



## Archaeological Investigation and Analysis of the Settlement Patterns of Middle Islamic Sites in Namin County, Ardabil

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### ABSTRACT

Namin County, located in the eastern part of the northwestern region of Iran, has long been one of the important centers of human societies in various cultural periods. However, despite the wealth of cultural heritage, archaeological research in this area has been limited, and there is a need for coherent archaeological studies. To complete the archaeological knowledge of the region, an archaeological survey was conducted by the author in 2017 to identify and document Islamic era sites in the southern part of Namin County. The current study presents the preliminary results of this research and seeks to answer the following questions: 1- What was the most important factor in the formation of Islamic era sites in Namin County? 2- What was the pattern of settlement distribution in Islamic era Namin County? To answer these questions, field investigation and library research methods were employed. Additionally, GIS software was used to analyze cultural data and settlement patterns. The findings of the research show that settlement areas, in addition to being influenced by geographical factors, were also impacted by key factors such as political and security conditions and a suitable livelihood economy. During the Islamic era, with the increase of small enclosures and the emergence of large central enclosures, these enclosures became connected through hierarchical structures and various types of models.

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## Introduction

Namin County is located in the eastern part of the northwestern region of Iran. Despite its rich cultural heritage, very limited archaeological research has been conducted in this area. This lack of studies has resulted in an incomplete understanding within the scientific community regarding the cultural periods, their sequence, and the settlement patterns of its sites. Therefore, to gain a comprehensive understanding of the region's cultural status and site distribution, systematic archaeological surveys are necessary to identify cultural periods and their chronology.

Humans have significantly influenced their surrounding ecosystems, becoming an integral part of them and adapting accordingly. To understand human characteristics and behaviors, it is essential to analyze the environment and the factors affecting it.

Accordingly, in 2016, an archaeological survey, followed by a research investigation in 2018, was conducted in Namin County with the aim of identifying Islamic-era sites. This research not only documented comprehensive preliminary data for each site but also utilized GIS software to analyze geographical factors influencing the formation, development, and even collapse of these sites. The necessity of such research becomes evident considering that archaeological knowledge of Namin County has largely relied on the findings of Jacques de Morgan, a French archaeologist (Khalatbari, 2008: 54). While his excavations provided a relative understanding of the region's burial sites, the northeastern part of northwestern Iran has held significant importance across different cultural periods, necessitating independent studies for each period.

De Morgan's surveys in the late 19th century aimed to identify and excavate megalithic tombs in the Talesh and eastern Ardabil regions, marking the first archaeological activities in Ardabil Province and Namin County (Khalatbari, 2008: 54; De Morgan, 1905: 127). His excavations in Iranian and Russian Talesh, as well as around Namin, led to the discovery of artifacts dating from the second half of the second millennium BCE to the early first millennium BCE (Iron Age) (Alizadeh, 2016; Alizadeh *et al.*, 2018: 225). Additionally, preliminary archaeological surveys of Ardabil Province, conducted by the Cultural Heritage Administration in 1974, 1999, and 2003,

identified and registered a limited number of prehistoric, historical, and Islamic-era sites. Further, a survey in northern Namin County, led by Mohammad Alizadeh in the autumn of 2015, documented and registered 175 sites spanning prehistoric, historical, and Islamic periods. Moreover, the author's investigative survey in 2018 in the southern part (Vilkeij) of Namin County identified 30 Islamic sites as part of a doctoral dissertation project. These studies represent some of the most significant field and research efforts on Islamic and earlier sites in Namin County.

Unlike other periods, archaeological studies of the Islamic era in Ardabil Province have received considerably less attention and suffer from fundamental shortcomings. Knowledge of this period is mainly derived from studies at sites such as Jomeh Mosque in Ardabil (Yousefi, 2019), Oltan Qalehsi in Moghan (Alizadeh, 2007), Barzend Qalehsi in Germe (Mohammadi, 2018), Yel Sui in Engut (Tahmasebi, 2019), Alajogh Fortress in Engut (Mohammadi, 2019), and Ojagh Artavil Tair (Sattarnezhad, 2021).

