

## THE DEMOGRAPHIC ENIGMA OF THE PREHISPANIC POPULATIONS OF LANZAROTE AND FUERTEVENTURA

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**Abstract.** Human remains from the protohistory of Lanzarote and Fuerteventura (Canary Islands) are extremely scarce contrasting with the demographic estimates for those islands and demonstrating an important deficit of the

activity related to the funerary archaeology carried out there. This is based mostly in two reasons: research problems and/or the own nature of those practices.

**Keywords.** Canary Islands. Lanzarote. Fuerteventura. Protohistory. Demography.

## I. INTRODUCTION

The protohistoric colonization of Lanzarote and Fuerteventura created phenomena of adaptations that changed the first colonist cultural identity and the cultural aspects that could adapt to the biogeographical conditioning factors. This process transformed the first populations of those islands from continental Libyans into islander “Mahos”.

In this context, the identification of funerary rituals – six centuries after the abandonment of those practices – is complicated when the funerary spaces and the human remains (most of them excavated without an appropriate archaeological method) are extremely scarce. This scarcity of human remains is the evidence that something strange was going on about the funerary practices of the protohistoric populations of Lanzarote and Fuerteventura because: WHERE ARE THE DEAD? Other two facts complicate the vision we had on this cultural aspect: the scarcity of material record related to funerary practices and the poor methodology for the recovery of the information on the ground.

From the analysis of the scarce evidences we propose some hypotheses to explain this problem.

## 2. HUMAN REMAINS AND FUNERARY SITES

### Lanzarote

According to Chil (1876), the first human remains appeared in the 19th century in “Cueva de los Verdes” and Verneau (1891) mentions a burial site in Rubicón, with three skeletons, and another in Guatiza, although no data exist today about these sites. Other findings, years later, are those from Yaiza and Tegüise but their chronology was not clear.

It was in the 1970's when the first protohistoric remains were found in the slopes of Guanapay volcano (Arco, 1976) and in 1979 a shepherd discovered “Cueva de la Caldera” in Montaña de Mina (San Bartolomé municipality) that was excavated by Martín *et al.* (1982) showing a minimum number of individuals of 12 that were accompanied by scarce grave goods. The chronology was 5<sup>th</sup> century AD.

Several decades later, in 2015, a burial cyst with skeletal remains belonging to an adult male of 35-44 years showing dog bite marks was discovered. These marks may be related to a finding in Buenavista (2017) where dog fossilized feces with bone fragments (human falanx?) were found (Atoche & Ramírez, 2017).



**Fig. 1.** Montaña Mina. San Bartolomé, Lanzarote. (Fot. P. Atoche)

The last discoveries of human remains (skull fragments and several vertebrae of two perinatal individuals) were made in Zonzamas (Teguiise municipality) dating from the 7<sup>th</sup>-8<sup>th</sup> centuries AD.

### Fuerteventura

The situation is similar to that of Lanzarote. There have been considered many potential funerary spaces but without any archaeological confirmation. Verneau (1891) was the first to mention several of these spaces in Betancuria, taking skeletal fragments in Barranco de Bajamanca.

Jiménez Sánchez (1951, 1952, 1953 and 1955), during the 1940s, recorded different sites in the island, although their funerary character could not be demonstrated. According to this author, caves represent the majority of funerary evidence but cysts and burial mounds (the most probable mound was that of El Matorral, Puerto del Rosario, where the bones of a female individual were found) were present in Fuerteventura. The most important funerary caves are the following:

- Esquinzo: a female skeleton was found there (Hernández & Martín, 1980).
- Huriame: a skeleton without skull (Hernández & Martín, 1980).
- Los Ídolos: some burned human bones with an important number of grave goods were found there (Hernández & Martín, 1980).
- Villaverde (1979): pit with an adult male and a subadult (Garralda et al. 1981).
- Montaña de Tindaya: human teeth and bone fragments were taken and several mounds were found there (Velasco, 2000).
- Solana del Cuchillete (Barranco de los Canarios, Jandía): a small cave with bone fragments of four individuals dated from 11<sup>th</sup>-12<sup>th</sup> centuries AD was discovered in 2011.
- Huriame: deteriorated remains of three individuals (two males and a female) showing dog bite marks and dated 11<sup>th</sup> century AD were discovered in 2014.
- La Tonina was the last finding in Fuerteventura: a male younger than 20 with a stature around 190 cm that died in a violent manner. The chronology was 11<sup>th</sup>-12<sup>th</sup> centuries AD.

