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Published by University Press of Colorado
1580 North Logan Street, Suite 660
PMB 39883
Denver, Colorado 80203-1942

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The University Press of Colorado is a proud member of
the Association of University Presses.

The University Press of Colorado is a cooperative publishing enterprise supported, in part, by Adams State University, Colorado State University, Fort Lewis College, Metropolitan State University of Denver, University of Alaska Fairbanks, University of Colorado, University of Denver, University of Northern Colorado, University of Wyoming, Utah State University, and Western Colorado University.

∞ This paper meets the requirements of the ANSI/NISO Z39.48-1992 (Permanence of Paper).

ISBN: 978-1-64642-460-3 (hardcover)

ISBN: 978-1-64642-461-0 (ebook)

<https://doi.org/10.5876/9781646424610>

Library of Congress Cataloging-in-Publication Data

Names: Milbrath, Susan, editor. | Baquedano, Elizabeth, editor. | Klein, Cecelia F., honouree.
Title: Birds and beasts of ancient Mesoamerica : animal symbolism in the Postclassic period /
edited by Susan Milbrath and Elizabeth Baquedano.

Description: Denver : University Press of Colorado, [2023] | Includes bibliographical references and index.

Identifiers: LCCN 2023013041 (print) | LCCN 2023013042 (ebook) | ISBN 9781646424603 (hardcover) | ISBN 9781646424610 (ebook)

Subjects: LCSH: Animals—Symbolic aspects—Central America. | Animals—Symbolic aspects—Mexico. | Animals in art. | Animals, Mythical—Central America. | Animals, Mythical—Mexico. | Animals, Mythical, in art. | Indian art—Central America. | Indian art—Mexico. | Animals—Mythology—Central America. | Animals—Mythology—Mexico. | Animals—Folklore. | Symbolism in art. | Indians of Central America—Antiquities. | Indians of Mexico—Antiquities.

Classification: LCC GR705 .B497 2023 (print) | LCC GR705 (ebook) | DDC 398/.3690972—dc23/eng/20230511

LC record available at <https://lcn.loc.gov/2023013041>

LC ebook record available at <https://lcn.loc.gov/2023013042>

Cover photographs courtesy Ethnologisches Museen zu Berlin.

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Dressed to Kill

*Richly Adorned Animals in
the Offerings of the Great
Temple of Tenochtitlan*

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AND
ISRAEL ELIZALDE MENDEZ

INTRODUCTION

Since its foundation in 1978, one of the main missions of the Templo Mayor Project (PTM) of Mexico's National Institute of Anthropology and History (INAH) has been to study the ritual deposits buried between the fourteenth and sixteen centuries in the religious buildings, patios, and plazas of Tenochtitlan's sacred precinct (e.g., Aguirre 2020b; Chávez 2007, 2017; López Arenas 2003; López Luján 1993, 2006; Matos 1988; Nagao 1985; Olmo 1999; Wagner 1982). Thus far, we have explored 204 of these extremely interesting areas of activity, which have made us realize not only their exceptional richness—as one would expect from a great empire—but also the unusual diversity of minerals, plants, animals, human beings, and cultural objects that were buried in such confined spaces (López Luján 1993, 2005, 2006, 2017). This richness and diversity of materials, along with their strict order of placement inside ashlar boxes, stone coffers, construction fill, or holes dug beneath floors, undoubtedly follow the intention of Mexica priests to produce true cosmograms—that is, miniature models that materially recreated their prevailing ideas about the structure and operation of the universe (Aguirre 2020b; Argüelles 2019; López Luján 1993, 1998, 2005, 2020).

More than four decades of uninterrupted work by several generations of PTM specialists have also enabled us to continually refine our protocols for excavating and recording ritual deposits (figure 10.1). As a



FIGURE 10.1.
*Antonio Marín
 Calvo excavating
 Offering 179
 at the Templo
 Mayor. Photograph
 by Mirsa Islas.
 Courtesy Proyecto
 Templo Mayor.*

result of critical feedback gleaned from daily practice during the last three field seasons from 2007 to 2020, we have greatly increased the care with which we explore these archaeological contexts and have relied on a constantly evolving technology to exhaustively document them (Chávez et al. 2011; De Anda et al. 2017; López Luján 2017). This has helped us better understand the spatial relationships among the gifts to gods buried by the Mexica, identify the transformative taphonomic processes they have undergone over the centuries, and reconstruct their initial position more than half a millennium ago (Aguirre 2019; Chávez 2019).

For example, this is how we discovered that sets of exceedingly heterogeneous objects, in terms of raw materials and form, initially constituted “composite artifacts” or assemblages. Such is the case with various sacrificial flint knives, miniature basalt incense burners, and anthropomorphic copal figurines that were adorned with headdresses, faces, nose and ear ornaments, necklaces, scepters, weapons, tobacco pouches, or *tezcacuitlapilli* (mirror devices worn on the back) to transform them into images of specific deities or divinized warriors (Aguirre 2019, 2020a; Chávez et al. 2010; López Luján and Aguirre 2010). Something similar can be said about the animal corpses that were buried together with a variety of often tiny ornaments and insignia used by humans to symbolically qualify them (Argüelles 2019; López Luján and Argüelles 2010; López Luján et al. 2012). The purpose of this chapter is to describe the suggestive connections between these faunal remains and the numerous cultural objects that accompanied them in the archaeological context. We will also explain the religious logic of the peculiar ritual practice of adorning birds and mammals before burying them in the offerings of Tenochtitlan’s sacred precinct (for animals dressed and sacrificed in the Andean area, see Valdez 2019).

THE CORPUS AND ITS SPATIAL DISTRIBUTION

Let us begin this analysis by stating that, as a result of our most recent investigations, we have detected a total of thirty-two animals that were adorned with ornaments and insignia and buried in 21 of the 204 ritual deposits excavated by the PTM and the Urban Archaeology Program (PAU) in the Templo Mayor Archaeological Zone. Significantly, these thirty-two individuals belong to only six of the more than five hundred taxa that biologists have identified in the ruins of the sacred precinct. In fact, our corpus of dressed fauna is limited to just thirteen golden eagles (*Aquila chrysaetos*), a peregrine falcon (*Falco peregrinus*), two hawks (*Buteo* sp.), seven Mexican gray wolves (*Canis lupus baileyi*), seven pumas (*Puma concolor*), and two jaguars (*Panthera onca*). Clearly, all of these fauna normally live in the wild and occupy the top of their respective food chains, for which ecologists have defined them as “superpredators”—that is, apex or alpha predators that have no natural predators of their own. As we shall see below, Mesoamerican peoples commonly associated birds of prey and large canines and felines with basic ideas such as destruction, ferocity, aggressivity, and military and political power, as well as bravery in war and the sacrifice of humans, which assured cosmic equilibrium.

These twenty-one ritual deposits (Offerings 6, 24, 68, 81, 99, 103, 107, 115, 120, 125, 141, 174, 178, 179, H, K, P, U, and X, and Chambers 2 and 3) were situated

in temporal contexts spanning a period of eighty years (see table 10.1; López Austin and López Luján 2009, 207–214; Matos 1981, 50), including one (4.8%) from Phase IVa (1440–1469 CE), attributed to the reign of Motecuhzoma Ilhuicamina; five (23.8%) belonging to Phase IVb (1469–1481), constructed by Axayacatl; one (4.8%) from Phase V (1481–1486), presided over by Tizoc; ten (47.6%) from Phase VI (1486–1502) during the reign of Ahuitzotl, and four (19.0%) belonging to Phase VII (1502–1520), overseen by Moctecuhzoma Xocoyotzin. This means that the practice was carried out at least during the maximum consolidation and expansion of the Mexica empire.

As for the architectural distribution of the ritual deposits that contained dressed animals, we see clear patterns. Like Mexica offerings in general, their highest concentration (fifteen, 71.4%) was discovered at the Templo Mayor and its adjacent plaza to the west, while the rest of them (six, 28.6%) were found in four secondary structures situated north or east of this great pyramid in Buildings A (two, 9.5%), B (one, 4.8%), E (two, 9.5%), and I (one, 4.8%).

