

Heritage Landscapes and Vernacular Settlements: An Inquiry into the Farmsteads in Iran

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Abstract

Iranian Farmsteads are heritage sites in the center of Iran. These places have efficient agricultural systems with architectural, economic, social, and cultural characteristics. In this research, these dimensions of Iranian farmsteads have been examined as a heritage landscape. A heritage perspective shows the evolution of places from the past to the present.

This research employed historical interpretation, to introduce the traits of farmsteads and answer questions about the evolution of them in Iran. Seven farmsteads have been examined in the hot and dry climate of Iran.

It concludes that they create continuity by embodying the cultural identity passed on to the present generation. The findings show that farms have had different stages of growth, development and destruction since the era of ignorance. In addition, being in the global GIAHS system will expand production and strengthen livelihood security. These findings will make organizations and ministries more sensitive to the protection of Iranian farmsteads.

Keywords: Iranian Farmstead, Heritage Landscape, Historical Landscape, Agriculture Heritage, GIAHS

Introduction

Nature and society interact in historical landscapes. Knowing why and how these interactions change over time, and, how they may change in the future is useful in promoting healthy developments. If a community does not know about its heritage and what their ancestors did, then everything may soon disappear. Thus, a community awareness and observations of its heritage is necessary to reveal to the people their roots. (Alfuraty. et al., 2024)

Studying the past to plan for the future is key in cultural heritage studies. In fact, it is a key to sustainable development too. Certainly, it means more than keeping the old things as they are. As Auclair and Fairclough (2015) point out, it is also about the lives lived during the shift from the past to the future. The issue is not about saving the remaining features or protecting the landscape. It also shapes the future character of the landscape. To progress, people must use and manage the changes of the historical landscapes. This is to control the changes and to create new landscapes (Fairclough, 2019).

Recently, evolution of these landscapes has been investigated and change management and sustainable development have been looked at. This has led to a two-pronged review of design and planning theories. They have also examined the relationship between Man and Nature.

Generally, historical landscapes evolve in a non-linear-adaptive process. They get semantic-physical identities and change with culture, environment, and time. Min and Lee (2019) point out that they also pass on implicit knowledge. However, heritage is part of the landscape. History flows there. It is related to the evolution of the past works.

Historical Iranian gardens are unique. They produce deep connections between Man and Nature through time. They are significant yet have been affordable for centuries. In fact, they have overcome social, political and transitional problems and have features that make them different from the cities and villages. These are often functional and physical. Among them, the farmsteads stand out. They are unique parts of the hot and dry heritage landscape of Iran.

In this context, this paper aims to explore the nature of the Iranian Farmsteads. Its objectives are as follows:

- To Identify the functional and physical characteristics of the Iranian farmsteads.
- To determine how they have been used in the past.
- To identify the factors affecting them.
- To identify the evolution of the Iranian farmstead as a part of the heritage landscape.

Theoretical Framework

A culture inherits all that is part of the heritage. It includes values, traditions and practices. This does not mean that it belongs to the past, unless it is a past event. Rather, it is a cultural extension that lives with the era. It is part of the people's lives at the time. This has an impact on politics, society and culture and involves spirituality. It deals with the environment around us (Al-Daraji & Hamid, 2013; Alfuraty & Alkazaaly, 2024). Nevertheless, until recently, landscape has not been part of such heritage.

Adding landscape to the heritage field arises from the expansion of the meaning of heritage. This process took place throughout the 20th century (Choay, 2001), and its evolution goes beyond seeing heritage only as great history and art. In fact, it leads us to see its intangible, subjective, and useful side (Loulanski, 2006). From this view, heritage matters. A living culture ties it to give context. This link will shift heritage from an object to a value and the social processes shape its nature. This means it is not given once and for all. Instead, it is a permanent social construction.

Landscape means understanding territory and society. It involves adding history to make it a product with an evolving and transforming aspect. Various people have made these arguments throughout the 20th century. They have led to a richer acknowledgment of the cultural value of the geographical territories. This confirms the need to see it as a heritage entity.

Interestingly, inclusion of landscape in heritage is new. Nevertheless, it fits well with the renewed view of heritage as a value of civilization. In fact, it has led to a debate about the need to link cultural and natural heritage. Today, the world has recognized this link between thinking of the disciplines. They have developed a view of the landscape as an expression of the culture of a piece of land. They also see it as the setting for the protection and conservation of cultural heritage. Since it happened in 1992, UNESCO has added "Cultural Landscape" to its list of protected types.

This view of landscape heritage has made valuable contributions, as seen in the research during the last two decades. Among them, Agnoletti (2006), Aldred and Fairclough (2002) and Bloemers et al. stand out. They also include Di Stefano (2015), van der Kolen and Laarse (2010), Longstreth (2008), Maderuelo (2010), Scazzosi (2004), Taylor and Lennon (2012), Taylor and St Clair (2017), and Whelan and Moore (2016).

Interestingly, they all take a long-term view of history. The question often asked is about the role of landscape in people's memory and identity (Whelan & Moore, 2016). Despite this however, our understanding of the relevance of history to social issues, the community and the landscapes in which they dwell need elaboration.

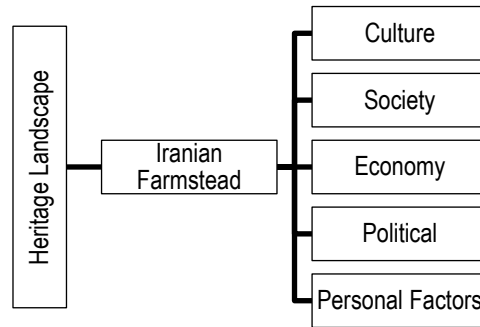


Fig. 1: Cultural heritage

Source: Authors, 2023

Review of Literature

No international publication has discussed historical Farmsteads of Iran, according to studies. Although in other parts of the world such as Europe and America, people call a similar model "Farmstead." they differ in physical character and the content from the Iranian Farmsteads. Many articles have examined them.

However, many archaeological records show the connectivity between farmers and farmsteads. They also show the community connectivity. It lets them explore the fleeting parts of the ancient world. It can also give them much more insight into the experiences of those working the land (McHugh, 2019). Among the few who have examined them, Carpenter, et al., (2009), and Colding and Barthel (2019) are noteworthy.

International agencies support recognizing landscape heritage for sustainability. They do this through schemes of UNESCO (UNESCO, 2009) such as including in the registers of World Heritage and Memory of the World. They also use the FAOs, and Globally Important Agricultural Heritage Systems (FAO, 2018). They point out that heritage landscapes have great values (Stump, 2013). In fact, many people also see landscapes as being precious. They are important for ecology, the environment and culture. They also contribute to individual and social well-being (CoE, 2000). Natural processes and human activities have shaped their character for thousands of years. This was due to a mix of demographic, technical, social, cultural, and environmental forces (Ellis et al., 2013).

Needless to say, the Farmsteads are human-made. According to Erickson (2000), people consider them part of the built environment. They do two things. On the one hand, they create better work environments. They let the farmer adapt to a shift in culture. The shift made working with one's hands culturally rich vernacular (Ford, 2008). At the same time, they anchor people.

As Wolf (1982) says, through reading landscapes, archaeologists learn about; "the people without history." whereas, traditional archaeology and history have ignored these people. Archaeology of landscapes is about people. It is about people in the past and present landscapes. (Erickson, 2000; Erickson, 2003; Ingold, 1993; Tilley, 1994). As Fairclough, et al., (2018) and Fairclough (2019) show, this paper argues that farms have great values for the locals, non-locals, governments, and indeed the world

Despite the lack of research into the Iranian Farmsteads, Moradi et al. (2017) have examined them in Kashan in 2006. They have identified more than 40 Farmsteads. In fact, they look at the Residential Farmsteads in Yazd. Focusing on the design and types of historical Farmsteads. This research adds to that body of knowledge.