A critical review of these studies reveals that no comprehensive research has yet been conducted on the Islamic-era sites of Namin County. This study aims to address two key questions:

1. What were the primary factors influencing the formation of Islamic-era sites in Namin County?
2. What was the settlement pattern of Islamic-era sites in Namin County?

## Methodology

The present research has been conducted using field surveys and library studies. In the field survey, surface investigations of Islamic-era sites were carried out, during which diagnostic pottery sherds from each site were collected. Additionally, the dimensions of settlement sites, geographical factors, and site characteristics were recorded, followed by site documentation. Subsequently, based on comparative-analytical studies of the findings and pottery sherds and their comparison with contemporary diagnostic ceramics from key reference sites, cultural data were analyzed, and a relative chronology for each site was established. Furthermore, ArcGIS software was employed to analyze settlement site distribution patterns, and zoning maps depicting geographical attributes alongside

settlement site distribution were designed and drawn.

## Discussion

### *Environmental Factors Influencing Settlements*

Namin County is located in the east of Ardabil Province, in the easternmost part of Azerbaijan, Iran (Fig. 1). It borders Gilan Province to the east, the Republic of Azerbaijan to the north, Ardabil County to the west, and Khalkhal County to the south. Geographically, it lies between two distinct climatic zones: the humid and temperate Caspian coastal climate and the cold, mountainous climate of Sabalan (Khamachi, 1991: 506).

The Astara-Heyran-Ardabil route (Heyran Pass) serves as a major communication axis connecting northern Iran to Azerbaijan, passing

through this county and historically being one of the most significant transportation routes (Yousefi & Haqi, 2014: 3).

Namin County covers an area of approximately 2,000 square kilometers and has a population of nearly 100,000 people. It is divided into three districts: Central, Anbaran, and Vilkej. Additionally, the county comprises more than 100 villages (Statistical Yearbook of the Province, 2020: 173). From a geographical perspective, the region can be divided into two parts: the eastern and northeastern sections, which are entirely mountainous and forested, and the western and southwestern sections, which are relatively flat and consist of plains. The Talesh (Baghru) Mountains, located in the east of the county, serve as a natural border with Gilan Province (Erfani Namin, 2010: 27).

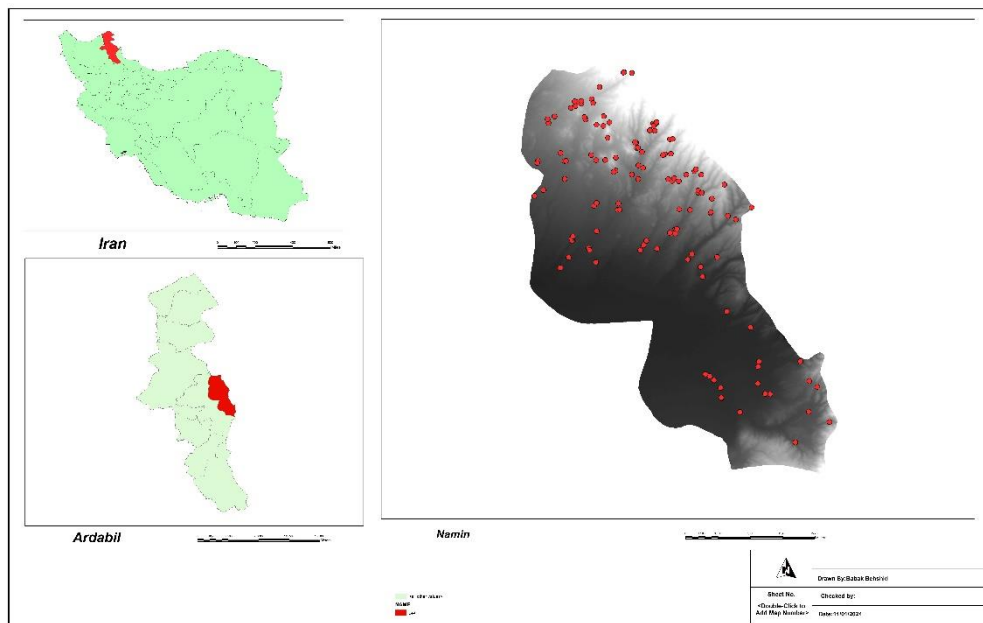


Figure 1: The location of Namin County on the map of Iran and the distribution of its settlements (Author, 2024).