In the specific case of the Templo Mayor the deposits were located exclusively in front of the west side of the pyramid, that is, at the foot of its main façade. Suggestively, the eagles (Offerings 6, 81, 99, 120, 125, and 141), hawks (Offering 179), and wolves (Offerings 115, 120, 125, and 174) were concentrated in the southern half of the façade, whose stairway led to Huitzilopochtli's shrine (figures 10.2 and 10.3). In other words, they were found in the section of the building related to the sun, the winter solstice, and the dry season. Correlatively, one of the jaguars (Offering 103) and all of the pumas (Offerings 24 and 107 and Chambers 2 and 3) were distributed in the northern half of the façade, whose stairway led to Tlaloc's shrine (figure 10.4). This means that they were found in the section of the building associated with the earth, the summer solstice, and the rainy season. The only exception to this constant is the jaguar from Offering 178, a deposit that was aligned with Huitzilopochtli's shrine but that occupied the geometric center of Building O, which we have identified as the Huei Cuauhxicallco (López Luján and Barrera 2011; López Luján 2019).

As for the four minor buildings, the animals were located either inside the structure (Offerings H, K, P, U, and X) or in front of its western façade (Offering 68). Offering H is especially suggestive, as its ashlar box contained the complete juvenile skeletons of a wolf and a puma. Echoing the pattern observed at the Templo Mayor, the wolf occupied the southern half of the box, while the puma occupied the northern half (figure 10.5).

Remember that in ancient Nahua thought, the eagle and, by extension, other birds of prey were associated with the upper realm of the cosmos, men, the sky, dryness, heat, light, and Huitzilopochtli (Garza 2001; Gilonne 1997;

TABLE 10.1a. Dressed birds from Tenochtitlan’s sacred precinct: context, osteobiography, ornaments, and insignia

| <i>Animals</i> | <i>Eagles</i> | | | | | | | | | |
|----------------------------|---------------|-----|-----|-----|-----|--------|--------|-----|----|-----|
| Individual | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 |
| Offering | 6 | 81 | 99 | 99 | 120 | 125 | 125 | 141 | P | P |
| Building | H | H | H | H | H | H/T | H/T | H/T | A | A |
| Phase | IVb | VII | VII | VII | VI | VI | VI | VI | V | V |
| Orientation | W | W | W | W | und | W | W | E | E | E |
| Position | und | vd | und | und | und | rld | rld | vd | vd | vd |
| Age | a | a | a | a | a | a | a | a | a | a |
| Sex | m | f | m | m | | m | f | | f | m |
| Taxidermy | c | tx | c | tx | tx | c | c | tx | tx | tx |
| Accessories | | | | | | | | | | |
| Metal bell anklet | Cu | Cu | Cu | Cu | Cu | Au (S) | Cu (N) | Cu | Cu | Cu |
| Anahuatl disk | | | | | w | | s | | | |
| Oliva belt | | | | | | | | | | |
| Earspool | | | | | | | | | | |
| CTR ornament | | | | | | | | | | |
| Beaded necklace | | | | | | | | | | |
| Bracelet w/bow | | | | | | | | | | |
| Maxtlatl loincloth | | | | | | | | | | |
| Atlatl w/darts | | | | | | | | | | |
| Tzotzopaztli batten | | | | | | | | | | |
| Tlachieloni scepter | | | | | | | | | | |
| Chimalli shield | | | | | | | | | | |
| Double volute headdress | | | | | | | | | | |
| Hummingbird-beak headdress | | | | | | | | | | |
| Eyes | | | | | | | | | | |
| Knife in jaws | | | | | | | | | | |
| Bead in jaws | | | | | | | | | | |
| Totals | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 |

Courtesy of Proyecto Templo Mayor.
Abbreviations: **a**: adult; **Au**: gold; **c**: complete; **Cu**: copper; **E**: east; **f**: female; **g/s**: greenstone pieces with one shell; **g/s/t**: greenstone/shell/turquoise; **H**: Huitzilopochtli; **m**: male; **N**: north; **rld**: right lateral decubitus; **s**: mother-of-pearl shell; **S**: south; **t**: taxidermic; **T**: Tlaloc; **und**: undetermined; **vd**: ventral decubitus; **W**: west; **w**: wood

| <i>Falcon</i> | | | <i>Hawks</i> | | <i>Totals</i> | |
|---------------|-----|-----|--------------|-----|---------------|---|
| A11 | A12 | A13 | H1 | G1 | G2 | 16 individuals |
| P | U | X | X | 179 | 179 | 10 out of 204 offerings |
| A | E | E | E | H | H | 4 buildings (A, E, Templo Mayor: Huitzilopochtli and Tlaloc sides) |
| V | IVb | IVb | IVb | VI | VI | IVb–VII (1469–1520 CE) |
| E | W | und | und | W | W | 16 (9 west, 4 east, 3 undetermined) |
| vd | und | und | und | vd | vd | 16 (7 ventral decubitus, 2 right lateral decubitus, 7 undetermined) |
| a | a | a | a | a | a | 16 (adults) |
| f | | | | | | 9 (4 females, 5 males) |
| tx | tx | tx | tx | c | c | 16 (6 complete, 10 taxidermic) |

| | | | | | | |
|----|----|----|----|-------|-------|---|
| Cu | Cu | Cu | Cu | Au | Au | 16 (13 copper, 3 gold) (south, north) |
| | | w | w | Au | Au | 6 (1 mother-of-pearl shell, 2 gold, 3 wood) |
| | | | | | | o |
| | | | | | | o |
| | | | | | | o |
| | | | | g/s/t | g/s/t | 2 (greenstone/shell/turquoise) |
| | | | | Au | Au | 2 (gold) |
| | | | | Au | Au | 2 (gold) |
| | | w | w | | | 2 (wood) |
| | | | | | | o |
| | | | | | Au | 1 (gold) |
| | | | | Au | | 1 (gold) |
| | | | | | Au | 1 (gold) |
| | | | | | Au | 1 (gold) |
| | | | | g/s | g/s | 2 (2 greenstone pieces w/1 shell) |
| | | | | | | o |
| | | | | | | o |
| 1 | 1 | 3 | 3 | 7 | 9 | 36 accessories |

TABLE 10.1b. Dressed mammals from Tenochtitlan’s sacred precinct: context, osteobiography, ornaments, and insignia

| <i>Animals</i> | <i>Wolves</i> | | | | | | | <i>Pumas</i> | | | |
|----------------------------|---------------|-----|-----|-----|------|-----|-----|--------------|-----|-----|-----|
| Individual | L1 | L2 | L3 | L4 | L5 | L6 | L7 | P1 | P2 | P3 | P4 |
| Offering | 68 | 115 | 120 | 125 | 174 | H | H | C2 | C3 | 24 | 107 |
| Building | I | H | H | H/T | H | B | B | T | T | T | T |
| Phase | VII | VI | VI | VI | VI | VI | VI | IVb | IVa | IVb | VI |
| Orientation | W | W | W | W | W | W | W | W | W | W | W |
| Position | rld | vd | rld | rld | rld | vd | vd | vd | rld | rld | vd |
| Age | und | j | a | a | j | j | j | j | a | und | und |
| Sex | und | m | f | f | und | und | und | und | | | |
| Taxidermy | c | c | c | c | c | c | c | c | c | c | c |
| Accessories | | | | | | | | | | | |
| Metal bell anklet | | Cu | Cu | Au | Cu | | | | | Cu | Cu |
| Anahuatl disk | | s | s | | 2 Au | s | s | | | | |
| Oliva belt | s | | s | s | s | | s | | s | | |
| Earspool | | | w | w/t | w | | | | | | |
| CTR ornament | | | w/s | | Au | | | | | | |
| Beaded necklace | | | g | g | g | | | | | | |
| Bracelet w/bow | | | | | | | | | | | |
| Maxtlatl loincloth | | | | | | | | | | | |
| Atlatl w/darts | | | | | | | | | | | |
| Tzotzopaztli batten | | | | | w | | | | | | |
| Tlachieloni scepter | | | | | | | | | | | |
| Chimalli shield | | | | | | | | | | | |
| Double volute headdress | | | | | | | | | | | |
| Hummingbird-beak headdress | | | | | | | | | | | |
| Eyes | | | | | | | | | | | |
| Knife in jaws | | | | | | fl | | | fl | | |
| Bead in jaws | | | | | | | | g | | | |
| Totals | 1 | 2 | 6 | 4 | 7 | 2 | 2 | 1 | 2 | 1 | 1 |

