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The Sasanian Architecture at Lalar on the Seymareh River (Central Zagros)

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Abstract

Spanning an estimated 15 hectares, Lalar is an archaeological site positioned on the western bank of the Seymareh River and halfway between Tang-e Cham Qole and Tang-e Kafarin. The outcomes of the excavation carried out at the site, with a specific focus on around 537 square meters of its central portion, demonstrated the existence of an ephemeral occupation level that was established and absconded shortly after its formation. The exposed architecture is characterized by gypsum-mortared limestone masonry. Apart from a general introduction of the site and a functional and chronological appraisal of the recovered historical contexts at Lalar in light of archaeological evidence and historical sources, the central aims of this research endeavor involve gaining a comprehensive understanding of the various factors that influenced the development of the site located on a riverbank surrounded by mountains and isolated from the main regional routes and natural passes. Furthermore, the study seeks to assess the construction quality of the excavated structures and their connections with architectural elements found in coeval sites within the region. In total, the characteristics of the discovered cultural material and the evaluation of the regional ecological and geographical features indicated close stylistic correspondence in both small finds (particularly the late Sasanian pottery) and architecture between Lalar and other centers dating to the late Sasanian until 9th century AD. In addition, Lalar's architecture attests to a purely functional style absolutely lacking in any sort of decorations; a discrete, evanescent but massive constructional level presumably without any precedent or succedent. One may link Lalar to the end of the Sasanian period, which was marred by political instability caused by the failures of the ruling dynasty and the incursion of Muslim Arabs from the west. This resulted in the abandonment of once-thriving cities and the resettlement of populations in remote regions, as part of military restructuring in preparation for impending battles. Yet, the dynasty's eventual downfall and the dominance of the Muslim invaders would lead to the desertion of such settlements (or perhaps temporary barracks). This paper draws on the data from fresh excavations.

Keywords: Central Zagros, Seymareh River, Sasanian Architecture, Lalar.

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Introduction

The last decade saw a series of investigations in the catchment area of the Seymareh Dam. While the plains on the Great Khorasan Road in Central Zagros have long been the focus of archaeological work (see: Alden, 1982), the Seymareh region, lying in southwestern Central Zagros far away from this trunk highway, has received less attention. The Great Khorasan Road linked Mesopotamia and the Iranian plateau. The Seymareh River and this ancient highway thus represented the foremost factors determining the settlement patterns all through history in this part of western Iran, and the regional population benefitted from their proximity to the highway, for instance in the exchange of products and the transfer of culture (Levine & Young, 1986 :15; see also: Henrickson, 1983: 33). This strategic feature of the intermountain valleys of western Iran, especially during the mid- and late Sasanian period when the political power was centered in Mesopotamia, heightened the importance of the triple route system of Susa, Central Zagros and Diyala. In a general perspective, the late Sasanian settlements in western Iran are more abundant than those from any other era in this particular area. The mountainous plains of western Iran held a significant status, particularly during the Sasanian era, as they were among the most densely inhabited areas in Iran. This is supported by mentions of the thriving and densely populated city of Seymareh in this region by Le Strange (1985) and Ibn Hawqal (1966). Expanding on this historical background, this paper will analyze the vast archaeological site of Lalar, identified as dating back to the Sasanian period through surface evidence in the Iranian National Heritage Register, focusing on its function and the factors contributing for its establishment.

The main objectives involve the exploration and determination of the date of the remains, the creation of architectural plans, and the assessment of Lalar's function, role, and position in the Seymareh valley, along with its cultural ties with neighboring sites. Any analysis concerning the emergence of different architectural styles and the appropriate choice of materials requires an investigation into architecture within its local contexts.

Research Questions and Assumptions: The primary inquiry pertains to the cause behind the emergence of a sizable, single-phase site spanning over 15 hectares within a limited area devoid of access or linkage to the main regional roads. The second question deals with the chronological attribution of this peculiar architectural structure in terms of construction techniques and technical details. By seeking answers to these questions, insights into clearer assumptions may be derived through

the influence of local environmental factors. The technical similarity to the contemporary architectural structures is mainly from two perspectives, viz. the application of fieldstone masonry set in gypsum mortar and the evident rushing on the construction. These features technically link the structures excavated at Lalar to such renowned structures as Khosrow Palace, Chahār Qāpi Fire Temple and several other monuments attributed to the Sasanian period in western Iran. Yet, it shows an obvious departure from the royal and monumental Sasanian architecture in Ctesiphon, where the focus lay on extroversion and the use of multifarious original architectural adjuncts and embellishments. Accordingly, to answer the first question, one could assume that a kind of urgency and haste following the abrupt events was the main factor in setting up such a sizable settlement site forthwith. There exist three hypothetical indications that the settlement at Lalar was transitory: 1) Low levels of environmental carrying capacity; 2) Inaccessibility to regional communication lines and being surrounded by an impassable landscape; 3) Lack of evidence for any occupational levels either preceding or succeeding this vast settlement in the currently excavated exposures, implying that the site was destined for an immediate relinquishment shortly after its establishment.

The second hypothesis is developed by examining the technical aspects of the architectural context and archaeological artifacts, particularly pottery. This analysis reveals a correlation between the overall dataset from Lalar and the structures that belong to the period of transition from the end of the Sasanian era to the early Islamic period. Therefore, a date of the 7 to 8th centuries AD is proposed for this settlement site.

Research Methods: This paper draws on the new data from the excavation of the archaeological site of Lalar complemented with the insights provided by historical written sources to investigate the political and social developments that brought about population displacements. The research method employed is primarily descriptive/analytical in nature.

