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From sacred symbolism to luxury display and consumption: The peacock in medieval Catalonia—Data from zooarcheological, iconographic, and literary evidences

Marina Fernández[1] | Maria Nadal[2] | Jordi Ramos[2] | Carme Miró[3] | Philip Banks[2] | Jordi Nadal[1] | Santiago Riera[1] | Lluís Lloveras[1]

[1]SERP, Department d'Història i Arqueologia, Universitat de Barcelona, C/Montalegre 6-8, Barcelona, E-08001, Spain

[2]Department d'Història i Arqueologia, Universitat de Barcelona, C/Montalegre 6-8, Barcelona, E-08001, Spain

[3]Servei d'Arqueologia de Barcelona, Carrer d'en Rull 4, Barcelona, E-08002, Spain

Correspondence
Marina Fernández, SERP, Department d'Història i Arqueologia, Universitat de Barcelona, C/Montalegre 6-8, Barcelona E-08001, Spain.
Email: marina_ferli@hotmail.com

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Abstract

This work presents the first remains of a peacock (*Pavo cristatus* Linnaeus 1758) discovered in an archeological context in Catalonia. It is a well-preserved animal (14 remains of an adult female) located in medieval levels—datable to the 13th century (1210–1278 cal. AD) at the site of Carrer de Sotstinent Navarro, in the city of Barcelona. We present the study of the remains of this animal together with that of the other birds recovered from the same excavation. In addition, by referring to iconographic and literary sources, some reflections are made on the species in Catalonia in medieval times. The interpretation of the remains could range from a symbolic religious use of the animal to a more profane one, as an element of identification of social status and economic ostentation, in the field of gastronomy or as an ornamental animal. The study of the remains and their archeological context seem to support this last hypothesis.

KEYWORDS
Catalonia, iconography, literature, Middle Ages, Peacock (*Pavo cristatus* Linnaeus 1758), Sotstinent Navarro archeological excavation

1 | INTRODUCTION

The presence of exotic birds in Mediterranean and European contexts for cultural reasons is a phenomenon that can be traced back at least to Antiquity (e.g., O'Connor & Sykes, 2010). Some became so widespread and were so easily incorporated into the economy and culture of these societies that they soon lost their foreignness. The most paradigmatic case is that of the domestic fowl (*Gallus gallus domesticus*) (Perry-Gal et al., 2015). Others, although they had been imported since ancient times, never became fully established. Despite being quite well known—even managed and bred—they did not become part of everyday life, to the extent that they attained a level of cultural perception linked to luxury expressed in various forms: as pets, through their consumption, in artistic works, hunting, games, and others (Jenisson, 2005; Toynbee, 2013). These include, among others, the guinea fowl (*Numida meleagris*) and the ostrich (*Struthio camelus*). The remains of some of these species have been identified in Roman or late Antique contexts in the western Mediterranean and more specifically in the Iberian Peninsula (Padilla et al., 2022). As for the peacock (*P. cristatus* Linnaeus, 1758), the species that this article examines, its presence in Europe began in classical Greece, although its distribution became increasingly widespread during the Roman period, stretching beyond Mediterranean environments and extending to Central Europe and the British Isles. Although not abundant, bone remains in this

period are not uncommon. We can cite at least 20 sites on the northern shores of the Mediterranean in this period where peacock remains have been found, usually with no more than one or two specimens being located, apart from some exceptional cases (Gilbert, 2018). In the Iberian Peninsula, although we find artistic representations of this animal, especially in mosaics, no osteological remains have been found so far. This situation lasted until the Middle Ages (commonly accepted in Spanish historiography from 8th to 15th centuries), when remains are more common in the rest of Europe, but hitherto unknown in Iberia. This is the case in France, where there are at least 10 places with peacock remains over the course of the Middle Ages.[1] We here present the first remains of a peacock identified in the north-east of the Iberian Peninsula (Catalonia) from the medieval period, found during a rescue excavation undertaken in Barcelona, in the so-called Gothic Quarter of the city. Due to the number of bones found, it is one of the most complete animals in the European archeological record.