Courtesy of Proyecto Templo Mayor.
Abbreviations: **a**: adult; **Au**: gold; **c**: complete; **Cu**: copper; **E**: east; **f**: female; **fl**: flint; **g**: greenstone; **H**: Huizilopochtli (southern half of the Templo Mayor); **j**: juvenile; **m**: male; **r**: reed; **rld**: right lateral decubitus; **s**: shell; **sa**: subadult; **T**: Tlaloc (northern half of the Templo Mayor); **und**: undetermined; **vd**: ventral decubitus; **W**: west; **w**: wood; **w/t**: wood with turquoise tesserae; **w/s**: wood with shell

| <i>Jaguars</i> | | | | | <i>Totals</i> |
|----------------|----------------|----------------|----------------|----------------|---|
| P ₅ | P ₆ | P ₇ | J ₁ | J ₂ | 16 individuals |
| 107 | H | K | 103 | 178 | 14 out of 204 offerings |
| T | B | A | T | H | 4 buildings (A, B, I, Templo Mayor: Huitzilopochtli and Tlaloc sides) |
| VI | VI | VI | VII | VI | IVa–VII (1440–1520 CE) |
| W | W | E | W | W | 16 (15 west, 1 east) |
| vd | vd | rld | rld | vd | 16 (8 ventral decubitus, 8 right lateral decubitus) |
| und | j | und | j | sa | 16 (3 adults, 1 subadult, 7 juveniles, 5 undetermined) |
| | und | | und | f | 4 identified (3 females, 1 male), 7 undetermined |
| c | c | c | c | c | 16 (complete) |

| | | | | | |
|----|---|----|---|---|---|
| Cu | | Cu | | | 8 (7 copper, 1 gold) |
| | | | | w | 7 (4 mother-of-pearl shell, 2 gold, 1 wood) |
| | s | s | s | | 9 (<i>Oliva</i> shell) |
| | | | | | 3 (2 wood, 1 wood with turquoise tesserae) |
| | | | | | 2 (1 gold, 1 wood with shell) |
| | | | | g | 4 (greenstone) |
| | | | | | o |
| | | | | | o |
| | | | | w | 1 (wood) |
| | | | | | 1 (wood) |
| | | | | | o |
| | | | | r | 1 (reed) |
| | | | | | o |
| | | | | | o |
| | | | | | o |
| | | | | | 2 (flint) |
| | | | | | 1 (greenstone) |
| 1 | 1 | 2 | 1 | 4 | 38 accessories |

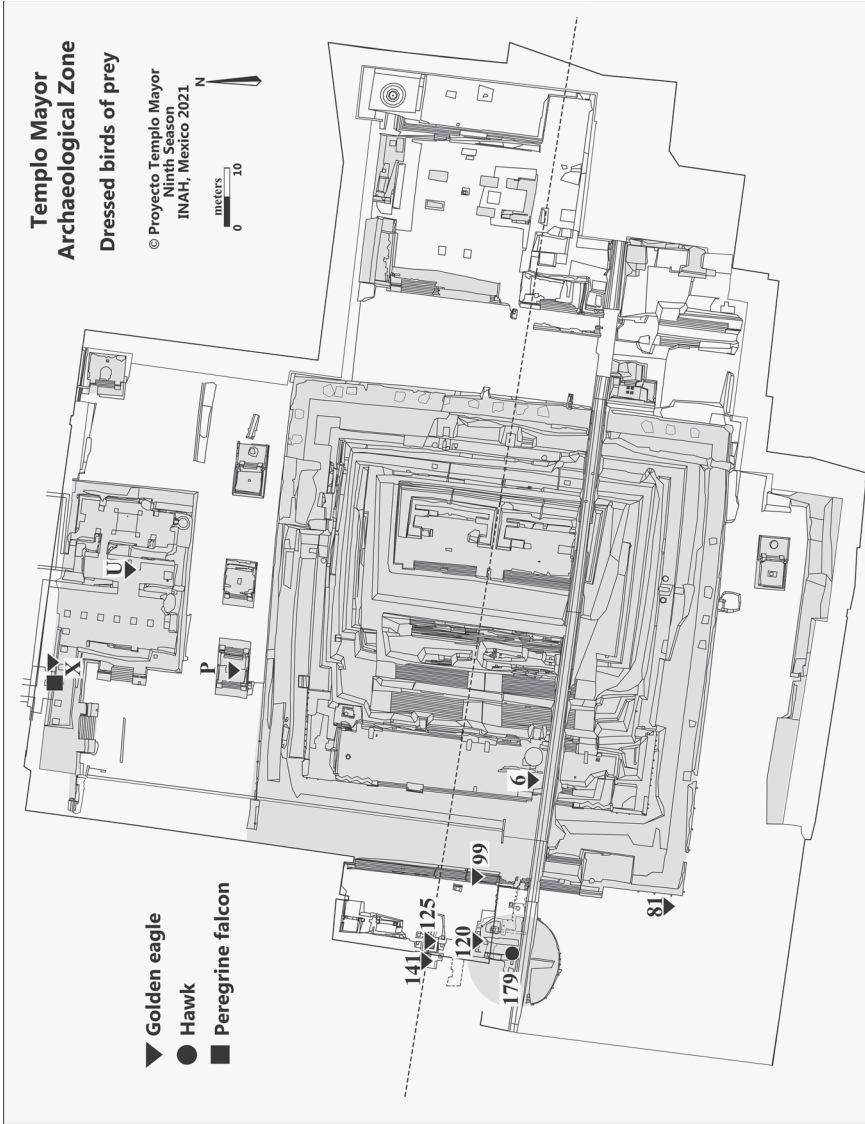


FIGURE 10.2.
*Location of the
dressed birds of prey
in the Templo Mayor
Archaeological
Zone. Drawing by
Michelle De Anda.
Courtesy Proyecto
Templo Mayor.*

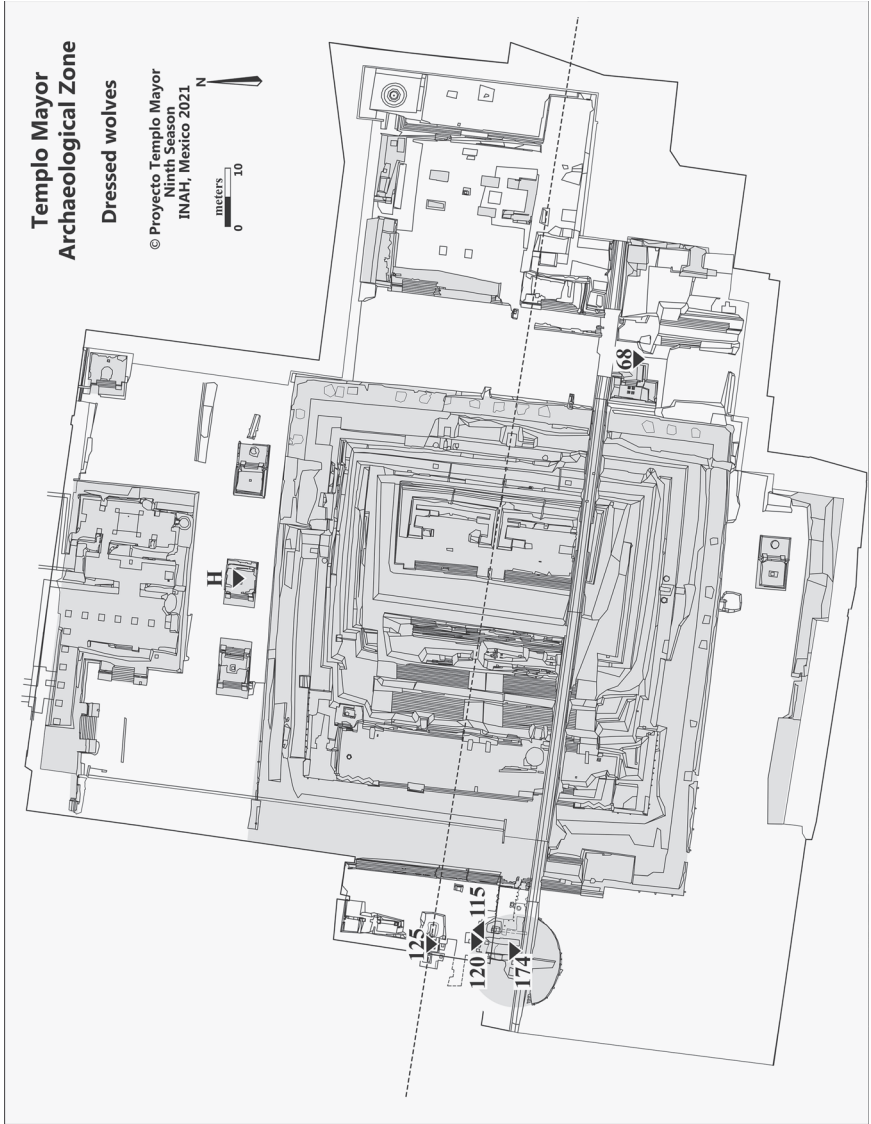


FIGURE 10.3.
*Location of the
dressed wolfs in
the Templo Mayor
Archaeological
Zone. Drawing by
Michelle De Anda.
Courtesy Proyecto
Templo Mayor.*