History of Research

Archaeological inquiry in western Iran tracks its history back to the pioneering works by foreign nationals and teams in the 1940. Schmidt's surveys, excavations and aerial photography largely instantiated the archaeological and historical relevance of the region (Schmidt, 1940). Also notable was the coeval fieldwork in the Central Zagros plains by Sir Aurel Stein (Stein, 1940). But it is Braidwood's prehistoric project in western Iran that is credited with the foremost, focused and seminal

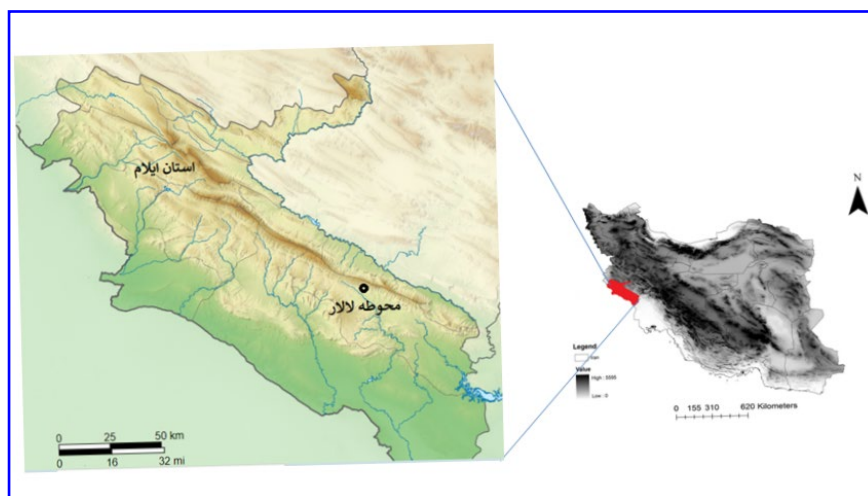
work that produced tremendous results (Braidwood, 1961). The students of the Braidwood school would then embark on meticulous studies on the archaeology of Dehluran and the Khorram Abad valley, using the same approach in interpreting the region's history. Then followed the Mahidasht plain investigations by the Royal Ontario Museum expedition led by Cuyler Young Jr. and Levin, who recorded and excavated multiple sites (for the results of these investigations see: Henrickson, 1983; 1985; Levine & McDonald, 1977). The western and southern swathes of the Central Zagros were mainly explored by Belgian and Danish expeditions, notably including the surveys and excavations by Meldgaard and Mortensen in the Holeylan valley of the Seymareh basin (Melgaard et al., 1964; Mortensen, 1975). In Addition, vanden Berghe led a Belgian team that investigated almost the entire valleys around the Seymareh basin during over a long period exceeding 17 years (Haerinck, 1989). Following their visit to the ruins of Seymareh (modern Darreh Shahr), Stark and Rawlinson ascribed the site a Sasanian date (Stark, 1990), a view also reiterated by Stein, who went further to propose a possible existence of some Parthian evidence at the site (Stein, 1940). It was not until 2009 that the excavation at Lalar took place, focusing on the central mound that exhibited visible architectural features on the surface. This excavation involved the opening of four trenches, collectively covering an area of 537 m² (Motarjem, 2015) before the water reservoir gradually submerged the whole site. Several ongoing excavations in the basin came to an abrupt end in 2012 following the submersion of the sites, among them being Qaleh Guri (Hasanpour, 2015; 2016), Qaleh Seyrom-Shah (Mohamadifar, 2015), Gandomzar (Sharifi, 2015), Rueh (Niakan, 2019) and Cham Routeh (Sharifi, 2020; 2022).

Historical Geography of Seymareh

Throughout history, the Seymareh valley has enticed various human societies owing to its natural, social, and economic appeal, as well as its strategic placement between the Kabir Kuh mountains and the Seymareh River. Kabir Kuh has formed two separate geographic zones in western Iran, namely Pish-e Kuh and Posht-e Kuh. Geographers and travel writers have often referred to Posht-e Kuh as the province of Masabadan and Pish-e Kuh as the province of Mihrajanqadhaq, mentioning Sirvan (Shirvan) and Seymareh as their capitals, respectively. Many historians have described Seymareh as a thriving city with its buildings mostly made of gypsum and stone (Ibn-e Hoghal, 1966; Ibn Khordadbeh, 1991; Istakhri, 2009). Al-Maqdisi refers to a fortress of Hormuzan, the region's last Sasanian

ruler, in Seymareh (Maghdisi, 1982). Hamdallah Muṣṭawfi puts that to the west of Little Luristan (Lor-e Kuchek), bordering Arab Iraq, lie the two provinces of Masabadan and Mihrajanqadhaq. Ibn Hawqal reports Sirvan as a small town consisting of structures mostly constructed with gypsum and stone (Le Strange, 1990). Al-Buldan includes references to the provinces of Masabadan and Mihrajanqadhaq, and Seymareh (Yaghoubi, 1964). Seymareh is mentioned in Abu Dulaf's travelogue as a city known for its exceptional beauty (Abu Dulaf, 1963), and it is also documented in Āthār al-Bilād by Qazvini. All these textual evidence speak of the clustering of the population centers along the Seymareh valley. Under the reign of Yazdegerd III, when the Arabs attacked Iran from the west, the regions of Ilam, Luristan and Khuzestan were ruled by one of the seven Persian governors, named Hormuzan. The conquest of Ctesiphon as the political center in the second caliph's reign marked the downfall of the Sasanian empire, putting large parts of Iranian regions under the Arab rule. It was then that Hormuzan designated Seymareh as his seat of government and built there a fortress in preparation for facing the Muslim army. Subsequent events however proved that this preparation was far from being much effective. On the other hand, Rawlinson maintained that the strong fortress perching on the mountains east of Ctesiphon, to which Khosrow II sent his harem during the Roman Heraclius's attack of Ctesiphon, lay in Seymareh (Rawlinson, 1984). An abundance of coeval buildings and coins of Khosrow II discovered in the Seymareh Valley by de Morgan in the opening years of the 20th century which corroborates Rawlinson's claim (Hasanpour, 2015).