Research Methodology

This research used documents and field studies. Research is based on the historical-interpretive approach (Hegel, 1993; Groat, 2002) examining written records. Much research has identified and traversed the farmsteads in the hot, dry center of Iran for 10 years. Field surveys and document research in Iran's historical records show them. They include dedication letters, travelogues, and historical geography books. They show that many cities in this region have been places of formation. These cities include Kashan, Qom, Yazd, and Isfahan.

For this research, seven farmsteads from those identified have been chosen. It selected and mapped them based on their size, health, and the presence of people in them. It was based on the consideration of the shapes at the time they were built.

The research used historical sources and travelogues from the same periods. This was followed by interviews of the survivors of the farmstead dwellers. Information was about how the farmsteads work and their social and cultural order.

Field research found that these farmsteads may belong to different times, although they have shared and varied traits. These traits will put them in a separate category. This article categorized the extracted documents into factors, analyzed them and reached a conclusion.

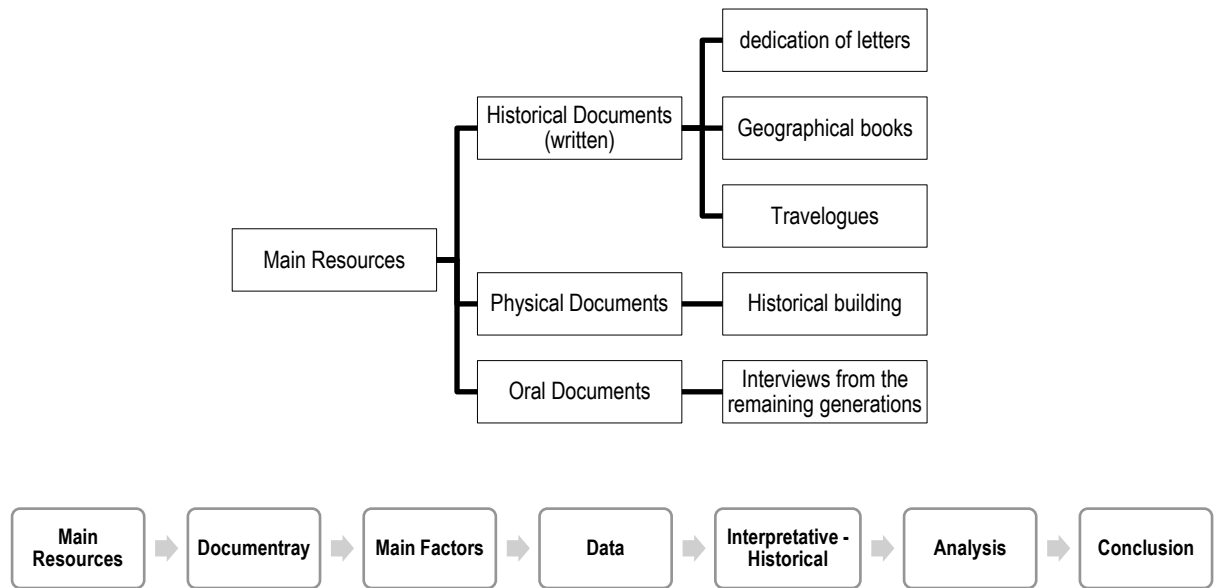


Fig. 2: The Research Process

Source: Authors

Background to Farmsteads

Agriculture in Iran has a comprehensive history. A complete water supply system exists. It shows the care and need of the people of the central plateau of Iran for water and agriculture. Access to water, stable politics, and economic security have led to forming separate small farms with different distances from each other. They were in different parts of Iran, near the water sources.

Natives of the region call them Farmsteads. These Farmsteads have agricultural land and water and have been habitable. Their fixed population sets them apart from the uninhabited farmsteads. They also have special physical elements for the houses of the Farmstead dwellers. Often located based on the chance of river water, spring, or aqueduct at a point, each Farmstead had one or several owners. They have bought vast lands next to cities to produce food and have employed people from the surrounding tribes.

Farmsteads have revived the aqueducts and have started making and selling food often housing a population even more than 100 people. Thus, the owners have built residential units for the permanent residents and their families, together with baths and water tanks. Every Farmstead also had a watch tower, a mill, a mosque, a mansion, and a caravanserai to the core, added to the central part of the Farmstead. Coming in to existence even before Islam, they have eventually acquired different forms and functions. As seen today, Economic, social, cultural, and political aspects have influenced their growth, development and also decay.

Findings

Iranian Farmsteads

1. Location and the Access System

Access to water resources and fertile fields have determined the locations of the historical Farmsteads in Iran. They have often been designed, ordered, and sometimes improvised (Afzal Al-Molk, 1981; Najm Al-Molk, 2006). They have been formed next to other farmsteads and in connection with each other. Being the products of the period, of stability and security in the geography of that time, irrigation techniques employed show that they have been common and old (Prieto, 2005; Krasilnikoff, 2010). However, some scholars think that Greek irrigation came from Persia-Iran (Briant, 2001; Chatelain, 2001; Krasilnikoff, 2010) (Fig. 3)

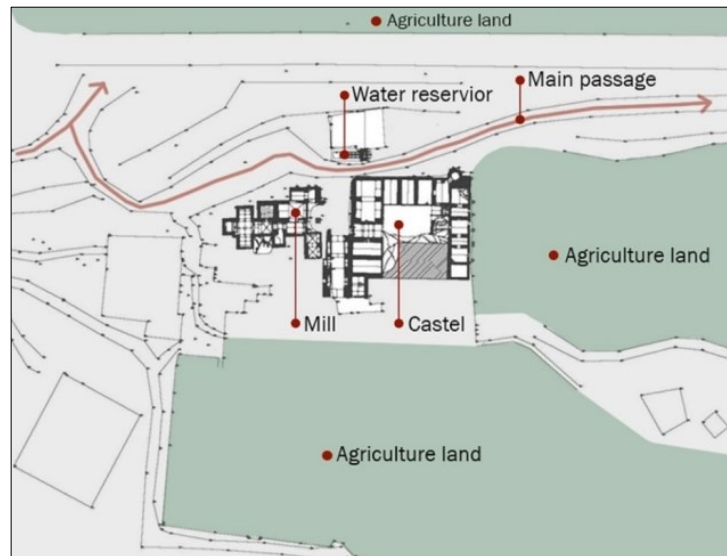


Fig. 3: The location of Farmsteads around the city of Qom
Source: Author

2. The Physical Elements

All Farmsteads have related physical features. They have diverse uses: residential, health, religious, and service. Residential Farmsteads are different from other. Their main difference is that residential Farmsteads have different features: dependent physical parts and a fixed population. Normal Farmsteads do not have them. Five distinct categories contain these elements:

1. Keshtkhan⁴: Garden, and Old Trees
2. Qanat (Avni, 2018): Springs, Reservoirs, Selkh⁵, and Waterways
3. Manor: Peasant houses, and Castles of Lords and Watchtowers
4. Mill: Pigeon house, and Caravanserai
5. Mosque Hosseynie ⁶: Prayer Hall

People have called some farmsteads which had all these elements 'large farmsteads.' Others had only a few, due to the owners' limited wealth. In 1981, Afzal Al-Molk has called them 'small farmsteads.' According to the records, in ancient times, farming and cattle breeding have begun to add to hunting and fishing and this has brought a big change to the old tribal community adding animals, tools, and the harvest to the farmsteads. Thus, the farmsteads became the core of a more settled form of existence (Tishler, 1978).

