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# Silent Landscapes, Enduring Communities: An Ethnoarchaeological Approach to Manujan's Subsistence

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**Abstract:** Ethnoarchaeology plays a crucial role in bridging the gap between the material remains of the past and the lived experiences of past societies. By studying the relationship between modern cultures and their environment, ethnoarchaeology offers invaluable insights into the interpretation of archaeological data. This study focuses on Manujan, Iran, a highland region situated close to Jaz Murian Basin and the Persian Gulf in south Iran. Despite numerous historical cemeteries, evidence of permanent settlements remains elusive, suggesting a historical reliance on nomadism. However, confirmation requires further archaeological investigation alongside studies of modern subsistence practices. Manujan presents a unique opportunity due to its complete cultural sequence and abundant ancient cemeteries. A 2009 archaeological survey identified 134 sites, offering valuable data. Additionally, research on modern village subsistence patterns provided insights into regional subsistence strategies. This descriptive-analytical study, guided by mediation theory, explores how geography and subsistence practices have shaped the lives of inhabitants from antiquity to the present. The evidence suggests a shift from a pre-Islamic nomadic system characterized by pastoralism with occasional horticulture to a semi-nomadic structure that persists in the Islamic period. However, this structure has undergone significant changes, including the expansion of rural and urban centers, alongside a rise in agriculture, horticulture, and sedentism.

**Keywords:** Ethnoarchaeology, Manujan, Nomadic, Modern Villages, Ancient Sites, Subsistence.

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## Introduction

A two-month archaeological survey (April-May 2009) was conducted in the Central District of Manujan County, southwest Kerman province, Iran. This survey aimed to identify potential historical relics for the ongoing “Archaeological Atlas of Iran” project<sup>1</sup>.

It employed a dual approach.

- Archaeological investigation: This relied on existing cultural and historical evidence to locate potential archaeological sites.
- Ethnographic inquiry: This involved exploring the subsistence patterns of modern villages within the survey area. By studying these patterns, the research gained valuable insights into the livelihoods of local populations from the past to the present (Naseri Tehrani, 2009).

Manujan County’s ethnography is particularly noteworthy due to the presence of diverse ethnic and nomadic groups. While now largely settled due to government programs implemented decades ago, these groups – including the Javidan, Raini, Ghorabba, Komachi, Sanjari, Lori, and Sarhadi, as well as the independent clans of Salari, Shahriyari, Karimi, and Look (Statistical Centre of Iran, 2008: 20) – have a rich history.

Traditionally mobile and engaged in hunting and pastoralism, these communities left behind distinct material remains compared to those of settled populations. These remains are often classified as transient camps (Barnard & Wendrich, 2008: 1). However, while currently a minority in Kerman province Management and Planning Organisation of Kerman Province, 2015a: 183), nomadic groups have historically played a pivotal role in shaping the nation’s social and cultural fabric. These groups, including those clans detailed in the previous paragraph, have made substantial contributions to Iranian heritage, comparable to the influence of the Qashqai and Bakhtiari in western Iran. Their impact is evident in various aspects of life, from art and music to economic practices and governance. Notably, the arrival of various nomadic groups in the second millennium BCE significantly influenced the region’s political, social, and cultural landscape by interacting and integrating with the indigenous populations (Potts, 2014).

## Manujan’s Paradox: Abundant Cemeteries, Absent Settlements

The survey of the Manujan region failed to register even a single settlement site from the historical period (Achaemenid, Seleucid, Parthian, and Sasanian). This trend is also evident in the Bampur Valley, located in the eastern part of the Jaz Murian Basin, as reported by Mortazavi in his study of the region (Mortazavi 2005: 109-110). This absolute lack of evidence for such settlements stands in stark contrast to the wealth of substantial evidence obtained from contemporaneous cemeteries (Naseri Tehrani, 2009). Scattered throughout the region, these cemeteries span the Achaemenid-Sassanian period based on recorded mortuary traditions (stone-lined burials) and surface pottery evidence. Notably, the attested indications vary in frequency and extent depending on their geographic location, whether in a plain or mountainous landscape. Occupational remains from the historical period in Manujan are restricted to the dispersed forts found around the region (Naseri Tehrani, 2009). The available evidence suggests that throughout the historical period, the local people largely lived a migratory life or in impermanent habitations. The existence of these forts reflects the need to protect migration routes. The Central District of Manujan exhibits a cultural sequence encompassing prehistory through the present times. However, this region is characterized by a conspicuous lack of permanent settlements from the historical period, despite the presence of numerous known coeval burial grounds. To delve deeper into this problem, alongside considering the ancient remains from the region, the modern villages housing these relics were also examined in terms of geography and the subsistence of their residents. The

main objective of the present study is to provide an outline of the regional subsistence mode through ethnoarchaeology by examining present-day villages. This will build on the occupation evidence from 134 sites (forts, cemeteries, nomadic camps, prehistoric settlements, weirs, and mills) representing the prehistoric, historical, and Islamic periods.

The study will also try to answer the following questions:

- Did the ancient inhabitants of the highlands and foothills mostly live the same nomadic or semi-nomadic life as the contemporary population of Manujan?
- What factors underpinned the subsistence mode on the plain areas given their different landscape from the highland areas?
- Since nomadism is directly related to geographical features and nomads' subsistence is immensely affected by the environment (climate, terrain, and vegetation) (Potts, 2014:186), what roles have the regional landscape and its changes played in this regard?

## History of Research

Kerman province, particularly its southern regions with a more prominent nomadic presence, has received limited scholarly attention regarding the historical subsistence practices of its diverse nomadic groups. While some studies have addressed western and southwestern Iran, they primarily focus on the livelihoods of Bakhtiari groups in the southwestern and central Zagros mountains (Khosrowzadeh, Bahraminia, 2018: 126; Tala'i et al., 2014; Alizadeh, 2001; Rafi'ifar & Ghorbani, 2008). Additionally, numerous publications explore the Fars and Bakhtiari regions. This emphasis on western Iran and the Zagros is understandable, as nomadic evidence is far more abundant there compared to other parts of Iran. Notably, significant nomadic tribes continue to exist in the central and southern Zagros, maintaining a vital role in the regional nomadic lifestyle. However, the southern Zagros spurs extend into parts of Kerman province, influencing regional migration patterns across history. This geographical context necessitates an examination of the subsistence strategies of nomadic populations in Manujan from a historical and economic perspective. Notably, Anjomrouz examines the Jiroft region and relies on isolated evidence from previous reports rather than a systematic ethnoarchaeological field study (Anjomrouz, 2008).