### 3. FUNERARY RITUALS IN THE CANARIES

During the Protohistory of the Canary Islands it wasn't usual to bury individuals in contact with soil. Instead, they buried individually or collectively in caves, hypogea or crevices closed with dry stone walls. The individual was buried in

supine position on animal skin or other material (volcanic stones, funerary boards, etc.) Variants of this ritual have been observed in Hermigua (La Gomera), Cueva de Chabaso (Tenerife) and El Espigón (La Palma) where the corpse was placed in a flexed *decubitus lateralis* that is also typical of North Africa, although older than the previous ritual.

In the Protohistory of Lanzarote and Fuerteventura the typical funerary structures were:

- 1) Funerary caves constitute the majority
- 2) Funerary cysts are much more uncommon in both islands
- 3) Funerary mounds have been only observed in Fuerteventura

These practices were similar to those of the first millennium B.C.E. in North Africa and seem to be related to the Phoenician-Punic colonization and linked to the afterlife beliefs.

#### 4. BIOANTROPOLOGICAL, DEMOGRAPHIC AND PATHOLOGICAL DATA

Regarding **Lanzarote**, the skeletal remains selected for this study belong to the Protohistoric and historical period of the island:

Montaña de Mina

Males: 6

- 20-24: 1

- 25-29: 1

- 30-34: 1

- 35-39: 2

- 45-49: 1

Females: 6

- 20-24: 1

- 25-29: 1

- 30-34: 2

- 35-39: 1

- 40-44: 1

La Chifleterá: male 25-29.

Tahiche: 2 females (6-8 y 15-19)

Guanapay: male 40-44.



**Fig. 2.** Skull located at the upper level of the cave Montaña Mina, San Bartolomé, Lanzarote. (Fot. P. Atoche)



Fig. 3. Study of the anthropological remains from Lanzarote. (Fot. P. Atoche)

### Fuerteventura

Barranco de Esquinzo: female 25-29

Cueva de Villaverde: male 50 years and subadult 4-5.

Unknown origin (stores of the Museo Arqueológico in Betancuria):

Males: 2

- 30-34: 1

- 35-39: 1

Females: 3

- 20-24: 1

- 30-34: 1

- + 50: 1

### Demography

Although Bontier and Le Verrier in *Le Canarien* (beginning of the 15<sup>th</sup> century) affirmed that Lanzarote was well populated estimating a total number of inhabitants around 2000, after the European conquest the demographic situation on the





**Fig. 4.** Cave of Esquinzo. Pájara, Fuerteventura. (Fot. P. Atoche)



**Fig. 5.** Anthropological remains from Barranco de Esquinzo. Museo de Betancuria. (Fot. P. Atoche)



**Fig. 6.** Montaña de Tindaya. La Oliva, Fuerteventura. (Fot. P. Atoche)

island was critical. According to this chronicle of the conquest, Fuerteventura doubled the population of Lanzarote around the conquest accounting for almost 4000 people. However, the scarcity of human remains at the present moment makes that the demographic data show no statistical value (Rodríguez-Martín *et al.* 2016).

Being impossible to carry out demographic profiles, the only datum we can elucidate is the mean age interval of death:

Lanzarote: males 35-39; females 30-34

Fuerteventura: males 30-34; females 25-29

### **Physical data**

Lanzarote:

Mean stature: males 171 cm; females 160 cm

Robusticity: mid – mid/high in males; low/mid - low in females.

Fuerteventura:

Mean stature: males 176 cm; females 162 cm

Robusticity: mid – mid/high in males; mid in females

As stated by Verneau (1891), mean stature in Fuerteventura is higher than in the rest of the archipelago, especially in males.



### Metabolic stress markers and metabolic diseases

*Cribra orbitalia* and porotic hyperostosis were absent in the protohistory of both islands and there are only two cases of enamel hypoplasia in Montaña de Mina (San Bartolomé municipality, Lanzarote). On the other hand, osteoporosis (the senile type) was the most common in the Canary Islands meanwhile the juvenile type is almost absent in the archipelago and this was the case of Lanzarote and Fuerteventura too where the cases observed were located in the spine.

### Skeletal pathology

Degenerative joint disease appears with a frequency of 40% of the adult individuals in both islands, involving one or several joints. Sexual differences have not been observed.

Regarding the presence of spondylosis and Schmorl's nodes, spondylosis was diagnosed in Lanzarote in 50% of the individuals at an early age. Both sexes were similarly affected in Fuerteventura. Schmorl's nodes were very common (25%) in both populations.