190 Farmsteads have been abandoned between 1956 and 2005 in central Hungary and these have been extensively studied. They show that farmed species can remain for decades at many abandoned settlements. Many species still exist in such farmsteads abandoned even long-ago or recently. As such, they have a long-lasting local and landscape-scale legacy, imprinting a unique characteristic on the fauna and flora of their broader regions (Pándi et al., 2014) (Fig. 4) (Table 1).

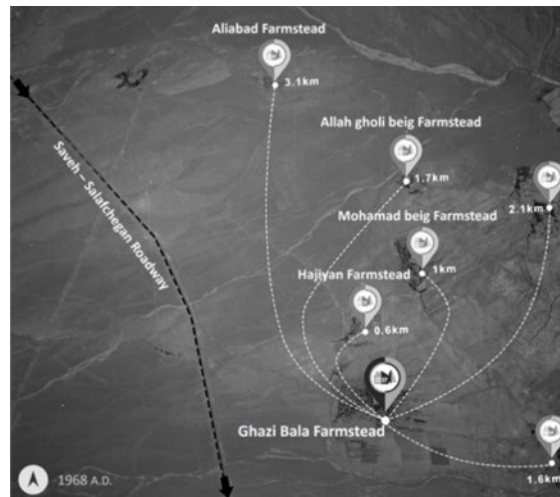


Fig. 4: Soranj Farmstead in the City of Kashan. The presence of physical elements such as; Historic baths, manors, mills, and agricultural lands.
Source: Author

3. Historical Periodization

The central cores of most Farmsteads have been formed in the Zandiyeh and Qajar periods. They have since accepted additions and changes even to the core of the Farmstead. Table 1 shows the rise in the resident population and also shows the changes of the owners based on economic and production needs.

4. Ownership Types

According to the published documents, there are four categories of ownership systems of farmsteads and villages in Iran. They are as follows.

1. Personal (Lordship): this divides the structure (Fig. 5).
2. Endowment.
3. Court: owned by the government
4. Regality: One or more lords built and developed the selected Farmsteads in different periods (Pollak, 1998; Foran, 1999).

Interestingly, a social pyramid managed them with the lord at the top. The steward controlled all the affairs of the Farmstead when the master was absent. After him, people worked in the fields. They were Dashtbans, Mirabs, Moqnis, Zares, Khushnashins, and subjects. Documents from the Mission era say that households planted and stored food and they did this for themselves. They also helped work communal fields and produced the chiefs' lots. Calderon reporters imply several levels of control over food stocks. Individual Farmsteads, communities, and chiefs tied the Caritas to themselves. According to Hann (1986) and Wenholt (1936), they likely controlled them. (Table 1).



Fig. 5: The owners of Ghazi Bala Farmstead in Qom, in order by historical period, were: Haj Ishaq Khan (Haj Isa Khan), Sardar Motazad Nizam (the seated person), Zinat-al-Doulah Khwaja Noori, and Khanad Wafai
Source: Album, 2018.

5. Structure, Materials and Decorations

The architectural structure in the central climate of Iran has often been heavy. The arched covering was a priority. Still, they also used a flat cover made of wood, along with brick, clay, and layered materials. They also to clay and straw mortar due to convenient access. Peasant castles and watchtowers were often built with clay. However, they have used better materials and bricks to construct mansions, baths, and mosques. The decorations were for specific buildings and Lord's castles. They included plastering, carving, and tiling. The rest of the buildings and Farmstead-related elements had few decorations (Table 1).

6. Approximate Extent

The type of production, the number of subjects, and The Farmstead's size depended on the power of the lords and owners. It is tied to their economic power. Large Farmsteads had more space, people, and goods. Small Farmsteads had fewer of each. Studies so far show that, in central Iran, simple Farmsteads have been 2 to 35 ha (Raie, 2020). Historical documents say 5 to 500 people lived in them and worked (Farmanfarma, 2004; Etemad-ol-Saltaneh, 1990) (Table 1).

7. Characteristics of Agricultural and Livestock Products

Historical Residential Farmsteads have been production-oriented complexes. Climate and biological experiences determined the type of production. In the fields of Sur-Abad and Abbas-Abad near Kashan, people grew various crops. Planting roses was popular then and still is. The Daulatabad Farmstead's main product was cotton. Melons were also grown on the Nusratabad Farmstead (Mohseni, 2014).

People at Farmsteads also raised animals and poultry. Each Farmstead had a shepherd to manage the flock. In some societies, people used small in-field gardens for local production. In contrast, for example in the Apalachee and Moundville chiefdoms, people had large fields. They grew lots of maize and other foods. (Scarry C. M & J. F, 2005). Each household was a single family, often nuclear or extended, living on a farmstead. They farmed small plots of maize, beans, squash, and other crops. Household granaries stored the harvests from these fields for domestic use. Also, household members helped to plant, tend, and harvest big, shared areas. The products were stored in community granaries (Swanton, 1946).

Table 1: Establishment of physical elements, ownership type, structure, and size in several Farmsteads in Iran

Row	Residential Farmstead	Establishment (presence of physical elements)									Ownership type	Structure, materials, and decorations	Approximate size	Farmstead classification
		water mill	Caravanserai	Bathroom	Mosque	Manor and Peasant house	water/Qanat	Pigeon house	Reservoir	Lords and Peasant Castle				
1	Surabad / Kashan				*	*				*	Lordship Mirza Hossein Qoli Khan Parsa	All the selected Farmsteads have	Almost 10 ha.	Small
2	Abbas Abad / Kashan				*	*	*	*	*	*	Lordship Haj Mohammadr eza Khanian Kashani	traditional structures, materials, and decorations.	35 ha. and approximately 300 ha. of agricultural land	Large/ authentic
3	Gavart/ Isfahan				*	*	*	*		*	Lordship Bano Ozmi, daughter of Nasir al-Din Shah	Traditional materials include; stone, gravel, layer,	More than 10 ha.	Large/ authentic

4	Terazabad/ Yazd	*				*	*		*	*	*	Lordship	clay, brick, wood,	More than 10 ha.	Large/ authentic
5	Dulatabad / Qom	*	*	*	*	*	*		*	*	*	Lordship Mirza Abol Hasan Khan known as Seyyed Kahaki	plaster, lime, and straw. Decorations used include; Plaster and brick ecorations used include	3 ha. of the castle as the central core and 10 ha. of agricultural land	Large/ authentic
6	Nusrat Abad/ Qom	*	*	*		*	*		*	*	*	Lordship Sadrol Mamalek Ardabili	used include plaster and brick. Also, tiling, a shelf, an arch, formal	7 ha. of the first fence and 10 ha. of agricultural land	Large/ authentic
7	Ghazibala / Arak	*		*	*	*	*		*		*	Lordship Mohammad Hossein Khan Khalaj	karbandi ⁷ , and Yazdi bandi ⁸ .	2 ha. of the first fence and 16 ha. of agricultural land	Large/ authentic

8. Social and Cultural Characteristics of Selected Farmsteads

People formed Residential Farmsteads by gathering around the cultivators. The lord settled them in an agricultural castle. He did so by taking action. Each tribe had its own cultural and social situation. Most of them, who were Muslim and Shiite, came from the same region. These people lived with their families in the serf part of the castle or the Farmstead complex. They spent the days in the fields and pastures and the nights in the areas.

