

**Examining Authenticity in Adaptive Reuse of
Iranian Caravanserais for Tourism: Comparative
Assessment of Two Cases from Safavid Era**

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ABSTRACT

Iran's wide-spread location and the importance of trading in ancient Iran, along with its location on the Silk Road, led to the increase in value for trading roads and the construction of some resorts that were mostly regarded by their military and business sides. Silk Road had constantly been the most important way for caravanserais, foreign tourists, businessmen and different ambassadors from different countries of East (mostly China and India) towards the Mediterranean and the same way back.

Having passed in many years after Islam with the new governments, construction of caravanserais got its attention back and its importance has gradually risen. Safavid era can be regarded as a magnificent time for such a valuable construction type that was highly supported by Kings and Ministers. Since the Qajar period, with adaptive reuse of the heritage caravanserais for tourism purposes that have become as guest houses and hotels, spaces have undergone some changes, causing dimming of authenticity. This study aims to make a comparative assessment of two caravanserais from Safavid Era in terms of continuity of the uniqueness of the heritage buildings during the adaptation process for tourism. This includes the analysis of continuity of architectural elements, spaces, five architectural design principles, authenticity, and intervention levels.

This study seeks to answer the main question, "How can we achieve the continuity of uniqueness and authenticity of historical caravanserai buildings and their interiors during the process of adaptation for tourism in Iran?" This research applies the descriptive and evaluation approach to shed light on all special characteristics of Caravanserais in Iran, particularly in the Safavid era. In the First

Chapter, the introduction, problem statement, aims and objectives of the study, limitations, methodology and thesis structure are given in details. Chapter Two gives general information about the theory of caravanserai architecture as pioneers of tourism architecture. Chapter Three provides theoretical discussions on adaptive reuse of heritage buildings as Caravanserai buildings converted for tourism purposes by discussing architectural conservation, authenticity and cultural significance supported by examples from the World. Chapter Four classifies the case studies of caravanserai buildings from Iran which are converted into tourism-related functions according to the categories explained in Chapter Two; examines two case studies amongst them through a comparative approach according to the studies in Chapter Three and the international charters for conservation. In Conclusion Chapter, the general findings are discussed and further studies are proposed.

Keywords: Cultural sustainability, interior architecture, adaptive reuse, heritage buildings, caravanserai architecture, cultural tourism

ÖZ

İran'ın yaygın yerleşimi ve eski İran'da ticaretin önemi, İpek Yolu üzerinde bulunması, ticaret yolları açısından değerinin yükselmesine ve çoğunlukla askeri ve iş çevreleri tarafından kabul edilen bazı tesislerin yapımına yol açtı. İpek Yolu, sürekli olarak, farklı ülkelerden gelip (çoğunlukla Çin ve Hindistan) Akdeniz'e giden ve aynı şekilde geriye dönen kervansaraylar, yabancı turistler, işadamları ve büyükelçiler için en önemli yoldu.

İslamiyet sonrası yeni hükümetler yönetiminde uzun yıllar geçtikten sonra, kervansarayların yapımı yeniden odak oldu ve yavaş yavaş önemi arttı. Safevî Dönemi, Krallar ve Bakanlar tarafından büyük ölçüde desteklenen bu değerli yapı biçimi için muhteşem bir zaman olarak görülebilir. Gajar Dönemi'nden itibaren tarihi miras kapsamındaki kervansarayların turistik amaçlı olarak yeniden kullanılmasıyla, mekânlar özgünlüklerinin azalmasına neden olan bazı değişikliklere uğramışlardır. Bu çalışma, turizm için adaptasyon sürecinde, miras binalarının özgünlüğünü koruma açılarından, Safevî döneminden iki kervansarayın karşılaştırmalı bir değerlendirmesini yapmayı amaçlamaktadır. Bu analizler mimarlık öğelerinin, mekânların, beş mimari tasarım ilkesinin ve özgünlüğün (otantiklik) sürekliliği, ve müdahale seviyelerinin analizini kapsamaktadır.

Bu çalışma, "İran'da kültürel turizm amaçlı adaptasyon sürecinde tarihi kervansaray binalarının ve iç mekanların özgünlüğünü sürdürmeyi nasıl başarabiliriz?" sorusunu yanıtlamayı amaçlamaktadır. Bu araştırma, özellikle Safevîler Dönemi'nde, İran'daki kervansarayların tüm özelliklerine ışık tutmak için tanımlayıcı ve değerlendirmeye dayalı bir yaklaşım uygular. Birinci bölümde, giriş, problem tanımı, çalışmanın amaçları, sınırlamalar, metodoloji ve tez yapısı ayrıntılı

olarak verilmiştir. İkinci bölüm, İran'daki kervansaray mimarisi hakkında turizm mimarisinin öncülerinden olmak bağlamında genel bilgiler vermektedir. Üçüncü Bölüm, İpek Yolu üzerinde bulunan yenilenmiş örneklerle değinerek kervansaraylar özelinde miras binalarının mimari koruması, özgünlüğü ve kültürel değerleri, turizm amaçlı olarak yeniden kullanım konularını irdelemektedir. Dördüncü Bölüm, İran'da bulunan kervansaray binalarından turizme bağlı işlevlere dönüştürülmüş örneklem çalışmalarını ikinci bölümde anlatılan kategoriler doğrultusunda sınıflandırmakta; bunlar arasından iki örneği üçüncü bölümdeki çalışmalar ve koruma ile ilgili uluslararası tüzüklere göre karşılaştırmalı olarak incelemektedir. Sonuç Bölümü'nde, genel bulgular tartışılmakta; ve daha ileri çalışmalar için öneriler yapılmaktadır.

Anahtar Kelimeler: Kültürel sürdürülebilirlik, iç mimari, uyarlanabilir yeniden kullanım, miras yapıları, kervansaray mimarisi, kültürel turizm

DEDICATION

In honor of my beloved country Iran...

To My Family...

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Chapter 1

INTRODUCTION

Iran is one of the countries that have a lot of valuable historical buildings and each of these buildings has its own background. These buildings have a lot of admirable architectural style that worth to be conserved to appreciate the style of past structure and historic features. Dealing with these architectures will be a testament of local history and it is valuable for future generations and tourism development. The government pays attention to conservation, therefore; nowadays some conservation projects have been improved rapidly in the cities of Iran. Because of these projects many owners and designers face a challenge of preserving the old buildings. They need to make changes that have significant effects on social, political and cultural aspects of the society especially tourism in which the architecture plays a major role. Therefore, important attractions such as guesthouses and caravansaries remain stable until the reach of the vast industry of tourism and architecture. The name, caravanserai, is a combination of *caravans* – meaning collective travelers traveling in groups – and *sarai* – meaning the house or the place (Kiani, 1995). Caravanserai spaces are of particular interest as places with historic associations and as spaces where historical memory can be actively formed. Caravanserais constructed by imperial order used to serve imperial economic functions. They also connected local people into far-reaching transit systems (L. Campbell, 2014). Establishing to provide hospitality for travelers reflected in the traditions of Iranians. A comprehensive system of caravanserais existed across Iran, and throughout the whole Islamic world,

providing hospitality and care for travelers, both pilgrims, and strangers. In Iran today 120 of these caravanserais still exist in various states of repair (O'Gorman & Prentice, 2008). In this research, Continuity of authenticity in adaptive reuse caravanserais, the uniqueness and cultural sustainability of historical Safavid caravanserai buildings which are not preserved enough during the process of adaptation for tourism are considered.

1.1 Problem Statement

“The particular heritage and collective memory of each locality or community are irreplaceable and an important foundation for development, both now and into the future” (ICOMOS 1999). Reasonable and well managed physical, intellectual and/or emotive access to heritage and cultural development is both a right and a privilege” (ICOMOS 1999). Tourism buildings (converted from heritage buildings), are appropriate places for travelers who seek to escape the hustle and bustle of everyday life. These include different kinds ranging from luxury hotels to modest pensions and provide a different experience for travelers and locals. Due to these heritage buildings, owners and designers face a real challenge as to how to preserve their authenticity. The available study focuses on adaptive re-use of heritage buildings for tourism purposes. Investigating this topic is specifically important in countries with rich cultural and historic backgrounds where many heritage buildings have remained from the past. To achieve successful reuse and refunctioning of the old heritage buildings such as caravanserai for the future, it is recommended to include tourism related functions to bring income for the “conservation and maintenance of heritage buildings”.

The main problem focused in this study is that the uniqueness and authenticity of historical caravanserai buildings and their interiors are not preserved

enough during the process of adaptation for tourism. With growing modernization and trying to preserve the heritage buildings, some of these buildings such as caravanserais that have been done in order to restoration and conservation process caused to reduce the authenticity and uniqueness issues while they should be consider as a main factor that dominate to whole process of adaptation.

This study aims to answer the main question and the three sub-questions:

How can we achieve the continuity of uniqueness and authenticity of historical caravanserai buildings and their interiors during the process of adaptation for tourism in Iran?

1. What types of historical caravanserai buildings and their interiors in Iran are defined in the literature?
2. How can authenticity be examined in heritage buildings?
3. How does adaptive reuse help cultural sustainability?

1.2 Aims and Objectives

The main aim of this research is to reach the principles for keeping the authenticity and uniqueness of heritage buildings during adaptation for tourism. For this aim, two tourism buildings converted from historical caravanserai buildings are compared in terms of continuity of authenticity of the building and continuity of its original features.

1.3 Limitations

Various historical caravanserai buildings as the pioneers of tourism architecture, which are located in Iran are exemplified from different eras, typologies and various categories in terms of the location (inside and outside of the cities), climate, geometry of form, caravanserai architecture elements and spaces, and the

five principles of Iranian architecture in Iranian caravansaries. The caravansaries of Iran are in a wide range of areas that are difficult to access. In this research, two Caravanserais from Safavid period which reminds as the golden period of architecture and construction of caravanserais that are still intact are selected for in depth examination. This examination is based on the aspects which are derived from theoretical studies on continuity of authenticity and uniqueness. The case studies are selected according to the historical caravanserai buildings which are converted into tourism-related functions and are remaining from Safavid era in the Silk Road in Iran. The location (Inside and outside the city), the climate, the geometry of form, transitional space of the caravanserais and various reuse approaches with different intervention levels are examined.

1.4 Methodology

This qualitative research evaluates caravanserais which are reused for tourism related functions and the study is exploratory to address the topic under investigation through review of the literature, data collection from journals, articles, internet sources and books. The evaluation method of the case studies is designed according to theoretical background on caravanserais and adaptive reuse discussions. Continuity of uniqueness and authenticity in reused caravanserais is evaluated according to the continuity of original features, appropriateness of interventions and international charters for conservation (ICOMOS) such as: The Nara Document on Authenticity, the Venice Charter and the Burra Charter.

1.5 Thesis Structure

In the First Chapter, introduction, problem statement, aims and objectives of the study, limitations, methodology and thesis structure are given in details. Chapter Two gives general information about the theory of caravanserai architecture as pioneers of tourism architecture. Chapter Three provides theoretical discussions on adaptive reuse of heritage buildings as Caravanserai buildings converted for tourism purposes architectural conservation, authenticity and cultural significance supported by examples from the World. Chapter Four classifies the case studies of caravanserai buildings from Iran which are converted into tourism-related functions according to the categories explained in Chapter Two; examines two case studies amongst them through a comparative approach according to the studies in Chapter Three and the international charters for conservation. In Conclusion Chapter, the general findings are discussed and further studies are proposed.

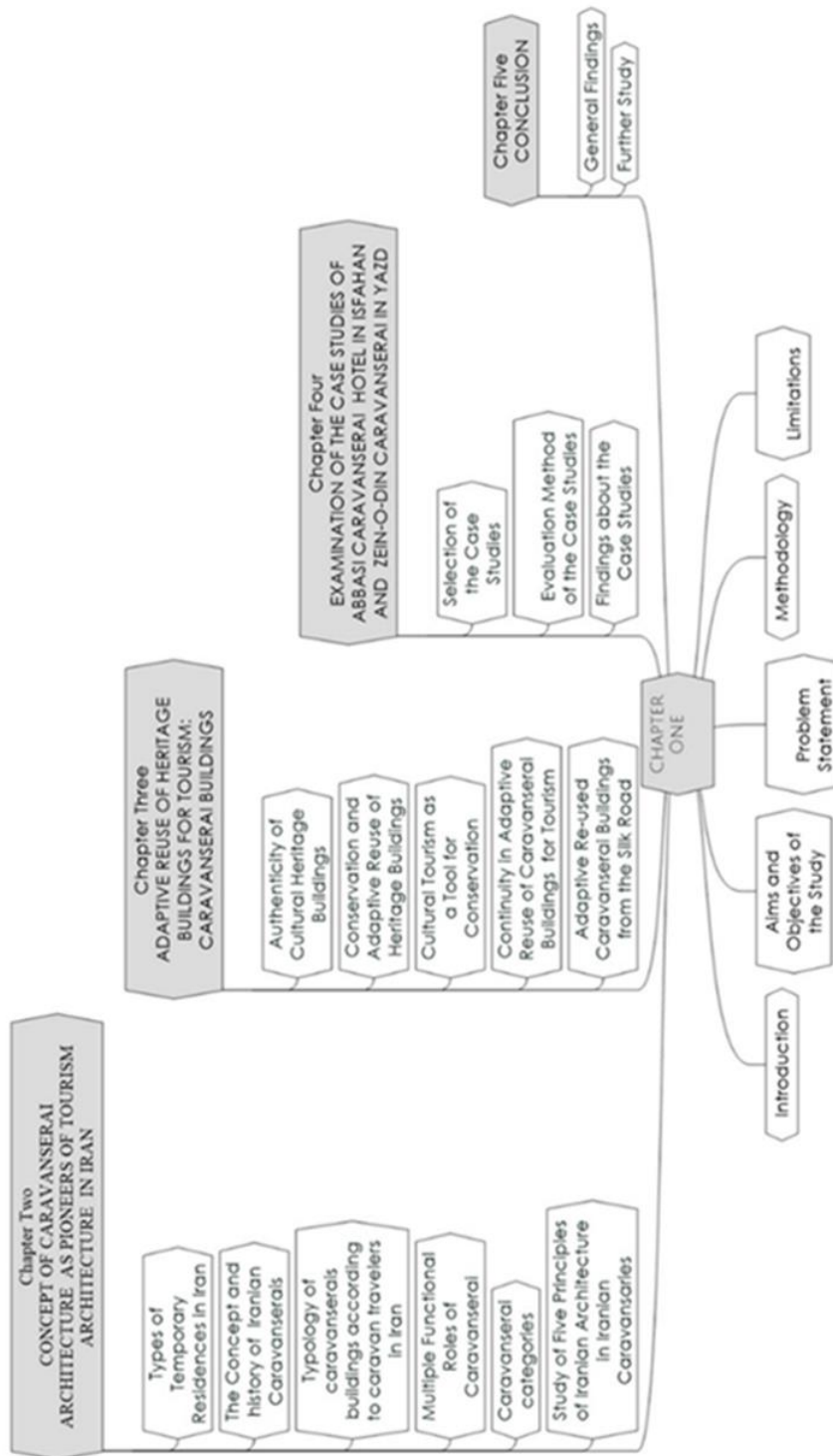


Figure 1. Thesis structure

Chapter 2

CONCEPT OF CARAVANSERAI ARCHITECTURE AS PIONEERS OF TOURISM ARCHITECTURE IN IRAN

The residence can be defined as determining the position and authentication of identity. Residence also refers to the establishment of a meaningful relationship between humans and the environment – a link derived from the attempt to establish identity. According to Heidegger in his essay “Building Dwelling Thinking” in 1971, the way humans live on earth is their habitat. He regards settlement as the most fundamental property of existence in accordance with his other assumptions. The term ‘settlement’ is used in aesthetics, archaeology, geography, and other subjects related to human habitation, regardless of settlement size. A settlement can range from small in size to large in size, such as villages and cities (Arzaghi & Aliasghar Esmailpourroshan, 2016). Robert Hillenbrand (1994) remembers caravanserais buildings as "palaces in the deserts," and Arthur Upham Pope said, "The construction of the caravansaries is one of the great victories of the Iranian architecture, and nowhere can see the complete view of the construction and function” (1992, p. 238).

