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Figurines in context(s) at La Quemada. Production, performance, and discard

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This article presents an analysis conducted on the collection of ceramic figurines found at the Epiclassic center of La Quemada, Zacatecas, Mexico, during stratigraphic excavations of the La Quemada-Malpaso Valley Archaeological Project. This corpus (1989-1999) constitutes an essential source of information about this community's ritual and socio-economic life. The study develops a multi-perspective approach (stratigraphic, technological, and typological) to identify the context of production, use, and discard of these materials. We suggest that these figurines were manufactured by various production units and used during community ritual and performative events before being systematically discarded in middens or reused as construction materials.

Keywords: *figurines, West Mexico, Epiclassic, manufacturing techniques, ritual.*

Figurillas en contexto(s) en La Quemada. Producción, performance y abandono

Este artículo presenta un análisis realizado sobre la colección de figurillas de cerámica procedente del centro epiclásico de La Quemada, Estado de Zacatecas, México, en el marco de las excavaciones estratigráficas del Proyecto Arqueológico La Quemada-Valle de Malpaso (1989-1999). Este corpus de figurillas constituye una fuente de información importante sobre la vida ritual y socioeconómica de esta comunidad. El estudio propone un acercamiento multi-perspectivas (estratigráfico, tecnológico y tipológico) para identificar el contexto de producción, el uso y el proceso de destrucción de estos artefactos. Sugerimos que las figurillas encontradas en La Quemada fueron manufacturadas por varias unidades de producción, y que fueron usadas durante eventos rituales y performativos comunitarios. Por último, fueron desechadas sistemáticamente en basureros o reusadas como material constructivo.

Palabras claves: *figurillas, Occidente de México, Epiclásico, técnicas de fabricación, ritual.*

Figurines en contexte(s) à La Quemada. Production, performance et abandon

Cette étude présente l'analyse de la collection de figurines en terre cuite provenant des fouilles stratigraphiques menées sur le site épiclassique de La Quemada, état du Zacatecas, Mexique, par le projet La Quemada-Valle de Malpaso (1989-1999). Ce corpus constitue une source d'information importante sur la vie rituelle et socioéconomique de cette communauté. L'approche multi-perspective (stratigraphique, technologique et typologique) de ces artefacts permet d'identifier leur contexte de production, d'utilisation et de destruction. Nous suggérons ainsi que les figurines découvertes à La Quemada ont été fabriquées par plusieurs unités de production, pour être utilisées lors d'évènements rituels et performatifs communautaires, avant d'être systématiquement jetées dans des dépotoirs ou réutilisées comme matériaux de construction.

Mots-clés : *figurines, Occident du Mexique, Épiclassique, techniques de fabrication, rituel.*

Ceramic figurines are artifacts of rare interest in identifying cultural, social, and economic interactions at different scales. Widely studied in Mesoamerica, these objects support a considerable variety of anthropological interpretations of the archaeological record. These interpretations include the question of human and animal representation; the composition of ritual paraphernalia; the gestures and actors of rituals; technological knowledge and production processes; and the demonstration of the capacity for Mesoamerican groups to interact with each other through a variety of strategies and for different purposes (e.g., trade, cultural appropriation, or socio-political emulation). Many studies approach these artifacts from one or two of their characteristics (e.g., their iconography, spatial distribution, or presence/absence within a given context) to answer

specific research questions. Figurines are primarily used as interregional interaction markers or diagnostic elements of cultural spheres (e.g., Forest, Jadot, and Testard 2020; Halperin et al. 2009; Lesure 2011; Marcus 2018; Testard and Serra Puche 2011). Such studies are relevant for regional or macro-regional-scale inquiries but less informative regarding these artifacts' functions within their local contexts. Recent studies have demonstrated the importance of a holistic and local approach to figurine collections to reconstruct a more refined picture of their cultural, ritual, technological, and socio-economic context of production, use, and discard (Marcus 2018).

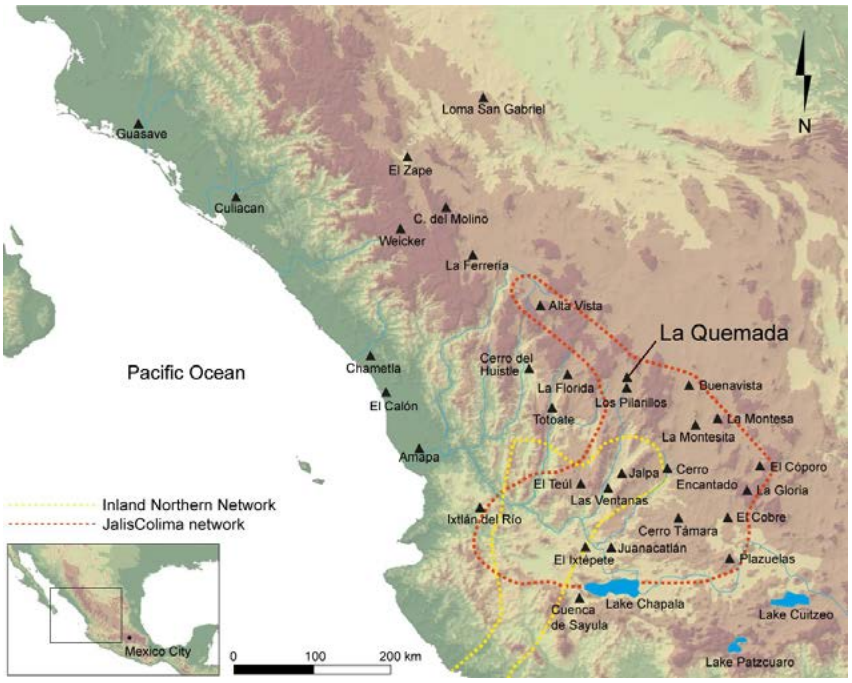

Figure 1 – Location of La Quemada and other major Epiclassic sites in Northwest Mexico, and the extent of two cultural interaction networks as defined by Jiménez Betts (2018) and Ramírez Urrea (2005) (map by M. Forest).

Available references pertaining to figurines vary widely across West Mexico depending on their geographic and temporal contexts. In West Mexico, figurines are documented by a series of studies, focusing on the Preclassic, Classic, and Postclassic periods (e.g., Oliveros Morales 2006; Beekman and Pickering [eds.] 2016; Faugère 2020; Logan 2020; Begun 2008; Forest, Jadot, and Testard 2020), and on the Epiclassic period (600-900 CE) in particular (Jiménez Betts 1989; Jiménez Betts and Darling 2000; Oster 2007; Pérez Cortés 2007; Solar Valverde and Padilla González 2013; Ramírez Urrea et al. 2013). In these resources (which exclude most of the unpublished technical reports where such artifacts are generally reported), figurines are used for the primary purpose mentioned above: they constitute markers to support the identification of cultural and economic networks. In the case of West Mexico during the Epiclassic period, two main networks have been defined and discussed: the *Inland Northern Network* (Jiménez Betts 1992, 2018) and the *JalisColima Network* (Ramírez Urrea 2005; Figure 1). However, the production processes and the contexts of use and final deposition of these artifacts within their cultural settings are rarely discussed or even published (see recent discussion in Solar Valverde, Jiménez Betts, and Martínez 2020).

This situation might be related to the fact that these objects are typically recovered in superficial contexts or highly fragmented in secondary deposits, such as middens and construction fills (e.g., Solar Valverde, Magriñá, and González 2011). The fragments are also classified as "miscellaneous" objects, scarcely described or illustrated in the technical report, and rarely published in readily accessible literature. Several studies, however, have demonstrated the relevance of contextual analysis for collections of ceramic figurine fragments in West Mexico by placing such objects at the center of the conversation. Such an approach places emphasis on the life cycle of these objects (Appadurai 1986; Kopytoff 1986), including their context of production through the identification of manufacture processes and production units, their use-life using typology, iconographic representation, and context of recovery, and their context of deposition in the archaeological record (e.g., primary or secondary, residential or ritual, isolated finding or trash) (Faugère 2020; Forest, Jadot, and Testard 2020; Jadot and Testard 2020; Overholtzer and Stoner 2011).

From 1989 to 1999, fieldwork was conducted by the La Quemada Malpaso Valley Archaeological Project (from now on LQ-MVAP) under the direction of Ben A. Nelson in central Zacatecas, Northwest Mexico. Fieldwork was guided by multiple research questions, which included the northern frontier of Mesoamerica's fluctuations during the Epiclassic period (600-900 CE). Among these questions, the role of important centers like La Quemada was of primary interest to identify socio-political, cultural, and economic dynamics at that time (Nelson and Jiménez Betts 1989). In this perspective, the works conducted by the LQ-MVAP at La Quemada have investigated the emergence, occupation modalities, role at local and interregional scales, and decline of this center from a multidisciplinary perspective (Nelson and Torvinen [eds.] n.d.). Among the artifacts and ecofacts collected, 178 ceramic figurine fragments were recovered at La Quemada and were preliminarily studied from a typological perspective (Goldsmith 2000a and b; Holthuysen 2007). The present article analyzes, for its part, these objects in terms of their depositional context and the manufacturing processes used to produce them in

order to reevaluate their typology and morphology from a functional perspective. By documenting their context of production, their context of use or consumption, and finally their context of discard, we offer a refined study of these objects' life cycle within the ceremonial center of La Quemada. Among the main results, we propose that these objects were likely produced by various non-specialized production units as individualized, stageable objects, representing different social components of the La Quemada community and used during ritual events, before being systematically and rapidly discarded. The formal observations of these objects and typology comparison confirmed the integration of La Quemada in the Inland Northern Network during the Epiclassic period.

LA QUEMADA DURING THE EPICLASSIC: INTERREGIONAL RELEVANCE OF FIGURINE ANALYSIS

The archaeological site of La Quemada is located in the Municipio of Villanueva, State of Zacatecas, Northwest Mexico (Figure 1). The site occupied the top of a rhyolitic dome, elongated north to south, located in the central portion of the Malpaso River's floodplain. The hilltop location, the monumentality of the architecture at the site, and the extensive surveys conducted in 1974 in the Malpaso Valley have demonstrated that La Quemada was the major center in the valley and connected to more than 200 villages and hamlets via a developed access network (Trombold 1991, 2005). Although the Malpaso Valley was occupied during the Classic period (ca. 400 CE), the apogee of La Quemada occurred in the Epiclassic period between 600 and 800 CE (Nelson 1997; Torvinen and Nelson 2020; Torvinen 2020; Turkon 2020). During this period, La Quemada experienced intensive terracing and leveling of the terrain and the construction of both monumental (e.g., pyramids, columned structures, ball courts, sunken patios) and residential (e.g., group patios associated with rooms, small temples, walkways, and middens) architectural features. Monumental architecture was prominent in the central and southern areas of the site, while the western flank was primarily residential (Nelson 1997; Torvinen and Nelson 2020).