The first survey of southern Kerman province, led by A.A. Sarfaraz in 1966, solely focused on the historical fort of Manujan. Following this pioneering work, no systematic archaeological or ethnographic research was conducted to identify ancient sites or understand the subsistence patterns of the Manujan region until M. Naseri Tehrani initiated a reconnaissance survey of the central district in spring 2009.

## Environmental Setting of Manujan County

Manujan County lies in southern Kerman province, situated between 26°56' and 27°49' north latitudes and 57°13' and 58°8' east longitudes. Encompassing an area of 4,524.696 square kilometers, it represents approximately 2.5% of the province's total landmass. Manujan borders Hormozgan Province to the west and south, and Kahnuj County to the east and north. (Fig. 1).





Minab. Flowing through Manujan County, the Jeghin River is the area's most significant waterway. Its basin also incorporates Faryab District in Kahnuj County and Central and Biaban Districts in Minab County. This river is primarily fed by seasonal tributaries and occasional flash floods. The Kloot, Kalchak, Selugan (also known as Tiab), and other rivers are tributaries of the Jeghin (Iranian National Geographical Organisation of Armed Forces, 2003: 89) (Fig. 2).



**Fig. 2: Manujan County Rivers: Flow Conditions in April and May**

As of 2011, Manujan's underground water resources comprised 795 deep wells, 2,887 semi-deep wells, three qanat networks, and five springs (Management and Planning Organisation of Kerman Province, 2015b: 222). Wells and Qanats are the primary sources of water for drinking, agriculture, and herding, with springs playing a minor role (Management and Planning Organisation of Kerman Province, 2015b: 89). Archaeological evidence for well usage during prehistoric times is currently absent in the region. While conclusive proof of their existence in the historical period is also lacking, field observations suggest the ad-hoc construction of small stone weirs to divert seasonal rains and increase water flow in rivers or intermittent streams for limited horticultural use. However, based on recorded evidence such as the stone weir in Damil, it appears that controlling rivers and streams played a crucial role in supplying water for agriculture and animal husbandry in the past, particularly during the late Islamic period, which is generally considered to span the Safavid and Qajar dynasties (Naseri Tehrani, 2009: 47).

## **Materials and Methods**

This study utilizes an ethnoarchaeological approach to understand the subsistence patterns of prehistoric, historical, and Islamic populations in Manujan's Central District. The fieldwork, consisting of a reconnaissance survey employed a non-probabilistic, systematic transect approach assumes that regional villages originated from nomadic or semi-nomadic communities. This strategy allowed for a comprehensive overview of the region's archaeological potential while acknowledging the limitations of non-random sampling. By investigating these modern villages alongside the survey

data, ethnographic studies will be conducted to characterize present-day subsistence patterns. This comparative approach aims to reconstruct a picture of subsistence modes practiced throughout the region during prehistoric, historical, and Islamic periods (Naseri Tehrani, 2009). Given the historical nature of the inquiry, a descriptive-analytical approach is employed. Analysis of the dataset, derived from both fieldwork and library research, will be based on mediation theory.

### Archaeological Evidence

The archaeological evidence from the Central District of Manujan reveals a rich history of human settlement spanning the prehistoric, historical, and Islamic periods.

- 1. Prehistoric Period:** The field survey identified five prehistoric localities, including settlements and burial grounds. These sites include the Mogh Mohammad site and cemetery, the Tiab cemetery, the Geshmiran II cemetery, and the Marij IV and V cemeteries (Naseri Tehrani, 2009). Surface finds from these locations consist of plain and painted pottery sherds dating to both halves of the third millennium BCE. These diagnostic painted ceramics resemble those found in key regions of southeast Iran and neighboring eastern areas during the same period. Gray pottery from the first half of the third millennium BCE coexists with pottery in red and buff fabrics coated in red or buff slip. The identified prehistoric burials are circular in plan and feature a single course of stones forming a ring on the surface. The Tiab cemetery stands out as the most significant site in terms of the number of graves, discernible plans, and density of Bronze Age pottery (Fig. 3) (Naseri Tehrani, 2009).



Fig. 3: Manujan Cemeteries: A) The prehistoric cemetery of Tiab. B) The Islamic cemetery of Tom Zardan



**2. Historical Period:** The survey of the Central District documented 67 cemeteries, some lacking surface finds like pottery sherds in their immediate vicinity. Often situated on slopes of high mountains, rocky ridges, or hills, most of these burials have been disturbed by clandestine excavations. Constructed on the ground surface using drylaid stones, the graves show irregular plans and uncertain orientations, with a few appearing circular or rectangular. Nearly all are located in mountainous areas or along seasonal rivers (Fig. 4). Surface finds are limited to scattered pottery fragments, likely a result of illegal digging by treasure hunters or local people. The forms and motifs on these pottery pieces suggest they belong to historical cemeteries spanning the Achaemenid to the late Sassanian period. Among the 67 identified historical cemeteries, 1 might be Achaemenid, 8 Achaemenid-Parthian, 13 Parthian, 1 Achaemenid-Parthian-Sasanian, 10 Parthian-Sasanian, 1 Sasanian, and the rest of the graves, even though they are in the shape of stones or mounds, did not have pottery due to severe flood erosion or the lack of profitable and pristine manipulation; Therefore, it is not possible to determine their course. The remaining burials, while appearing to be barrows, lack surface pottery due to erosion or their undisturbed state, making relative dating difficult. Traces of stone footings from temporary camps are found around some modern villages and a series of ancient cemeteries, potentially dating back to historical or later periods. A significant surface find from the historical period is a piece of Parthian painted pottery from the Tejdanu I cemetery, depicting a group of dancing males on the interior, offering valuable insights into regional ethnoarchaeology (Fig. 5). This topic will be examined in detail in Section 4, where the relationship between pottery and ritual performance will be discussed. Another noteworthy piece, from the Mir Omri VI cemetery, is also Parthian period painted pottery featuring a date palm with roots flanked by leaping long-horned goats (Naseri Tehrani, 2009: 20) (Fig. 6).