The opinions of historians are split regarding the incursion of Arabs into this particular region, as some argue that the Muslim army, commanded by Abu Muslim, clashed with the locals of Masabadan and Seymareh, resulting in casualties on both sides. Dinawari cites Khuzestan as the direction from which the Muslim attack and conquest of Seymareh occurred (Dinawari, 1888). Despite the extensive damage inflicted upon the city during the invasion, it would eventually undergo a revival in prosperity during the early Islamic periods, echoing its previous success in the Sasanian era. Regrettably, this resurgence was abruptly halted by a catastrophic earthquake that resulted in the complete devastation of the city and its neighboring towns and villages. The earthquake, dated by Ibn al-Athir, Hamza al-Isfahani, and al-Tabari to 258 AH/871 AD, was a tragic event. Al-Masoudi also reports a seismic incident in Seymareh as taking place in 334 AH/945 AD and razing the city to the ground (Masoudi, 2002).



◀ Fig. 1: The map of Iran shows the precise location of Lalar within Ilam Province (Google Maps).

Topography of Lalar

Lalar is situated at coordinates N 33°21.19'64" & E 47°04'21.02", with an elevation of 669m above sea level on the western bank of the Seymareh. The site is characterized by a series of prominent mounds arranged in a northwest-southeast orientation. The riverbed runs along the entire eastern side of the site. Geomorphologically, Lalar is composed of alluvial deposits formed by the periodic flood events of the Seymareh, upon which the structures were built. Currently, the surface of the site is covered with rubble of various sizes, with scattered remnants of walls and architectural features visible. The construction materials used in these structures include rubble held together by gypsum mortar. Lalar encompasses an area exceeding 15 hectares.



◀ Fig. 2: General view of the alluvial valley of the Seymareh River in Lalar, view from west (by: A. Motarjem, 2010).



Fig. 3: The map of Iran shows the precise location of Lalar within Ilam Province (by: [A. Motarjem, 2010](#)). ►

Excavation and Recording Methods

Given the special conditions surrounding rescue excavations, the trenches were placed in the center of the site at the points where architectural remains were readily visible. To enable locating the architectural finds on the map, the four trenches, each measuring 10×10 m were exactly opened along the north and south directions. At an average depth of 135 cm from the starting point of excavation in the central trench, the first architectural space was encountered consisting of a long hall with a width of 4.19 m. The floor of the room was formed of a layer of soft sand and clay.

Architectural Description

S.01

Lalar's single-period architecture represents a vast horizontal and concomitant occupation (Fig. 4). As the first discovered space, S.01 was a rectangular room longitudinally aligned east-west, measuring 16.74 m long and 4.19 m wide. All the walls, about 1.8 m thick, were formed from rubbles bonded together with gypsum mortar, while the floor consisted of a thick deposit of beaten earth and sand. On the floor were recovered remains of ash and charcoal. The walls survived at a maximal height of 1.7 m. Inside S.01, three storage jars were set into the floor (Figs. 5–6). Two piers of rubbles and gypsum mortar each measuring 0.68 m identified against the south wall might have been later additions to help strengthen the roof beams (Fig. 7). The entrance to the room lay on the northwest and connected S.01 to a corridor or room called S.07. Also, in the middle of the northern wall of the room, a niche 1.18 m long and 0.6 m wide existed within the wall, though its upper part was missing.



◀ Fig. 4: General view of S.01, view from the southwest (by: A. Motarjem, 2010).



◀ Fig. 5: Storage jars set into the floor of S.01, view from the north (by: A. Motarjem, 2010).



◀ Fig. 6: Ground stone (bedder) and storage jars found on the floor of S.01 (by: A. Motarjem, 2010).

S.02

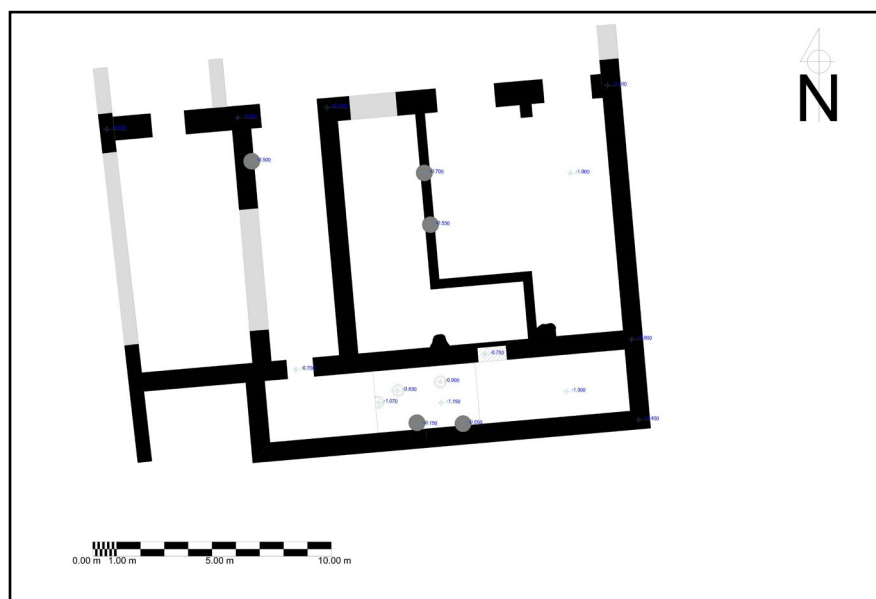
This square room of 12.22×8 m lay at the far end of the northwest side of S.01. The same masonry materials as the latter were employed. Part of the floor was recovered in the northwest corner. The structure was directly built on the virgin soil and lacked any footings. The walls were fairly regular and rectilinear, and the entrance faced south.