2 | HISTORICAL AND ZOOARCHEOLOGICAL CONTEXT

As has been mentioned, the remains studied in this article come from a rescue excavation carried out in what is known as the Gothic Quarter in Barcelona (Ciutat Vella district). Specifically, the excavation took place in Carrer Sotstinent Navarro (Sotstinent Navarro Street) at the junction with Baixada del Caçador. This excavation formed part of a process of urban renewal that aimed to make the length of the city's Roman wall (built in the 1st century AD and modified in the 3rd century) between towers 27 and 28, on the eastern side of what would have been the fortified city, more visible (Figure 1). In these excavations, layers dating from the initial early imperial Roman occupation (between the 1st and 3rd centuries AD), from the period of the later Empire and late Antiquity (until the 8th century AD), the Early medieval period (between the 8th and 12th centuries), and the Late medieval period (13th–15th centuries) were all identified. This area was a neighborhood outside the walls during the first two stages, largely used for agricultural purposes with some suburban buildings (Banks, 2003). Subsequently, in the early Middle Ages the city expanded beyond the walled area, and we find extra-mural buildings that stood against its outer face, which no longer had any military function and was, in fact, hidden by such urban buildings as the city clearly developed towards the north-east. During the late Middle Ages, the excavated area formed part of a Gothic mansion. The excavations revealed the dividing area of a courtyard and a production area with a well. The use of this space changed from the post-medieval phase onwards, being used as a warehouse (Ramos, 2017;

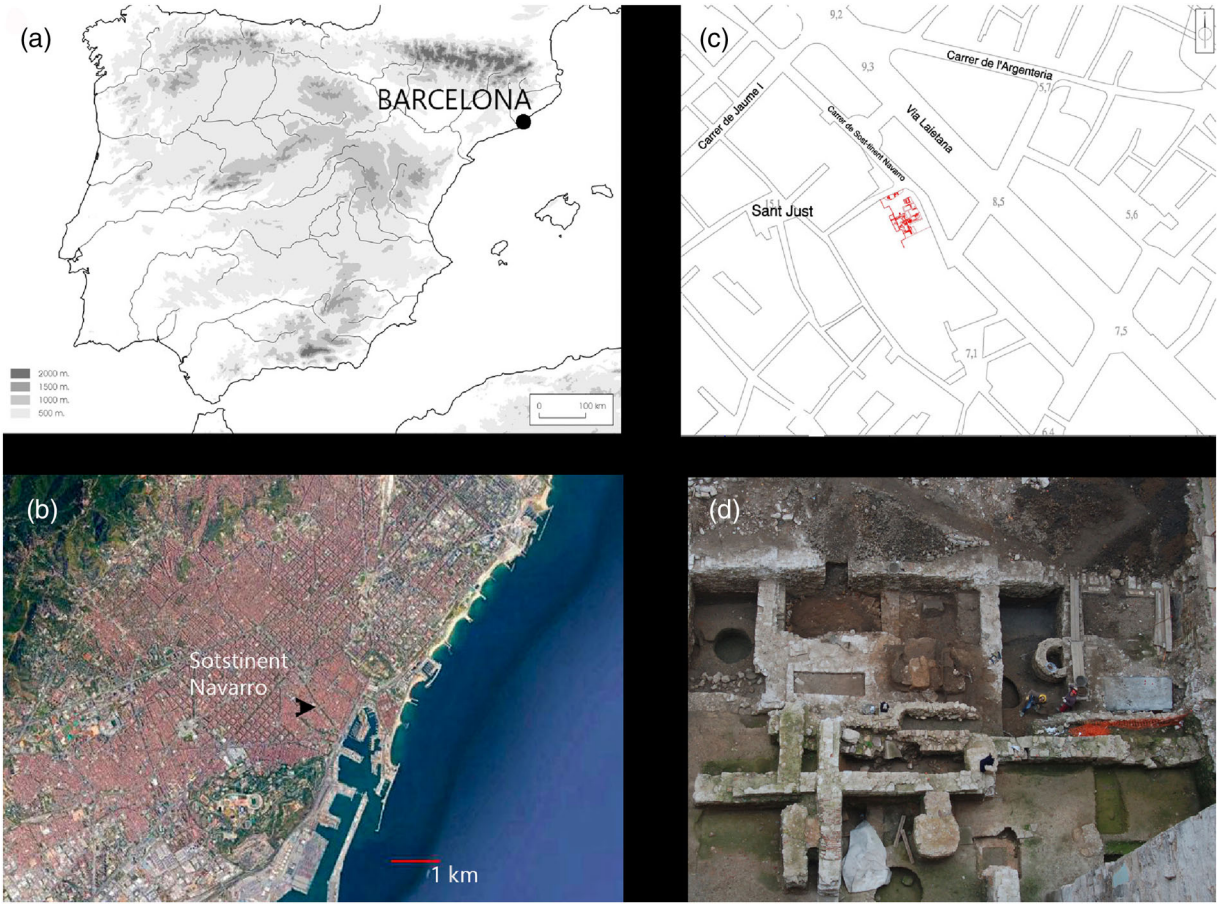

FIGURE 1 Location of the site (a–c) and image of the excavated area (d) (*source*: B GoogleEarth with modifications Jordi Nadal and C-D: Jordi Ramos). [Colour figure can be viewed at wileyonlinelibrary.com]

Ramos et al., 2018). The chronology of the late medieval phases has been established by the ceramic material, with glazed ceramics, including Gothic blue ceramics and luster ware of Valencian origin, as well as pottery with green and manganese coloring, typical of the local productions of the period. As will be seen below, dating through cultural evidence has been corroborated by radiocarbon dating of the bone remains presented in this work.