Life in inhabited Farmsteads has been going on with the constant presence of people. The population has varied. It has changed based on field size and owner location. Their number was, on average, 40 to 50 households and sometimes reached more than 300 people in the area. Most traditional Agricultural landscapes are (1) cultural, in that they “exist by . . . It is (1) seen, felt, and understood by people (Ashmore & Knapp, 1991). It is (2) large, often covering whole regions. It has (3) no clear boundaries. It comes from a long history (Denevan, 2001; Piperno & Pearsall, 1998). It is diverse (Crumley, 1994). It is tough (McGlade, 1999). Researchers made the invention (Lansing, 1991) and designed the pattern (Erickson, 1996). It is (6) “contested” (Bender, 1998). Researchers Ingold (1993) and Tilley (1994) have shown that people always build it and change it. It is human-made. It is the opposite of the wilderness loved by conservationists. Erickson (2000), Redman (1999), and Stahl (1996) show this. It is (9) used and inhabited by natives and other peoples (Denevan, 2001; Erickson 1996; Netting, 1993). It is (10) linked with poor, rural people who lack political power (Denevan, 2001; Netting, 1993). Non-natives undervalue it because local, non-Western design principles shape it. (Erickson, 2003); (Wright. D et al., 2014). Small-scale crop and animal husbandry practices are key. They help us understand early farming and societal changes. They increase household autonomy. This is due to functional interdependence between them. (Flannery 1969; 1972; 2002; Byrd 2000; Bogaard. A, 2005)

Chronological Analysis

The research about the historic Farmsteads of Iran has a big challenge. It must mention the direct scientific sources. Examining the available documents shows that Farmsteads formed in four periods. Each period includes smaller subsets. The government dynasties serve as the basis for these.

1. **The pre-Islamic Period includes** BC, Medes, Achaemenid, Seleucid, Parthian, and Sasanian.
2. **After Islam until the end of the 4th, H included** the Early Islamic, Samanid, and Dailamites.
3. **5th to 13th, H including** Qaznavid, Seljuq, Ilkhanid, and Safavid Periods.
4. **13th, H until Now, including** Qajar, Pahlavi, and Contemporary Periods.

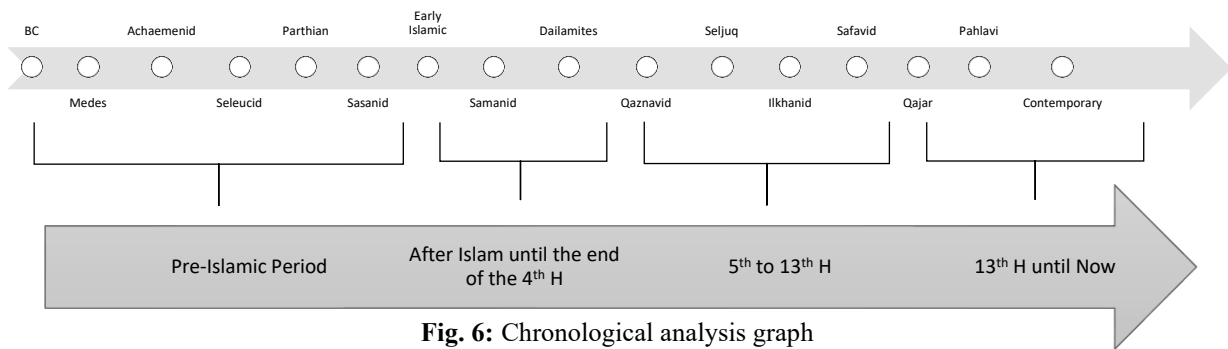


Fig. 6: Chronological analysis graph

Source: Authors

The Pre-Islamic Period

There is evidence that Agriculture was common in Iran. It is in the reports of archaeological excavations (Kaboli, 1973). The Supervisor of Shahdad⁹ excavations described a "farmers' neighborhood. It was from the third millennium BC. It was in Old Shahdad," and (Beigi and Khosravi, 2006) described the "Iron Age Farmers' Paintings on the pottery of Rabat Karim." They discussed and showed something important. Providing the basic food needs in their societies was crucial. It took the form of Agriculture, along with industry and trade (Fig. 7). The archaeology of temporary places in Farmsteads can provide insight into transhumance. It was a social practice and a logical product of farming needs (Costello, 2018).

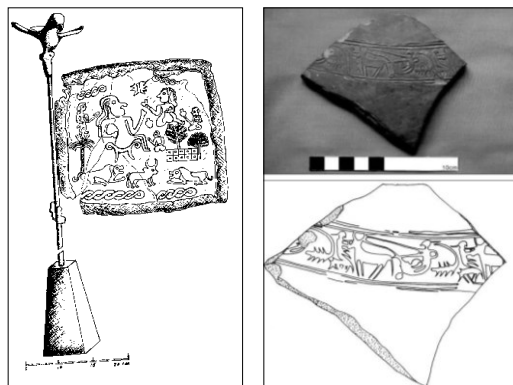


Fig. 7: Darfash of Shahdad and the image of farmers of the Iron Age on the pottery of Rabat Karim.

Source: Kaboli, 1973; Khosravi & Beigi, 2006

During the Median period, the villagers depended on land and agriculture. They had no role in the government (Mortazavi Tabrizi, 2013). The Achaemenids were seven large families and formed a class of large or feudal owners. During this time, building dams and making new channels and methods became common. They were for the prosperity of agriculture and farming. The development of farming and land management was key. It made their rule durable and stable (Soltanzadeh, 1986). In the Sassanid period, peasants had a unique position social status. They were after the nobility (Kristensen, 1995). In this time, key sources (Pigoloskaya, 2007; Bastani Rad, 2013; Dehgan, 2010; Astakhari, 1961) refer to collections from before Islam. They are close in form and content to those of the Iranian Farmstead. They called them Dastkart¹⁰. It seems that "Dastkart" is a prototype of and royal farmsteads. They belong to pre-Islamic times. People want to find the exact start of farming in the Near East. So, they focus on finding early cultivation or herding and visible domestication changes. People have made many models and debated the implications of the Neolithic farming transition in Europe. They have discussed this in many works (Boggard, 2005; Childe, 1957; Sherratt, 1980; Rowley-Conwy, 1981; Barker, 1985; Bogucki, 1988; Halstead, 1989a; Whittle, 2003; Thomas, 1999; Lu¹¹ning, 2000; Bogaard, 2004a, b).

After Islam Until the End of the 4th, H

Tiuldari¹¹ farming continued after Islam (Lambton, 1966). They gave agricultural lands to others for military and government services. This method continued in the Umayyad period and reached its peak in the Abbasid period. After that, during the Dailamites and Samani, they gave land to the elders. They created large administrative departments (Narshakhi, 1984). Farming is essential now. They include authentic documents and books from that time. Examples are *Irshad al-Zarrah*, *Bukhara's History*, and *Qom's History*. They cover Agriculture and Farming. Narashkhi wrote in 1984 in the book *History of Bukhara*. He mentions huts with fields and a set of service buildings. A group of subjects is working in that place, says Hassan bin Qomi in 2006.

The Book covers *Qom's History*. It deals with the geographical divisions of villages and Farmstead. In the 4th Century AH, the documents reveal that people found a structure near a farm. It had a unique social and economic system. This Period is the beginning of the growth of Historical Farmsteads in Iran. The Farmstead is indicative of the type of economy in a given rural area. No other settlement form is so linked to farming. The Farmstead is the first step in making and sharing farm goods (Lounsbury, J. F, 1955).

