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Original Research Article

Typology of Mosques in the Caspian Cultural Region

The Intertwining of Vernacular and Ritual Patterns

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ABSTRACT

The mosques of the Caspian cultural region represent a relatively understudied area within Iranian religious architecture. These structures are deeply influenced by the region's climatic conditions, vernacular materials, and local modes of life, whereas conventional mosque typologies in Islamic architecture have predominantly been shaped around central Iranian patterns. The spatial organization of northern Iranian mosques diverges significantly from these dominant models, necessitating a new, context-sensitive typological approach. This study aims to identify and analyze the defining spatial types of mosques in this region and to propose a typological model rooted in local characteristics. Two core research questions are addressed in this study: (1) What are the foundational vernacular architectural patterns that inform the typology of mosques in the Caspian cultural zone? (2) What typological categories can these mosques be systematically classified into? The central hypothesis posits that prominent mosque types in northern Iran, characterized by elements such as "eyvān" and timber-built shabestān, form a distinct structural category independent of the central Iranian prototypes. These types employ a layered spatial system composed of enclosed, semi-enclosed, and open areas. Methodologically, the research is based on descriptive-comparative analysis, field surveys, and interpretation of historical sources and existing architectural plans. From 44 mosques examined across the three northern provinces, six primary types and three subtypes were identified. Findings reveal that the "Caspian shabestān" accounts for 45% of the cases, making it the dominant typology, alongside other forms incorporating Caspian eyvān, "miyānsarā", and "tanabi". The study concludes that mosque typology in this region reflects not only climatic adaptation but also a meaningful integration of vernacular patterns with ritual functions, offering a flexible model for analyzing religious architecture in local contexts.

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Introduction

The architecture of mosques in Iran, as one of the principal manifestations of Islamic art, has consistently reflected the transformations experienced by Iranian society throughout history. Following the advent of Islam, these structures emerged not only as sacred places of worship but also as prominent social and cultural hubs, playing a pivotal role in shaping the spatial organization of Islamic cities (Behzadfar, 1997). The structurally resilient and symbolically enriched form of Iranian mosques—rooted in religious beliefs and Islamic identity—has dynamically aligned with the climatic, cultural, and geographical conditions of each region (Bemanian et al, 2016; Hillenbrand, 2021). This alignment is evident in the creation of adaptable spaces meeting various religious and social needs and in the continued central role of the mosque as a primary social unit within Islamic urban contexts (Mahdavinejad et al, 2014). Analogous to the role of the church in Christianity, the mosque functions as a foundational archetype for shaping other major Islamic architectural forms, offering a sacred and spiritually guided experience that reflects a sense of natural harmony and tranquility (Nasr, 2015).

Typology, in this context, serves as a key tool for categorizing architecturally related structures based on shared features and criteria. It is, in broader terms, a systematic approach to analyzing and classifying a range of designed forms that, while sharing common traits, remain subject to variation (Deming & Swaffield, 2011). The typological process extends beyond mere physical description; through diagramming and articulation of diverse characteristics, it allows for the recognition of structural and derivative typologies that persist over time and function as core components in the formation of architectural and urban forms. In this way, typology surpasses the bounds of a simple classification method, becoming an analytical lens for understanding the foundational logic behind design patterns. It facilitates the identification of spatial permanence and transformation, particularly in historical contexts, while also opening possibilities for adapting design concepts to new cultural and environmental conditions. As such, typology in architectural and urban studies not only bridges historical insight with contemporary interpretations of form but also presents new horizons for future design and spatial organization.

Research Background

A significant body of research in Islamic art and architectural history has focused on generalized typologies and stylistic classifications—an approach exemplified in the works of scholars such as Pope (1986), Hillenbrand (2021), Pirnia (2001), and Kiani (2000). These historians primarily addressed dominant styles across the Islamic world (including Arab, Ottoman, and Iranian types), analyzing mosque architecture from a macro-historical perspective. However, this approach often overlooks the local and regional specificities of northern Iran. The architecture of the Caspian littoral—referred to here as the Caspian Cultural Zone—has rarely been treated as a distinct or independently significant area requiring tailored analysis. While classical typologies —such as the "sahn" (courtyard), shabestān (prayer hall), or the eyvān (semi-open porch)—help clarify dominant mosque forms in Islamic tradition, they often fall short in engaging with local contexts, especially in representing the spatial and morphological diversity of mosque architecture in this region.

A review of mosque typology studies across various Iranian regions reveals a continued reliance on traditional art-historical frameworks, often reproduced with minor regional adjustments — such as the addition of shabestāns, courtyards, eyvāns, or domes — rather than substantive conceptual innovation. Although numerous studies have emerged from areas such as Sanandaj (Zarei e, 2015; Zeynali Azim & Tavakkoli Moghadam, 2024), Baluchestan (Pasian Khamari et al., 2017), Hormozgan (Azhdari et al., 2024), Bushehr (Moradzadeh & Nejad Ebrahimi, 2018), Qazvin (Hayaty & Nikkhahan, 2023), Khorasan (Mousavi & Hamzenezhad, 2019), Azerbaijan (Farmani & Me'marian, 2023), Fars (Zakeri et al.,2024), Kordestan (Khadem-zadeh et al., 2017), and Kashan (Jayhani & Saberi, 2023), many remain directly grounded in classical typologies or offer only minor variations thereof. In contrast, focused academic inquiry into the architectural diversity of the Caspian Cultural Zone remains rare. The only notable study in this field centers on the courtyard typology, which does not adequately account for the region's architectural diversity (Ebrahimzadeh et al., 2021). This gap clearly evidences a pressing need for evolving conventional typological frameworks toward more flexible, context-responsive models — capable of

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capturing the spatial and morphological intricacies characteristic of northern Iranian mosques.

Research Question

Given the limited body of research focused on the religious architecture of the Caspian coastal region—and the inadequacy of classical typological approaches to account for the diversity and vernacular characteristics of this area—there is a growing need for a mosque typology specifically tailored to the Caspian cultural zone. Despite this, it remains unclear which elements have played a central role in shaping the form and spatial organization of these mosques, and how they can be classified within a flexible, locally grounded framework. Accordingly, this study is structured around two core research questions:

1. What foundational vernacular architectural patterns underpin the typology of mosques in the Caspian cultural region?
2. What distinct types can these mosques be classified into?

Research Objective

The primary objective of this research is to propose a novel typological model based on the physical and climatic characteristics unique to the Caspian context; one that reflects the environmental, social, and technical dimensions of the region, while also overcoming the limitations of conventional typological models. The study's methodology is grounded in logical reasoning and the interpretation of historical and field data. First, the historical and climatic context of northern Iranian mosques is examined to identify the key criteria for typological classification. These criteria are then analyzed through descriptive-analytical methods and compared with the broader theoretical foundations of mosque architecture in Iran. This process ultimately leads to the formulation of a new, region-specific typological model.

Caspian Cultural Region

According to ancient texts, a territory known as Farshwadgar or Farshwadjar encompassed a vast mountainous area situated along the lowlands of the Caspian region, including parts of Azerbaijan and Rey, as well as the areas of Gorgan, Tabaristan (which encompassed "Deylam"), and Guilan (Madelung, 2011). As narrated by Ibn al-Faqih al-Hamadani in his book Kitāb al-Buldān (290 AH/903 CE) and by Baha al-Din Muhammad ibn Hassan Esfandiyar in Tarikh-e Tabaristan, major cities of this domain, such as Amol, Sari, Tamisheh, Chalus, and Gorgan, alongside regions like Gil and Deylam, were mentioned (Shojashafiei, 1998, 23-25), indicating the historical continuity of this land. Ibn al-Faqih al-Hamadani, in his description of Tabaristan, writes: "Amol is the central city of Tabaristan, and it holds a lofty position. Following it is Tamisheh, located nine farsakhs (approximately 50-60 kilometers) from Sari and on the border of Gorgan; this is the end of Tabaristan" (ibid., 23 & 24). Other sources also describe Tabaristan as a region comprising extensive plains and wide valleys, stretching over an area larger than a modern-day province, such that its borders sometimes extended to Gorgan and Guilan (ibid., 25 & 28).

Today, the historical Caspian region roughly corresponds to the three northern provinces of Golestan, Mazandaran, and Guilan—areas historically referred to in classical texts as Gorgan, Tabaristan, Deylam, and Guilan. Although modern administrative divisions have separated these territories, their cultural, historical, and ecological unity remains clearly evident. This region has long exhibited strong geographic coherence in terms of climate, natural resources, and architectural traditions. The map below (Fig. 1) illustrates the historical boundaries of this northern domain based on interpretations of early textual sources.

Following the advent of Islam, the area remained largely outside the control of the Islamic Caliphate for an extended period, owing to its mountainous terrain and strong local resistance. The earliest recorded military encounters between Arab forces and the espahbods (local rulers) of Tabaristan and Deylam occurred in the first Islamic century. Although major cities such as Amol and Gorgan were eventually integrated into the Islamic realm, the region witnessed prolonged phases of autonomy and resistance. In subsequent centuries, the Caspian zone came under the influence of several imperial dynasties, including the Seljuks, Ghaznavids, and Khwarazmshahs. Simultaneously, it served as a center of political unrest, witnessing uprisings by the Deylamites and Zaydis factions challenging centralized rule. The Mongol invasion and the ensuing political upheavals significantly altered the social structures of the region. In the later

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Islamic centuries, Tabaristan and Guilan became strongholds for Shi'i movements and oppositional forces to the Abbasid Caliphate, playing a pivotal role in shaping the broader contours of Iranian history (Fig. 2).

• Vernacular architecture in the Caspian cultural region

The vernacular architecture of the Caspian cultural region has evolved in direct response to its temperate and humid climate, which is characterized by relatively high levels of rainfall. Structures are typically constructed with lightweight and organic materials—including wood, thatch, and rice stalks—yielding environmentally responsive forms that are in harmony with the natural landscape. Residential architecture in this region is typically extroverted in layout, with many components—such as eyvāns (semi-open porches) and "gholāmgardesh" (peripheral circulation corridors)—designed as semi-open or fully open spaces to maximize natural ventilation and ensure thermal comfort.

Fig. 1. Boundaries of Northern Iran as based on Historical Texts. Source: Chamli, 2019, 1.

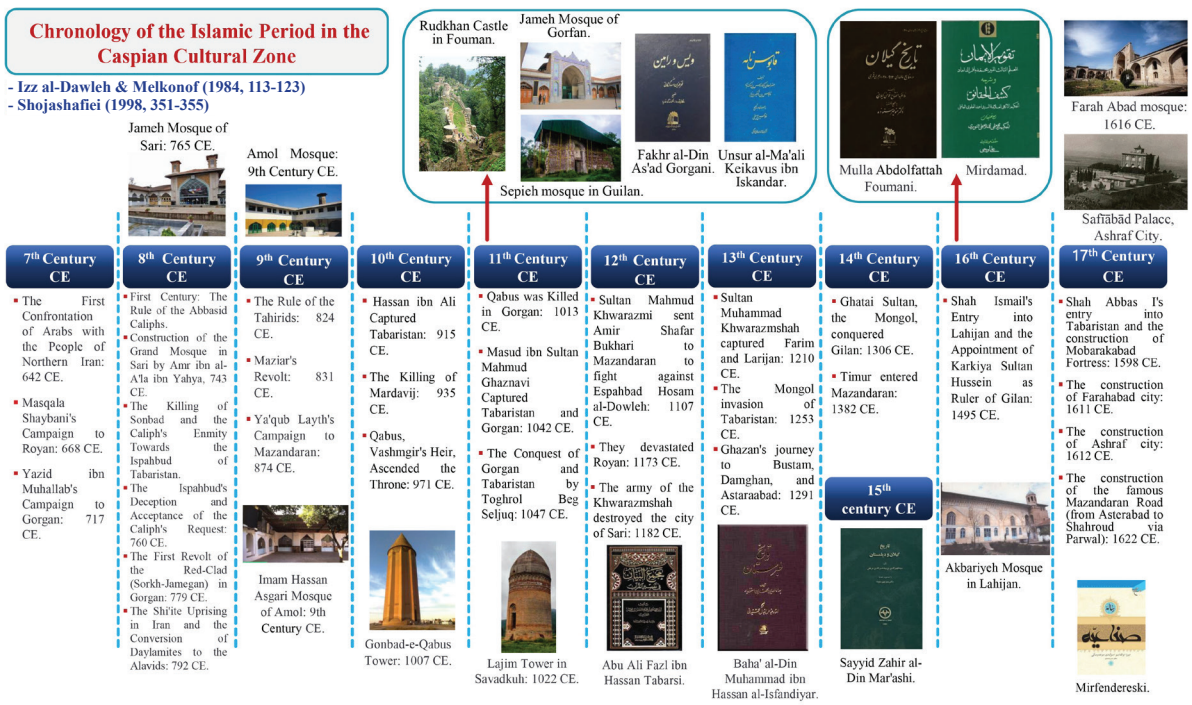

Fig. 2. Chronology of the Islamic Period in the Caspian Cultural Region. Source: Authors.

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Interior rooms serve multifunctional purposes, often operating interchangeably as living, sleeping, and hosting guests. The eyvān, situated at the threshold between the interior and exterior, functions as a transitional space for casual resting, socializing, and enjoying outdoor air. The gholāmgardesh is a narrow peripheral corridor that encircles the building at the ground or upper levels, facilitating exterior circulation and protecting the walls from rain exposure. At the rear of the structure, beneath the pitched roof, a "fākun" serves for the temporary storage of goods or livestock. The "talār" is an elevated eyvān, often located on the upper floor, while the space beneath remains semi-open, suitable for ventilation and the storage capacity for agricultural tools or animals. Opposite the talār, the "bālākhāneh"—usually located on the second floor—is reserved for guests or temporary accommodation, offering better views and ventilation. Pitched roofs are designed to efficiently drain rainwater, and the attic space below often serves as storage for grains. In the margins of farmlands or orchards, semi-open cabins called "kutām" are built for temporary habitation or the storage of crops such as "shalitook" (unhusked rice). The "kandooj" is a small wooden granary raised on short stilts, specifically used for storing rice or cereals. The "talambār" is a more enclosed structure with a gabled roof, used for storing agricultural products like rice or silkworm cocoons. Table 1 summarizes the functions and characteristics of these vernacular architectural spaces in the Caspian cultural region.

In the vernacular architecture of northern Iran, the eyvān or talār serves as one of the primary living centers of the household. This semi-open space plays a vital role in daily life—especially during the warmer seasons—by offering a comfortable living area that promotes natural ventilation and visual connection to the surrounding landscape through its open or semi-open walls and roofed structure (Fig. 3). Simultaneously, enclosed rooms serve as the thermal core of the house during the cold winter months and are typically elevated on raised wooden platforms to prevent ground moisture infiltration. A key feature of this vernacular tradition is the extensive use of wood and plant-based materials—such as gāli (reed) and rice stalks—in structural elements like columns

Table 1. Key functions and features of vernacular architectural spaces in the Caspian Cultural Region. Source: Pirnia, 2001; Khakpour, 2007; Khakpour, 2006; Diba & Yaghini, 1993; Rafiee Sereshki et al., 2008; Bromberjeh, 1991.