As for the faunal material found, the most abundant remains on the site are those of mammals. The most frequent taxonomic group is that of the subfamily Caprinae, among which the sheep (*Ovis aries*) clearly stands out; there is good documentary evidence for the animal being the most commonly consumed as meat in late medieval Barcelona (Banegas, 2017). However, some sheep remains do not seem to be directly linked to consumption and could have been waste products from a nearby tannery (mainly due to the abundant presence of horn cores). Fewer remains of cattle (*Bos taurus*) and pigs (*Sus domesticus*) have been recovered. Some animal remains that do not show marks of meat processing, such as dogs (*Canis familaris*), cats (*Felis catus*) and equids (*Equus* spp), were also found; they should be related to an area of abandoned unconsumed animals that must also have been located relatively close to the excavated area. Fish bones are not abundant, as is the case with birds, although there is great taxonomic diversity, with different species in the biological families of Clupeidae, Sparidae, Centracanthidae and Rajidae being represented. Among the late medieval malacofauna remains, there is also a certain taxonomic variability with a predominance of bittersweet clams (*Glycymeris* spp.) and oysters (*Ostrea edulis*), which, however, were less numerous than in previous phases (Fernández et al., 2021).

3 | METHODS AND DATING OF THE PEACOCK REMAINS

The study and identification of the remains have been undertaken through comparison with reference collections in the Museum of Natural Sciences of Barcelona and with the identification of diagnostic criteria proposed in the literature for the order Galliformes (Tomek & Bocheński, 2009). Biometric measurements have been taken according to classical linear morphometry, following the proposals of Cohen and Serjeantson (1996). Measurements are expressed in millimeters. A study of the surfaces of the bones has been carried out through stereoscopic microscope observation (Olympus SZ61) between 10X and 40X, in order to see different taphonomic processes, following both natural and anthropogenic diagnostic marks, according to identification criteria recorded by Fernández-Jalvo and Andrews (2016). The quantification methods applied were the number of identified specimens (NISP), the minimum number of elements (MNE) and the minimum number of individuals (MNI), in accordance with the proposals used in the literature (Grayson, 1984; Lyman, 1994).

A distal part of the peacock's left humerus was sampled for radiocarbon dating. This provided a result of 800 ± 30 BP (ref. Beta-609283), which gives a calibrated age of 1210–1278 cal. AD (93.6% probability) and more specifically 1225–1264 cal. AD (68.2%) (references to Database INTCAL20; Reimer et al., 2020), this being consistent with the date obtained from pottery associated with the peacock remains in the same stratigraphic context. The dating places these remains in one of the moments of maximum splendor of the city of Barcelona, in the reign of King James the Conqueror (Jaume el Conqueridor; reigned 1213–1276), who expanded the Crown of Aragon, including Catalonia, towards the Balearic Islands and the Kingdom of Valencia, until then under the control of different Moslem rulers. Under this monarch, the early Middle Ages can be considered to have come to an end and the late Middle Ages to have begun in the eastern realms of the Iberian Peninsula.

4 | RESULTS: THE PEACOCK REMAINS AMONG THE OTHER BIRD FINDS AT THE SITE

Bird remains are comparatively far less abundant than other taxonomic groups, especially mammals (in a preliminary study more than 1500 NISP). For the phase in which the peacock remains were found (13th century), only 117 bird bone remains were recovered, representing a minimum number of 17 individuals (Table 1). Among these, the most numerous are those of domestic fowl (*G. gallus domesticus*) with more than 67% NISP and 64% MNI, a proportion that could be significantly higher if a large proportion of the indeterminate Galliformes or even some indeterminate bird bones, which are usually fragmentary or under-diagnosed but compatible with those of this species, are included. The remains of domestic fowl can clearly be related to human consumption or other food strategies. Most of the remains were fragmented when the bones were still fresh and, although we did not find any cut marks, one humerus has bite marks similar to those made by humans when chewing bones. However, a fragmented tibiotarsus enables the presence of medullary bone to be seen, which shows that fowl were also used for egg production. It is noteworthy that anseriformes, represented exclusively by geese (*Anser* sp.) (NISP: slightly more than 6%; MNI: slightly more than 17%), are, for these periods, numerically slightly less significant than in other European regions, especially to the north of the Pyrenees, although they follow dynamics similar to those found for these dates in the city of Barcelona. This is the case of the late medieval and post-medieval levels of El Born site, where the importance of ducks and geese is approximately the same as at the Sotstinent Navarro site (Lloveras et al., 2021). The other species are very poorly represented, such as the sparrowhawk (*Accipiter nisus*) or the crane (*Grus grus*), although both may have a special meaning in the context of the site. The sparrowhawk, while not the most widely used species, cannot be ruled out as having been used for falconry, an activity that was fully established and closely linked to the highest social classes in the Catalan-Aragonese kingdom (Mas, 2021). As will be seen below, the crane was highly valued in gastronomic terms among the wealthy classes in the Middle Ages.