5th to 13th, H

The Seljuk period began the protection of farmsteads. After that, the Ilkhani period continued and strengthened it. They also started transferring them to later periods. Farmsteads have a different architectural style. Their economic, social, and cultural systems are different from the pre-Islamic types. Improving the structure of tiul¹² and growing the endowment system help Farmsteads last. This issue continued from the Timurid Period (Afshar, Vol 2, 1995). The endowment was prominent in property protection at that time. It made a great program for even the simplest issues. The issues were in maintaining Farmsteads (Waqfi. A, 2000).

The Safavid documents have many references to Residential Farmsteads. They mention their nature, management, and ownership systems. They also explain how to clean and tell Residential Farmsteads from other types. Hosseini Yazdi, 1962; Afshar, 1995; and Sheikh Al-Hakmaei, 2009 studied this. Farmsteads of this period existed in independent and subordinate forms. They had royal, private, endowment, and personal properties. They had them in cities and villages (Foran, 1999). Some of them were agricultural. Others were living, and with this situation, they reached the Qajar Period. Historians consider this time very important. It marks the transformation of Farmsteads. Most of the remaining Residential Farmsteads are from previous periods. They are castles and cultivation complexes. They are from the Qajar period (Fig. 8).



Fig. 8: Uses of traditional materials and structure in farmstead in Dolatabad. Qom.
Source: Qom Municipality, 2021.

13th, H until Now

This Century was during the Zand and Qajar Period in Iran. Historians consider it important in the history of Farmstead's transformation. During this time, the king ordered governors, elders, and farmers to build and fix castles. They did this to make fields for farming, collecting taxes, and making money. Farmsteads from this period are visible. This is especially

true in the center of Iran. They appear as castles and cultivation complexes (Fig. 8). Reporters, such as Etimad al-Sultaneh, Afzal al-Molk, and Mirza Kahraman Lashkar, introduced and wrote about these fields. They did so during the Qajar Period. Others, like Farmanfarma, did as well. In this weak economy, the court and diwan sold many royal and diwan farmsteads. They sold them to elders and clerics (Dehghannejad & Stoudeh, 2010). Also, insecurity and wickedness exist in different parts of Iran. They cause a lack of stability and security. As a result, agriculture and farming stopped growing. This change led to the destruction of Farmsteads (Tavangar Marvasti, 2015) (Fig. 9).

The arrival of modernity in Iran shaped these events. The revolutionaries, in the first step, ended teaching in the Iranian National Assembly. Thus, the tribes acquired the tiuldaran villages. The properties they get from the government become their capital for a certain time. The landlord level reappeared as the dominant level. This process continues for a period. After that, the country's social structure shifted from agriculture to a semi-industrial society. The start of land reforms leads to the fading of large owners from farming. The country's economic and livelihood system migrates and forgets them. The subjects have destroyed or are maintaining many old Farmsteads from past periods. They have lost their form, function, and charm, or become seasonal and summer resorts.



Fig. 9: Remains of the 13th-century Nusrat Abad Farmstead in Qom.
Source: Qom Municipality

Discussion

Investigations show that, so far, researchers have not published any independent research on Iranian Farmsteads. However, many articles cover similar models like Farmsteads. For example, Maeve McHugh (2019), Wright et al. (2014), Colding & Barthel (2019), and Garcia Zauner et. al., 2019; Groover and Hogue, 2014). Since 1972, the Natural World has emphasized recognizing and protecting certain sites. These include the Gardens and Castle at Kroměříž and the Decorated Farmhouses of Hälsingland. The World Heritage Committee (WHC) has listed these sites on the World Heritage List.

Farmsteads can help understand those in Iran. However, due to cultural, social, and economic reasons, there is no complete similarity. Iranian farmsteads have been formed from those in other countries. This is clear from their literature and history. The factors affecting them also differ. They differ in substance and form. It shows that these works have taken different paths. They have grown and decayed at different times.

The content of (Table 2) shows that Iranian Farmsteads were on the way to social and political changes. This happened in four historical periods before Islam. Based on that, they accepted big physical and functional changes. Before Islam, making a living was vital for the country's security. The duty of farming and protecting farmland belonged to a unique, privileged class. They were big landowners and peasants and helped the central government. The prominent owners competed with each other. They also farmed to build places called Dastkart and developed this area (Dehgan, 2010). These lands were not very productive. The owner preyed on their comforts. They had a house and a castle near vast farmland (Pigoloskaya, 2007). This was

the most basic form of an Iranian Farmstead. The next stage continues the last. It will create big results in Iranian politics and society. Islam rules the whole country. It hands over farmland and real estate to elders for a time. These lands keep their old importance (Lambton, 1966).

The rich landowners of this period began to build buildings far from the cities. They did it for fun. Historical documents call these buildings "huts." These complexes had fields. They housed a set of service buildings and a group of subjects around them (Narashkhi, 1984). People saw palaces in this period. During political and social changes, people spotted them. Instead of royal crafts, someone saw them. These two collections are not quite like the current Iranian Farmstead. However, they are on the path of development to become like it. The third stage of change in Iranian Farmsteads is the most important. It goes from the 5th to the 13th H. Many historical and legal documents of the Ilkhanate, Safavid, and Qajar periods mention the farmsteads. They changed from royal and luxurious forms. For example, Dastkart Pre-Islam and Koushk after Islam, became small biological complexes. These spread in society and many elders, business people, and even the middle class could reach it. They also produced food. They had to meet the country's needs. They also had to pay taxes to the central government. They had to discipline, educate, and control the subjects. An example is the Nusrat Abad Farmstead near Qom city. Nusrat al-Mamalek built it during the Mohammad Shah Qajar period. Its remains are still there on about 7 hectares (Raie, 2021).

The contemporary relates to the last stage of physical and functional changes. Crises and social changes have been key. They have changed Iranian Farmsteads. The constitutional, Land and Islamic revolutions caused the Residential Farmstead to change. They took away its production and security role. They gave their economic role to modern industries. And they made it a place for recreation from the pre-Islamic periods.

Table 2: Impact of economic, social, political and culture on Farmsteads in the pre-Islamic Period

Source: Author

Titles	The pre-Islamic Period				
	BC	Medes	Achaemenian	Seleucid and Parthian	Sasanid
The influence of economic, social, political, and cultural variables in agriculture and farming	Farming is important and dignified because it provides basic needs. For this reason, images of farmers appear on the seals and pottery of that period.	Reliance on land and farming has grown. Cities now depend on villages.	A new class called feudal formed. They were rich and had much power in the kingdom's institutions. They had to provide the corps and military. They also fixed dams and canals for farming.	Agriculture's development led to a durable, stable government. It increased land prices and created new social classes. It also led to the growth of slavery.	The peasants earned a privileged status and ranked below the nobility. Ownership was a key issue in the social system. Feudalism became popular. The creators made the most primitive form of the Farmstead, known as royal Dastkart.