### *Islamic Period Sites in Namin County*

In the 2015 archaeological survey conducted in the central and Anbaran districts of Namin County, led by Dr. Mohammad Alizadeh (with the author serving as deputy and a research team member under his written permission), a total of 105 Islamic-period sites were identified (Alizadeh, 2016: 891).

This survey was conducted to analyze settlement patterns and relative chronology. Additionally, during the author's investigative research from 2017 onward, besides re-examining key sites in the northern part of the

province to collect more cultural materials and ceramic fragments, another 30 Islamic-period sites from the Middle Islamic centuries were identified and documented in the southern part of Namin County (Vilkej district). For the documentation of these sites, various data were recorded, including site size, elevation, surface cultural materials, site degradation, and geographical and environmental factors such as access to water sources, distance from communication routes, pastures, surrounding lands, elevation above sea level, slope, and soil composition.

The chronological framework of each site was primarily based on ceramic typology and comparative analysis. Ceramic fragments from each site were studied based on variables such as form, glaze color, and decoration, and were compared with well-dated ceramics from other sites in Ardabil and beyond. The identified sites mostly date to the Middle Islamic centuries (Seljuk and Ilkhanid) and the Safavid period. The studied sites share common characteristics, including:

1. They are generally located near present-day villages.
2. They are well known among local communities.
3. They bear names such as Kharabeh Yeri, Ochuq Yer, and Qaleh Yeri.

The distribution of these sites is influenced by geographical and political factors, with settlement patterns dependent on these variables.

#### *Environmental Factors Influencing Settlements*

The formation, type, and density of archaeological settlements are shaped by both environmental and historical factors. Among environmental influences, high elevation, natural routes leading to plains, and the presence of mountain pastures for seasonal transhumance were key factors in shaping nomadic communities (Tayefe-Ghahremani *et al.*, 2019: 82).

The proximity to rivers was a crucial factor in settlement formation, as water sources contributed to fertile soil through river deposits rich in minerals, ensuring sufficient moisture and vegetation for both livestock herding and agriculture (Provincial Statistical Yearbook, 2020: 174) (Fig. 2). The region's vegetation cover provides ample resources for farming and grazing, with richer vegetation leading to a higher concentration of settlements (Yousefi & Haqi, 2014: 66-67). Due to Namin's intermountain and Caspian-border climate, its diverse elevation levels support a variety of plant species, ranging from oak, hazelnut, and medlar trees in forested areas to grasslands (Provincial Statistical Yearbook, 2020: 175).

Soil composition also significantly influences the density and speed of plant growth and plays a key role in settlement formation. Soil quality affects not only agriculture but also serves as a construction material for dwellings. More fertile

and mineral-rich soils tend to attract more temporary and permanent settlements (Provincial Statistical Yearbook, 2020: 177).

The elevation of the land plays a crucial role in moisture retention and the creation of microclimates. Different landforms—such as valleys, plains, hills, and fortresses—are shaped by varying elevations, which, in turn, influence vegetation patterns and settlement structures (Provincial Statistical Yearbook, 2020: 178).

Geomorphology, the study of landform structures, examines the composition of landscapes and classifies different landforms systematically (Mahmoudi, 2004: 46). Slope inclination affects the absorption of rain and snowmelt, influencing vegetation growth and attracting pastoral and nomadic communities. It also contributes to the formation of fertile lands for agriculture and livestock grazing (Yousefi & Haqi, 2014: 60).