Space Name	Definition	Key Functions and Features
Otāgh (Room)	Enclosed, roofed space, typically square or rectangular	- Multipurpose use (living, sleeping, hosting guests) during cold seasons - Occasionally used for simple cooking due to a lack of additional space
Eyvān	Semi-open space between the interior and exterior	- Summer living area - Facilitates natural ventilatio - Blocks direct sunlight and rain - Usually located on the southern or eastern facade of the house.
Gholāmgardesh	Narrow corridor or peripheral porch surrounding the house	- Prevents rain from reaching the walls -Enables movement around rooms without entering fully indoor spaces - Sometimes used by household staff
Fākun	Storage space or passage beneath the pitched roof at the rear	- Used for storing tools and crops or sheltering livestock - Typically situated behind the main building
Talār	Elevated eyvān or upper-level porch	- Semi-open space with wide views - The area beneath is typically open and used for storage or animal shelter
Bālākhāneh	Upper room, usually above the talār or on the second floor	- Reserved for guests or sleeping - Provides direct access to the talār and benefits from improved ventilation and views
Pitched Roof	Sloped roof structure designed to drain rainwater	- Protects the building from heavy rainfall - Attic space often used for grain storage - Enhances ventilation via height differential
Kutām	Small semi-open hut near fields or orchards	- Used for temporary lodging - Summer rest, or storing crops (e.g, rice) - Open on all sides with a roof supported by posts - Allows easy access to surrounding fields
Kandooj	Small wooden granary on short or tall stilts	- Designed for storing shalitook (unhusked rice) and other grains - Semi-open form with sloped roof for ventilation and moisture protection
Talambār	Enclosed storage structure for agricultural goods	- Used for storing rice, silk cocoons, etc. - Typically features a gabled roof for efficient rainwater drainage - Usually located near or within the residential compound

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and roofing. This material choice not only satisfies climatic appropriateness but also fosters a strong spatial continuity between interior and exterior spaces. The outcome of this architectural approach—prominently featuring indigenous materials, minimalist forms, the avoidance of excessive ornamentation, and an emphasis on spatial flexibility—is a built environment rooted in environmental adaptation and cultural identity. It is this integrative approach that defines the essence of the region's vernacular architecture.

• Identification of main typological patterns

In the spatial configuration of mosques in northern Iran, three primary layers—enclosed, semi-enclosed, and open spaces—appear simultaneously to provide a comprehensive response to both climatic conditions and functional needs. Among these, the semi-enclosed space—often manifested as a talār or eyvān—emerges as the primary spatial domain adapted to the humid climate. Owing to its capacity for natural ventilation, expansive views of the surrounding landscape, and exposure to temperate outdoor air, this spatial layer often takes precedence over fully enclosed areas, even within mosques, where it holds a prominent architectural role. In fact, mosque architecture in the Caspian region draws on the integration of vernacular elements such as the talār into the ritual space of the shabestān. This synthesis not only serves religious functions but also reflects the everyday life and spatial culture of the local population (Fig. 4).

To articulate the spatial structure of mosques in northern Iran, two key spatial types can be identified: the Caspian shabestān and the Caspian eyvān, both of which simultaneously respond to climatic and ritual requirements. The Caspian shabestān, defined by its more durable walls and setāvandī roofing system—a lightweight structure composed of wooden beams and natural materials such as gāli (reed)— functions as the

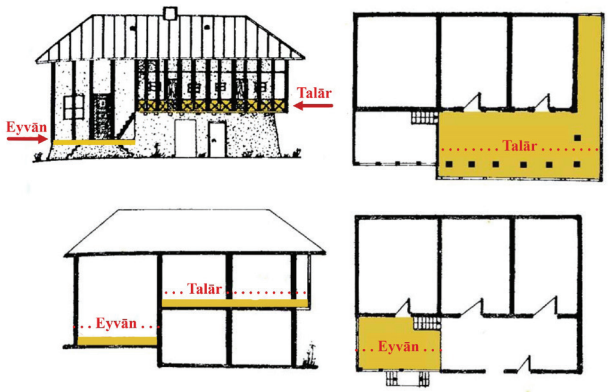

Fig. 3. Spatial positioning of semi-open areas (Eyvān and Talār) in vernacular residential architecture of the Caspian Cultural Region. Source: Authors.

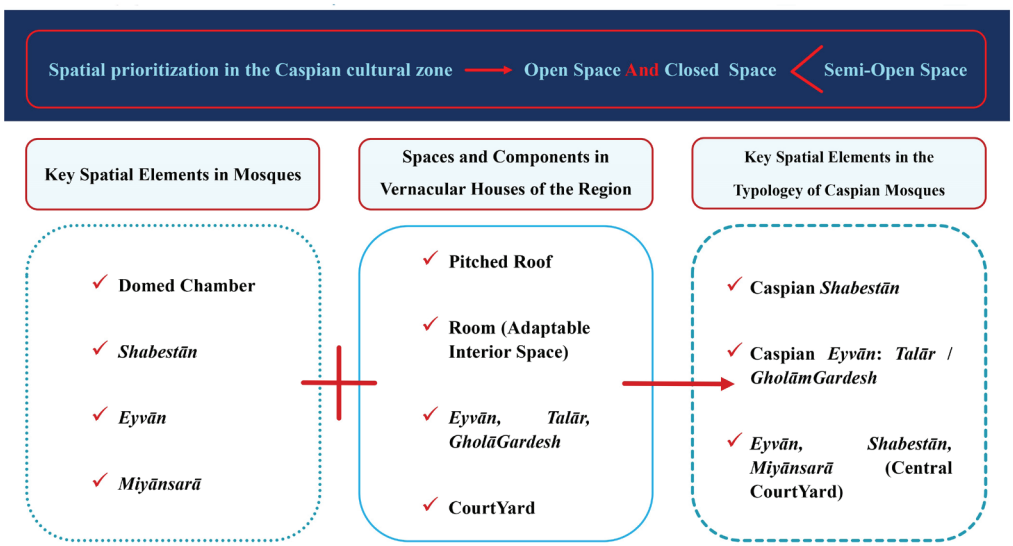

Fig. 4. A foundational model for mosque typology in the Caspian Cultural Region. Source: Authors.

Table 2. Key features of Caspian Eyvān and Shabestān. Source: Authors.

Space	General Structure and Form	Key Features
Caspian Eyvān	Column-supported and semi-open space typically located along the entrance axis or main façade	Open to natural airflow and exterior views ideal for temporary sitting and passive ventilation constructed with lightweight wooden materials
Caspian Shabestān	Simple rectangular or square floor plan Setāvandī roof system with wooden columns or masonry piers	Treanquil enclosed space for communal prayer devoid of excessive ornamentation naturally lit through openings and translucent/semi-transparent walls

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mosque's primary enclosed space. The integration of slender wooden columns not only promotes spatial fluidity and transparency but also supports natural ventilation and stronger visual connectivity with the environment. When compared to the solid, domed shabestāns typical of central Iran, this model offers a more fluid and climate-adapted typology. In parallel, the Caspian eyvān (or talār) takes the form of a semi-enclosed, column-supported platform that creates a dynamic bridge between interior sacred space and the surrounding environment. Rather than relying exclusively on a domed chamber or a fully enclosed space, this approach favors a lightweight, flexible structure that not only suits the humid northern climate but also exceeds the role of a mere entrance vestibule. The key characteristics of these two spatial types are compared in Table 2.

• Geographical and historical scope of case Studies

The study area encompasses the three northern provinces of Iran along the southern coast of the Caspian Sea: Guilan, Mazandaran, and Golestan. Characterized by a humid, rainy climate and cultural diversity, these provinces host a significant portion of Iran's Islamic architectural heritage. In the present research, a total of 44 mosques from various historical periods—ranging from the early Islamic period to the contemporary era—were identified and analyzed.

Based on the information provided in Table 3, the provincial distribution of the samples is as follows: Gilan with 11 mosques, Mazandaran with 31 mosques, and Golestan with 2 mosques. Additionally, in terms of historical perspective, the studied mosques encompass a wide range of periods, including early Islamic (2), Seljuk (2), Safavid (4), late Safavid/early Qajar (3), Qajar (30), and contemporary (3), each reflecting specific physical and structural characteristics. Thus, the geographical and historical diversity of the selected mosques offers a comprehensive understanding of the developments in religious architecture across the Caspian cultural region and enables comparative analysis among different types of mosques in this particular area of Iran (Figs. 5, 6 & 7).

Typology of Mosques in the Caspian Cultural Region

In the process of mosque typology, a set of guiding considerations was adopted to ensure a clear and precise classification system. First and foremost, typologies were defined based on the mosque's most essential and defining spatial elements, with each type named after its most prominent architectural feature. Accordingly, incorporating excessive physical details, such as roof structures or listing all spatial sub-units with their diverse local nomenclatures, was deliberately avoided, as it would complicate the classification without enhancing clarity. For example, references to roof types were intentionally excluded. Describing a shabestān as "double-roofed" may lead to confusion due to its association with the concept of a "double-shell dome", a term not appropriate for all cases. Moreover, referencing vault structures requires additional distinctions (e.g, barrel, groin), which would exceed the purpose of a typology centered on key spatial features. Notably, some typologies implicitly suggest roofing characteristics: when referencing a setāvandī space or Caspian eyvān, the sloped roof is already implied, making further specification unnecessary.

Another key consideration is that the presence of certain spatial elements often suggests the presence of others. For instance, a "single-eyvān" plan may also include a shabestān or even a domed chamber; explicitly listing all components would only add complexity without improving interpretive transparency. Similarly, a "four-eyvān" typology inherently includes elements such as "gonbadkhāneh" (domed chamber), miyānsarā (central courtyard), and shabestān; thus, naming all these spaces in the typology would hinder readability. Based on these principles, typological categories in this research are named after the mosque's most dominant spatial feature, while omitting secondary physical details like roof form or every minor spatial component, resulting in a classification that is both simplified and comprehensive.

Based on the data collected from 44 mosques located in the Caspian cultural region, six primary typologies were identified, along with three additional subtypes (Fig. 8). These types are illustrated through bar charts and pie charts (Figs. 9, 10, 11 &12), representing their frequencies according to both primary types and subtypes. The main typologies are:

- Eyvāni;

[DOI: 10.22034/2.5.42]

Table 3. Geographical and historical scope of the case studies. Source: Authors.

	Mosque Name	City/Village	Historical Period
1	Jameh of Gorgan	Gorgan	Seljuk
2	Karim Eshan School-Mosque	Karim Eshan / Kalaleh	Qajar
3	Spieh Mosque	Bandar-e Anzali	Seljuk
4	Agh Owlar	Agh Owlar / Talesh	Qajar
5	Jorashar Jameh	Lasht-e Nesha / Rasht	Qajar
6	Haj Samad Khan	Rasht	Qajar
7	Haj Hakem Nasir Rashti	Rasht	Qajar
8	Mostowfi	Rasht	Late Safavid / Early Qajar
9	Abdollahi Reyneh	Rezvanshahr	Qajar
10	Akbariyeh	Lahijan	Safavid
11	Asad Mahalleh	Masuleh / Fuman	Contemporary
12	Do Khaharan	Masuleh / Fuman	Contemporary
13	Reyhanehbar	Masuleh / Fuman	Contemporary
14	Agha Abbas	Amol	Safavid
15	Imam Hassan Asgari	Amol	Early Islamic Period (7th-9th CE)
16	Jameh of Amol	Amol	Early Islamic Period (7th-9th CE)
17	Abu Fazeli	Babol	Qajar
18	Doroodgar	Babol	Qajar
19	Jameh of Babol	Babol	Qajar
20	Kazem Beyk	Babol	Qajar
21	Allameh	Babol	Qajar
22	Mowlana	Babol	Qajar
23	Amir As'ad	Bala Ashtaj / Tonekabon	Qajar
24	Gil Mahalleh	Mohammadabad / Tonekabon	Qajar
25	Tilek	Tilek / Sari	Qajar
26	Jameh of Sari	Sari	Qajar
27	Farah Abad	Farah Abad / Sari	Safavid
28	Reza Khan (Sa'adatiyeh Seminary)	Sari	Safavid
29	Dodangeh	Dodangeh / Aliabad / Sari	Qajar
30	Abolfazl	Aghuz Darreh / Galugah	Qajar
31	Imam Hasan Askari	Bordun / Nur	Qajar
32	Bab'al Hawaij	Noj / Nur	Qajar
33	Bazaar Yalrood	Yalrood / Nur	Qajar
34	Bibi	Yush / Nur	Qajar
35	Jameh of Baladeh	Baladeh / Nur	Qajar
36	Jameh of Pil	Pil / Nur	Late Safavid / Early Qajar

Rest of Table 3.

	Mosque Name	City/Village	Historical Period
37	Jameh of Kolyek	Kolyek / Nur	Qajar
38	Jameh of March	March / Nur	Qajar
39	Jameh of Yalrood	Yalrood / Nur	Late Safavid / Early Qajar
40	Haj Zolfali	Bordun / Nur	Qajar
41	Al-Rasool	Yush / Nur	Qajar
42	Roghayeh	Yush / Nur	Qajar
43	Ali	Yush / Nur	Qajar
44	Jameh of Noj	Noj / Nur	Qajar

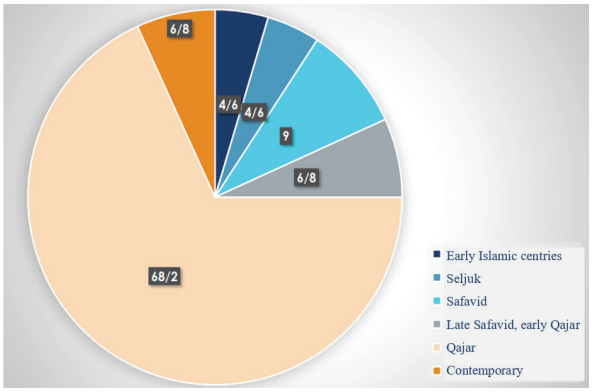

Fig. 5. Pie chart of the frequency percentage of the mosques based on the historical period. Source: Authors.