Residences are defined in dictionaries as safe places to live and having the following qualities:

1. A place to settle and relax.
2. The answer to the basic of human needs is to respond to shelter.
3. A way to relax and re-energize (Arzaghi & Esmailpour Roshan, 2016).

From the beginning of the emergence of human gatherings in the Middle East, Iran maintained its prime position as the center of the ancient world for nearly 880 years - considered the bright years of world civilization. It has long been expressed as desirable to visit the historic country of Persia. Due to Iran's location on the east-west commercial highway and the highway's extents, since ancient times Iran has considered the creation of commercial and military routes, construction of multiple bridges, and security for the caravans. The social, economic, and religious conditions in different periods of Iran's history have led to the development of commercial and passenger caravans and the formation of various temporary residences in Iran (Azhdari, 2016).

The big robots, both inside and outside the city, are called *caravanserai* (Pirnia, 2008). The caravanserais (alternately called inns) are regarded as one of the most important symbols of Persian architecture. They emerged and were created based on the development of travel routes and because of the needs and requirements of people traveling. These constructions provided safety for all caravans and travelers that may have faced natural risks such as storms, flooding, rain, or snow. They also kept travelers safe from the danger of robbers on the roads. These are counted as the reasons for having the castle-like structure of caravanserais. The form and detail of caravanserais, from a simple enclosed building as the first prototype to the highly decorated ones from the middle centuries or the very fortified types, are the evidence of progress, improvement, and evolution of this kind of buildings. The type and other characteristics of different caravanserais also indirectly represent the safety of roads, the wealth of people, and the trade boom or the authority of government at the time of construction (Kiani, 1995).

In ancient Iran, within the Seljuk or Ilkhanied periods, the wealth and power of the central government can be clearly understood when seeing the numbers of new caravanserais constructed. The restoration, reorganization, and extension of old caravanserais are also regarded as the other signs of that. Some other similar changes during the Safavid period illustrate that Safavid rulers were wealthy and powerful kings who cared for constructions and buildings (Kiani, 1995).

National law and national inventories protect hundreds of caravanserais in Iran. These are located beside both old and new roads and usually within approximately 100 m² to 8000 m² from the road.



Figure 2. Safavid Sagzi Caravanserai, Outside of Isfahan, Iran (URL 1)

These constructions are made of a wide range of materials from mud-brick to stone. From the architectural and artistic points of view, decoration styles are also unique like Robot-i Sharaf caravanserai, in Razavi Khorasan Province, Iran. Caravanserais are also very importantly influenced by their geographical locations as well as the stories behind their constructions. The majority of these constructions have a lot of basic features such as functions, materials, and plans in common, while

there are many other aspects that make them quite different from each other which will be explain in the further pages.



Figure 3. Safavid Izad Khast Caravanserai, Fars Province, Iran (URL 2)

Central courtyards, halls (vestibules), cells (rooms), stables and Porches (Iwans) can be counted as similar spaces and elements of caravanserais. There are other services and spaces like baths, shops, prayer rooms, water cisterns, and security infrastructure which are unique to the different caravanserai.

This style of architecture was highly affected in some periods. The first one is identified during 10th century when decorated and more modern caravanserais started to appear. The second period seems to start around the 14th century along with the

historical empire of the Ilkhanid, which extended from the far-east to the middle of Europe. The last period, during the 16th century and the Safavid period, was when the Safavid started to build more and more caravanserais and the process of renewing the old caravanserais was started (UNESCO World Heritage Centre, "Persian Caravanserai", 2017).

2.1 The Types of Temporary Residences in Iran

The need for long journeys and the limited speed of vehicles in the old days required caravans and passengers to travel throughout the day and rest at night to rejuvenate, avoid nightly risks, and recover from fatigue. Over time, due to the occurrence of accidents along the way, there was a greater need for the construction of a building and a stopover along the road in order to provide comfort, especially at night. This led to the initial formation of intermediate roads connecting main roads to purpose-built structures. These early structures are called *karbat*, *sabat*, *robat*, *khan*, and *mehmankhane*.

2.1.1 Karbat

Before Islam, the *karbat* had been used instead of the caravanserai and, like a Robat, it had rooms and a pond at the underground floor (Pirnia, 2008).



Figure 4. Safavid Khushab Karbat in Ferdows County, North of South Khorasan Province, Iran (URL 3)

2.1.2 Sabat

All the temporary residences built inside towns were called *sabat*. The first part of the word *sa* means comfort and the second, *bat*, is the extension of the diagram of the building, the building, the village, and the mansion. This term was used in ancient Persian and also in languages used east and west of Persia (Pirnia, 2008). The simplest forms of the resorts are along the same paths as the small buildings built inside or outside the city. The *sabat* has three to seven indoor spans, two sides of which are small chalets with a single bed or bench. Often, in the middle is a crater used as a storage tank for cool water and sometimes one or two small rooms used to relieve fatigue and receive a bit of rest (Pirnia, 2008).



Figure 5. Qajar Sabat Moein Tojar Caravanserai, 1869, Ahvaz, Iran (URL 4)

2.1.3 Robot

Of the buildings along the way, those outside the towns were called *Robot*. The word means getting home and getting around in the way. Robots, in addition to the pond and water, have several rooms that surround the courtyard and allow travelers to rest for one or more nights (Pirnia, 2008).



Figure 6. Robat-i Sharaf, 12th century, Razavi Khorasan Province, near Iran-Turkmenistan border (URL 5)

2.1.4 Khan

The main meaning of *khan* is home in Persian and Arabic, and it equates with caravanserai. These lexical indicators point to the fact that some of the early monuments that catered to the needs of travelers were similar to the house. In most countries, the word *khan* refers to small guesthouses located near residential areas (Tabatabaian, 2009).



Figure 7. Alay Han building and plan, 1155-1192, Aksaray on the Nevşehir Road, Turkey (URL 6)

2.1.5 Mehmankhane (Guesthouses)

Along with the famous cities and villages, especially the capitals, there were large, beautiful and magnificent caravansaries, most of them were *mehmankhane* or guesthouses. Among these is the Kamalalmolk Traditional Guesthouse in Kashan (Pirnia, 2008). Other sorts of guesthouses, which was built alongside monasteries, were Dara al-Sayyadeh, Dar al-E'erba, and Dara al-Ziafa. Most of the foreign travelers and passersby, who had no other means of accommodation, stayed in such places (Pirnia, 2008).



Figure 8. Kamalalmolk Mehmankhane converted to traditional guest house, Kashan, Iran (URL 7)

2.2 The Concept and history of Iranian Caravanserais

In Iranian architecture, caravanserais have high status, especially along the communication network. The evolution and expansion of caravanserais in Iran in different historical stages has been dependent on social, economic, and religious aspects associated with their formation and development (Lotfalikhani & Danaeinia, 2017).

The human need for shelter and refuge, not only at rest but also on a journey, has been important since ancient times. In Iran, there were the works and manifestations of these road shelters and resorts in the very distant past. Many of them can be regarded as the architectural and artistic masterpieces of their times in terms of construction. During the Islamic era, the construction of these buildings started to grow and develop with different features in every town and village. Roads in both deserts and mountains are named for their robot and caravanserai. Building of caravanserais has a very old history; according to historical sources, Iran was the pioneer in the construction of caravanserais and the communication system. Historical sources suggest that the Achaemenid (550–330 BC) were the founder of these monuments. Greek historian Herodotus, in his fifth book, writes about lodgings made by the Achaemenids between Susa and Sardis. This historian states that there are one hundred and eleven buildings known as caravanserai (Chaparkhaneh) at a distance of about 2500 kilometers from the capital of Achaemenid and Babylon and caravans taking up to three months. Although there is no remnant of such monuments from the Achaemenid era, it is clear that at that time there was a vital need for the waypoints, security, and wellbeing of caravans and messengers (Kiani, 2001). Since the Achaemenid period, these constructions were made as governmental stations and were called Chaparkhaneh for being places to change Chapars (the riding messengers) and to support rapid communication. According to Herodotus, Cyrus had ordered checkpoints and stopovers to be built for Chapars (letter carriers), travelers, and the military along the main routes all over the country. These stations had great importance in early communication. Government rulers could use Chapars to get information by short messages from the farthest parts of their territory. Furthermore, they used watchtowers (protective tower) to watch around the

surrounding areas or to send visual signs and signals at regular intervals. These were components in a method of communication, much like a telegraph system, and transmitted news and commands from station to station (Ghasemi & Gholamalizadeh, 2015).

Although the history of the construction of caravanserai buildings dates back to the Achaemenes period, about 2500 years ago, the peak of the flourishing of the Iranian caravansaries was during the Safavid period from (1501 to 1736 AD). In this period, and especially during the era of Shah Abbas I, a kind of harmony was created in the construction of 999 caravansaries. The myth about the number of caravanserais says Shah Abbas Safavid ordered the building of nine hundred and ninety-nine caravanserais because he considered the thousand figure to be a simple word, so he ordered 999 caravanserais to be restrained in its counting that future generations know his great work (Nourbakhsh, 1966). In Maxime Siroux's essay, this figure is believed to be much lower than the actual number of caravansaries built during the Safavid era; it quotes the opinions of some scholars raising the figure to thirty thousand (Siro, 1974). In some ways, the construction of the caravansaries in this period was the greatest architectural activity intended to facilitate government, trade, pilgrimages, and other types of travel. During the Safavid period, great attention was paid to the construction of caravan buildings in parallel to the repair and establishment of roads and strengthening road maintenance. The Silk Road also known as "Silk Rout" was an international road that began in China and reached Europe passing through many countries, including Iran.



Figure 9. Interactive Map of the countries and cities along Silk Road (URL 8)

During the Safavid period, especially under Shah Abbas I, Iranians paid particular attention to trade for security and economic growth. For the reasons of greater prosperity of travelers and business development, destroyed caravanserais across the country were also reconstructed. At the same time, countless new caravanserais and cisterns were built along country roads. For this reason, the Safavid era is considered the golden era of constructing large caravanserais (Hamrahi, Keshavarzi, & Manshad, 2017).

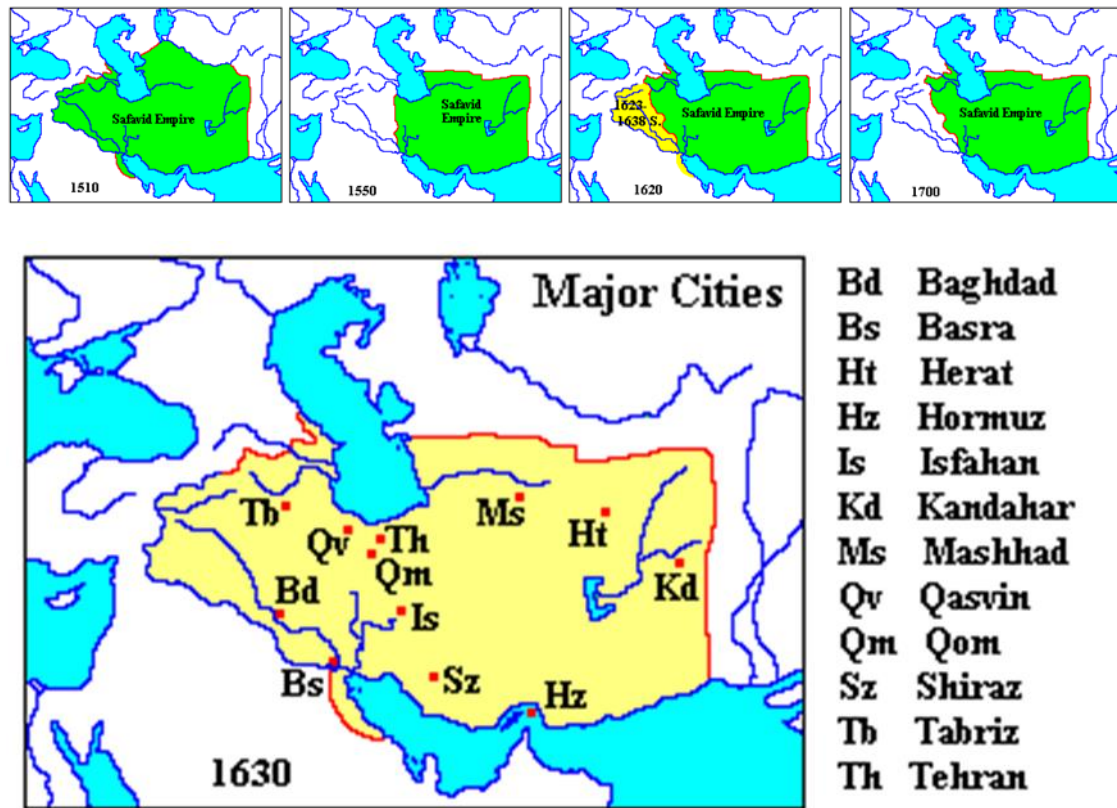
Safavid caravanserai developed in specific response to the convergence of dynastic, geopolitical, and economic forces affecting Iran at that time. The first of these was the consolidation of Safavid imperial power and an enhanced culture of courtly display and consumption of luxury goods. The second is the movement of the imperial capital to Isfahan. Third, the need to conserve gold and silver prices through third party taxation contributed to the Safavid policy of forging direct commercial links with Europe. These three issues are reflected in the spatial forms, functions, goods traded, and patterns of habitation of Safavid caravanserai (Bryce, O'Gorman, & Baxter, 2013, p.220).

Construction of a caravanserai during the Zand Dynasty (1750-1749 AD), Afsharid Dynasty (1736-1796 AD) and Qajar Period (1785-1925 AD) can be considered a continuation of the Safavid period. The arrival of modern communication facilities that were the mainstay of western civilization and the emergence of new communication tools, making travel easier and faster, have led to the prosperity of caravansaries and their gradual destruction (Azhdari, 2016).

Today, few of the old caravansaries that have significant architecture are protected as cultural heritage and the rest are going to ruin. However, in recent years, efforts have been made for the restoration of the caravanserais (Azhdari, 2016).

Caravanserais are used as places near highways where merchants, pilgrims, scholars, and government employees pass and could stop for a short break. They protected these passengers from probable dangers such as robbers and inclement weather. Caravanserais were places that might have supplied water for drinking, bathing, and ritual ablution. They were also regarded as “places to perform daily prayers” (Sims, 1978, p. 97). They also functioned as markers for roads and guided passengers from great distances; therefore, they could be relied upon “to mark a tiresome journey” (Dar, 1994, p.30). There are different purposes for having caravanserais in both the rural and urban settings and they were constrained by different structural variables (Hillenbrand, 1994, Campbell, 2011).