La Quemada is one of the major centers with monumental architecture in the Mesoamerican northern frontier region (Noguera 1930; Trombold 1991). As such, the site has been studied from many distinct methodological perspectives, leading to various interpretations of its occupants' identity and role at the regional and interregional scales. Earlier studies associated La Quemada with the Postclassic cultures of West and Central Mexico, in particular the Toltecs (e.g., Weigand 1977). Starting in the 1980s, the LQ-MVAP and a project conducted by the Instituto Nacional de Antropología e Historia de México (Jiménez Betts 2010; Nelson and Jiménez Betts 1989) undertook a reevaluation of the site's culture history and formation process as they related to the extension and retraction of the northern Mesoamerican frontier.

Jiménez Betts (1988), Hers (1989), Trombold (1990), and Nelson (1990) questioned the Postclassic dating of the site based on stylistic cross-dating and a few radiocarbon dates, proposing that it was probably earlier. The reevaluation of architectural styles, the controlled stratigraphic excavations, and the establishment of a chronology based on absolute dates have yielded a better understanding of the developmental context and occupation of La Quemada (Jiménez Betts and Darling 2000; Nelson 2002; Trombold 2005). In contrast to previous interpretations that suggested direct links with Central Mexico, La Quemada is now thought to have developed as a result of local stimuli (see discussion in Jiménez Betts and Darling 2000; Nelson 1997). Based on radiometric dates (Armillas 1964; Trombold 1990; Jiménez Betts 2005; Torvinen and Nelson 2020: 66, Table 1), the site may have been founded ca. 500 CE and reached its peak occupation in 600-750 CE before its final abandonment ca. 900 CE (Nelson 1997). Earlier interpretations of La Quemada as an Early Postclassic outpost have thus been invalidated and the site is now understood as a major, although geographically isolated, center representing the Epiclassic florescence in the northern frontier region (Jiménez Betts and Darling 2000). At the time of its maximal extension and occupation, La Quemada would have been 16 times greater in size than the second-largest site in the valley, Los Pilarillos (Trombold 2017). Torvinen, Nelson, and Turkon have recently refined the chronological sequence by combining new radiocarbon dates (86 in total for the LQ-MVAP) with ceramic seriation. The seriation establishes phases (I, II, and III) in the Epiclassic occupation of La Quemada and offers a refined model of growth for both the site itself and the Malpaso Valley settlement pattern evolution in general (Turkon 2020; Torvinen and Nelson 2020). Although the modeling of seriation phases and radiocarbon dates is ongoing, dates derived from annual samples alone provide date ranges of 550-700 CE for Phase I and 700-870 CE for Phase II. Currently, no dates derived from annual samples are available from Phase III contexts, so the date range of 412-936 CE is much wider and requires additional investigation (Torvinen 2020; Turkon 2020; Turkon et al. 2018).

The origin and functions of La Quemada at the regional and interregional scales remain of critical interest for the archaeology of Northwest Mexico. While its monumental ceremonial status is unquestioned, more nuanced interpretations have been proposed. These include the establishment of La Quemada as a ceremonial location for the veneration of ancestors (Nelson and Martin 2015) and its role as a pilgrimage center (Hers 1989; Medina González 2002) or the center of a pilgrimage economy (Wells and Nelson 2007). The excavation of a series of patio complexes—the fundamental habitation unit at

La Quemada (Trombold 2002)—along the site's western flank has provided multiple data sets that can be used to shed light on functional and socio-economic aspects of the site. In turn, such information can aid in continuing to refine interpretations of the role of La Quemada at local and extra-regional scales.

Among the material culture collected by the LQ-MVAP were a series of ceramic figurine fragments. Although documented in the early archaeological literature about the Malpaso Valley (Batres 1903: lám. 23), it has only been recently that certain types of figurines have been used as indices for interregional cultural interactions in West and Northwest Mexico (i.e., Zacatecas, Jalisco, Aguascalientes, Michoacán, and Guanajuato) (Solar Valverde and Padilla González 2013; Jiménez Betts 1995, 2020). For example, the Type I, defined initially by Williams (1974) for the Altos of Jalisco, and systematically revised by Solar Valverde (see the complete study of Type I figurines in this issue: Solar Valverde 2021), is considered by Jiménez Betts and Darling (2000) as a horizon marker for the Inland Northern Network. In contrast, the Cerro de García Type seems affiliated with the JalisColima Network (Gómez Gastélum and Torre Ruiz 2005; Ramírez Urrea 2005). As currently known, the two types, differentiated among many other traits by the shape of their heads and bodily and ornamental features (as shown in Figure 2), are, in general, mutually exclusive in their distributions.[1]

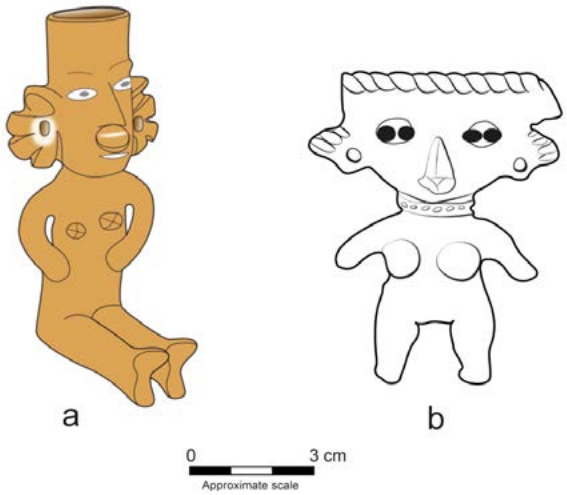

Figure 2 – a. Williams' (1974) Type I seated feminine figurine from El Vergel; b. Cerro de García standing feminine figurine (drawings without scale by Sylvie Eliès from a. Jiménez Betts and Darling 2000: fig. 10.12; b. Gómez Gastélum and Torre Ruiz 2005: fig. 1c).

1. Nevertheless, both types were found at Cerro El Teúl (Jiménez Betts 2020: fig. 5.5; Solar Valverde, Jiménez Betts, and Martínez 2020).

The presence of Type I figurines at La Quemada has been used in conjunction with other lines of evidence (e.g., *pseudo-cloisonné* ceramics) to suggest that the site was one of the northernmost Inland Northern Network centers (Jiménez Betts 2020). While figurines have been employed to identify participation in interregional cultural spheres, they have rarely been the object of in-depth study at local and site scales. As a result, their manufacturing process, their context of use, and their deposition remain poorly undocumented.

METHODS OF STUDY AND NEW TYPOLOGY

The 178 figurine fragments obtained during the excavations at La Quemada constitute an essential corpus for identification, classification, and cultural affiliation of this type of object within the Malpaso Valley and other regions. To conduct the analysis of the LQ-MVAP figurine collection, we combined different approaches, with the objective of gathering extensive information on each specimen (fragment). Our methods of study, therefore, combined: 1. a thorough evaluation of the discovery context (spatial and temporal); 2. an observation of technological traits informing us about several aspects of the manufacturing process of these artifacts; and 3. an iconographic reevaluation. These different lines of inquiry allowed us to establish an alternative typology that complements the one traditionally used for the Inland Northern Network (Williams 1974).

Contextual observations

The variety of excavation contexts explored by the LQ-MVAP (e.g., residential rooms, collective spaces, discard areas, and access features/space) offers an opportunity to reevaluate the context of discovery for the ceramic figurines based on the spatial, temporal, and contextual variation of their deposition. The frequency of objects and their relative proportions were observed comparatively between the excavation areas, their internal stratigraphy, and the seriation phases. We can make different observations using the stratigraphic information and interpretation of contexts (e.g., primary or secondary deposit, occupational or post-occupational, frequency in material assemblage) and the figurine fragments themselves (fragmentation type and level). In the following pages, we express the relative concentration of figurine fragments as the "figurine index," the ratio of the number of figurine fragments to the number of plainware sherds plus figurine fragments, multiplied by 100. This type of index has been used in other case studies of figurines from archaeological contexts (see Overholtzer 2021, Halperin 2021, this issue) and its use here is intended to enable comparisons by controlling for the effects of varying sample sizes. Variation in this

index from one excavation area to another, or within the same excavation locus, is assumed to reflect differences in discard and/or use of ceramic figurines.

Technological observations

A second approach applied in this study is the observation of technological traits and manufacturing processes, to obtain insights regarding the context of production and the level of specialization of figurines recovered from La Quemada. Without direct access to the collection, we evaluated the corpus using the documentation available (photographs and drawings) for a subsample of 44 figurine fragments (25% of the collection). The subsample includes 20 anthropomorphic head fragments, 15 anthropomorphic torsos, one specimen with both head and torso, four headdress fragments, two fragments of anthropomorphic limbs, and two zoomorphic heads. Although limited, this subsample includes the best-conserved and larger fragments among the collection. In addition, these fragments correspond to a variety of types and consequently offer a wide spectrum of variation in manufacturing techniques. Three major constraints have limited our approach: first, we could not conduct any petrographic analysis; second, the technological/iconographic observations could not be performed on the entire collection; and third, no complete or sub-complete fragments were available to establish strict typological association between heads and torso/bodies (one fragment only).

Iconographic observations

The third approach consists in the analysis of the figurine iconography. Based on the limited and non-direct documentation available on the sample, and the fragmentation of objects (no connection between heads and torsos/bodies), we made the choice of creating a "La Quemada" alternative typology, which can be compared against preexisting types without being constrained by them. Therefore, the iconographic and technological observations carried out in this article on the LQ-MVAP figurines classify the 44 available photographed specimens into 11 types, whose designations are derived from the Huichol or Wixárika language (Table 1). This new typology, including four types not described previously, simultaneously suggests equivalences with the region's main traditional Type I and its subtypes, Types III and K (Williams 1974; and see Solar Valverde 2021, this issue). Due to their characteristic features, the head fragments undoubtedly provide the most accurate basis for comparison, whereas bodies and torsos are more "generic" and, thus, are more difficult to associate with existing types. A summary of the correspondence between the traditional and our alternative typology is presented in Table 1, while the detailed morpho-technological description is presented in Appendix 1.

Table 1 – La Quemada figurine types and their correspondence to existing types (based on a sample of 44 specimens).