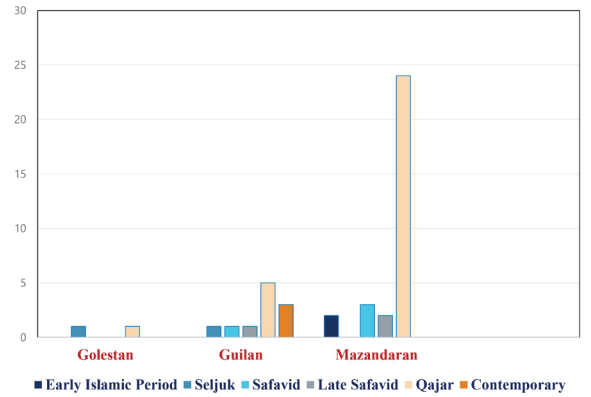

Fig. 6. Clustered column chart of mosque frequency by historical period in each province. Source: Authors.

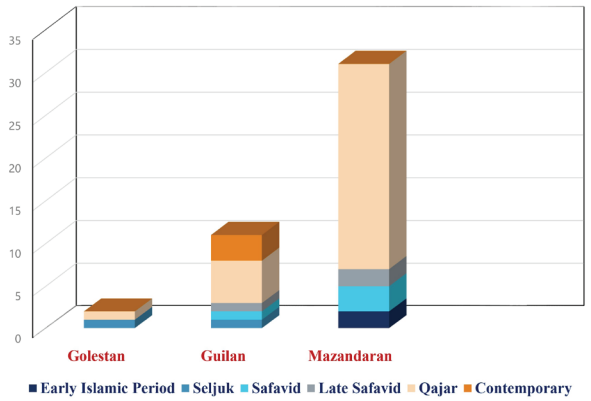

Fig. 7. Stacked column chart of mosques by historical period in each province. Source: Authors.

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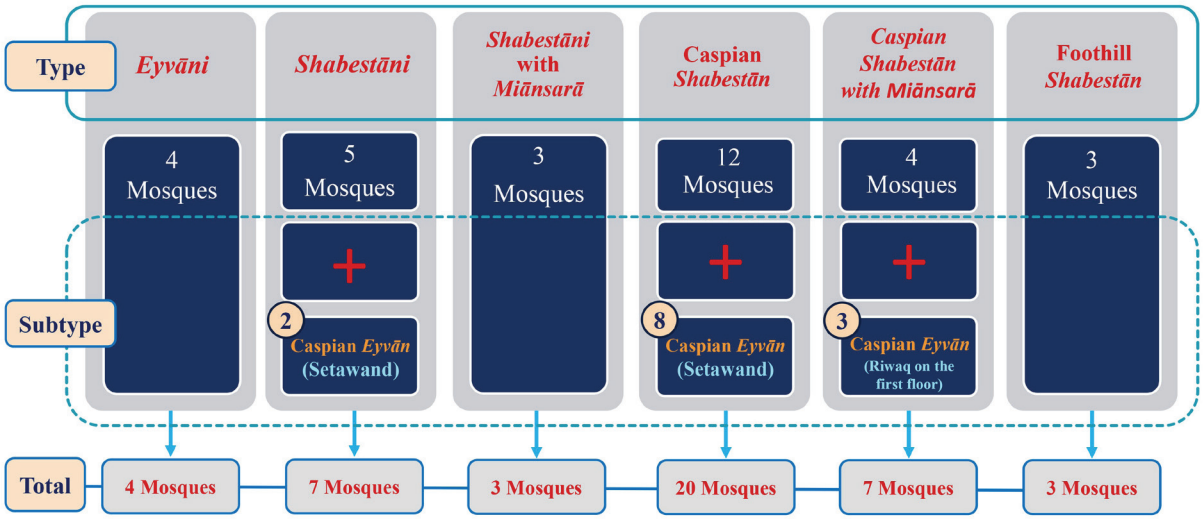

Fig. 8. Typology of mosques in the Caspian Cultural Region. Source: Authors.

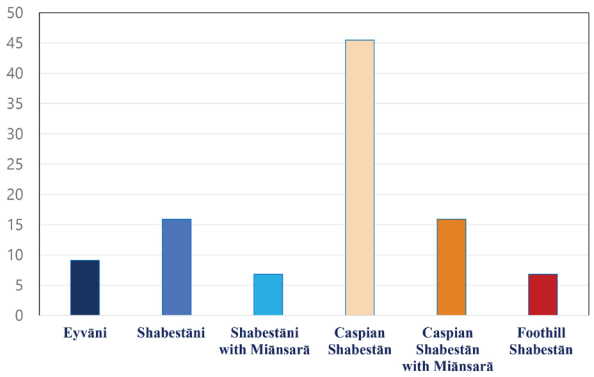

Fig. 9. Clustered Column Chart of Mosque Frequency by Main Types. Source: Authors.

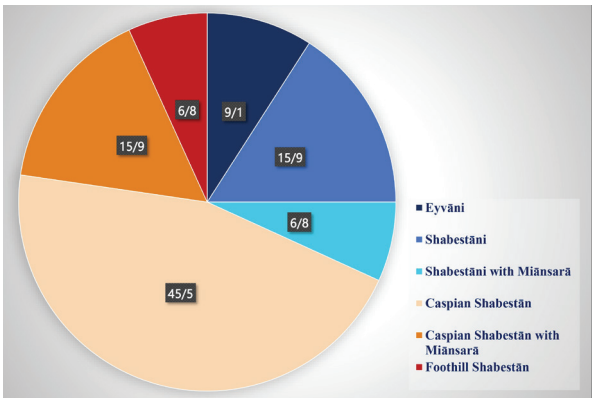

Fig. 11. Frequency pie chart of mosques based on the main types. Source: Authors.

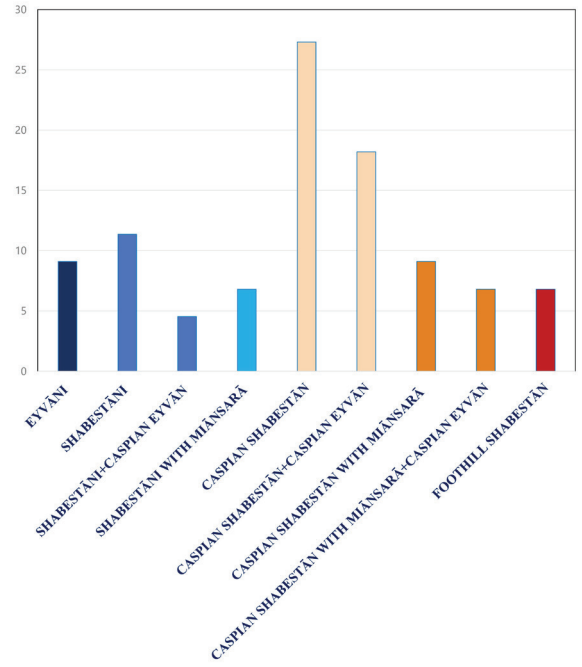

Fig. 10. Clustered column chart of mosque frequency by main types and subtypes. Source: Authors.

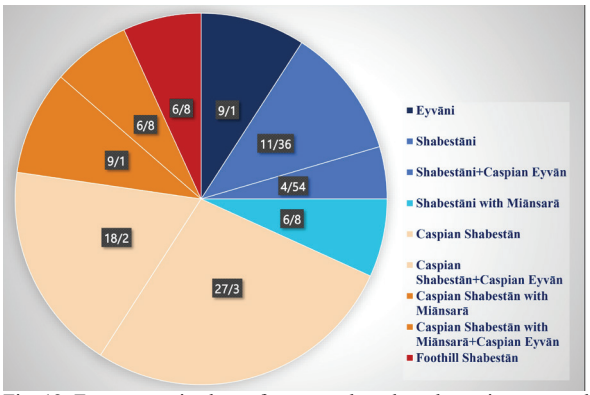

Fig. 12. Frequency pie chart of mosques based on the main types and subtypes. Source: Authors.

- Shabestāni (including the subtype: shabestāni with Caspian eyvān);
- Shabestāni with miyānsarā;
- Caspian Shabestān (including the subtype: Caspian Shabestān with Caspian eyvān);
- Caspian Shabestān with miyānsarā (including the subtype: Caspian Shabestān with miyānsarā with Caspian eyvān);

[DOI: 10.22034/2.5.42]

- Shabestāni in foothill regions.

Statistical evaluation reveals that the Caspian shabestān emerges as the most prevalent typology, accounting for 45.5% of the total sample (20 out of 44 mosques). Following this, two other types—shabestāni and Caspian shabestān with miyānsarā—each account for 15.9% (7 mosques). The eyvāni type represents 9.1% (4 mosques), while both shabestāni with miyānsarā and foothill shabestān types each constitute 6.8% (3 mosques each). This distribution reflects the dominance of the Caspian shabestān type in northern Iranian mosques, while also illustrating significant spatial variation. Beyond the six main types, three subtypes were identified—hybrid forms that integrate components from different types. For example, in some cases, a Caspian shabestān with miyānsarā also includes a Caspian eyvān or a columned riwāq on the upper level. In other instances, a shabestāni with miyānsarā may feature talār-style additions. Although less frequent, these subtypes play a crucial role in highlighting the spatial flexibility of the mosque and its responsiveness to the region's climatic and cultural context.

• Eyvāni type

The eyvāni type constitutes a major mosque type in the Caspian cultural context. In addition to the eyvān, this type typically includes a shabestān, a miyānsarā, and in some cases, a gonbadkhāneh (domed chamber). This layout—evident in examples spanning from the Seljuk to the Safavid and Qajar periods—exemplifies notable expressions of religious architecture.

The four mosques identified within this typology are: the Jameh Mosque of Gorgan (Seljuk), the Jameh Mosque of Babol (Qajar), the Farah Abad Mosque in Sari (Safavid), and the Jameh Mosque of Sari (Qajar). Notably, all of these mosques are located in major urban centers or historically significant administrative capitals, particularly the Farah Abad Mosque, constructed in a city of special importance to the Safavid dynasty. While these structures reflect adaptations to the humid climate of northern Iran, the eyvāni typology is also one of the most widespread models across the central Iranian plateau. In some northern examples, the use of pitched roofs imparts a distinct spatial quality that differs slightly from their counterparts in arid regions. Nevertheless, the core structure and spatial organization of these mosques remain consistent with eyvāni-type mosques found elsewhere in Iran (Figs. 13, 14, 15 &16).

• Shabestāni type

The shabestāni type is one of the most prevalent models in Iranian religious architecture, found both in central Iran and the Caspian cultural region. In its simplest form, it consists of a single shabestān—an enclosed, roofed space designated for prayer. An examination of the existing examples in northern Iran shows that most mosques in this category are small-scale rural or neighborhood mosques, built with compact layouts and limited dimensions. Representative examples of this type include the Karim Eshan School-Mosque in Kalaleh (Qajar), the Jameh Mosque of Noj in Nur (Qajar), the Jameh Mosque of March in Nur (Qajar), and the Reza Khan Mosque in Sari (Safavid) (Figs. 17, 18, 19 & 20). In certain cases, this spatial type is combined with additional architectural elements. For instance, a shabestān may be accompanied by a shallow columned riwāq (arcade), which serves as an intermediary zone between the interior and exterior spaces. The Bazaar Mosque of Yalrood in Nur (Qajar) exemplifies this configuration, where a semi-open columned arcade adjoins the prayer hall (Fig. 21).

- **Shabestāni with Caspian Eyvān subtype**

In this subtype, the shabestān is connected to a semi-open columned eyvān, representing an evolved form of the traditional shabestāni type with a shallow porch, tanabi. The Caspian eyvān serves a climatic function, acting as a transitional zone between interior and exterior spaces while improving natural ventilation.

The Jameh Mosque of Baladeh in Nur (Qajar period) and the Jameh Mosque of Yalrood in Nur (Safavid–Qajar period) are prominent examples of this subtype. In these mosques, the integration of a Caspian eyvān into the shabestān structure results in a flexible architectural configuration well-suited to the humid northern climate (Figs. 22 & 23).

- **Shabestāni with Miānsarā type**

The shabestāni with miānsarā is another hybrid typology commonly found in both central and northern regions of Iran. This type combines a covered shabestān with an open courtyard or miānsarā, which serves as an intermediary space for ventilation, natural lighting, and social gatherings. In certain urban examples, particularly larger mosques, this pattern includes additional shallow columned tanabies and surrounding hojrehs

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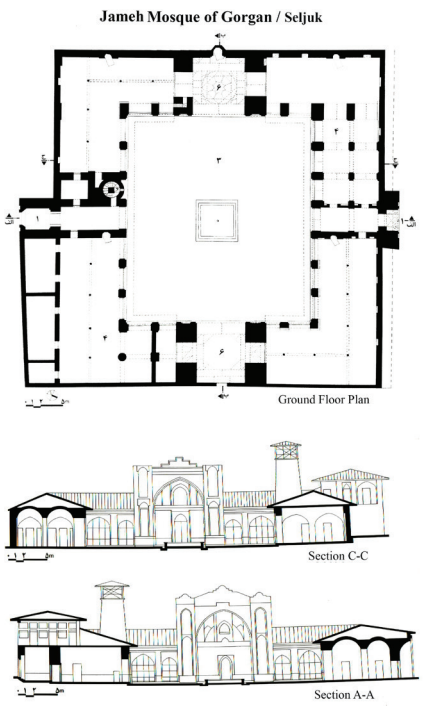

Fig. 13. Plan and Section of the Jameh Mosque of Gorgan. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Golestan Province.