Slope orientation, the direction of maximum slope variation (Ramesht, 2010: 35), is also a critical factor in settlement choice. Different orientations provide varying degrees of sunlight exposure, flood protection, and wind shelter. Since ancient times, optimal slope inclination and orientation were crucial factors in selecting sites for both temporary and permanent settlements (Tayefe-Ghahremani *et al.*, 2019: 74) (Fig. 2).

#### *Political Agency and Secure Communication Route*

Government stability and security are among the key human factors influencing settlement patterns and habitat models in the medieval Islamic period. The best way to understand this issue is by examining the structural nature of settlements and their distance from communication routes. This study investigates the correlation between proximity to communication routes and the number of permanent and temporary settlements, shedding light on the influence of this factor on the formation of archaeological sites.

Before Islam, the region of Namin saw the presence of various ethnic groups. According to De Morgan, the early inhabitants of Namin, Astara, and the Caspian Sea region had close ties in terms of architecture and culture (De Morgan, 1905: 127). Groups such as the "Cassi" and "Kadusians," whose presence is confirmed by dolmens and large stone circles, are part of this history.



The Kadusians, later referred to as "Kadusians" and "Caspian" by the "Gels," were closely related to the Gutians and Cassians (Diakonov, 2002: 35; Erfani Namin, 2010: 41). The territory of the Kadusians extended from the western shores of the Sefidrud River to the Kura and Aras rivers, including mountainous, hard-to-

reach regions (Abdoli, 1999: 31). The Cassians also migrated from northern lands and the Caucasus to the western shores of the Caspian Sea, eventually settling in regions such as Talesh, Ardabil, and the Caspian coast. Like the Kadusians, they placed great importance on horse breeding (Ghirshman, 1985: 55).