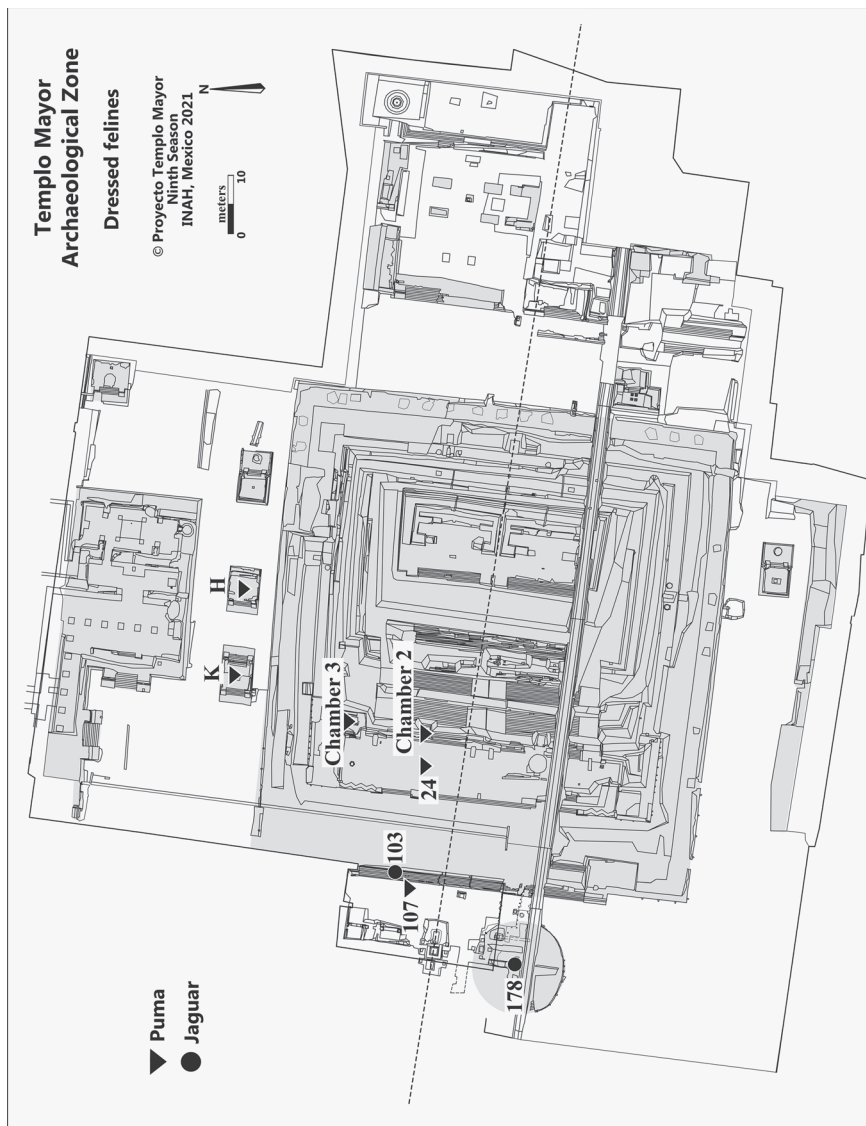


FIGURE 10.4.
*Location of the
 dressed felines in
 the Templo Mayor
 Archaeological
 Zone. Drawing by
 Michelle De Anda.
 Courtesy Proyecto
 Templo Mayor.*



FIGURE 10.5. *The wolf and puma juveniles from Offering H (west is up). Drawing by Leonardo López Luján. Courtesy Proyecto Templo Mayor.*

Kendall 1992, 120–122; Latsanopoulos 2011; Seler 2004, 162–174). On numerous occasions the eagle gives form to the sun itself, as expressed in the Florentine Codex (Sahagún 1950–1982, 7:1): “The sun: the soaring eagle, the turquoise prince, the god” (Tonatiuh, *quaubtleonitl*, *xippilli*, *teutl*). This explains why the rising sun in Nahuatl was called “Cuauhtlehuanitl” or “eagle that ascends,” and

the setting sun was known as “Cuauhtemoc” or “eagle that descends” (Sahagún 1989, 343, 907). Complementarily, the jaguar and, by extension, other felines were associated with the lower realm of the cosmos, women, the earth, wetness, cold, and darkness (Latsanopoulos 2011; Olivier 2004, 157–192; Saunders 1989; Seler 2004, 33–49; Winning 1987, 1:97–109). Tezcatlipoca, in his jaguar avatar, was conflated with Tepeyollotl (Heart of the Mountain), a divine manifestation of terrestrial and lunar forces, while among the Maya the jaguar usually appeared in the nocturnal sun (Valverde 2004). The symbolism of the wolf, however, is less clear. We know that the dog represented the fire that falls from the sky—that is, the lightning that cracks the earth’s surface to open the way to the underworld—and was a celestial being associated with the sun and Venus that led these astral bodies on their journey into the bowels of the earth (Garza 1997; Seler 2004, 40–63). Based on this, and considering that the wolf is a very active predator at dusk and dawn, Nicolas Latsanopoulos (2008, 82–97) has proposed that it played the role of intermediary between the sun of the day and the sun of the night. Thus it is suggestive that the Legend of the Suns (1945, 125) mentions that the eagle, jaguar, and wolf were sacrificed to consecrate Mixcoatl’s Temple.

But let us return to our archaeological contexts. Inside the offering receptacles we also noticed regularities in the spatial distribution of the dressed animals (figures 10.6 and 10.7). For example, there was a clear pattern in their anatomical orientation. The corpses of twenty-nine (90.6%) of the thirty-two individuals were placed in an east-west direction, including twenty-four (75%) with their head facing west and only five (15.6%) with their head facing east. It is worth noting that four of those five individuals were found in Offerings K and P of Building A, a small shrine endowed—unlike the others—with a stairway to the west and another to the east. The fifth individual with its head facing east is located in Offering 141, an ashlar box situated to the west of the Tlaltecuhтли monolith, which means that the animal’s gaze was directed toward this gigantic image of the earth goddess. Unfortunately, it was impossible to determine the orientation of the three remaining individuals (9.4%), as their contexts in Offerings 120 and X were severely altered by the seasonal oscillation of the water table. In any case, the data in this paragraph indicate that more than a half millennium ago there was a distinctly evident custom of burying dressed animals oriented to the sun’s course with their heads nearly always pointing west.

In terms of the corporal disposition of the animals, we see equally clear patterns. A total of fifteen individuals (46.9%) were carefully buried by the priests in the ventral decubitus position, that is, facedown on their chest and



FIGURE 10.6. *Male and female eagles in situ in Offering 125 (west is up).*
Photograph by Leonardo López Luján. Courtesy Proyecto Templo Mayor.

abdomen in a natural pose. Ten other individuals (31.3%) were buried in the right lateral decubitus position, that is, on their right side with their left facing upward. It was impossible to ascertain the disposition of the seven remaining individuals (21.9%), as their skeletal elements had shifted from their original



FIGURE 10.7. *Female wolf in situ in Offering 125 (west is up). Photograph by Leonardo López Luján. Courtesy Proyecto Templo Mayor.*

location because of organic decomposition processes, subsoil water fluctuations, and telluric movements during their long period underground. In any case, the intention of placing the animals in standardized corporal positions is clear, including some with their spine oriented toward the zenithal position

of the sun and others with their left side aligned with the apparent path of the sun, something very important in this northern latitude where it has a pronounced southern declination.