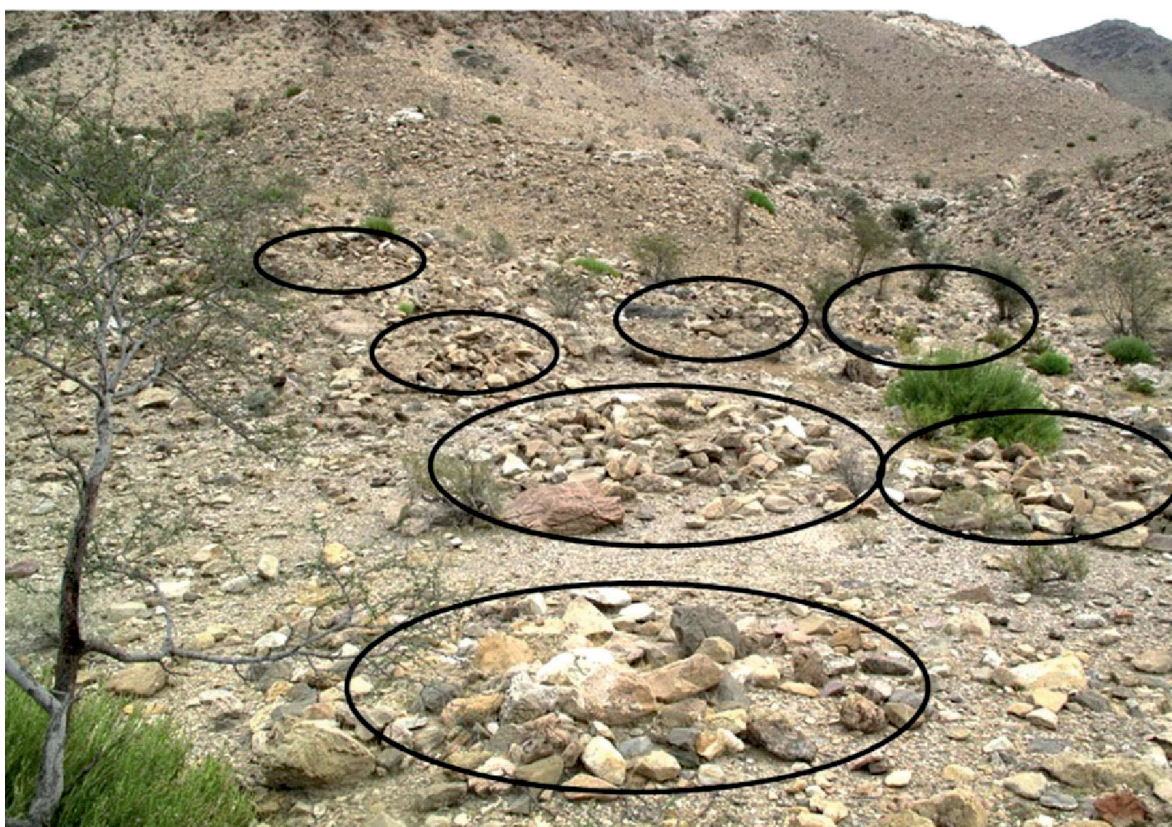


Fig. 4: Tejdano I: A Historical Cemetery in Manujan County





Fig. 5: Parthian Period Pottery Depicting a Traditional Ceremony from Tejdanoo I Cemetery

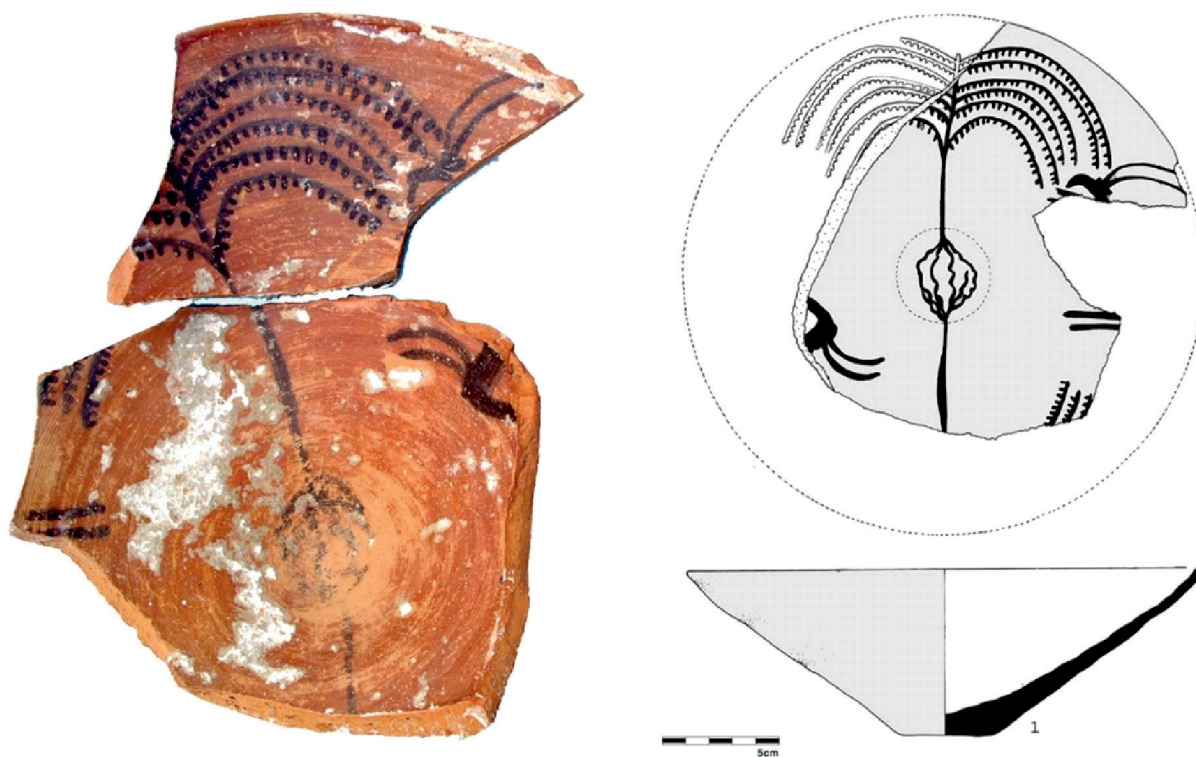


Fig. 6: Parthian Period Pottery from Mir Omari Cemetery: Depicting a Date Palm and Goat



**3. Islamic Period:** Monuments from the Islamic period exhibit a much higher diversity compared to earlier periods. These include mounds, sites, forts, stone footings of ephemeral camps, mills, cemeteries, weirs, bridges, and stone platforms. Mounds and sites are primarily concentrated on the plains. The largest site, Yusef Abad, has a history dating back to the medieval Islamic centuries (Naseri Tehrani, 2009: 40).