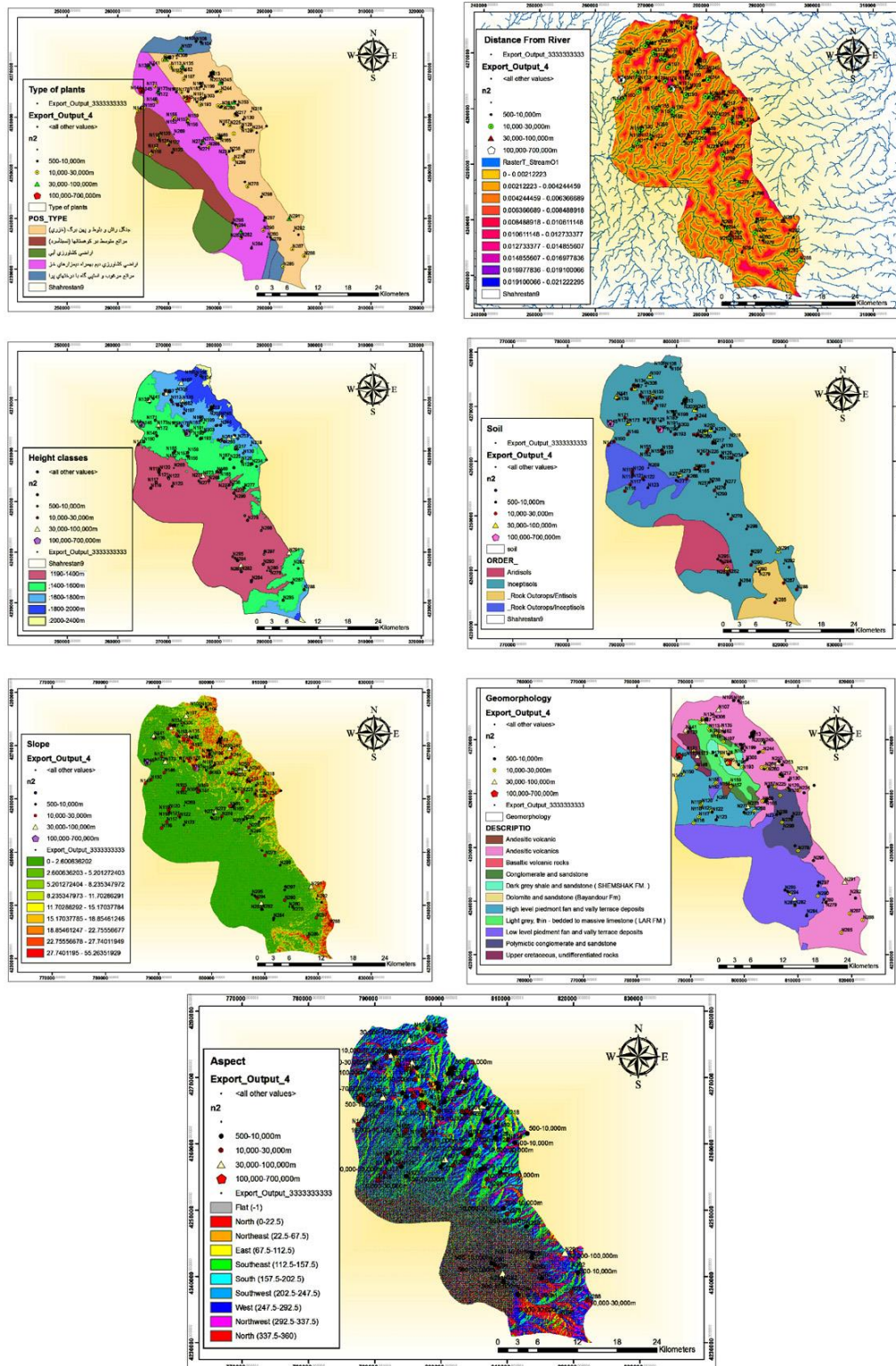


Figure 2: Distribution map of settlement sites in relation to environmental factors (Author, 2024).

Until the arrival of the Arabs in Azerbaijan, the people of Namin remained adherents of Zoroastrianism. Yaqoubi provides a better description of the local population: "The inhabitants of cities and provinces in Azerbaijan are from the ancient 'Ajams,' namely 'Azariyah' and 'Javadaniyah'" (Baladhuri, 1985: 85 - Yaqoubi, 2010: 245- Tabari, 1989: 1981). Despite the persistence of Zoroastrian temples, the favorable climate and agricultural potential gradually led to the region's conquest by the Arabs. During the early Islamic centuries, multiple national-religious movements occurred against Arab rule in Azerbaijan and the Namin-Talesh region (Mostofi, 2002: 78).

Following the decline of these movements, in the middle of the third century AH, the Sajids took power, and in the fourth century AH, the Salaris, followed by the Seljuks in the fifth century, ruled over Ardabil, Azerbaijan, and Arran (Boyle, 2006). Amir Yaqoubi, nephew of Toghril, ruled for a time in Azerbaijan and Ardabil (Ashtiani, 2001: 273).

During the reign of Malik Shah, Malik Jamshid ruled the regions of Ardabil, Talesh, and Vilkiy (Erfani, 2010: 64). During the reign of Ghazan Khan, Alishah, a relative of his, ruled Vilkiy and Astara (Ibid: 67). In the late 8th and early 9th centuries, Timur passed through the region while marching toward Georgia (Brioun, 2018: 166). The ancestors of the Safavids, including Firuz Shah Zarin-Kolah, were appointed as governors around Gilan and Ardabil, and they played a significant role in the region's religious and cultural guidance (Khonji, 2003: 257). The influence of political and climatic conditions shaped settlement patterns during various Islamic dynasties. After the Treaty of Turkmenchay and the partition of Talesh between Russia and Iran, local tribal powers gradually declined, signaling the eventual end of this period. The preference for settlement in areas with high concealment and secure communication routes reflects the region's history of warfare and instability.

### Summary

This study addresses the following research questions:

- 1- What was the main factor in the formation of medieval Islamic settlements in Namin?
- 2- How did the settlement pattern of the Islamic period in Namin evolve?