The peacock remains found on the site must be considered exceptional, since, although they only represent one individual, a total

TABLE 1 Taxonomic and anatomical distribution of bird remains from stratigraphic contexts dating to the 13th century from Carrer de Sotstinent Navarro

	G. gallus NISP (%) MNI	*P. cristatus* NISP (%) MNI	*Galliform* NISP (%)	*Anser* sp. NISP (%) MNI	*G. grus* NISP (%) MNI	*A. nisus* NISP (%) MNI	Birds nd NISP (%)	TOTAL NISP (%)
Sternum	4 (5.06) 4	2 (14.28) 1						7 (5.98)
Synsacrum	1 (1.26) 1	1 (7.14) 1				1 (33.33) 1		2 (1.70)
Furcula	1 (1.26) 1		1 (14.28)					2 (1.70)
Innominate	3 (3.79) 2							3 (2.56)
Coracoid	3 (3.79) 2	1 (7.14) 1			1 (100) 1			5 (4.27)
Humerus	11 (13.92) 8	2 (14.20) 1						13 (11.11)
Ulna	5 (6.32) 3	2 (14.20) 1				1 (33.33) 1		8 (6.83)
Radius	3 (3.79) 2	1 (7.14) 1		1 (12.5) 1		1 (33.33) 1	1 (20)	7 (5.98)
Carpometacarpus				1 (12.5) 1			1 (20)	2 (1.70)
Femur	16 (20.25) 10	1 (7.14) 1		1 (12.5) 1				18 (15.38)
Tibiotarsus	23 (31.64) 11	2 (14.28) 1	3 (42.85)	2 (25) 2			2 (40)	34 (29.05)
Tarsometatarsus	7 (8.86) 4	2 (14.28) 1	3 (42.85)	3 (37.5) 3				15 (12.38)
Others							1 (20)	1 (0.80)
TOTAL NISP (%)	79 (67.52)	14 (11.96)	7 (5.98)	8 (6.38)	1 (0.85)	3 (2.56)	5 (4.27)	117
TOTAL MNI (%)	11 (64.70)	1 (5.88)		3 (17.64)	1 (5.88)	1 (5.88)		17

Note: NISP values, NISP percentage values (in parentheses), and MNI.

FIGURE 2 Peacock (peahen) remains found in the Carrer de Sotstinent Navarro street excavation (*source*: Ramón Álvarez). [Colour figure can be viewed at wileyonlinelibrary.com]

of 14 specimens were recovered (NISP close to 12%), which represent a minimum number of elements of 13 (Figure 2). These remains mainly correspond to parts of the forelimb—with elements of the pectoral girdle and wing (coracoid, humerus, ulna, and radius)—and the hindlimb (femur, tibiotarsus, and tarsometatarsus). Of the cranial and the axial skeleton, only the synsacrum and the sternum have been preserved, in two fragments. The lack of certain elements may be the result of fragility (skull) as well as because of their size (vertebrae and small elements of the limbs). It is worth mentioning that, due to the rescue nature of the excavation, the sediments could not be sieved during fieldwork, and only a small number of soil samples were collected from the different stratigraphic contexts to perform bucket flotation in the laboratory, with the intention of recovering small bioarcheological remains. Unfortunately, no other peacock or other bird bones were recovered from these samples. The characteristics of the remains seem to show, however, that they all correspond to the same individual. The peacock bones show no fragmentation at all. Only a humerus (on which radiocarbon dating was carried out), an

ulna, and the sternum were found to be incomplete. These fragmentations occurred with the dry bone and must therefore be considered to be of a diagenetic nature. The cortex of the bones is preserved in good condition, with just some manganese oxide stains on some bones, which are very localized and have not made it difficult to observe the surface of the bones. No cut marks or thermal damage were detected.