**Modern Villages with Archaeological Evidence**

The Central District of Manujan can be divided into two distinct topographical zones: plains and highlands. This section examines modern villages with archaeological remains within these topographical contexts (Fig. 7).

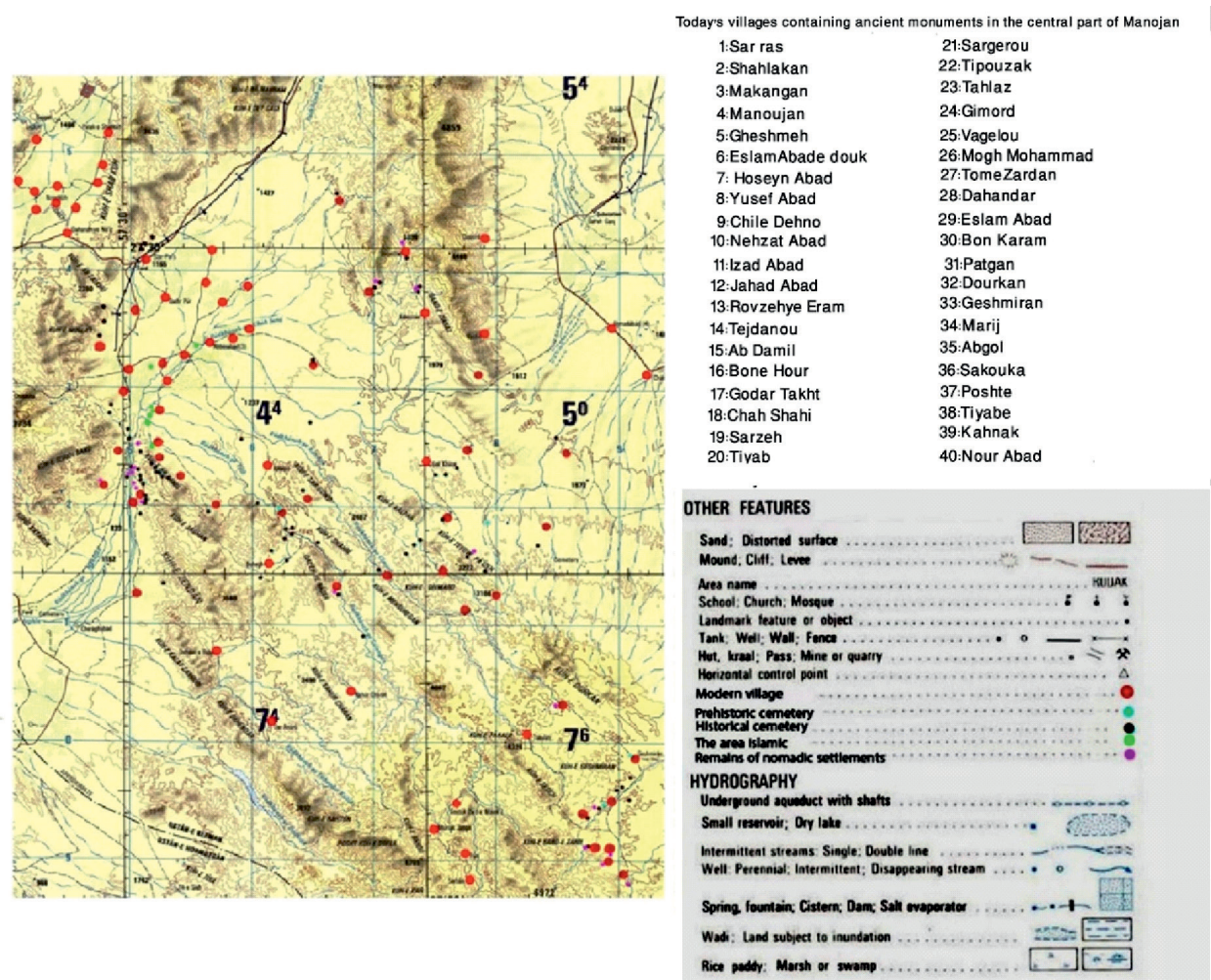


Fig. 7: Central Manujan County Topography: Modern Villages and Ancient Sites and Cemeteries

**1. Villages in the Plains** (Table. 1): The plain areas of the Central District encompass several key geographical features. The northern quarter includes floodplains and the confluences of the Manujan River's main tributaries, including Mogh Mohammad, Sulengan, Gimord, Gaz, and Kalatang rivers (Najmi, 2018: 15), which ultimately form the Manujan River itself in the southern quarter. In the southwestern quarter, lowlands and the extension of the Manujan River transition towards the Minab plain.

Table 1: Modern villages in the plains Topography

<i>Village Name</i>	<i>Rural District Name</i>	<i>Numbre of Rural Families</i>	<i>Archaeological Finds</i>	<i>Description</i>
Sar Ras	Qaleh	549	3 historical cemeteries, late Islamic cemetery, Islamic period water mil	
Hossein Abad	Qaleh	514	Site of the middle Islamic period of Hossein Abad	A large Islamic site can be seen adjacent to the Manujan-Qaleh Ganj asphalt road and to its right from Manujan. Given its size and proximity to the historic Manujan fortress, it is highly likely that it was the old city of Manujan in the Islamic Middle Ages.
Izad Abad	Qaleh	107	4 historical cemeteries, 3 nomadic settlements of the Islamic era	An interesting piece of pottery from the cemetery of Mir Omari VI, depicts a date palm tree (With detailed roots) surrounded by jumping goats with long horns..
Islam Abad 2	Qaleh	50	Area related to the first to middle centuries of Islam	
Jahad Abad	Qaleh	173	-8 historical cemeteries (Parthian to Sassanid) -2 nomadic settlements without pottery	
Zanbuor Abad	Qaleh	29	Parthian cemetery	
Shahlakan	Qaleh	36	Sassanid cemetery	
Nehzat Abad	Qaleh	132	Parthian cemetery	
Kohan Douti	Qaleh	0	Historical cemetery without pottery	No permanent architecture is visible on the site, and people seasonally inhabit tents with a pastoral livelihood.
Makangan	Qaleh	-	Cemetery without historical pottery of Dahneh Shur	
Qaleh	Qaleh	7945	- Ancient fort of the first to middle Islamic centuries cult Manujan fort. -Water mill of the Islamic period	The ancient fort of Manujan is still standing on a high rock in the eastern part of the city of Qaleh and it is one of the most important and largest forts in Manujan.
Rovzehye Eram	Qaleh	68	Ream stone platforms, unknown use (according to the residents of the resort), Middle to late Islamic period	
Godare Takht	Noor Abad	29	Achaemenid and Parthian era cemetery	
Tejdanou		332	Cemeteries of the Achaemenid and Parthian eras 4 remains of nomad settlements	At the level of Tejdanavi I cemetery, a piece of pottery from the Parthian period was found, which shows the scene of a group dance by men in a vessel, which is very important in terms of Anthropology in the region.
Chah Shahi	Noor Abad	259	Historical cemetery (Achaemenid to Parthian)	