Figurine specimen ID	Fragments	Count	LQ-MVAP types (2021)	Williams' types (1974)	Figures
F20, F21, F24, F25, F27, F29, F30, F32, F52, F196	Head	10	*Tevi*	Type Ia	figs. 7e, 7f, 7d, 8c, 7h, 7g, 7j
F31, F47, F57	Head	3	*Nakate*	Type Id?	figs. 8a, 8b
F4, F5	Headdress	2	*Tusí*	Type I	figs. 7n, 7i
F48, F50	Head	2	*Waikame*	Type Ib?, II?	figs. 7k, 7l
F7, F8, F33	Head	3	*Kaná*	Type III	fig. 7b
F2, F6	Head	2	*Súuri*	Type III?	figs. 7a, 7c
F51	Head	1	*Heecuáme*	no match	fig. 7m
F18, F53	Head-body	2	*Téeté*	no match	none
F9, F10, F12, F13, F14, F35, F36, F40	Body	8	*Ucá*	Type I, III, K	figs. 9d, 9b, 9e, 9f
F1, F22, F23, F26, F28, F41, F56	Body	7	*Cina*	Type I, K	figs. 9g, 9a, 9c, 10
F16, F39	Limbs	2	Undefined	no match	none
F44, F49	Zoomorphic	2	*Tevá*	no match	fig. 11
	Total	**44**			

Finally, although limited in its scope and results by the sample size (among the 44 illustrated cases, only 29 samples have a chronological phase assigned), a preliminary diachronic observation of figurine morpho-technological variation is also discussed here.

CONTEXT OF DISCOVERY

Excavations conducted by the LQ-MVAP between 1989 and 1999 included excavations at La Quemada and the two largest satellite sites of Los Pilarillos and El Potrerito (Nelson and Torvinen [eds.] n.d.). In La Quemada, work focused on the western terraces, including residential and refuse areas (Nelson 1997). The explored areas complemented studies conducted in the monumental core during early (e.g., Batres 1903) and more recent studies (Jiménez Betts 2010; López-Delgado et al. 2019; Figure 3, next page).

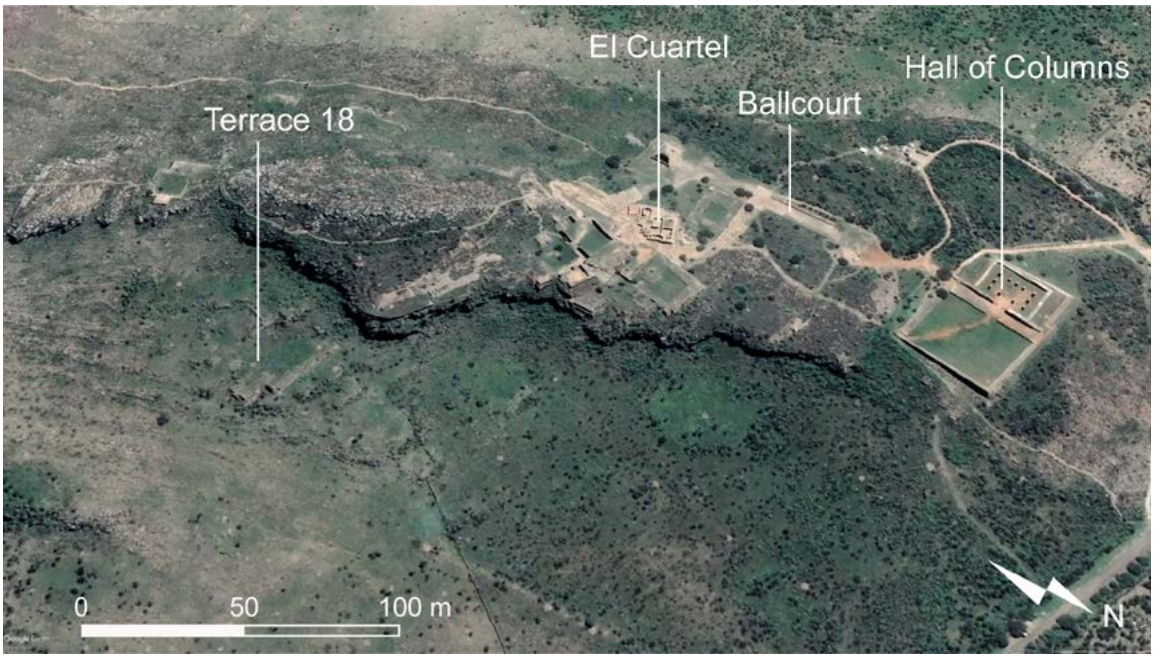

Figure 3 – Aerial view facing east on the archaeological site of La Quemada with the location of some of the main features. Terrace 18 and the series of middens discussed in this article are located on the western side of the site, at the foot of the hilltop ridge (by M. Forest, modified from Google Earth: image © 2020 CNES/Airbus).

Terrace 18

Terrace 18 was selected among the series of patio complexes built on terraces surveyed in the site's western area. It is a complex of approximately 3,300 m² formed by a large sunken patio (650 m²) surrounded by a series of buildings and access features built on top of a terrace and adjacent hill slope. The sunken patio is surrounded on the east, south, and west sides by banquettes that support rooms (Room Group 5-6, and Room 1, interpreted as a temple), as well as smaller patio groups (identified as Patio Groups A, B, C, D, E, F, and G). The northern portion is delimited by a causeway and stairway running west to east. North of the causeway are two platforms supporting small buildings (Platforms 1 and 2; Nelson and Torvinen [eds.] n.d.).

A series of non-residential attributes in Terrace 18 (e.g., a ball court, a temple, and a broad access feature connecting the complex to the exterior and other areas within the site, including the monumental core) support its identification as a complex with high status and ritual functions within La Quemada (Torvinen and Nelson 2020). Extensive horizontal excavation at Terrace 18 allowed Nelson and his colleagues to identify the complex's construction and occupation from synchronic and diachronic perspectives. Stratigraphic data include the post-occupation fill of the buildings and open spaces, construction sequences, floor levels, and platform preparation fill (Nelson 2020a). Absolute dating and ceramic seriation have determined that Terrace 18's construction likely initiated in Phase I (discrete occupation detected in Platform 1, and Room Group 5-6), continuing and extending into both Phase II (occupation detected in the Causeway, Platforms 1 and 3, Room Group 5-6, Patio Groups A, B, E and Room 1) and Phase III (occupation detected in Platforms 2 and 3, Patio Groups B, C, D, E, F, G, and Room 1). The different sub-locations of Terrace 18 yielded a total of 41 figurine fragments (Table 2).

Table 2 – Count of figurine fragments recovered by the LQ-MVAP in Terrace 18.

Excavation area	Count
Patio A, Ball Court, West Banquette	4
Patio Group B	3
Patio Group C/D	6
Patio Group E	0
Patio Group F	2
Patio Group G	2
Platform 1	2
Platform 2	4
Platform 3	14
Room 1 (Temple)	3
Room Group 5-6	0
Causeway	1
Total Terrace 18	**41**

The archaeologists have aggregated Patio A, the Ball Court, and the West Banquette Walkway (located between Patio A and Room 1) into one analytic cluster, because an apparently integrated display of human skeletal remains spanned this area. Patio Groups C and D

were also grouped. No figurine fragments were found in either Room Group 5-6 or Patio Group E. These latter contexts will not be mentioned in the following analyses.

Middens

Along with the extensive horizontal excavation at Terrace 18, a series of 11 middens were selected for excavation among a total of 25 discard areas detected during the survey across the western side of the site (Nelson 1997). The middens are found downslope, at the foot of terraces, and seem to correspond to the accumulation of artifacts and other debris from activities conducted on the upper terrace. The middens are constituted by levels of trash deposited intentionally and colluvial debris deposited naturally from the erosion of the overlying terrace's cultural strata. Because of their proximity and relative downslope location, Middens 1 and 7 have been directly associated with the activities conducted in Terrace 18, as well as Midden 6 located just upslope from the causeway (Torvinen and Nelson 2020). The other eight midden samples are more distant, associated with other residential terraces (Middens 15), with the monumental core at the site (Middens 11, 13, 19, 20, and 21), or with the main access site (Middens 10 and 12). A total of 137 figurine fragments were recovered from midden contexts (Table 3).

Table 3 – Count of figurine fragments recovered by the LQ-MVAP from the middens located on the site's western flank.

Excavation area	Count
Midden 1	7
Midden 6	30
Midden 7	24
Midden 10	5
Midden 11	39
Midden 12	11
Midden 13	12
Midden 15	6
Midden 19	0
Midden 20	2
Midden 21	1
Total Middens	**137**

Such spatial sampling offers an opportunity to look at the relationship between artifact assemblages (including figurines) and spatial-functional variation at the intra-site scale. Dating and ceramic seriation have determined that most middens from both the core and western terraces were composed of material from Phase II, except for Midden 21 (Phase I) and Middens 19 and 20 (Phase III). No figurine fragments were found in Midden 19, so this context is excluded from the following analyses.

FIGURINE FRAGMENTATION AND FREQUENCY VARIATION AT LA QUEMADA

Fragmentation

No intact figurines were recovered from La Quemada during the course of LQ-MVAP field operations. The frequencies of each portion of the body represented (Table 4) permit an estimate of both the minimum number of anthropomorphic individuals represented (n = 53) and a maximum figure (n = 178). In addition, two zoomorphic figurines are represented in this collection of fragments. Identifiable individual samples represent 30% of the corpus, which indicates a low to medium level of fragmentation for this type of artifact.

Table 4 – The minimum number of individuals (MNI) estimated based on the count of fragments per body portion.

Portion represented	Count	MNI
Zoomorphic figurines		
Heads	2	2
Anthropomorphic figurines		
Heads	25	25
Torsos and heads	2	2
Torsos	51	51
Headdresses	5	5
Ear ornaments	3	1.5-3
Arms	15	7.5-15
Legs	3	1.5-3
Feet	29	14.5-29
Limbs	14	7-14
Unknown fragments	29	29?
Total fragments	**178**	**≥ 53**

The fact that most of these artifacts were recovered from fill, trash, and secondary deposits provides a preliminary explanation for their observed state of fragmentation. Two scenarios are considered here: they were discarded as fragments or broken during their deposition. As no systematic refitting study of these artifacts has been undertaken, it is difficult to evaluate the relative likelihood of these two scenarios. However, as no refitting fragments have been identified at all, it seems more likely that the figurines were broken before their discard. This does not negate the possibility that additional fragmentation occurred afterward. For example, heads could have been separated from the torso before discard, followed by limb separation occurring in the trash or fill. This breakage could have been accidental (the neck and body articulations form a weak point in the modeled figurine) or in some cases intentional.

Table 5 – Frequency of figurine fragments by stratigraphic context and chronological phase. "Post-occ." means post-occupational and "ind." means indeterminate.

