and often buried in caches as part of ceremony -- were apparently one of the most important elements of ancient Peruvian cultural life.278 The appearance of bird impersonators in Block Color imagery also strongly suggests the practice of avian ritual performance in Paracas ceremonial life (see figs. 4.35, 4.36), indicating that Paracas may have been the first Andean culture to engage in this activity. I aim to show that avian imagery was not only a persistent cultural invention, but also one that emerged in its varied forms through the dynamics between the evolved human mind, the Paracas environment, and its social systems.

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Uses of Ethnographic Analogy

The exact meaning that birds may have held in the Paracas minds can only be suggested. Nevertheless, ethnographic analogy, or comparisons between the symbols of Paracas and those of better-documented and/or historical cultures, can enliven the silence left by the objects and images recovered from Paracas graves. This chapter also discusses some relevant myths, symbols, and narratives attached to birds from cultures outside of Paracas that reveal how and why humans in disparate times and places have thought about birds and incorporated them into their literary and artistic endeavors. Ethnographic analogy must be used with caution, however, due to the fact that the “analogous” cultures derive from different times and places from the Paracas art and artifacts I am focusing on. While there are no written or literary accounts to accompany the Paracas birds, their presence in elaborate and varied images compares in many instances with narratives the world over, suggesting that the Paracans likely possessed analogous narratives in oral form.

Waldron and Zoomorphic Iconography

One model for an iconographical project regarding animal imagery and symbolism is the 2010 doctoral dissertation, “Like Turtles, Islands Float Away: Emergent

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279 The “pigeon problem” demonstrates the importance of context. Most people do not have a strong, positive aesthetic response to pigeons, despite the fact that from a detached point of view, their steel gray bodies, colorful iridescent necklace feathers, and cooing sounds are quite lovely. This is likely a result of the association between pigeons and the filth of urban life. This does not undermine the power of birds as a source of art; instead, it shows how strongly we place animals in greater contexts.
Distinctions in the Zoomorphic Iconography of Saladoid Ceramics of the Lesser Antilles, 250 BCE to 650 CE,” written by CUNY Graduate Center alumnus Lawrence Waldron, a specialist in Pre-Columbian Caribbean zoomorphic iconography.280 A central inference of his study is that changes in the visual arts parallel changes in narratives and rituals. Waldron examines distinctions in zoomorphic iconography of ceramic wares to determine the “cultural meanings assigned to zoomorphic ceramics, particularly as they relate to known traditional narratives, ritual and daily life.” Ultimately, Waldron concludes that new regional narratives in the Saladoid cultures emerged along with the changes in ceramic iconography.281 His approach, in my opinion, is the gold standard for an iconographical and iconological study of animal imagery in a culture without written records. Waldron’s theoretical framework is multifaceted. First, it is solidly grounded in species identification and formal analysis, with special attention to the changes in art styles used to depict different species. With what he calls “archives and analogies,” Waldron also employs, with caution, documents from the “conquest and colonial-era accounts of the ritual life and lore of the Amerindians of the Antilles,” as well as ethnographic analogy with a region recognized as an origin place of the Saladoid.282

280 See Lawrence Waldron, “Like Turtles, Islands Float Away: Emergent Distinctions in the Zoomorphic Iconography of Saladoid Ceramics of the Lesser Antilles, 250 BCE to 650 CE,” PhD diss., The Graduate Center, The City University of New York, 2010. For his study, iconography is defined “as the symbolic language of images and the identification and description of this pictorial language. Iconology is defined as the symbolic thought informing iconography and the study of that symbolic thought,” viii.


282 Waldron, “Like Turtles, Islands Float Away,” 60.
Waldron notes that Amerindians categorized animals “based not just on the known usefulness of these species to humans, but also on the human desire to catalogue the environment by naming and categorizing each aspect of it.”283 In his use of the phrase “human desire” to catalogue the environment, Waldron touches upon some of the theories included in my study, such as structuralism. Waldron devised six main categories most useful to beginning an analysis of an animal’s symbolic value to humans:

1. Appearance
   (a) outstanding features
   (b) resemblance or lack thereof to other species considered to be related
   (c) gender and age disparities in the appearance
2. Habitat and/or environment (including seasonal changes in habitat and the larger environment)
3. Behaviors, especially as they relate to
   (a) gender and reproduction
   (b) habitat creation/destruction/occupation/modification
   (c) eating habits and food sources, especially those that the animal might share with people
   (d) diurnal/nocturnal or seasonal variations in appearance, behavior, or habitats and the species’ reactions to celestial or terrestrial events
   (e) directionality (e.g. migrations but also cultural associations between the species and certain cardinal directions)
   (f) shedding, growth, self-modification or other transformations in coating, plumage and/or configuration
   (g) perceived relationship to the elements of fire (including the sun and stars), water (including sacred rivers, lakes, and the sea), earth (including storms and hurricanes), especially if the species changes its relation to these over its lifespan
4. Uses to which the species may be put, whether as food, shelter, regalia, tools,

musical instruments and/or other ritual implements
5. Name of the species in the culture’s language, especially if the linguistic composition of the name bears potentially symbolic content (…).
6. References to the animal in oral traditions, especially as a player in important events that forge peculiar associations not addressed in the above categories.284

Of these categories, numbers one through three are present in some of the symbolic narratives from other cultures relating to birds that I include in this chapter, and they will also be invoked to discuss the Paracas bird motifs. Conquest and colonial-era accounts do not exist for Paracas. Their nearest cultural neighbors in place and time were the related south coast Nasca culture and the north coast Moche (both from the Early Intermediate period, c. 100-700 CE), neither of which generated fully-developed writing systems.285

What my study contributes to the standard methods of iconographical analysis is the suggestion that this need to make meaning from animals may be a biological imperative related to human survival.

**Birds in Narratives**

In literate societies birds are often associated with great meaning and help inspire narratives, or play a key role within them. In non-literate societies, which often have strong oral traditions, traces of these narratives often appear in the visual arts. In an


285 See Jeffrey Quilter, *The Moche of Ancient Peru: Media and Messages* (Cambridge, MA: Peabody Museum Press, 2010). The Moche culture that flourished in the Early Intermediate period on the north coast is exceptional in the Andes for its figural and narrative images. Moche images painted on ceramics and murals, coupled with archeological evidence, allow for some detailed interpretations of cultural narratives involving birds, such as an owl priest.
attempt to conceptualize the narratives that once may have existed in Paracas, it is useful to mention a few of the dominant themes that have been attached to birds. While it would be impossible to identify every example of bird symbolism in human art and culture, even a cursory survey reveals much about how birds have inspired human creativity and imagination, signifying the tremendous symbolic gravity they grew to possess. Nevertheless, as previously established, such associations are not without some ambivalence, with different cultural contexts undoubtedly influencing the specifics of the narratives. For example, nomadic hunters and fishermen saw crows and ravens in a positive light, admiring their cleverness and survival abilities, while later agricultural communities, who viewed them as a threat to their crops, cast them negatively as pests and harbingers of death. Owls, as well, have been cast at opposite poles in human narratives, ranging from emblems of wisdom in ancient Greece to the ignorance of souls living in darkness in the Early Christian era (during which time “darkness and ignorance” were considered as non-Christian traits).

Birds possessed meanings ranging from the souls of the deceased, messengers between the human and spirit worlds, guides, prophets, power symbols, guardians, observers, celestial bodies, gods, goddesses, and warriors. From doves to eagles to hummingbirds, associations abound worldwide. One of the strongest connections found

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threaded throughout numerous cultures is the link between birds and the realm of the dead. Some cultures, such as the Egyptians, believed that birds were actual souls. Swallows, owls, and hawks were seen as the hawk-headed part of the human spirit called the “ba,” feared as an omen of death for a sick family member or young child if they were to strike a window or enter a home.288

In ancient Rome, birds played a role in predicting future events. The Roman practice of “taking the auspices,” or observing the flight patterns and calls of birds, was considered a way of determining the intentions of the gods and goddesses on significant issues.289 Numerous examples of stories of prophetic birds and the ongoing practice of bird divination were an essential part of Roman society. For example, it was believed that Juno’s sacred geese alerted the Romans about the advancing Gauls and saved the city; the pecking behavior of sacred chickens kept in coops with the Roman legions influenced military decisions; and bird-divination determined upon which of its seven hills Rome should be founded. The Augurs were priests who considered the flight patterns, songs, and cries of birds as omens, with the eagle, osprey, and vulture most commonly invoked as auspicious symbols.290

Christians imagined the Holy Spirit as a dove, cast the peacock as the symbol of eternal life, and credited the robin with receiving his red breast as a reward for shielding


289 Easton, Fabulous Creatures and Mythic Monsters, 158.

290 Easton, Fabulous Creatures and Mythic Monsters, 158.
the Christ Child from the sparks of a fire while the Holy Family rested on their flight into Egypt.291

In Han Dynasty China, a key creation myth associates the crow with the sun, too many suns, in fact, that scorched the earth until an archer hero eliminated them and left only one in the sky as the sun of the present age of humans.292

In Mesoamerica, the eagle, quite likely the magnificent harpy and the golden eagles that inhabit the region, feature prominently in iconography from the Formative Olmec on the Gulf Coast (c. 1200 - 400 BCE), to the Pre-Classic through the Classic Maya (c. 200 - 800 CE) to the south and east, and the Post-Classic Mixtecs and Aztecs of central Mexico (c. 1300 - 1520 CE). In the Olmec world, the eagle appeared on precious, jadeite items that may have been receptacles for blood obtained during blood-letting rituals involving perforation of the penis.293 For the Maya, the eagle personified the form of the katun, a unit of time spanning twenty years, as well as the sky, and its Maya name was also a phonetic term for sky.294 A macaw played a key role in their creation myth, as a false sun that was ultimately killed by two heroes, an act which initiated the reign of

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294 Miller and Taube, An Illustrated Dictionary of The Gods and Symbols of Ancient Mexico and the Maya, 82.
humans on earth.295

The eagle was exceptionally important to the Mixtecs and Aztecs, corresponding to a day name. Various birds in addition to eagles were also associated with both the cardinal directions and day names in the Mesoamerican calendar.296 Eagles featured prominently in a myth of the founding of the Aztec capital of Tenochtitlan, and were also strongly associated with both the rising and setting sun.297 Human hearts were known to the Aztecs as cuauhnochtli, “eagle cactus fruit,” and vessels intended to hold human hearts, cuauhxicalli, or “eagle gourd vessels,” were sometimes carved in the shape of an eagle.298

Birds have been used as symbols for nation states from the earliest times to the present day and are frequently depicted on flags and heraldic crests. Further examples of birds as symbols are too numerous to list throughout worldwide cultures.

Birds from Chavín to Paracas


297 Miller and Taube, An Illustrated Dictionary of The Gods and Symbols of Ancient Mexico and the Maya, 83. The eagle landing on a nopal cactus in the middle of Lake Texcoco, feeding on a serpent, was the sign to the Mexica (Aztecs) of the place where they should establish their capital, Tenochtitlan.

In early Paracas ceramic and textile art, the bird surpassed the feline-centered motif inherited from highland Chavin through processes of transformation and invention. It began with one of the earliest and most curious Paracas inventions (likely influenced by an avian prototype), a supernatural figure known as the Oculate Being (fig. 4.1, also see fig. 0.38). The Oculate Being is generally considered to be one of the most important figures in Paracas thought and art for its widespread appearance across media, including ceramics, textiles, and masking. It is present in art throughout the entire Paracas iconographical sequence from the early Cavernas phase through the Necropolis textiles, and will be discussed in more detail in a forthcoming section. Although the figure is generally humanoid in appearance, the large, circular, striking eyes of the Peruvian burrowing owl, as well as the bird’s semi-subterranean habitat and evocative sounds, may have influenced the conception and visual representations of the Oculate Being.

In addition, the Andean animal triad of serpent/bird/feline, as well as an abstract, geometric, double-headed bird (fig. 4.2), frequently appear alongside or embedded within the Oculote Being, demonstrating a close relationship among them. This double-headed bird will subsequently appear independently of the Oculate Being as one third of the Paracas iteration of the serpent/bird/feline motif in the abstract imagery of the Linear Style embroidered textiles (see figs. 0.39, 4.14). Like the Oculate Being, the double-headed bird is among the most widespread Paracas images, appearing in a multitude of garment types and throughout the entire Paracas sequence in Linear Style and Broadline embroidery. It is generally understood as an abstract concept rather than a depiction of a particular species. As such, it does not lend itself to precise species identification,
although the long beak on this specimen type might indicate a seabird as a prototype.

When avian imagery first appears in both ceramics and textiles of the Cavernas period, c. 900-600 BCE, the emergence of the bird represents a break from the forms dictated by highland Chavin. In early incarnations as a head on ceramic spouts, it appears in the abstract as a mere round circle with dots in the center for eyes (fig. 4.3). In later phases of ceramic art, images of different bird species proliferate as both incised and painted figures. One species in particular, the falcon, will eventually be embodied by the entire vessel, with a voluminous form, stylized feathers, and a head and beak molded on one spout (see fig. 4.11). With a spectacular surge of creativity evident during the final phase of Paracas art recovered from the Necropolis cemeteries, Paracas bird imagery explodes in diversity and form in Block Color textiles. Birds of many species appear triumphantly in vivid colors and bold designs, covering the ground cloths of mantles with outstretched wings and twisting bodies befitting their dynamic flight patterns across the sky of the mantles ground cloths (fig. 4.4).

The curvilinear, multi-colored Block Color style lends itself to more naturalistic depictions of birds, many of which can be identified as local Paracas species. Birds can be identified by beak shape, body type, distinctive feather patterns, and certain behavioral details such as the presence of food and prey items accompanying them. My study of bird types builds on the work of Anne Paul, who firmly identified numerous distinct species (fig. 4.5) embroidered on clothing, mantles, and some unidentified garment types in one sample of 112 scientifically excavated mummy bundles from the Museo Nacional de
Among them are adult male and female Andean condors, the Inca tern, Guanay cormorant, black-crowned night heron, falcon, hummingbird, nighthawk, curassow, mealy parrot, and passerine.

In addition to identifying prominent bird motifs, I also categorize them by behavior patterns, ecological realm, and mythic status: as birds of prey, seabirds, land birds, and bird supernaturals, closing with humans in bird costumes (the “impersonators” identified by Anne Paul). For each bird species that is readily identifiable, narratives and myths about them from later Andean, Mesoamerican, Amazonian and other cultures outside of the ancient Americas will be assessed to draw relevant comparisons. These narratives might suggest some of the possible meanings the same birds may have held for the Paracas people.

This chapter is not, however, intended as a complete inventory or catalogue of the birds represented in Paracas textiles and other art forms. My purpose is rather to discuss the species that appear most frequently or are the most perceptually salient embroidery samples. Anne Paul has already established that over sixty percent of all the known imagery and seventy percent of the Block Color imagery from the textiles held in the Museo Nacional de Arqueología, Antropología, e Historia del Perú – the world’s most complete, scientifically excavated collection – depict birds. My contribution will be to

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supply details about the anatomy and behaviors of the avian images’ living prototypes in order to suggest how they may have activated evolved aesthetic responses and, thus, why they may have been chosen as iconographical subjects. Formal analysis will aid in the discussion of both living birds and the embroidered images. More important than what the beings are, however, is the question of why they are there. My proposal is that the images resulted from human minds attracted to the qualities that birds possessed, an aesthetic response that intersected with other human needs and, as a result, were manifested in art.

**Early Birds in Ceramic Vessels**

Clay, with its malleability and easily molded forms and painted or incised surfaces can vary widely in decorative motifs. Since ceramics are frequently preserved, they are appropriate tools to diagnose both cultural exchange and differences between cultures within a given time frame. Changes in ceramic styles and methods of production can also signal major shifts within the same culture over a span of time. Such changes in style are called a sequence. In their 1964 publication *Paracas Pottery of Ica: A Study in Style and Time*, Dorothy Menzel, John H. Rowe, and Lawrence E. Dawson established a ten-phase seriated sequence for Paracas ceramics based on pottery found in the Ocucaje area of the Ica Valley to the south of the Paracas peninsula. They categorized vessel types and addressed technical and material aspects of the ceramics, but most importantly

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they provided a thorough iconographic inventory of them. In this sequence, Phase 1 is earliest, dating to near the beginning of the Early Horizon (c. 900 BCE) and Phase 10, the last and also in the Early Horizon period, (c. 100 BCE). The sequence also stretches into the first two centuries of the subsequent Early Intermediate Period, 100 – 200 CE, in two phases, 1A and 1B. Their sequence is still widely used as the template for Paracas ceramic chronology.