S.02 has been divided by a wall into two distinct sections: a square room and a porch-like area. The square room could be accessed through a 1.15 m doorway, while the porch had a wider entrance of 2.55 m that led

Fig. 7: Piers of rubbles and gypsum mortar discovered against the south wall in S.01, view from the east (by: A. Motarjem, 2010). ►



Fig. 8: Plan of S.01 and its lateral extensions (by: A. Motarjem, 2010). ►



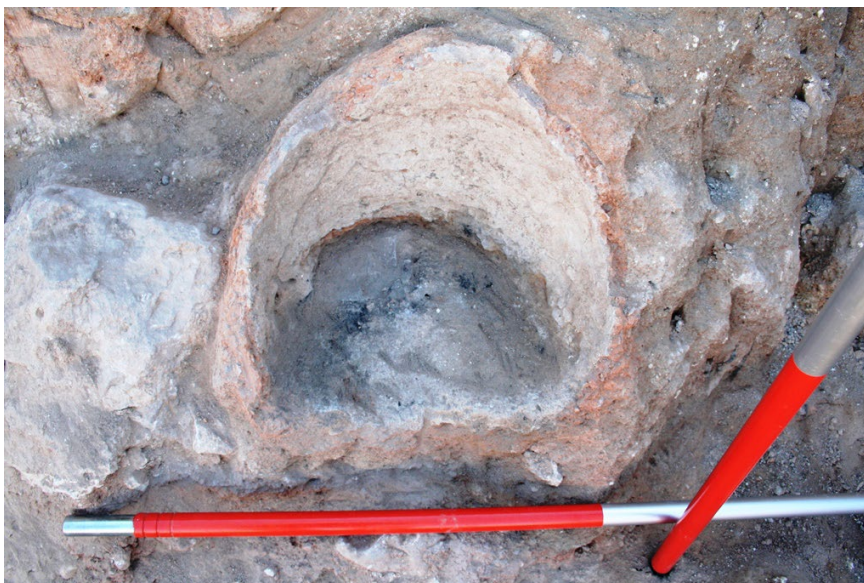
to the outside open area (see: Fig. 8). The walls of the structure are quite regular and form right angles. The square room measured 6.88 m on each side, resulting in a total area of approximately 48 m². Evidence of an oven was discovered on the floor, located 30 cm below the surface. The presence of debris between the main floor and the lower part of the oven strongly suggests that the room was reused after a period of abandonment (Figs. 9–10).

The walls' inner surfaces were entirely covered with gypsum, devoid of any embellishments. The floor, on the other hand, consisted of a compacted layer of earth and sand approximately 15 cm thick. In order to gain insight

into the stratigraphic sequence of preceding architectural periods, a 2×2 m area of the northwest corner was excavated to a greater depth as a sounding. Upon removal of the floor, it was revealed that the structure was built directly on undisturbed soil without any foundations, indicating that the historical activities at Lalar were confined to a single level. This construction method contrasts sharply with the prevailing architectural style of the time, suggesting that the site may have been initially established as a temporary shelter or in response to an imminent crisis, and remained untouched or unreconstructed even after abandonment (Fig. 11).



◀ Fig. 9: Square room with cubic column bases, S.02 (by: A. Motarjem, 2010).



◀ Fig. 10: Remains of the oven built on the debris layer on the floor of the columned room, S.02. (by: A. Motarjem, 2010).

Characteristics of Architectural and Pottery Finds from Lalar

The first season of excavation at Lalar cleared a total area of about 600

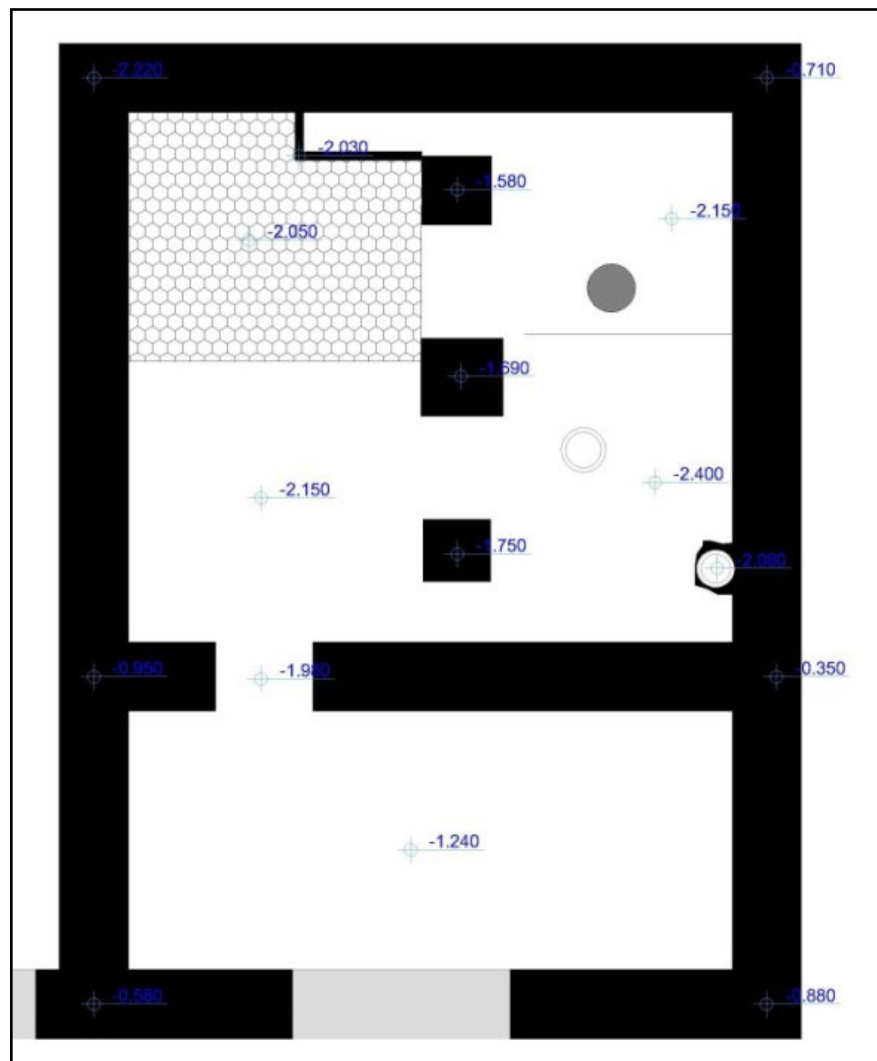
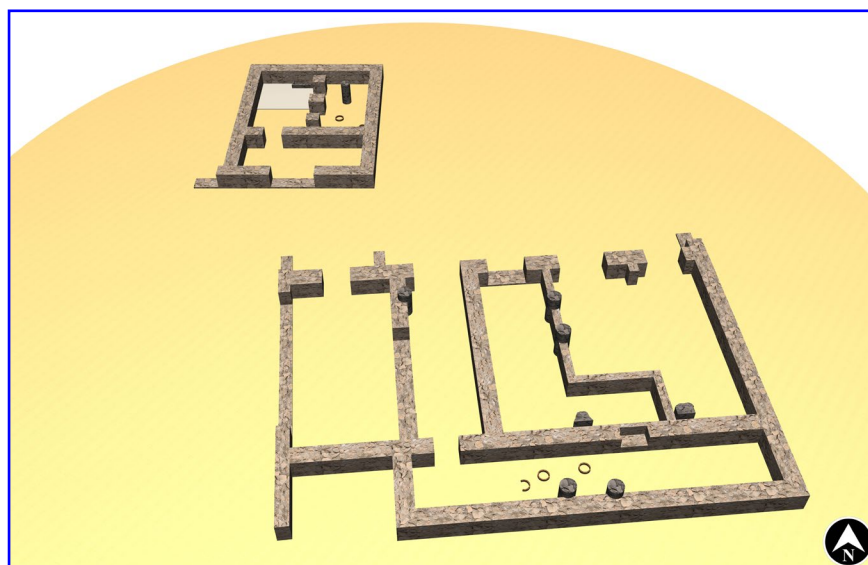