Context	Phase			Post-oc.	Unknown	Count	Frequency in %	Count plainware	Index
	I	II	III						
Middens									
Post-occ. deposits	0	0	0	32	0	32	17.98	13,923	0.23
Colluvial deposits	1	22	2	0	0	25	14.04	15,553	0.16
Trash deposit	0	78	0	0	0	78	43.82	36,239	0.21
Mixed materials	0	0	0	0	2	2	1.12	1,146	0.17
Total Middens	**1**	**100**	**2**	**32**	**2**	**137**	**76.96**	**66,861**	**0.20**
Terrace 18									
Post-occ. deposits	0	0	0	10	0	10	5.62	11,685	0.09
Room fills	0	2	17	2	0	21	11.8	11,283	0.19
Floor preparation	2	0	0	0	0	2	1.12	2,090	0.10
Floor	0	0	3	0	0	3	1.69	1,215	0.25
Refuse areas	0	0	2	0	0	2	1.12	3,290	0.06
Terrace and platform fills	0	1	0	0	0	1	0.56	2,085	0.05
T18-ind.	0	0	0	0	2	2	1.12	1,254	0.16
Total T18	**2**	**3**	**22**	**12**	**2**	**41**	**23.03**	**32,902**	**0.12**
Grand Total	**3**	**103**	**24**	**44**	**4**	**178**	**100.00**	**99,763**	**0.18**

Spatial distribution of figurine fragments

In the middens, nearly half (43.82%) of figurine fragments were recovered from trash deposit strata (Table 5). In comparison, 14.04% were found in the trash accumulation resulting from the natural colluvium of archaeological materials from the terrace level located directly above the middens. A significant proportion (17.98%) of fragments were also found in post-occupational and superficial strata, resulting from the erosion of the entire site surface. The concentration of these artifacts in trash strata or fill indicates that they were discarded systematically, like any other materials. The values of the figurine index for the middens are stable, regardless of the deposition process: they vary from 0.16 to 0.23, with a site-scale midden index of 0.20. This value is slightly higher than 0.18, which is the value of the figurine index for the entire site.

In the different areas of Terrace 18, the stratigraphic contexts of these artifacts vary. Room fills have yielded a significant proportion (11.80%) of figurine fragments. In contrast, post-occupation superficial deposits have yielded 5.62% of the total number of figurine fragments recovered from La Quemada. This same number, however, represents 24.39% of the number of fragments recovered from Terrace 18. Lower numbers of figurine fragments have been recovered from floor preparation levels ($n = 2$), platform construction fills ($n = 1$) and small refuse areas ($n = 2$). In Terrace 18, the vast majority of figurines are found in construction fill material (floor leveling, for instance) or post-occupational deposits, with no examples recovered in what could be considered their primary contexts. Three fragments (a torso, a foot, and an unknown fragment) were recovered among a concentration of human bones resting on the late occupational floor of Room 1. Because they are miscellaneous fragments (MNI = 3), they are unlikely to have been displayed intentionally in this location. When viewed from the perspective of the different locations within Terrace 18 (Table 6), figurine indices vary from a minimum of 0.05 for the Causeway to a high value of 0.54 for Patio Group F. When considered as a whole, the figurine index for Terrace 18 is 0.12, a value that is lower than both the site-scale index of 0.18 and the midden index of 0.20.

At the site scale (Figure 4), middens with a relatively higher concentration of figurine fragments than that of the site as a whole are found in the vicinity of the Terrace 18 complex (Middens 6, 7, 20) and figurine indices seem to decrease further away from the temple complex (Middens 1, 15, 21). The only exception is Midden 12 (FI = 0.32), located on the southwest access of the site. In the southernmost areas excavated by the LQ-MVAP project, Middens 11 and 13 showed the same index of 0.17. A more nuanced understanding of figurine deposition emerges when we look at the internal stratigraphy for each midden (see Range column, Table 4). For example, the earlier trash deposit stratum in Midden 11 exhibits a figurine index of 0.95, which indicates an intense episode of use and discard of these materials in the early stages of midden use that is not reflected in figurine index for this midden as a whole.

Table 6 – Frequency of figurine fragments from all excavation contexts at La Quemada.

Excavation area	Count	Plainware sherd counts	Figurine index	Range of indices in each context
Midden 1	7	5,426	0.13	0-100*
Midden 6	30	7,980	0.37	0.32-0.50
Midden 7	24	6,854	0.35	0.23-20.93
Midden 10	5	2,539	0.20	0.06-400*
Midden 11	39	22,644	0.17	0.08-0.94
Midden 12	11	3,440	0.32	0.27-0.47
Midden 13	12	6,872	0.17	0.14-0.34
Midden 15	6	7,640	0.08	0-300*
Midden 20	2	422	0.47	0-13.33
Midden 21	1	3,044	0.03	0-0.04
Total Middens	**137**	**66,861**	**0.20**	**0.08-20.93**
Patio Group A	4	6,180	0.06	0.04-0.14
Patio Group B	3	3,659	0.08	0.10-0.41
Patio Group C/D	6	2,096	0.29	0.19-33.33**
Patio Group F	2	369	0.54	0.51-2.04
Patio Group G	2	3,142	0.06	0.05-0.10
Platform 1	2	1,328	0.15	0-0.44
Platform 2	4	5,923	0.07	0.06-0.08
Platform 3	14	5,801	0.24	0.08-0.38
Room 1	3	2,217	0.14	0-0.33
Causeway	1	2,187	0.05	0-0.14
Total Terrace 18	**41**	**32,902**	**0.12**	**0-33.33**
Total La Quemada	**178**	**99,763**	**0.18**	

* Mixed deposits = few or no plainware sherds. ** Only four plainware sherds.

In Midden 7, the terrace fill and initial deposits exhibit a figurine index of 26.47, again indicating an exceptional concentration of these artifacts in the earliest phases of this midden's formation.

Within the complex of Terrace 18, the frequency of figurines varies, although with no apparent pattern (Figure 5, next page). The southern and eastern areas (Patio Groups C/D and F, and Platform 3) exhibit higher concentrations of these artifacts, with indices ranging from 0.24 to 0.54. It remains difficult, however, to interpret this distribution in terms of spatial or functional patterns.

CHRONOLOGICAL VARIATION

Figurines were used at La Quemada during all three phases of occupation, although in different quantities (Table 7, next page). Only 1.69% of the sample is associated with Phase I (the figurine index for this phase is 0.11). It indicates that the use of these artifacts was limited during that time. By contrast, 58.19% of the corpus is associated with Phase II, with a figurine index of 0.21. Finally, 13.56% of the corpus is associated with Phase III (mostly found in Terrace 18), with a figurine index of 0.22. The frequency indicates a larger number of artifacts used and discarded in Phase II, which might correspond to the site's peak occupation and activity. However, the similar figurine index from Phase II to III indicates a stable consumption of these artifacts over time (compared with the larger ceramic assemblage). In addition, a substantial proportion of the corpus was found in post-occupational contexts (24.86% in upper fills and surface), resulting from the erosion of the uppermost cultural strata (and likely dated to Phases II and III).

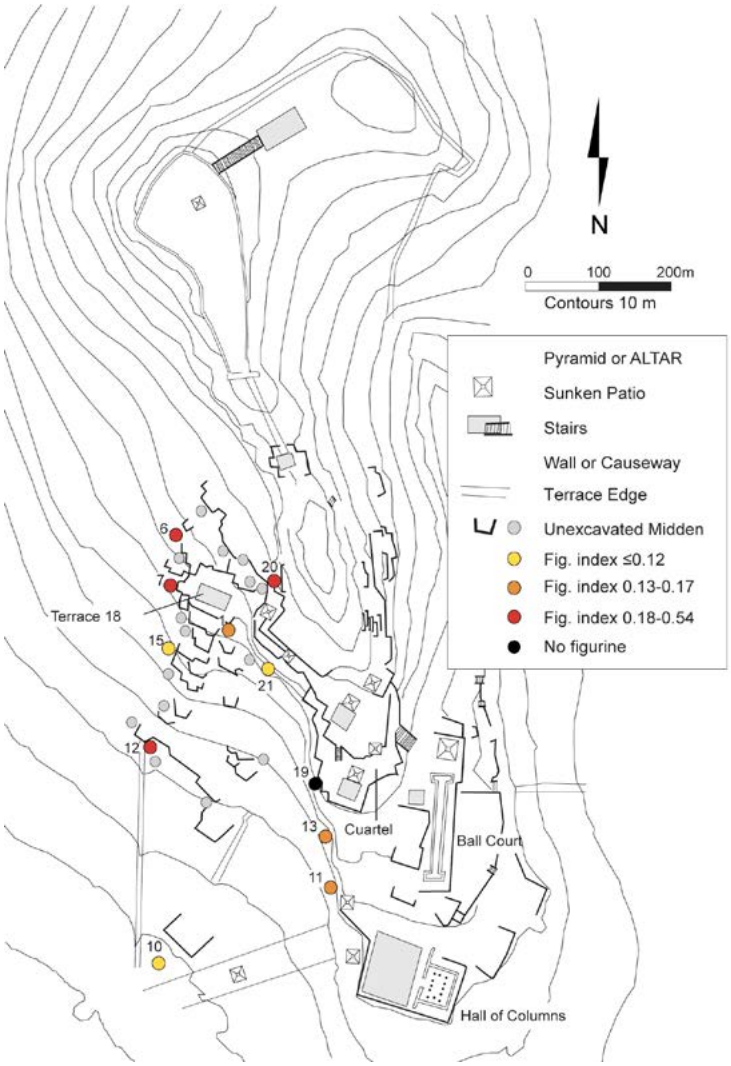

Figure 4 – Distribution of figurine fragments in the middens at La Quemada (map by M. Forest, modified from Torvinen and Nelson 2020).