The earliest ceramic vessels from Paracas Phases 1 and 2 show a marked Chavín influence in style, with stirrup-spout handles typical of Chavín, blackware, and frontal, fanged feline faces related to highland stone carving traditions (fig. 4.6). These vessels are believed to be some of the earliest appearances of Chavín influence on the south coast. The similarities with Chavín spouts and frontal faces are so strong, in fact, that some scholars question whether these specimens were actually local creations or highland imports. However, the presence of portable art at the site of Karwa on the south coast, near the Paracas peninsula, demonstrates a mechanism by which Chavín forms could have arrived in the area. Known as the Karwa textiles, these cotton specimens are painted woven cloths clearly of Chavín origin with composite beasts created by the same dense network of abstract, interlocking shapes seen in Chavín relief sculpture (fig. 4.7).

302 Menzel, Rowe, and Dawson, *Paracas Pottery of Ica*, 18.


Anthropologist Alana Cordy-Collins argues that individuals or small groups associated with highland Chavín may have used these items to aid in disseminating the ideas central to the highland Chavín cult/religion/ideology to these distant, south coastal regions.

The arrival of Chavín imagery is generally understood as the formative phase of Paracas ceramics, even in the very early Phase 1, when some distinctive technical and material characteristics were present. However, designs incised in resin applied to the vessel post-firing, double-spout and bridge handles, a south coast form, and a modeled whistle spout all suggest a Paracas ceramic tradition that may have existed prior to the arrival of Chavin motifs.\textsuperscript{305} In Phase 3, the suggestion of bird heads appears on vessel spouts as large circles with dots for eyes. In Phase 4, abstract avian forms such as elongated, abstract birds with large round eyes that seem to glide along the sides of bowls, known as gliding birds, appear alone or alternating with stylized feline heads (fig. 4.8).\textsuperscript{306} By Phases 6 and 7, new vessel types with stylistic innovations, including bottles with handles more fully articulated as falcon heads (fig. 4.9), were increasingly common, in addition to gliding birds and birds in profile. By Phase 8, c. 500 BCE, “local pottery had replaced most of the Chavín influences with new motifs (…)”\textsuperscript{307}

As previously noted, on the Paracas peninsula, ceramics are separated into two

\textsuperscript{305} Sawyer, \textit{Ancient Peruvian Ceramics}, 72.

\textsuperscript{306} Menzel, Rowe, Dawson, \textit{Paracas Pottery of Ica}, 42.

\textsuperscript{307} Donald A. Proulx, “Paracas and Nasca: Regional Cultures on the South Coast of Peru,” in \textit{Handbook of South American Archeology}; ed. Helaine Silverman and William H. Isbell (New York: Springer Science, 2008), 568. These new motifs included birds and a variety of fauna, including the numerous species described in Chapter 1.
main phases by their gravesites: Cavernas, c. 900-600 BCE and Necropolis, c. 600 BCE-200 CE. Ceramics from these burials, as elsewhere, demonstrate innovation and recreation of Chavín models. As Rebecca Stone comments, the Paracas reinvention of Chavín and the eventual transformation into distinctively Paracas forms created one of the Early Andes’ most “recognizable and important” art styles, which she notes “revels” in color, fluid curvilinear designs, increasing naturalism, and the depiction of local flora, fauna, and ritual activities.308

One of the most striking Paracas transformations occurred when the Chavín fanged feline gradually disappeared and was replaced by a full-bodied bird. A specimen of Cavernas pottery (fig. 4.10), emblematic of many vessels of this early type, displays the frontal, feline face with interlocking fangs derived from Chavín imagery. The image is constructed with incised bands of abstract, rectilinear patterns consisting of the layering of parallel lines, with fangs cross-cutting the lines.309 The double-spout and bridge handle seen on this vessel is one of the first places birds appear in art. Understated, but clearly discernable on the handle, are two large, round eyes that suggest a bird. In a later phase, Paracas ceramics included owls, swallows, and falcons in a new color palette: mustard yellow, olive green, terracotta, white and black.310

In pottery from the later Necropolis cemetery, the feline face on the body of the

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vessel disappeared entirely. In one specimen, it was replaced by interlocking bands of zig-zag, braided geometric motifs and dots that suggest a bird’s markings and feathers, transforming the entire vessel into the body of a bird (fig. 4.11). In addition, earlier flat-bottomed vessels now have rounded bases that contribute to the greater naturalism of the new avian form. The colors have become much brighter, another shift away from the monochrome coloration of the imported Chavín style and toward a more distinctively Paracas mode of artistic expression that may also be a reference to plumage. On the vessel’s spout, what began as a tentative suggestion of bird head has become the recognizable painted head of a falcon, with clearly delineated eye markings similar to those of the raptor and a small but pronounced beak protruding from the spout. In this small vessel, merely four inches in diameter, Paracas artists recognized and realized the potential to express the complete bird form and created a charming bird pot.

From Phase 8 on, ceramics featured one of the most important and long-lived Paracas supernaturals, the Oculate Being (fig. 4.13), described as a “humanoid creature with owl-like eyes.” Supernaturally large eyes, frequently outlined in vivid yellow, are certainly the Oculate Being’s most striking feature, giving the being its name. The exact meaning of the Oculate Being is unknown, but many see a connection with shamanism, in which the bird plays an important role, since “large eyes are characteristic of a number of related shamanic elements: nocturnal animals’ round and reflective eyes, especially

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311 Proulx, “Paracas and Nasca: Regional Cultures on the South Coast of Peru,” in Silverman and Isbell, eds., 564.
those of the owl, a prominent animal alter-ego of the shaman (…).” The Oculate Being also appears in three dimensions in multi-colored ceramic masks, frequently including double-headed serpents and small figures that share the being’s large eyes and mysterious grin (fig. 4.12). While certainly impressive in its three-dimensional mask form, the Oculate Being is most frequently encountered in textiles.

**Early Birds in Textiles: Oculate Being**

The Paracas woven textiles and their embroidered figures are the most stunning elements of Paracas funeral art, imbued with meaning at every stage of their existence, from ceremonial use to interment with the dead. All of the textiles discussed are woven from dyed cotton and camelid fibers and were found in the mummy bundles of elite males in the Necropolis cemetery. From the mode of production to the choice of colors, patterns, and iconography, the textiles transform their wearers in both life and death into beings that exceed the ordinary, a dramatic example of making special. Among the most striking features of Paracas garments, particularly the mantles, are the systematic patterns of shape and color that dazzle the eye; some of them approaching the effects of optical games with their rippling columns of colors (see fig. 4.16). In her introduction to *Embedded Symmetries: Natural and Cultural*, Dorothy Washburn comments on the communicative and semiotic role of images, echoing, to some degree, the claims about

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art set forth by evolutionary psychologists and cognitive archeologists previously described:

Imagery that ‘communicates’ is often said to be, by analogy, a form of visual language. The nature of this semiotic role has been actively debated. It is probably more accurate to say that pictures fall at one end of an informational continuum of marks that move through signs and notations and to lettered texts. Beginning sometime during the Paleolithic, artists began developing different formats to express ideas or represent things. It is one of the hallmarks of human beings that we can endlessly create different kinds of visual modes in which to communicate.313

Referencing the complexity of Paracas textiles’ symmetrical schemes, Branko Grünbaum, a University of Washington mathematician, declared “It is rather remarkable that the ancient Peruvian fabrics were able to inspire – thousands of years after their creation – new mathematical points of view on their creation.”314 Pattern recognition was critical for the earliest humans who had a practical need to recognize patterns in the stars for calendrics and navigation. Patterns in surface vegetation on the savannas and partial forest cover in the land could also have led to water supplies and hunting grounds. Tracking the patterns of animal footprints could have further helped locate the preferred prey species. In addition, sensitivity to color helped distinguish edible plants from poisonous or unripe ones.


Anne Paul investigated these systems of organizing embroidered images and the “logic behind the color patterns” in Paracas garments, concluding that these elements of the textiles, far from being merely decorative, encoded meaning about Paracas social categories, generally relating to social hierarchies and spiritual roles. Numerous studies underscore the preeminent role Paracas textiles played in assuring the well-being of people in the afterlife and, possibly, the maintenance of an elite individual’s power while in the spirit world. On top of the weaving (literally, since embroidery is a super-structural technique), within the carefully oriented patterns, and stitched in brilliant color, are the beings and birds to which we will now turn.

To frame the chronology of the appearance of the Oculate Being and the subsequent bird motifs, my discussion follows the example of Jane Powell Dwyer, who utilized Menzel, Rowe, and Dawson’s sequence for her dissertation and book, *The Chronology and Iconography of Late Paracas and Early Nasca Textile Designs*. Dwyer notes that while the Ocucaje sequence is separate from that of Paracas ceramics, the two overlap during the final phases 9 and 10 and Early Intermediate 1 and 2, when “Paracas” is used as a substitute term for Ocucaje textiles.315 The samples discussed here include textiles held by the Brooklyn Museum of Art and the American Museum of Natural History, both in New York, The Museum of Fine Arts, Boston, the British Museum, London, the Lima Museum of Art, and National Museum of Anthropology, Archaeology, and History, Lima, as well as samples reproduced in major publications on Andean

textiles. My discussion argues for the owl as the inspiration for the Oculate Being, assesses the mythical attributes of the double-headed bird, notes some exceptional examples of birds in the Block color style, and cites narratives associated with the same species or specimen-type from other cultures.

Changes in Paracas iconography that moved away from Chavín imagery have been interpreted as reflecting a shift in religious thought, in particular the emergence of a Cult of the Oculate Being that replaced the Chavín Cult of the Feline. In early Cavernas textiles the Oculate Being appears embroidered on garments created in both the Broadline and the Linear styles (see fig. 4.13), and they continued to be created in the Linear Style for the duration of the Paracas sequence. The creature appears on numerous garment types, including mantles, tunics, skirts, and headbands. It features an expression that resembles (to the modern viewer) a grin, and frequently holds a trophy head and ceremonial knife, possible references to ritualized headhunting and collection. Stone suggests that Linear Style images may represent mythical or supernatural figures, communicating “abstract, conceptual ideas, such as the traditional Paracas supernaturals and the interrelatedness of all nature,” in a visual system that remained consistent for over 400 years with a limited range of subjects: the Oculate Being and its animal attendants.

The Oculate Being is humanoid, but also closely associated with other animals,

316 Dwyer, The Chronology and Iconography of Late Paracas and Early Nasca Textile Designs, 12.
principally the Chavín triad of serpent, bird, and feline. Anne Paul categorized the various manifestations of the Oculate Being by using its animal companions as some of its conceptual categories: the flying Oculate Being, feline Oculate Being, serpent Oculate being, bird Oculate Being, symmetrical Oculate Being, seated Oculate Being, Oculate Being with inverted head, and Oculate Being with streaming hair.318 One of the types, the Oculate-Bird Being, features the body of a bird with a human head, sometimes with open wings, triangular tails, and chevron patterns that likely illustrate feathers on the wings and tail; all such beings often possess trophy heads.319

As mentioned, the Oculate Being may have been inspired by the Peruvian burrowing owl, a resident of areas in and around the coastal valleys that still resides in the remains of Paracas settlements (see fig. 1.39).320 With their intense yellow eyes, the owls do, indeed, appear supernatural and otherworldly. Small in size (7.5–11.0” long, 20.0–24.0” across the wings and weighing 4.9–8.5 oz), it is the most common owl of the coastal area, preferring areas nearly devoid of vegetation.321 In the absence of vegetation


such as trees or even cacti in which to nest, the owl makes its home underground in abandoned mammal burrows or underground burrows it constructs on its own. The ancient people of Paracas may have been intrigued by this living arrangement that paralleled their own subterranean dwellings.

Today, this species is known to be quite tame. The owls may also have exhibited this human-tolerant behavior during Paracas times, giving the ancient desert inhabitants ample opportunity to observe their striking features and elements of their behavior. Unlike most owls, burrowing owls are active during the day, yet like most owls they engage in most of their hunting at night, utilizing their distinct advantages of night vision and acute hearing to prey on large insects and small mammals. Living in the open areas as opposed to forests has necessitated unusually long legs designed for occasional short bouts of running, an adaptation not present in other owl species.

The owls’ mature plumage is brown with white spots on the wings and abdomen. Faces are flattened and disk-shaped, with bright eyes that are highlighted with white “eyebrow” feathers that bear some resemblance to human brows. With their somewhat round faces and frontally placed eyes, owls also possess a slightly anthropomorphic appearance, which may also have enhanced their appeal as prototypes of supernatural, but humanoid, beings. These features may also help in creating the illusion of age-related wisdom that is often attributed to the owl, the “wise old owl” being a frequent motif in human narratives. While their feather patterns are attractive, they are subdued and

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322 Byers, *Birds of Peru*, 75.

323 See the English nursery rhyme, “A Wise Old Owl”: “A wise old owl lived in an oak,
understated, meant to provide camouflage. The eyes, however, appear almost other-worldly due to their unusual color, framed by round faces with feather accents amplifying their intensity.

Owl eyes, with their reflective properties and ability to see in the darkness, could certainly have fired the imaginations of ancient Paracas artists. Thus, it is highly likely that this Oculate Being, the first distinctly Paracas supernatural independent of any highland source, was imaginatively inspired by the coastal burrowing owl with its intense eyes, slightly anthropomorphic features, and its association with the underground and realm of the dead.

**The Double-Headed Bird**

The bird continued to populate Paracas textiles independently of the Oculate Being, in one instance as a double-headed bird (4.14). In the Andes, as elsewhere, a two-headed being is emblematic of a supernatural, and this “bicephalic,” bird may indicate that the being was an avian deity central to a Paracas myth. Discussing the origins and significance of the double-headed bird, Dyer points out the continuity with some of the earliest Andean art, such as the textiles of Huaca Prieta discussed in Chapter 3. She echoes the claims of Bird, Stone, and others who place these double-headed birds in the

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the more he saw the less he spoke, the less he spoke the more he heard. Why can't we all be like that wise old bird?” Iona and Peter Opie, *The Oxford Dictionary of Nursery Rhymes*, 2nd ed. (Oxford: Oxford University Press, 1997), 340-1.
realm of mythic creatures, reflecting “early cosmologies or mythologies.” Dyer further notes the persistence of the image throughout the entire Paracas textile sequence, its assimilation of the geometric qualities of Cavernas textiles during this phase, and its early interdependence with the Oculate Being, suggesting each was part of the same cult. The stylized, abstract Linear Style embroidery makes precise identification of this bird species difficult. The prominent eyes evoke the owl and a relationship to the Oculate Being, while the long, thin beak resembles that of numerous sea and shore birds such as oyster-catchers and sandpipers. Examples are highly geometricized, with hexagonal heads and long, straight beaks attached to a rectilinear bodies and angular wings, with feathers merely suggested by straight stitches emanating from the wings. Typical of the Paracas style, birds are embedded within other, larger birds, and attended by felines just outside the edge of their bodies. The double-headed bird’s strong visual impact comes from its bold colors, patterns, and clear, linear geometry; its oversized eyes also create an especially strong impression. Closer inspection challenges a viewer to discern the hidden and disguised animals within the larger figure, an optical and intellectual challenge that reveals the consummate skill and conceptual sophistication of the Paracas artist.