2.3 Typology of caravanserais buildings according to caravan travelers in Iran



The Study of caravanserais without the knowledge and awareness of the conditions of roads and road communication is impossible. Because in the past, caravansaries and other similar buildings, such as Chaparkhaneh (a Persian term for the postal service used during the Achaemenid era), stables, Ghahveh-khaneh (coffeehouse), and military posts, were related to roads and integral part of the road system. Due to the state of the roads and the amount of traffic and conditions, political-social situations have undergone changes. Roads are considered the most important development in structure and development and progress in each region and country depend on the state of roads. According to Mahmodian (1998), important

cities and centers that have been on the path of communication have expanded faster and benefited from the social, cultural, economic, and even political development. The first capital city of the Safavid dynasty was Tabriz during the reign of Shah Isma'il and the first few years of his reign. The second capital, selected at the time of Shah Tahmasb, was Qazvin. But the most important and largest capital of the Safavid was the city of Isfahan. It was selected by Shah Abbas I (URL60).

In this regard, it can be argued that the number and variety of ancient works such as caravansaries, robats, and sabats in this geographical area reflect the greatness and authority of the civilization and culture of this land.

During the Safavid period, Tavernier a French traveler in his fourth voyage (1651–1655), wrote in his paper:

“In Iran and Ottoman, you can travel in a few ways, either with a caravan or with friends of ten to twelve or only with one tour guide. I had to go to Asia six times and travel all the way, and I had to test it all. The safest way to travel is by caravan but it takes a long time because it goes very slowly, especially the camel's carriage, the way a rider rides a day, the mules are two days and the camels are four days away. The caravan is similar to a chariot train and a cart composed of a large number of merchants who are assembled at a given time and place and with a certain amount of time in order to resist and defeat the thief. Because in these ways, which are often deserted and empty, thieves are thoroughly attacking consensus and a lot of people (Moradi, Gol Mohammadi, & Lotfi, 2015).

Creating new roads as well as ensuring road safety has led to an ever-increasing rise in trade and economics, and as a result, several caravanserais were built along the road. Safavid governors, especially Shah Abbas I in the Safavid dynasty (1587–1629), noted that trade and commerce can make the country

prosperous in the short term and to do this, they repaired roads and built multiple caravansaries along the trade routes. Indeed, from this time on, various European groups traveled to Iran for commercial purposes and political or military purposes.

Many famous tourists like Pietro Della Valle by his wife Maani visited Hamadan and Isfahan in the summer of 1618 (URL61). Adam Olearius, on 14 November 1636, became secretary to the ambassador sent by Frederick III, Duke of Holstein-Gottorp, to the Shah of Safavid Persia (Iran), and published two books about the events and observations during his travels (URL62). Jean Chardin was a French jeweler and traveler and Shah Abbas II made Chardin his agent for the purchase of jewels. In the middle of 1667, he visited India and returned to Persia in 1669 (URL62). Jean-Baptiste Tavernier, on his fourth voyage (1651–55), also visited Iran (URL63). Shirley brothers arrived in the Safavid state in December 1598 (URL64). And others came to Iran to visit and conduct business. Economic flows have increased and the traditions of different peoples and nations were closely observed and were socially and culturally interacting (Sobhani & Barani, 2016).

2.4 Multiple Functional Roles of Caravanserai

According to Sobhani and Barani (2016), over the centuries, the architecture of Caravanserais has gradually developed and evolved.

In the function of the caravanserai, religious, social and cultural significances are investigated. The caravanserai's activities, the functions of the caravanserai's and their role in the surrounding landscape shape the users' conceptions. The conception of the functional purpose of a given caravanserai reflects the multiple roles of the caravanserai in the occupying body's political, economic and social structures (Campbell, 2011). On the other hand, individuals in positions of political power

could regard caravan series as local taxation and income generators and subject populations as a place for unwanted and exploitative foreigners (Campbell, 2011).

2.4.1 Socio-Cultural Role

Human beings are intrinsically in need of social relationships and thus provide themselves opportunities for experiencing social interactions. A caravanserai was among the elements that, in the past, created the best opportunity for communication between different people and helped them realize mutual concerns in various social dimensions. During travel breaks, people at these places exchanged information and became aware of the evidence and events of other places and destinations. Thus, in the land of Iran, the buildings of the caravanserai played significant roles in establishing unity between Iranians and solidarity of the cities and regions of Iran. Caravanserais offered travelers the opportunity to come together, to share stories and experiences and, ultimately, to share cultures, ideas, and beliefs. Languages had to be learned to communicate stories from the roads, local food, clothes, and etiquette were combined with the goods and customs of the merchants themselves. In addition, religions, traditions, and ideas fell in such places and brought influences from the lengths of the Silk Road into the Caravans' communities (Ehsani, 1989).

2.4.2 Economic Role

Caravansaries across Iran were built and trading along the routes was not the only reason to rest the caravans. They were also safe places for merchants, and it was even possible to supply goods and carry out transactions between merchants of various traveling crews.

The existence of numerous caravansaries in cities resulted in economic and social flourishing. As a result, traditional bazaars in Iranian cities such as Tabriz,

Isfahan, Shiraz, and Tehran became places for import and export of goods needed across Iran and the region. The construction of the caravansaries was not restricted to the outskirts of the city, but also in the city, caravanserais were built for travelers and business people. Most of the caravansaries adjacent to bazaars were fully commercialized, and most merchants of each trade were operating in one of the adjacent caravansaries or inside the bazaar. Caravansaries played an important role in enriching the community. People who lost their property did not build a mosque, school, or health center to save themselves; they built a caravanserai and quickly became wealthy when they turned to business (Alfaki, 1966).

2.4.3 Political Role

The caravansaries were politically located where the rulers were settled. During military trips in particular, the central robats served the purpose of publishing and exchanging political and economic news of various cities and territories like the election of a minister, the death of a businessman, or the price of one or more commodities. In general, it can be said that the caravansaries were the bridge between the various communities in the country and among the masses of the people. Also, during the long nights in the caravansaries, elderly people and scholars have been traced to storytelling, which in addition to being entertaining had ethical guides for young or inexperienced travelers (Falamaki, 1987).

As mentioned by (Hall & Page, 2002): "Towns and towns function as places where the population is concentrated in a defined area and economic activities are located in or near the same area to offer the opportunity to produce and consume goods and services in capitalist societies. Consequently, towns and cities provide the context for a wide range of social, cultural and economic activities undertaken by the population and in which tourism, leisure, and entertainment are important services.

These environments also serve as meeting places, major tourist gateways, lodging, and transport centers and as central places to serve visitors ' needs " (Hall & Page, 2002).

2.5 Caravanserai categories

The caravanserais in Iran are including a variety of categories according to the location, climate, geometry of form and transitional spaces which all of these are examined below:

2.5.1 Caravanserai categories in Iran according to the location

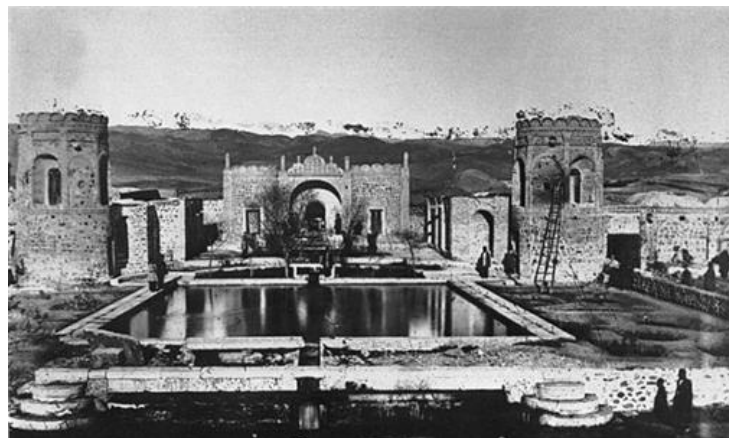
Because of the need for securing people and merchandise outside of town, most of the city was susceptible to the possibility of attacking bandits. Caravansaries along the roads were built as an independent collections and castles, but for those connected to the city, their outer shells were combined with the city's pattern and made part of it. Because the price of land outside the city was cheap, exurban caravansaries were mostly one story their yards and infrastructure utilized large areas. In the city and near the bazaars, the price of land was very high and the buildings had two floors above ground and some had underground spaces as well. The stables for the caravansaries outside the city composed a large part of the caravanserai's substructure. In most cases, the stables were greater than the whole area for travelers. But for the caravansaries inside the city there were no stables or relatively small stables behind the rooms (Arzaghi & Esmaeilpourroshan, 2016). Due to the location, there are generally two types of caravanserais. First category includes the caravanseraies located inside urban areas and the second category includes the caravanseraies located rural areas outside of towns. Majority of the caravanserais inside towns are generally behind the main bazaar roads. First, caravans arrived in caravanserais outside the towns and a some of the traders were divided from the

caravans and entered the cities and settled in the caravanserais. In fact, there was a link between caravanserais outside towns and inside towns. It shows the relationship between caravanserais and bazaars exists in the cities of Iran (Mahasti,2013).

“Caravansaries were counted as a quiet house and home to convoy and passengers. On the other hand, caravansaries in the cities are still working as business places” (Kiani, 1987).

2.5.1.1 Caravansaries Outside towns

The buildings of the exurban caravansaries usually had fence-walls along their edges and sometimes spanning between the corners and the walls of any towers, such that the gate was located between two towers or pseudo-pillars. A chamber was usually built in the upper part of the two-story towers. In the caravansaries, travelers' rooms were usually built around the courtyard and usually were a few steps above the courtyard. The stables were situated behind the rooms with entrance to the stables accessed from the four corners of the building. The stables were covered with a vault to prevent severe heat and extreme cold and sometimes opened into the courtyard porch. Usually the foreheads were also located behind the rooms. (Arzaghi & Esmailpourroshan, 2016).



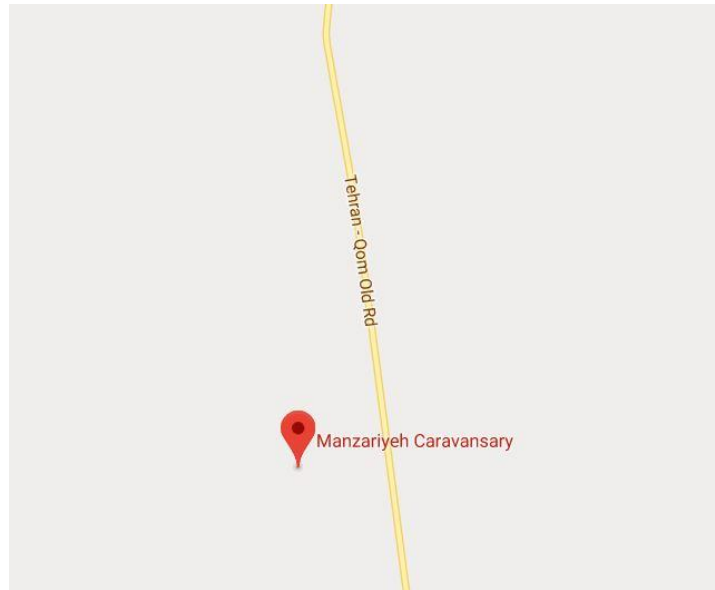


Figure 11. Manzariyeh Caravanserai in Tehran-Qom old road, Iran (URL 10)

2.5.1.2 Caravansaries inside towns

During the Safavid period, the caravansaries in the cities increased as well, so that in each caravanserai specialized goods were bought and sold, and traders could enter and sell in those caravansaries, especially in relation to their property. The performance of urban caravansaries was much broader than the performance of caravansaries outside the city. Lack of space in a densely populated urban environment always had limitations, therefore the areas of residence were not the same size as those outside the city. In particular, there was clearly less need for protection and fortresses were unaffordable. In-city caravansaries were finally forced to have a permanent, rather than transitory plan for accommodating guests, businessmen, and businesses. These caravansaries in cities have distinctly different shapes compared to those outside the city. As well, their dimensions are smaller, having more limited space for businessmen and travelers and none for their animals (Forouzandeh, Kiani, & Heydari, 2015).



Figure 12. Shah Abbasi Caravanserai, Karaj, Alborz Province, Iran (URL 11)

2.5.2 Caravanserai Category According to the Climate in Iran

The location of the caravanserai was quite influenced by its context and aligned with the surrounding environment and climatic conditions.

Iran is a vast territory with various climates. The Silk Road Geography in Iran includes the mountains, deserts, rivers, valleys, and other geographical features. There is an ultra-hot and dry climate in the center, there is a very humid climate in the north and south of the country. On the other hand, the Caspian Sea (in the North) and the Persian Gulf (in the South) and a lake in the North West (Urmia), the country has no significant water. Instead, there are two main deserts in the center of the country, which are horizontally and vertically surrounded by mountains from north and west. Caravans on the Silk Road had tried to reach out the western part, from the east and vice versa of the country (Mahasti, 2013).

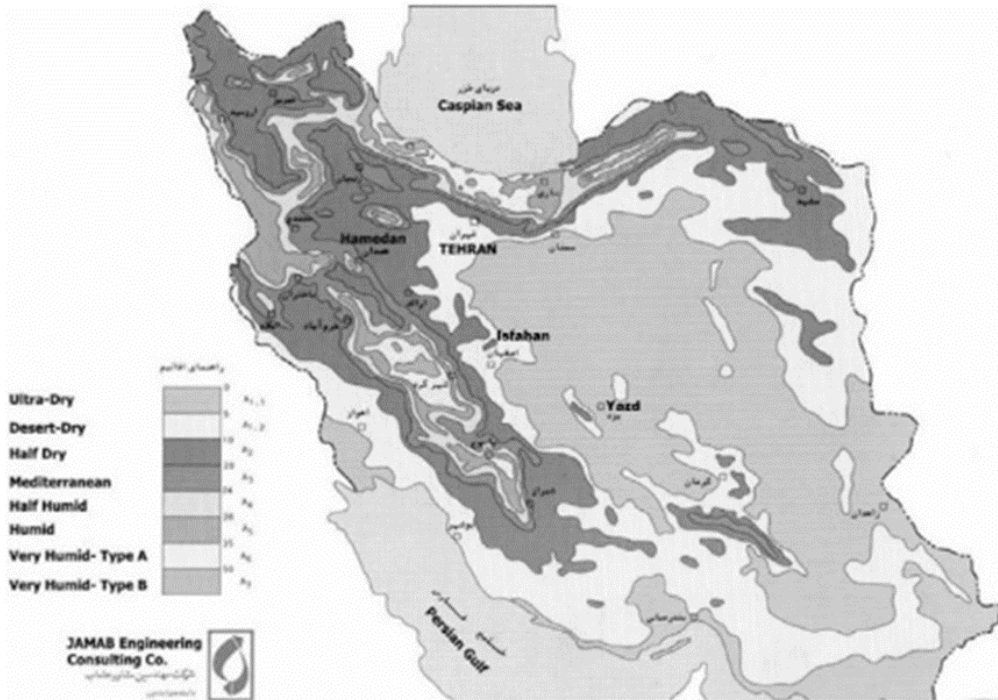


Figure 13. Iran Climate Typology in “De Martonne” System (Jamab Engineering Consulting Co, 1986, cited in Mahasti, 2013)

Architecturally, despite the great similarity between the structures of each group, there are details of many features that are astounding in diversity. The Persian Empire had a vast land containing many topographical features with many climatic zones and sub-zones, and the architectural typology of caravanserais was a matter of debate. A French archeologist and architect Maksim Serio, who was the first dean of the Faculty of Architecture at the University of Tehran, conducted one of the most important researches on Persian caravanserais (Mansouri, Edgü & Salgamcıoğlu, 2015). According to the (Figure. 13), the map shows the different climates of Iran and caravanserais are located in some of these climatic zones. Thus, caravansaries are divided into three groups Maxime Siroux (1974), Kleiss and Kiani (1983) and Hadizadeh (2010), studied the Iranian caravanserais in the Safavid and Qajar era in the following typology below:

2.5.2.1 Caravanserais in the mountainous areas

Caravanserais in the mountainous areas are in half dry and Mediterranean part such as (Hamedan and Kermanshah cities). Most of the caravansaries in mountainous areas remain from the Safavid period. In the mountainous regions of Iran and due to intense cold, the caravanserai's architecture protected occupants from the natural hazards and was enhanced with a room specifically accommodating several ovens or wall heaters inside the individual rooms. Some are dome-shaped with a number of stables in the same alignment as the rooms. Caravansaries in the cold mountainous areas often lacked central courtyards because of the extremely cold winters. Instead of a central courtyard, they had large halls for accommodating travelers and around these there were universal corridors for storing four ends. Interstitial spaces divided the warm indoor environments kept for the comfort of humans from the cold environment outside the central areas of activity. Sometimes the restrooms were only pillars in mountain caravansaries and some of these caravansaries had a castle and tower (Pirnia & Memarian, 2003).