The good state of preservation of the bones has enabled metric analysis to be carried out in most cases. These measurements are presented in Table 2. In general terms and with the metric contrast of the reference collection, all the bones of the animal can clearly be seen to be close in size to those of the peahen in the reference collection, the female being smaller and more gracile. The results recorded are consistent with the animals in other European reference collections, such as those at the Institüt für Paläoanatomie in Munich or the universities of Leicester, York and Sheffield (according to the data in Gilbert, 2018: appendix 2). Some elements such as the humerus, coracoid or tarsometatarsus are significantly shorter and fall short of the amplitudes of variation among the reference elements. A noteworthy fact is that our animal does not have a spur, an element that may be present in females of this species (Figure 3). All bones display complete ossification, so it can clearly be identified as an adult individual.

TABLE 2 Biometric results (in millimeters) of the peahen remains from Carrer Sotstinent Navarro (Sots.) and of the individuals in the Barcelona Museum of Natural Sciences reference collection (male and female)

		Sots.	Male ref.	Female ref.
Coracoid	GL	72.8	85.7	73.5
	LM	68.5	80.8	69.3
	Bb	21.5	23	19.2
	Bf	18.5	20.3	16.5
Humerus	GL	120.4	137.9	116.5
	Bp	30.5	34.8	30.6
	Bd	23.6	27.2	23.5
	SC	10.5	13	11.1
Ulna	GL	108.7	128.5	108.6
	Bp	12.8	14.1	12.5
	Dip	19	22.6	18.9
	Did	14.6	15.7	13.8
	SC	6.2	8	6.7
Radius	GL	101	114.9	96.5
	Bd	10.8	11.1	10
	SC	5	5.7	5.4
Femur	GL	108.7	119.1	103.9
	Lm	100.8	109.8	96.9
	Bp	22.3	28.3	23.3
	Bd	22.5	25.8	21.9
	Dd	18	21.2	18.2
	SC	11.2	12.9	11.8
Tibiotarsus	GL	162.6	194.2	156.2
	La	166.8	200.7	161.1
	Dip	28	32.1	26.5
	Dd	15.5	18.6	15.5
	SC	7	7.8	7.6
Tarsometatarsus	GL	109.6	138.9	100.7
	Bp	18.2	20.6	18.9
	Bd	19	20.5	18.2
	SC	8	8.2	8

5 | DISCUSSION: THE PEAFOWL REMAINS FROM CARRER SOTSTINENT NAVARRO IN THE ICONOGRAPHIC AND IN THE WRITTEN SOURCES FROM MEDIEVAL CATALONIA

The peafowl remains found in the Sotstinent Navarro excavation are differentiated from the rest of the ornithoarcheological material, especially domestic fowl, by not exhibiting any evidence of consumption. This is proven by the anatomical integrity of what must have been a single individual and the lack of cut or chewing marks. This does not mean that the species was not consumed in medieval Catalonia. In this respect, it is interesting to clarify the uses and meanings of this animal in the Middle Ages in the north-east of the Iberian Peninsula. In the absence of other discoveries of peacock remains in this area, it is necessary to search in the iconographic or textual sources where this animal is represented or mentioned relatively frequently. Its spread across the Mediterranean and the rest of Europe in ancient times has been briefly discussed, specifically during the expansion of the Roman world. Textual references show the versatile use of this species during this first period, always linked to social and economic ostentation: It was used as a pet, an ornamental animal in gardens or farms or in *haute cuisine*. Proof of this can be seen in the references made by authors such as Varro, Cicero, Suetonius, Juvenal and Martial in some of their works (Jenisson, 2005, pp. 108–109), in which all these functions are mentioned. It is also known that belief in the immortality of the animal and the incorruptibility of its flesh spread in Mediterranean Antiquity, most probably under the influence of Eastern, especially Indian, mythology (Herrero, 2010). In this way the peacock became another of the attributes of the goddess Juno, as a protector of life and associated with rebirth, which was why it was represented on certain funerary monuments, such as sarcophagi, and hence it was transformed into a textual and iconographic metaphor of eternal life. This symbol would be assimilated among the first Christian communities, as demonstrated in Augustine of Hippo's *De Civitate Dei* (Evans, 1896). In this way, the peacock was swiftly assimilated into medieval religious iconography and symbolism (Anđelković et al., 2010; Audoin-Rouzeau, 1994; Morales, 1996). This was to influence the way it was depicted or the places where it was represented. It is precisely in this transitional stage, between the end of Antiquity and the beginning of the Middle Ages, that we find the first representations of the peacock in Christian religious contexts in Catalonia. This