The results indicate that settlement sites were influenced not only by geographic factors but also by political stability, security, and economic conditions. The emergence of both nomadic settlements and large central sites shows the intricate relationship between settlements and hierarchical structures.

This study categorizes four types of archaeological sites based on size and significance, ranging from central permanent settlements to temporary nomadic ones. Using GIS mapping, the research reveals the distribution of smaller settlements in relation to larger, more permanent ones. The settlement pattern reflects ancient communication routes connecting the southwestern region to the east and northeast, illustrating the defensive and economic dynamics of these areas (Fig. 3).

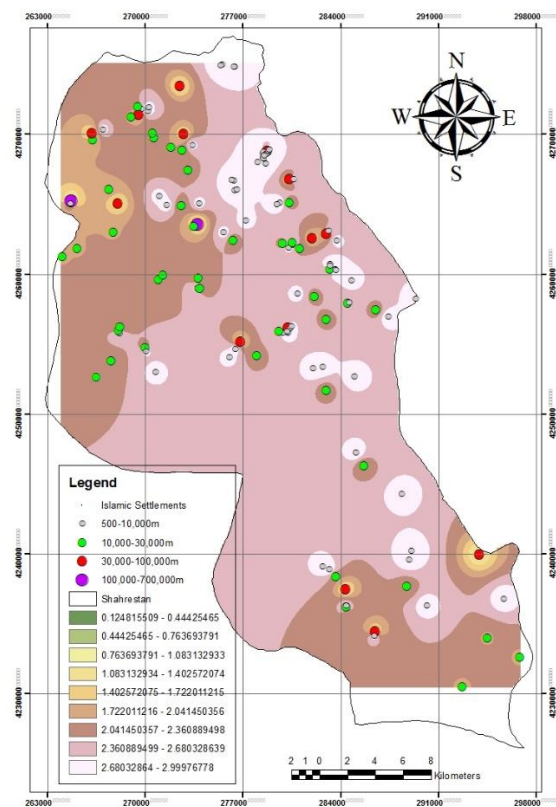


Figure 3: Distribution map and relationship of temporary settlement sites in relation to larger and permanent central sites (Author, 2024).

### Conclusion

In the Medieval Islamic centuries, we witnessed the emergence of large central settlements and a significant increase in temporary settlements. Most of the smaller and temporary settlements are scattered around the permanent sites, indicating their distance from sedentary

communities and their semi-nomadic status. This situation also reflects their economic dependency on these central settlements and their limited settlement choices based on a few environmental factors, such as access to sufficient water resources and grazing vegetation for their livestock. These settlements are mostly located in the central plains, foothills of low mountains, and along rivers in the eastern and northeastern parts of the county. In contrast, permanent and central settlements are primarily concentrated in the northwest, west, and south (far from communication routes and near water springs rather than rivers).

The concentration of some sites in the foothills rather than alluvial plains may be due to the need for security against natural and human threats or due to difficulties in identifying all buried settlements in the alluvial plains. The southern and western parts of the county, in addition to their nomadic structure and seasonal migration along rivers and oases, also feature sedentary agricultural settlements. These areas, with a large volume of irrigated and rainfed land, continue the nomadic lifestyle and choose locations on flat, elevated hills rather than the surrounding alluvial and marshy plains.

Nomads spent their winters in the plains and forests, even in the fertile alluvial and southern regions of the county. In summer, they migrated through river routes to the higher pastures in the northeastern and eastern parts and even to the southeastern pastures and the Caspian coast. The connection of these temporary sites with larger, permanent central settlements was facilitated through intermediate and smaller settlements. The exchange of goods, provision of services, and security were maintained by living in close proximity to one another, often in a clustered or chain-like formation.

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It should be noted that part of this research is based on Babak Behshid's doctoral dissertation

titled "Analysis of Settlement Patterns in the Medieval Islamic Period in Namin County."

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