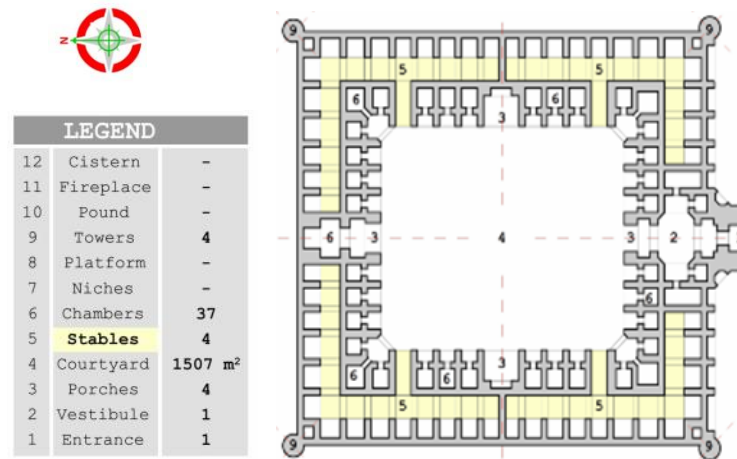


Figure 14. Safavid Laleh International Hotel (Abbasi cavanserai) , The original plan and the schematic plan with 6000 square meters, four-porch form, 20 standard rooms, Iran, Kermanshah, Bistoon (URL12).

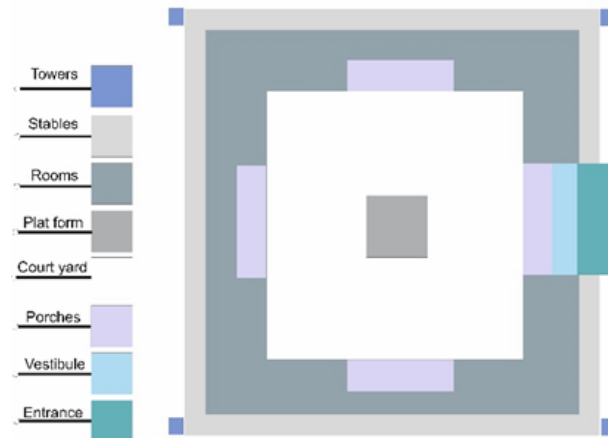


Figure 15. Schema (Author, 2019)

2.5.2.2 Caravanserais in Persian Gulf Coast

Caravanserais in Persian Gulf Coast are in very Humid-Type A such as (Bandar Lengeh and Bandar Abbas cities). Due to the climatic and geographical conditions of the Persian Gulf, the caravansaries of this area have special architecture. These caravansaries generally lack central courtyards but include a quadrangle with a loose-fitting central room and side rooms. A stone platform was built in the building and all the rooms were set up around it. In this way, two-way

blind air is available to the interior of the caravanserai by passing between the loosely assembled rooms. During the day, cool breezes from the sea enter into the building for ventilation and cooling effects (Zohourian & Shahkar, 2016). According to Kleiss and Kiani (1983) and also as adopted later by Ghobadian (2008), Persian Gulf region types were rectangular or square in shape. They had no enclosed interior courtyards; but cross shaped spaces resembling Iwans are centrally located and the rooms are positioned around this. In order to have a sturdy base, the caravanserais were usually built on rock platforms raising them a few steps higher than the sea level. This platform serves as an entrance to the rooms, where the rooms could be accessed also from outside; but since defense was not a problem during the period, this design also emphasizes the security and prosperity of the Safavid era.



Figure 16. Nime stone caravanserai and the schematic plan, central courtyard with four porches, Bandar Lengeh, Iran (URL13).

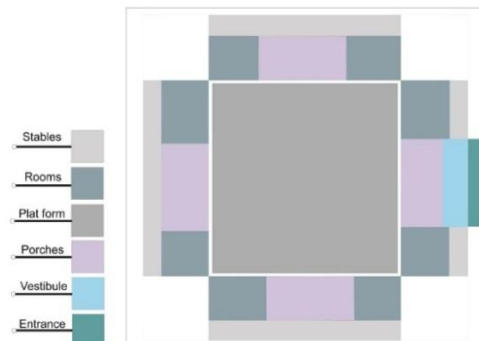


Figure 17. Schema (Author, 2019)

2.5.2.3 Caravanserai in the Central Regions of Iran

Caravanserai in the Central Regions of Iran are in Ultra-Dry such as (Yazd and Abadeh cities) and Caravanserais in (Isfahan city) is in the Dessert-Dry part. The most luxurious caravansaries were built in the plains of the central plateau of Iran. Most of these have a central courtyard and two to four large verandahs facing the courtyard. In this category of caravansaries, travelers' rooms are located around the central courtyard and stables are behind the travelers' rooms. To prevent water and dirt from entering the traveler's rooms from the courtyard, these rooms were built up a few steps above the yard. Between the rooms and the yard, there was a continuous porch with a width of two meters. The porch provided light and room ventilation from the entrance or the adjoining window (Azhdari, 2016).

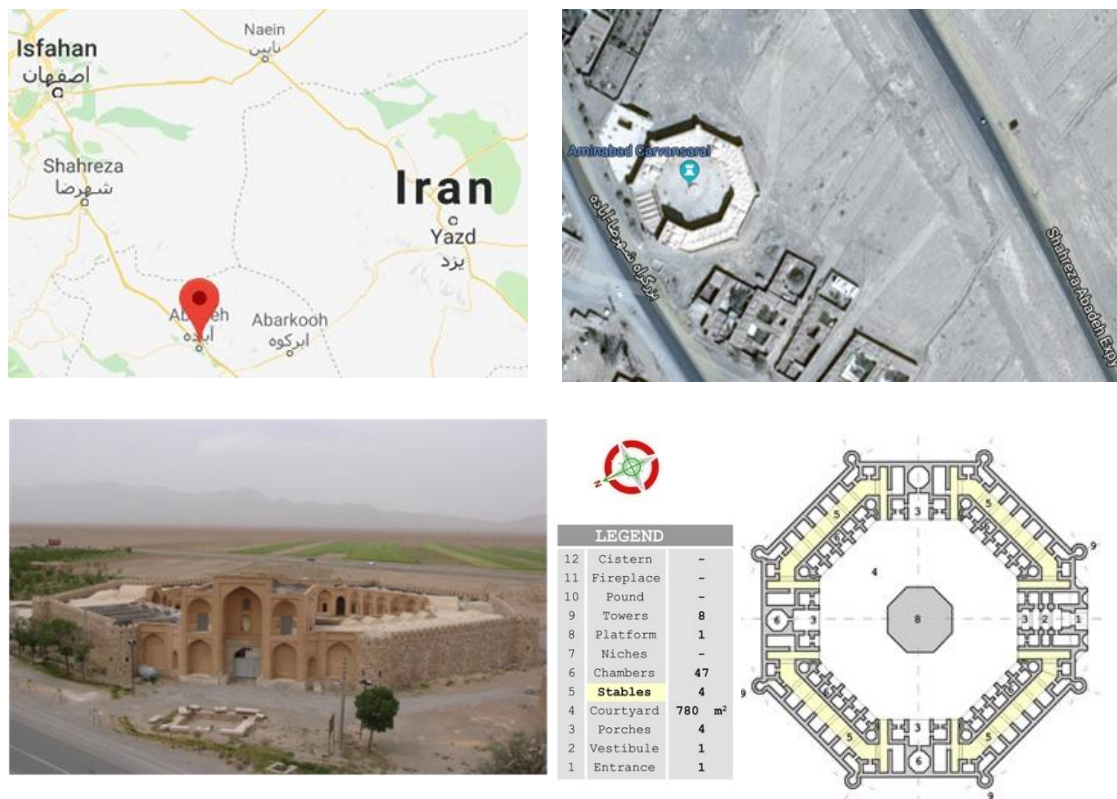


Figure 18. Safavid Aminabad Caravanserai, Abadeh, Fars Province, (URL 14).

2.5.3 Caravanserai Category According to the Geometry of form

Architectural form is the point of contact between mass and space ... Architectural forms, textures, materials, modulation of light and shade, color, all combine to inject a quality or spirit that articulates space. The quality of the architecture will be determined by the skill of the designer in using and relating these elements, both in the interior spaces and in the spaces around buildings. Bacon (1974) cited in Ching (2007, p.33).

Ü,The following categorization of caravansaries is based on the geometry of form such as: circular, polygonal, square, rectangular and irregular shape.

2.5.3.1 Circular Caravansaries

A small number of Iranian caravansaries were built in a circular plan. Currently, only two of them are known; despite being limited in number, they express the virtue of the caravanserai. While the outer shape is circular, their interiors are slightly polygonal. The existing circular examples are the caravanserai of Zain al-Din road and the caravanserai of Yazd-Kerman road and can be found between the cities of Kashan and Natanz. The history of both of these caravanserais dates back to the Safavid period (Azhdari, 2016). For example, The Zein-o- Din caravanserai, is a round shape and supplied “basic human needs” in the desert. The design provides robust protection also known as” protective tower” from natural elements and attacks as an exposed desert building. The angled walls avoid the heavy sandstorms and wind deflection in the desert region (Bryce, O'Gorman & Baxter, 2013).

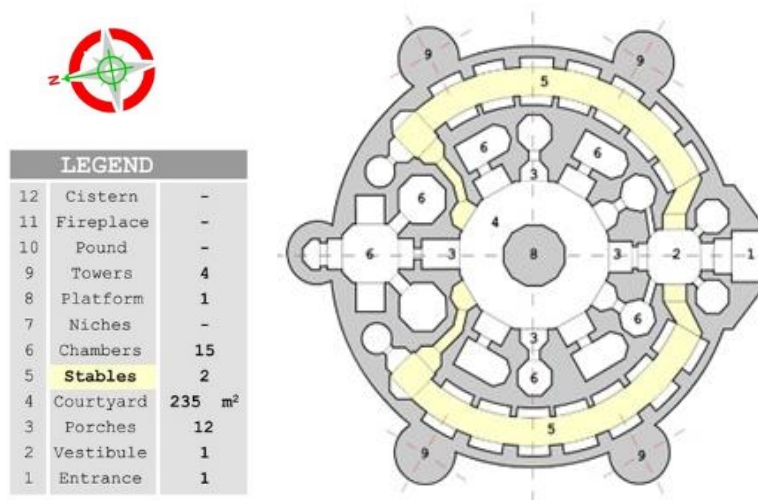


Figure 19. Zein-o-Din Caravansary and the circular plan, Yazd, Iran (URL15).

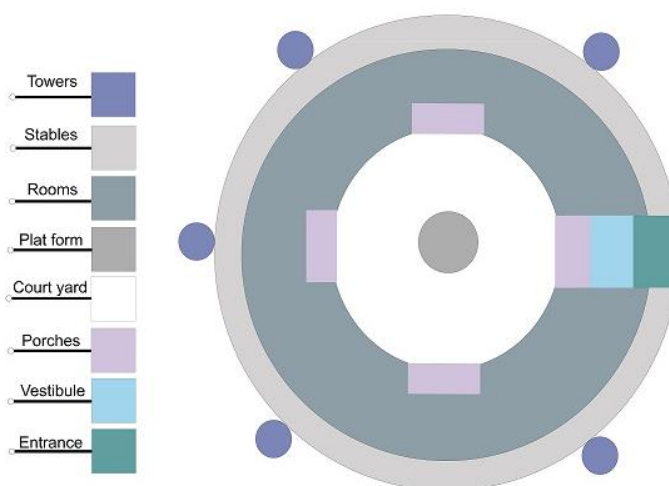


Figure 20. Schema (Author, 2019)

2.5.3.2 Polygon Caravansaries

This group of polygonal caravansaries is often made up of 8-sided and somewhat-rounded caravansaries. The most beautiful examples with polygonal courtyards are the three caravansaries of Khane khowrdeh, Chaharbad, and Deh-e BidDeh along the road of between Isfahan and Shiraz. These were built in the Safavid period, are 8-sided, and represent the style of Isfahan architecture. These caravansaries are polygonal on both their inward and outward surfaces unlike the circular caravansaries. Because of their shape, these caravansaries have more military and defense implications than religious or economic purposes because the defense of a polygon is far easier than a square or rectangular structure (Azhdari, 2016).

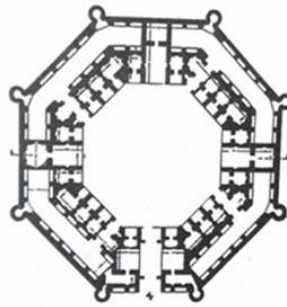


Figure 21. Khane Khowrdeh Caravanserai, and the plan, Fars Province, Iran (URL16).

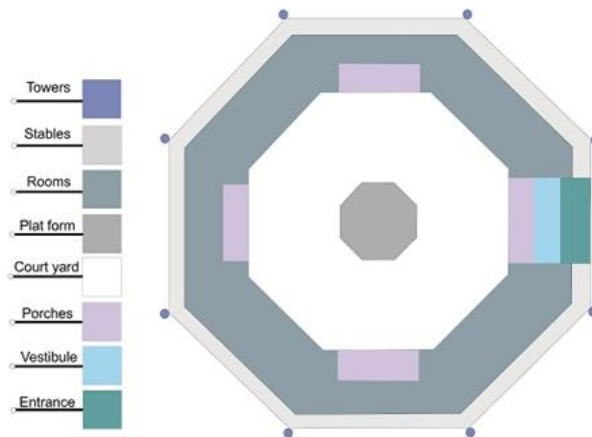


Figure 22. Schema (Author, 2019)

2.5.3.3 Rectangular Caravansaries

According to Thareani-Sussely (2007) specified between two most frequent caravanserai building types are: square and rectangular. The following division is exclusively topological since both types were used in road, as well as in urban, caravanserais. A most common caravanserai layout is the square type. The structure was built according to a square plan, with protective walls and rooms set around a courtyard with a gate.

The gate was placed architecturally on the central axis of the façade and emphasized by a projected two-story entrance block; on the upper floor, there were residential areas for wealthier travelers. Typically, there were arched niches on both sides of the portal, which served as cupboards and fireplaces for those staying overnight outside the caravansary.

Another common layout is the rectangular plan with the courtyard in varying sizes and rooms on each side. As an example, the Laa caravanserai in Gilan has a square plan and the Meybod's Shah Abbasi caravanserai in Meybod has a rectangle plan (figure 23).