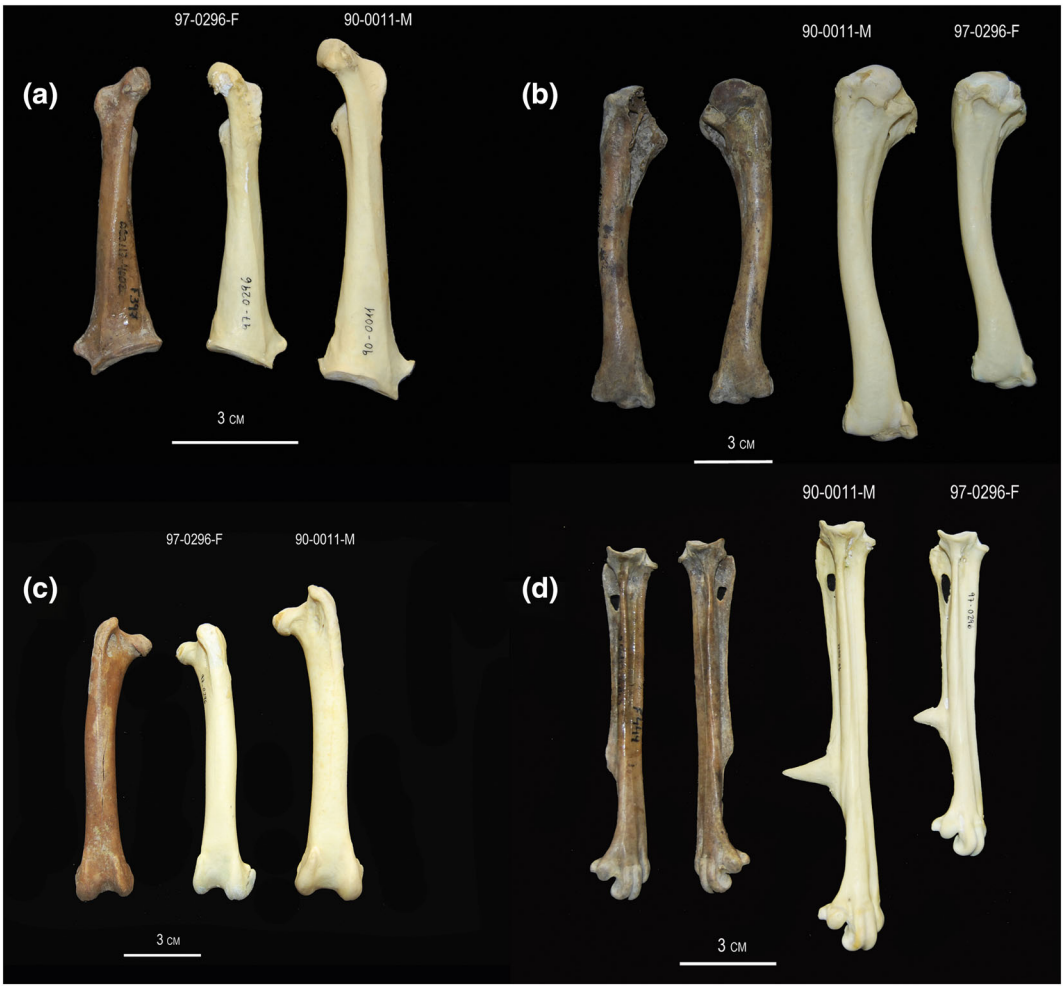

FIGURE 3 Some of the bones of the Sotstinent Navarro peahen and its comparison with reference material from the Barcelona Museum of Natural Sciences: 97-0296 F, female; 90-0011 M, male. (a) Coracoid; (b) humerus; (c) femur; (d) tarsometatarsus (*source*: Jordi Nadal) [Colour figure can be viewed at wileyonlinelibrary.com]

is the case of the depiction on a funerary mosaic from the episcopal see of Egara (Terrassa, province of Barcelona, Catalonia) (Figure 4a), dated to the late 5th century (Barral, 1975).