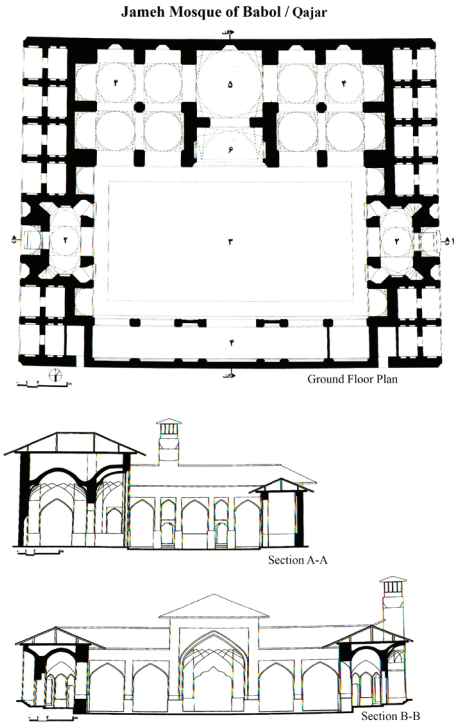

Fig. 14. Plan and Section of the Jameh Mosque of Babol. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

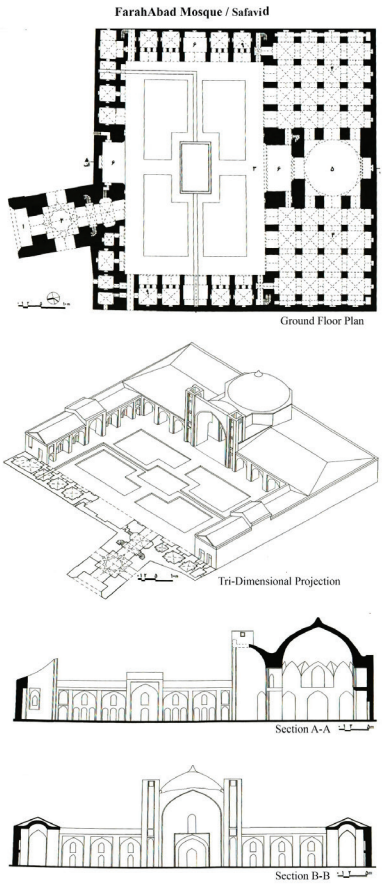

Fig. 15. Plan, Section, and Tri-Dimensional Projection of the Farah Abad Mosque, Sari. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

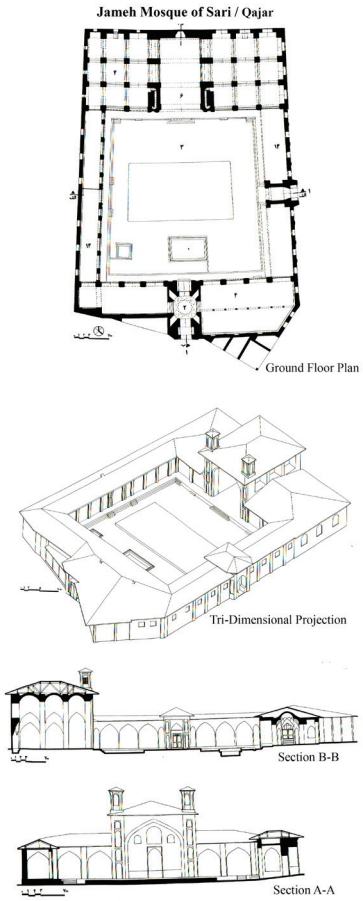

Fig. 16. Plan, Section, and Tri-Dimensional Projection of the Jameh Mosque of Sari. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

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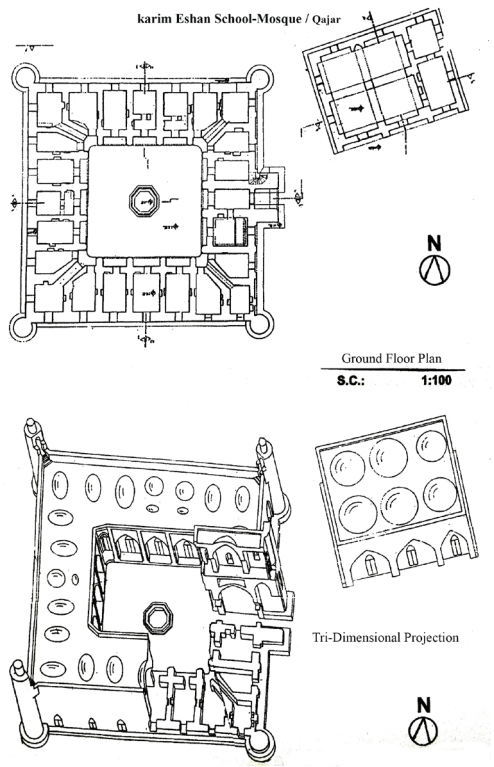

Fig. 17. Plan and Tri-Dimensional Projection of the Karim Eshan School-Mosque, Kalaleh. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Golestan Province.

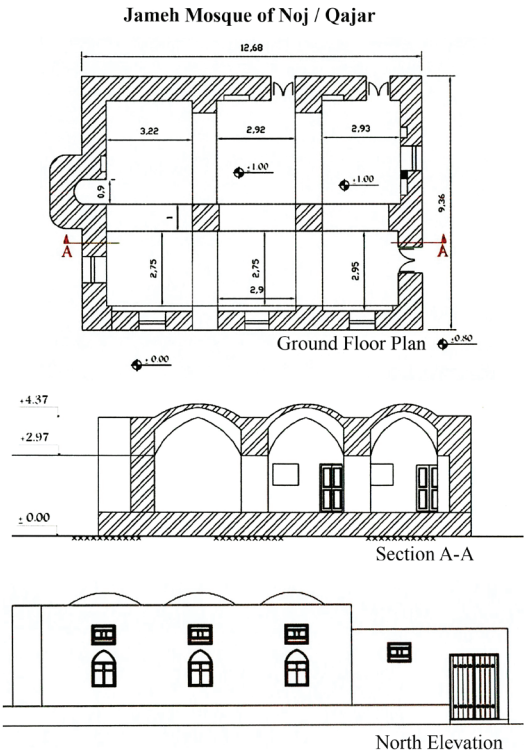

Fig. 18. Plan, Section, and Elevation of the Jameh Mosque of Noj, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

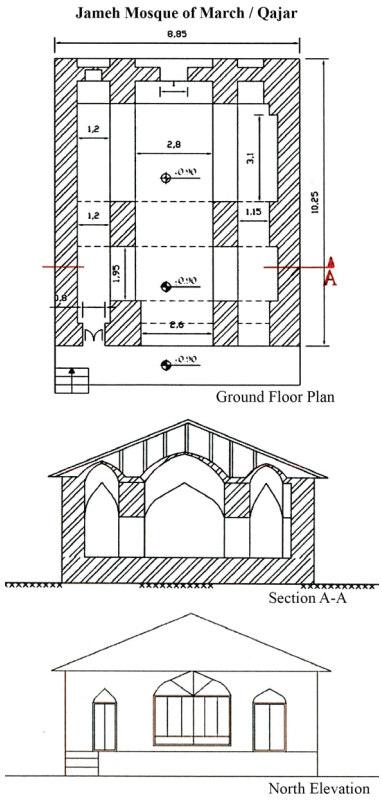

Fig. 19. Plan, Section, and Elevation of the Jameh Mosque of March, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

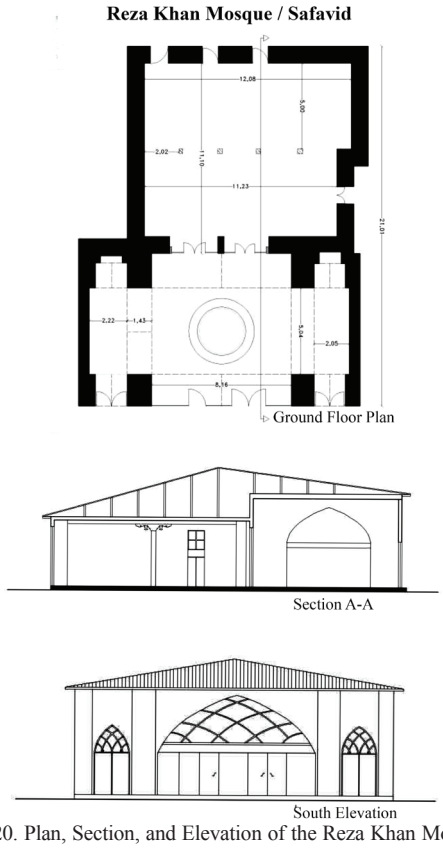

Fig. 20. Plan, Section, and Elevation of the Reza Khan Mosque, Sari. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

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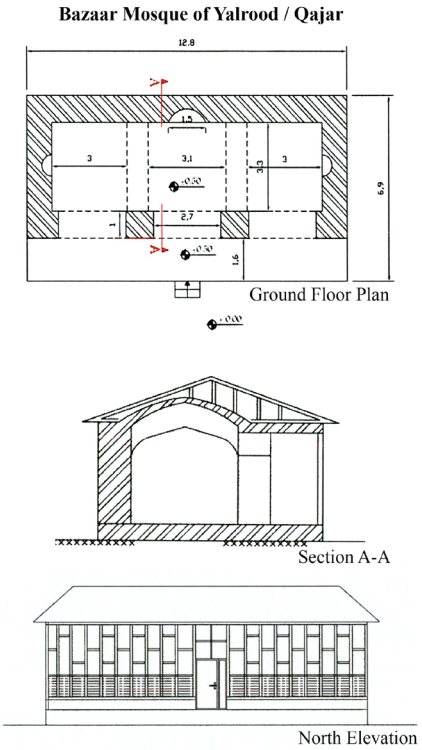

Fig. 21. Plan, Section, and Elevation of the Bazaar Mosque of Yalrood, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

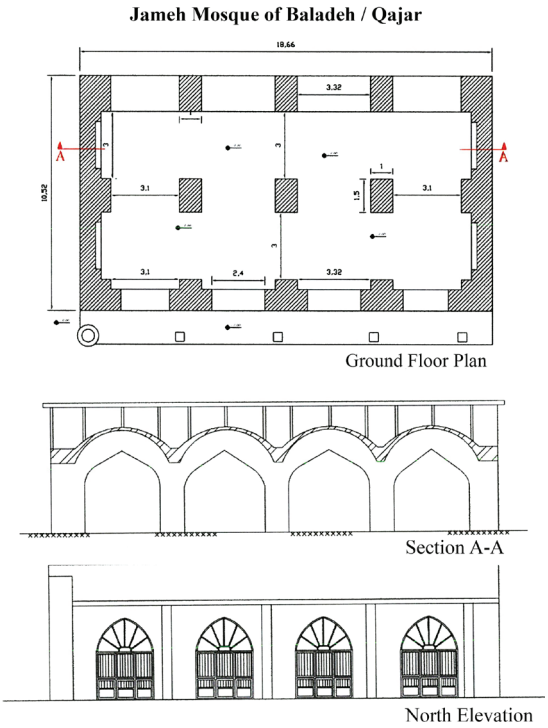

Fig. 22. Plan, Section, and Elevation Jameh Mosque of Baladeh, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

(cells/rooms), which serve as auxiliary spaces for worshippers or theological students. In the Caspian region, notable examples of this type include the Spieh Mosque in Bandar-e Anzali (Seljuk period), the Akbariyeh Mosque in Lahijan (Safavid), and the Allameh Mosque in Babol (Qajar). The Allameh Mosque, in particular, incorporates a columned tanabi alongside the central courtyard, resulting in a spatial configuration closely aligned with typologies commonly found on the central Iranian plateau (Figs. 24, 25 & 26).

• Caspian Shabestān type

The Caspian shabestān is the first spatial type uniquely associated with the Caspian cultural region, and it represents the most frequently occurring architectural type among mosques in this area. Characterized by an enclosed, column-supported prayer hall, this typology typically features a setāvandī roof constructed from local materials such as timber, resulting in a lightweight and flexible structural system.

Representative examples include:

- The Jameh Mosque of Jorshar in Lasht-e Nesha (Qajar);
- Haj Hakem Nasir Rashti Mosque in Rasht (Qajar);
- Haj Samad Khan Mosque in Rasht (Qajar) (Figs. 27, 28 & 29);
- Doroodgar Mosque in Babol (Qajar);
- Amir As'ad Mosque in Bala-Ashtaj, Tonekabon (Qajar);
- Gil-Mahalleh Mosque in Mohammad Abad, Tonekabon (Qajar);
- Abolfazl Mosque in Aghuz Darreh, Galugah (Qajar) (Figs. 30, 31, 32 &33).

In some cases, this spatial configuration is combined with a tanabi, which enhances the transition between indoor and outdoor spaces. Examples of this subtype include:

- Abu Fazeli Mosque in Babol;
- Dodangeh Mosque in Aliabad;
- Bab al-Hawaij Mosque in Noj, Nur;
- Bibi Mosque in Yush, Nur,
- Al-Rasool Mosque in Yush, Nur (Qajar) (Figs. 34, 35, 36, 37 & 38).

Examples of the Caspian shabestān are widely distributed across both urban and rural areas of Guilan and Mazandaran. In smaller or village mosques, the shabestān and tanabi are often so seamlessly integrated that distinguishing the two becomes nearly impossible. This spatial fusion

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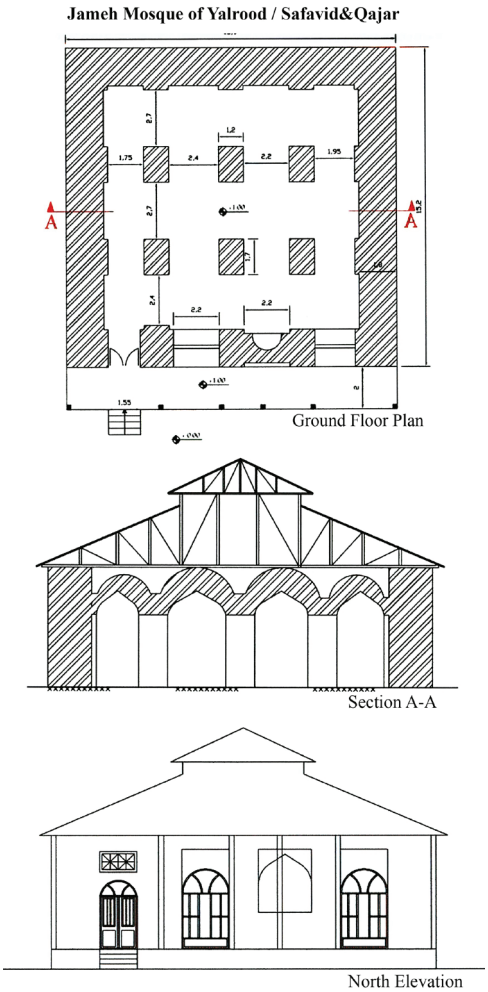

Fig. 23. Plan, Section, and Elevation of the Jameh Mosque of Yalrood, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

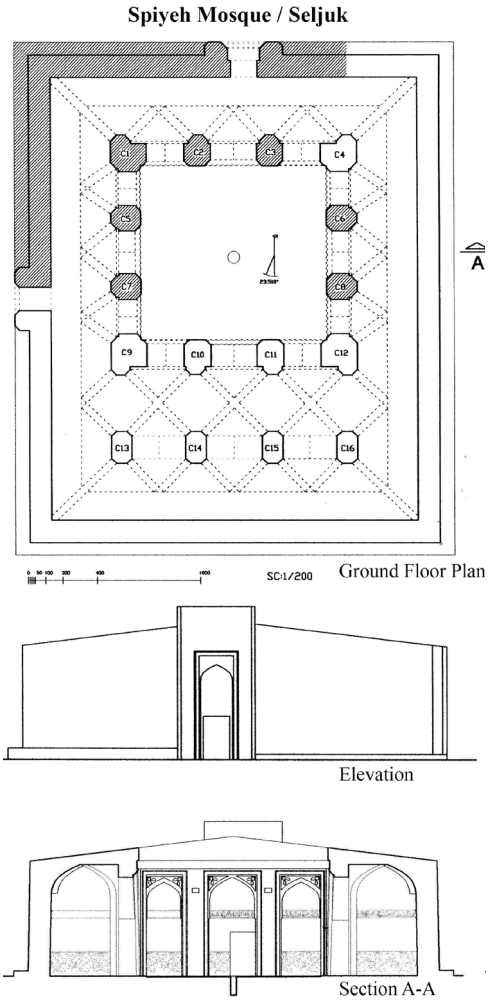

Fig. 24. Plan, Section, and Elevation of the Spieh Mosque, Bandar-e Anzali. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