Ethnographic analogy with cultures outside of the Americas reveals that that double-headed birds are frequently utilized as power symbols for cultures, courts, regions, and cultures. In the arts of the Mesoamerican Maya culture, for example,

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numerous “bicephalic monsters,” two-headed beasts with various animal attributes, populate their iconography. Hieroglyphic records from Maya culture indicate that a bicephalic being was associated with the sky and the cosmos. However, the Maya beasts possess reptilian bodies that had more in common with some of the creatures of Chavín, such as the cayman of the Tello Obelisk. In addition, they feature elements of fauna from the Mesoamerican world, such as deer, cosmic symbols reflecting the Maya awareness of the cosmos, and some avian elements. Double-headed eagles have been present in human cultures as power symbols for millennia, from the Hittites to the heraldic and flag images of the Byzantines, Holy Roman Empire, Austrian and Russian empires. Evidently, two heads are better than one, possibly amplifying the animal’s power.

Beginning around 600 BCE and continuing to 200 CE, Block Color embroidery demonstrates a flowering of creativity and invention on the part of Paracas artists. In Block Color embroidery, curvilinear figural forms filled in with stitches, creating areas of solid color, have replaced the abstract outlines and embedded images characteristic of the Linear Style. The freedom of this new method allows for a great deal of experimentation and new formal configurations within the imagery. Some of the technical and iconographic experimentation in textiles of the Necropolis period can be explained by a

decrease in the production of ceramics; suggesting that Paracas artists needed a new medium on which to convey new mythological figures. Dwyer further explains how the increasing skills of Paracas artists paralleled what appears to be a surge in local folklore and myth:

> With this growing technical versatility one can also observe an increase in the diversity of thematic material, especially in Paracas 10B. There appears a proliferation of different mythical beings represented on textiles, both syncretic and new forms. (…) As pottery became more rare, the imagery of Paracas mythology was transferred to textiles.329

Dwyer also notes that this change comes about without evidence of invasion or foreign influence; rather, the experimentation with new textile techniques and images reflects an internal shift within Paracas culture that gradually transformed the traditional motifs, the serpent/bird/feline, into new forms.330

By the end of the Early Horizon and the first two centuries of the Early Intermediate period, the final phase of Paracas art, the figural imagery in textiles was so diverse that Anne Paul commented there may be as many different figure types as there are garments.331 Humans are among the new figural types represented in Block Color,

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331 Dwyer, *The Chronology and Iconography of Late Paracas and Early Nasca Textile Designs*, 214. Dwyer also notes that following the final phase of Paracas textiles, ceramics again became the dominant, but not exclusive, medium for representing cult and religious motifs, leading into the elaborately painted textiles of the Nazca period.
displaying decorative ceremonial costumes, including what appear to be feather
headdresses, fans, feather batons, or staffs (see fig. 5.7 – fig. 5.15). These images, their
headdresses, and accessories, as well as the actual feather fans included in the bundles,
will be discussed in Chapter 5, “Gendered Feathers.”

Within this diversity in the Block Color Style, the bird emerges as the most
frequently depicted animal, and the level of detail with which the birds are embroidered
makes it possible to identify and categorize individual species.332 Outstanding examples
of birds and what appear to be supernatural human/bird hybrid beings begin with the
most iconic Andean bird, the Andean condor.

Birds of Prey

Hooked, flesh-tearing beaks and large talons for grasping live animals distinguish
the raptors from other birds as meat-eating birds of prey. From ancient times to the
present day, these powerful birds have captivated the people of the Andes, as elsewhere,
with size, strength, and agility. Some members of the raptor family are vultures,
scavengers that feed on carrion, including the Andean condor and turkey vultures.
Turkey vultures, although common along the Peruvian coast, do not appear in Paracas
iconography. Apparently, exposure to the Andean condor, a less frequently appearing,
but much larger bird, made more of an impression on Paracans, as did the smaller but

332 Again, the following discussion is not intended as a complete inventory of Block
Color birds; as mentioned in Chapter 1, with 75 percent of the known Block Color fauna
iconography depicting birds, a description of each specimen is outside the scope of the present
study.
spectacular Aplomado falcon. The infrequent appearance of these birds may have added to their appeal as sublime creatures: fascinating in their unfamiliarity.

**Condors**

Andean condors are distinguished from the more common, coastal turkey vultures by their enormous size, fleshy protuberance above the male’s beak, loose neck flesh, white collar and white wing patches, and long, “fingered” flight feathers that are visible when they take to the air (see fig. 1.32). As carrion feeders, the condor’s relationship with death and decay has certainly intrigued onlookers, and as consummate soaring birds that do not even need to flap their wings to remain airborne as they draft superbly on thermal currents, they have evoked comparisons to messengers of the gods. As noted in Chapter 1, condors are not native to the coast; they nest in the foothills and highlands in harsh, desolate, and inaccessible places such as high rocky ledges over steep cliffs and gorges. Silent and solitary except when mating, they can cover large distances in a single day, from highlands to coastal regions, thereby “visibly uniting different domains within the Andean cosmos: mountain and coast, land and water, high and low. Significantly, the condor was called *Apu Kunter* by the Incas, which means “the one who carries our prayers to the gods.”

The feeding habits and diets of condors may have helped them earn mythical status as beings that are associated with the physical transformations that occur with

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death: by consuming death, the life cycle continues. Coastal Peruvian cultures post-dating Paracas, such as the Moche from the north coast (c. 200 CE – 800 CE), fed human carcasses to scavenger birds, thereby sacrificing them to the earth as they devoured them on her behalf, as well as practically disposing of the bodies.334 This association with death and sacrifice is also present in areas far outside the Andes, such as northern Europe, where corpses were left in the open air for scavenging birds, even generating a Shamanic myth of a bird goddess who cleaned the flesh off of the bones of Shaman so that they could be reborn.335 The concept of a vulture as a decapitator has a precedent in the ancient ruins of Çatal Höyük, a site in Asia Minor, where a cave painting depicts vultures and human vulture hybrids decapitating the heads of the deceased.336 Finally, “though seldom observed in nature, the notion of a bird ferrying fresh kill -- the recently deceased -- to a mountain roost is consistent with the Aymara [ancient Andean] conception of death as a journey from west to east, into the highlands.”337

Evolutionary psychologists have taken notice of the appeal of the condor through great geographic and chronological spans. This appeal could be fed by both biophilia and our natural history intelligence encountering an inevitable element of human experience:


335 Easton, Fabulous Creatures and Mythic Monsters, 52.

336 Easton, Fabulous Creatures and Mythic Monsters, 52.

death. From a formal standpoint (considering the form of the birds and how this might stimulate human senses), the evolved aesthetic response to vultures such as Andean condors likely runs closer to the sublime than the beautiful. When seen up close, the condors have a rather rough and wrinkled facial skin and the males possess a fleshy protuberance, called the caruncle, over their beaks, as well as large, reptilian-looking feet. When in flight and seen from the vantage point of humans, however, their soaring silhouettes strike a chord, awing onlookers with grace, strength, and an enormous wingspan of three meters or more, as described by Moraga:

Gliding and soaring at a lofty height, or idly riding thermal air currents for many hours at a time, Andean condors always present a breathtaking sight. Darkly silhouetted against the sky, the bird’s immense wingspan and deeply fingered, upcurved wing tips are unmistakable from far below. As the largest vulture in the Andes, indeed the world, this colossal bird is naturally identified with the magnificent mountain range itself. Its image embellishes coats-of-arms of several modern South American nations (…).338

In Paracas textiles, the condor typically appears as a solitary bird, often as a solid-color silhouette (a representational choice that is unusual in Paracas embroidery), without accouterments or trophy heads. Keeping in mind the funerary context of the art, however, the connection between the bird and the spirit world is already implied. Splendid Block Color condors stretch out their wings across a large mantle (fig. 4.15) that features a plain weave, navy blue ground cloth adorned with Bock Color condors in alternating colors: green, navy blue, and orange. The background of the border is deep red, with an unusual, subtle chevron pattern created by adjusting the angle of the stitching. In addition, the

condors on the border are oriented transversely (up and down), rather than right to left, an orientation used almost exclusively for condors and humans with condor attributes and sometimes for falcons. On both the ground cloth and border, the condor is depicted as if seen from below, with a turned head and beak seen in profile. The fleshy caruncle, or protuberance, on the bird’s hooked beak and the long flight feathers securely identify the bird as a condor.

Another mantle with a field of color squares arranged in a checkerboard motif features smaller condors enclosed in the units that create an dazzling, rippling effect across the mantle’s surface (fig. 4.16). A wrap-around skirt displays Block color condors as if they are perched on the ground with wings raised, and detailed faces seen in profile with clearly articulated, alert eyes and the birds’ distinguishing caruncles prominently rendered (fig. 4.17). At the base of the skirt, the condors appear in compartmentalized units of four colors: green, yellow, navy, and red; the birds’ bodies also alternate in the same four colors, in contrast to the background colors. On the ground cloth, ten paired columns of condors, also enclosed in colored squares but smaller in size, connect the base border with the top of the skirt (fig. 4.18). One of the most creative interpretations of the condor can be found on a poncho (fig. 4.19). Block color condors (identified by their caruncles) appear to be in flight, alternating in a right/left pattern on the red edges and border areas around the poncho’s neck opening. On the black ground cloth, the same motif appears in miniature within red squares arranged in a checkerboard pattern. These

339 Brooklyn Museum of Art, Arts of the Americas Collection, document no. 34.1553.
condors are created in a fabulous array of colors: pink, light pink, purple, yellow, mustard, gray, green, navy, light blue, and black, with each of the large birds featuring four different colors. Following the ideas of Dissanayake, adding a condor to a textile made it special, enhanced the ritual efficacy of the garment, and heightened the power and prestige of the man wearing it.

Falcons

Paracas embroiderers also gave great attention to the beautiful Aplomado (Spanish for lead-colored) falcon (see fig. 1.35). Although this species is most frequently found at higher elevations, like the condor, it visits the coastal region to take advantage of the marine bounty. Aplomado falcons possess dark brown-grey feathers on their heads and upper bodies contrasting with white stomachs and white areas on their heads that accent their large, dark eyes. Their bodies are slightly elongated and more tapered than other falcons, giving them an elegant appearance when perched and still. One of their most striking attributes are the dark, arrow-shaped markings around the eyes, which, when recreated in the embroidery, help identify the species. Other distinguishing characteristics are the white stripes visible on the outside of the tails. Even more distinct and dramatic white stripes become visible when the wings are outstretched and tails fanned to hover over prey. In the air, the Aplomado is a distinguished flyer, hunting by capturing other birds or snatching small reptiles and airborne insects in flight. Aplomado falcons can also seize reptiles and small rodents from the ground and fish from the sea during low, fast flight. Human eyes can easily admire the tapered elegance of the bird’s
forms, grace in flight, and hunting agility. As a symbol, the falcon is recreated in

ceramics and textiles, and their distinctive eyes are recreated on the painted faces of

warriors, shaman, and bird impersonators, “tacitly linking such personages with

swiftness, ferocity, and hunting skill.”

In textiles, the Aplomado appears frequently in the Block Color Style, identified

by their distinctive eye markings and stylized, banded patterns on the wings and tail (fig.

4.20). Referring to images of falcons, Moraga notes how “artists played with the color

combinations and symmetry of repeating patterns, producing birds with marvelous –

but highly imaginative – plumage. This vibrancy speaks of the birds’ symbolic association

with the properties of light, especially the dazzling brilliance of sun and fire.”

A double-headed falcon with snakes also evokes power; one example evokes images of

present day flags and heraldic symbols (fig. 4.21).

Even when harnessed in fabric, falcons can appear eminently dynamic. In another

large mantle featuring the bracket border and checkerboard motif on a dark blue plain

weave ground cloth, solid-colored falcons in dark blue, yellow, and green, with precisely

stitched, multi-colored eye, wing, and tail markings typical of the falcon twist and turn

(fig. 4.22). On the ground cloth, the birds twist and curl within their color compartments,

almost as if they are embryos swirling inside an egg, while on the border bracket, the

falcons, once again like the condors before them, are arranged transversely. The fluid,


340 Moraga, Animal Myth and Magic, 121.

dynamic positions might also have been inspired by the observations of the dives and turns falcons can execute in mid-air. Mary Frame suggests a different interpretation of the posture and positions, suggesting that this bent-back posture indicates a relationship to “sacrifice and prey,” or as various phases along a continuum of transformation.\textsuperscript{342} While Frame’s argument for transformation is compelling, it is also worthwhile to take notice of how the choices made by Paracas artists might also be explained by the aesthetic response to the beauty, vitality, and dynamism of the birds.

### Seabirds

Seabirds impress with form, color, and especially quantity. Of the hundreds of species of sea and shorebirds in the Paracas region, relatively few appear in the textiles, suggesting that those that were selected must have held great meaning for them. While the birds’ formal qualities and aggregations are stunning, as with other species, adapted behavioral life patterns may also be a factor in how humans responded to them. The fishing activities of terns and cormorants must have resonated strongly with Paracas people who also depended on marine resources for survival. Spectacular and engaging courtship displays also make quite an impression on onlookers. Flamingos, a migratory species that gathers on the Paracas shore during the breeding season, for example, are famous for their mating dances. The arrival and departure of migratory sea birds also signal the changing seasons, and they may have indicated to human observers “the

\textsuperscript{342} Brooklyn Museum of Art, Arts of the Americas Collection, document no. 34.1558.
location and bounty of offshore fishing grounds, or monitor the effects of the El Nino current.” While they may very well be signifiers of fishing activities, some species, such as the Inca terns, have an unmistakable and highly appealing “cuteness” (see fig. 1.30). “Cuteness” has also been recognized as a legitimate aesthetic category. As Stephen Davies explains:

> The philosopher John Morreall argues that cuteness is an aesthetic category (and that our reaction to it is an evolved response). So far as ‘high art’ is concerned, cuteness lacks seriousness and subtlety, he observes, but this shows that it is a second-rate quality for Fine Art, not that the reaction is not aesthetic in nature. Though not everyone would agree, I share the view that cuteness should count as an aesthetic property.344

The adaptive advantage of responding to cuteness is likely tied to adaptations for childrearing –beings that are small, round, and somewhat vulnerable are appealing in a childlike way, in a word, cute.

**Inca Terns**

Inca terns appear on the border of some small textiles (fig. 4.23). Too small to be worn and with no opening for the head or neck, an item such as this one would likely have functioned as an offering alone. These small offerings may have been intended to commemorate the activities of a man who was a fisherman during his life and might have needed to perpetuate his power in the afterlife. The terns appear in an alternating pattern,


unmistakable because of their white moustaches clearly delineated by the embroidery. Unlike some of the other birds identified in Paracas textiles, terns do not live outside of the west coast of South America and, thus, are not present in narratives that can be used for comparative purposes. Nevertheless, our aesthetic reaction to them is strong. In the present day they are used frequently in images intended to promote the Peruvian coast and their “moustache” has given rise to humorous comparisons between the terms and hatted gentlemen. The Paracas artists may have had a similarly positive and affectionate reaction to the birds, one tied to their appeal. This may be why they were chosen to decorate smaller textiles rather than selected as the dominant motifs of large mantles, despite being medium-sized birds.

Cormorants

Noisy and gregarious fishing birds, cormorants are among the most numerous in Paracas (see fig. 1.18). In air, they fold their wings to make steep and dramatic dives, torpedoing through the water to depths up to 100 feet. When swimming at the water’s surface, they skim with bodies riding so low that they almost disappear, while their heads and necks appear almost serpentine. After fishing, cormorants sun themselves on rocks to dry, often with pelicans (see fig. 1.19), and frequently extending their wings to dry in a stunning display.

The cormorant is a also feature of Mesoamerican arts of the Maya, native arts of North America, and ancient Chinese funerary arts. They appear on Maya pottery, possibly in association with the rain God Chaak and as elements of the myth of the Hero
Twins, the protagonists of the Maya creation myth, the Popul Vuh. In the Maya narrative, they appear with the heroes catching catfish, in a role that is not entirely clear, but, due to their facility in both air and water, are described as “clearly a liminal, transformative figure.”

In North America, the Koniaq people of Kodiak Island carved cormorants onto their boat decks, possibly believing that the image assisted the hunter’s vision and helped guarantee a good catch; in addition, cormorant skin was used as the basis for Arctic women’s dance and marriage headdresses.