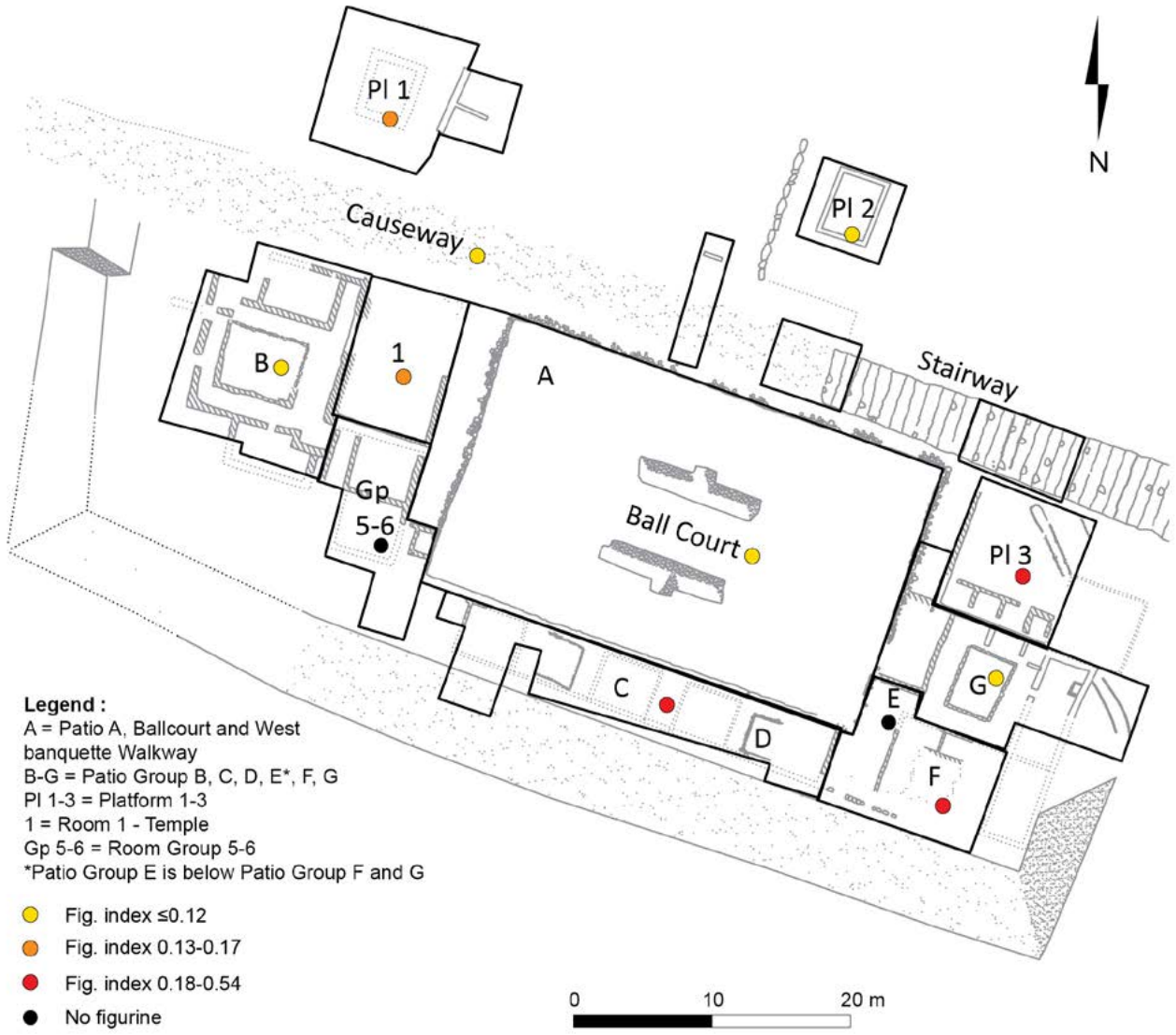

Figure 5 – Distribution of figurine fragments at Terrace 18 (map by M. Forest, modified from Torvinen and Nelson 2020).

It appears, therefore, that these artifacts, sporadically present in the early stages of occupation at the site, experienced a significant increase in use, availability, and/or popularity in Phase II that was maintained throughout the occupation of the site until its abandonment.

Table 7 – Figurine index by occupational seriation phase.

Phase	Plainware count	Figurines count	Frequency	Figurine index
Phase I	2,729	3	1.69	0.11
Phase II	49,136	103	57.87	0.21
Phase III	10,953	24	13.48	0.22
Post-occupational	34,545	44	24.72	0.13
Unknown	2,400	4	2.25	0.17
Total	**99,763**	**178**	**100**	**0.18**

The observations presented above regarding the depositional contexts of figurine fragments at La Quemada provide evidence for a limited, albeit constant, use of these artifacts at this site. Their systematic discard and presence in trash and construction fills makes it difficult to leverage contextual information to further elaborate on their use and lifespan before discard. As mentioned above, very little functional information is available for these artifacts in the region and only the regional study by Solar Valverde (2021, this issue) presents a very well-documented context of use.

However, because of the absence of specimens found *in situ* at the site, it is difficult to interpret them as objects of long-term conservation or veneration by the local community (see similar hypotheses in Halperin 2021, this issue). Their systematic discard in middens and fill rather supports—for now—the hypothesis of objects with a relatively short (and likely ritual) function, consistent with the interpretation of the site as a "congregational" center where ritual events happened discontinuously

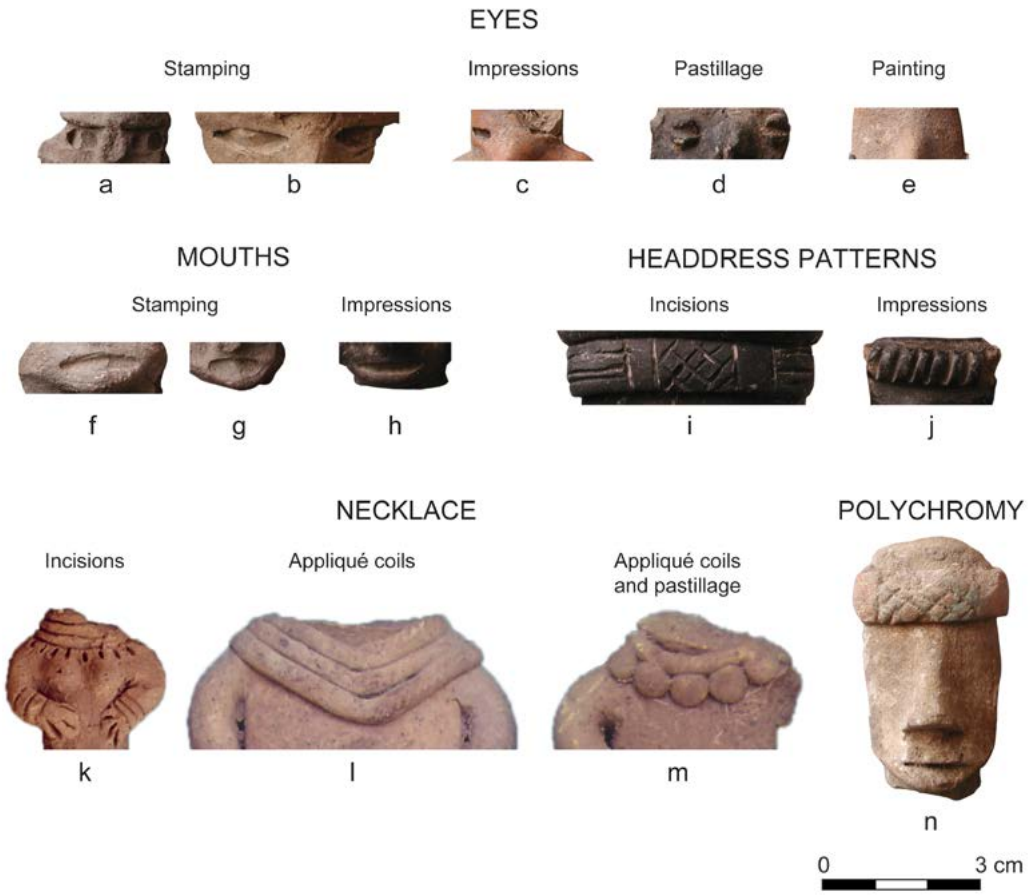

Figure 6 – Decoration techniques used for the representation of eyes (a-e: F50; F51; F33; F18; F27); mouths (f-h: F2; F50; F6); headdress patterns (i-j: F21; F6); necklaces (k-m: F14; F26; F23); and details of polychromy (n: F24). Figure by Elsa Jadot, based on photos by the LQ-MVAP.

(Nelson 2020b), especially during the occupational Phase II, when the frequency of these objects increased. Their relative scarcity at the site (only 178 fragments for several centuries of occupation) could also be consistent with punctual use. Their context of production and the implications of their intrinsic characteristics for their meaning and use must be considered to provide insights regarding the early stages of the life cycle of these objects.

CONTEXT OF PRODUCTION

Manufacturing techniques

All of the figurines included in the subsample were assembled from different pieces of clay that were independently modeled. For instance, anatomic details (e.g., limbs and breasts) were modeled separately and then added to the torso surface using the *appliqué* technique (application of elements; Figures 6k-l, m; 9a-f; and 10). This method of assembly is clearly illustrated by the presence of junction marks. The figurines were decorated with a large variety of techniques (Figure 6 and Appendix 1). Small coils were used to create the head-band headdresses and necklaces (one to three rows; Figures 6l; 9c; and 10). The technique of *pastillage* was used to finalize the ornaments (e.g., small circular hand-modeled applications used for necklace pendants [Figures 6m and 9a, e], coffee-bean-shaped eyes [Figures 6d and 11a], and nose ornaments [Figure 8a]). However, use of this technique remains limited relative to the frequent use of impressions (stick or stamp) to form the eyes and the mouth (Table 8, next page; Figure 6). Ears were stamped with a circular punch (Figure 7b-c) and sometimes decorated with stick impressions (Figure 8c); in one case, ears were perforated (Figure 7j). Fingers were represented with stick impressions (Figure 9d) or incisions (Figure 9b, e-f; four fingers described on *Ucá* type). The shape of the chin is frequently underlined with an incision (Figure 7c, l). Geometric patterns, including lines and lattices, were incised (Figures 6i, n and 7h, j) or impressed with a stick on the headdresses (Figures 6j and 7i, k, n). These were frequently painted after firing (as observed on 13 specimens in the subsample, e.g., Figures 6n; 9e; and 10), typically in red, white, pale green, and yellow. Only the smoothed figurines have been painted, while the burnished figurines are not. Despite the limited subsample, it seems to indicate a relation between the post-firing decoration and the

Table 8 – Techniques used in the manufacture of figurines at La Quemada.