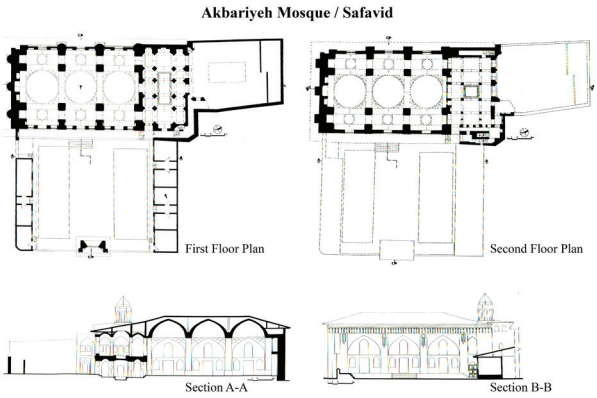

Fig. 25. Plan and Section of the Akbariyeh Mosque, Lahijan. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

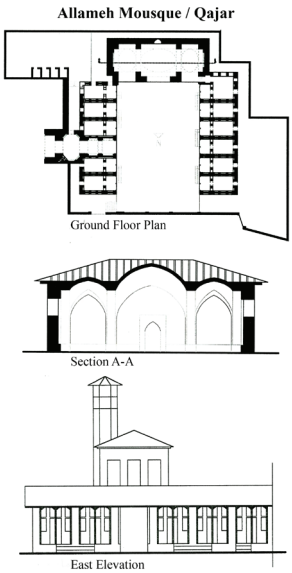

Fig. 26. Plan, Section, and Elevation of the Allameh Mosque, Babol. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

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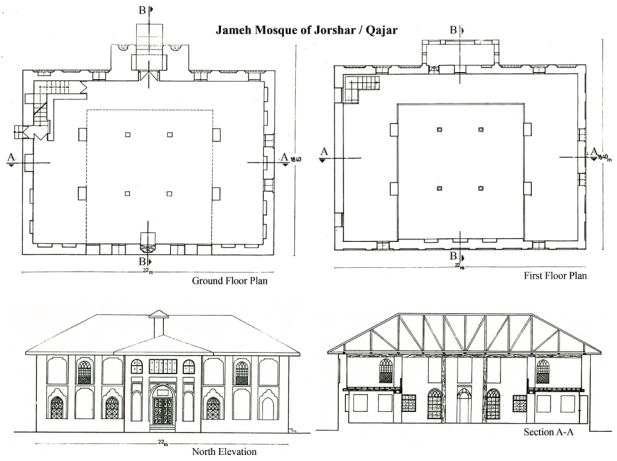

Fig. 27. Plan, Section, and Elevation of the Jameh Mosque of Jorshar, Lasht-e Nesha. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

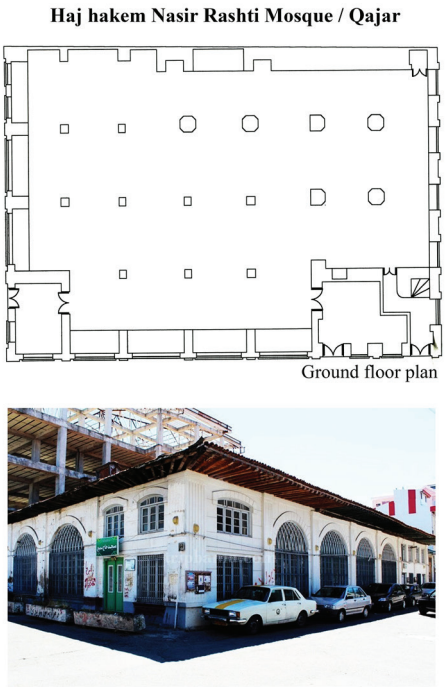

Fig. 28. Plan and image of Haj Hakem Nasir Rashti Mosque, Rasht. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

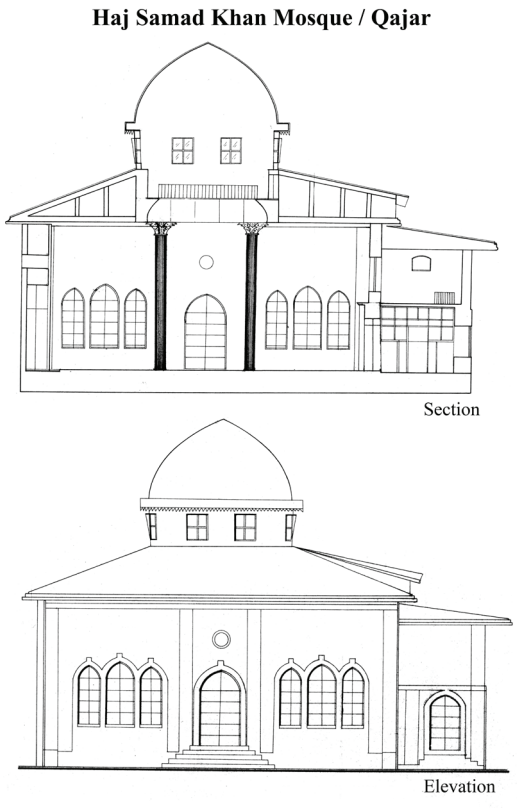

Fig. 29. Section and Elevation of Haj Samad Khan Mosque, Rasht. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

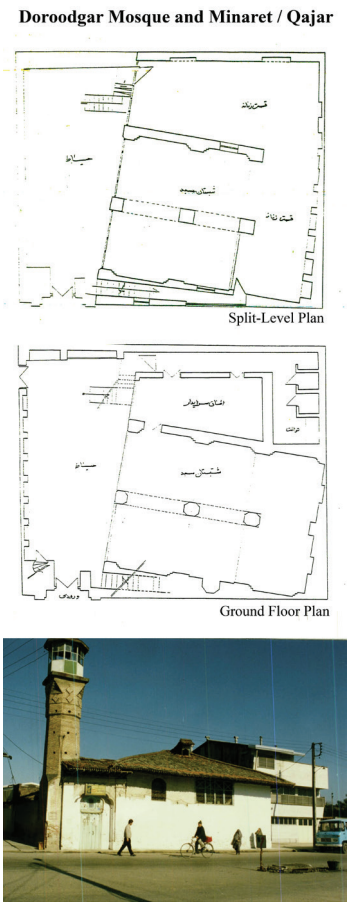

Fig. 30. Plan and Images of Doroodgar Mosque and Minaret, Babol. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

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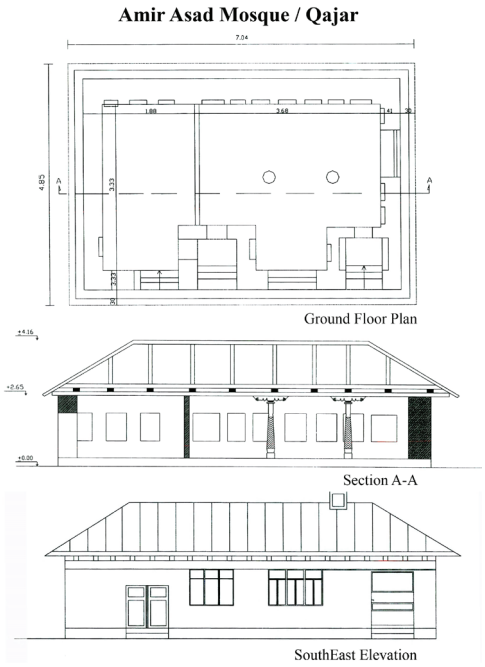

Fig. 31. Plan, Section, and Elevation of Amir As'ad Mosque, Bala-Ashtaj, Tonekabon. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

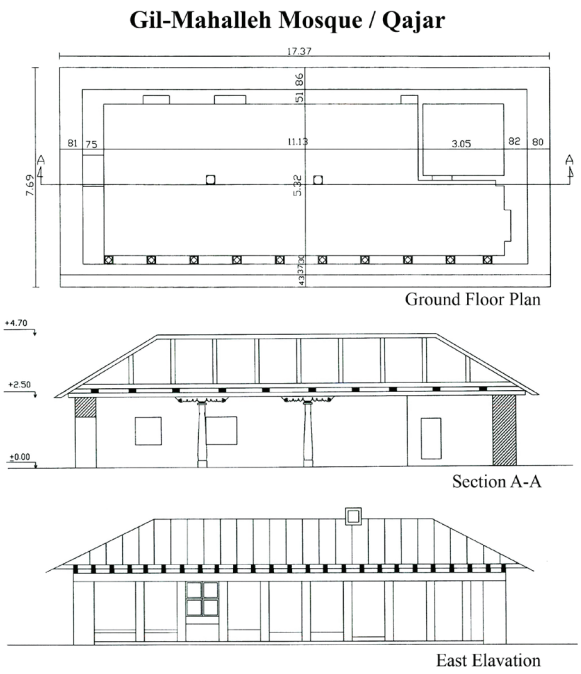

Fig. 32. Plan, Section, and Elevation of Gil-Mahalleh Mosque, Mohammad Abad, Tonekabon. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

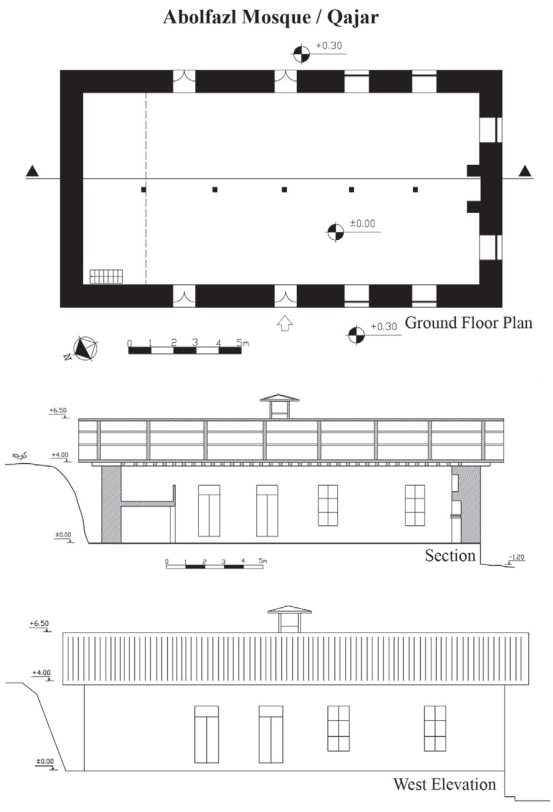

Fig. 33. Plan, Section, and Elevation of Abolfazl Mosque, Aghuz Darreh, Galugah. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

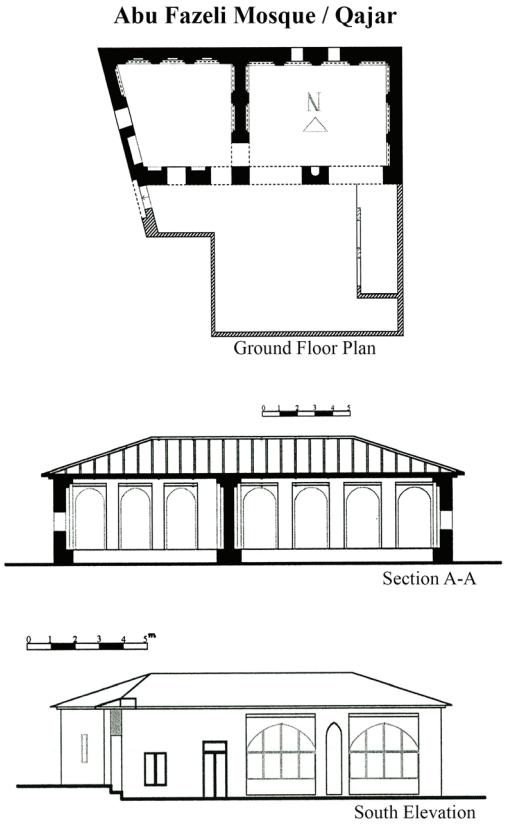

Fig. 34. Plan, Section, and Elevation of Abu Fazeli Mosque, Babol. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

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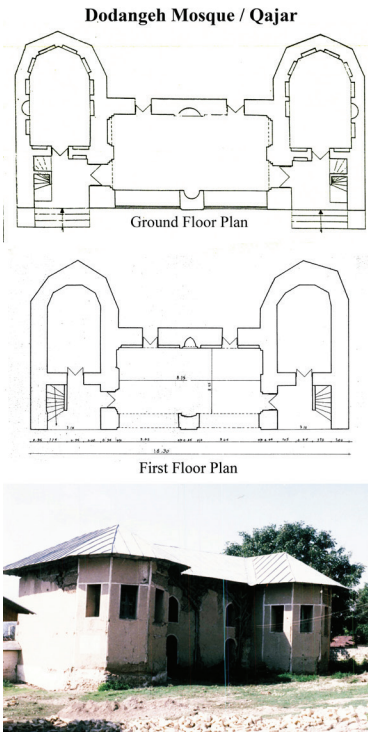

Fig. 35. Plan and Image of Dodangeh Mosque, Aliabad, Sari. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

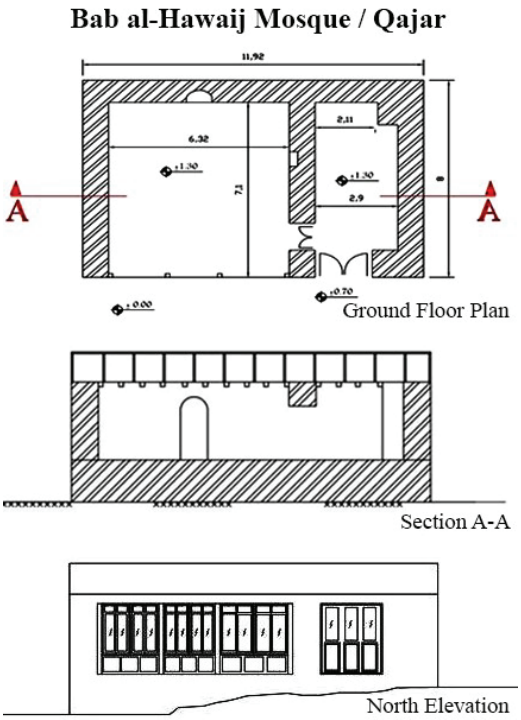

Fig. 36. Plan, Section, and Elevation of Bab al-Hawaij Mosque, Noj, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