Before proceeding to the next section, we must warn the reader that the jaguar in Offering 178 and the two hawks in Offering 179 will not be analyzed in this chapter. Since we are still in the long process of excavating both ritual deposits, we have not had the opportunity to extract all of the materials from their receptacles and undertake a detailed examination of the skeletons and their associated artifacts in the field laboratory.

THE OSTEOLOGICAL AND GENETIC DATA CONCERNING THE ANIMALS

The thirty-two animals in our corpus have a wide range of ages, although we should note that there are no infant individuals. As table 10.1 shows, the specimens include seven juveniles (21.9%), one subadult (3.1%), nineteen adults (59.4%), and five of undetermined age (15.6%). The sixteen birds of prey are all adults, according to their well ossified skeletons and lack of cranial and mandibular sutures (Ontiveros 2015, 22–24, 91–98). Remember, however, that the skeletal development of this group is extremely rapid and that individuals usually enter their adult stage within eight to sixteen weeks after birth (figure 10.6).

As for the seven wolves, we managed to ascertain that four were juveniles and two were adults (Álvarez and Ocaña 1991, 123; López Luján and Polaco 1991, 125–26). We were able to estimate that the two specimens in Offering H and the one from Offering 115 were between five and seven months old at the time of death. The wolf in Offering 174 was slightly older—between eight and ten months—for although its long bones had not ossified, its short bones and pelvis had, and its permanent teeth had already come in. The specimen from Offering 125, in contrast, died at an extremely advanced age (López Luján et al. 2012, 30), exhibited by the obliteration of the cranial sutures, the fusion of the epiphysis of the long bones, and the fusion of the pelvis with the sacrum, as well as the presence of the hemal arch in the caudal vertebrae and abundant osteophytes from degenerative osteoarthritis (figure 10.7). The fact that longevity and osteoarthritis were combined with skeletal indicators of good nutrition suggests that this individual benefited from human care, at least in its old age (Elizalde 2017, 207–214).

The nine felines, in turn, include three juveniles, one subadult, one adult, and four of undetermined age. Offering H and Chamber 2 contained two juvenile pumas whose long bones still were not ossified, although the second had

reached adult size (Álvarez and Ocaña 1991, 123; López Luján and Polaco 1991, 125–126). The jaguar from Offering 103 is a juvenile that has cranial sutures and unossified long bones (Valentín and Zúñiga-Arellano 2003, 64), while the one in Offering 178, with ossified bones, still preserves the metaphysis line on the long bones and hip, revealing that it is a subadult.

The sex of the dressed fauna was determined by morphometric parameters in fifteen of the thirty-two individuals (table 10.1). Note, however, that these identifications should be taken with reservations, especially for the birds of prey, given the fractures, missing pieces, and deterioration of the skeletal materials, particularly those belonging to the cranial vault. Among the thirteen eagles (López Luján et al. 2012, 27–28; Ontiveros 2015, 22–35, 91–98), there is reasonable certainty that four are female and five are male; among the seven wolves (Chávez et al. 2022b), two are female (Offerings 120 and 125), one is male (Offering 115), and four remain undetermined because they are still juveniles (Offerings 174 and H). The sex of the wolves in Offerings 115 and 125 was further confirmed by DNA analysis performed by geneticist Steven R. Fain (2012) in the forensic laboratory of the US Fish and Wildlife Service (Chávez et al. 2022b). Finally, we must say that the felines of Chamber 2 and Offerings 103 and H are also undetermined because of their juvenile condition, and the jaguar from Offering 178, which was recently discovered and is still in the process of excavation, appears to be female, according to biologist Montserrat Morales Mejía.

Another aspect we tried to determine during our analysis was the cause of death of the dressed animals. In general, we have very little evidence of this nature for the faunal remains recovered in the Templo Mayor Archaeological Zone, especially considering the exceptional abundance of offerings. Two notable cases are the jaguar from Offering 9 and one of the three jaguars from Offering 126, neither of which was adorned with ornaments or insignia (Chávez 2019, 500–501; Chávez et al. 2022a). The presence of repeated parallel cuts on the inner surface of the left ribs of both individuals indicates that they died by heart extraction, a technique that we have also documented in human beings (López Luján et al. 2010, 377–381). In addition to these cases, two wolves in Offering 126, which also were not dressed, had perimortem lesions on the dorsal portions of their iliac crests made by small projectile points that may well have caused their death (Chávez et al. 2019).

Among the thirty-two dressed individuals in our corpus, only a wolf from Offering H has possible indications of sacrifice. It exhibits perimortem blunt trauma, specifically a cranial fracture, perhaps made with stone, that never healed (Chávez et al. 2022b). Although the rest of the specimens lacked lethal

marks on their bones, we cannot rule out the possibility that they were also sacrificed shortly before or during their offering and burial ceremony. In this sense we imagine that many of these animals were the victims of killing techniques such as throat slitting, asphyxiation, or poisoning, which rarely leave evidence. Whatever the case may be, the existence of coprolites next to the puma skeleton in Chamber 3 and the jaguar in Offering 9 leads us to suspect that many of these animals took their last breath in the place of their definitive interment.

Our osteological analysis also determined that some of the birds of prey were not buried whole. Ten (62.5%) of the sixteen specimens, in fact, were subjected to posthumous preparations characterized and defined in recent years as “taxidermic” (Chávez and Elizalde 2017, 109–110; Chávez et al. 2022a; Valentín and Gallardo 2006, 37–39; López Luján 2006, 1:222–223, 229; 2015; Olivier and López Luján 2017, 168–180; Ontiveros 2015, 98–103; Valentín 2018; Quezada et al. 2010). These ten specimens include nine (69.2%) of the thirteen eagles (Offerings 81, 99, 120, 141, P, U, and X) and the sole falcon (Offering X) in the corpus. The diversity of equipment and techniques suggests that a variety of specialists processed these bird corpses, although always with the end of preserving their general anatomical physiognomy as well as the qualities of their skin and feathers. The latter is evident in several specimens that still have the proximal ends of the quill along with the pygostyle, that is, the fused caudal vertebrae supporting the muscles and feathers of the tail.

The eagle in Offering 120 only had skeletal traces of excarnation on its wings, while the other nine birds, in addition to their viscera, had their central bones (vertebral column, ribs, coracoids, furcula, keel, and pelvis) removed, but they retained all or part of their head, wings, legs, and tail. In order to completely drain the encephalic mass, the occipital region of the skull was cut in eight individuals (Offerings 81, 99 [b], 141, P [a–c], and X [a–b]), and the foramen magnum was enlarged in one of the eagles [b] from Offering P.

The most complete skeletons in the archaeological contexts include the eagle and falcon of Offering X, which preserve the bones of the wings below the elbow (ulna/radius to digits) and the legs below the ankle (tarsometatarsus to claws), the eagle from Offering U, which retains the bones below the wrists (carpometacarpus to digits) and knees (fibula/tibiotarsus to claws), and the eagle [b] in Offering 99, which still has the bones below the wrists (carpometacarpus to digits) and ankles (tarsometatarsus to claws). In contrast, the four eagles from Offerings 141 and P [a–c] underwent a taxidermic preparation called “trophy rug,” which preserves the bones of the wings below the wrist (carpometacarpus to digits), but the legs only have claws. Except for one of the eagles [b] in Offering P, the other three had their carpometacarpi

pierced, possibly to secure the wings with a cord. The extreme case is the eagle from Offering 81, which was subjected to a “mannequin” taxidermal preparation, whereby the bones of the wings below the wrist are retained but the lower extremities are completely removed.

ORNAMENTS AND INSIGNIA: MATERIAL, FORM, AND CONTEXT

Let us now turn to the multiplicity of artifacts associated with the thirty-two animals in the corpus. One of the main characteristics of these ornaments is the diversity of their constituent raw materials, including reed, wood, gold, copper or bronze, metamorphic greenstone, turquoise, flint, and both gastropod and bivalve shell. In spatially well-defined complexes these artifacts constitute a wide range of human ornaments and insignia, such as anklets, belts, chest and back pendants, necklaces, ear and nose pieces, bracelets, loincloths, offensive and defensive arms, scepters, and other accessories (table 10.1).