Elements		Techniques	Count fragments	Figurine ID
Bodily features	Face shape	Incisions to enhance the chin	8	F6, F8, F25, F32, F47, F50, F53, F196
	Ears	Stamping	3	F6, F8, F33
		Impressions with a stick	2	F27, F47
		Incisions	1	F196
		Perforation	1	F196
		Modeled separately and *appliqué*	1	F31
	Nose	Modeled separately and *appliqué*	14*	F2, F6-F8, F18, F20-F21, F27, F33, F44, F47-F48, F51, F57
		Impressions with a stick	1	F53
	Nose ornament	*Pastillage*	3	F25, F31, F52
		Impressions with a stick?	1	F48
	Eyes	Stamping	10	F2, F21, F24, F31, F48, F50-F51, F53, F57, F196
		Impressions with a stick	4	F6, F8, F33, F47
		Pastillage (+ rare incisions or impressions with a stick)	3	F18, F44, F49
		Post-firing paint	2	F25, F27
	Mouth	Impressions with a stick (1 or 2)	13	F6-F8, F24-F25, F27, F31-F32, F44, F47-F48, F53, F57
		Stamping	3	F2, F50, F196
		Incision	2	F33, F49
	Arms	*Appliqué* coils	12	F1, F10, F12-F14, F23, F26, F28, F35, F39, F41, F56
	Fingers	Incisions	5	F1, F12, F14, F35-F36
		Impressions with a stick	1	F13
	Breasts	Modeled separately and *appliqué*	5	F9, F10, F12-F14
Ornaments	Headdress	*Appliqué* coils (1 or 2)	8	F4-F5, F8, F24-F25, F29, F33, F196
		Incisions that enhance the headdress	2	F50-F51
	Headdress patterns	Incisions	6	F21, F24, F29-F30, F44, F196
		Impressions with a stick	4	F4-F6, F48
	Necklace	*Appliqué* coils (and *pastillage* for the pendants)	5	F22-F23, F26, F35, F56
		Incisions for necklace and pendants	3	F1, F14, F36
	Muffs/bracelets	Incisions	2	F14, F35
		Post-firing paint	2	F26, F56
Finishing, post firing	Finishing	Smoothing	18*	F1-F2, F4-F5, F21-F24, F26-F27, F39-F40, F44, F47, F50-F52, F56
		Burnishing	8*	F6-F8, F9-F10, F12-F13, F33
	Firing	Cooling in reducing atmosphere	14*	F6-F10, F12-F13, F18, F21-F22, F30, F44, F47, F49
	Polychromy	Post-firing paint (pale green, yellow, white, red)	12	F24-F27, F29-F30, F35, F41, F44, F48, F56, F196

* Because we made these observations based on photographs, certain characteristics could not be identified with accuracy on all 44 specimens.

smoothing technique, reflecting the different choices made by the artisans according to the type of finishing technique. The surface of the figurines was generally smoothed on wet paste. This operation entails the surface being rubbed by a soft or hard tool—such as a hand, cloth, leather, or scraper—to regularize it, leaving fine striations (e.g., Figures 7a, f; 8c; and 9b). A few specimens, however, present a burnished surface produced by rubbing a hard tool—such as a pebble—on the surface when the paste is leather-hard to compact it and create a sheen. This process produces shiny bands (e.g., Figures 7b-c; 9d). Firing was mostly conducted using a reducing atmosphere during the cooling phase, which gives a dark gray or black aspect to surfaces and pastes (Figures 7c and 9d).

Production units

The technological and morphological study conducted on the corpus resulted in one main observation: an important variability of forms, features, and techniques were used to produce these artifacts. Such diversity in the corpus can be interpreted as the result of two different processes. First, it indicates the presence of various artisans making figurines. Second, it suggests an individualization of each specimen, a search for uniqueness that would have required a substantial investment of time. The *Tevi* type, in particular, demonstrates a large variety of decorative techniques: *appliqué* coil, *pastillage*, stamping, incision, impression, perforation, and post-firing paint. Although comparison with the technical variability in the other types of figurines is not as conclusive as the *Tevi* type is the more frequent among the La Quemada types (10 fragments in the corpus of 44 specimens), we can argue that the artisans were using plenty of decorative techniques, sometimes for the same piece, to individualize their production. The *Cina* and *Ucá* types present, for example, very similar techniques, suggesting a proximity between the producers.

The techniques used for manufacturing and decorating the figures involved non-specialized gestures, making them easy to imitate or to use as a basis for innovations based on finished products. They do not require elaborate tools or skills, which often require technical specialization. Essential knowledge would, however, be required for the 1. dexterity and care required to make small items with multiple applied elements, 2. control of proportions, and 3. knowledge of representation codes. This diversity of techniques could indicate the participation of non-specialist craftsmen (Costin 1991) and the existence of many production units. This latter aspect has similarly been suggested for the manufacture of pots from the site, likely produced by several production units (Nelson et al. 2020).

Two observations seem to indicate, however, more advanced knowledge, skills, or integration within a merchant system in the last stages of the production process. The first one is the use of a reducing atmosphere in the firing process. It requires the capacity to control the cooling phase's temperature and duration at the end of the manufacturing process. Second, the color palette of the polychromatic paint applied to some figurines requires acquiring specific pigments. The colors utilized (pale green, yellow, white, red; *ibid.*) are very consistent with those used to decorate the *pseudo-cloisonné* ceramics found at La Quemada and produced in the Malpaso Valley (Rodríguez Zariñán 2020; Torvinen 2018; Solar Valverde et al. 2020; see also Solar Valverde 2021, this issue) although no data are currently available about a local workshop and equipment of potters. This could indicate a parallel between the production of ceramic vessels and that of figurines in the procurement of pigments. These questions can only be resolved through further chemical analyses that would allow a strict comparison between the decorative processes used for these two artifact types (Nelson et al. 2020).

Although much remains to be learned concerning the context of production for figurines and their distribution, currently available data about their techno-morphological diversity suggest the existence of several production units; yet the scale of that production (local, supra-local, or regional) remains to be determined. No archaeological data indicate that figurines have been manufactured on-site, and the fragments considered in the present study could have been produced elsewhere and acquired through an exchange network or brought from nearby or more distant production sites, during community-scale ritual events, for instance.

Finally, we conducted a diachronic analysis of typological and technological observations. Even if it is limited by the sample size and biases, it indicates certain trends and a chronological evolution in the production of these artifacts. The main biases are the fragmentation (with limited typology for body and torso fragments) and the poor representation of Phase I and III artifacts in the sample. Also, only 29 specimens among the 44 considered are strictly associated with a seriation phase. The other 15 come from post-occupational contexts and mixed deposits. Table 9 (next page) presents the frequency of technological traits observed by type and by seriation phase. Figurines from Phase I present less technological variability (one or two decorative techniques) than artifacts associated with Phase II and III, which combine three or four techniques very systematically and might indicate a complexification of the iconography through combination of more technological gestures over time. The Williams' Type III figurines, split into the *Suuri* and *Kaná* heads here, also present certain technological changes between Phases I and II with more techniques applied to one specimen and possibly the introduction of the dark burnishing finishing technique. Also, it seems likely that post-firing paint was introduced in Phase II, for *Nakate*, *Tevi*, *Waikame*, and certain *Cina* and *Ucá* specimens. This technological

Table 9 – Frequency of technological traits observed by type and by seriation phase (in percentage). Only the 29 specimens of the subsample with strict chronological association are considered.

Typology		Phase	*n*	Technological observations (%)						
Williams 1974	**La Quemada 2020**			**Smoothing**	**Burnishing**	**Incision**	**Impression**	***Appliqué***	**Stamping**	**Paint**
I, K	*Cina* body	I	1	100		100				
I, K	*Cina* body	II	4	50	?			75		25
I, K	*Cina* body	III	1	100				100		
I, K, III	*Ucá* body	II	8	13	50	50	13	63		13
III	*Suuri* head	I	1	100				100	100	
III	*Suuri* head	II	1		100	100	100	100	100	
III	*Kana* head	II	3		100	67	100	100		
?	*Téeté* head/ body	II	2		50	50	50	50	100	
I	*Nakate* head	II	1	100		100	100	100		
I	*Tevi* head/ headdress	II	3	?	?	100	33	33		
I	*Waikame* head	II	2	50	?	50	50	50	100	50
I	*Tevi* head	III	2	100			50	100	50	50

and typological evolution is consistent with other lines of evidence at La Quemada. During Phase I, the site is at its inception, with limited occupation and functions that remain unclear. It is only during Phase II that the site becomes a major center, likely attracting and integrating new inhabitants, materials, and techniques into its ritual activities and paraphernalia.

CONTEXTS OF USE AND PERFORMATIVITY

Identities

Williams has previously described figurine ornaments in detail (1974: 25-28; Figure 8), however, several variants depicted in La Quemada figurines seem to constitute examples not described or identified in the author's typology (see Appendix 1, "Iconography": correspondences with examples illustrated by Williams [1974] are indicated if they exist). Indeed, multiple patterns have been discerned on the headdresses of the figurines from La Quemada as well as different styles of clothing and kinds of body ornaments. The iconography of these features provides several clues as to their identity, and consequently provides information relative to their function or representation. We share with Langley (1992) the idea that associated groups of signs on headdresses directly transfer information about the characters' range and function (Testard 2018; Testard and Serra Puche 2011, 2020). Therefore, the headdress iconography (or even the hairstyles) can provide information regarding the figurine's social, political, or ritual identities.

At least six headdress types have been identified in the La Quemada collection. Within each type, there can be up to three variants. They are mainly composed of bands (single or double) or coiled strips as observed in the *Tevi*, *Tusi*, and *Kaná* head types (Figure 7a-d) and previously described in Williams' Type I (see five headdress types in Williams 1974: fig. 8). Some of them have vertical or horizontal incisions (in one case, red-painted bands: Figure 7j; see also Williams 1974: fig. 8), sometimes even diagonal or cruciform motifs (Figure 7e-j). In some instances, a central or vertical pattern has been identified such as a cruciform diamond motif (see F21: Figure 7e). In rarer cases, a headdress with vertical lines may evoke a plumed crest (*Waikame* type, F48; Figure 7k; see Williams' Type II). Some others may refer to a sort of hat (F50: Figure 7l-m), which brings it closer to the subtype Ib illustrated by Williams (1974: figs. 4, 27). To a certain extent, it evokes the helmets of Formative period ballplayers of El Opeño, Michoacán (Oliveros Morales 2006). Some examples show lines representing the demarcation between hairstyle and face (*Tusi* type, F4: Figure 7n). Finally, regarding body modification practices, it is not yet clear if the heads characterized by an elongated shape (e.g., *Nakate*, *Tevi*, *Kaná*, and *Súuri* types) should be interpreted as a representation of cranial deformation. Pereira (2018: 667, 670-671) has recently demonstrated that intentional cranial modifications increase in Michoacán during the Classic and Epiclassic periods, especially with the fronto-oblique forms and the fronto-occipital tabular variant, while the practice seems to disappear from northern contexts in Guanajuato. In one study of human remains from La Quemada, cranial deformation was detected in more

Figure 7 – Headdresses: a-d. bands (single or double) or coiled strips (a: F2; b: F33; c: F6; d: F25); e-j. bands with vertical or horizontal incisions, diagonal or cruciform motifs and diamond motif (e: F21; f: F24; g: F30; h: F29; i: F5; j: F196); k. plumed crest (F48); l-m. hats (l: F50; m: F51); n. demarcation between hairstyle and face (F4) (by J. Testard based on photos by the LQ-MVAP).