In China, where cormorants were employed by fishermen as assistants (see Chapter 1), cormorants appeared on burial jades from the Shang and Zhou dynasties. Due to their fishing prowess, they may have been intended to provide food for the dead.

In the Andes, the coastal Nasca culture also invoked the cormorant image in much of their pottery and, spectacularly, in one of their zoomorphic geoglyphs, enormous images created on the Nasca floodplain. In Nasca, the bird appears with an elongated beak and zig-zag neck, possibly a reference to the birds’ ability to dive and plunge in such a pattern or to the characteristic zig-zag shake of the birds’ necks as they swallow their fish.

A Block Color poncho, currently identified as simply, “with birds,” possibly depicts a series of cormorants: the long, curved necks resemble those of the cormorant bird (fig. 4.24). The standing birds, alternating transversely in red brackets bordering an

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346 Werness, *Dictionary of Subjects and Symbols in Animal Art*, 104.

olive green ground cloth and the red border of the neck slit, are as beautifully and imaginatively colored as the condors and falcons that appear on similar garments. Yellow, green, navy, and blue bodies are electrified by striping in light pink, white, navy, blue, green and yellow. The birds have slightly elongated necks and beaks that are similar to the cormorant. The outstretched wings are also a familiar sight to those accustomed to watching cormorants dry their wings after a dive, and the triangulated tails also resemble the shape of a cormorant’s tail when the bird is at rest on land. Other garments have birds more securely identified as cormorants due to their long necks and the presence of fish in their mouths. Some small fragment and border cloths, with birds once again labeled “unidentified,” share some shorebird characteristics: long legs for wading and beaks for probing sand to find food.

Of the multitude of seabirds in the coastal environment, the species chosen for textile art, the Inca Terns and the Cormorants, possessed aesthetic qualities recognized by the Paracans, numerous other cultures, and present-day bird enthusiasts. The Inca Tern, for example, is still widely used as a symbol to advertise the Peruvian coast and lure tourists to the area.

**Land Birds**

Some species of land birds, those that dwell in or near the ground or low-lying vegetation, also appear prominently in Paracas iconography. Birds such as these live and

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hunt quite differently from their counterparts at sea or the mighty soaring predators that visit the coast from the highlands. Land birds include the smallest species of birds in the world, hummingbirds, which range from seven to thirteen centimeters and include the world’s smallest known bird, the bee hummingbird, a tiny creature only five centimeters in length. Others, such as the previously discussed burrowing owls and their relatives the nightjars (see below) have evolved camouflage as a protection strategy since they lack the beaks, talons, speed, size and large colonies that keep other species safe from predators. Some also vocalize in mournful and evocative ways. Often solitary, furtive, diminutive, fast moving, sometimes nearly invisible or active only during low-light hours or the night, these birds often impress humans in more subtle ways than their large, soaring, and sea bound and innumerable brethren.

**Nightjars**

A species of land bird readily identified in Paracas imagery is the nightjar, colloquially known as the “goatsucker” (see fig. 1.37 and fig. 1.38). In the southern Andes, the nightjar is found in areas ranging from the desert to loma fields and the western Andean foothills. Small birds with mottled grey and brown plumage, nightjars possess elongated, tapered wings that give them a body shape resembling a small, ground-dwelling falcon. When still, the camouflaged bird nearly disappears into the sandy ground, rendering it somewhat elusive and mysterious. In addition, nightjars are crepuscular birds, meaning they are active at dawn and dusk. This presence, at transitional moments in the day, may have resonated with the ancient populations, since
they may have credited the birds with initiating the transition. The nightjar also possesses a mournful twilight song, one that might have evoked comparison with the spirit world. Nightjars hunt insects with elongated whiskers that trap their flying prey. This feature gives the animal a curious hybrid appearance that may have appealed to the Andean penchant for hybridity and transformations. Moraga remarks, “perhaps the trait elicited comparison to felines and otters, just as the nightjar’s banded tail and wings would seem to recall the revered falcon.”

The nightjar is prominent in mythic narratives in Europe, the Amazonian lowland, Caribbean, and the Andes. Apparently, its twilight and nighttime activity has aligned the bird with the spirit realm. In the Caribbean, for example, Waldron observes that the seldom-seen nightjars greatly outnumber the “pretty birds of the daytime,” suggesting that their association with activities of the spirit world created more compelling “symbolic imperatives” for the local artists. In Europe, the nightjar was known as a “witch leader” or “death bird,” while in South America, where over sixty species of nightjar exist, ambivalent symbolism ranges from death, to decapitation, to abundance. Some tropical lowland cultures, such as the Tukuna and Kalina, believe nightjars are souls of the deceased who intend to prey upon the living; the eastern Brazilian Kayapo and Timbira associate the birds with headhunting and decapitation, still other Amazonian cultures feel that bird is a companion of water spirits, or an evil

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spirit itself. In Bolivia, however, the nightjar’s song coincides with the start of the rainy season and is associated with a favorable time of agricultural abundance. The multifaceted meanings, relating to both death and regeneration, make the nightjar an especially appealing symbol for a funerary artform such as Paracas textiles.

On textiles, the nightjar is most often depicted as if seen from above (figs. 4.25), possibly because of its small size, ground-dwelling lifestyle, or to emphasize the round, intense eyes. Nightjars from numerous mantle border features exaggerated, spiraling whiskers that securely identify the bird. These whiskers might enhance the bird’s evocative resemblance to a feline, while the broad, triangular beak, abstract squares suggesting the dappled markings of the feathers, and large, round, mysterious eyes originate from the bird’s appearance.

**Hummingbirds**

Hummingbirds are indigenous to the Americas and common in North America, Mesoamerica, and the Andes. Peru alone is home to one hundred-twenty-seven known species. One of the most common along the lowlands and coast is the Amazilia

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hummingbird (see fig. 1.40), a species preferring dry and semi-open habitats such as the coastal river valleys. The Amazilia was the species most likely to have been encountered by the Paracas people. It is one of the larger hummingbirds, with plumage ranging from white to green and blue, with hummingbirds’ characteristic iridescent feathers on the neck and chest.

Mythology surrounding the hummingbird is among the most familiar in the world, yet also highly varied. Familiar themes such as fertility frequently emerge, since the hummingbird is closely associated with the vibrant flowering plants on which it feeds, themselves primeval reminders of fertility and abundance. Yet hummingbirds possess a ferocity that belies their small size, a quality much admired by ancient Americans, and, as Moraga points out, “indigenous peoples also conceived of the lance-like bill plunging into the calyx of a flower as a weapon, thereby acknowledging the bird’s pugnacious nature and aggressive territorialism.” In addition, their extremely rapid flight movements in all possible directions, backward, forward, and upside down, render them almost undetectable and give them a magical appearance during flight. In Mesoamerica, hummingbirds feature prominently in warrior culture. The Aztec solar warrior god, Huitzilopochtli, was associated with hummingbird’s speed and multi-colored iridescence that elicited comparisons to the brilliance of the sun. Other cultures draw more

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surprising associations that are more culturally specific. Inhabitants of the Amazon, for example, see the long, probing beaks as “an analogy for the way in which indigenous Amazonians extract the deadly but invisible “spirit darts” from the sick and wounded.”

The adaptations that make hummingbirds striking and unusual, such as highly specialized beaks, hovering flight skills, and an ability to become dormant overnight to withstand cooler temperatures, also eliminate much competition from other birds, contributing to the success and wide distribution of the species.

On textiles, these somewhat magical features of the hummingbird might be why they appear as tiny figures on the neck and edge of a fringed tunic, alternating in yellow, red, green, and navy (fig. 4.26). In a larger border motif, Broadline hummingbirds alternate transversely in yellow and green, with smaller birds in purple and navy surrounding them and nesting between the wings, accompanied by faces that may be trophy heads (fig. 4.27). In another border cloth, two rows of paired red and yellow Block Color hummingbirds appear to sip from an abstract object in a more direct reference to their relations with plants (fig. 4.28). On another border cloth pairs of hummingbirds sip nectar from a flower (fig. 4.29). The choice to depict hummingbirds in vibrant colors, with plants, and possibly trophy heads may signal a predictable association with agricultural fertility.

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Supernatural Birds

The fantastic supernatural hybrids of Paracas deserve a place among the world’s pantheon of mythological, human-bird hybrid creatures. Paracas Block Color textiles feature human bodies with raptor talons, bird tails, masked and decorated heads and dramatic outstretched wings, streaming appendages and often clutching trophy heads, all stitched in vivid colors (see fig. 0.3, a particularly complex specimen). Some of these hybrid figures appear to be in flight, engaged in ferrying powerful trophy heads to the spirit world. Unlike the previous examples discussed, the hybrid figures have no counterparts in the natural world. Rather, they appear to be nearly widespread creations of the human mind that manifest in many geographically and temporally distinct human cultures.

In Greek mythology, for example, the harpy (a being that gave its name to the magnificent and formidable Harpy eagle) is defined as a “birdlike female monster (…) with either birds with faces of women or women with the wings, heads, and talons of birds.”\textsuperscript{359} Monsters, for their part, have been defined as “creatures that combine more than one shape, often human and animal together,” and are a common and noted feature in Greek myths and Jewish apocalyptic literature based on even earlier western Asian sources.\textsuperscript{360} A redacted version of the harpy myth may have survived as the Christian


\textsuperscript{360} Hall, \textit{Dictionary of Subjects and Symbols in Art}, 212.
angel. The figure has surfaced again in the present day making a strong appearance in the 2014 Disney film *Maleficent*, featuring a winged female “monster” as the protagonist; in the updated version of the fairytale, Maleficent was the benevolent queen of the fairies until she was wronged and betrayed by a human. Batman, the wildly popular culture superhero with a dark, brooding psychological intensity befitting an association with a winged creature of the night, also comes to mind.

While animal/human hybrids from many species are present in Block Color figures (see Chapter 1 for examples of feline/shark/monkey hybrids), the human-bird supernatural hybrid is among the most prominent and impressive of these image types. One specimen among many, in flight across the navy ground cloth and yellow border of a funeral mantle, has a human body with wings and bird feet (unmistakably avian in nature due to the toe and talon anatomy), ornately costumed with a large headdress and representations of multiple gold forehead ornaments (fig. 4.30). The figure carries multi-colored ceremonial staff implements in one hand and trophy heads in another, with additional trophy heads appearing within the segments represented on the tunic and the outstretched wings. Another being flies horizontally, with the assistance of what appears to be a parrot, and also transports a trophy head in one hand (fig. 4.31).

Another striking supernatural hybrid appears in red blocks in a checkerboard pattern across a mantle’s ground cloth and on its borders. Clearly based on the nightjar, the figure has the exaggeratedly long, spiraling “whiskers” and striped tail that are associated with representations of the species (fig. 4.32). In addition, the being possesses other outstanding features such as bold, strikingly avian feet, trophy heads for ankles,
snakes substituting for wing feathers, and a fantastic costume featuring a loincloth, multicolored tunic, long ear ornaments apparently swaying with the motion of the figure, and representations of a large headdress with gold forehead ornaments and tufts that might represent feathers. This individual also carries a trophy head in one hand and an instrument, possibly a knife or fan, in the other. These beings, in flight, seem to be ferrying these severed trophy heads to another realm. The motif elicits comparisons to the Greek harpies, described as “snatchers” who would seize people and carry them away.  

Another hybrid figure type possesses striking wings, yet does not appear to be in flight in the same manner as other beings. Like the nightjars, it is depicted on a mantle with a composite view, as if seen from multiple vantage points with a frontal body and a head seen from above (fig. 4.33). This individual possesses what are recognizably human feet with five toes, although, curiously, they are in profile but depicted as if seen from above, and heavy legs seemingly planted on the mantle. The torso is covered in a man’s tunic and loincloth, and human arms and hands hold a knife/fan and fish in one hand, and a fringed staff in the other. The figure also has large, impressive wings, with long, separated, multi-colored finger feathers, and a solid-colored tail. The head, also seen as if from above, might be the abstract head of a nightjar, recognizable by the round, intense eyes and “whiskers” growing from the bottom of the face. Two condor heads are

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emanating from the top of this bird, each with a caruncle and small, abstract face. A whole bird with outstretched wings, possibly also a condor, grows out of the being’s wide-open mouth. Another of this type of composite being on a different mantle is composed of the bodies of falcons, with two birds taking the place of the wings and emanating from the gold mouth whiskers (fig. 4.34). Yet another winged figure of this type on a mantle appears in a horizontal fashion, with condors growing from the head, snakes surrounding the eyes, and trophy heads on the wing and emanating from the mouth (fig. 4.35).

The bird in the mouth may be a stylized symbol of a trophy head, and the placement in the larger figure’s mouth may be a reference to its ritual consumption. Animals with other animals in their mouths are a frequent motif in Necropolis images that may coincide with a rise in the practice of ritual head-taking and caching, a practice observable in the archeological record, that occurred in this later phase of Paracas culture. For example, caches of trophy heads were found at Paracas cemeteries in Ocucaje, with two heads were placed upon a foundation of leaves from a pacae fruit tree and accompanied by tiny maize cobs and ceramic shards. Other caches featured thirteen heads covered by a cotton cloth, some of which had holes in their foreheads where cords had been inserted for their transport and display. Some analysis of the heads

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indicates they were not those of the revered ancestors, but the heads of younger men. In some cases, “formal caching and secondary burial of heads was a gesture of offering designed to propitiate or feed the ancestors.”365 Some hybrid birds with an amalgam of avian traits may also demonstrate another element of Paracas relationship with trophy heads: their ritual consumption. An association between birds and headhunting, including head-tasting, is documented in narratives from the Amazon in relation to the Nightjar (see previous section), and art of the Pacific. In the Asmat culture of New Guinea, for example, tropical fruit-eating birds were strongly associated with headhunting, as their diet was seen as analogous to the humans’ feasts of trophy heads. In a description of some of the imagery of Asmat poles carved from mangrove trees, “birds carved on the poles eating fruit from the trees symbolize the headhunter who eats the brains of his captive.”366

The extreme concentration of details in Block Color images may likely relate to fertility. As a form of insurance for the perpetuation of the natural cycles, mummy bundles and their attendant imagery have been compared to seeds by both archeologists and art historians analyzing their role in Paracas society. As in other cultures concerned with an afterlife, bundles created a “womb-like casing” within which the deceased gestated before being “planted” in the earth and reborn in the afterlife.367 The Paracas

366 O’Riley, Art Beyond the West, 212.
belief in the regenerative powers of the interred, wrapped body is clearly demonstrated by
the placement of sacks of beans, a germinating seed, in place of bodies within the
bundles.368 Many Block Color figures are literally sprouting with avian, serpent, and
vegetal elements. This may reflect the Paracans’ belief that the ancestor within would
enact the same generative processes as he transforms along the journey. Complex and
wildly inventive, the supernatural birds of Paracas are among their most intriguing
creations. Like other hybrid creatures in human narratives, these beings likely possess an
amalgam of strengths and powers originating in their various features.

**Bird Costumes**

Some of the narratives invoking birds were also likely expressed as avian ritual
performance. Ritual, actions performed in a context separate from events of daily life and
in the service of spiritual concerns, required enhancement by “making special” in order to
elevate the experience of the participants and performers above the experience of
mundane life. Once again, animal and especially avian imagery is a mechanism through
with this transcendent experience takes place. The worldwide association between birds,
flight and shamanism has been well documented.369 However, prior to the appearance of
Paracas culture, very little visual evidence for avian-centered shamanic activity and ritual
appears in the Andes. As discussed in Chapter 3, the jaguar appeared as the dominant

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animal in the highlands, in particular as the animal involved in shamanic transformation, and while avian imagery appeared on the coast, evidence of avian costume did not. Paracas society may have been the first in the Andes to engage in avian-inspired ritual performance.