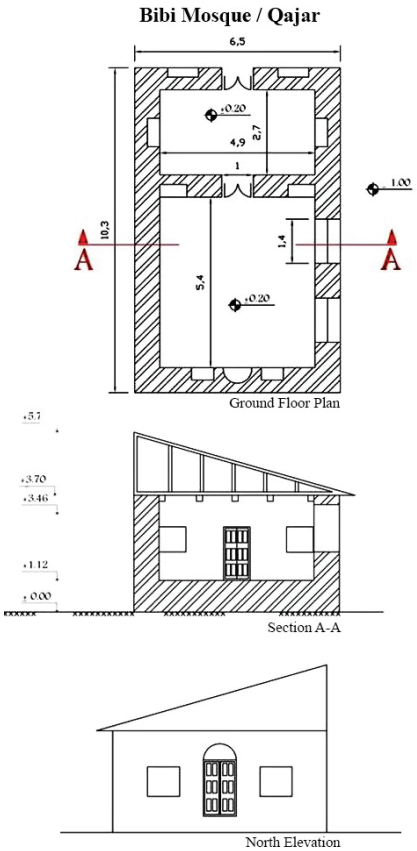

Fig. 37. Plan, Section, and Elevation of Bibi Mosque, Yush, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

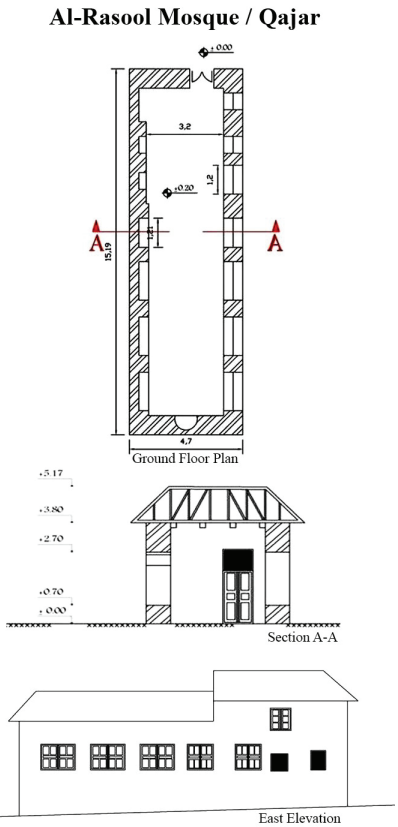

Fig. 38. Plan, Section, and Elevation of Al-Rasool Mosque, Yush, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

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reflects a high degree of adaptability to local climatic and cultural conditions.

- Caspian Shabestān with Caspian Eyvān subtype

In certain larger examples, the Caspian shabestān is combined with a Caspian eyvān, constituting the subtype known as the Caspian Shabestān with Caspian Eyvān. This pattern may be regarded as an evolved form of the shabestāni-with-tanabi typology, where the eyvān—a column-supported, setāvandī (beam-and-thatch) space—is placed adjacent to the shabestān. The Caspian eyvān enhances the building's environmental performance, fosters greater interaction with the surrounding environment, and creates a transitional spatial layer between fully enclosed and semi-open areas.

Representative examples of this subtype include:

- Abdollahi Mosque in Reyneh, Rezvanshahr (Qajar);
- Jameh Mosque of Kolyek in Kolyek, Nur (Qajar);
- Haj Zolfali Mosque in Bordun, Nur (Qajar);
- Jameh Mosque of Pil in Pil, Nur (Safavid/ Qajar);
- Roghayyeh Mosque in Yush, Nur (Qajar);
- Ali Mosque in Yush, Nur (Qajar) (Figs. 39, 40, 41, 42, 43 & 44).

In other examples, such as Agh Owlar Mosque in Agh Owlar, Talesh (Qajar), the Imam Hassan Asgari Mosque in Bordun, Nur (Qajar), the presence of a tanabi alongside both the shabestān and Caspian eyvān adds further spatial variety and complexity (Figs. 45 & 46).

• Caspian Shabestān with Miyānsarā type

The Caspian shabestān with miyānsara represents a hybrid typology that combines two distinct spatial patterns: miānsarā as the central courtyard, a key feature of central Iranian mosque architecture, and the Caspian shabestān, rooted in the local architectural traditions of the Caspian cultural region. This combination has given rise to mosques that maintain northern Iranian spatial identity while aligning with more conventional Islamic architectural models. Notably, all examples of this typology are located in urban settings, highlighting its role in city-based mosque development.

Examples include:

- Mostowfi Mosque in Rasht (Safavid/Qajar);
- Imam Hassan Asgari Mosque in Amol (9th century CE);
- Kazem Beyk Mosque in Babol (Qajar);
- Mowlana Mosque in Babol (Qajar) (Figs. 47, 48, 49 & 50).

- Caspian-Shabestān with Miyānsarā and Caspian-Eyvān subtype

In some cases, this spatial combination is further enhanced with a Caspian eyvān—a columned transitional space between the courtyard and the shabestān. This spatial addition strengthens the relationship between semi-open and enclosed areas and reflects the humid climate of northern Iran, where columned porches play a functional role beyond simple entrances and are integral to the mosque's spatial program.

Examples include:

- Agha Abbas Mosque in Amol (Safavid);
- Jameh Mosque of Amol (7th-9th century CE);
- Tilek Mosque in Tilek, Sari (Qajar) (Figs. 51, 52 & 53).

• Foothill Shabestān type

Within the typological framework of mosques in northern Iran, the foothill shabestān type (shabestān-e kuhpāye'ī) is identified as a spatial type adapted to mountainous terrain. This spatial configuration, prominently observed in the historical town of Masuleh in Fuman County, demonstrates a strong alignment with highland climate conditions. The architecture of these mosques—characterized by simple design, local materials, and minimal ornamentation—emphasizes harmony with steep natural topography and structural cohesion. Unlike mosque layouts in lowland regions, which often include varied spatial programs and expansive courtyards, foothill shabestān tends to have smaller-scale structures and efficient configurations to meet the functional demands and environmental constraints of sloped terrains.

Notable examples include:

- Asad Mahalleh Mosque in Masuleh;
- Reyhānehbar Mosque in Masuleh, Fuman (Figs. 54 & 55).

In certain cases, this typology is combined with a tanabi — a shallow columned porch that serves as a transitional zone. As a versatile architectural element, the tanabi can be integrated into various shabestāni types and, if extended, may take the form of a Caspian eyvān, thereby forming a distinct subtype.

An example of this combination is the Do Khāharān

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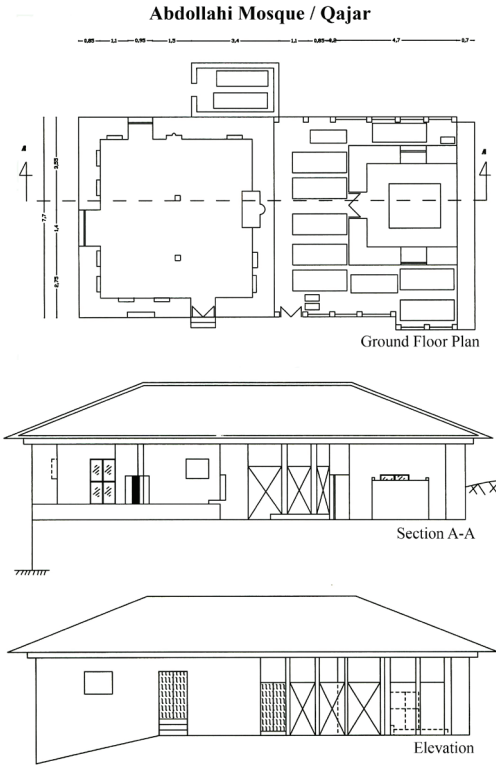

Fig. 39. Plan, Section, and Elevation of Abdollahi Mosque in Reyneh, Rezvanshahr. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

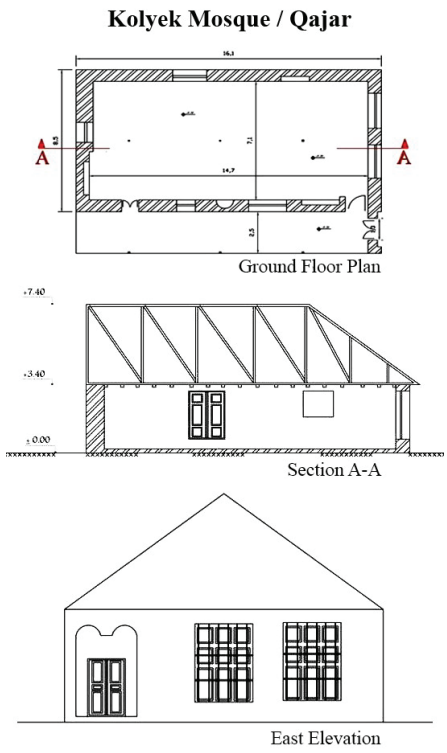

Fig. 40. Plan, Section, and Elevation of Jameh Mosque of Kolyek in Kolyek, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

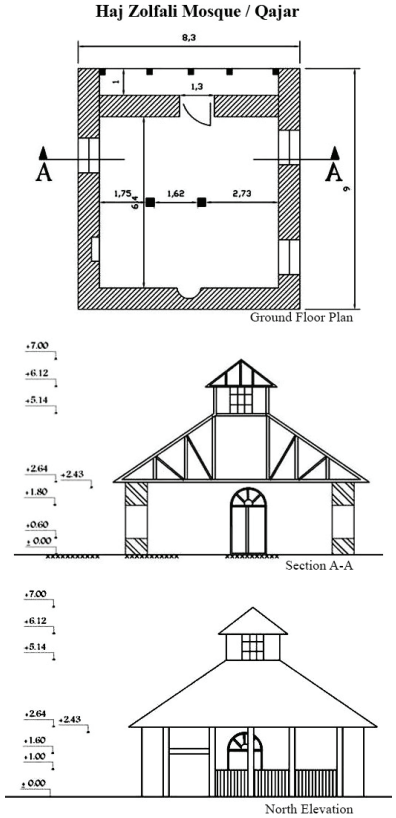

Fig. 41. Plan, Section, and Elevation of Haj Zolfali Mosque in Bordun, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

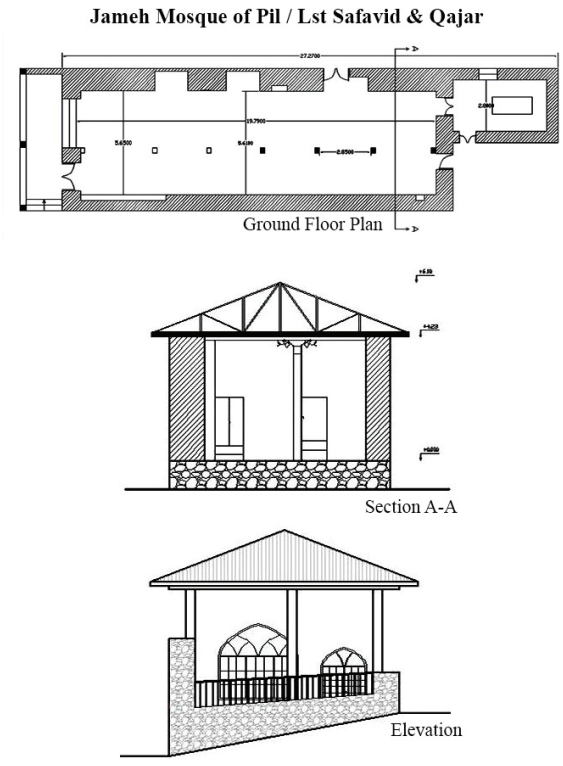

Fig. 42. Plan, Section, and Elevation of the Jameh Mosque of Pil in Pil, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

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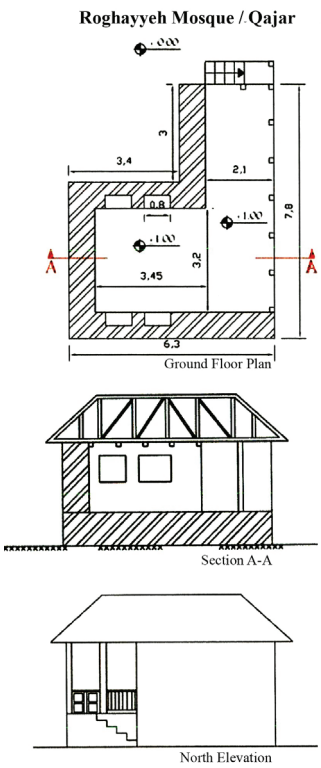

Fig. 43. Plan, Section, and Elevation of Roghayyeh Mosque in Yush, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

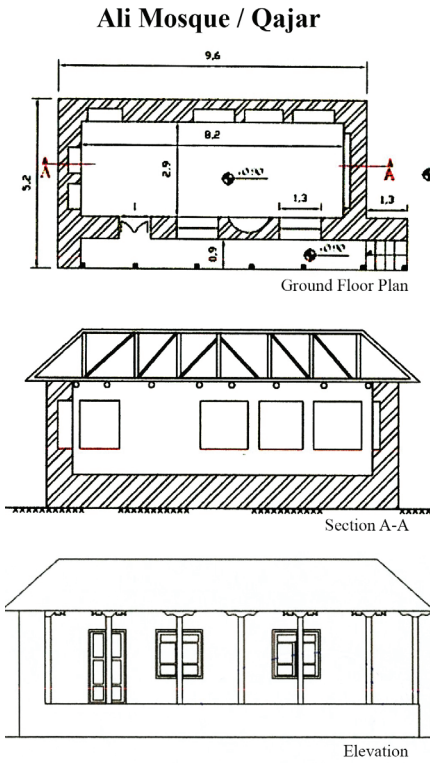

Fig. 44. Plan, Section, and Elevation of Ali Mosque in Yush, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

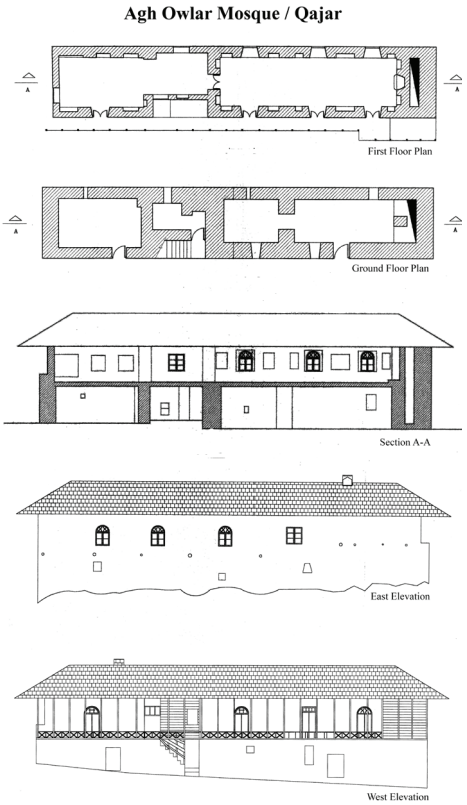

Fig. 45. Plan, Section, and Elevation of Agh Owlar Mosque in Agh Owlar, Talesh. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