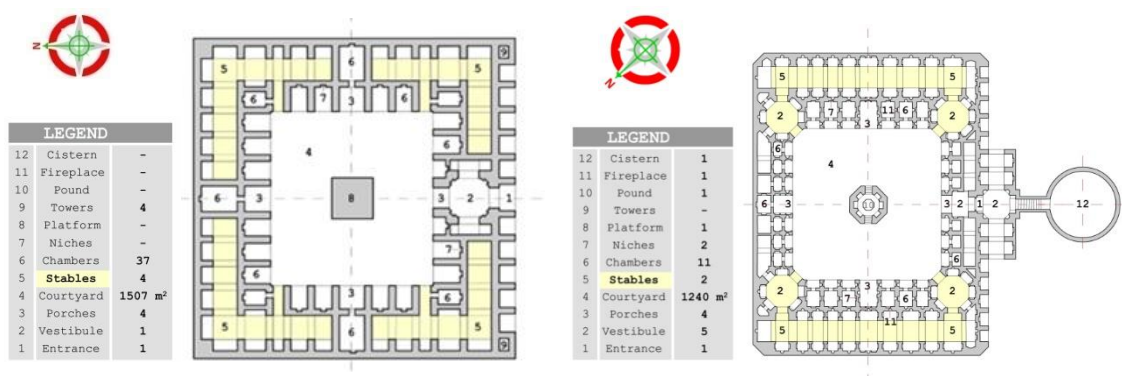


Figure 23. The Rectangular plans of the caravansaries, Iran (URL17)

2.5.3.4 Irregular Caravansaries

This category of caravansaries is architecturally different from the caravanserais that have been surveyed so far. Various reasons, such as style, architectural taste, the influence of foreign architecture, geographic conditions, and location have contributed to the construction of these caravanserais (Azhdari, 2016). This geometry is different from other types of caravanserais however the courtyard exists. The inner two courtyards are considered for separating the caravans (travelers) and selling the goods.

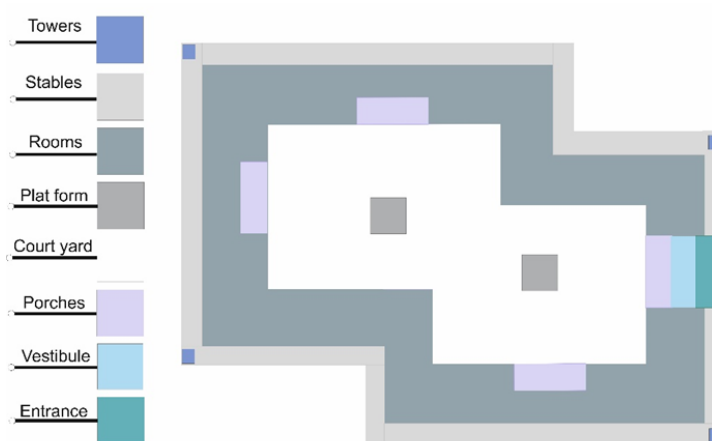


Figure 24. Caravansaries with irregular Plan. Schema (Author, 2019)

2.5.4 Caravanserais Category According to the Transitional spaces:

This category of caravanserais is including: caravanserais with two porches, four porches and hall of columns.

2.5.4.1 Caravansaries with Two Porches (Iwans)

The buildings with central courtyards have a long history in Iranian architecture. Like schools, mosques, and other religious buildings, some of the caravansaries are in the shape of a square or rectangular with two sides emphasized. In general, the porches of these caravansaries are the one at the entrance and the other porch faces

the first across the courtyard. Among the remaining examples of these caravansaries are Chah-Khoshb caravansary and the Kuhak Caravanserai (Azhdari, 2016).



Figure 25. Safavid Khajeh Natanz Caravanserai and the plan, East Azerbaijan Province, Iran (URL18).

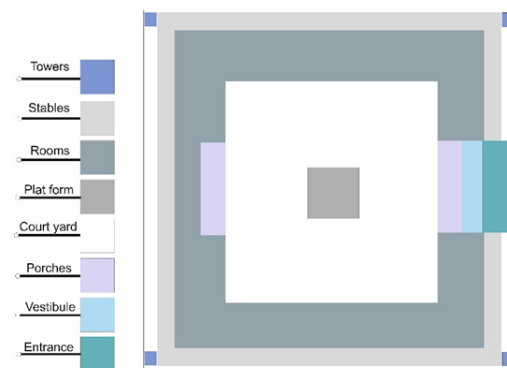


Figure 26. Schema (Author, 2019)

2.5.4.2 Caravansaries with Four Porches (Iwans)

Plans of religious and non-religious buildings such as mosques, schools, and caravansaries were constructed with four porches during the Islamic era. Especially since the Seljuk period, a lot of caravansaries were built in a four-sided plan and many four-porched Seljuk works are scattered throughout Iran. The plan of these caravansaries all include porches on their four walls, but in the details of the surfaces

inside and outside, the entrance gate, the towers, and the arrangement of the stables, each one has different characteristics (Azhdari, 2016).



Figure 26. Safavid Maranjab Caravanserai and the plan, Kashan, Iran (URL19).

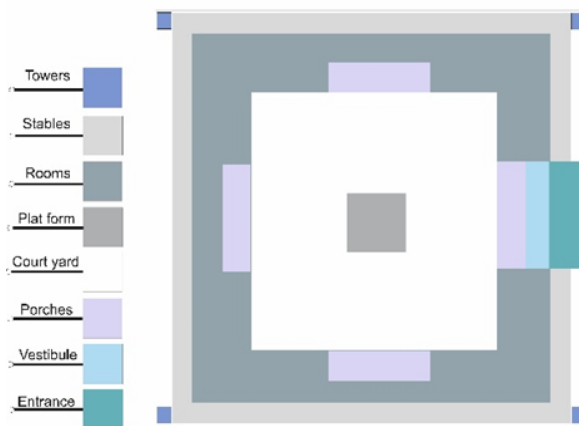


Figure 27. Schema (Author, 2019)

2.5.4.3 Caravansaries with Hall of Columns

A number of caravansaries in Iran have been constructed with columnar pallets and the halls are generally used as stalls. The Asgharabad Caravanserai between the Tehran-Qom and the Khatun Abad Caravanserai on the Garmsar Road are examples of this type of caravansaries (Azhdari, 2016).



Figure 28. Qajar Khan Zinan Caravanserai, Shiraz, Iran (URL20).

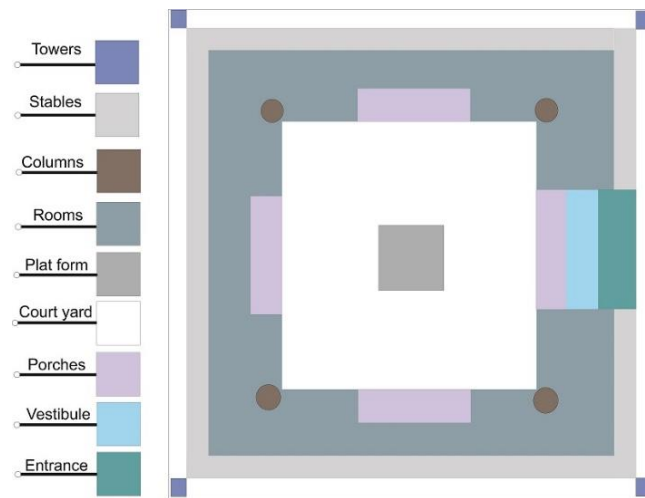


Figure 29. Schema (Author, 2019)

2.6 Fundamental Architectural Features of Caravanserais

The fundamental architectural features of caravanserai are a function of environmental, human, and physical contexts. Among these, the environmental context is one of the most important elements that provide the underlying classification for architecture. In architecture, typology can be used as a tool to identify and classify things. The necessity of typology is for differentiating periods and architectural styles to identify how architects have designed buildings in each period and to realize common patterns in the spatial design of a caravanserai. To understand these designs and patterns means understanding the social relationships

that occurred in them. The basis of the architecture of Iranian caravansaries, like other buildings such as palaces, was subordinate to the function, tradition, and style of its time. The architecture of the place and the area, building materials, and geographic location played a significant role in the creation of such buildings. Architecture and construction style of the caravansaries has not changed much, and the style of their construction is usually to create rooms and barns around the enclosed courtyard (Kiani, 1995).

2.6.1 Architectural Elements of Caravanserais

The caravanserais vary in their design, material, and geographical location. Some of them are made with fired brick, some of them with stone, and some with mixed materials. Depending on the location of the caravanserais and the climate of the areas, the materials differed. Since there was a large number of caravanserais along the historical roads and heritage corridors, it has been decided that the appropriate surviving examples of each shape, design, and period be categorized and, as equally as possible, divided in terms of geographical location. In the selected examples, there are the desert type, the mountain type, and the plain type. From among these, the most intact in terms of authenticity and integrity have been chosen for this study. Caravansaries were of great importance to the passengers and caravans in the past. Due to Iranian culture and beliefs, the caravansaries are formed as an open space (central courtyard) surrounded by a number of small independent spaces serving as the rooms or booths for travelers' comfort.

According to (Sharifinia, Sarikhani, & Ghanbari, 2012) There are several distinct elements of caravanserai buildings: protective towers, decoration, wind catchers, roofs, opening, inscriptions, and services.

2.6.1.1 Protective Towers

Caravanserais faced security and protection problems due to looter or bandit threats and storm exposure, hence high outer walls were built for strength and isolation rather than access and aesthetics. For additional security, protective towers guarded the caravanserais' quadrangles. Besides, cylindrical form might have been chosen since it is more static than prismatic form in tower structures. The built environment refers to the emphasis on safety with a single protected entrance to control a single threshold. This simple but effective security precaution protect against human threats and against elements in an exposed environment to control traders (Bryce, O’Gorman & Baxter, 2013).



Figure 30. Dastjerd Caravanserai protective tower, Isfahan, Iran (URL 21)

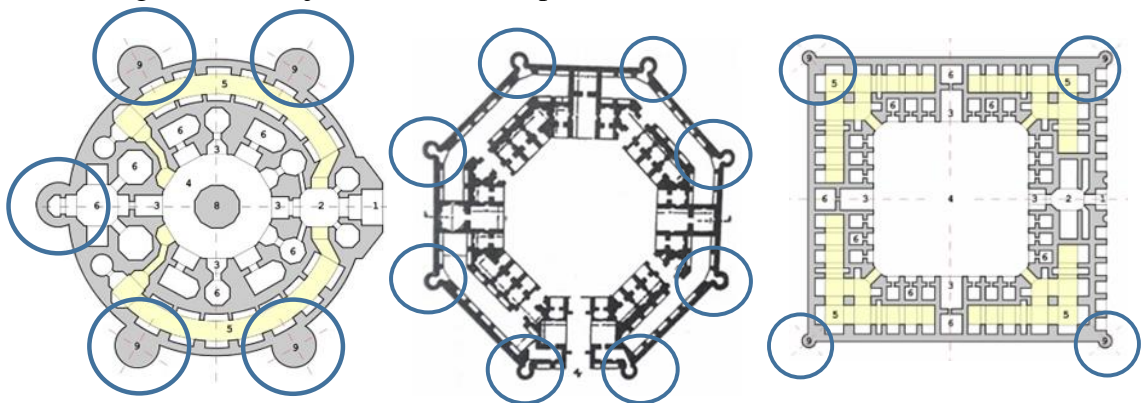


Figure 31. Protective towers of caravanserais from (left) Zein-o-Din Caravanserai, (middle) Khane Khowrdeh Caravanserai, (right) Bagh-e-Sheikh Caravanserai (URL 22).

2.6.1.2 Decoration

Caravansaries were decorated with brickwork, tiling, plastering and so on. All doors, windows, indentations of the walls of the yard, rooms, and so on are generally decorated with arches. Robot-i Sharaf caravanserai is one of the example of the caravanserais decoration with natural and vernacular material. The decorations of some caravansaries, like religious buildings, were brick, tile, and plaster brickwork. These materials were commonly used in exterior and interior spaces and on exterior doors and entrances. The ceilings of most Iranian caravansaries were flat or low-sloped and arched ceilings covered large rooms. Also, all doors, windows, fence-walls, courtyards, and porches were generally made with a crescent roof (Azhdari, 2016).



Figure 32. Robot-i Sharaf Caravanserai, Razavi Khorasan Province, Iran (URL 23)

2.6.1.3 Wind catcher

Due to the geographic location, climate, and desire for ventilation and cooling of the caravanserai's interior spaces, the wind catcher was used. In the central parts of Iran like Yazd city and on the edge of the deserts, caravanserais have wind-catchers that bring cooling air into the rooms in summer. Wind-catchers are usually built on the porches (Iwans) opposite the entrance gate. As an example, the Zein-o-Din caravanserai and Aqda caravanserai have the wind-catcher.



Figure 33. Aqda Caravanserai wind catcher, Aqda city, Ardakan County, Yazd Province, Iran (URL24) and the map with location of wind catchers in different parts of Iran (Mokhtarshahi Sani & Mahasti Shotorbani, 2013)

2.6.1.4 Roofs

The roofs were generally flat and slightly sloping. There were arched ceilings in the areas with large rooms. The Kleiss- reported Iranian caravanserais are almost exclusively constructed of brick, and with a few minor exceptions to stone masonry. The hall roof structure operates on a widespread medieval model: brick arches hold up and are held by thick burdens of brick debris and mortar. The roof is covered by shingles or other bricks in flat rows (Franklin, 2014). The roof has had an excellent

architectural character throughout the long history of Iranian architecture. The roof is part of a caravanserai building that acts primarily as a shelter and protects people mainly against weather conditions in different climates. It also makes a lot of contribution to the aesthetic aspects of the caravanserai construction.

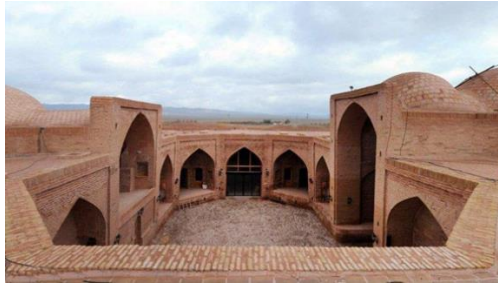


Figure 34. Dehnamak Caravanserai, Semnan Province, Iran (URL 25)

2.6.1.5 Openings

Each caravanserai has a gateway or entrance. The doors and windows were made of cypress, poplar, plantain or other woods available. Above each entrance, chambers were used to guard the property and to control the entrance and exit of the caravanserai. In other words, in normal circumstances, this space was used as a residence by the owner of the caravanserai or a special guest of the caravanserai. Caravanserais usually have a fence with towers and sometimes between the walls in the corner. Sometimes the gate is between the semi-columns or between the two towers and sometimes with an entrance (Ghasemi& Gholamalizadeh,2015).



Figure 35. Robat Karim caravanserai and the main door, Tehran Province, Iran (URL26)

2.6.1.6 Inscriptions

Usually, each caravanserai had an inscription over the entrance porch. Different lines such as Kufi, Naskh, Sols, and Nastaleeq fonts were written into the stone or brick. In many caravanserais there are inscriptions which show the date of completion and a religious quotation near the gates. These often dedicated the caravanserais to someone (often the person who commissioned the structure). Inscriptions can be very useful for dating the caravanserais with labels, religious texts, statements of power and control but in many caravanserais, inscriptions have disappeared (Ettinghausen et al,2001).