Representations of the peacock from this moment onwards and throughout the early Middle Ages can consistently be placed within this symbolic religious tendency. Sculptural representations of peacocks on cloister capitals are quite common. Examples include those in the monasteries of Sant Cugat del Vallès (Herrero, 2010) or Santa Maria de l'Estany, both in the province of Barcelona (Rodríguez, 1995) (Figure 4c), dated between the 11th and 13th centuries. Among the examples in early medieval paintings, we would highlight the representation of two peacocks drinking from a chalice, in which the animal depicted is clearly identified (literally: *pavo*), from the frescoes that decorate the nave of the church of Santa Maria de Taüll (province of Lleida), dating from the 12th century (Figure 4d), today in the National Art Museum of Catalonia, in Barcelona. An exceptional case is the representation of a peacock fighting with a snake, an iconographic model that explains the symbolism of this animal, on one of the illuminated folios of the Beatus of Girona, a 10th-century work, which, although it was not produced in Catalonia, reached this cathedral, where it is still preserved, in the 11th century (Figure 4b). The so-called *Drap de les Bruixes* (Witches' cloth), dated between the 11th and 12th centuries, and which served as the altar cloth in the monastic church of Sant Joan de les Abadesses (province of Girona) (Figure 4e), today in the Episcopal Museum of Vic, is also from outside Catalonia and may have been made in al-Andalus, the Moslem south of the Iberian Peninsula. Little textual information about this animal is recorded in Catalonia in the early medieval period. Nevertheless, there is a number of notarial documents in Latin that reveal the presence of the animal beyond purely iconographic images, which could refer to archetypes of unknown exotic animals, or even imaginary beings (Guglielmi, 2002). Of these documents, of which we have a minimum of seven in which the peacock is referred to in the 11th and 12th centuries, its role as a source of food seems clear, as peafowl are cited among other species such as pigs, chickens and capons, geese, and ducks (Terol, 2016).

Nevertheless, it is in the earliest stages of the later Middle Ages, that is to say as from the 13th century, that there is a noticeable

FIGURE 4 Various representations of peacocks in early Christian and medieval art in Catalonia. (a) Episcopal see of Egara (5th century); (b) Beatus de Girona (10th century); (c) Santa Maria de l'Estany (12th–13th centuries); (d) Santa Maria de Taüll (12th century); (e) Cloth of the Witches (11th–12th centuries); (f) coat of arms of Bernat de Pau. Plaça dels Lledoners, Girona (15th century). *source*: Maria Nadal, except B: © Fons Capítol Catedral de Girona (2022), C: © Museu Nacional d'Art de Catalunya, Barcelona (2022) [Colour figure can be viewed at wileyonlinelibrary.com]

increase in peacocks in purely secular contexts in both written texts and artistic depictions in Catalonia. As regards artistic representations, although it does not disappear completely, strictly religious illustrations of the peacock decline, and the depictions that appear are more closely linked to the display of social status, both in religious and secular contexts, similar to the situation that had existed in classical Antiquity, arising from the magnificent, beautiful appearance of this animal, in particular as a consequence of the impressive traits of the male's tail. This symbolic reinterpretation occurs in many other areas of Europe at the same time (Cintré, 2012). A paradigmatic case might be the presence of the peacock among the classic animals of the heraldry of the nobility (lions, wolves or eagles) from this moment onwards (Audoin-Rouzeau, 1994). This must have been the case with the coat of arms of the Catalan Pau family, which included figures of great social renown, such as Bernat de Pau, bishop of Girona during the first half of the 15th century (Figure 4f). Textual references to the presence of peacocks as ornamental animals in the so-called "beast parks" or gardens of noble or royal palaces also begin to appear in late medieval Catalonia. The first recorded example can be found in a document recording the expenses of king James's heir, Peter, subsequently King Peter II the great (Pere el Gran; lived ca. 1239–1285; reigned 1276–1285); on 19 April 1268, two "diners" (pence) was spent on bread for feeding the "paons" (peacocks) in Barcelona (Conde, 1988, p. 38). Apart from the proximity of this date to that of the carbon-14 dating, it should be noted that the main royal palace was located some 200 m to the north-west of the Sotstinent Navarro excavation on the line of the late Roman defenses. We have also references to the presence of peacocks in Perpignan during the reign of King Peter the Ceremonious (Pere el Cerimoniós; lived 1319–1387), in Barcelona during the reign of King John the Hunter (Joan el Caçador; lived 1350–1396) and King Martin the Humane (Martí l'Humà; lived 1356–1410), son and brother of the two previous kings and the last monarch of the House of Barcelona dynasty. In the latter case, there is written evidence of the gift of several white peacocks made by the bishop of Montpellier to this monarch. References to peacocks in royal collections are accompanied by other animals of an exotic, hunting or ornamental nature, such as lions, bears, deer, ostriches and pheasants (Adroer, 1989; Domènech, 1996).