The anklets by far are the most common ornament in our collection. They consist of strung spherical and pear-shaped, lost-wax-cast bells (López Luján 2006, 1:191–192; López Luján and Ruvalcaba 2015, 33–38, 45; Schultze 2008). They invariably were found around the lower extremities of thirteen eagles, one falcon, and two hawks and around the hind legs of four wolves and four pumas. Among these twenty-four individuals, twenty had copper or bronze bells, while only four had bells made of gold.

Next, in order of abundance, are the annular discs called *anahuatl* in Nahuatl, made either of gold sheet, wood from a *Pinus*-genus conifer, or mother-of-pearl oyster (*Pinctada mazatlanica*) shell (Aguirre 2019, 315, 320, 324; Argüelles 2019, 367–369; Barajas et al. 2016, 18–19; López Luján 2006, 1:200, 203; Robles et al. 2019, 218–219, 227–229; Velázquez 1999, 53–54, 70–71; 2007, 57–116; Velázquez and Zúñiga-Arellano 2019, 294–296). These annular insignia were found directly on the chest or back of three eagles, a falcon, two hawks, five wolves, and a jaguar (figure 10.8).

We also have several belts made of gastropod shell from the *Oliva* genus, culturally modified in various ways to serve as pendants on a cord (López Luján et al. 2012, 27, 31; Velázquez 1999, 33–53; 2007, 117–165; Velázquez and Zúñiga-Arellano 2019, 290–292). They were spatially associated with the waist and hips of five wolves, three pumas, and a jaguar (figure 10.9).

Our list of corporal accessories is complemented with three pairs of wooden earspools, one of them made of wood from the ahuehuete cypress tree (*Taxodium* sp.) and covered with fine turquoise, planerite, heulandite, chalcopyrite, and triplite tesserae that were glued on with white (*chino*) copal

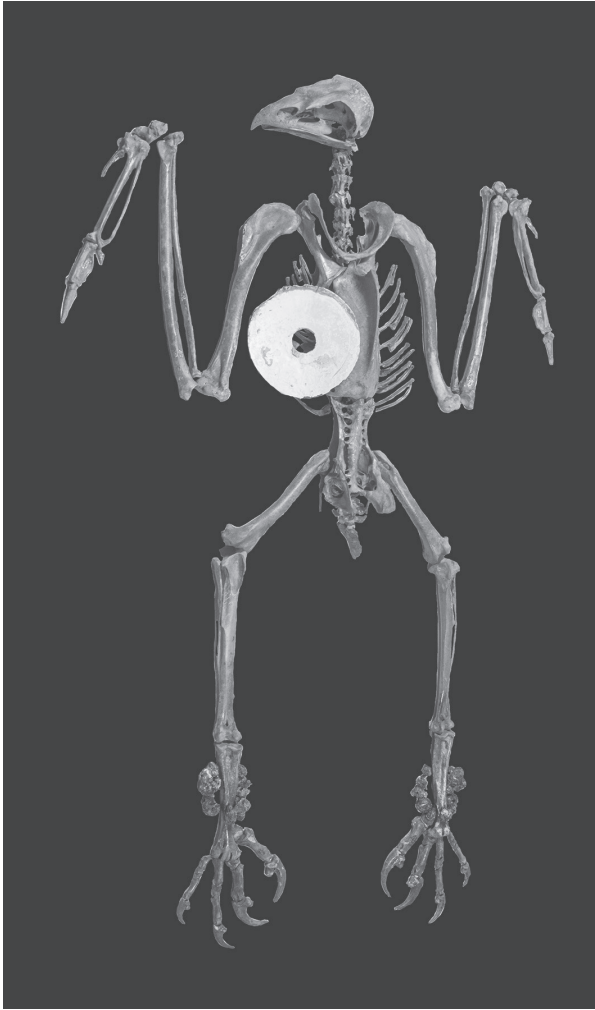


FIGURE 10.8. *Skeleton of the female eagle from Offering 125, assembled in the laboratory, with shell anahuatl disk and copper bell anklets. Photograph by Mirsa Islas. Courtesy Proyecto Templo Mayor.*

(*Bursera bipinnata*) resin; three circle-trapezoid-ray (CTR) ear or nose ornaments made of gold or shell-covered wood; six greenstone-bead necklaces, two of them with shell beads and a turquoise bird-shaped charm (one of an eagle and the other of a lovely cotinga); two bracelets with a gold sheet bow, and two pairs of trapezoidal gold sheets, each possibly representing a *maxtlatl* loincloth (Argüelles 2019, 367–369; López Luján et al. 2012, 31; López Luján and Meehan 2018; Velázquez and Zúñiga-Arellano 2019, 296). These artifacts were associated with the corpses of two hawks, three wolves, and a jaguar.



FIGURE 10.9. Skeleton of a wolf from Offering 174, assembled in the laboratory, with copper bell anklets, gold anahuatl disk, nose and ear ornaments, Oliva-shell pendants, greenstone necklace, and wooden tzotzopaztli. Photograph by Mirsa Islas. Courtesy Proyecto Templo Mayor.

A separate group includes artifacts that represent handheld objects that served either as weapons or scepters. For example, the jaguar in Offering 178 had a wooden launcher (*atlatl*) and several wooden darts (*tlacochtli*), as well as a reed round shield (*chimalli*), all actual size, associated with its front claws. This is important because only miniature representations made of wood, shell,

or travertine have previously been found (e.g., Aguirre 2019, 315–316, 320–322, 329; Argüelles 2019, 369, 371; Gamio 1920–1921; González 1982, 215; López Luján 1993, 330, 340, 412, 416, 432; 2006, 1:201–202; Nagao 1985, 74–76; Noguera 1945, 218; Olmo 1999, 178–180; Pedraza et al. 2017, 49; Velázquez 1999, 103–105; 2000, 128–131; Velázquez and Zúñiga-Arellano 2019, 298, 301). In contrast, the wolf in Offering 174 was next to a life-size weaver's batten (*tzotzopaxtli*) made of wood. Again, we note that only miniature representations of the weaving implement made of flint have previously been found (Pedraza et al. 2017, 49). One of the two hawks in Offering 179, in turn, had a scepter called *tlachieloni* (“object used for looking”) in its right wing, while the other hawk had a round shield (*chimalli*) with a banner (*pantli*) in its left wing. Both of these artifacts were made of extremely thin gold sheet.

Finally, let us turn to the artifacts found within the skeletons of some of the animals. For example, the two hawks in Offering 179 have tiny representations of eyes made of two round pieces of greenstone, glued on a shell disc like a button to serve as a base and element to attach to the animal's head. In addition, in the place of its missing skull, one of the hawks had a hummingbird's beak and a forehead ornament in the shape of a double volute, both made of gold sheet. We must also mention the sacrificial flint knives found inside the mouth of one of the wolves in Offering H and the puma in Chamber 3 (Aguirre 2020a, 155, 159–161; López Luján and Polaco 1991, 151, 155, 165), as well as the large spherical greenstone bead stuck in the jaws of the puma in Chamber 2 (Aguirre 2020a, 120; Ahuja 1982, 195; cf. Gallardo 2014).

ORNAMENTS AND INSIGNIA: FUNCTIONS AND MEANINGS

Numerous clues for investigation emerge from analyzing the use and symbolism of all of these artifacts. The bells, for example, are omnipresent in Mesoamerican iconography, where human and divine beings wear them as an essential part of anklets, bracelets, necklaces, and pectorals. As symbols of prestige and power, metal bells were used exclusively by rulers, nobles, and high-ranking military leaders (Hosler 2005, 366). They were particularly valued for their musicality and were said to evoke the sound of thunder, rain, the serpent's rattle, and the jaguar's roar, linking them to the semantic complex of fertility and regeneration (Hosler 2005, 351–361). Bells when ringing also were supposed to ward off malevolent influences and to protect warriors who wore them in battle (Hosler 2005, 361–363).

Bells were equally valued for their color, which varied according to the composition of their alloys (gold, silver, copper, tin, arsenic, lead) and also to

natural processes of corrosion (Schultze 2008, 346, 356, 379; 2010, 76, 79–80). While gold bells remained unchanged, those composed mostly of copper quickly changed hue when exposed to air and humidity, turning from shiny orange or salmon red to flat pale or bluish green. Thus the Mexica and their contemporaries established a dual visual dichotomy between gold and copper pieces—on the one hand, the well-known yellow/bluish-green pair of complementary opposites and, on the other, the shiny/opaque pair (López Luján et al. 2005, 29–30). We could even add another—the smooth/rough pair—although it is tactile rather than visual.