Table 3: The impact of economic, social, political, and cultural variables on Farmsteads in after Islamic Period to the 10th, H

Source: Author

Titles	After Islam until the end of the 4 th , H		From the 5 th to the 10 th , H	
	Early Islam and Umayyad	Samanid and Elymaioi	Qaznavid and Seljuq	Ilkhanid
The influence of economic, social, political, and cultural	The military developed feudalism and assigned it.	Developers created the real estate court. Real estate presented the elders and the	A residential farmstead is different from farmland in villages. Many	Endowment and Sivarghal ¹³ systems exploit and support both

variables in agriculture and farming	People traded land, farmsteads, and villages as economic commodities instead of gold.	military. Books and treatises explained the issues related to estates. The court expanded. The authors put these topics on the agenda.	people see it as a separate entity.	inhabited and non-inhabited Farmsteads.
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Table 4: The impact of economic, social, political, and cultural variables on Farmsteads From the 11th, H until now
Source: Author

Titles	From the 11 th , H until now		
Historical periods	Safavi	Zand and Qajar	Pahlavi
The influence of economic, social, political, and cultural variables in agriculture and farming	Developed farming and the Endowment system to protect and exploit it. In this period, the public moved towards creating and developing residential farmsteads.	Lack of proper management destroyed many royal Farmsteads. Some people bought some of them. The members formed the Constituent Assembly. It abolished tiuldari. The farmstead is falling apart. The feudal lord system is collapsing.	The big landlords were politically threatened and scattered. The agrarian reforms of the 1940s caused the migration of the lords abroad. Farmsteads to subjects weakened agricultural production and destroyed them. Many Farmsteads have abandoned or changed their use, transforming into villages.

Table 5: Physical and Functional Evolutions of Iranian Farmsteads
Source: Author

Historical periods	Pre-Islam	After Islam until the end of the 4 th , H	From the 5 th to the 13 th , H	From the 13 th , H until now
Functional status of Farmsteads	Farmsteads and agricultural lands as a social status and pride.	Farmsteads and agricultural lands as a commodity and financial prosperity.	Farmstead as economic, social, cultural, and political capital	Social, economic, and political changes affected farmsteads.
The Physical Condition of Farmsteads	Making royal Dastkart	Non-residential and agricultural Farmsteads.	Residential Farmstead	The Residential Farmstead turned into a village and decaying areas.

Growth → **Development** → **Destruction....** →

These show that changes affected Iranian Farmsteads. They were social, political, and economic. They have given the Farmsteads a unique shape in each period. It seems the preparations for the Iranian Farmstead began before Islam. They continued until the end of the 4th century. This research calls this time the period of Growth. During this period, you can see the architectural duos Daskareh and the Koushk.

These patterns helped to form the Farmstead. However, they are different from the Iranian Farmstead and do not have all the same features. It can see the whole of the Iranian Farmstead from the 5th to the end of the 13th century. It developed in the 8th century. It had unique design, management, economic, and cultural systems. These were in the political, religious, and economic structure of Iran.

This stage is the period of Iranian Farmstead Development. The Residential Farmstead is the most developed Iranian Farmstead in Iran's history. One can see examples of it in central Iran.

The end and decline of the Iranian Farmsteads have happened in the 14th century. This period is identified as 'the Destruction Period'. During this time, the social forces destroyed the Iranian Farmstead. People have forgotten its role as an economic and security enterprise. They also destroyed its architectural patterns.

Conclusions

This research examines the dimensions and characteristics of Iranian farmsteads as a heritage landscape in Iran. A review of the heritage literature, which deals with landscape issues has been carried out. Iran's farmsteads have been an economic, social, cultural, and security enterprise throughout history. They have contributed to and have influenced agriculture and food security throughout history.

The findings provide a theory about the importance of Iranian farmsteads and the protection of them as cultural landscapes. They are places of identity. Further research can be done on each representation of these fields to build dynamic protection based on them. Showing identity well increases belongingness. It can be a powerful stool to face today's challenges and save these landscapes. This will also create economic value for the historical site.

This article proposes to architects and landscape designers to recognize and use farmstead patterns. They should use them in designing new farmsteads. Patterns can include form, features, and landscape elements.

It would be beneficial for future studies to focus on heritage conservation and farmsteads. It will provide a good understanding of their sustainability, expand production and strengthen livelihood security and also prevent their extinction. This could indeed be done by providing agricultural tourism in the native and local communities of Iran. By registering and identifying them, perhaps they could be found in the GIAHS list in the future.

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References

- A'azam Waqefi, Hasan. (2000). Natanz's cultural heritage. Vol. 2, Tehran: Tehran University Press and Publishing Institute.
- Afshar, Iraj. (1995). Yazd monuments, The introduction of historic buildings and ancient monuments of Yazd city. Vols. 1, 2. Tehran: Association of Cultural Works and Honors. 2nd edition.
- Afzal Al-Molk, Gholam Hossein. (1981). Travelogue of Khorasan and Kerman. (Ghodratullah. Roshani) Tehran: Toos Publications.
- Al-Daraji, Hamid M. (2013) Aspects of traditional architecture in the city of Baghdad, Baghdad.
- Alfuraty Ali Bassim & Alkazaaly Nihad Abdulzahra. (2024). Using Heritage Architectural Elements in the Contemporary Buildings: The 'Shanashil' of Iraq. ISVS e-journal, Vol. 11, Issue 03.
- Agnoletti, M. (2006). The conservation of cultural landscapes. Wallingford.
- Ashmore, W., and B. Knapp, eds. 1999. The Archaeologies of Landscape. London: Blackwell
- Auclair E. et al. (2015). Theory and Practice in Heritage and Sustainability.
- Avni, G. (2018). Early Islamic irrigated farmsteads and the spread of qanats in Eurasia. *Water History*, 10, 313–338. <https://doi.org/10.1007/s12685-018-0225-6>
- Barker, G. (1985). Prehistoric Farming in Europe. Cambridge: Cambridge University Press.
- Bastani Rad, H. (2013). City in Iran Zamin, Tehran: Alam Publications
- Bender, B. (1998). Stonehenge: Making Space. Oxford: Berg.

- Bogaard, A. (2005). "Garden Agriculture" and the Nature of Early Farming in Europe and the near East. *World Archaeology*, 37(2), 177–196. <http://www.jstor.org/stable/40024228>
- Bogaard, A. (2004) a. Neolithic Farming in Central Europe. London: Routledge.
- Bogaard, A. (2004) b. The nature of early farming in central and southeast Europe. *Documenta Praehistorica*, 31, 49–58
- Bogucki, P. (1988) *Forest Farmers and Stockholders*. Cambridge: Cambridge University Press.
- Briant, P. (ed.) (2001). *Irrigation et drainage dans l'Antiquité, qanats et canalisations souterraines en Iran en Égypte et en Grèce*. Séminaire tenu au Collège de France sous la direction de Pierre Briant. *Persika 2*. Paris: Thotm.
- Byrd, B. F. (2000). Households in transition: Neolithic social organization within southwest Asia. In *Life in Neolithic Farming Communities: Social Organisation, Identity, and Differentiation* (ed. I. Kuijt). New York: Academic/Plenum.
- C Margaret Scarry & John F Scarry (2005) Native American 'garden agriculture' in southeastern North America, *World Archaeology*, 37:2, 259-274, DOI: 10.1080/00438243500095199
- Carpenter, S. R., et al. (2009). "Science for managing ecosystem services: Beyond the Millennium Ecosystem Assessment." *Proceedings of the National Academy of Sciences* 106(5): 1305-1312.
- Choay, F. (2001). *The invention of the historic monument*. Cambridge – Cambridge University.
- Chatelain, T. (2001). *Assèchement et bonification des terres dans l'Antiquité grecque, l'exemple du lac de Pétéchay à Érétrie: aspects terminologiques et techniques*. In *Irrigation et drainage dans l'Antiquité, qanats et canalisations souterraines en Iran en Égypte et en Grèce*. Séminaire tenu au Collège de France sous la direction de Pierre Briant. *Persika 2*. Paris: Thotm, pp. 81–108
- Childe, V. G. (1957) *The Dawn of European Civilization*. London: Routledge.
- CoE. (2000). *European Landscape Convention*. Florence: Council of Europe. <https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/176>.
- Colding, J. and S. Barthel (2019). "Exploring the discourse of the social-ecological system 20 years later." *Ecology and Society* 24(1), 67-78.
- Country Mapping Organization, (2021). *Aerial photos*
- Crumley, C. L. (1994). *Historical Ecology: Cultural Knowledge and Changing Landscapes*. Santa Fe, New Mexico: School of American Research.
- Dehgan. E. (2010). "Daskareh", in: *Quarterly of Ganjineh Sanad*, Third book, 199-202
- Dehghannejad, Morteza. & Sotoudeh, Molod. (2010). Rulership of lands in Isfahan during the reign of Nasser al-Din Shah (conditional conversion of state lands into feudal lands). *Quarterly Journal of Documents of Treasures*, Third Book, 80-91.
- Denevan, W. M. (2001). *Cultivated Landscapes of Native Amazonia and the Andes*. Oxford: Oxford University Press.
- Edward Pollack, Jacob. (1982). *Pollack's travelogue of Iran and the Iranians (Kikavus. Jahandari, Trans.)*. Tehran: Kharazmi Publications.
- Ellis, E.C., Kaplan, J.O., Fuller, D.Q., Vavrus, S., Goldewijk, K. Klein & Verburg, P.H. (2013). Used planet: a global history. *Proceedings of the National Academy of Sciences of the USA* 110: 7978–7985. <https://doi.org/10.1073/pnas.1217241110CrossRefGoogleScholarPubMed>.
- Erickson, C. L. (1996). Investigación arqueológica del sistema agrícola de los camellones en la Cuenca del Lago Titicaca del Perú. La Paz: PIWA and Centro de Información para el Desarrollo.
- Erickson, C. L. (2000). The Lake Titicaca basin: A pre-Columbian built landscape. In *Imperfect Balance: Landscape Transformations in the Precolumbian Americas*, ed. D. Lentz, 311–56. New York: Columbia University Press.
- Erickson, C. L. (2003). *Agricultural Landscapes as World Heritage: Raised Field Agriculture in Bolivia and Peru*.
- Estakhari, Abu-Ishaq Ebrahim. (1961). *Masalak and Malikas (Persian translation)*, by the efforts of Iraj Afshar, Tehran: Bank Melli Printing House.