Fig. 11: Columned room, S.02 (drawing by: ©Bakhtiari). ►

m² of a horizontal level that consisted of at least two separate structures (Fig. 12). Both structures identified at Lalar contained evidences of piers, and consisted of thick walls of rubbles held together with gypsum mortar. The most notable architectural feature is the use of columns, though unlike the formal architectural styles of the Sasanian and Islamic periods, the placement of the columns did not follow the geometric principles of space division, and even in S.02 the column bases were not installed exactly in the center of the room. This per se suggests an informal architecture by some inexperienced builders. Yet, it is noteworthy that the use of inconsistent columns made of stone and mortar is an established practice in the late Sasanian architectural tradition and has been reported from many complexes such as the structures attributed to Khosrow II in Qasr-e Shirin and at Takht-e Suleiman (Naumann, 1967: 71–76).



◀ Fig. 12: Isometric plan of the architectural remains discovered at Lalar (drawing by: ©Bakhtiari).

Architectural Structures in the Seymareh Valley and Comparative Studies

Here an outline of the architectural features of a series of excavated buildings in the Seymareh valley will be presented, because the close geographic proximity and stylistic relations between the pertinent structures can help specify their function and date. Among the Sasanian buildings in Seymareh, only those at Cham Ruteh (Sharifi, 2020; 2022) and Lalar have been identified as residential structures, and the exposed architectural remains at Barzeh Ghaveleh, Qaleh Guri, and Rue are known as mansions. Apart from the applied building materials, other common features shared in all these buildings are the rectangular plan and rectilinear rooms, and niches with crescent arches within thick walls. It should be noted that while the cited features are not unique to this period, most of the architectural structures in the Seymareh valley have them in common.

I. Building materials: All the structures recovered in the valley were built with rubbles bounded together with plaster-saruj mortar, a fact also mentioned in historical sources. At least in the case of the Seymareh region, they were the most readily available local materials. Such masonry materials were used in many other Sasanian constructions such as Qaleh Dokhtar in Firuzabad, Fars Province (Huff, 1999: 635), Ctesiphon (Keall, 1987), Takht-e Suleiman (Naumann et al., 1965: 66), Bisitun, as well as other buildings in the Seymareh region like Darr-e Shahr (Mihrajanqadhaq). Therefore, given the considerable temporal and spatial distances of these structures, one may conjecture that rubble and gypsum mortar went far beyond an indigenous style to become a general tradition in the Sasanian

architecture. Evidently, even in areas laying far from gypsum quarries, there was still a strong tendency for using this mortar in construction. A case in point is Kangavar where no gypsum deposits are present all over the plain. Such substantial amounts of gypsum were transported from nearby regions like Luristan to the construction site of the historical structure in Kangavar that centuries later the local people considered the site as a gypsum quarry (locally called “Gachkan” quarry), as it was the sole place in the entire region where they were able to procure gypsum from the ruins of the gypsum elements of the structure (see Table 1). This situation continued until Kambakhshfard started his excavation and restoration work in the region.

II. Column: Wide span structures like large halls and naves require columns for structural support, making them a technical necessity. The positioning of columns is based on the load distribution points of the roof, adhering to the principle of symmetry. In contrast, the columns found in the Lalar structure do not conform to this principle, as they are irregularly built with round cross-sections that are not complete circles, and one column even has a square cross-section. This unconventional design choice is characteristic of an unofficial architectural style, often attributed to amateur builders.

III. Flooring: At Lalar, the floors were typically constructed using a mixture of clay and sand with an average thickness of 15 cm. However, at Qaleh Guri, the flooring was created by layering beaten earth, cobblestone, and multiple layers of gypsum, with rubbles serving as an intermediate layer between two gypsum layers for added strength (Hasanpour, 2015). Additionally, at another site within the same region, Barzeh Ghavaleh, building floors were paved with rubbles set in gypsum mortar (Sharifi, 2015). These variations in flooring techniques once again distinguish Lalar from other sites in the Seymareh basin.