Evidence is found in the Block Color textile images called the impersonators, humans dressed in animal costume, such as the falcon impersonator (fig. 4.36) and condor impersonator (fig. 4.37). Unlike the supernatural birds, the impersonators have basic human anatomy (torso, arms, legs, and feet) with some animal embellishments, such as capes, masks, wings, and headdresses, rather than an amalgam of animal parts. These images are some of the most colorful, complex, and intriguing Block Color figures, illustrating the costumes of participants who may have been either shaman or, more generally, “spirits” from the “cult images” of Paracas society. Although the actual components of the costumes, such as masks, headdresses, wings, tails, and dorsal fins are not typically present in the bundles, one bundle did contain a three-layered cape of condor feathers. Furthermore, while not every Paracas shaman is depicted in an animal costume and not every animal costume was that of a bird, once again, birds appear in the depictions of costumes more frequently than any other animal.


“They give us those nice bright colors
They give us the greens of summers...”

-Paul Simon, “Kodachrome,” 1973

The Spectacle of Paracas Male Attire

The discussion now turns to how attire and imagery functioned in the realm of Paracas social life. With colorful textile headbands, mantles draped across their shoulders, shimmering gold facial ornaments and dangling gold earring pools, a yellow feather in his turban and, at times, a rayonnant feather fan or double-bird and feather-topped staff, an elite Paracas man would have been a dazzling sight in the desert. Before words were uttered or any action performed, and without the backdrop of dramatic architecture, this concentrated finery would have exuded status, power, and authority during his life, long before his transition to death.

Whether they were Paracas village chiefs, or warriors, priests, kings, emperors, or heads of state from other eras and places, throughout recorded history men have sought to acquire positions of social status and power. Furthermore, powerful individuals, primarily, but also some women, have also gone to extraordinary lengths to display and broadcast this power, by whatever means were culturally appropriate. In Paracas, as elsewhere in the world, personal adornment was a primary means by which to do so, and feathers, due to their beauty, spiritual power, and availability through trade or captive birds, were often employed to further flaunt status. The drama of male Paracas display,
not only with feathers, but the entire ensemble of impressive textiles and accessories discussed in Chapter 4, is reminiscent of the splendor of a male bird displaying his plumage.

This chapter proposes that the males of different species, places, and eras may have been attracted to this type of ornamental display for additional reasons related to issues of gender and sexual selection. Costume also has implications for women’s status, which will be noted as well, since much of the embroidered attire was the result of women’s labor, for which they may have attained recognition of their own.\textsuperscript{372} As a preface to the discussion, I remind the reader that this is not a deterministic stance, as the discussion of gender differences and roles has been used, by some, to justify the oppression and dominance of women by men. Evolutionary psychology does not dictate that men and women must always follow the structures set forth by biology, nor are all statements true for all individuals. Furthermore, gender inequality or systematic oppression is never justified by biologically-determined reproductive roles.

This chapter also reveals how our biology and evolutionary past may drive another facet of human nature: display of desirable traits and abilities for the purpose attaining of social status. The hunger for status, many claim, is linked to the ultimate desire for reproductive success. The generalizations presented for male and female behavior, dress, and appearance are based on clinical research by evolutionary biologists,

\textsuperscript{372} Ethnographic analogy with later Andean and Mesoamerican cultures suggests that Paracas textiles were likely produced by women. See Margot Blum Shevill, Janet C. Berlo, and Edward B. Dwyer, eds. \textit{Textile Traditions of Mesoamerica and the Andes} (Austin: University of Texas Press, 1996).
psychiatrists, and anthropologists.\textsuperscript{373}

**The Bowerbird: Sexual Selection in Birds**

As a preface to discussing how certain biological imperatives result in gendered dynamics of power, creative displays, and the use of feathers in Paracas material culture, I introduce an example of complex behavior driven by this selective pressure from the world of birds. In the forests of Australia and New Guinea, the male members of a small, plain-feathered bird known as the Vogelkop bowerbird (fig. 5.1) spend much of their time collecting colorful and textured items from their surrounding environment and arranging them into tidy and orderly piles based on color and kind. This is carried out under the bower, a large construction of arranged sticks, mosses, and other forest materials carefully selected and pieced together (fig. 5.2). The scientists who first encountered these structures could hardly believe that birds had constructed such large, intricate creations, and surmised that the local people must have constructed them as play areas and “cubby houses” for their children.\textsuperscript{374} The work of creating the bowers,

\textsuperscript{373} Principal sources for an introduction to sexual selection are David Barash and Judith Lipton, *Making Sense of Sex: How Biology, Genes, and Gender Influence Our Relationships* (Washington, D.C.: Island Press, 2007), Barash is an evolutionary biologist and Judith Lipton is a clinical psychiatrist. See also David Puts, “Beauty and the Beasts: Mechanisms of Sexual Selection in Humans,” *Evolution and Human Behavior* 31, no. 3 (May 2010): 157-175. Puts is an anthropologist specializing in the evolutionary biology of mate choice.

\textsuperscript{374} Peter Rowland, *Bowerbirds* (Collingwood, Victoria: CSIRO, 2008), 1. Rowland further emphasizes that the bowers are not nests. Females create and raise their chicks in nests of loosely constructed of twigs and branches, while the males do not participate in the care of the offspring.
however, is just the beginning. Under their bowers, the Vogelkop clear the ground of debris, and in this stage-like area, assemble collections of colorful and textured items such as orchids, iridescent beetle shells, berries, and, in recent years, colorful items from the human world such as plastics and paper wrappings (fig. 5.3). It has been suggested that the bowerbird’s constructions can be considered actual works of art and proof that animals other than humans possess an aesthetic sense and art instinct. While it may be the case that the birds enjoy the aesthetic experience of their creations, evidence for another motive emerges when a female bowerbird arrives at the site.

If the female bird is sufficiently impressed with the bower, a brief sexual encounter will occur, after which the female will depart and raise any resulting offspring on her own. The male bird will then redesign his space by collecting and arranging new items, and wait for the next encounter. Some scientists have suggest that this behavior is designed by sexual selection and is a way of avoiding competition in color, plumage, and dancing ability with the birds of paradise, another tropical Australasian bird species in which the males are characterized by extremely bright, elaborate plumage and spectacular courtship displays (fig. 5.4).375

This is just one example of how sexual selection, a process running parallel to natural selection, can result in highly complex behavior. In 1871, Darwin published The Descent of Man and Selection in Relation to Sex, a 900- page follow-up to On the Origin of Species of 1859, in which he explained his theory of sexual selection.376 In the earlier

375 Rowland, Bowerbirds, 26.
work, observations regarding the hooked jaw of the male salmon, a stag’s antlers, and the “gorgeous plumage” and “strange antics” among the male birds of paradise gave him pause, since they appeared quite at odds with the logic of natural selection. He concluded that another process must be at work. Although the role of genetics in natural selection had not yet been discovered, Darwin recognized that an individual’s mere survival is not enough for a species to differentiate and, thus, for evolution to occur. From an evolutionary perspective, all survival advantages that nature has designed are wasted unless individuals can live long enough to become sexually mature and reproduce. Sexual reproduction, requiring the participation of another member of the species, creates an additional pressure in addition to the struggle to survive. Darwin defined this pressure as sexual selection, a process that results in the development of traits that help an individual find a mate, rather than merely survive.

Evolutionary psychologist Geoffrey Miller believes that much of human behavior, including creativity and art making, is linked to evolved mating strategies. He also posits that the actions of the bowerbirds might parallel the underlying motives of human artists.”

In a 2000 publication, The Mating Mind, Miller, like other evolutionary

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psychologists, argues that some of the most distinctly human elements of our minds (consciousness, art, creativity, humor, morality, and language; indeed, most of the activity of our hyper-developed brains) are a result of evolved biology. However, in a departure from other evolutionary psychologists, Miller claims these elements of the mind result from sexual selection rather than natural selection, since they do not contribute directly to our survival, but are useful for attracting a mate. In his chapter, “The Runaway Brain,” he argues that the human mind is the evolutionary equivalent of the peacock’s tail, an example of runaway selection: impressive and exciting, but sometimes actually adverse to our well-being and physical survival.\(^{379}\)

I make a case here for a parallel between the use of feather ornaments by Paracas men and male birds, as both are used for display (in men, of status, power and authority, in birds, of good genes), ultimately as a means to secure reproductive success. To make this argument, I remind the reader of the crucial distinction evolutionary arguments make between proximate and ultimate causation. Adaptations, such as the hunger for status and recognition, are proximate causes motivated by the ultimate cause of enhanced survival and reproduction. To support this contention, I include ethnographic analogies and form for their own sake, quite inexplicable. I cannot remember when I first developed this raging thirst to present richly saturated color-fields within a monumental yet minimalist stage-set, but I feel connected to something beyond myself when I indulge these passions. When I see a beautiful orchid high in a tree, I simply must have it for my own. When I see a single shell out of place in my creation, I must put it right...it is a happy coincidence that females sometimes come to my gallery openings and appreciate my work.”

\(^{379}\) See “The Runaway Brain,” in *The Mating Mind*, 68-98. Natural selection imposes certain physical limitations that sexual selection allows to run wild.
with the gendered nature of featherwork in later Andean cultures such as Nasca, Moche, Wari, and Inka, where elite men monopolized the use of feathers for personal adornment and regalia.

A Mesoamerican culture, the Aztecs of Post-Classic 15th and 16th century Mesoamerica, were also greatly acquisitive of birds and developed an outstanding featherwork tradition that biased, to a high degree, the production and use of featherwork toward men, especially warriors and elites. The Aztecs, unlike the Paracas culture, imported many species of birds from regions in their empire outside the capital and kept enormous aviaries. Thus, they would have experienced birds in captivity more often than in the wild and harvested feathers as resources and currency.\textsuperscript{380} For the Aztecs, feathers may also have been a prime reflection of hypermasculinity present in their culture. From the Amazon rainforests of Peru and Brazil, comparative examples come from the Tupinambá (Tupi), whose costumes and activities were documented by Europeans during contact and colonial times, and the living example of the Cashinahua culture. Like Paracas, these subsistence economies and chiefdoms lived in close contact with birds and utilized feathers to enhance status and appearance is secular life and as aids in ritual ceremonies.\textsuperscript{381}

\textsuperscript{380} Dr. Judy Sund, personal communication, February 5th 2016.

In Andean and Amazonian cultures, when featherwork appears in a ceremonial context, the gendering of feathers relaxes and women are found wearing feathers in addition to men. While the Paracas burials have yet to reveal a female within the layers of finery that the elite male burials possessed, further excavations may yet yield such a find. At the time of writing (2016), however, all available material evidence reveals a consistent pattern of feathers and other finery exclusively in the bundles of elite men. The following discussion of how sexual selection operates in humans has implications for why men monopolized both power and its material expressions in Paracas culture.

**Contest and Display: Sexual Selection in Humans**

In humans, both men and women compete for mates and are subject to sexual selection. Both these genders strive to make themselves appealing to the other in various ways. Some tactics are obvious, some are subtle, and some may come packaged as an entirely different set of behaviors that may, on the surface, appear to have little to do with reproduction, such as creative displays and competition for status within a group. An understanding of our evolutionary past has been clouded by the great variety of partnerships, gender identities, and parenting situations in modern world, and the changing roles of males and females. Gender is also not limited to the biological sex

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differences of male/female. Nevertheless, the majority of human beings fall into one of two categories, male or female, and the biological fact remains that women become pregnant, and men do not. This results in certain elements of sexual selection in humans that crystallized in the Late Pleistocene, and continued, to at least some degree, in later, more settled communities. I consider Paracas as a case study of the gendered use of material culture, in particular feathers, in a chiefdom.

The mechanism of sexual selection in women is uncontroversial. Sexual selection in women has operated on the level of physical traits (and some behavior attributes, such as sociability and sexual fidelity) that reliably indicate fertility and the potential for successful childrearing. In addition, since women cannot physically constrain men into sharing resources (although modern litigation allows this), women evolved to attract men. Men favored female-specific traits that “reliably index reproductive value, fertility, and perhaps heritable disease resistance.” In men, evidence indicates that physical combat was the primary way they competed for access to women; however, ornamental display of resources, status, and/or good genes was also a factor.


Worldwide, women also sought status within social groups by performing displays of intellect, talent, and creativity, which could make them more appealing to men and increase their chances for reproductive success. In contrast to men (and in general many exceptions exist), women are more likely to engage in communal, cooperative activities rather than those that highlight one individual’s achievements. A social, cooperative woman, even in the context of artistic endeavors, is appealing from a biological standpoint since cooperation and successful interpersonal relations are crucial for childrearing.\textsuperscript{387} In Paracas, some of the extremely large mantles were likely communal efforts over time, and there is evidence that more than one person worked on “training mantles,” of sorts.\textsuperscript{388} These pieces suggest the existence of weaving and embroidery guilds or workshops, which might have organized and enhanced Paracas women’s social standing, with implications for their relationships with other women, men, and even mature partnerships.

One revealing example of how women’s creative pursuits are linked to social roles, including partnerships, comes from a myth from the Plains Indian cultures of Native North America. The Crow, like Paracans, placed a great deal of energy and resources into the arts of personal adornment and had a strong gender division of labor. Women in Crow society earned status and respect within the tribe, in part, by excelling at arts such as quilling buffalo robes, clothing, and tipis. A woman with these skills was

\textsuperscript{387} Barash and Lipton, \textit{Making Sense of Sex}, 210.

considered highly desirable as a marriage partner, so much so that a myth emerged with a narrative involving a test of a woman’s crafting skill. In one myth, an intended husband told his potential partner that she would be rejected if she were unable to finish quilling an entire tipi in one day. This was an impossible task, so she enlisted the help of her animal friends, succeeded, and earned the right to marry.  

It is possible that Paracas women, like Plains Indian women in Native North America, increased their desirability as potential partners by excelling in the highly regarded arts of weaving and embroidery. In the words of Stephen Pinker, artistic talent is “unevenly distributed, neurally demanding, hard to fake, and widely prized. Artists, in other words, are sexy.”  

### Feathers and Materiality

In current art historical discourse, materiality values the inherent physical qualities of an artwork as a vehicle for conveying meaning and as an aesthetic end in itself. Color is among the most fundamental elements of materiality, as evidenced by its appearance in the earliest art forms (as ochre, pollen, shells, and other colorful natural materials).

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389 The myth details how after being warned that she could marry only if she tanned and quilled a buffalo hide in a day, a Crow woman “cried disconsolately in the woods until numerous animal helpers appeared.” The narrative also specifies how her animal friends, including female beavers, badgers, rats, moles, mice, ants, bees, and flies flesched, dried, smoothed, scraped and softened the hide. A female porcupine who lent her quills and completed the quillwork with the assistance of ants. Beavers smoothed the fur and the porcupine finished the piece by applying pine sap for scent. Janet C. Berlo, “Dreaming of the Double Woman: The Ambivalent Role of the Female Artist in North American Indian Myth” *American Indian Quarterly* 17, no. 1 (Winter 1993): 38.

materials placed in graves) and seen in the energy devoted to its production and collection throughout human history. Their vibrant colors, in particular, have generated numerous links between feathers and the natural world, often evoking the most powerful substances of human experience, such as blood, fire, the green tones of fertile fields and the blue of water. For example, one Amazonian myth credits blood and fire with painting the feathers of the scarlet macaw, in a dramatic conflation of two of the most powerful substances of human experience. Other examples abound, such as the association between red, orange, and yellow feathers with the sun, and the blue-green tail of the quetzal with plants, the forest canopy, and water. When discussing a famous Aztec headdress of composed of quetzal feathers (see fig. 5.33), Dúrdica Ségota discusses their “intrinsic beauty” and the association between “light, brightness, and radiance” with individuals of esteem and authority – those who both possessed and radiated the life-giving power associated with the sun.

Thus, there may be biologically-influenced reasons why feathers play a key role in the visual language of power and spiritual lore among human societies. They are also


integral to the visual culture of the Pacific, in particular highland New Guinea (fig. 5.5) and the Americas, where a Plains Indian feathered war bonnet is one of the most iconic images of North America (fig. 5.6), and feathers were employed for both status symbols and as spiritual aids from the arctic to the Andes. Feathers played a particularly key role in societies such as chiefdoms that relied on small-scale, portable material culture and personal adornment.