- Etemad-ol-Saltaneh, Mohammad Hassan Khan. (1990) *Meraa't al-Baladan*, (Amirhossein. Navai & Mirhashem. Mohaddes). Tehran: Tehran University Press.
- Eugene Costello (2018) Temporary freedoms? Ethnoarchaeology of female herders at seasonal sites in northern Europe, *World Archaeology*, DOI:10.1080/00438243.2018.1472633
- Fairclough, G. (2019) Landscape and heritage: ideas from Europe for culturally based solutions in rural environments. *Journal. Environ. Plann. Manag.*
- Fairclough, G., Herlin, I. S., & Swanwick, C. (2018) *Routledge handbook of landscape character assessment: current approaches to characterization and assessment*.
- FAO. (2018) *Globally Important Agricultural Heritage Systems*. Rome: Food and Agriculture Organization of the United Nations. <http://www.fao.org/3/i9187en/I9187EN.pdf>.
- Farmanfarma, Abdul Hussein Mirza. (2004) *Kerman and Baluchestan travelogue letter*. (Iraj. Afshar). Tehran: Asatir Publications.
- Flannery, K. V. (1969). Origins and ecological effects of early domestication in Iran and the Near East. In *The Domestication and Exploitation of Plants and Animals* (eds P. J. Ucko and G. W. Dimbleby). London: Duckworth, pp. 73–100.
- Flannery, K. V. (1972). The origins of the village as a settlement type in Mesoamerica and the Near East: a comparative study, in P. J. Ucko, R. Tringham and G.W. Dimbleby (eds) *Man, Settlement, and Urbanism*, London: Duckworth.
- Flannery, K. V. (2002). The origins of the village revisited: from nuclear to extended households. *American Antiquity*, 67: 417–33.
- Foran, J. (1999). *The Fragile Resistance of the History of Social Developments in Iran from Safavid to the Post- Revolutionary Years* (Translated by A. Tadayon). Tehran: Rasa Cultural Services Institute.
- Foran, J. (1999). *The Fragile Resistance of the History of Social Developments in Iran from Safavid to the Post- Revolutionary Years* (Translated by A. Tadayon). Tehran: Rasa Cultural Services Institute.
- Ford, B. (2008). The Presentation of Self in Rural Life: The Use of Space at a Connected Farmstead. *Historical Archaeology*, 42(4), 59–75. <http://www.jstor.org/stable/25617529>
- Graham Fairclough (2019) Landscape and heritage: ideas from Europe for culturally based solutions in rural environments, *Journal of Environmental Planning and Management*, 62:7, 1149-1165, DOI: 10.1080/09640568.2018.1476026
- Groat, Linda N. (2002). *Architectural Research Methods*, London: Architectural Press.
- Halstead, P. (1989) a. Like rising damp? An ecological approach to the spread of farming in south east and central Europe. In *The Beginnings of Agriculture* (eds A. Milles, D. Williams and N. Gardner). Oxford: British Archaeological Reports, International Series 496, 23–53.
- Hann, J. H. (1986). Translation of Alonso de Leturiondo's Memorial to the King of Spain. *Florida Archaeology*, 2: 165–225.
- Hegel. G.W.F (1993). *Introductory Lectures on Aesthetics*, trans. B. Bosanquet, London: Penguin,
- Hosseini-Yazdi, S. R. D. (1962). *Jame al-Kheirat. Efforts*, (I. Afshar & M. T. Daneshpajoo). Tehran: Farhang Iran Zamin Publications.
- Ingold, T. 1993. The temporality of the landscape. *World Archaeology* 25(2):152–74.
- Kaboli, Mirabdin. (1973). *Shahdad Archaeological Excavations Report*, Cultural Heritage Organization of the country.
- Khosravi. S and Alibeigi. S. (2006). "Painting of Iron Age farmers on a piece of pottery from Rabat Karim, Tehran", in: *Journal of Ancient Studies, New Period*, 5(1), 143-161.
- Krasilnikoff, J. A. (2010). Irrigation as innovation in ancient Greek agriculture. *World Archaeology*, 42(1), 108–121. <http://www.jstor.org/stable/25679730>
- Kristensen, Arthur. (1995). *The nation, the state, and the court during the Sassanid Empire* (Mojtaba. Minavi, Trans.). Tehran: Institute of Humanities and Cultural Studies.
- Lambton, Ann Katharine Swynford. (1966). *Owner and farmer in Iran* (Manouchehr. Amiri, Trans.). Tehran: Book Translation and Publishing Company.
- Lansing, J. Stephen. (1991) *Priests and Programmers: Technologies of Power in the Engineered Landscape of Bali*. Princeton: Princeton University Press.