<i>Village Name</i>	<i>Rural District Name</i>	<i>Numbre of Rural Families</i>	<i>Archaeological Finds</i>	<i>Description</i>
Chile Dehno	Qaleh	146	Tepe Tom Gell sorkh during the first and middle centuries of Islam	It seems that there was a brick kiln in this place.
Yousef Abad	Qaleh	133	Tom koureh-e –Tom Madreseh –e-Yousef Abad,( It was given this name because of its proximity to the village school)	
Cheshme	Qaleh		Cheshme water mil (late Islamic), Cheshme Arch (late), 2 historical cemeteries, Achae-menid and Parthian.	

**2. Villages in Mountainous, Valley, and Hilly Topography (Table. 2):** This category encompasses the entire highland and foothill region surrounding the Manujan plain, including the majority of the southern and southeastern parts of the Central District.

**Table 2: Modern Villages in Mountainous, Valley, and Hilly Topography**

<i>Village Name</i>	<i>Rural District Name</i>	<i>Numbre of Rural Families</i>	<i>Archaeological Finds</i>	<i>Description</i>
Kahnak	Qaleh	46	Three historical cemeteries (Achae-menid, Parthian), Ziarat Ali Islamic Cemetery, historical site	
Tome Zardan	Qaleh	79	Three historical cemeteries, 2 Islamic cemeteries, and 2 historical and Islamic settlement areas, Jakes-tan Petroglyphs	
Abgol	Geshmiran	19	Cemetery and Parthian area	
Sakoukan	Geshmiran	23	Nomadic induction area	
Poshte Sar	Geshmiran	49	Islamic cemetery, Nomad settlement area, Petroglyphs	
Vagellou	Geshmiran	4	Historical-Islamic settlement site	
Eslam Abad 1	Geshmiran	32	Historical cemetery, Islamic metal-working area	
Bonak	Geshmiran	69	6 historical cemeteries, Islamic cemetery, 3 historical to Islamic forts, Petroglyphs	
Geshmiran	Geshmiran	139	Bronze age cemetery, Islamic cemetery, Petroglyphs	
Marij	Geshmiran	4	Bronze Age cemetery, 5 historical cemeteries (Parthian), Settlement area (no pottery)	
Nour Abad	Qaleh	55	Historical cemetery (Parthian -Sasanian), Fort (Parthian until early Islam)	
Dourkan	Qaleh	9	Islamic cemetery, Area of the settlement remains of Sangchin nomads (late Islamic), Fort (Historical-Islamic)	

<i>Village Name</i>	<i>Rural District Name</i>	<i>Numbre of Rural Families</i>	<i>Archaeological Finds</i>	<i>Description</i>
Bonkaram	Qaleh	10	2 historical cemeteries, Historical settlement area (Parthian)	Historical cemeteries of uncertain period lack pottery on the surface.
Patkan	Qaleh	0	Medieval Islamic fortress	The village is currently abandoned, with only a few ruined and uninhabited houses visible.
Tiyab	Qaleh	46	Bronze Age cemetery, area with a Parthian period cemetery, 2 historical cemeteries (Parthian- Sassanid), Islamic cemetery	The graves of the Bronze Age cemetery are scattered over an area of about two hectares, featuring stone-built circular or elliptical structures on the surface.
Tipuzak	Qaleh	0	Three historical cemeteries (Achaemenid to Sasanian), Islamic cemetery, Islamic fort	
Sargreou	Qaleh	42	Historical cemetery (Parthian), Area of remains of nomadic stones (late), 2 forts (Parthian until the beginning of Islam)	
Golmand	Qaleh	0	Historical cemetery (without pottery), late stone dam	The small village of Golmand consists of a single household, a few date palm trees, and the remains of several reed-mat shelters..
Gimord	Qaleh	16	Historical cemetery, late period cemetery, Historical fort (Achaemenid -Sassanid), Scatter stone evidence of nomadic settlements.	
MoghMohammad	Qaleh	60	Prehistoric cemetery (Bronze Age), 3 historical cemeteries (Parthian-Sasanian), Metalworking area (late history - Aarly Islam).	
Abdamil	Qaleh	5	Historical cemetery (no pottery), late period stone platform	
Bonehour	Qaleh	11	Historical cemetery (no pottery), Petroglyphs	
TiyabeZiyarat	Qaleh	6	Historical cemetery (Without pottery)	

## Environmental and Cultural Landscape of Manujan: Unveiling the Past through Archaeological and Modern Evidence

**1. Topography and climate:** Manujan's topography is characterized by a mountainous region with rocky slopes and valleys transitioning into a plain with Plio-Quaternary deposits. While the soils in the plain allow for some irrigated agriculture (Iranian National Geographical Organisation of Armed Forces, 2003: 88), a complete understanding of past climate changes and human impact on vegetation requires further palynological studies with high temporal and spatial accuracy (Makarizadeh et al., 2016: 387). Located near the Jaz Murian basin and the Makran Mountains, Manujan's geology likely shares similarities with the eastern Zagros (Abbasnejad & Abbasnejad, 2017: 66). Pollen studies from neighboring Fars province (Djamali et al., 2009: 123) suggest potential human influence on vegetation through deforestation. The Holocene witnessed increased air temperature and humidity, but also significant climatic fluctuations with periods of aridity impacting settlement patterns, particularly



during the Chalcolithic period (8.2 ka event) (Shaikh Baikloo Islam et al., 2018: 16-17). These dry periods, along with another around 2200-1900 BCE (Fouache et al., 2018: 147), may have driven population shifts towards areas with more reliable water resources. Jiroft County, with its similar climate and rich archaeological record, serves as a valuable case study for understanding past human-environment interactions in Manujan. Jiroft's pollen record suggests a potential shift from open scrub forests to degraded scrubs due to a combination of natural factors (weakened monsoons) and human activities (farming, herding) (Gurjazkaite Routh et al., 2018: 14).