IV. Niche: At Lalar, remains of a niche were recovered in the north wall of S.01. This 1.19 m long and 0.6 m deep recess lay 0.75 m above the room's floor. The missing upper part was possibly in the form of a simple arch. Niches have been found at other regional excavations. In addition to Cham Ruteh (Sharifi, 2022), they have been reported from Barzeh Ghavaleh and Qaleh Guri (Hasanpour, 2015; 2016), Rueh (Niakan, 2019), Darr-e Shahr (Faryadian, 2009) and Sargandab (Mohammadifar, 2014: 285).

V. Gypsum: Gypsum was widely utilized as a construction material in ancient Iran. The earliest evidence of its use in architecture, glyptic art, and ritual skeleton restoration dates back to the Kebaran and Natufian cultures

(8500–10300 BC). By the Neolithic period, gypsum gradually gained more popularity across the Middle East (Kingery *et al.*, 1988). Beginning from the Neolithic Period of Hajji Firuz Tepe (Voigt, 1983), gypsum processing for architectural use persisted throughout the historical period in different extents given the mineral's accessibility for the locals in different regions. But apparently, the use of this mortar peaked during the Sasanian period. Gypsum use is attested in the Lalar architecture. At Barzeh Ghavaleh it served both functional and decorative purposes (Farhani, 2022: 242). The decorations were either molded or carved (Hasanpour, 2015: 265). All the walls in Sargandab in the Seymareh region, were covered with gypsum (Mohamadifar, 2015: 287).

Site	Entrances	Roofing	Niche	Dimensions
Rueh	Main entrance decorated with arches	Barrel vault	Half-dome and symmetric	360 x 270 (Niakan, 2019: 133)
Qaleh Guri	Entrances span: 155cm, 70cm	Barrel vault with oval arch, uncut rubbles, half-beaten and half-baked gypsum mortar	Cubic Niches in varying sizes with curved bodies	874 x 232 cm (Hasanpour, 2016: 41)
Lalar	Northwest side	Collapsed	Niche on northern wall, column of rubble and gypsum	475 x 255 cm (Motarjem, 2015)
Cham Ruteh	Entrances span: 70 cm, 90cm	flat	A small rectangular niche	West side 23 m; east side: external and internal ca. 107 and 22.29 m (Sharifi, 2022)
Darr-e Shahr	Southern side	Camber arch and application of gypsum molds, symmetric niches within walls	Several niches on the walls	500 m ² (Faryadian, 2009)

◀ Table 1: Characteristics of the newfound structures in the Seymareh valley (compiled by: Authors, 2021).

Pottery

The excavation at Lalar revealed a significant horizontal extent, however, the pottery assemblage recovered was relatively sparse, possibly due to the unique or temporary nature of the occupation. The recovered pottery can be categorized into common and coarse types based on paste quality, with variations in exterior surface color including brick red, red, light brown, and buff. Various forms such as bowls, closed and open jars, and bases were identified within the assemblage. Technical features of the pottery are outlined as follows:

A. Pottery in red paste: Related pieces are often handmade. The body was not properly smoothed and shows variations in thickness in different parts. Firing was rather inadequate. In cases, decorative elements occur in the form of raised bands, rope appliques, applied pellets, and incised and applied motifs (Figs. 14, 15, 16).



▲ Fig. 13: Pottery from Lalar (A. Motarjem, 2021).

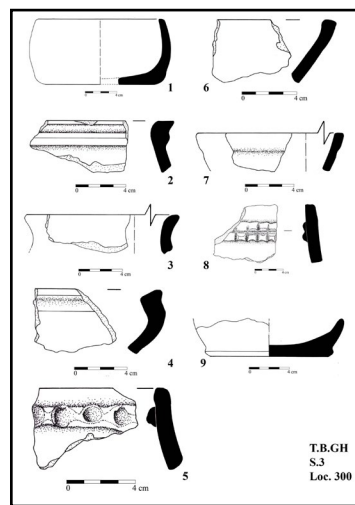


Fig. 14: Pottery from Lalar (A. Motarjem, 2021). ►

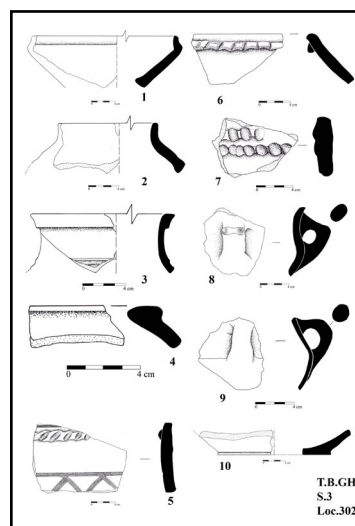


Fig. 15: Pottery from Lalar (A. Motarjem, 2021). ►

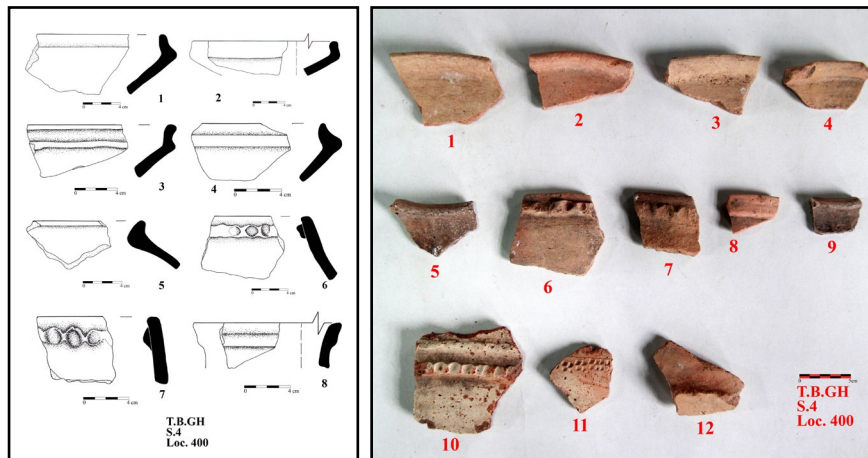


B. Friable, sand-tempered pottery in buff paste: These utilitarian pieces lack any sort of surface coating, polishing, or decorations.