- Loulanski, T. (2006) Revising the concept for cultural heritage: The argument for a functional approach. *International Journal of Cultural Property*, 13, 207–223. <https://doi.org/10.1017/S0940739106060085>.
- Lounsbury, J. F. (1955) Farmsteads in Puerto Rico and Their Interpretative Value. *Geographical Review*, 45(3), 347–358. <https://doi.org/10.2307/211808>
- Lu'ning, J. (2000) *Steinzeitliche Bauern in Deutschland – die Landwirtschaft im Neolithikum*. Bonn: Dr. Rudolf Habelt GmbH.
- Maeve McHugh (2019) To reap a rich harvest: experiencing agricultural labor in ancient Greece, *World Archaeology*, 51:2, 208-225, DOI: 10.1080/00438243.2019.1612193
- Mark D. Groover & S. Homes Hogue (2014) Reconstructing Nineteenth Century Midwest Foodways: Ceramic and Zooarchaeological Information from the MooreYouse House and Huddleston Farmstead, *Midcontinental Journal of Archaeology*, 39:2, 130-144, DOI: 10.1179/2327427113Y.0000000004
- McGlade, J. (1999) Archaeology and the evolution of cultural landscapes: Towards an interdisciplinary research agenda, in: P. Ucko and R. Layton (edited), *The Archaeology and Anthropology of Landscapes*, London: Routledge.
- Mohammad Moradi, A., et al. (2017). "An Inception on the Perception of the Inhabiting Farmsteads in Yazd." *Journal of Research in Islamic Architecture* 4(4), 1-21.
- Mohseni, Seyed Mohsen. (2014) "Sadr al-Malak Ardabili and the endowment of Nusrat Abad Qom" in *Marzban Farhang*, Qom: Nourmtaf, 2(2), 34-45.
- Mortazavi Tabrizi, Massoud. (2013) *Migration of villagers to cities and its economic and political effects during the second Pahlavi era*, Islamic Revolution Documentary Center.
- Najm al-Molk, MirzaAbdulghafar. (2006) *Travelogue of Khuzestan*. (Mohammad. abirsiaghi). Tehran: Association of Cultural Works and Honors.
- Narshakhi, Abu Bakr Mohammad bin Jafar. (1984) *History of Bukhara*, translated by Abu-Nasr Ahmed Ibn Muhammad Ibn Nasr Qabadi, Talkhis Muhammad Ibn Zafar Ibn Umar, revised and updated by Muhammad Taqi Modares Razavi, Tos Publications
- Netting, R. (1993). *Smallholders, Householders: Farm Families and the Ecology of Intensive, Sustainable Agriculture*. Stanford: Stanford University Press.
- Pándi, I., Penksza, K., Botta-Dukát, Z. et al. (2014) People move but cultivated plants stay: abandoned farmsteads support the persistence and spread of alien plants. *Biodivers Conserv* 23, 1289–1302. <https://doi.org/10.1007/s10531-014-0665-y>
- Pigoloskaya, N. et al., (2007). *Iranian cities during the Parthian and Sassanian eras* (R. Enaytullah, translator) Tehran: Scientific and Cultural Publications.
- Piperno, D. R., and D. M. Pearsall. (1998) *The Origins of Agriculture in the Lowland Neotropics*. New York: Academic Press.
- Prieto, A. (2005) *Landscape organization in Magna Graecia*. Doctoral dissertation, Department of Archaeology, University of Texas, Austin.
- Qomi, Hassan bin Abdul Malik. (2006) *History of Qom*, (Sayed Jallal al- Din Tehrani). Zaer Publications.
- Raie, H. and A. Kamrani (2021) "Study of the Characteristics of Historical Farmsteads in Iran." *International Journal of Architectural Engineering & Urban Planning* 31(4): 1-8.
- Raie, H. and M. Biglari (2021) "Construction of Dulatabad Farmstead in Qom, from the beginning to the end." *Journal of Architecture in Hot and Dry Climates* 9(13): 59-77.
- Raie, Hosein. (2020) The System Forming the Architecture of the Historical Farmlands in the Central Plateau of Iran. *Journal of Architecture in Hot and Dry Climate*, 8 (11), 49-76.
- Raie, Hosein. (2021) Hidden capabilities in historical farmstead of Niasar. *Journal of Iranian Architecture and Urbansim*, 12 (1), 157- 174.
- Redman, C. (1999) *Human Impact on Ancient Environments*. Tucson: University of Arizona Press.
- Rössler, M. (2006) World Heritage cultural landscapes: A UNESCO flagship programme 1992–2006. *Landscape Research*, 31(4), 333–353. <https://doi.org/10.1080/01426390601004210>.
- Rowley-Conwy, P. (1981) *Slash and burn in the temperate European Neolithic*. In *Farming Practice in British Prehistory* (ed. R. Mercer). Edinburgh: Edinburgh University Press,

- Sheikh Al-Hakmaei, E. D. (2009). Iranian architectural Documents. Vol. 1. Tehran: Institute for Writing, Translating and Publishing Works of Art.
- Sherratt, A. 1980. Water, soil and seasonality in early cereal cultivation, *World Archaeology*, 2: 313–30.
- Soltanzadeh, Hossein. (1986). An introduction to the history of cities and urbanization in Iran, Tehran: Abhi Publishing.
- Stahl, P. (1996). Holocene biodiversity: An archaeological perspective from the Americas. *Annual Review of Anthropology*, 25:105–26.
- Stump, D. (2013). “On Applied Archaeology, Indigenous Knowledge, and the Usable Past.” *Current Anthropology* 54 (3), 268–298. [doi:10.1086/670330](https://doi.org/10.1086/670330).
- Swanton J.R. (1946) The Indians of the Southeastern United States Bureau of American Ethnology Bulletin 137. Washington, DC: Government Printing Office [Google Scholar].
- Tavangar Marvasti, Majid. (2015). Castle of historical villages of Harat and Marvast districts of Yazd province. Tehran: Sobhan Noor Publications.
- Thomas, L. (2001) The gendered division of labor in Mississippian households. In *Archaeological Studies of Gender in the Southeastern United States* (eds J. Eastman and C. Rodning). Gainesville, FL: University Press of Florida.
- Tilley, C. (1994). *A Phenomenology of Landscape: Places, Paths, and Monuments*. Providence: Berg.
- Tishler, W. H. (1978). The Site Arrangement of Rural Farmsteads. *Bulletin of the Association for Preservation Technology*, 10(1), 63–78. <https://doi.org/10.2307/1493729>
- UNESCO Regional Office. (2009) *Executive Guide to the World Heritage Convention* (Farzin. Fardanesh, Trans.). Tehran: Regional Office Publications.
- UNESCO, The List, World Heritage List. <https://whc.unesco.org/en/list/?search=Farmstead&order=country>
- Wenhold, L. L. (1936) A 17th-century letter of Gabriel D’az Vara Calderon, Bishop of Cuba, describing the Indians and Indian missions of Florida. *Smithsonian Miscellaneous Collections*, 95(16), 56-78. Washington, DC: Government Printing Office.
- Whittle, A. (2003) *The archaeology of people. Dimensions of Neolithic life*. London & New York: Routledge.
- Wolf, E. R. (1982). *Europe and the People without History*. Berkeley: University of California Press.
- Wright, David & McGowan, Kevin & Flynn, Christopher & Stretton, Sean & Prchal, Marcy & Brannock-Gaul, Susan. (2014) A Geo-Historical Study of Site Formation at a Nineteenth-Century Farmstead in Lake County, Illinois. *International Journal of Historical Archaeology*. 18(3), 45-67, 18. [10.1007/s10761-014-0277-y](https://doi.org/10.1007/s10761-014-0277-y).
- Wright, David & McGowan, Kevin & Flynn, Christopher & Stretton, Sean & Prchal, Marcy & Brannock-Gaul, Susan. (2014) A Geo-Historical Study of Site Formation at a Nineteenth-Century Farmstead in Lake County, Illinois. *International Journal of Historical Archaeology*. 18(3) 78-99, 18. [10.1007/s10761-014-0277-y](https://doi.org/10.1007/s10761-014-0277-y).
- Yesenia Garcia Zauner, Isaac I T Ullah, Nicholas Ames, Meredith Chesson. (2019) *Laborscapes and Archaeologies of Sustainability: Early Globalization and Commercial Farming in the San Pasquale* *Journal of Mediterranean Archaeology* 32.1