**2. Cemeteries:** Cemeteries are the most frequent evidence found across the region, spanning prehistory to Islamic times. Late Islamic period (between the Safavid and Qajar dynasties) cemeteries near modern villages, known locally as Harira or Mihrab, consist of large circular stone rings encircling burials. According to local traditions, these Mihrabs represent family graves. Occasionally, they appear in clusters and are still used for burials in some present-day villages. Similar features haven't been reported from the historical period (Achaemenid to Sassanian) in the region. However, a crucial point is the circular layout of the prehistoric (Bronze Age) cemetery near the modern village of Tiab in southern Manujan. Notably, the circular revetment surrounding the burials reappears on a larger scale in Islamic times (Fig. 3). Interestingly, surveys haven't identified cemeteries with a similar layout elsewhere in the province. This correspondence in burial practices is intriguing, and excavations to understand the burial architecture could reveal valuable information about enduring traditions.

Across the study area, nomadic campsites from prehistory to Islamic times are marked only by stone arrangements. Based on present-day nomadic structures, we can tentatively reconstruct the superstructures on these stone footings as light wooden structures or black tents. Traditional light structures in the region include *kovar*<sup>2</sup>, *katuk*<sup>3</sup>, and *kapar*<sup>4</sup>. These represent vernacular architecture – a craft culture shaped by a combination of technical, environmental, and cultural factors throughout history. These structures embody and facilitate the region's rural and nomadic lifestyle (Mirjani & Amiri, 2018: 2) (Fig. 8). Climate appears to be a more significant factor than topography when considering the construction of rural dwellings (Ghazanfarpour et al., 2013: 126).



Fig. 8. Examples of Modern villages: permanent houses next to Kapari houses (Sokogan village)

According to available written sources, regional dwellings in the Qajar period were typically made of plant leaves, known as *kapar* and *lahar*<sup>5</sup> (Vaziri Kermani, 2006: 212). In southern Kerman and Jiroft County, the early Pahlavi period saw the emergence of a limited number of mud and clay buildings alongside *kapars*. Their construction gradually increased in later periods. However, a devastating flood in 1992 destroyed most of these houses. In some villages, people rebuilt with masonry materials under government support (Mirjani & Amiri, 2018: 5). Most villages in the county, except for larger ones with modern transformations, consist of clusters of *kapars* housing a maximum of 6-8 households each. Ethnographic studies in these villages suggest close kinship ties among residents of different *kapar* clusters (Fig. 9).



**Fig. 9: Pushek Village, Manujan: Traditional Thatched House (Kapar)**

Therefore, based on the limited architectural evidence from historical sites, the dominant architectural tradition in antiquity likely relied on similar light materials due to the nomadic subsistence system. These ephemeral settlements vanished over time due to abandonment and continuous migrations, leaving behind only meager traces of stone footings. However, architecture with stone foundations has been recorded in the Bazaran area (Achaemenid-Parthian period) near the plain villages of Tedjano. This structure features a regular plan with many rooms and is known locally as Bazaran. Given its stone foundations and location in a mountain landscape, the walls of the superstructure were likely made of medium-sized rubble, examples of which are scattered around the site (Fig. 10) (Naseri Tehrani, 2009: 11).