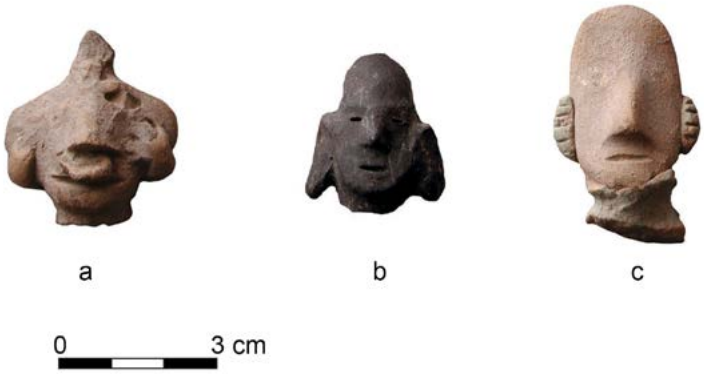

Figure 8 – La Quemada figurines facial ornaments:
a. circular nose ornament (F31);
b. circular ear ornament (F47);
c. hemispherical pale blue ear ornament (F27)
(by J. Testard based on photos by the LQ-MVAP).

than 50 percent of the population (O'Neill 1995). Even if the profiles of modified crania could be related to the head shapes of the *Nakate*, *Tevi*, *Kaná*, and *Súuri* types, their representation on figurines remains difficult to separate from other possible figurative conventions.

In addition to headdresses, various kinds of ornaments are depicted, including ear and nose ornaments, necklaces, and bracelets. These occur for both male and female figurines (when the preserved body allows the identification of gender). Beginning with the nose, we observed the discoidal ornaments frequently described in Williams' Type I (1974: 25) and found in collections from Plazuelas, Guanajuato,[2] and Cerro de Las Ventanas, Zacatecas[3] (see *Nakate* type, e.g., F31: Figure 8a).

Circular ear ornaments are present in regular (Figure 7b-c, l) or large sizes (F47 in Figure 8b; see Williams 1974: fig. 8). Ear ornaments can also be represented by large rings (Figure 8a) or by a combination of stacked multiple rings (Figure 7j; see also a figurine from El Vergel, Malpaso Valley, illustrated in Figure 2). In one case (*Tevi* type, e.g., F27: Figure 8c), ear ornaments have been modeled in a hemispherical shape, then painted in pale blue before being applied to the ears (see Williams' subtype I 1974, fig. 4d: 27; fig. 8c: 32). This blue-green color could then refer to blue stones, such as turquoise, found in small quantities by the LQ-MVAP in the form of tesserae, pendants, or discs (Nelson 2002). Also, at least three types of necklaces have been identified: simple-row, with circular (F23: Figure 9a) or quadrangular beads (F1) or without (F56: Figure 10); double-row (F36: Figure 9f; see Williams 1974: fig. 8c); and triple-row (F26: Figure 9c), with a possible variant composed of small, incised pendants (F14: Figure 9b). The bracelets, when visible, are incised (F14: Figure 9b) or painted (F35: Figure 9c and F56: Figure 10).

When looking at gender representation, the corpus is almost perfectly balanced between the masculine (torso/body grouped in the *Cina* type) and feminine components (torso/body grouped in the *Ucá* type). Gender can be identified in the collection using representations of both biological markers and apparel. For example, modeled breasts and some occurrences of the slightly enlarged abdomen that may indicate pregnancy (Figure 9d) are typical of female representations, as are some long skirts, *huipiles*,[4] and *quechquemitl*[5] (Anawalt 1981, 1982; F35, see Figure 9e-f).

In contrast, capes, represented in excellent condition in specimen F56 (Figure 10), or preserved in the form of knots in the center of the chest (F22: Figure 9g), as well as loincloths (*maxtlatl*; F56: Figure 10), are characteristic of the male gender (Anawalt 1996). Specimen F56 represents a great expression of male markers: he is wearing a cape, held over the shoulders, and joined at the plexus, as well as a necklace and a loincloth. Both arms show traces of white paint on the wrists. The cape is decorated with white painted stripes that would imitate some feather work, and different colors (pale blue, red, and yellow) appear painted on the neck. We also observed the remains of a possible hairstyle on the upper back.

Finally, the two zoomorphic figurines likely represent a dog or a *tlacuache* (*Didelphimorphia s.p.*; F49: Figure 11a, next pages) and a bird (F44: Figure 11b). The latter (crest and striated plumage on a long neck) leads us to interpret it as the representation of a greater roadrunner *(Geococcyx californianus)*, whose range covers the arid lands of the US Southwest and Northern Mexico, including the state of Zacatecas. In Huichol, the roadrunner is called *ira* (Iturrioz Leza, Ramírez De La Cruz, and Pacheco Salvador 2004: 124) and several groups in this area (e.g., Anasazi or Ancestral Pueblo, Tarahumara or Rarámuri) had a special relationship with this bird, notably for its qualities as a runner and predator (Dobie 1939).

In sum, the iconographic observations provide information relevant to understanding the different identities represented by the figurines. Not discarding that these variations could also result from idiosyncratic choices (i.e., producer intentionality) or from chronological factors inside the three occupation phases of the site, the heterogeneity of the sample provides a great panorama about La Quemada society during the Epiclassic. The masculine and feminine genders are represented, with some examples of the latter possibly alluding to motherhood. Within these genders, the different types of headdresses, nasal and ear ornaments (at least four types), and necklaces (at least three different types) are probably indicative of different social, religious, and/or political identities or even refer to hierarchical insignia (see Testard 2018). Finally, the zoomorphic figurines seem to allude to domestic (dog) and/or non-domestic spheres (roadrunner and *tlacuache*), possibly referring to mythological and ritual practices. Dogs have a predominant role in Mesoamerica's post-mortem journey (e.g., Sugiura et al. 2010; Reyes Valdez and Zavala 2019; Valadez Azúa and Rodríguez Galicia 2009). The *tlacuache* also belongs to the deep cosmogonic and mythological trajectory (López Austin 2006). Both animals have a long-term history of representation in Western Mesoamerican societies (Jadot and Testard 2020). The roadrunner likewise had a predominant place in these spheres for northern societies.

2. https://lugares.inah.gob.mx/es/zonas-arqueologicas/zonas/piezas/13670-13670-10-413074-figurilla-antropomorfa.html?lugar_id=1723 (consulted 15/12/21).

3. Solar Valverde, Jiménez Betts, and Martínez 2020.

4. Long garment resembling a tunic or chasuble.

5. *Quechquemitl* comes from *quechtli*, nape of the neck, and *quemi*, which means "to put on a covering or a cape." It refers to an exclusively feminine piece of clothing, made up of two rectangles of cloth, assembled in such a way that they form a V with the neck (Testard and Serra Puche 2020: 272).

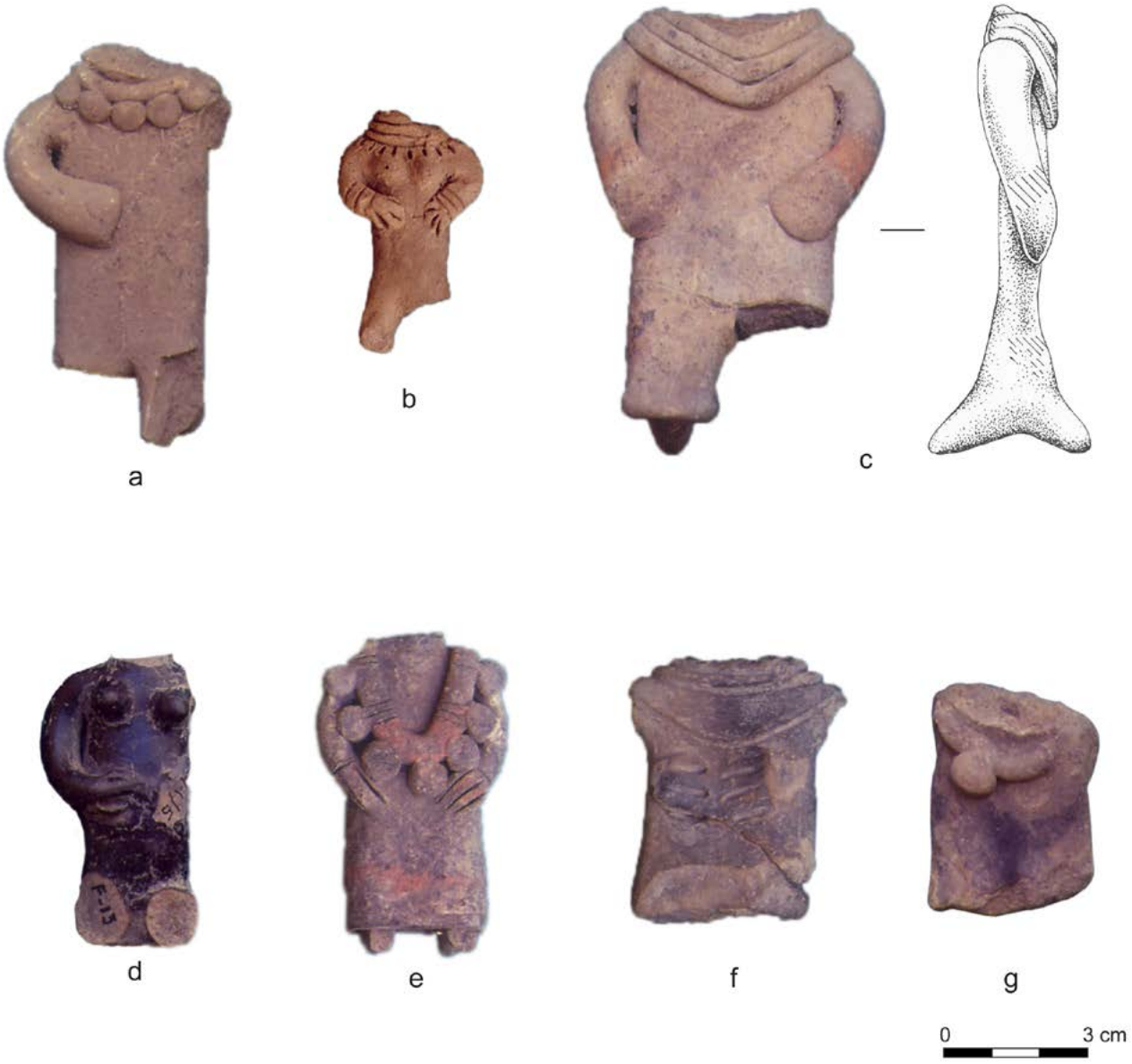

Figure 9 – Gender, clothing, and ornaments:
a. simple-row necklace, with beads (F23);
b. figurine wearing triple-row necklace with small, incised pendants and incised bracelets (F14);
c. figurine wearing a triple-row necklace and a painted bracelet (F26);
d. figurine with breast and prominent abdomen that could indicate pregnancy (F13);
e. figurine wearing *huipil* and *quechquemitl* (F35);
f. figurine wearing a triple-row necklace and a *quechquemitl* (F36);
g. figurine wearing a simple-row necklace with bead, or a cape knot visible on chest (F22)
(by J. Testard based on photos by the LQ-MVAP).