**Fig. 7.** Anthropological remains from the Cave of Villaverde. Museo de Antigua. (Fot. P. Atoche)

The only congenital malformations diagnosed were a case of scoliosis in a male of Montaña de Mina and a complete sacralization of L5 in the male of Barranco de Esquinzo.

Three cases of circulatory disturbances (osteochondritis dissecans) were observed in Lanzarote involving the elbow in a male and the femur in a female of Montaña de Mina and the femur of the male in Guanapay.

Three traumatic lesions were also seen in Montaña de Mina (Lanzarote): a traumatic hole in the frontal bone of a female; a dislocation of the right elbow and wrist in a male and a case of myositis ossificans traumatica in a male.

### Dental pathology

No caries was observed in both islands. Dental attrition is present in adults in a light or moderated degree (2-4 Patterson's scale, 1984). Abscesses and antemortem tooth loss were as follows: five cases of abscesses in Lanzarote (Montaña de Mina) and nine cases of antemortem tooth loss in the same and other places.

Regarding Fuerteventura, only one case of antemortem tooth loss (premolar and molar) accompanied by a severe abscess in an adult male older than 50 has been diagnosed.

## 5. WHERE ARE THE MAHOS OF LANZAROTE AND FUERTEVENTURA?

As we said before, Bontier and Le Verrier in *Le Canarien* assures that around 1400 Lanzarote was well populated. Macías (1992, 2003), applying a warrior/inhabitant coefficient of 6 suggests that Lanzarote could have around 2000 inhabitants (population density: 2.4) in the moment of the conquest; and, as we stated above, Fuerteventura could be around 4000 (same density than Lanzarote).

However, as we could observed in the previous paragraphs, the anthropological evidence is extremely scarce in relation to the population data described. Therefore, there are several hypotheses that could explain the scarcity of human remains in these two islands of the most eastern part of the Canarian Archipelago:

1. Absence of scientific interest until very recently.
2. Structural investigation problems (old archaeological methods, scarcity of methodological excavations, old theoretical models based mostly in the written sources of the 15<sup>th</sup> - 16<sup>th</sup> centuries ...).
3. Existence of burial practices destroying the corpse (fire): cremation is described in *Le Canarien* but referred to a single case, probably as punishment.

Burned remains were also found in La Palma (the oldest case), Tenerife and El Hierro. In general, cremation is a practice that has also been found in North Africa during the Phoenician period, first, and later in the Roman colonization. Phoenicians and Romans had contact with the islands between 10<sup>th</sup> Century B.C.E. and 4-5<sup>th</sup> Century A.D. and, as a consequence, some religious elements of the Mediterranean cultures are present among the protohistoric Canarian populations.

4. Deposit of corpses in inaccessible places (malpaíses or badlands): in Lanzarote and Fuerteventura badlands funerary places were observed. On the other hand, there is no explanation about why important population centers didn't have cemeteries (E.g: *Acatife*).
5. Application of a Norman funerary ritual to Lanzarote: this is the case of a Norman that died in the fighting that took place there and was buried covering the corpse with soil, a thing that did not occur among the aboriginal Mahos (Bontier and Le Verrier, *Le Canarien*, beginning of the 15<sup>th</sup> century).
6. The habit, as in the other islands after the conquest, of using human remains as fertilizers; as objects of superstition and fear; and sale of human remains. All these practices produced the destruction of the evidence.
7. And the sea? Soler (2016) points out that possibility although there are no historical or archaeological records.
8. The last hypothesis is that of the abandonment of the corpses to the environment in order to get the destruction by weathering or by the action of wild dogs and necrophagous birds.

## 6. CONCLUSIONS

Multicultural complexity that produced the religious beliefs of the protohistoric Canarian populations was important for their funerary practices that, in the case of Fuerteventura and Lanzarote, are difficult to inquire and describe due to the scarce amount of human remains that mostly are bad contextualized and other frequent fact in the islands during many years: plunder.

Different funerary rituals, based in the belief on the afterlife, existed in both islands and this is confirmed by the existence of grave goods (of bad quality in most of the cases) for the use by the dead. This avoids to know the exact social status of the individual.

On the other hand, there is an important difference between the number of individuals and the population density mentioned in the chronicles of the conquest

and the general histories of the archipelago after the conquest and the scarce number of human remains found in both islands. The possible hypotheses of this phenomenon (only observed in Lanzarote and Fuerteventura) commented above need to be checked in a near future.

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