Figure 36. Robat-i Sharaf inscription, Razavi Khorasan Province, near Iran-Turkmenistan border (URL27)

2.6.1.7 Services

Basic services of caravanserai included providing space for rest and recuperation of travelers, guarding and protecting the property and livestock of travelers, and preparing their meals in exchange for receiving payment from them. Some of the caravansaries offered additional services for the comfort of the travelers upon entry like baths, bazaars, and mosques. To support the array of services, caravansaries also considered water supply, heat, and lighting.

Water supply: Water supply was provided through the construction of water storage facilities on the inside of the building or sometimes by the construction of a caravanserai near streams and the use of drainage and canalization. According to Figure 37, the water system of this building is one of its masterpieces. In this extraordinary system, there are two ducts on the bottom of which the bottom duct is made up of clay pipes and the upper duct of unidirectional white rock in the form of a rocky river. These ducts are shaped in a concave manner and have created a stream to transfer the water from the Shahi fountain to the central courtyard of the caravanserai. The Shahi fountain is the name of a spring on the Black Mountain, located 5.7 kilometers from the caravanserai. At about 100 meters of the Bahram Palace, there was a large pool of water stored there. After collecting the water, the water continued to flow into a drain with a branch toward the bath and another branch toward the Qasr-e Bahram Caravanserai. In (Figure 38), the water supply system is by the Ab-Anbar.



Figure 37. Qasr-e Bahram Caravanserai water supply system, Semnan Province, Iran (URL28)

Its capacity for storing water ensured the caravanserai's survival during the hot, dry season when even the permanent water supply would diminish. Private cisterns were filled from qanāts (man-made underground channels) during the winter

months and before the floods. Surplus flood water could also be stored in open tanks, as well as in large, public, covered cisterns (Ghasemi & Gholamalizadeh, 2015).

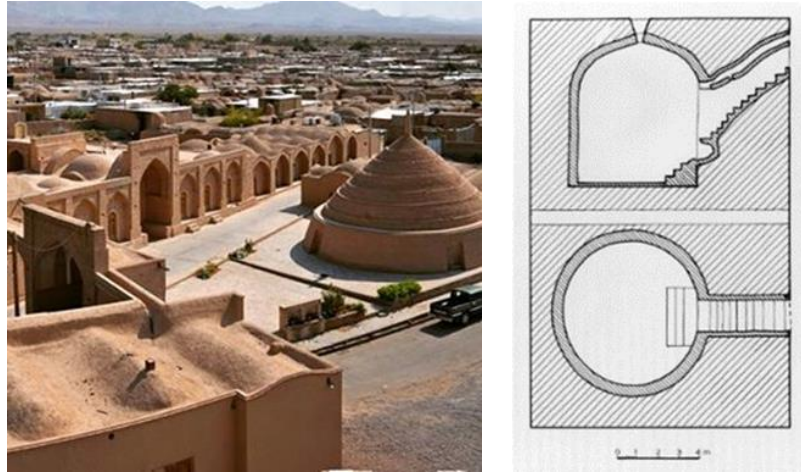


Figure 38. Sarayan caravanserai water supply system, South Khorasan Province, Sarayan city, Iran (URL29)

Heaters: From the Safavid period onwards, heaters were embedded in many caravanserai buildings and in the rooms and stables of the local caravanserai. In many of caravanserais, especially since the Safavid period, there was fireplace or places to set up fire. The fireplace was either built in the indoor or in the enclosed places outside the rooms. There were also tall heaters in the stables for keeping animals warm (Ghasemi & Gholamalizadeh, 2015).



Figure 40. Gadook caravanserai buildings, heater in the room, Savadkuh County Mazandaran Province, Iran (URL30)

Lighting: During the day, the natural lighting was provided through roof apertures or windows. At night, it was possible to use torches, lanterns, and candles. The lamp was made up of a chamber for fuel, a thin wick like a candle's wick, and a glass wicker. The glass prevented the light from going out in the wind and also distributed the light better. These lights were very useful in homes and in public places due for night lighting.



Figure 39. Natural light and lamp used in the caravanserai (URL31)

2.6.2 Caravanserais Spaces

As Önge (2007) states, caravanserais must have spaces for loading, unloading or tying animals and accommodating travelers, many of them also have niches or spaces for merchants. For this reason, Al-Tabari (1989, p. 838) stated: “Establish inns in your lands so that whenever a Muslim passes by, you will put him up for a day, and a night and take care of his animals; if he is sick, provide him with hospitality for two days and two nights; and if he has used up all of his provisions and is unable to continue, supply him with whatever he needs to reach his hometown”. In Iranian hospitality, it is important to respect the guests and provide the appropriate accommodations. People believe that guests are the gift from God and precious like jewels. In ancient Iran, especially in Safavid period caravanserais construction developed and they hosted the travelers during their journey in Iran.

Caravanseraï spaces will be explained as rooms, entrance space, vestibule, central courtyard, porch, livestock storage, shops, wc and bathroom, food preparation space and prayer spaces.

2.6.2.1 Rooms (Traveler Rooms Spaces)

It is the most important element that is generally located around the courtyard and caravanseraï. The traveler’s spaces included a room and a small porch opposite it. The works from ancient caravansaries show that the rooms were open directly to the courtyard without any intermediary architectural elements. But gradually, over years, the Iwan (porch) was introduced. Caravansaries made in the countryside are generally one floor. In some of these caravansaries, on the entrance gate and on the porch opposite the entrance there are rooms for guards or officers (Kiani, 1995). The brightness of the caravanseraï rooms was ensured during the day by openings in the

ceilings or windows. At night, candles and other light fixtures were used by the travelers themselves (Kiani, 1995).



Figure 40. Safavid Black Hole Caravanserai or Sheikh Ali Khan Zanganeh Caravanserai, Shahinshahr and Meymeh City, Isfahan province, Iran (URL32)

2.6.2.2 Entrance space

Above the entrances and along the main axis caravansaries may have a shahneshin (alcove). It was mainly for rich people, the head of the caravan, or highly respected people. In some cases, the affluent and ordinary sections of a caravanserai were completely separate from each other. According to Kiani and Wolfram (1994), commercial caravansaries inside cities were two-story buildings but Caravansaries in the deserts were one-story buildings and sometimes there were a room or rooms for caravansaries security guards on the porch of the opposite entrance gate.

Generally, the entrance to the caravansaries often consisted of a small market called the “Ghalafkhane” and there were several rooms facing on the courtyard that were dedicated to the caravans. Occasionally, on both sides of the caravanserai and the robats, towers were used by advocates and drivers during times of insecurity (Pirnia, 2008). Caravanserai buildings have huge entrances which are usually simple and without patterns on them. They have walls that sometimes incorporate

windbreaks at their bottom. There is also enough space to accommodate livestock inside the entrance and courtyard when extra security was needed. Around the inner courtyard, there are raised platforms with tabs on them that articulate the interior spaces. On the back, small chambers for lodging the travelers were also designed. In the two-story caravansaries, the lower chambers were used to store goods and the upper chambers accommodated travelers (Tabatabaian, 2009).

2.6.2.3 Vestibule

The vestibules are eight or quadrangles at the entrances to the building and connect the entrance of the building to the interior of the caravanserai. Tatari & Neyestani (2014) stated that entrances in caravanserais were included in several parts; such as: 1- High porch 2- Threshold 3- Vestibule. Entrances spaces were constructed at the middle of one of the fronts building or in symmetrical design with the main porch (Iwan). All of these have been built to protect and control securely in a way of goings and comings of the caravans and goods.

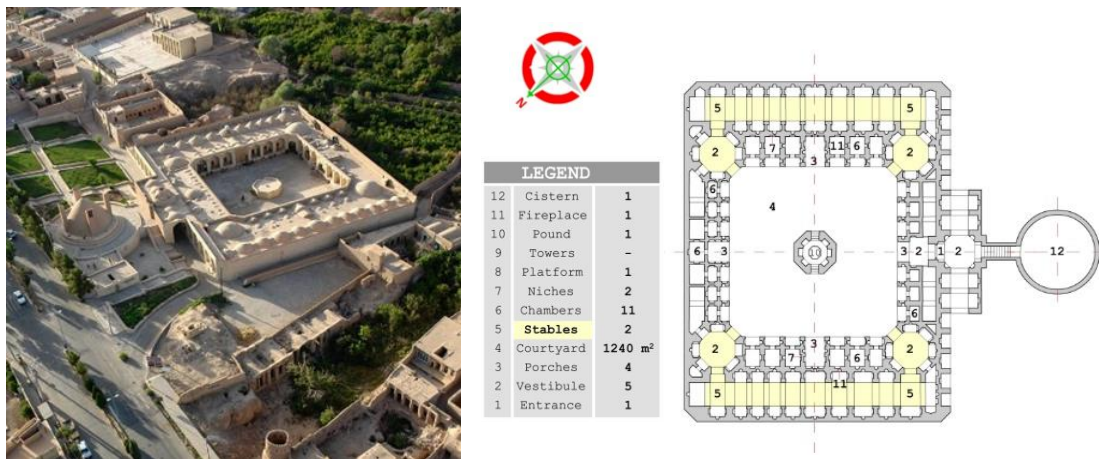


Figure 41. Shah Abbasi Caravanserai and the plan with emphasis on the vestibule number two and entrance number one, Meybod County, Yazd Province, Iran (URL33)

2.6.2.4 Central Courtyard

Another important element of the caravansaries is the yard, which has the most diversified performance and functionality within the structure. It was used as a place for the evacuation of goods, the rest of travelers during warm summer nights, and the place for conversation. The central courtyard is surrounded by high platforms with arcades, that mark the cells of the same size, which accommodated travelers. (Sims, 1978; Petersen, 1996). Caravanserais consist essentially of three different sections, one of them is a gathering area in the form of a courtyard which is usually open and centrally located. This courtyard is usually in the form of a square or a rectangle and is also valuable for many Iranian public buildings, such as schools, mosques and Iwans. These are covered with three sides and above outdoor areas supported by columns and usually restricted with hospitals, tombs and even traditional houses. In the architecture of hot and dry climates, the central courtyard is significant and it is supported by semi-open spaces. Other spaces such as guests' spaces, accommodations, and services are located around the same courtyard. The central courtyard usually contains niches by a wall on one side or more sides (Mansouri, Edgü & Şalgamcıoğlu,2015).



Figure 42. Miami Caravanserai central courtyard, Miami city, Semnan Province, Iran and the plan and section of Khane Khowrdeh Caravanserai (URL34)

2.6.2.5 Porch (Iwan)

Porch called Iwan is a significance space in Iranian architecture. Owing to a general notion of symmetry of the Iranian culture, philosophy and religion, courtyards having especially two-iwans and four-iwans where the rooms of caravansaries are positioned around it. The significance of Iwans is so dominant that some sources (Kiani and Kleis, 1983; Hillenbrand, 2004) also classify caravanserais according to Iwan numbers and types with variety of definitions. The rooms for travelers were usually designed and built around the courtyard of the caravanserais and behind them were stables. The doors of the stables were in the four corners of the building's interior and could sometimes be opened to the yard porch. The remains of the heritage caravanserais show that the rooms opened directly to the courtyard, but a porch was added later, but before Safavid Period (Ghasemi& Gholamalizadeh, 2015).

2.6.2.6 Livestock Storage (Animal Shelter)

For greater prosperity and respect for public cleanliness, the livestock of guests in the caravanserai was usually located behind the rooms. An agent was assigned for warming the stables and tending the horses or camels on cold nights. In some caravansaries, animals were kept in the middle of the courtyard.

Most of the caravanserais enabled the caravans to bring their animals into an inner courtyard where food was prepared (Hillenbrand 1994). In these cases, where inner courtyard did not exist, animals have been left in an open space near the market area, where other animals were held.



Figure 43. Shah Ghadam Caravanserai, livestock in the center of courtyard, Qazvin Province, Iran (URL35)

2.6.2.7 Shops

Shops in the halls of the caravanserai were for supplying the needs of travelers, for selling goods like beans, wheat flour, etc. Traders visited the local shops on the ground floor and front shops were opened into the market space and back shops were available for loading, unloading and stocking goods. In the back shop, some shops were engaged with production facilities and trading space was in the front shop. Given the importance of Isfahan's local economy, traders could establish a stable shop in the Grand Bazaar. However, the caravanserai accommodated the traders in the upper floors. (Bryce, O'Gorman & Baxter, 2013).

2.6.2.8 Water Closets and Bathrooms

Water closets (WC) and baths were usually built in the courtyard and below or within the towers. Sometimes the bath was established outside the caravanserai in a corner of the courtyard.

2.6.2.9 Food preparation space

Thareani-Sussely (2007) stated that in caravanserais, there were some specific areas that provided food and consumption for the people such as traders, pilgrims, travelers and who stayed in or passed through the caravanseries and in addition to shelter and protection, the caravanserai also provided food and water for animals. In the area for food preparation, there was a stove, cooking pots, bowls, benches, shelves, platforms, vessels, and pots.

2.6.2.10 Prayer space in caravanserais

Caravanserais offered prayer-rooms or small mosques for daily prayers that could be performed in the specific space for the travelers who stayed in caravanserais. The caravanserais outside the towns, had prayer rooms according to the number of rooms (Campbell, 2011). However, caravanserais inside the towns were usually built near the mosque and bazaar for travelers' necessities. Such examples are: Abbasi Caravanserai Hotel in Isfahan which is connected with the mosque and bazaar, and Dudehak Caravanserai in Delijain City which provided a small mosque inside the caravanserai.



Figure 44. Dudehak Caravanserai, the dome roof with two rooms in each side as prayer rooms, Delijan road, Iran (URL 36)

2.6.3 Study of Five Principles of Iranian Architecture in Iranian Caravansaries

Mohammad- Karim Pirnia, one of the most influential scholars in the history of Iranian architecture, documented the most important architectural achievements. One of them is: " the principles of Iranian architecture" in (the 1980s) which is cited by many scholars as Hosseini and Karimi (2012); Qayyoomi Bidhendi and Abdollahzadeh (2014). They propose that there are five principles in Iranian Islamic Architecture which may have originated from culture which includes beliefs, life style, customs, and domestic culture. Iran has a hot and arid climate; therefore, architecture has some related specifications. It also depends on other factors such as religion, worldview, and most importantly the culture. Culture is one of the factors that has the greatest effect on architectural features. Iranian Islamic architecture originated from humanistic and proportional factors. This style of architecture avoids non-essentials and has the structure as the aesthetic element. Self-sufficiency, purity in shapes, and volumes are the criteria taken into consideration when attention is paid to the origins. Having symmetry as well as being colorful are characteristics found in any building that represents Iranian Islamic architecture. All of the following principles must be executed in order to build an outstanding structure of Iranian Islamic architecture.

2.6.3.1 Humanism ‘Human Scale’ (Mardum-Vari)

In humanism of Islamic architecture, the attention is on the relationships between building elements and the human body and the related physical and emotional needs of users. This consideration used to be more an art that had a

tangible relationship with daily life. In Iranian architecture, humans, beliefs, and personal ambitions are respected very much.

Humanism in Iranian architecture can be clearly understood by taking a deep look at spaces and any relevant details such as the space of a three-door room. These spaces are more common in traditional houses and are constructed as large as appropriate for an average family to live comfortably.

One of the first principles that were introduced, maintained, and further developed by Pirnia (1976) is the human scale (*mardum-vari*). This principle was inferred by him from skilled traditional Iranian architects. He stated at the time of discussion with skilled Iranian traditional architects that they believe the ancient methods of this human and expressive art, architecture, needs to be *mardum-vari* (Idem, 1976).