Overall, the pottery evidence from Lalar is extremely limited. The required clay was procured from local resources. Thus, given the presence of gypsum and lime particles in the soil, the manufactured vessels are rather low in quality. Yet, in style and form, such as the short jars with rope appliques and handled long-necked jars, comparisons are attestable at other regional sites like Barz-e Ghabaleh and Seyrom Shah (Mohamadifar, 2015), Mihrajanqadhaq (Mazaheri, 2014) and Cham Routh (Sharifi, 2022) (see: Table 2).

Discussion

The Seymareh Basin is characterized by an elongated valley abundant in pastures situated between Pish-e Kuh and Posht-e Kuh (Zagarell, 2008: 21–22). The climate and geomorphology of the Zagros massif have



◀ Fig. 16: Pottery from Lalar (A. Motarjem, 2021).

No.	Form/fragment type, temper, firing, manufacture, exterior color, decoration	Relative dating
Fig. 10, no. 3	Rim, mineral, adequate, wheelmade, brown, plain	Qaleh Seyrom Shah Mohammadifar & Tahmasebi, 2014: 138, fig. 5
Fig. 10, no. 8	Body, mineral, adequate, wheelmade, light brown, rope applique	Cham Ruteh Sharifi, 2022: 167, fig. 17, no. 18
Fig. 10, no. 5	Storage jar, mineral, adequate, wheelmade, buff, rope applique	Cham Ruteh Sharifi, 2022: 167, fig. 17, no. 18
Fig. 10, no. 6	Open bowl, mineral, adequate, wheelmade, light buff, plain	Diyala and southern Mesopotamia Wells, 2015: 107, fig. 7af
Fig. 11, no. 1	Bowl with inverted rim, mineral, adequate, wheelmade, brown, plain	Mihrajanqadhaq Mazaheri et al., 2014: 99, fig. 2, no. 11
Fig. 11, no. 3	Rim, mineral, adequate, wheelmade, buff, plain	Marv Priestman, 2009: 174, fig. 1
Fig. 11, nos. 5–7	Body, mineral, adequate, wheelmade, buff, rope applique	Qaleh Seyrom Shah Mohammadifar & Tahmasebi, 2014: 147, fig. 35
Fig. 12, no. 6	Rim, mineral, adequate, wheelmade, red, rope applique	Qaleh Seyrom Shah Mohammadifar & Tahmasebi, 2014: 147, fig. 35
Fig. 12, no. 7	Rim, mineral, adequate, wheelmade, red, rope applique	Mihrajanqadhaq Mazaheri et al., 2014: 99, fig. 2, no. 10
Fig. 12, no. 10	Body, mineral, inadequate, wheelmade, red, rope applique	Mihrajanqadhaq Mazaheri et al. 2014: 99, fig. 1, no. 7
Fig. 12, no. 11	Body, mineral, inadequate, wheelmade, red, incised	Mihrajanqadhaq Mazaheri et al., 2014: 99, fig. 1, no. 6
Fig. 12, no. 9	Rim, mineral, adequate, wheelmade, brown, plain	Qaleh Seyrom Shah Mohammadifar & Tahmasebi, 2014: 139, fig. 6

◀ Table 2: Specifications and comparative study of Lalar pottery (compiled by: Authors, 2021).

significantly influenced the evolution of local cultures, as well as the interactions, connections, and even the subsistence patterns of the local populations. The challenging routes and rugged terrain have hindered communication, resulting in the emergence of isolated indigenous cultures. Lalar, being a small and secluded valley, was primarily utilized as a temporary settlement area. The difficult terrain continues to pose challenges for accessing the valley, despite the presence of modern facilities.

The cultural characteristics of Lalar are the main subject of this paper. The primary inquiries revolve around the rationale behind the distinctive placement of the site in comparison to other contemporary sites along the Seymareh river, and the function of its structures. The excavation results reveal the existence of residential edifices constructed using typical materials from the late Sasanian period. In addition to the architectural remnants, Lalar shares a key similarity with other known sites in western Iran, namely the use of standard pottery that is diagnostically characteristic of this period.

In the assessment of the historical era of the site through its architectural features and technical attributes, it is proposed that, as per Huff (1987, 1999), the Sasanian architecture is distinguished by its extensive use of stonecutting and gypsum-saruj mortar, as well as its adaptable construction methods. Related structures made of rubbles and gypsum are known on the Zagros slopes in the Seymareh valley (e.g. Barzeh Ghavaleh and Qaleh Guri), which are entirely comparable in architectural elements to Takht-e Soleiman (Naumann & Huff, 1965), Firuzabad (Huff, 1999), Bishapur/ Qasr-i Shirin (Rether, 1939: 553), and Sasanian fire temples (Boyce, 1975) that are scattered across Iran. The same building materials and such structural details as crescent-shaped niches and columns made of rubbles and gypsum mortar clearly links Lalar to the Sasanian constructions at Khosrow Palace in Qasr-i Shirin and Takht-e Soleiman, notwithstanding the asymmetric arrangement of the columns at Lalar.

Also, a brief overview of the Lalar pottery speaks of a local pottery tradition. Over 60% of the total assemblage are in a poor-quality fabric with gypsum and lime inclusions procured from local resources, a fact resulting in their premature disintegration. Formal classification reveals two classes: in situ large storage jars and practical receptacles like bowls, plates, handled jars, and a spouted vessel. The most frequent decorations include rope appliques and undulating grooves.