**Material Culture in Chiefdoms: Expressions of Power**

Archeologists describe Paracas society as a complex chiefdom.\(^{394}\) Complex chiefdoms operate, in part, on a system of social inequality based on inherited status.\(^{395}\) The term encompasses other descriptive categories of human society, including “Big Man societies, non-state ranked societies, and intermediate societies,” all describing a similar level of socio-cultural evolution.\(^{396}\) In such non-egalitarian systems, access to power begins with kin and close relationships. Yet, since everyone has kin and therefore can become a contender for a position of power, chiefs must extend their reach beyond kin and social relationships to control means of production and exchange. Moreover, since


people are inherently resistant to volunteering their time and labor for the benefit and aggrandizement of others, leaders in chiefdoms employ a combination of authority, defined by Earle as “the right and responsibility to lead”; power, “mastery over others, often including an implied threat”; and control, “the ability to restrain access to the media by which power is fashioned.”

While holding positions of power, authority, and control benefit an individual in many ways, such as providing security and the privilege of wealth, the path to obtaining power can be extremely risky. Therefore, the motives behind an individual’s quest for ascendancy must be strong indeed, and sexual selection offers part of the explanation. In “The Nature of Political Power,” in to How Chiefs Come to Power: The Political Economy in Prehistory, Earle mentions the role of sexual selection in explaining how some individuals, typically men, throughout all human societies will strive for aggrandizement and dominance, due to the “simple and compelling” biological drive for reproductive success. While he circumvents a thorough discussion of sexual selection, Earle acknowledges these forces in shaping human behavior. This observation is repeated in the introduction to The Evolution of Human Societies, wherein he and co-author Allen W. Johnson include some essential concepts of evolutionary biology and psychology in their introduction as essential to the anthropological arguments they set forth in subsequent chapters.

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397 Earle, How Chiefs Come to Power, 4-10.
398 Earle, How Chiefs Come to Power, 2.
exclusively male.

Ideology, or a set of ideas and beliefs, is among the most important tools exploited by aspiring chiefs. Command of ideology requires the compliance of others, but circumvents the costly need to exert force and physical control to obtain desired ends. Ideology is communicated in ritual, ceremonies, symbols, and monuments. As Earle states, “power rests on materialized ideologies.”\(^\text{400}\) The materialized ideologies (propaganda, in a sense) must be convincing. The Paracas situation is distinguished, in part, by an absence of monumental architecture in a desert environment. Thus, the elaborate rituals, ceremonies, and symbols – and the material culture they generated – both communicated and strengthened the Paracas leaders’ claim to his position.

A key publication by Elizabeth DeMarrais, Luis Castillo, and Timothy Earle, “Ideology, Materialization, and Power Strategies,” also argues for material culture as a direct translation of power relationships.\(^\text{401}\) In the Andes, the ubiquity of textiles and their ability to broadcast patterns and symbolic figures and designs made them the “ideal medium for the symbolic presentation of power.”\(^\text{402}\) Textiles served two functions, as both an expression of and a way of legitimizing power relations in society, where “symbolically charged artifacts, features, and designs are used to reinforce and otherwise

\(^{400}\) Earle, How Chiefs Come to Power, 144.


support a social order that legitimates dominance and relationships of inequality.”

These comments on the intersection of ideology and material culture reinforce the motives for Paracas ritual attire, as they are a material manifestation of their wearers’ ideology and worldviews, intended for public display and ritual efficacy, including funerary ceremonies. As previously discussed, the ideograms present in Paracas textiles demonstrate cults and practices relating to control of the natural world by perpetuating agricultural cycles, harnessing the powers of animals, and much of this power was communicated with a feather on top.

**Paracas Featherwork**

Dress, gender, power, and sexuality are so intertwined that their interdependence is sometimes taken for granted. Moreover, the effects of dress (in evolutionary terms, “display”) communicate information to an outside party instantaneously. In humans, choice is a factor in sexual selection for both genders, but women’s choice is at its core, creating pressure to attain status and produce ornaments for its display. Male ornaments, which appear as indicators of resources and the high social status, often manifest as material status symbols. The hunger for status and its display, a human drive that has been documented as more acute in men than women, is likely tied to the pressures of

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sexual selection, since, historically, high-status men had far more reproductive opportunities and success than their lower-status competitors.405

One essential purpose of clothing items is to communicate authority, religious and/or political. Anne Paul describes the colorful displays of the elite Paracas male costume learned from the burials: head to toe extravaganzas of colorful, embroidered headbands, turbans, mantles, ponchos, tunics, skirts, and loincloths, all symbols of authority and high-status ritual garments.406 Thus, the personal adornments so important to Paracas men, including but not limited to those which included images of birds and feathers, can be understood as ornaments that arise from the male need to acquire and display status. Feathers, however, may have had an especially important role in this system of display, for ethnographic analogies with other feather-wearing cultures reveal that feathers were used for status symbols in a manner that is strongly biased toward men.

In some cultural situations, the use and display of feathers is a direct imitation of avian mating dances. In ceremonial village gatherings in Papua New Guinea known as “sing-sings,” the men of the Obena people adorn themselves with the feathers of at least six species from the birds of paradise, performing a dance that is a “conscious imitation” of the birds’ mating dances, and women will chose a partner largely on the basis of his feather-costumed performance.407 The Obena men have made feathers and feather dance

405 Barash and Lipton, Making Sense of Sex, 38.


407 Hanson, Feathers, 168.
a direct expression of their desirability, rather than using them indirectly as a show of status.

When discussing power, status, and authority in chiefdoms, one must bear in mind that the distinction between sacred and secular power was not often made. Thus, the two overlapping functions of feathers in the ancient Andes, as elsewhere in the world, were as high-status accessories and festive ceremonial occasions, as well as ritual functions such as shamanic practice, cult celebrations, and fertility ceremonies. Art historian Heidi King discusses the value and prestige of feathers in ancient Peru as demonstrated by both surviving samples and the reports of early Spanish observers, emphasizing the materiality of the feathers, their color, texture, and iridescent sheen, as the basis of their appeal. She also indicates the gendered use of high-status featherwork in Peru, favoring men, a practice still upheld by many indigenous Peruvian communities.

As with all surviving Paracas artifacts, it is significant that specimens of featherwork come from the contents of the elite male mummy bundles. One outstanding piece is a large indigo mantle, possibly in the shape of a bird, with yellow feather trim and a large yellow circle in the center evoking the sun (fig. 5.7). Other surviving items include hand-held fans with rayonnant arrangements of condor, hawk, or parrot feathers (fig. 5.8, fig. 5.9, and fig. 5.10) used as accents on textile garments and headdresses (fig.


Due to the fragility of feathers and the destruction of the archeological sites, the surviving sample size for Paracas feather ornaments is small. What has survived, however, is enough to suggest a keen interest in feathers as items of personal adornment to accompany and enhance the embroidered textiles and goldwork worn on the body of elite males. In a ritual context, the materiality of feathers would have enhanced the efficacy of the occasion and events, in addition to announcing the celebrant’s position to any participants who laid eyes on him.

Embroidered Block Color figures on Paracas textiles also suggest the presence of feathered accessories in Paracas costume beyond what has survived the ravages of looters and time. Numerous mantles display Block Color figures wearing what appear to be feathered costumes and carrying wands striped with feathers (fig. 5.13). The feathered wands displayed in the embroidery have actual counterparts that were, fortunately, preserved in some of the tombs (fig. 5.14). In addition, headdress items made of sheet gold may have been feather substitutes (fig. 5.15). Several bundles included loose feathers and a few of the “highest status” bundles had sets of miniature garment offerings with small yellow feathers applied to edges and borders. These miniatures, too small to be worn, may have functioned as emblematic offerings, adding spiritual potency to the bundle in a manner similar to the small textile offerings of Huaca Prieta. Many of these items feature the longer tail and wing feathers of local raptor species such as falcons, as

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410 King, “Feather Arts in Ancient Peru,” in King, ed., 16.
well as and possibly highland condors.\textsuperscript{411} Smaller feathers on Paracas staffs and headbands, however, predominantly feature the yellow chest feathers of the blue and yellow macaw, a bird from the tropical forest of the eastern slopes of the Andes whose feathers would have been acquired through long-distance trade, trade negotiations undertaken by Paracas chiefs and elites.\textsuperscript{412}

In reference to two scientifically unwrapped mummy bundles, Paul observed that feathers “seem to have been a crucial component of the bundle, suggesting that feather objects were essential elements of the ritual paraphernalia of a Paracas leader in life or death, or both.”\textsuperscript{413} As she indicates, while some textiles (such as the enormous mantles) were made exclusively for the funeral bundles, many of the embroidered garments and feather accessories were also worn and used during life. They functioned as “visible indicators of such things as ethnic group, \textit{ayllu} [traditional Andean community] affiliation, cosmology, economic status, gender, age, family ties, marital status, and offices held within the community.”\textsuperscript{414} Although few mantles were covered entirely in feathers, even without their actual physical presence, the brightly colored Paracas attire, monopolized by men, should be understood as a version of feathers: ornaments of status and prestige.

\textsuperscript{411} King, “Feather Arts in Ancient Peru,” in King, ed., 16.

\textsuperscript{412} King, “Feather Arts in Ancient Peru,” in King, ed., 16.

\textsuperscript{413} Anne Paul, \textit{Paracas Ritual Attire} (Norman: University of Oklahoma Press, 1990), 43.

\textsuperscript{414} Paul, \textit{Paracas Ritual Attire}, 17.
Ocucaje Featherwork

Items found in the Ocucaje basin, contemporaneous to Paracas Necropolis (c. 350 - 200 BCE), but located further south in the Ica Valley of the South Coast (see fig. 0.25), provide a wider range of feathered specimens for study and analysis. Like Paracas to the north, Ocucaje gives its name as a style designation to the items found in the area.415 The burials in this region also included mummies with much of the same material culture as the Necropolis tombs embroidered textiles: bundles with ceramics, gold ornaments, musical instruments, pyroengraved gourds, embroidered textiles, and early featherwork. Differential treatment of the dead in the Ocucaje burials followed the same pattern as in Paracas Necropolis, since high status males were given extraordinarily rich textiles and accessories.

Like the Necropolis tombs, the garments found in the bundles of presumably elite males displayed a distinctive and complex iconography.416 There are sufficient stylistic differences between Paracas and Ocucaje textiles, however, for scholars to distinguish the two. In the process they exalt the exceptional quality of Necropolis textiles, noting especially the predominance of brilliant red, “making them the most magnificent and iconographically complex textiles ever found in Peru.”417

As in Paracas Necropolis to the north, the shift in settlement patterns from small

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416 Rowe, “Early Featherwork from Ocucaje,” in King, ed., 45.
417 Rowe, “Early Featherwork from Ocucaje,” in King, ed., 47.
groups to large, heavily fortified ones, then back to small sites, suggests that in Early Horizon Periods 9 (c. 350-300 BCE) and 10 (c. 300 BCE – 200 BCE), conflict was followed by a period of peace and stability during which a new religion arrived in the region. Ann Pollard Rowe believes this new religion required new rituals and new associated material culture.\(^{418}\) As previously mentioned in Chapter 4, these new religious beliefs were possibly centered on birds, as indicated by the explosion of avian imagery in the Paracas Necropolis textiles, also seen in Early Horizon 10. While the Ocucaje textiles were less iconographically complex than Paracas Necropolis, this phase also marked an increase in the use of feathers as accessories in high-status ritual garments.

Ocucaje textile examples include cotton cloth rectangles (two specimens are nearly square, and one flares at the bottom to approximate a trapezoid; all are approximately three to four feet in size), decorated with a solid color field of feathers and a solid feather border of a different color. The best-preserved example of this type is made with the bright feathers of the blue and yellow macaw, the cock of the rock, and the scarlet macaw (fig. 5.16). Six ties across the top of this item indicate that it may have functioned as a wall hanging. One similar piece with a field of yellow feathers, presumably from the blue and yellow macaw, was found in a Paracas bundle from the same time. The Paracas specimen also featured ties across the top, as it was “perhaps designed to be placed behind the where an important individual (presumably male) was seated. An unpatterned but brilliant hanging of this type would certainly have enhanced

\(^{418}\) Rowe, “Early Featherwork from Ocucaje,” in King, ed., 47.
the effect and prestige of such a person.”

Other examples of featherwork in Ocucaje take some of the same forms as Paracas Necropolis items: feathered fans, for example (fig. 5.17) and bird icons placed at the top of a mummy masks (fig. 5.18). This Ocucaje piece, the only one of its kind, is a forehead ornament of a bird with outstretched wings. Made of feathers on skin with a bird beak and mica eyes, it appears to be a more literal version of the abstracted bird headdress ornaments made of sheet gold, found in both Paracas and Ocucaje mummies, and appearing frequently in figures depicted in embroidery and painted ceramics (see fig. fig. 1.49 and 5.19).

**Nasca Featherwork**

A related but slightly later South Coast culture, the Nasca, used featherwork differently, possibly due to different social structure and rituals. As the Early Intermediate period progressed, Paracas culture appears to have merged with the Nasca culture, which flourished c. 1-700 CE. Nasca society was centered in the floodplains and dry, rocky, river valleys south of Paracas and Ica (see fig. 0.25). Further inland from the coast, Nasca does not have the dramatic blue oceanscape of the Pacific and its abundance of marine life, yet in their art forms and iconography the cultures have much in common. The Nasca populations, organized at a level between chiefdoms and the early state, produced colorful and distinctive textiles and ceramics, engaged in elaborate rituals, and

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419 Rowe, “Early Featherwork from Ocucaje,” in King, ed., 50.
had a fondness for collecting, depicting, and burying actual trophy heads. The burial of trophy heads underscores the great value placed upon them as spiritually potent objects, and also demonstrates how items depicted in ceramics represent tangible objects used in ceremony. Some concepts and practices, such as the intense interest in depicting flora, fauna, and supernatural beings in art works and ritual attire, are also common to both Paracas and Nasca. In Nasca, however, the most complex figures appeared on painted polychrome ceramics rather than in textiles. Avian imagery, in particular the condor and hummingbird, also feature prominently in Nasca art.

The Nasca were unusual in their practice of creating geoglyphs, large figural and abstract images, lines, and trapezoidal shapes on the desert ground, collectively known as the Nasca Lines (fig. 5.20). The lines are just one of the distinctive characteristics of the Nasca culture sphere. Interpretations vary widely, but the lines may be related to the climatic and ecological conditions of the Nasca region. Some of the lines may have been placed on the desert as offerings to deities, providing a path and setting for walking rituals, or providing direction toward underground water sources. In Nasca, agriculture followed seasonal cycles corresponding to the highland rainy seasons, which “replenished the rivers and underground aquifers” that were essential to the culture’s


The Nasca were perhaps not as prolific in the production of featherwork as once believed. Many pieces once attributed to Nasca artists are actually of uncertain provenience, and, according to archeologist Helaine Silverman, feathered textiles in Nasca were “exceedingly rare, though known.” However, many of the feathered items that have been found break the pattern of the male monopoly on feathers established by Paracas and Ocucaje. Some garments with painted bird imagery and featherwork have been securely identified as women’s clothing. These items were found buried in a cache at Cahuachi, in an area of the large (61 square kilometer) site that was once the ritual center of the Nasca people. While the exact function of these garments remains unclear, it seems that women played a role in Nasca ritual in a manner that intersected with beliefs about birds. Ritual attire also took an unusual turn in regard to gender, with a woman encased in a bird. A most unusual feathered find, known as Big Bird, emerged from Cerrillos: a mummified woman encased in a bird-shaped capsule covered entirely in the red, yellow, and blue feathers of the Amazonian macaw (fig. 5.21). Nasca, an exceptional situation with its subterranean aquifers, geoglyphs, and enormous ritual center, now presents an additional anomaly: women wearing feathers.