The word *mardum* in the Persian language refers to humans and people (Dekhoda Dictionary, under the entry). *Mardum-var* refers to anything that is based on people and their beliefs. When a building is human-scaled, it means that human measures are considered and used appropriately (Mohammad-Karim Pirnia, 1991). The word's appropriateness, in human measures, here refers to the organs of the building that should be suitable and in harmony with the organs of the human body and human needs. (Idem, 2003).

2.6.3.2 Introversion 'Inward-Looking' (Darun-Geraei)

In general, what people think and believe has had effects on the construction of unified features in Iranian traditional architecture. The tendency toward the inside and, in general, introversion has long been the most stable issue of study about Iranian Islamic architecture and it originated from the Iranian climate and culture. This issue has mostly been affected by the climatic characteristics of the Iran lands:

arid, dry weather, irritating wind, quicksand, and burning sunlight without any natural green scenes. This type of climatic condition provoked consideration and introspection (Idem, 2003; Idem, 1991) and lead to some changes in the architecture. Thus, the architecture encloses a natural scene as well as creates a green landscape as if there is a paradise amid the warm and dry desert.

The inward-looking point of view also originated from the culture of Iranian people. In this regard, three more evident specifications of Iranian culture are the symbols of inward-looking architecture and are presented in addition to climatic needs. They are Sufi introspection, the hijab, and privacy.

Iranian architecture like Iranian Sufism tried to consider the inward elements more and understood that reflection must be more upon the interior rather than the exterior (Idem, 1991; Idem, 1990). “The hijab is another feature of Iranian culture that did not purely originated from Islam because before that the Iranians also preferred not to show their private lives in public. This belief leads to a kind of rejection of the outside and an attention toward the inside (Idem, 1991, p. 7). The third feature that is related to the Iranian culture emerged from the inward-looking concept and refers to respecting people’s privacy” (Idem, 1991, p. 7; Mohammad-Karim Pirnia, 1979, p. 34).

2.6.3.3 Self-Sufficiency (Khud-Basandegi)

Iranian architects have long been purchasing structural materials from close-by places. They would rather be self-sufficient than refer to further afield locations (Idem, 2003). It was also believed the materials should be domestically-brought and harmonize with the surrounding environment. These materials are called *idari* because it means coming from the region. Iranian architects so cared about the domestic facility of their buildings, wanting them to be as much use as possible. At

the time of a need for repair, they would prepare available and ready at hand material. They tried to increase the speed of the construction as well as to be more careful about relationships and usefulness. Regarding that, the construction process would not be time-consuming and the building itself would be strong enough to stand with vernacular nature. Since architects believed that materials needed to be indigenous, in a renovation process acquiring supplementary materials is always possible. For example, clay – one of the most available material in the plateau of Iran – was regarded a basic material for multiple generations of bricks and tiles. The optimization of form according to available vernacular materials is one of the other examples regarding self-sufficiency in these buildings.

2.6.3.4 Avoiding Non-Essentials (Parhiz az Bihoudegi)

This principle emerged from Pirnia's point of view where he tried to deal with architecture in its value for modernity instead of showing Iranian architecture based on its cultural context. He is proving the fact that Iranian architecture is more based on the principles of modern architecture than on modern architecture itself. Following the same path that the pioneers of the modern movement had gone, he shed light on pure ornament as useless and reproaches it whereas he clears Iranian architecture from the disgrace of being decorative.

It has been attempted to keep the thinking away from fiddling and making supernumerary buildings in Iranian Islamic architecture. There is a sentence in holy Koran (use objective words): "believers, who they abstain from insanity." Iranian architects would have never used arts such as painted figures, sculptures, or details just for the sake of beauty. The architects tried to use everything for a specific reason to make a place as suitable as possible for living. Even when using ornamentation under the vaults, they were more likely to have humanistic proportion by the means

of it. Even using colorful windows was for preventing sun glare and heat from entering the room, not for beauty alone. So, it has never been seen that Iranian architects considered just the beauty of elements. They preferred emphasis on efficiency and utility (Pirnia, M. Sabk Shenacy, 1971).

2.6.3.5 Structural Rigidity (Niaresh)

Pirnia considered Iranian taste and culture in advance. He also paid attention to Iranian life-style by understanding all aspects of architecture based on principles and arrived at his Principle of Structural Rigidity. In his works, he mainly focused on the technical aspects of architecture through explanation of the stable aspects that refer to structural rigidity. He believed that stability in architecture is inseparable from its other aspects.

In Iranian architecture, the word “*Niaresh*” means the knowledge of static, building technology, and material science. It is used in Iranian architecture. Traditional architects had a rational implication of structure and they have not separated the structure from beauty. They tried to collect as much information as possible about construction methods based on experiences. The popular use of some features such as establishment walls, arch-shaped ceilings, and the subtle double-layer vaults have been well-accepted in traditional Iranian architecture (Ghobadian, 2001)

2.7 Chapter Conclusion

According to the study of this chapter, the silk road had important roles between the borders of countries such as China, Turkey, Iran, and many countries. The communications and commerce were at a high level especially in relation to the political, cultural and social. The establishment of residential facilities along the pathways was inevitable. In Iran, there were powerful governments in each period

especially during the Safavid era and the time of Shah Abbas I, the construction of caravanserai was flourished in Iran. Beside the Silk road, caravansaries in Iran was a part of a communication with different countries and the architecture of the Safavid caravanserais provided the needs of business and communication.

This chapter overviewed the concept for understanding caravanserai history and architecture in Iran and the details of categorization of caravansaries based on their location, climate, geometry of form, transitional spaces, elements and caravanserai spaces (Table 1) for further evaluation of in chapter four. I perceived the formation of caravanserai spaces in different locations, climates, with different forms, shows that culture is associated with caravanserai spaces in the production of meanings for users. In the architecture of Iranian caravansaries, it was concluded that caravansaries, also carry the characteristics of the principles of Iranian architecture, which have become the architectural identity of Iran.

Table 1: Caravanserai Categories

Caravanserai Categories According to Location , (based on, Pirnia and Mimāriyān, 1993)	Outside of town				Inside of town					
Caravanserai Typology According to the Climate in Iran, (based on Kleiss and Kiani, 1995)	In the mountainous areas			In the Persian Gulf Coast		In the central regions of Iran				
Caravanserai Categories According to the geometry of form, (based on Kleiss and Kiani, 1995; Bacon (1974) Ching , 2007).	Circular caravansaries		Polygon caravansaries		Square and rectangular caravansaries		Irregular caravansaries			
Caravanserai Category According to the Transitional spaces, (based on Thareani-Sussely (2007), O’Gorman & Baxter (2013) and Azhdari(2016)	Caravansaries with Two Porches (Iwans)			Caravansaries with Four Porches (Iwans)		Caravansaries with Hall of Columns				
Architectural Elements of Caravanserais, (based on Sharifinia, Sarikhani, & Ghanbari, 2012).	Protective Towers	Decoration	Wind catcher	Roofs	Openings	Inscriptions	Services			
Caravanserais Spaces, (based on Siroux, 1974)	Rooms (Traveler rooms Spaces)	Entrance	Vestibule	Central Courtyard	Porch (Iwan)	Livestock Storage (Animal Shelter)	Shops	Water Closets and Bathrooms	Food preparation space	Prayer space
Five Principles of Iranian Architecture in Iranian Caravansaries, (based on Pirnia,1980)	Humanism ‘Human scale’ (Mardum-vari)		Avoiding non-essentials (Parthiz az Bihoudegi)		Introversion ‘Inward-looking (Darun-geraei)		Structural rigidity (Niaresh)		Self-sufficiency (Khud-basandegi)	

Chapter 3

ADAPTIVE REUSE OF HERITAGE BUILDINGS FOR CULTURAL TOURISM: CARAVANSERAI BUILDINGS

Heritage has an extensive meaning and it includes various aspects. The definition of heritage is 'What we value' or 'What we wish' to pass on to future generations. The related resources bring living communities with a sense of continuity and relation with previous generations. They are regarded as important symbols for cultural identity. They also function as the conservation of the cultural diversity and creativity of humanity (HSRC, 2004) (Singh, "conservation of architectural heritage: enabling laws"). Through heritage buildings, the current lifestyle can be passed to future generations. It is currently identified as being culturally significant. These values may be regarded as difficult to achieve if an adequate practical approach is not fully adopted in order to manage the maintenance of these buildings (Idrus, Khamidi, & Sodangi, 2010).

3.1 Authenticity of Cultural Heritage Buildings

Authenticity is the reason virtue concerning the heritage. It validates elements of communal heritage as cultural etiquettes and historical sites. Authenticity is basically considered together with identification and historical accuracy (Gordon, 2004).

Heritage is supposed to represent the meaning of buildings, structures, artifacts, and precincts that are regarded as the symbol of historic, architectural or cultural significance. The term “Heritage building” refers to any building of one or more realty, structure or artifact that needs conservation or preservation in order to keep the historical, architectural, artisan, aesthetic, cultural, environmental or ecological purpose (CPWD, 2013). It includes a different portion of land adjoining or part thereof that may be required for fencing, covering or in any other manner preserving for the historical, architectural, aesthetic and cultural value of such building. The heritage buildings were built in the past and represent many historical, architectural, spiritual, social, political and economic values. They are very valuable and informative because they present socio-cultural, socio-political, socio-economic and technological activities that exist in of a society or group of individuals.

Heritage buildings are quite different from modern buildings because they are anticipated to last permanently. Moreover, heritage buildings are constructions that need to be preserved due to various reasons that were considered by the government and the society (CPWD, 2013).

Dean MacCannell (1973, 1976) used the authenticity concept in tourism literature that deals with a predominantly literary. The sociological American tradition is interested in individual expression, democratic freedom, and authentic human satisfaction. MacCannell believed that almost all tourists are willing to concern with the authenticity that is represented by the genuine, worthwhile, and spontaneous experience of travel. This authenticity is obviously focused on environmental- or place-related experiences (Li, 2003). According to Ashworth and Tunbridge (2000), there are numerous types of authenticity that have been associated

with a particular object, building or site (creator, material, function, concept, history, ensemble, context) (Boyd, 2002).

This controversial concept of authenticity is furtherly explained in Venice Charter and in the Operational Guidelines that have been passed by the World Heritage Committee in 1977. Moreover, it is mentioned that the property should in long with the test of authenticity in some features such as design, materials, workmanship, and setting. It does not limit consideration to original form and structure because it has almost all subsequent modifications and additions. These modifications have artistic or historical values. In 1999, at the Nara Conference, the Nara Document on Authenticity was adopted. Accordingly, it is enlarged the authenticity in order to provide a kind of holistic protection for all types of cultural significance that have been associated with the cultural heritage as cultural diversity. The 1977 Operational Guidelines advocates that all cultural heritage sites need to be based on the criteria of the authenticity test in design, materials, workmanship, and setting. Thus; based on the Nara Document in 1999, the aspects of authenticity consist of some other feature such as form, design, tradition and technique, material and substance, location and setting, use and function, spirit and feeling, and any other internal and external factors. The Nara Document focuses more on an integrated understanding and of cultural heritage with a deep consideration of tangible and intangible cultural heritage in general. From the other perspectives of authenticity, all the Caravanserais are kept in the national inventory list based on Iranian laws and all the restorations and interventions should care the authenticity (UNESCO World Heritage Centre, "Persian Caravanserai", 2017).

Table 2: Authenticity Features of Heritage Buildings according to Nara Document, 1999

Authenticity Features	Form	Tradition and techniques	Material and substance	Location and setting	Use and function	Design	Spirit and feeling	Other internal factors	Other external factors
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3.2 Conservation and Adaptive Reuse of Heritage Buildings

Heritage is one of the most controversial concepts since heritage revealed itself as a various functioning role in our society; identity of citizens, history of region, as well as important destination of tourism industry, means of community development (Kim and Kim, 2009, p.1).

In the world of cultural heritage conservation, it is so critical to decide about values and the factors that need to be conserved. Additionally, the quality of the material provides us with our past to future generations and to determine the way how to conserve. By taking looks to typical conservation decisions, we can understand many different divergent values at play; such as think of the artistic and aesthetic values of an old building, the historical values of its associations and the economic values tied up in its use. Özkan (1999) believed that a successful conservation should also consider social aspects such as the sustainability of original users, the contribution and participation of local users and encourage the affluent population or society to pay respect to their cultural heritage (Özkan,1999).

“Conservation is the careful planning and management of limited and selected resources. It is a conscious process to control and manipulate change to a

minimum – to a rate that ensures the survival of cultural heritage over a long time” (Fethi, 1993, p.161).

UNESCO (1946) and the Council of Europe established specialized organizations for the conservation of Cultural Heritage. The most important one is ICOMOS (International Council for Monuments and Sites). CIPA (International Committee for Architectural Photogrammetry), ISPRS (International Society for Photogrammetry & Remote Sensing), ICOM (International Council for Museums), ICCROM (International Centre for the Conservation and Restoration of Monuments) and UIA (International Union of Architects), IAPH (the Andalusian Institute of Historic Heritage) are other organizations that are all involved in process of conservation of cultural heritage (Georgopoulos & Ioannidis, 2004).

Conservation has been more introduced as a complex process that is playing an active and decisive role in the building or monument (Jones & Yarrow, 2013). In the world of cultural heritage conservation, there are consistent challenges on three fronts:

- The physical condition that deals with the behavior of materials and structural systems as well as deterioration causes and mechanism. It also concerns possible interventions and long-term efficacy of treatments, etc.

- Management context that presents the availability and usage of resources such as funds or trained personnel, technology, political and legislative mandates, and condition and land use issues, etc.

- Cultural significance and social values that explain the meaningfulness of an object to whoever it is conserved. It also clarifies the effect of interventions on its general meaning (Avrami, Mason, & de la Torre, 2000).

Cultural heritage includes different features such as buildings, gardens, landscapes, monuments, cemeteries, and archeological sites. All these places have different elements with different stories. Specifications are design, materials, interior features of a building. Interior features such as woodwork, ornamentations are regarded as physical reminders of the story of the places. Therefore; it is quite important for changes to a heritage place to consider respect for all significant elements. All changes, either additions or alterations, and any new development need to complete the building's original scale, form, and mass. In all renewing processes, the original or significant elements should be identifiable in order to be understood by the future generations.

The conservation of such constructions is a long-term process for a society that can be better understood in case of economic, socio-cultural and environmental categorization. These constructions are not mutually exclusive but they are often interlocked. The counterparts are in the States. There are many unprotected buildings, complexes and public spaces including landscapes and natural features that can provide character and distinctive identity to cities. In conservation plans and projects for cities, both protected and unprotected components of the heritage need to be taken into account.

Skills and knowledge of people who are involved in a conservation project and the preservation process of a historical site's authenticity is very effective in the succession of the project. The quality of their work and the results of the restoration project is desirable if receives about 70 to 80 percent of satisfaction. Every lost point illustrates that some features in authenticity slipped through the fingers of those involved in the project (International Principles and Local Practices of Cultural Heritage Conservation, 2014).

Nowadays adaptive methods are becoming for preserving historical constructions because conservationists have increasing pressure for preserving national heritage and they show a growing interest in sustainability (Saberi, Talib, Motamedi, & Kariminia, 2016). The majority of cities concern with the reusing heritage buildings as an important part of any regeneration program (Bullen & Love, 2011). The conservation of heritage buildings is one of the key factors in the regeneration process (Pendlebury 2002; Strange and Whitney 2003). The preservation of different historical parts of towns and the use of various spaces for different uses are driven by increasing urban regeneration needs (Ball, 1999, 2002; Bullen and Love, 2010). The heritage buildings are regarded as symbols that represent our cultural background and the characteristics and philosophy of our lives. They have high conservation values that need to be protected and cared (Türker, 2002; Peyravi, 2010).