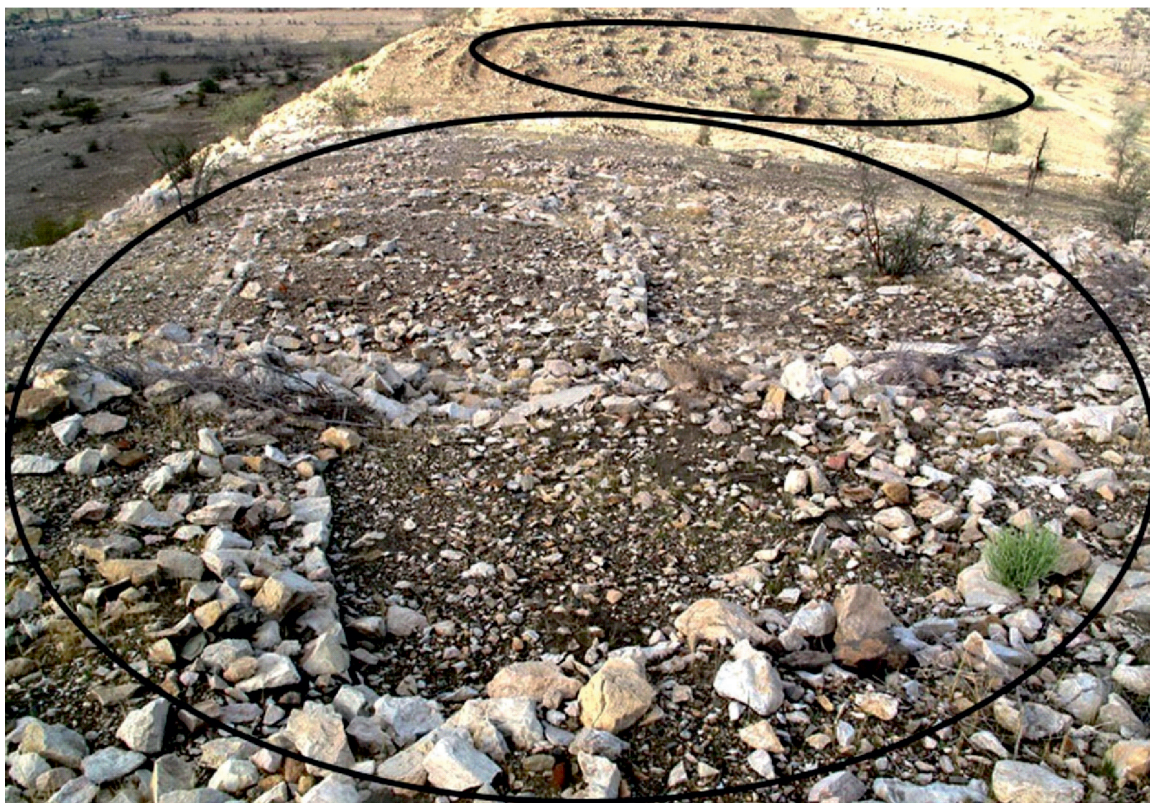


Fig. 10: Bazaran Area: Stalls with Stone Foundations

**3. Petroglyphs:** Petroglyphs scattered throughout the valleys and mountainous areas, along with evidence of seasonal occupations in the region, form another valuable data set for understanding past societies and lifestyles in comparison to the present (Table. 1). In total, a number of petroglyphs were identified from five villages, namely Posht-e-sar, Ponak, Geshmiran, Bone Hor, and Jakestan. The depictions range from domestic animals like goats and dogs to riders (possibly hunting with a bow and arrow, although erosion makes precise interpretation difficult), dancers, and shepherds. These rock art sites are usually found in close proximity to cemeteries and the remains of temporary nomadic camps dating from the historical, Islamic, and contemporary periods. All these elements point to a long history of pastoral life in the region. The presence of ibex, partridge, and see-see partridge in the regional highlands (Fig. 11) (Naseri Tehrani, 2009) suggests that shepherds have historically hunted these animals to supplement their diet. This fact, combined with the remains found at the encampments, further strengthens the evidence for a nomadic way of life in the past, particularly during the late Islamic period.

**4. Pottery:** A notable find from the cemetery of Tejdano I near the village of Tejdano is a base fragment of a pottery plate. It depicts a procession of dancers painted in black on a shiny plum slip. This piece was found near a looted burial containing Parthian ceramics (similar to those found in southern Kerman, Bashagard, and Jaz Murian). Based on this association, the pottery fragment is also attributed to the Parthian period (Naseri Tehrani, 2009: 15). Dance is a cross-cultural phenomenon with diverse social and religious functions in traditional societies. This pottery fragment, therefore, offers valuable information about ethnicity, clothing, and rituals of the past. The dancers hold their arms raised from both sides, bent at the elbow. Their hands are not connected, suggesting a circular movement of the forearm with separated fingers. The dancers wear short, sleeveless “robes” tightened at the waist. Tassels hang from their shoulders, and their bodies are adorned with vertical hatched





Fig. 11: Wildlife in Manojan Mountain area

lines interspersed with single vertical lines. The shape of the shoulders and dress decorations suggest a traditional felt costume similar (in both form and function) to the “Chukha” worn by men in southwest and western Iran today (among the Lor and Bakhtiari peoples). This attire is still used by dancers in traditional ceremonies (Figs. 5 and 12). However, it is not commonly worn in the Manujan and Kerman regions (Naseri Tehrani, 2009).



Fig. 12: Bakhtiari Dancers in Chuqa Clothing Performing a Traditional Dance

According to the 1998 mobile nomads’ census (Akbari & Mizban, 2004: 9), provinces like Fars, Chahar Mahal and Bakhtiari, West Azarbaijan, and Lorestan house nomadic populations exceeding 100,000 during the summer months. Conversely, Khuzestan, Fars, and Kerman collectively accommodate over 100,000 nomadic households during the winter. This seasonal migration has led to the dissemination and intermingling of different ethnicities and cultures across Kerman province.



Additionally, the regional nomadic geography evolved into its current form during the Qajar period (Keshavarz et al., 2017: 190). Fieldwork has identified the Lori and Soleimani groups as the main nomadic populations in southern Kerman today.

Another noteworthy pottery piece comes from the Parthian-era Mir Omari cemetery near the village of Izadabad, located on the high banks of the Manujan River. This vessel depicts two symmetrical palm trees with their roots joined at the center, standing beside a goat. The presence of palm trees, a common motif on pottery from southeast Iran in the 4th and especially the 3rd millennium BCE, signifies the historical importance of horticulture alongside pastoralism in the region. The central placement of the roots and the grazing goat further emphasize this mixed subsistence pattern. Interestingly, most villages in the region still rely on both horticulture (cultivating date palms, oranges, etc.) and livestock raising for their livelihood (Fig. 13).



**Fig. 13: Livelihoods in Durkan Village, Manujan Mountains: Animal Husbandry and Horticulture**

**5. Forts:** Small forts or fortalices, dating to various Islamic centuries (early to medieval), were constructed using natural materials and played a key controlling role (Tables. 1 & 2). They possibly also existed in the historical period, reflecting a tradition of state supervision. The most remarkable is the Manujan fort in the central county. Its substantial towers and ramparts with stone footings, brick walls, and many other significant features stand out. Additionally, the presence of two nearby hills, Tomesorkh, containing evidence of pottery and brick kilns, suggests they served as production centers for the construction materials used in the Manujan fort (Naseri Tehrani, 2009: 36). All these elements attest to the importance of this (mid-Islamic) fort in the Manujan region. No other matching structure has been recorded anywhere in the county (Fig. 14).

Undoubtedly, the rise of urban centers in medieval Islamic times on the plains of Manujan necessitated the construction of an administrative fort to control the region. Given their location at higher elevations in the uplands, these stone-lined forts functioned as dominant monitoring centers. They oversaw the entire valley and highland areas where bandits might take refuge (based on interviews with local informants and observations of scattered fortifications in mountain passes and

high elevations). Throughout history, these forts maintained the security of herdsmen and nomads. Based on our field observations, local people still refer to these forts as “outposts.”



Fig. 14: Manujan Castle: An Islamic Landmark

**6. Subsistence of Present-Day Villages:** The fieldwork revealed that most rely on pastoralism, especially dominant in the uplands. As elevation decreases, horticulture and agriculture become more prominent in the plains. Most modern houses are permanent and built with clay materials. However, some remote hamlets retain traditional Kapar dwellings made from tamarisk and palm. The Iranian Statistics Centre’s 2008 data distinguished nomadic clans, but Manujan County’s latest census in 2016 recorded zero nomadic settlements. This possibly indicates the complete sedentarisation of nomads within regional villages. Since Manujan was a dependency of Kahnuj County before 2011, some studies on the region’s nomadic migration routes might be attributed to Kahnuj. Notably, most migrations now occur via motor vehicles on intercity routes, largely abandoning traditional trails.

According to ethnographic studies (Tajpour et al., 2004) and our field surveys, in southern Kerman province, several families from each nomadic group undertake annual migrations. Their summer quarters lie in villages on the foothills of the province’s north and south (particularly Lori clans from Qanat-e Malek, Sarmeshk, and Siyah Banuiyeh). Winter quarters are in the counties of Jiroft, Esfandagheh, Kahnuj, and Manujan, and surrounding villages (southern counties in the plains, extreme south of Kerman province), or towards Orzuiyeh. On their way to winter quarters, southern Kerman’s nomadic clans cross the mentioned mountainous villages to reach Sarduiyeh in Jiroft, then proceed to the Dalfard gorge and finally Jiroft. Another 100 km journey takes them to Kahnuj County and its environs, where they settle for winter. Until recently, Manujan also hosted these clans. While some residents of remote villages with Kapar dwellings live in poverty, many others are well-off, and their choice of simple dwellings seems more a matter of preference than necessity.