Conclusion

The part of the valley of Seymareh where the sites of Cham Ghuleh, Tang-e

Kafari and Lalar lie forms a part of the natural alluvial valley through which runs the Seymareh river. Its limited flat lands were formed as a result of the deposition of the sedimentary flows during the flood times. Given its low expanse and difficulty of access, the area is only suitable for temporary settlements. Also, the valley has limited environmental capacity as regards agriculture and food production, and permanent living is virtually impossible within its 15-hectares total area (Sumner, 1989: 638). Thus, the existence of the archaeological site of Lalar with its remarkable expanse as an objective reality calls for analysis to pin down its function and the reasons behind its establishment. The site is close to the magnificent structures and mansions of Seymareh. Rubble-walled structures with gypsum mortar in western Iran are traditionally attributed to the Sasanian period. The same approach shows itself in the registration file of the site of Lalar. However, this parameter in effect is not sufficient for dating a building, and other lines of evidence and categories of finds deriving from the excavation need to be examined in detail. On the other hand, the two parameters of political developments and hostilities, and natural calamities like earthquakes had brought about profound changes in regional settlement patterns. Accordingly, the Lalar architecture gives clear indications of rushing in the construction process, so that in most cases the gypsum mortar was not packed well into the gaps between the rubbles and thus the resultant walls are not much resilient. It was attempted to rise a rubble-filled dry laid walls before packing their surface with gypsum plaster, which was used in very restricted amounts between the rubbles themselves. The second point is the use of relatively crude architectural techniques in different parts of the structure, including the erection of unattached rubble piers with both circular and square cross-sections at the same time in the same building. The columns failed in distributing a uniform roof load at the central points, and they were frequently positioned near the primary walls. Functionally, such a pattern in all probability represents an unofficial or a local one that was invoked by some unskilled builders.

Generally speaking, the preliminary results of the excavation of a 537 m² area showed that the site was settled only for a very short period of time before being abandoned. Not even a single piece of evidence exists for a preceding or succeeding occupation phase. As the size of pottery assemblages, ash accumulations, and trash deposits serve as indicators of extended occupations, the scarcity of such finds bears further testimony to the transient nature of settlement at Lalar.

Positioned at the geographical center of the tumultuous late Sasanian period and the initial Arab conquests of the first century AH, Lalar's

challenging local topography offered a secure refuge, making it a temporary settlement likely constructed for immediate needs and subsequently abandoned following the resolution of political upheaval. Even, assuming a relation between the site and the political centers of Rueh, Barzeh Ghavaleh, and Galeh Guri, it might have been part of the defense system belonging to the survivors of the Sasanian dynasty in the first century AH. Because historical sources contain frequent references to abortive efforts by Sasanian survivors and princes to restore the imperial rule. It is plausible that Lalar, like Rueh, Barzeh Ghavaleh, and Galeh Guri, were part of a larger regional power structure that was either controlled by the Sasanians or by Sasanian princes in exile. These areas not only controlled the regional roads but also served as a strategic passage and a refuge for local Sasanian rulers and nobles who sought shelter in the Seymareh valleys after Arab invasions, as they attempted to regain their power unsuccessfully (Zakeri, 1995: 96).

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Observation Contribution

All authors contributed equally to the writing of the article.

Conflict of Interest

The Authors, while observing publication ethics in referencing, declare the absence of conflict of interest.

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گزارش یافته‌های نخستین فصل از کاوش در محوطه باستانی لالار در حاشیه رودخانه سیمره (زاگرس مرکزی)

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چکیده

محوطه لالار به مساحت حدوداً ۱۵ هکتار در حاشیه غربی رودخانه سیمره حفافصل تنگ چم‌قوله و تنگ کافرین واقع شده است؛ این اثر در شهریور سال ۱۳۱۰ ه.ش. و به فاصله کوتاهی پس از تصویب قانون عتیقات به شماره ۵ در فهرست آثار ملی ایران به ثبت رسیده است. باوجود سال‌ها فراموشی مطالعه این اثر تاریخی بالاخره در سال ۱۳۸۹ ه.ش. و تنها با هدف نجات بخشی، ناشی از غرق شدن آن توسط دریاچه سد سیمره برای یک فصل مورد کاوش نجات بخشی قرار گرفت. نتایج این کاوش که طی آن ۵۳۷ مترمربع از بخش مرکزی اثر خاکبردای گردید نشان داد که این محوطه، بقایایی از یک بافت استقرار تک دوره‌ای است که تنها برای مدت زمان کوتاهی به یک باره ایجاد و به زودی هم متروک شده است. بقایای معماری محوطه لالار با مصالح قلوه سنگ آهکی با ملاط گچ ساخته شده است. هدف اصلی این پژوهش معرفی و ارزیابی کارکرد و قدمت بافت تاریخی محوطه باستانی لالار بر اساس شواهد داده‌های باستان‌شناختی و منابع تاریخی است و لذا فراتر از بحث نجات بخشی اندکی از اطلاعات موجود در این اثر طرح و پاسخ به این پرسش مهم است که، چه عامل یا عواملی موجب شکل‌گیری و توسعه این محوطه استقرار وسیع (شهر) در حاشیه رودخانه سیمره، محصور در ارتفاعات و خارج از مسیر دسترسی به راه‌های اصلی و معابر طبیعی منطقه شده است؟ در مجموع حسب داده‌های به دست آمده و ارزیابی ویژگی‌های بوم‌شناختی و جغرافیایی منطقه نشان داد که اشتراک سبک‌شناسی و اسلوب معماری به کار رفته در این محوطه با دیگر بقایای معماری منسوب به اواخر دوره ساسانی تا قرن سوم هجری قمری هم‌خوانی و شباهت کامل دارد؛ این اشتراکات علاوه بر کاربری و تکنیک‌های معمارانه معطوف به وجود دیگر داده‌های فرهنگی مانند گونه‌هایی از سفال‌های شاخص اواخر دوره ساسانی در این محوطه است.

کلیدواژگان: باستان‌شناسی دوران صدر اسلام، زاگرس مرکزی، حوضه رودخانه سیمره، معماری دوره ساسانی، محوطه لالار.

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