In the centuries following the disappearance of Paracas, Ocucaje, and Nasca on

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424 Helaine Silverman, quoted in King, “Feather Arts in Ancient Peru,” in King, ed., 18

Peru’s South Coast, successive waves of kingdoms and empires from the Middle Horizon period (c. 500 - 1000 CE), Late Intermediate, and Late Horizon periods (see fig. 0.15) utilized feathers in a more predictable way: as high status items of personal adornment controlled by men. Tabards (open-sided tunics) earspools, fans, pins, and plumes were set ablaze with colored feathers. In addition, some recent finds such as partially feathered shields from the North Coast, as well as colonial-era commentary linking feathers with soldier’s garments in the Inca world, suggest that feathers were also associated with military power.426

On the North Coast, due to a wetter climate with periodic torrential flooding due to El Niño, very few examples of Moche (c. 100 - 700 CE) featherwork have survived, but those that have were found in high-status tombs. One outstanding example is a headdress with feathers applied to the surface and plumes emerging from the top (fig. 5.22). The following Middle Horizon would bring the Wari Empire (the first in the Andes), ranging from the mountains to the coast. While the Wari are also credited with spectacular feathered headdresses and fans, one of the most celebrated feather creations in the Andes is a series of nine feathered panels in alternating solid blocks of yellow and blue (fig. 5.23). Sometimes explained as abstractions of the south coast desert and sea landscape, panels such as this would likely have surrounded a ruler and enhanced his prestige to onlookers.

426 King, “Feather Arts of Ancient Peru,” in King, ed., 34.
Late Intermediate and Late Horizon Featherwork

Finally, in the Peruvian Late Intermediate (c. 1000 – 1350 CE) and Late Horizon (c. 1350 – 1530 CE) periods, featherwork surged. During the Late Intermediate period, following the decline of the Middle Horizon Wari empire, once again Andean cultures fractured into individual centers, understood as kingdoms, with highly acquisitive and status-hungry kings. During the subsequent Late Horizon period, the Inca reforged an expansive empire with a highland center, Cuzco, where elaborate ceremonies and adornment glorified their emperors.

Within the north coast Kingdoms of Chimor and the highland Inca Empire, rulers crowned themselves with feathers (fig. 5.24), feathered earspools (fig. 5.25), and tabards (fig. 5.26). Some Colonial era chroniclers described spectacular festivities in Cuzco, the former Inca capital, in which feather mosaics were created for the streets, rooftops, litters, and parasols, as well as to adorn images of the sun. A passage by Heidi King in reference to the kings of Chimor evokes such an image, in language that also suggests images of posturing birds:

One can imagine their creations as worn by a ruler appearing in front of his subjects – seated on a litter covered with lustrous feather mosaic and wearing a brilliantly colored feathered tabard, large ear ornaments, and gold crown topped with resplendent feathers all gleaming in the bright sun of Peru’s desert coast. What a dazzling sight it must have been.

In all, although feathers certainly possessed spiritual power in the Andes, as elsewhere,
the archeological evidence and commentary by those who came in contact with the Inca strongly suggest that feathers were items possessed and displayed by men. When women wore feathers, it was likely in a ceremonial ritual context in which gender may have been immaterial, or they may have been assuming roles typically held by men.

The Paracas burials provide the first evidence for the Andean use of feathers in regalia and ceremonial costume. Beginning with fans, feather accents, trims on mantles and a possible iconographic reference to the sun, the Paracas artists may have initiated one of the world’s most spectacular featherwork traditions. While the bundles containing feathers and featherwork have yet to reveal a woman within, recent finds in the south coast Nasca site indicated such a find may yet occur.

**Aztec Feather Art: Ornaments of Hypermasculinity**

The Late Post-Classic Aztec (also called Mexica) of Mesoamerica (c. 12th-16th centuries), were separated by time and geography from Paracas. As another indigenous American culture that assigned a high value to birds and feathers, however, their cultural situation provides an opportunity to note some strong analogies with Paracas. For reasons relating to hypermasculinity, the exaggeration of male-specific traits, the Aztecs possibly had an even more intense interest in feathers. Because of their contact with the Spaniards after the conquest of Mexico, some elements of Aztec culture were documented. From these sources we learn that feathers were an integral part of military costume (fig. 5.27) and of the ritual costumes of deity impersonators (fig. 5.28), including some female deities. Nevertheless, from production to display, specific beliefs and practices
surrounding birds and feathers reveal how feathers were treated with a gender bias in favor of men. This gendered nature of featherwork in Aztec culture further underscores the possibility that, in some cultural situations, the feather was an expression of the drive for status and its ornamentation originally forged by sexual selection.

Feathers played an important economic role in the Aztec’s tribute system, as illustrated in the Codex Mendoza’s section on tribute, as well as another on Aztec life. The Florentine Codex, another mid-16th-century manuscript produced by the post-conquest Nahua (Aztecs) under the direction of the Spanish missionary Fray Bernardino de Sahagún, included an entire volume (Book Eleven, Earthly Things) listing in great detail the taxonomic characteristics of no fewer than 107 species of birds. The text gives eagles and hummingbirds, species native to Central Mexico, great attention. Sahagún’s indigenous collaborators also collected and recorded information about bird anatomy, characteristics of feathers, and behavior of birds and waterfowl of central Mexico, as well as others from the humid tropics further south in Central America that were acquired by the Aztecs as tribute items and housed in the royal aviary. Quetzalcoatl, the Feathered Serpent, a principal Mesoamerican deity first appearing in Mesoamerica as early as 100 CE and given great importance in the Aztec world, was conceptualized as a serpent covered in the turquoise-green feathers of the prized quetzal, found in the distant tropical forests of Guatemala (fig. 5.29). As noted by Teresa María Campos, “the most important gods were associated with the most exotic birds.”

In the visual arts, featherwork was utilized to a spectacular extent in deity, ruler, and warrior costumes, and a special class of male artisans housed in the ruler’s compound, the amanteca, was trained and devoted to its production (fig. 5.30). Both the production and use of featherwork were largely restricted to men; furthermore, some Aztec myth also linked the feather with male fertility. The Aztecs were as attuned to the natural world as other indigenous ancient American cultures, and quite likely observed the connection between feathers and sexual desirability, which men may have been trying to harness by their own ornaments. In the case of the Aztecs, however, the attraction to and use of feathers can also be understood as an expression of hypermasculinity.

Hypermasculinity is a sociological term that equates with machismo and is often applied to contemporary Latin American cultures. The Aztecs exhibited many of the characteristics of hypermasculinity. They were patriarchal and aggressively expansive, territorial, and bellicose, with violence an integrated part of daily life. In her discussion of the nature of sacrifice in the Aztec world, historian Inga Clendinnen assessed the violence in Aztec life as “a combination of violence with apparent impersonality, (...) together with their habituated and apparently casual incorporation into the world of the everyday.” Twentieth-century sociologists, such as Thomas Schleff of the University of California Santa Barbara, have explained hypermasculinity and violence as a response

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to fear and insecurity, often present in people and cultures that are, or have been historically, dominated and mistreated by other cultures.  

Originating as a nomadic tribe, the early Aztecs were indeed marginalized upon their arrival in the more advanced cultural milieu of the Basin of Mexico, where they struggled to attain power and legitimize their rule. Even after uniting the area into a cohesive system with imperial control over outside cultures, their power was tenuous due to its very brevity and the many enemies incurred during their rise.  

This insecurity may have contributed to the violence and warfare that characterized Aztec life at its apex at the time of the Spanish conquest (1519-1521). Violence and aggression are not the only manifestations of hypermasculinity; it often take the form of posturing or display. Just as most animals would rather avoid a dangerous, energetically costly fight, the Aztecs devoted a great deal of time and effort to their performances of power, involving grand spectacles of ritual pageantry and costume, in which feather costumes played a critical role.

The production of featherwork was thus gendered. Male amanteca resided in Amantlan, a special area in Tenochtitlan, indicating they were so highly valued that they were given a personal quarter to work on their craft. Amanteca served the ruling class and elites, manufacturing feathered shields and costumes. In addition, learning the craft

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of feather production was part of the socialization of the male gender. Referring to an image from the Florentine Codex, anthropologist Rosemary Joyce notes that from childhood, Aztec males were linked with the tools of their future professions, including feathers.\footnote{Rosemary Joyce, “Girling the Girl and Boying the Boy: The Production of Adulthood in Ancient Mesoamerica.” World Archeology 31: 474.} Thus, the Aztecs so strongly associated feathers with masculinity that featherwork was a part of the process of molding children into appropriate gender roles.

In the Aztec world, as elsewhere, birds featured prominently in myths. Evidence for the link between feathers and a specifically sexual power comes form the mythical story of the birth of the Aztec solar-war god Huitzilopochtli (“Hummingbird on the Left”). Book Three of the Florentine Codex, *The Origin of the Gods*, tells of a myth in which the goddess Coatlicue, while sweeping, was impregnated by a ball of eagle down.”\footnote{Fray Bernardino de Sahagún, *Florentine Codex, General History of Things of New Spain, Book Three: The Origin of the Gods*, ed. and trans. Arthur J.O. Anderson and Charles E. Dibble (Salt Lake City: University of Utah Press, 1982), 2.} As described in the Florentine Codex, “feathers descended upon her, what was like a ball of feathers. Then Coatlicue snatched them up; she placed them at her waist. Thereupon, by means of them, Coatlicue conceived.”\footnote{Jason J. Gonzales and Kay Almere Read, *Handbook of Mesoamerican Mythology* (Santa Barbara: ABC-CLIO, Inc. 2000), 193.} This miraculous conception by feather down resulted in the birth of the god who was instrumental in guiding the Aztecs into the Basin of Mexico, and leading warriors to success in battle.\footnote{As previously discussed in Chapter 4, hummingbirds are admired for their fighting agility and are extremely
aggressive. The hummingbird also has sexual connotations, as “its long beak is plunged deeply into the corolla of flowers to suck the nectar.” Other elements of Aztec myths indicate less direct associations between feathers and male fertility, but are still suggestive of the creative power of feathers. For example, Quetzalcoatl (the “feathered serpent”) whose name incorporates that of a bird and whose costume displays feathers abundantly, was understood as the creator of the first humans and the being who discovered maize, the staple crop of Mesoamerican sustenance. Feathers are cited as a source of much of the deity’s power.

Warfare was one of an Aztec male’s most important activities. They engaged in battle in warrior costumes and bearing shields made great use of feathers. While no complete Aztec costumes have survived, painted manuscripts and ethnographic accounts provide descriptions of warrior and elite attire. Feathered clothes, weapons, and shields were, furthermore, a reward for success in battle and enhanced status in Aztec society.

The warrior suits themselves were often limb-encasing, showing the warriors clothed as the great eagle and other power animals such as the jaguar. Remarkably, however, even the jaguar costume was feathered as well as pelted. These costumes, topped with feathered headdresses, also featured back frames covered in yellow macaw and quetzal.

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feathers. Feathered shields, or *chimalli*, were also an essential part of both the practice of warfare and the warrior’s reward system. These shields were “painted,” with feathers carefully trimmed, arranged, and glued to form designs featuring abstract, geometric patterns (fig. 5.31) and sometimes figural images. Color illustrations from Sahagún’s *Primeros Memoriales* manuscript, a document that predates the Florentine Codex, show the wide variety of these shields, costumes, and other elements (few extant today) with hanging fringes, staffs, and feathers atop back battle standards and headdresses (fig. 5.32).

The costumes befitted the Aztec methods of warfare. The Aztecs engaged in short, intense battles, often resulting in the capture of victims for later sacrifice or slavery. In this system, these costumes were practical, particularly when supplemented by sturdy, quilted, cotton undergarments that could withstand stones, darts, lances, and war-club thrusts. Unfortunately for the Aztecs, however, this method of fighting is only effective against a like-minded enemy. During the conquest, the Spanish learned quickly that certain feather garments signaled the battle’s leader, and when these men were captured and their garments confiscated, this sent panic through the soldiers and they were easily defeated.441 Just as in nature, feathers conferred one advantage while increasing vulnerability in another area: namely, visibility and vulnerability to predators or adversaries. Whatever psychological advantage the soldiers gained by adorning themselves in feathers, the increased visibility and signaling of the group’s leader were ultimately fatal liabilities.

441 Anawalt, *Indian Clothing Before Cortes*, 216.
Aztecs also used featherwork costumes for deities and deity impersonators (living representatives of the gods). Nearly all of the Aztec deities described and depicted in the manuscripts, both male and female, wear feathered ornamentation in the form of headdresses, body garments, back standards, and staffs. The abundant and consistent use of feathers demonstrates that they were an essential aspect of deity costumes, signifying the supernatural power of the wearer. The presence of the feather ornaments on female deity costumes does not diminish the feathers’ masculine associations; rather, the practice of adding feathers to female deities seems akin to assigning typically male accessories to a warrior goddess in the Greek world (consider Athena, the Goddess of War, who is often replete with warrior accouterments: helmet, aegis, shield, and spear). Therefore, the use of feathers in Aztec life remains biased toward men.

The most famous surviving example of an Aztec feather headdress, a spectacular item of long quetzal feathers with gold and turquoise trim, is understood to be part of a deity costume (fig. 5.33). Deity impersonation rituals were transformative ritual events in which human beings would become one with a god, symbolically transformed into sacred beings, in part, through the use of feathers. In *City of Sacrifice*, historian of religion David Carrasco summarizes Sahagún’s description of the ceremony surrounding the sacrifice of a young man “impersonating” the deity Tezcalipoca. Chosen for his youth

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442 An analogy from modern-day professional settings, still largely patriarchal, might be women’s business suits: attire intended to communicate power and authority that is typically more masculine in design.

and physical beauty, he would live as a god for a year, pampered and decorated with all manner of adornments symbolic of preciousness, including eagle feathers, gold, turquoise, obsidian, ocelot sandals, and shells. As Carrasco reports, twenty days before the sacrifice, however, the gold, gems, and other precious items were discarded in favor of quetzal and heron headpieces, and he was provided with four wives.444 Perhaps the feathered headdress was intended to enhance his sexual potency during this final transformation and intense period of “marriage.”

In the secular realm, Aztec sumptuary laws carefully regulated the distribution of feathered costumes and accessories to privilege males and the elite. A long cape, an elite male’s garment, was often decorated with feathers; elite female clothing might also include feathers, but they were confined to trimmings at the edge of their garments.445 Feathered fans, too, were luxury status items also used for cooling.

I suggest that the male Aztec’s intense interest in feather costume was an expression of hypermasculinity. Feathered costumes and accessories were linked to the male warrior’s success in battle and the posturing and display of the male dominated the elite class. Many of the most powerful Aztec gods were associated with birds, and the myth of Quetzalcoatl, the ancient feathered serpent, reached its greatest expression in the world of the Post-classic Aztecs. A key creation myth credits feathers with the miraculous conception of the Aztec patron god, and a feathered headdress may have

444 David Carrasco, City of Sacrifice (Boston: Beacon Press, 1999), 120.

445 Anawalt, Indian Clothing Before Cortes, 39.
added to the sexual potency of Tezcatlipoca’s “impersonator” during the “marriage” phase of his impersonation cycle. The strong association between feathers and masculine power demonstrates that the Aztecs understood and attempted to harness the sexual potency of the feathers in their feather art and costume. The use of feathers as ornamentation by men and male birds can be seen as an intersection with status and sexual selection.

While there is little evidence for hypermasculinity in Paracas culture, the material culture indicates that men held positions of public power in their society, as they did in Aztec society and typically do elsewhere in human cultures worldwide and through time. Expressions of status and sexual selection can help explain why this gender inequality exists. It might originate in men’s biologically determined attraction to status and power (defined, in part, as the ability to control others), and ultimately to gain access to women’s reproductive abilities. Families in Paracas culture, organized as a chiefdom, may have established partnerships for politics as much as procreation. Thus, the observation relating to Paracas men and feather art is not to simply state that feathers made them attractive to women, it is that the hunger for status is an evolved need that manifests more strongly in men as a result of selective pressures, and displaying this status through material culture involved featherwork. Examples from male birds, from the intricacies of the bowerbird’s creations to the extravagant feathers of peacocks and birds of paradise, demonstrate just how elaborate and complex the behaviors designed by sexual selection can become.
Amazonian Feathers

Cultures of the Amazon rainforest share certain characteristics of Paracas society, such as a close relationship with the natural world, subsistence economies with some regional trade, strong shamanic traditions, and chiefdom status, providing another opportunity for ethnographic analogy with Paracas. An inventory of featherwork among the multitude of Amazonian cultures is far outside the scope of this chapter. I will, however, include two well-documented case studies with outstanding featherwork traditions to demonstrate their role in sacred and secular life.