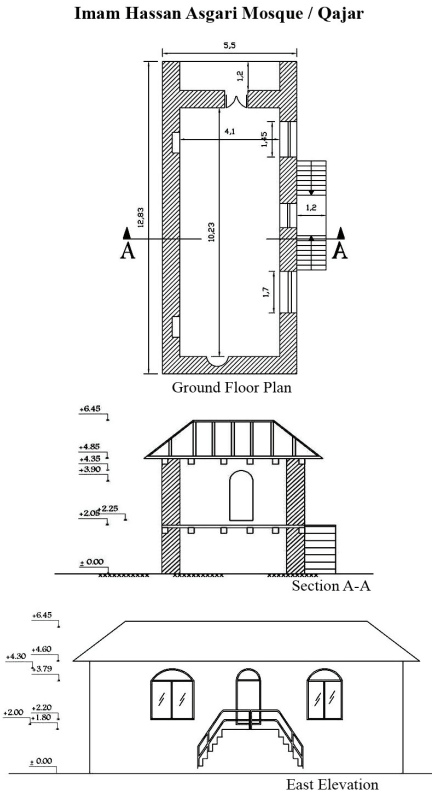

Fig.46. Plan, Section, and Elevation of Imam Hassan Asgari Mosque in Bordun, Nur. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

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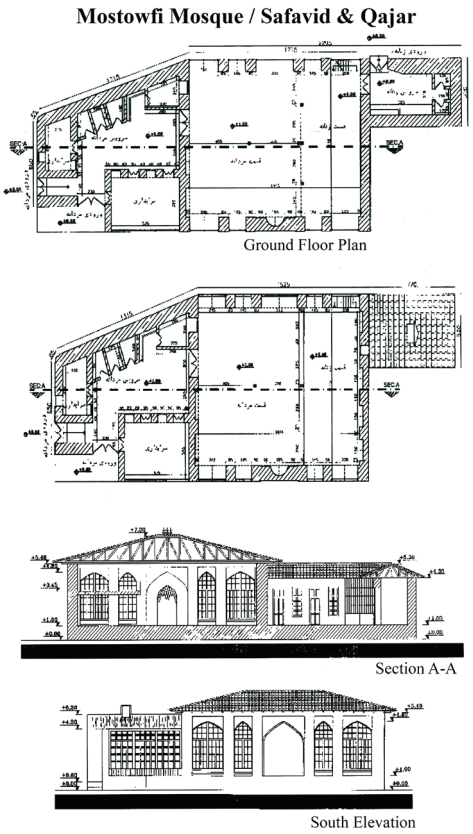

Fig. 47. Plan, Section, and Elevation of Mostowfi Mosque, Rasht. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

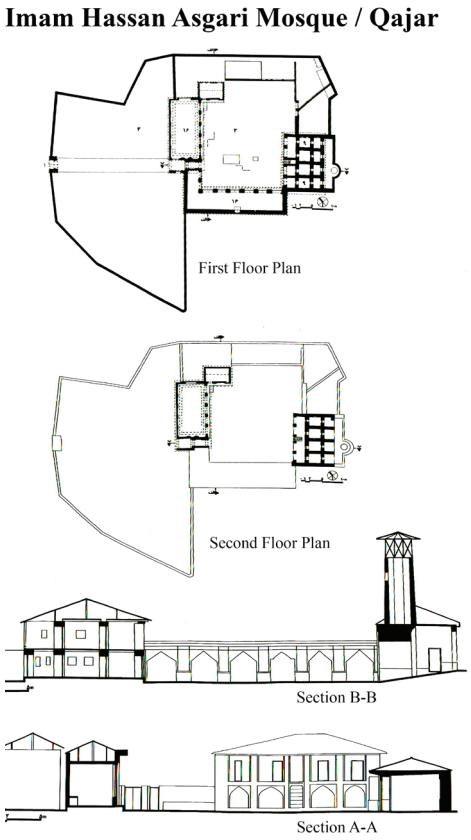

Fig. 48. Plan and Section of Imam Hassan Asgari Mosque, Amol. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

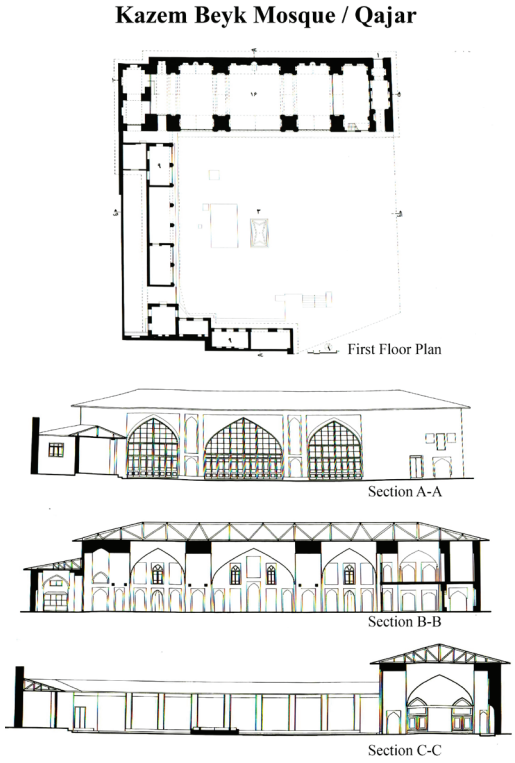

Fig. 49. Plan and Section of Kazem Beyk Mosque, Babol. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

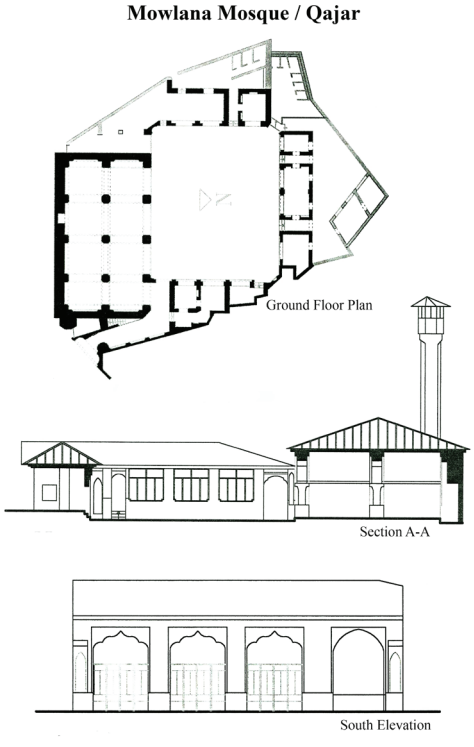

Fig. 50. Plan, Section, and Elevation of Mowlana Mosque, Babol. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

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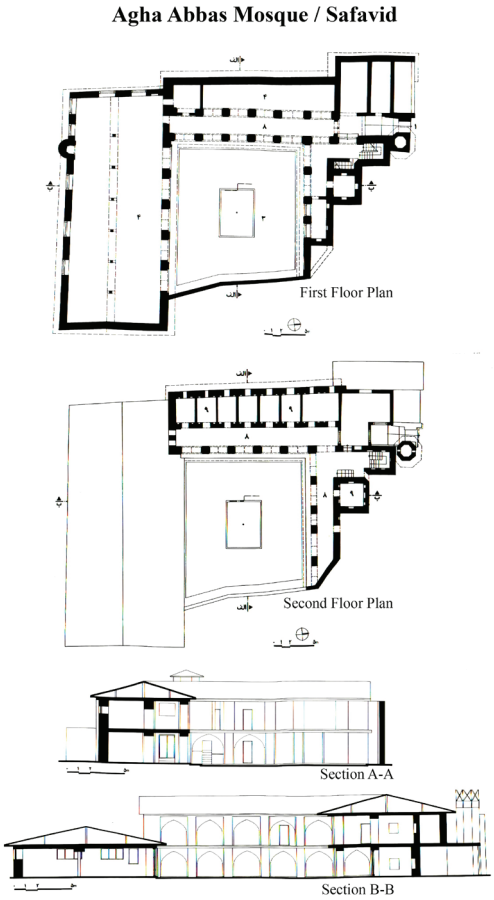

Fig. 51. Plan and Section of Agha Abbas Mosque, Amol. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

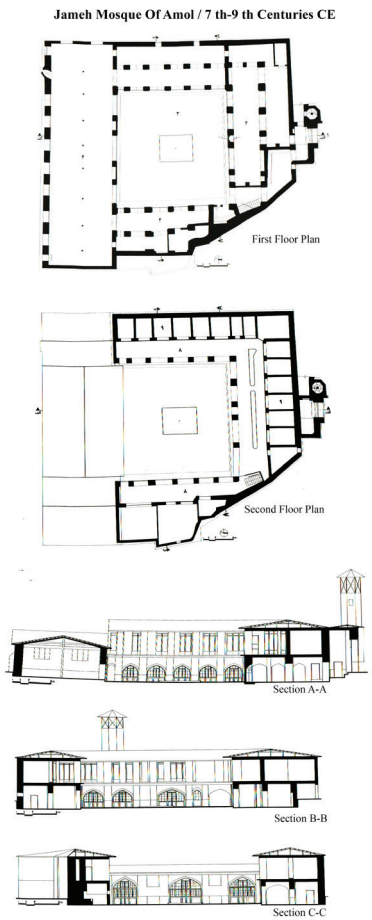

Fig. 52. Plan and Section of the Jameh Mosque of Amol. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

Mosque in Masuleh, Fuman, which merges the foothil shabestān with a tanabi (Fig. 56).

Conclusion

Based on extensive fieldwork and historical analysis, this study has developed a typology of mosques in the Caspian cultural region by identifying key spatial patterns grounded in the vernacular and climatic features of the region.

In response to the first research question, the analysis of local architecture—particularly the prevalence of semi-open spaces— highlighted timber-based construction methods as foundational for mosque morphology in the area. Two spatial archetypes were identified within this context: the Caspian eyvān, a semi-open structure supported by columns facilitating passive ventilation and visual openness; and the Caspian shabestān, a wooden-roofed enclosed prayer hall employing timber or masonry columns, expressing harmony with the natural and humid setting of the region.

These two spatial archetypes serve as a basis for mosque formation in the Caspian region, enabling balanced responses to both environmental and ritual functions. The architectural identity emerging from this configuration reflects an integrated spatial culture adapted to local environmental conditions. To preserve clarity and theoretical coherence, this typology intentionally avoids excessive focus on detailed morphological features (such as specific roof or vault types).

In response to the second research question, spatial analysis revealed the simultaneous presence of three architectural layers—enclosed, semi-enclosed, and open—with a clear priority placed on the semi-enclosed. This classification led to the identification of six main types, along with their relevant subtypes:

- Eyvāni type;
- Shabestāni type (including the subtype: shabestāni with caspian eyvān (caspian eyvān of the setāvandī type);

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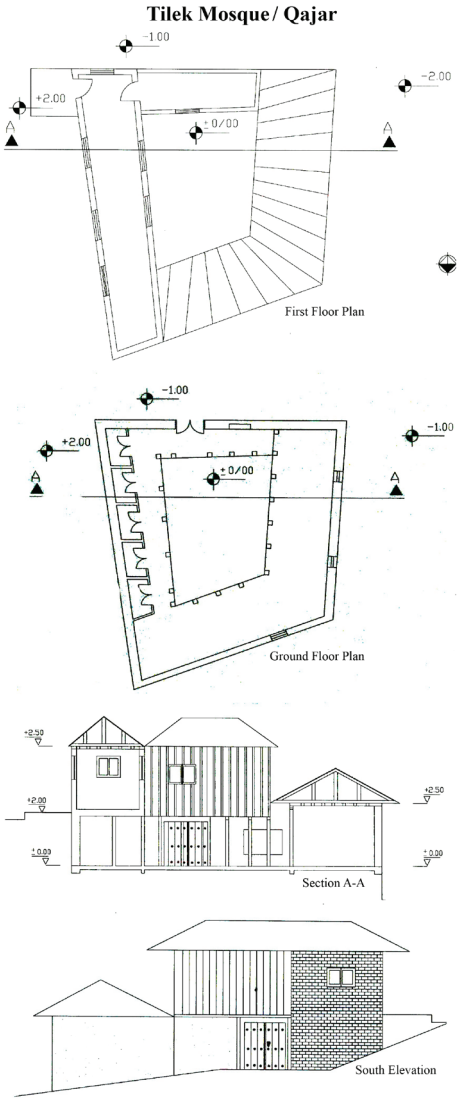

Fig. 53. Plan, Section, and Elevation of Tilek Mosque in Tilek, Sari. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Mazandaran Province.

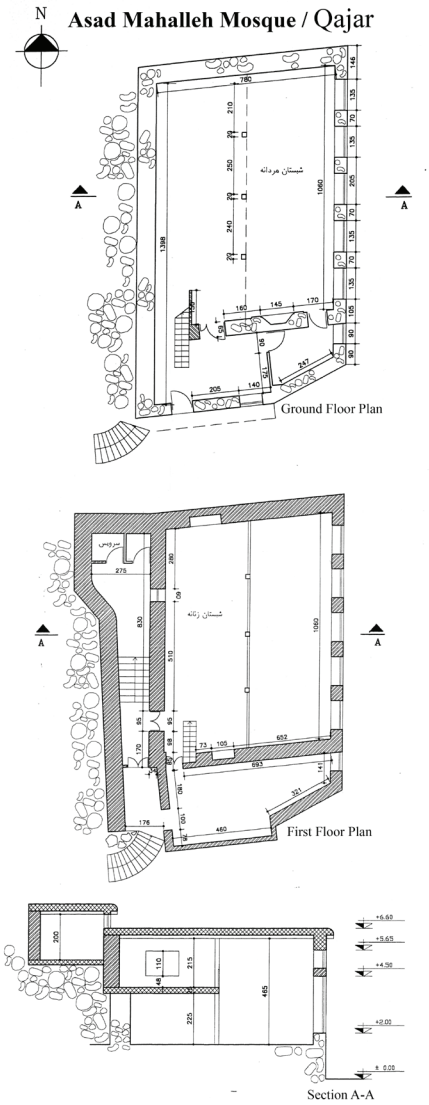

Fig. 54. Plan, Section, and Elevation of Asad Mahalleh Mosque in Masuleh, Fuman. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

- Shabestāni type with miyānsarā;
- Caspian shabestān type (including the subtype: caspian shabestān with caspian eyvān (caspian eyvān of the setāvandī type);
- Caspian shabestān with miyānsarā (including the subtype: caspian shabestān with miyānsarā with caspian eyvān (caspian eyvān of the riwāq type));
- Foothill shabestān type, specific to mountainous contexts (Fig. 57).