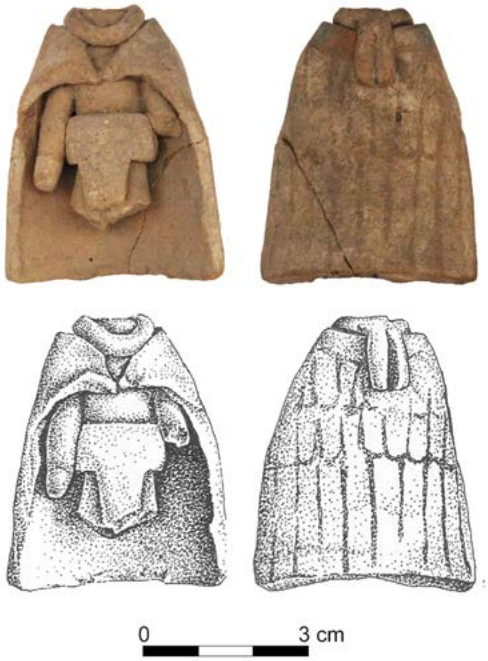

Figure 10 – Masculine figurine wearing a cape and a loincloth (F56)
(by M. Forest based on photos by the LQ-MVAP).

Figure 11 – Zoomorphic figurines: a. dog or *tlacuache* (F49); b. possible greater roadrunner (F44) (by J. Testard based on photos by the LQ-MVAP).

Use before discard

From a performative perspective, the analysis of figurine postures from La Quemada permits some inferences regarding their context of use prior to discard. Among the *Ucá* type, the representation of the upper thighs indicates two different postures: standing and sitting with the legs extended (Figure 9d, f). The feet, when visible, are in the shape of an "easel" or "arched" (see also Williams 1974: 26). This representation is also observed in the standing bodies and the leg fragments identified in the collection (*Cina* type—F26: Figure 9c) and would have allowed them to stand with no support or suspension (see the example of the standing figurine F35 illustrated in Figure 9e, and the seated example from El Vergel, Malpaso Valley, in Figure 2a). Figurines with this morphology might have been used in complex arrangements, interacting with one another, playing different roles and taking on different identities as reflected by their various iconographies and postures.

Although the figurines are fragmented, dimensions estimated from measurements of the torsos and heads suggest at least two distinct size ranges (Figure 9). Among *Ucá* and *Cina* types, the estimated size ranges from 6 to 14 cm in height for the standing specimens, with seated specimens exhibiting longer measurements. The existence of larger specimens can also be inferred from one *Tevi* head type, where the entire figurine may have attained a size of at least 17 cm (Figure 7e).[6] From a performative perspective, Joyce (2009) argues that figurines of different sizes might have been associated with different forms of agency (see also Forest, Jadot, and Testard 2020).

In addition, the polychrome painting mentioned above could have had considerable importance in the use and manipulation of these figurines. Because most of the corpus exhibits relatively simple features, the painting could have increased individualization within the set. Similar strategies are known from Epiclassic figurines from Central Mexico and were especially used for molded specimens. For instance, some specimens from the *galleta* figurine collection from Xochitécatl (Tlaxcala) are only distinguishable by the patterns painted on their *quechquemitl*, long skirts, belts, or facial paint (Testard 2010; Testard and Serra Puche 2011). Among La Quemada figurines, F56 illustrates this phenomenon (Figure 10). The elaborate patterns on the cape and the wrists are remnants of a relatively complex iconography (feather motifs) that have been fortuitously preserved. On other specimens, such as F35 (Figure 9e), we can distinguish a painted motif placed on the bottom of the long skirt, a means of individualizing this specimen within the *Ucá* type. Among *Tevi* figurines, some specimens do not exhibit any elements aside from the nose, thereby suggesting that other facial features (especially the eyes) were originally painted and have not been preserved.

The addition of painted elements to relatively simple modeled specimens could have been a way to individualize the figurines and even provide them with a wider variety of facial expressions. This could be particularly important if such figurines were integrated into complex and staged arrangements, enabling them to interact with one another and perform different roles, represent different identities, and exhibit different degrees and forms of agency.

DISCUSSION

How can the analysis of the life cycle and intrinsic characteristics of figurines inform their use during the Epiclassic? The study of the figurine fragments collected in the western areas at La Quemada provides many avenues to reevaluate these artifacts' role in the socio-economic and ritual life at that site.

Two aspects seem stable across the subsample analyzed: all were manufactured using hand modeling and all were fired using a reducing atmosphere during the cooling phase. Aside from these two structural aspects, these artifacts were quite diverse. The technique of modeling used to create independent elements (body features, clothing, and ornaments) assembled into one final piece, combined with the multiple options offered by impressing and incising decorations of other body features, creates a broad spectrum of designs and forms, resulting in a high individualization of each artifact. After the surface is smoothed or burnished, many elements of

6. Williams (1974: 25) had indeed indicated that Type I had body/head size ratios of 1:1.

decoration or body feature representation are integrated post-firing using various shades of paint, further contributing to the uniqueness of each specimen.

The production of a large array of figurine representations suggests the existence of many non-specialized production units rather than workshops, producing most of the corpus. Neill (1998: 28) had previously suggested this model for the Type I figurines when observing their "plethora of variations." This high technological and morphological variation can be due to idiosyncratic factors and interpreted as the desire for the artisans to individualize their production. This variation makes it difficult to establish typological and chronological patterns as a means of placing these artifacts in a broader regional context. This heterogeneity, however, requires a thorough description. This is why we have suggested an alternative typology that aims to complement the traditional classification while staying true to the La Quemada sample.

Although the manufacturing process requires mostly limited skills, two production steps require special skills (control of firing and cooling temperature), and access to rare goods (polychrome pigments). This suggests that figurine production could be linked in some ways to an exchange system and the production of the polychrome ceramic vessels. This hypothesis could be tested further through more advanced petrographic and chemical analyses of the figurine pigments and the data available for *pseudo-cloisonné* ceramics. The partial co-production of these artifacts could also support the proposition of an Epiclassic "package" present in the Inland Northern Network as suggested by Jiménez Betts (2018; see also Solar Valverde, Jiménez Betts, and Martínez 2020; Solar Valverde 2021, this issue).

The context of use for these artifacts is indicated by their iconography, individualization, morphology, and the depositional contexts from which they were recovered. The La Quemada figurines do not seem to have been worn on clothing (there are no perforations that would allow their suspension) nor manipulated as musical instruments (as *sonajas* or whistles), as seen elsewhere in Mesoamerica (Marcus 2018; Testard and Serra Puche 2020; see Gallegos Gomora and Armijo Torres 2021; Halperin 2021, this issue). Rather, they were produced as three-dimensional objects, intended to be perceived in volume and from different perspectives. They stand or sit and represent both female and male agents of various social statuses, reflected in attributes such as their clothing (particularly their headdresses) and ornaments. These three-dimensional, performative, and socially diverse aspects suggest that such figurines may have been integrated into or staged as multi-figurine scenes. These arrangements are documented in other times and regions of Mesoamerica, such as the Olmec and Maya areas, Oaxaca, and the Central Highlands (Drucker, Heizer, and Squier 1959; McVicker 2012; Testard and Serra Puche 2020) and have been traditional in Western Mexico since the Preclassic period (Faugère 2020: 58; Beekman and Pickering 2016; Beekman 2020: 72). We suggest that such multi-figurine staging was used at La Quemada to recreate mythological scenes and/or microcosmic figurations of society, like enthronement, initiation, and calendrical rites (McVicker 2012; Testard and Serra Puche 2020).

Besides their possible complex staging, the figurines were likely manipulated as part of rituals. Within the scope of the LQ-MVAP excavations, Terrace 18 was a place where figurines were likely used and then discarded (or incorporated into fill to transform Terrace 18 over time). Middens adjacent to Terrace 18 exhibit a high "figurine index" (0.35 to 0.47 in Middens 6, 7, and 20) relative to the site average, indicating the consumption of this type of artifact in this location. Terrace 18 is composed of a series of spaces and structures interpreted to be ritual in their function (Nelson 2020a), and these spaces could have hosted the types of ritual events that included figurine display. However, one aspect remains unclear: who was involved in such rituals? Were they performed by the residents of Terrace 18 and nearby terraces, or by an extended group that included residents and non-residents of the site, meeting during special events?

Several middens located further from Terrace 18 suggest other areas where the figurines were used. Midden 12 is located in a lower sector, at a further distance from the core area of the site and at the very end of a large causeway allowing access to the western flank terraces. In this peripheral but strategic location, the figurine index is 0.32, indicating the presence of activities that included the use of figurines. The high index for the Phase II deposits in Midden 11 (0.95) also indicates the use of figurines in the southern portion of the western flank (and possibly linked to the activities conducted in the core area).

These hypotheses and spatial considerations are based on specific discard behavior. Almost the whole sample has been found in secondary deposits, systematically discarded, and integrated into construction materials. These kinds of depositional context are frequent throughout Mesoamerica, in both time and space (Forest, Jadot, and Testard 2020; Marcus 2018; Solar Valverde, Magriñá, and Gonzále 2011; Overholtzer 2021 and Halperin 2021, this issue). In light of these comparisons, it is quite conceivable that the figurines found at La Quemada were produced for ritual occasions, as unique pieces, individualized through decoration, including painted motifs. After the ritual, they would have been disposed of with other materials like ceramics, lithics (including obsidian artifacts and ground stone), human and faunal remains (as discussed in detail in Nelson and Torvinen [eds.] n.d.). Systematic refitting studies would constitute a step further towards the understanding of the depositional process of these artifacts. La Quemada's figurines are also quite fragmented. Since the neck and limbs are the least resistant parts of ceramic figurines, especially for modeled specimens, accidental breakage

before or after the deposition remains the most evident pattern. Nevertheless, it is also conceivable that these figurines were intentionally decapitated, perhaps to destroy their agency after the ritual. Intentional mutilation of figurative artifacts is well documented in Mesoamerica from the Preclassic period onwards (Grove 1981) and has recently been described for Epiclassic artifacts from Central Mexico (Testard 2019). We hope that future documentation of *in situ* artifacts will support the hypotheses of performativity proposed here and based on technological and iconographic arguments.

CONCLUSION

This systematic study of the figurine fragments from the La Quemada Malpaso Valley Archaeological Project has provided much information about these artifacts and their context of recovery. Such analysis allows integration of these objects into a broader discussion about function, status, and the economy in place in the western area of La Quemada. The multiple individualized figurines could have been brought to the site and displayed together in multi-figurine sets and/or alongside other artifacts in the context of broader community events. As suggested by Nelson (2020b), the Epiclassic center likely was an example of a place of congregation (Renfrew, Boyd, and Bronk 2012) within the region, and so such community events may also have included non-residents. Further research must be conducted about various aspects of the figurines to reconstruct their role at different scales. In particular, the context of manufacture and the distribution of these objects (including petrography, chemical analyses of pigments, and technological study) must be investigated further to reconstruct their role in the regional economic and cultural networks within the Malpaso Valley and beyond.

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