The Cashinahua, a village culture residing in the Amazonian jungle on the eastern slope of the Andes between the borders of Peru and Brazil, still utilize feathers to enhance ceremonial artifacts and personal ornaments. When conducting his research among the tribe, anthropologist Kenneth M. Kensinger reports that the Cashinahua found his queries about their use of featherwork “silly,” since the answer was so obvious to them. In their world, feathers are “available, beautiful, and useful.”

The culture’s concepts of beauty and utility, however idiosyncratic, once again reveal the long reach of evolutionary biology into the realm of the aesthetic. The Cashinahua’s phrase for beauty, something or someone with “good dua,” applies to items from the human to the natural world that are directly related to human survival, such as a healthy baby (especially one oiled and freshly bathed, asleep, or nursing), a nubile young...

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446 Dr. Judy Sund, personal communication, February 5th, 2016.

woman, an athletic young man, a perfectly developed ear of corn, rays of sun filtering through the trees, a live macaw in flight, and feathers. In addition to possessing “good dua,” feathers are “useful” to the Cashinahua as aids to projectile weapons, but also as a type of spiritual medicine and armor, a closely related concept they call “dau.” As spiritual aids, feathers are employed in rituals to attract fertility spirits (fig. 5.34) and, when necessary, provide protection against hostile spirits. In secular life, men wear feathers to impress a potential mate. With their combination of “dua” and “dau,” feathers are truly formidable ornaments.

The Tupinambá (Tupi), an indigenous culture of eastern Brazil and another great featherworking culture, became famous in Early Modern Europe for their body-length feather cloaks made from the brilliant red plumes of the scarlet ibis (fig 5.35). Like Paracas, Tupi society was organized as a chiefdom, in which personal adornment and ritual attire played a key role in separating, sanctifying, and legitimizing the chief’s claims to authority, power, and control. Feathers were seen as a form of personal

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452 Buono, “Their Treasures are the Feathers of the Birds,” in Russo, Wolf, Fane, eds, 187.
wealth, and integral to a variety of ritual circumstances, including “funerary rites, signs of power and prestige in communal festivities, and even cannibalistic captive-captor rituals.” Interestingly, during one such post-battle ceremony documented by the colonial Jesuits in Brazil, there is an account of women actively participating and wearing the cloaks, revealing that they must have held privileged positions within the Tupi community, alongside men. The author notes this is an unusual break from the male monopoly on power and authority that is typical of chiefdoms.

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453 Buono, “Their Treasures are the Feathers of the Birds,” in Russo, Wolf, Fane, eds, 180.

454 Buono, “Their Treasures are the Feathers of the Birds,” in Russo, Wolf, Fane, eds, 183.
CONCLUSION

“When we try to pick out anything by itself, we find it hitched to everything else in the universe.”

- John Muir, *My First Summer in the Sierra*, 1911

This project began with the basic observation that ancient Andean Paracas artists frequently chose to depict birds and avian beings in their major art works, textiles and ceramics. Without written records or oral narratives from Paracas to accompany the images, however, art historical interpretations of its complex iconography, especially its predominant depictions of avian creatures, have been limited, yet several conclusions have been buttressed or newly set forth in this study. Among these interpretations are assertions that the embroidered and painted avian images are symbols of the deceased’s transformation from one state to another, emblems of the journey to the spirit world undertaken by the shaman, ideograms of local cults related to the earth and sea’s fertility, and signs of power relationships among members of Paracas society.

My primary intention was to focus on avian imagery in the textiles and ceramics, specifically, in order to delineate more precise meanings about their role in Paracas art and society, ritual, and myth. Another goal was to demonstrate that iconographic breaks from an early serpent/bird/feline Andean supernatural triad – introduced by the new Paracas concept of the Oculate Being, quite possibly a version of the local burrowing owl – usurped the highland feline as a dominant motif. This substitution demonstrated an artistic independence and innovation by Paracas artists that was an intervention into the Chavin-dominated early Andean interaction sphere of the first millennium BCE. This
bold artistic step has not yet been widely acknowledged in scholarship.

Paracas textiles, ceramics, and other artifacts can be seen as the manifestation of an irrepressible human need to create art and forge narratives, often using the natural world as metaphor. Just as humans naturally grow speech without instruction, they create art in all possible circumstances, even those as challenging as life in an ancient Peruvian desert coast. Materials and symbols may vary, just as lexicons and syntax vary, but the expressions will always occur.

As discussed in the Introduction, the unique Andean situation first fostered textile primacy, establishing much of Andean expression in fibers, possibly originating in connection with fishing aids. This may have been the case in Paracas, whose unsurpassed textiles evolved to communicate in color, technique, orientation of designs, and a host of abstract and figural imagery. Gourds and later ceramics, at first utilitarian like fiber work, also became opportunities for symbolic expressions, while feathers and metal alloys further enhanced already spectacular personal adornment and regalia. With the media of Paracas art thus established, geography provided exposure to animals, informing narratives and myth, while social needs and nuances placed an emphasis on birds. Explaining the emergence of the bird in the art of Paracas is something of a puzzle, which the following chapters of my study endeavored to solve.

Chapter 1, “An Improbable Ecosystem,” introduced the deep history that created Peru’s desert coast and surrounding environment. Its earthly origins become even more meaningful when connected to the human situation in Paracas and the creation of its unique corpus of art works. The singular ecology of the Peruvian coast and Paracas
peninsula - the result of eons of plate tectonics and fortuitous ocean dynamics that created
an unusual juxtaposition of desert and ocean, a haven for birds, and a challenge to
humans - provided the context and content for the distinctive art of Paracas. I propose
that Paracas imagery based on flora and fauna can thus be partly attributed to the
characteristics of its environment: an unusual landscape and diverse group of land and
sea animals, especially a huge number and wide variety of bird species. After examining
the relevant aspects of the natural history of Paracas, with particular attention to the
region's birdlife in an attempt to envision the world in which the ancient Paracans lived, I
have arrived at the conclusion that a truly exceptional environment generated equally
remarkable art forms.

While there is no single label or explanation to define the entire body of Paracas
images, it is clear that the symbolic power attributed to the animal, plants, and
agricultural abundance, as suggested in previous by previous scholarship, is
fundamentally correct. I also attest that the major works of Paracas artists, expressed in
the embroidered figures that embellish exquisitely woven textiles and resin-painted
ceramics, with birds and avian imagery dominant among them, arrive at a pinnacle of
Andean art, with the textiles acknowledged as among the most accomplished ever created
worldwide. I further propose that the stark desert environment may also have influenced
the reactive creation of brilliantly colored textiles, as an acute interest in generation and
germination is evident in the vibrant images teeming with symbols of fertility. The
ideograms suggested by Anne Paul, defined as a middle ground between speech and
writing, are, in my opinion, a Paracan visual language using plants and animals as lexicon
and syntax, to embroider and paint records of their culture’s interdependence with the natural world’s fecundity and the power of animals in their social world.

Chapter 2, “Animals in the Mind,” called attention to the innatist views pertaining to human thought and behavior that continue to surface in various strands of inquiry, from antique philosophy to the twenty-first century sciences of mind. While this remains a contentious approach, its persistence, reinvention, and refinement over long spans of time demonstrate that innatist arguments, from Jungian archetypes to evolutionary aesthetics, are as compelling for many as opposing views. Evolution by natural selection, now a widely substantiated theory, is as close to fact as present-day science can claim. While individual and cultural variation, culture change, and contextual experience will always be at play in shaping the human situation, evolutionary psychology asserts that natural selection has also exerted its influence on our bodies, minds, and human behavior.

These claims have suggested to me that since art-making behavior and animal imagery are among the oldest and most widespread human behaviors, they may also be among our species' adaptations. Birds, in particular, have been ubiquitous subjects and symbols since the earliest art, c. 30,000 BCE, suggesting that the human aesthetic interest in them may also be an adaptation, as well as a factor in the creation of Paracas art and avian images.

Following this line of inquiry, this chapter examined innatist claims related to birds that might have implications for Paracas art, with revealing results. They have illuminated how birds are linked to varied aspects of human life, including personal, social, and survival needs, such as coping with the mystery and inevitability of death and
hoped for renewal and regeneration, central concerns of Paracas culture. In the social world, distinctions between bird species may have also functioned as metaphors that structured social relations, differentiating family and social groups. Such metaphoric distinctions would have been critical in a chiefdom society like Paracas, one concerned with hereditary lineages possibly organized into nature cults, such as those of the Paracas falcon and condor.

As elements of biophilia and evolutionary aesthetics, birds are also indicators of ecological health and access to the bounty of the sea, the primary food source for Paracans, which also ties birds to basic survival needs. As emblems of a promising environment and food resources, they may have become symbols of power for those claiming to possess their attributes. This may help explain why the prolific artists of Paracas devoted so much of their attention and time to creating such striking avian imagery that they evidently believed signified status in life and assisted with regeneration and transformation in the afterlife.

Chapter 3, “Early Birds,” further discussed how birds intersected with the principles of evolutionary aesthetics and how this was manifested in the art of the early Andes. Early Andean settlement patterns suggested that humans and birds shared environments throughout formative millennia. Birds were indicators of peaceful and healthy ocean waters and fertile wetlands promising food, as well as the absence of imminent predators or encroaching storms. Settlement patterns also indicated that there was long-term, consistent exposure to a vast array of birds, enhancing the possibility that avian images would appear in the earliest art forms.
The appearance of birds in the art of the earliest Andean cultures described this development. From the twined textiles of a small coastal culture of Huaca Prieta to the monumental incised stonework of the highland ceremonial center of Chavín de Huantar, birds, serpents, and felines appear in tandem. Examples like this suggested to me that when spiritual concerns are central to a society, beliefs are both informed and illustrated through the parallel drama of animal life in both its everyday as well as beautiful and sublime aspects. This is manifested as imagery in art made in offerings found in village cultures like Huaca Prieta, or as component parts of stone monuments in Chavín. Much of the distinctive and visually challenging animal art styles forged in the earliest Andean art, as in Huaca Prieta’s composite textile and gourd images and Chavín’s hybrid stone creatures kenned and/or embedded throughout the bodies and feathers of other beings, continued in some form in the early art of Paracas. Nevertheless, as Andean art and myth continued to evolve, so would the cast of animals and art styles used to depict changing ideology, social needs, and narrative folklore. Most significantly, on the coast, Paracas artists introduced a new feline, the smaller pampas cat, relinquishing the ferocity of the mighty Chavín jaguar, and replaced the soaring highland condor by a host of avian beings rendered in a multitude of colors and styles.

Chapter 4, “Paracas Birds,” explored the concepts of “making meaning” and using the natural world as metaphor in the cultures of the early Andes that culminated on the south coast with a focus on Paracas avian images. Noting the local emergence of the bird in Paracas ceramic and textile art, a departure from widespread highland Chavín prototype, this chapter compared narratives involving specific bird species with those
found on Paracas textiles and ceramics. Principal themes emerging from this survey included birds' multi-faceted relationship with the afterlife and spirit world and their roles in regeneration—that of the deceased human embedded within the textiles and buried, and thus a possible influence on growth in the agricultural world. Such potent emblems of fertility conveyed multiple aspects of power. Power and birds also intersected in a number of other ways—as the spiritual knowledge of the shaman, which the bird helped him access, in the consumption and transport of powerful trophy heads by bird supernaturals, and, more generally, with the use of birds to signal prestige and authority in social life, particularly among the community’s elite members and leaders.

In Paracas, the human need to cope with the mystery of death may have been a critical factor in the generation of avian imagery. Ethnographic analogy demonstrates that birds have been extremely effective in other cultures for expressing various meanings and narratives attached to death. As evidenced by their art works and burial practices, the interest in the afterlife and ancestor worship was stronger in Paracas than in previous Andean societies that also had complex spiritual concerns and utilized animal imagery, such as those of coastal Huaca Prieta or highland Chavín. In addition, the location of Paracas on the coast and the drama of the abundant bird life there would have strongly influenced the content of their narratives, shifting the focus away from a dominant but distant feline and toward the omnipresent local bird. The medium of embroidered textiles also provided a way for Paracas artists to transform the Chavín template into new expressions in color and curvilinear forms that in Paracas were a distinctive expression of the local ecology.
Chapter 5, “Gendered Feathers,” emphasized the many qualities of feathers, such as their luminescence and color, which elicited comparisons to life-giving substances such as blood, fire, sunlight, and water. It follows, then, that they were among the most inherently beautiful and desirable objects one could possess. In Paracas’s chieftain society, where status was paramount and leaders typically held positions of both sacred and secular power, feathers played a prominent role in material culture as ornaments of personal status and ceremonial enhancements. Surviving examples from Paracas burials not only showed that feathers highlighted the accents of textile headbands and decorated wands, but were themselves also symbolically represented by hammered gold copper alloy head ornaments. Mummy bundles also included rayonnant fans of various feather types, possibly used as status symbols and ceremonial regalia in life that were later included in burials for their presumed utility in the afterlife. One outstanding textile mantle, possibly cut to resemble the outline of a bird, featured a ring of yellow feathers that may be a reference to the sun. Other illustrations from embroidered Block Color figures suggest further use of feathers as rayonnant headdresses, although these items were not found in burials.

The material evidence from Paracas burials thus showed that Paracas overwhelmingly favored feather ornaments for elite men. While there are some notable exceptions from ritual contexts, such as those of the coastal Nasca and Amazonian Tupi, this gender bias toward men is consistent in later Andean cultures as well as in the Mesoamerican Aztecs. These cultures linked the feather to fertility and sexual and military prowess, which helped forge the small miracles of feather enhancement,
analogous to ornamental display in male birds. And here I note the parallel in the use of feathers in both the avian and human realms.

Finally, the goal of this study has not been to argue for the existence of a bird art gene engineered by natural and sexual selection that explains all of the avian imagery in Paracas art. Such a contention is not only untenable, it would circumvent an exploration of the rich layers of experience and environment, indeed, culture, that resulted in avian imagery. Paracas, a small coastal culture in the first millennium BCE, sought meaning and visible symbols to cope with the mortality of their leaders, maintain a connection to their departed ancestors, enhance the survival challenges of a desert environment, meet the social demands of establishing hierarchies and status, and ensure the continuation of family lineages. For these reasons, they looked to birds and feathers as symbols to help encode these personal, social, and religious meanings. It is hoped that the research undertaken in this dissertation may have peeled away many layers of geography, geology, and human history, leading to a better understanding of the Paracas site and society, and art and iconography. Nevertheless, even with many outer layers removed, the core is still something of a mystery. The evocative power of birds and avian imagery may never be fully explained and may remain in the realm of the numinous, a continuing challenge to art historians and thinkers in other fields as well.
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Fig. 0.1: Map of Paracas peninsula and Paracas National Reserve. Source: Walter Wurst, ed., *Paracas: Magic Islands* (La Molina, Peru: Proislas, 2004), 172.
Fig. 0.2: Watercolor image of Paracas mummy bundle. Source: Fernando Torres, *La Ilustración Arqueológica de Pedro Rojas Ponce* (Lima: Galería ICPNA Miraflores, 2006), 52.

Fig. 0.3: Detail of supernatural being from Paracas textile, Brooklyn Museum of Art. Photo by author.
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Fig. 5.32: Feathered warrior costumes and *chimalli* (war shields). Source: Fray Bernardino de Sahagún, *Primeros Memoriales*, Facsimile Edition (Norman: University of Oklahoma Press, 1993), 73.

Fig. 5.33: Reconstructed quetzal headdress for possible deity figure. Source: Teresa Castello Yturvide, ed., *The Art of Featherwork in Mexico* (Mexico City: Fomento Cultural Banamex, 1993), 71.
Fig. 5.34: Cashinahua fertility headdress. Source: https://museum.library.uni.edu/objects/197078100013 (accessed August 24, 2016).