The findings further indicate that tanabi—a shallow columned transitional porch—has played a significant role in expanding the adaptability of these types. When further extended, the tanabi transforms into a Caspian eyvān (setāvandī) subtype, acting as an intermediary between enclosed and semi-open zones. This spatial transformation is especially evident in rural mosques, where the shabestān and tanabi often merge so organically that distinguishing them becomes difficult. It becomes difficult.

Ultimately, this typological classification not only answers the main research questions but also opens new horizons for understanding the evolution of religious architecture in the Caspian cultural region. It demonstrates how the interplay between local spatial models and typologies borrowed from central Iran has fostered mosque designs that are both adaptive and environmentally responsive, while remaining deeply rooted in the region's architectural traditions.

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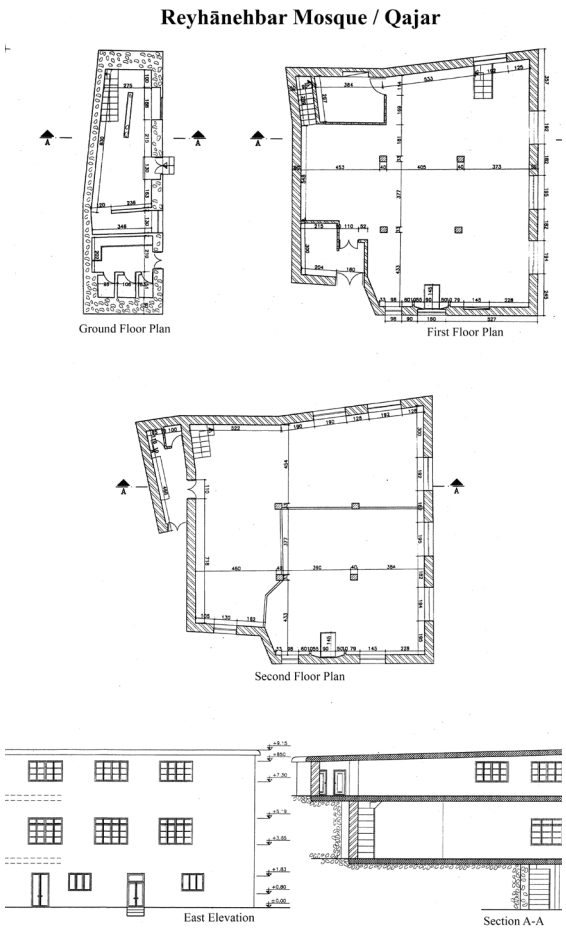

Fig. 55. Plan, section, and Elevation of Reyhānehbar Mosque in Masuleh, Fuman. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

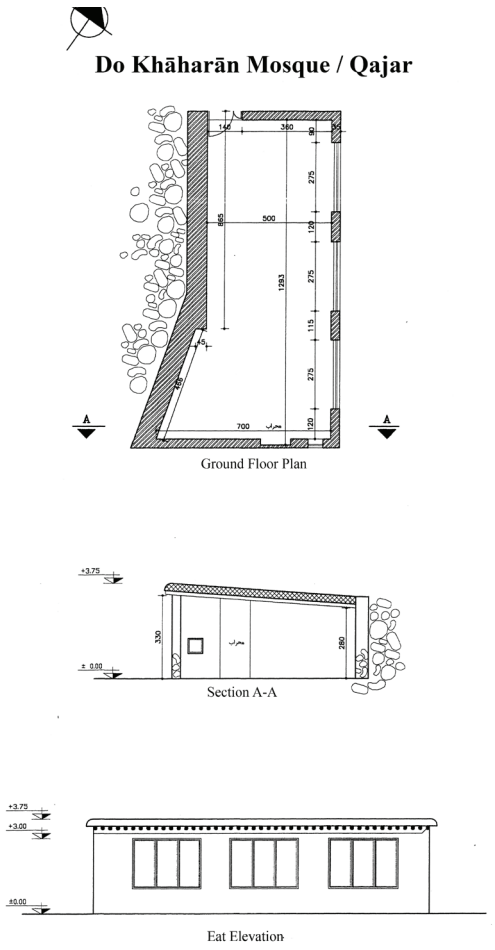

Fig. 56. Plan, Section, and Elevation of Do Khāharān Mosque in Masuleh, Fuman. Source: Registration Dossier in the list of national monuments of Iran, General Directorate of Cultural Heritage, Tourism and Handicrafts of Guilan Province.

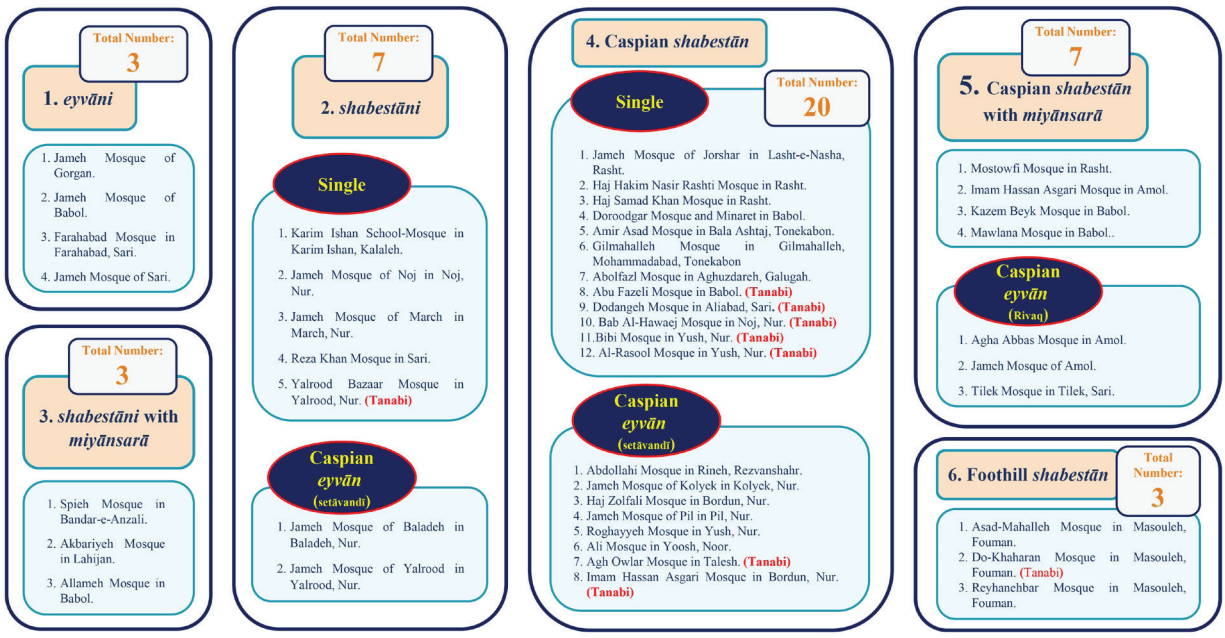

Fig. 57. Typology of mosques in the Caspian Cultural Zone. Source: Authors.

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Conflict of Interest

The authors declare that there was no conflict for them in conducting this research.

References List

• Azhdari, M., Rahimi, M., & Imantalab, H. (2024). Explanation of the architectural and spatial pattern in the plans of the historical mosques of Hormozgan. *Journal of designing and Planning in Architecture and Urbanism, 2*(1): 30–48. https://doi.org/https://doi.org/10.71930/dpau.2024.1045653

• Behzadfar, M. (1997). معماری مسجد و نمای شهری [Architecture of the mosque and urban façade]. In *Proceedings of the International Conference on Mosque Architecture: Past, Present, Future*. University of Art. [In Persian]

• Bemanian, M., Jelvani, M., & Arjmandi, S. (2016). Spatial configuration and the Islamic philosophy in Isfahan madrassah-mosques (Case studies: Aqanur, Sheykh-Lotf Allah and Imam mosques). *Journal of Iranian Architecture Studies, 5*(9), 141–157. https://jias.kashanu.ac.ir/article_111763.html

• Bromberjeh, K. (1991). *Housing and Architecture in Rural Society of Gilan (Anthropological Studies)* (A. Gūshehgīr, Trans.). Mo'assese-ye Motāle'āt va Taḥqīqāt-e Farhangī [Institute for Humanities and Cultural Studies]. (Original work published 1989)

• Chamli, M. (2019). دگردیسی غیرطبیعی یک واحد سیاسی-فرهنگی [The unnatural metamorphosis of a politico-cultural unit]. Dorantash Studies Center. [in Persian]

• Deming, M. E & Swaffield, S. (2011). *Landscape Architectural Research: Inquiry, Strategy, Design.* John Wiley & Sons. https://books.google.com/books/about/Landscape_Architectural_Research.html?id=FMgq98KFI98C

• Diba, D., & Yaghini, Sh. (1993). تحلیل و بررسی معماری بومی گیلان [Analysis and study of the vernacular architecture of Guilan]. *Me'mārī va Shahr-sāzī* [Architecture and Urban Planning Quarterly], (24), 6–16. https://sid.ir/paper/422611/fa [In Persian]

• Ebrahimzadeh, S. V. , Soltanzadeh, H. and Soheili, J. (2021). The Spatial Structure of Courtyards and Prayer Halls in the Architecture of Caspian Shore Mosques During Ṣafavīd and Qājār Periods. *Journal of History and Culture, 53*(1), 55-86. https://doi.org/10.22067/jhistory.2022.72029.1070

• Farmani, S., & Me'marian, G. (2023). Typology of mosques built in Tabriz and Baku during the Qajar period. *Journal of Iranian Architecture Studies, 12*(23), 53–67. https://doi.org/10.22052/jias.2023.245873.0

• Hayaty, H., & Nikkhahan, N. (2023). Evolution of the physical, functional and perceptual space in the historical mosques of Qazvin (Early Islamic, Seljuk, Safavid and Qajar periods). *Scientific Journal of Public Health, 13*(25), 91–109. http://ph.aui.ac.ir/article-1-1224-fa.html

• Hillenbrand, R. (2021). *Islamic architecture* (B. Ayatollahzadeh Shirazi, Trans., 9th ed.). Rozaneh Press. (Original work published 1999)

• Izz al-Dawleh & Melkonof. (1984). سفرنامهٔ ایران و روسیه [Travelogue of Iran and Russia] (M. Golbon & F. Talebi, Eds.). Donyay-e Kitab.

• Jayhani, H., & Saberi, S. (2023). The architectural typology of the mosques within the historical bazaar of Kashan. *Kashan Shenasi, 15*(2), 65–100. https://doi.org/10.22052/kashan.2022.246005.1039

• Khadem-zadeh, M., Me'marian, G., & Salavati, K. (2017). Analytical typology of historic mosques in the Cultural Kurdistan region. *Journal of Iranian Architecture Studies, 6*(11), 103–124. https://jias.kashanu.ac.ir/article_111783.html

• Khakpour, M. (2006). Construction of Shikili houses in Guilan. *Honar-ha-ye Ziba,* (25), 45_54. https://jhz.ut.ac.ir/article_12309.html

• Khakpour, M. (2007). معماری خانه‌های گیلان [Architecture of Guilan houses]. Farhang-e Elia. [In Persian]

• Kiani, M. Y. (2000). *Iranian architecture in the Islamic period*. SAMT.

• Madelung, W. (2011). *DABUYIDS.* Encyclopedia Iranica. Retrieved from https://www.iranicaonline.org/articles/dabuyids-the-dynasty-of-espahbads-ruling-Tabaristan-until-its-conquest-by-the-muslims-in-144-761/

• Mahdavinejad, M., Mashayekhi, M., & Bahrami, M. (2014). Mosque design patterns in contemporary architecture. *Journal of Researches in Islamic Architecture, 2*(4), 1–15. http://jria.iust.ac.ir/article-1-107-fa.html

• Memarian, G. (2008). آشنایی با معماری مسکونی ایران: گونه‌شناسی برونگرا [Introduction to Iranian residential architecture: An extroverted typology]. Soroush Danesh. [In Persian]

• Moradzadeh, S., & Nejad Ebrahimi, A. (2018). A study of mosques architecture in Iran for finding patterning of Bushehr mosques in the Qajar dynasty. *Journal of Fine Arts: Architecture & Urban Planning, 23*(2), 87-98. https://doi.org/10.22059/jfaup.2019.263428.672084

• Mousavi, S. M., & Hamzenezhad, M. (2019). Typology of traditional mosques of Khorasan (North-Razavi-South) based on open and semi-open space. *Journal of Greater Khorasan, 10*(36), 18-1. https://jgk.imamreza.ac.ir/article_137947.html?lang=en

• Nasr, S. H. (2015). *Islamic art and spirituality* (R. Ghasemian, Trans.; 3rd ed.). Hekmat. (Original work published 1987)

• Pasian Khamari, R., Rajab-'Ali, H., & Ravandeh, M. (2017). Typology of mosques in Baluchestan of Iran (From the Qajar period to the present). *Journal of Iranian Architecture Studies, 6*(11), 189–205. https://jias.kashanu.ac.ir/article_111787.html

• Pirnia, M. K. (2001). آشنایی با معماری اسلامی ایران [An introduction to Islamic architecture of Iran] (G. Memarian, Ed.). T Iran University of Science and Technology (IUST). [In Persian]

• Pope, A. U. (1986). *Persian architecture: the triumph of form and color* (K. Afṣar, Trans.). Farhangsara. (Original work published 1987)

• Rafiee Sereshki, B., Rafiee-Zadeh, N., & Ranjbar Kermani, A. M. (2008). *Descriptive dictionary of Persian architectur*e. Road,

[DOI: 10.22034/2.5.42]

Housing and Urban Development Research Center.

• Shojashafiei, M. M. (1998). *تاریخ اسلام در نواحی شمالی ایران: استان‌های (گلستان، مازندران، گیلان، و مناطق رویان، الموت، طالقان و ...) از قرن دوم تا دوازدهم هجری* [A thousand-year history of Islam in the northern regions of Iran]. Eshareh. [In Persian]

• Zakeri, S. M., Deh-bozorgi, S. Y., & Gholami Ruyin-tan, Z. (2024). Physical-spatial typology of historical mosques in Fars Province. *Journal of Iranian Architecture Studies, 12*(24), 151–168. https://doi.org/10.22052/jias.2024.252561.1173

• Zarei, M. E. (2015). Typology of neighborhood (Mahalla) mosques of Sanandaj in Qajar era. *Journal of Studies on Iranian-Islamic City,* (19), 15–28. https://www.magiran.com/paper/1500081/typology-of-neighborhood-mahalla-mosques-of-sanandaj-in-qajar-era?lang=en

• Zeynali Azim, A., & Tavakkoli Moghadam, Z. (2024). An analysis of the typology of architectural structures in contemporary Iranian mosques (Case study: Mosques in the cities of Sanandaj and Isfahan). *Journal of Social-Political Studies of Iran's Culture and History, 3*(3), 267–286. https://doi.org/10.61838/kman.jspsich.3.3.16

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