In this respect, it is worth noting the two dressed eagles in Offering 125 (López Luján and Chávez 2010; López Luján et al. 2012, 27–28). The smaller skeleton found in the southern half of the deposit was a male and had gold anklets (figure 10.4). The more robust skeleton with a longer wingspan occupying the northern half was a female and had copper anklets (figure 10.6). Based on what we have said, one could speculate that the gold bells—yellow, shiny, and smooth, associated with the male eagle and its southern position—would allude to the diaphanous, warm, fragrant, masculine celestial world in Mesoamerican cosmovision, as well as Huitzilopochtli, the sun, and the dry season. In a complementary manner, the copper bells—bluish-green, opaque, and rough, associated with the female eagle and its northern position—would symbolically evoke the dark, cold, pestilent, feminine underworld, as well as Tlaloc, the earth, and the rainy season (López Austin 1998, 347; López Luján and Ruvalcaba 2015, 25–26; Schultze 2008, 379; 2010, 80; for more on the gold/copper dichotomy, see Falchetti 2008, 65–66). Moreover, pure gold, a noble metal that does not oxidize, has no odor, while sulfidic copper (from chalcopyrite), when smelted, generates sulfur dioxide gas that smells like putrefaction (Marcos Martínón Torres, personal communication, June 2019), which occurs in the underworld (Favila et al. 2022; López Luján and Mercado 1996, 57–63).

The symbolic associations of the annular disc insignia are even clearer. Called *anahuatl* by the Mexica and other Nahua peoples, they were worn on the chest or back by astral war gods such as Tezcatlipoca, Huitzilopochtli, and Tlahuizcalpantecuhtli (López Luján 1993, 330; 2006, 1:200, 203; Nagao 1985, 74–76; Velázquez 2000, 166–180). We also see them, albeit to a lesser degree, in images of Mixcoatl, Xiuhtecuhtli, Xipe Totec, Itztlacolihqui, and Mictlantecuhtli. Moreover, in the pictorial manuscripts from the Basin of Mexico, they are also worn by divine animals such as the jaguar, the laughing falcon, the turkey, and the skunk, which are avatars of Tezcatlipoca (Codex Borbonicus 1991, 3, 13, 17; Codex Telleriano-Remensis 1995, 23r); the hummingbird, associated with Huitzilopochtli (Codex Telleriano-Remensis 1995,

5r); and the spider monkey, linked to Xochipilli (Codex Magliabechiano 1996, 5r; Codex Tudela 1980, 37r). According to Velázquez, this annular disc is an attribute alluding to celestial warriors who, after succumbing on the battlefield or the sacrificial stone, assisted the sun on its cyclical journey.

As for the *Oliva*-shell pendants, Adrián Velázquez (2000, 180–192; Velázquez and Both 2014) has meticulously studied their meaning and sound. Iconographically these artifacts are associated with the Tzitzimime group of deities, including Tlaltecuhltli, Coatlicue, Cihuacoatl, Ilamatecuhtli, Itzpapalotl, Chantico, Tlazolteotl-Ixcuina, Tzitzimitl, and Mictlantecuhtli. They nearly always appear as a finishing touch on the back of a device called *citlalicue* or “skirt of stars,” which, when in motion, produced a sound similar to running water and a serpent’s rattle. According to Velázquez, the *Oliva*-shell pendants symbolized deceased warriors who, after their metamorphosis into stars or celestial fires, descended in the west to fertilize the earth.

As for the circle-trapezoid-ray (CTR) ear and nose ornaments generically called *yacaxihuitl* in Nahuatl, they usually appear in the sculptural images of war captives about to be sacrificed or the souls of warriors who died in combat (López Luján and González, 2014, 33–34). They are also worn by Coyolxauhqui, the belligerent lunar goddess (López Luján 2010, 51–54; sculptures of her at the Museo Nacional de Antropología, López Luján 2011a, and Harvard’s Peabody Museum of Archaeology and Ethnology, López Luján 2010); Chantico, the war deity of the hearth or home fire (Codex Telleriano-Remensis 1995, 21v); and the Cihuateteo, the heroic women who perished during their struggle to give birth (Codex Borgia 1993, 46; Taube 2012, 132).

Some of the ornaments worn by the hawks in Offering 179 deserve special attention. The individual in the southern half had a delicate beaded necklace consisting of tiny pieces of greenstone and a pink shell, presumably from the *Chama echinata* species, with a turquoise pendant (Ricardo Sánchez Hernández, personal communication, March 2020) in the shape of a stylized descending lovely cotinga (*Cotinga amabilis*) as its central element. Although normally found on the front of a diadem or headband, this element is associated with Xiuhtecuhtli and Huitzilopochtli (Codex Borbonicus 1991, 9, 20, 23, 37; Codex Borgia 1993, 13; Codex Fejérváry-Mayer 1994, 1; Codex Telleriano-Remensis 1995, 5r; López Luján 1993, 185–186; Ocelocuauhxicalli sculpture, López Luján 2011b; Sahagún 1993, 261r).

The other individual, occupying the northern half of the ashlar box, wore a similar necklace, although its central turquoise pendant is in the shape of an eagle, a bird associated with the sun and specifically Huitzilopochtli, as we will see below. As previously mentioned, this hawk also wore other gold

sheet elements characteristic of this deity, including a forehead ornament in the shape of a double volute (Codex Borbonicus 1991, 31, 34; Ocelocuauhxicalli sculpture, López Luján 2011b; López Luján and Ruvalcaba 2015, 29, 36) and a headdress element that represents the beak of a hummingbird (Codex Borbonicus 1991, 31, 34; Codex Telleriano-Remensis 1995, 5r; Ocelocuauhxicalli and Teocalli de la Guerra Sagrada sculptures, López Luján 2011b, 2011c; López Luján and Fauvet-Berthelot 2005, 72–75).

Other insignia associated with the animals in our corpus are the offensive and defensive arms. Prominent among them are the *atlatl* launchers, darts, and shields that not only were characteristic of Mexica flesh-and-bone warriors, but also accentuated the bellicose nature of many of their divinities. Strange as it may seem, we must include the weaver's batten, called *tzotzopaztli* in Nahuatl, as it represents the feminine weapon par excellence in Central Mexican iconography (McCafferty and McCafferty 2019). In fact, examples abound in pictographic scenes (Codex Magliabechiano 1996, 45r; Codex Telleriano-Remensis 1995, 6r, 22v; Sahagún 1993, 253r, 264r) and in sculptures such as the Pasaje Catedral Neo-Toltec effigy and the Tizoc Stone (López Luján and López Austin 2007, 56–59), where female warriors and goddesses such as the fearsome Cihuacoatl menacingly brandish the *tzotzopaztli*.

Another important insignia is the *tlachieloni*. Our collection contains a single representation of this scepter pressed (repoussé) in gold sheet. In Central Mexican iconography it is held by war deities such as Tezcatlipoca, Xiuhtecuhtli, Tlacoachcalco Yaotl, and Omacatl (Olivier 2007, 289–290; Vesque 2017), as corroborated in numerous pictographic scenes (Codex Borbonicus 1991, 36; Codex Ixtlilxochitl 1996, 96r; Codex Magliabechiano 1996, 33r, 87r, 92r; Codex Tudela 1980, 15r, 22r, 56r, 73r; Sahagún 1979, 1:3r; 1993, 261r, 262v, 266r, 266v, 250v, 259r, 264r; Tovar Manuscript 1972, 148r). A revealing passage concerning Panquetzaliztli celebrations in the Florentine Codex (Sahagún 1950–1982, 2:146) says that a group of warriors holding this kind of scepter ascended to the top of Huitzilopochtli's Temple and were hurled like spears at the *tzoalli*-seed image of this Mexica patron deity.