The detailed documentary evidence in medieval Catalan cookery books requires separate consideration. There is a total of four preserved books, dating from the 14th and 15th centuries. First of all, we have the *Llibre del Sent Soví*, written before 1360 (Santanach, 2016). In this book, the peacock is mentioned in only one case, that is no more than 3% of recipes containing any kind of bird (72 recipes). This

proportion increases significantly in the two later cookery books. First, the *Llibre d'Aparellar de Menjar*, which must have been written between 1360 and 1380 (Santanach, 2015), with a total of 6% peacock references among bird recipes (5 recipes out of 83), and with a substantial increase, rising to 12% (6 mentions in a total of 48 recipes) in the *Llibre de totes maneres de potatges*, written in the late 14th century or the opening years of the 15th century (Santanach, 2018a). Finally, in the *Llibre del Coc*, a work first published in 1520, but written before 1491 (Santanach, 2018b), references to peacocks reach 16% among recipes with birds, although the absolute number of citations decreases (4 recipes out of 24 mentioning some kind of birdflesh). Other species of birds mentioned in these recipes, in addition to the strictly domestic ones (fowl in different stages of age and sex, as well as castrated animals—capons—geese) are partridges, wood pigeons, pheasants, and "small birds" (small passerines without further taxonomic reference) and the crane, a very interesting reference, as it also appears among the bird remains from the Sotstinent Navarro excavation. It should be remembered that these recipes were aimed not at the population as a whole, but specifically at the affluent classes, especially the nobility. The preparation of the peacock described in these recipes often involved a very elaborate table presentation, in which the cooked animal was served as if it were alive, keeping the head, neck and especially the tail, complete and feathered (Santanach, 2018c), as is often depicted in contemporary illustrations (Cintré, 2012, p. 111).

Having said all this, and in view of the multiplicity of causes that may explain the presence of peafowl remains in the 13th century stratigraphic contexts on the Sotstinent Navarro site, we rule out a symbolic religious role for the animal, as, in such cases, it is expressed in the sphere of iconography and not by means of the presence of the animal itself. Besides, this symbolism seems to become somewhat less marked over the course of time, not so much because it necessarily lost its allegorical significance, but because of the addition of new, more secular roles. Instead, we consider that the remains should be linked to the expression of luxury and display. In this particular case, this ostentation does not seem to have been demonstrated by means of its consumption, although the growing importance of peafowl in the Catalan cookery books of the later Middle Ages can clearly be noted. The lack of taphonomic marks linked to the meat or culinary process and the specimen's noteworthy anatomical integrity appear to prove this to have been the case. It seems to us, on the other hand, that the most plausible interpretation would be that of an animal kept in captivity for ornamental purposes, possibly in a garden, and that once dead, it was not made use of in any other way, and its carcass was abandoned. The characteristics of the excavated area, the productive area and part of a courtyard of an urban mansion, might well support this interpretation.

6 | CONCLUSIONS

Even though there were already iconographic representations of peacocks in Antiquity in this region, the bone remains found in the 13th century (dating corroborated by carbon-14 analysis) levels at the Sotstinent Navarro site, in Barcelona, are the first finds in Catalonia from any historical period. They are also indicative of one of the best-preserved archeological specimens in all Europe, thanks to their anatomical representativeness, of what appears to be a single adult female individual, which has no spurs on the tarsometatarsus and which falls into the variability of this sex, according to the biometrics obtained from different reference collections. The purpose and symbolism of this animal throughout the Middle Ages in Catalonia is similar to that of other areas of Christendom. A meaning linked to death and rebirth at the end of Antiquity seems to have been reinforced in the early Christian world in Catalonia. This perception continued to be marked throughout the early Middle Ages, with representations strictly linked to buildings and monuments with a religious purpose, whether in sculpture, painting or the decorative arts. Despite this, there are some textual references that prove the physical presence of this species, at least from the 11th century onwards. With the transition to the late Middle Ages, the time of maximum expansion of the Catalan-Aragonese crown, the use of the peacock as a vehicle of display was reinforced or seems to have acquired greater importance than the more religious meaning, and references became more frequent, both to its consumption through cookery books and also to its presence in urban parks, gardens or courtyards, especially among the nobility and royalty. This seems to be the function of the animal identified, given the lack of cut marks and its anatomical integrity. The association with other bird remains on the site, which have not been considered so thoroughly, might reinforce the idea of luxury and social ostentation of the residence excavated, such as the remains of the crane—in this case most likely to have been associated with consumption despite not having explicit marks—or the remains of a sparrowhawk, linked to falconry.

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CONFLICT OF INTEREST

None.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ORCID

Marina Fernández https://orcid.org/0000-0002-4974-855X

Lluís Lloveras https://orcid.org/0000-0001-6949-8298

ENDNOTE

[1] According to data from the *Inventaire National du Patrimoine Naturel* inpn.mnhn.fr/espece/cd_nom/199757/tab/archeo?lg=en (consulted 31/01/2022).

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