## **Manujan's Ethnoarchaeology: A Discussion on People, Environment, and Subsistence Strategies across Time**

The settlements of regional nomadic groups, from past to present, suggest a history of temporary, semi-temporary, and permanent dwellings along seasonal rivers in the highlands. These communities practiced pastoralism, horticulture, and farming, with the degree of dependence on each mode directly related to the local landscape (water availability, pastures, and fertile land). Since Manujan historically served as a route connecting central/northern Kerman to the Persian Gulf, trade might have partially supplemented regional subsistence since antiquity. The Manujan fort, a strong military surveillance base, further attests to Manujan's role in southern Kerman's communication network (Naseri Tehrani, 2009: 7). Archaeological and ethnographic findings suggest a heavy reliance on herding and highland living until the early Islamic era. Even with seasonal settlements near plains and the popularity of farming and horticulture, livestock remained crucial. People likely maintained a connection to nomadic life in the highlands, with agriculture viewed as an uncertain supplement due to unpredictable crop yields. This uncertainty, potentially linked to precipitation rates, was largely eliminated with the adoption of irrigation methods and river water control in the early Islamic period (Alizadeh, 2001:128).

The Islamic era, while still showing dependence on pastoralism, witnessed increased trust in living on plains due to factors like political strategies, expanded trade, advanced cultivation techniques (evidenced by stone weirs like the Damil weir) (Naseri Tehrani, 2009:47), horticulture, improved water access, and opportunities for exporting regional crops. This period saw the rise of permanent settlements on plains and the growth of urbanisation (early to medieval Islamic centuries). Notably, even today, most settlements retain some reliance on livestock, reflecting a vital trait of nomadic life. The decline of pastures, driven by various factors following sedentarisation plans, affected the location of permanent settlements. Our field surveys revealed that despite sedentarisation, many villages were founded in foothills and valleys – landscapes offering fodder during specific parts of the year. Population and housing censuses show that highland villages today are typically smaller, with geographical conditions significantly affecting subsistence methods and rural structures. Generally, smaller villages lie in foothills, mountainous areas, or lands leading to the desert, while larger rural centers cluster on floodplains and plains (Kerman Province Management and Planning Organisation, 2015b: 99, 202). The southern Manujan plain, at the confluence of major headwaters of the Manujan River, exemplifies the most fertile area for agriculture and horticulture. This lowland area even hosted flourishing urban centers during the Islamic period (early to middle centuries), with Yusefabad and Hosseinabad being the most remarkable examples.

## **Conclusion**

Manujan County's subsistence patterns are shaped by its dichotomous highland-lowland landscape. While climatic fluctuations have affected seasonal river flow, permanent and seasonal rivers have maintained their course towards major basins (Jaz Murian and Persian Gulf). Nomadic groups have inhabited the region throughout history, adapting their pasture use based on seasonal conditions, influencing livestock reproduction and their economy. The co-location of ancient settlements with those of modern times, alongside ruins of nomadic encampments near present-day villages, suggests a continuity in subsistence patterns, particularly evident in the highlands and foothills due to the prevalent nomadic lifestyle. While prehistorical evidence is scarce, the predominance of goat motifs on painted pottery (a domesticated species) and the highland location of all five identified sites support a likely pastoral subsistence system. Various factors, including climate, environmental changes, pasture degradation, political strategies (since the early Islamic era), human intervention, and the introduction

of new plant and tree species, have all contributed to the transformation of nomadic structures. This resulted in a shift towards semi-nomadic and sedentary lifestyles in mountainous areas and settlements established on previously unsettled plains.

The overall picture reveals a persistent tradition of pastoral subsistence, even after the sedentarisation of regional nomads. Pastoralism remains a key element in the region's subsistence economy, especially in the highlands, where it persists alongside permanent village settlements. This dependence on herding is even evident in plain settlements that primarily rely on horticulture and farming. However, traditional rites and ceremonies associated with the nomadic lifestyle have largely lost their character due to sedentarisation and urban sprawl.

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## Notes

- 1 The objective of this project aligns with the broader goal of compiling an archaeological atlas for Iran. This particular study focuses on the Manujan region of Kerman province. Essentially, this is a large-scale national initiative, with the specific area under investigation being examined by the first author of this paper. The funding for this non-probabilistic survey was provided by the Kerman Organisation of Cultural Heritage, Tourism, and Handicrafts.
- 2 **Kovar** is a type of residential structure commonly used in the villages of Jiroft. In the colder regions of Jiroft, Kovars are used during the spring and summer months. In the central part of Jiroft, which has a warm and semi-humid climate, they are used not only in the summer but also during certain hours of autumn and winter. This structure is a small room with a square or rectangular floor plan, featuring an opening in the middle or at one corner. Given the enduring connection between nature, humans, and architectural artifacts, the materials used in Kovars are all sourced from the surrounding natural environment. These materials are generally fibers from trees such as bitter almond (wild almond), palm branches, and wood from trees like tamarisk and pine. The wood is used for the structure's columns and beams, while the fibers from palm, wild almond, and other trees are used as a covering (Mirjani & Amiri, 2018: 6).
- 3 **Katuk** is a type of house found on the outskirts of the Halil River in Jiroft, with an oval or circular floor plan. Constructed primarily from palm fronds and branches, it features an irregular, lattice-like structure. Today, these structures are primarily used for storing livestock (Mirjani & Amiri, 2018: 9).
- 4 The **Kapar** is a traditional dwelling indigenous to the southern regions of Kerman, Iran. Characterized by its circular or oval floor plan, the Kapar is typically constructed using locally sourced materials such as palm fronds and branches. This type of structure has been adapted to the region's arid climate, providing shelter and shade for its inhabitants. While the Kapar has historically served as a primary residence, it is increasingly used for agricultural purposes or as temporary accommodations in modern times (Mirjani & Amiri, 2018: 10).
- 5 The terms "Lahar" and "Kapar" is used interchangeably in a specific local context within Kerman (Vaziri Kermani, 2006: 212).

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