Let us conclude this brisk account with the sacrificial knives or large bead found inside the jaws of a wolf and two of the pumas. In the Mexica plastic arts several beings have knives in their mouths representing fangs or a tongue, including Tlaltecuhltli, Tzitzimitl, Mictlantecuhtli, and Xolotl, and numerous feathered serpent sculptures. According to Cecelia F. Klein (1976, 204), this may signify that they are fearsome beings that bite and thus are associated with the ideas of sacrifice and death. The greenstone bead or sphere, which in many contexts symbolizes the human heart, brings to mind a scene in

the Codex Vaticanus A (1996, 2r) that depicts a heart being eaten by a wild beast. This image corresponding to the penultimate level of the underworld is accompanied with the gloss “Teocoyolcualoya,” which means “Where Beasts Devour Hearts or Divine Spheres.”

FINAL REFLECTIONS

We have said that our corpus of thirty-two dressed animals exclusively consists of golden eagles, peregrine falcons, hawks, Mexican gray wolves, pumas, and jaguars. It is well known that because of their behavioral habits, these kinds of ferocious, carnivorous, and hunting or fishing superpredators were assimilated into the semantic complex of political power, and especially war and human sacrifice, in Mesoamerican art and thought (Alvarado Tezozómoc 1980, 321, 415–416; Kendall 1992, 120–122; Latsanopoulos 2011, 377–383; López Luján 2006, 1:87–89; López Luján and Fauvet-Berthelot 2005, 146–149; Olivier 2004, 157–192; Olko 2014, 99–100, 146–149, 387; Sahagún 1950–1982, 2:52, 123, 6:171, 8:84–85; Seler 2004, 33–39, 63–73, 162–74).

Generally, in the plastic arts of Teotihuacan and Tula, birds of prey, canines, and felines incarnated the principal military orders; we see them everywhere devouring hearts, mightily armed with shields, *atlatl* launchers, or projectiles or wielding sacrificial knives (e.g., Jiménez 1998; Latsanopoulos 2008; Sugiyama 2017). In the case of Teotihuacan, the ritual deposits from the consecration of the Pyramid of the Moon also stand out, where archaeologists recovered numerous skeletons of golden eagles, Mexican gray wolves, and pumas, many of which had been placed in cages or had their extremities tied (López Luján and Sugiyama 2017; Sugiyama 2017). By the late Postclassic, images abound of military uniforms made with their pelts and feathers, along with scenes of individuals bravely brandishing weapons or resignedly holding the insignia of sacrificial victims (Codex Borbonicus 1991, 11; Codex Mendoza 1992, 21v; Codex Telleriano-Remensis 1995, 16r; Sahagún 1993, 73r, 74v, 75r, 79r–v). In order to reiterate such symbolic connections, Mexica priests evidently adorned these thirty-two fierce animals with ornaments and insignia that alluded to male warriors killed on the battlefield or the sacrificial stone and surely to the female warriors who died in labor, that is, like those brave men and women who according to Nahua mythology had the task of escorting the sun along the celestial vault and into the bowels of the earth (Caso 1983, 23–24; Soustelle 1982, 56, 87, 110–111).

We believe that this complex conception of the mechanics of the universe was ritually materialized each time the priests buried eagles, wolves, and

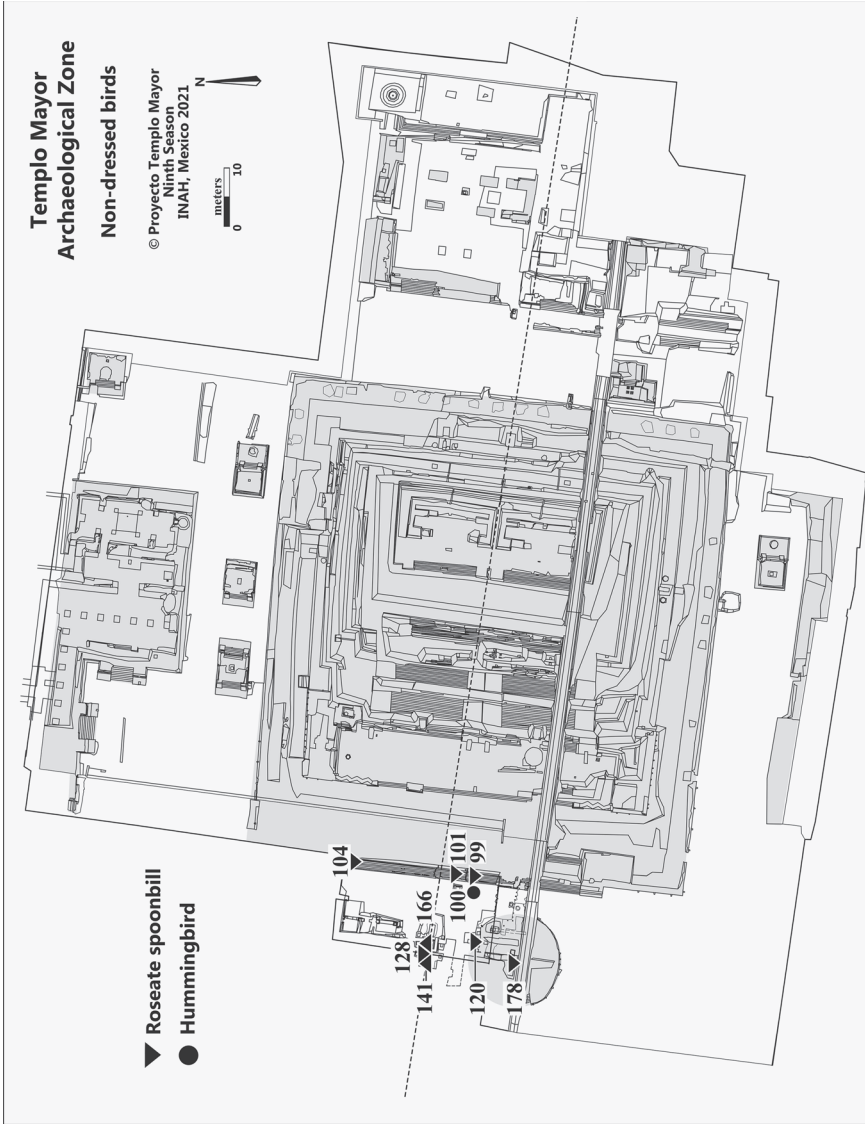


FIGURE 10.10.
Location of hummingbirds and roseate spoonbills in the Templo Mayor Archaeological Zone. Drawing by Michelle De Anda. Courtesy Proyecto Templo Mayor.

felines dressed as warriors in front of the Templo Mayor's western façade with their head invariably oriented toward the sunset. Such a proposition finds support in the archaeological data concerning hummingbirds and roseate spoonbills—birds that the Mexica identified with the sun and the souls of warriors who died in combat (Gilonne 1994, 32–41; Olivier and López Luján 2017, 182–187; Sahagún 1950–1982, 3:49). We must clarify that they are not included in our corpus since no dressed specimens of them have been found. But it is highly significant that they have appeared exclusively in ritual deposits buried in front of that great pyramid's western façade (figure 10.10).

In terms of the hummingbirds, sixteen individuals (eleven *Eugenes fulgens*, two *Lampornis* cf. *amethystinus*, two *Hylocharis* cf. *leucotis*, and possibly an *Amazilia violiceps*) were discovered inside Offering 100, a small ashlar box from Phase VI just below Offering 99 (Valentín and Gallardo 2006). All of them were taxidermically processed and buried in the ventral decubitus position, with their wings spread and their heads facing west. As for the roseate spoonbills, we have identified ten individuals (Offerings 99, 101, 104, 120, 128, 141, 166, and 178) so far and are sure that three of them are complete and six underwent taxidermic procedures (Olivier and López Luján 2017, 170–179). Interestingly, after being placed in ventral or lateral decubitus positions, eight of them clearly had their skulls oriented toward the sunset.

Acknowledgments. We would like to thank our colleagues Ximena Chávez Balderas, Michelle De Anda, Mirsa Islas Orozco, Antonio Marín Calvo, Belem Zúñiga-Arellano, and all of the members of the Templo Mayor Project. We also want to thank Elizabeth Baquedano, Elizabeth H. Boone, Nicolas Latsanopoulos, Marcos Martín Torres, Susan Milbrath, Barbara E. Mundy, Montserrat Morales Mejía, Guilhem Olivier, Ricardo Sánchez Hernández, and Adrián Velázquez Castro for their support. This chapter was translated into English by Scott Sessions.

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