Heritage is our legacy from the past, what we live with today, and what we pass on to future generations. Our cultural and natural heritage is both irreplaceable sources of life and inspiration (UNESCO, 2015).

In the conservation of individual historical buildings, the issues in the relation of construction work and understanding of how they were initially designed are very important. Working on historic buildings requires the skills about the same policies between discipline to design them as a very careful assessment of their history, the decline over their materials and the reasons is necessary before any conservation work. If repair works are performed with respect according to the history of a building, treatment works will stay saved in imitation of a minimum intervention. An investigation about structure and material is imperative according to conserve any historical building (Burman, 2006).

WHC (2008, p. 86) stated in the Operational Guidelines that, "In relation to authenticity, reconstruction of archaeological remains or historic buildings or districts is justifiable only in exceptional circumstances. Reconstruction is acceptable only on the basis of complete and detailed documentation and to no extent on conjecture.

Converting a building to undertake a change of use is adaptive reuse and it is required by new or existing owners (Latham, 2000; Wilkinson et al., 2009). Changing of the usage needs refurbishment or it may require to complete renovation of existing constructions. According to Bromley et al (2005) adaptive reuse is essentially regarded as a form of heritage conservation. According to in conformity with Orbaşlı, (2008) there are three steps because of conservation and management processes: perception the historic place; figuring out threats in accordance with its significance, and eventually an action plan because of evaluation and implementation regarding the historical place.

The main concentration of interior architecture is on adapting existing buildings in order to make them ready for new uses and based on the new requirements. The historical and cultural background of a building plays a very important role in its conservation; so, before starting to develop a proposal for the design of buildings, cultural significance need to be analyzed carefully architectural and spatial potentials aspects need to be determined (Sağlar Onay & Yazıcıoğlu,2015). It can be inferred that almost all interventions on historical buildings should consider either adaptation and preservation. Preservation pays more attention to the continuity of the building, while adaptation aims to increase its functionality (Sağlar, Onay & Yazıcıoğlu, 2015). According to the Venice Charter, the principles for interventions in interiors are authenticity, reversibility, and

differentiation. The first one means respect for the valid contributions of all periods, the second one shows the ability to undo all interventions and the last one is the difference between old and new layers.

In the intervention of historical buildings, establishing a balance between adaptation and preservation is quite necessary that is only achievable through analyzing the building's spatial potentials as well as determining a compatible use. One of the basic design criteria for retaining the cultural significance of constructions is identifying compatible use or uses for a historical building and their functional unity (Sağlar, Onay & Yazıcıoğlu, 2015).

The relationship between the old and the new is regarded as the most important and meaningful factor in the design of the new. Three categories were developed by Brooker and Stone, (2004) based on the extent of integration between the host building and the new elements. These categories are intervention, insertion, and installation. Intervention is about the existing structure undergoes major transformations; therefore, it can no longer exist independently and both the old and the new additions are completely integrated. Insertion deals with a new and an independent element that is exactly suitable for the existing envelope. This element is used in order to fit and it is located within the boundaries of the existing building. Installation refers to the fact that the old and new buildings exist independently. There are some new elements that are located within the boundaries of the existing building. Their design may be affected by the existing building but they may not be regarded as compatible with it. In case of removing the installations, the existing building will be reverted to its original state (Fisher-Gewirtzman 2015).

Dena Hagsay Khashhe Chi (2016) believed that the structural improving interventions contains aesthetic interior and exterior improvements, installing

soundproof thermal systems, fundamental insulation against natural disasters such as molds or insects, storm or flood, cladding the roof with new material for increasing the weather resistance, repairing for preserving the existing material such as timber against the decay.

In the early 1970s, there was widespread interest in the conservation of built heritage (the Venice Charter), which reflected international awareness of the importance of built heritage sites worldwide to protect cultural identity and national heritage. This global interest was the cornerstone of most of the heritage conservation discourses currently being built around the world and has influenced conservation policies, strategies, approaches and schemes throughout the world due to the severe decline of the world and national heritage sites. Since then, many countries have taken steps first to preserve their national legacies and then to rehabilitate them to gain economic vitality by setting up special bodies (ministries, departments, commissions, etc) to preserve the heritage they have built. As a result, many heritage sites worldwide have been effectively preserved through the implementation of various policies (Bagader, 2016).

Conservation, protection and restoration of historical/heritage sites are central to the urgent task of conserving the historical symbolism, cultural values and regional identities of the physical environment, patriotically in educating future generations (Al Saud, 2013, p.32).

3.3 Cultural Tourism as a Tool for Conservation

Based on the definition that World Tourism Organization represented for cultural tourism, it is known as the movement of individuals to cultural attractions away from their normal place of residence in order to gather new information and experiences to satisfy their cultural needs (WTO, 1985).

Based on UNESCO's definition, culture tourism means the creation of a discerning type of tourism that takes account of other people's cultures (UNESCO, 2005). In fact, culture and heritage tourism have become important not only because of economic gains but also for more sustainable approaches. Cultural heritage tourism is also used increasingly in order to stimulate regional development in both rural and urban areas (New Zealand Tourism Research, 2007). According to Hughes (2002), cultural tourists are "typically well educated, affluent and broadly traveled" who generally represent a desirable type of upscale visitor. Generally, it has been proved that cultural tourists spend substantially more than standard tourists do. They expect different experiences and recreations from their vacations (Günlü, Yağcı & Pınar, 2009).

By the mid-1960s, as much marked among 1964 through the issuing of the Venice Charter, the idea of built heritage conservation had shifted to consist of "tourism development" in its agenda. In 1972, UNESCO adopted the World Heritage Convention (formally, the Convention Concerning the Protection of the World's Cultural and Natural Heritage), list built heritage sites from the world, forward to protect them and afterward to develop them as key tourism equipment (WHS, 2012).

Tourism is a unique chance for economic development (McKerche and Ho, 2006). It additionally offers cultural vitality; then can assist the preservation and conservation regarding heritage (Mason, 2003). Orbaşlı (2000, p.3) states: "Making tourism work for historic towns and their conservation depends foremost on the objectives of development and the authority to control it." Conservation is an imperative action because of transforming historical areas in a living organism and converting them to alluring and viable environments. Historic areas are living,

changing, increasing and deteriorating areas, so conservation additionally must be managed along 'use' and 'change' (Oktay & Günçe, 2014).

Nowadays the globalization phenomenon is increasing and people from different places face different challenges such as protection, conservation, interpretation and presentation of the heritage and cultural diversity. The ultimate aim of managing heritage is to communicate and need for its conservation to its host community and visitors. The domestic and international tourism industry is regarded as the foremost vehicles for cultural exchange as well as for providing a personal experience of the past and of the contemporary life and society of others. Tourism can take the economic characteristics of the heritage and use them for conservation by improving funds, education of the community and influencing policy. Tourism has become a complex phenomenon that has political, economic, social, cultural, educational, biophysical, ecological and aesthetic dimensions. All that have been achieved from a beneficial interaction between the conflicting expectations and aspirations of visitors and host or even local communities shows a lot of challenges and opportunities (ICOMOS, 1999).

Culture and heritage are two types of tourism interrelated concepts. Heritage focuses on the past, while culture focuses on a visited community's current way of life (Faulkner et al., 2000). Timothy and Boyd (2003) summarize the significance of heritage by saying that "heritage is not just the past, but the modern use of past elements". Heritage has been used in the field of tourism in both natural and cultural contexts (Chhabra et al., 2003; Garrod and Fyall, 2000; Timothy and Boyd, 2006). Since heritage tourism typically falls within the remit of cultural tourism (and vice versa), it is almost impossible to attribute absolute parameters either to the resources used or to the tourists who use them. They all share common resource sets,

management problems and desired results (McKercher and du Cros, 2002). For various reasons, cultural heritage tourism is important; it has a positive economic and social impact, establishes and strengthens identity and helps to preserve cultural heritage. With a culture as an instrument, it facilitates harmony and understanding between people and promotes culture and helps to renew tourism (Richards, 1996; Türker, 2002).

Cultural heritage is being increasingly recognized and it is offering new and more varied experiences to both domestic and foreign tourists (Timothy & Boyd, 2003). Authenticity is one of the issues that are in the center of attention of heritage tourism that refers to the products on display like re-creations of a region in terms of cultural landscapes. The association that the heritage has with history and the built landscape put concentration on the way that authentically represents the built past.

Cultural tourism's aim is to unite economic profit and the conservation of values. It represents an independent tourism product that tries to advocate the awareness of the importance of preserving the values of the past, cultural heritage. It also tries respect built and natural environment that can strengthen the identity (Rácz, 1998).

Based on the World Tourism Organization (WTO, 1985) the concepts of tourists, visitors and travelers are defined and classified as:

- Tourist - (overnight visitor) visitor staying at least one night in a collective or private accommodation in the place visited;
- Visitor – any person travelling to a place other than that of his/her usual environment for less than 12 consecutive months and whose main purpose of travel is not to work for pay in the place visited; and
- Traveler – any person on a trip between two or more locations.

Based on The WTO appointed some new development directions of tourism policies in the Manila Declaration of 1980. Along with the importance of the economy, social, political, cultural and environmental protection are regarded as other related aspects of tourism; therefore, they will have their own underlined impact on living standards. In fact, the positive economic effects of tourism such as the increasing number of guests and guest nights as well as the growing incomes from the sector are all counted as important factors. It can be mentioned that the impact of tourism on the living standards of tourists and inhabitants need to be taken into account. The Declaration clearly states that the economic returns of tourism cannot constitute the only criterion for the development of tourism (Bujdosó, et al., 2015).

Several authors shed light on the major motivations behind cultural tourism. The main motivation can be regarded as the strong desire to experience other cultures of different places and to have an authentic and memorable cultural experience (e.g., Ritchie & Hudson, 2009; Yankholmes & Akyeampong, 2010). Many tourists who visit World Heritage Sites believed that these visits are their valuable experiences that result in revisits and recommendations to other people (Yankholmes & Akyeampong, 2010). Since the value systems of tourists and residents are likely the same, it can be suggested that in heritage tourism the main motivation of many visitors may be the place's heritage characteristics related to their perception of their own heritage. (Remoaldo, Vareiro& Ribeiro& Santos, 2014).

Cultural tourism brings increased revenue to the heritage sites, to the community and country that hosts them. This fact leads to an economic growth. The desired balance between the needs of the resources and for the visitors is required to be established by heritage management. "Cultural heritage tourism has gained

enough attention in the tourism industry in recent years” (McCain and Ray, 2003: 713-717). Travelers are becoming more and more interested in opportunities to learn about places through their art and history; therefore, cultural tourism is consistently growing (Günlü, Yağcı, & Pınar, 2009). Built heritage conservation has economic and social consequences, not only urban or architecture (Chaudhry, 2010). Culture is an indispensable part of urban life, which develops dynamically with its community and connects past, present and future. As Rogers (1982) argued, we must realize that maintaining structures means maintaining the desirability of continuity of culture – we actually preserve culture, not buildings. This is in which; the conservation of the heritage must be closely linked to the development of tourism.

3.4 Continuity in Adaptive Reuse of Caravanserai Buildings for Tourism

In the adaptive reuse projects, the most successful ones are those that conserve constructions with respect and retain a building’s heritage significance. They need to add a contemporary layer on the authentic character that keeps value for the future. When a building cannot function longer with its original use, it can be said that the adaption only preserved the building’s fabric heritage significance. This process can transform heritage buildings into more accessible and useable places and they can provide the added benefit of revitalizing an area in a sustainable manner. According to Orbaşlı (2007), the continuation of the conservation over any built heritage is largely based on successful tourism management.

By adapting and reusing buildings of historic value, it will be possible to contribute to the magnitude of heritage following with an open link to the past (Pimonsathean, 2002). There are many caravanserais that still have some characteristics of space organization in order to accommodate travelers. They are

capable of maintaining their functional elements. As also mentioned by Joudifar & Türker (2017), through the application of sustainable adaptive reuse, the value of the historical structures will be passed to future generations. This fact can also promote the culture and economy of the area because it encourages tourists (Landorf, 2009, Saberi, et al, 2016). The process of evaluating the authenticity of some nominated properties is based on the “Operational Guidelines for the Implementation of the World Heritage Convention” (2012). This process involves the degree of authenticity of the following properties: Form and Design, Technique and Management System and Location and Setting, Use and Function, Tradition, Materials, and Substance. It is true that in Iran the exact and authentic usage and role of Caravanserais in current time is not what has been accepted, but Caravanserais are used for some special touristic purposes such as accommodation, services or even museums. Considering other aspects of authenticity and based on Iranian Law, almost all Caravanserais are in the national inventory list and all the restorations and interventions should consider authenticity (Iranian Cultural Heritage, Handicrafts, and Tourism organization, 2017).

Cultural tourists are looking for authentic places. Characteristic locations by unique signs and symbols give an identity with an authentic atmosphere to residents, visitors, and users. The history of places and their impact on civilizations and their inhabitants are unique. What it makes a place with a unique feature is people's attention to it and its impact on people. This is a reflection of places that affect life and positively influence people. Places may not at once reveal their identity. Places can turn passive visitors into active contributors to a lively and spiritual experience (Friedman, 2011).

Rodison (2007), noted the existence of a long-distance trade network in the Islamic world and stated the crucial role of the caravanserai as a hospitality foundation in neighboring regions. This invites the Islamic context as a central international trade development and early "capitalism" in the early modern era. The position of Safavid Era in Iran as a "central component" of a commercial context contains the three great early modern Islamic empires which are not only a channel for trade between "East" and "West" but a major market for itself. The policy of this state emphasized its close relationship with Mughal and India economy and the Ottoman Empire 's military threat in that period (Rodinson, 2007).

3.5 Adaptive Re-used Caravanserai Buildings from the Silk Road

There are some adaptive re-used caravanserai buildings which are located in countries along with the Silk Road. These examples are discussed in terms of new function.

3.5.1 Bukhara Caravanserais, Baku, Azerbaijan

The Bukhara Caravanserai is one of those and it is located in the Icherishekher old town, on the trade route passing through Shemakha gates. The establishment is in late XVth century. It was a place that was suitable for passengers of Central Asia (specially from Bukhara) to stay overnight. It was known as Bukharian caravanserai. It has square shape inner courtyard that was designed for rest. There were many individual cells for staying. The whole perimeter of the building shows arches, that make the appearance of the caravanserai more impressive (URL37). In 1964, this caravanserai was restored and buildings were separated from its annexes that were built to see the national monument on the background of the surrounding buildings. The new function of Bukhara Caravanserai is a restaurant of Azerbaijani cuisine.



Figure 45. Bukhara Caravanserai, Baku, Azerbaijan (URL37)

3.5.2 Elbasan Inn (Guest House), Korçë, Albania

Elbasan Inn is another historic inn in Korçë, Albania. The inn is over 600 years old and it is believed that it is the oldest hotel in the city. The related architectural style and it is used to serve the merchants and tradesmen who sold their wares in the outside bazaar. Now it is used as a guest house for tourists (URL 38).



Figure 46. Elbasan Inn building and the view of the courtyard (URL38)

3.5.3 Morića Han Caravanserai, Bosnia and Herzegovina

Morića Han that is a roadside inn, was constructed in 1551 in Sarajevo, Ottoman Empire (now Bosnia and Herzegovina). The current form is the result of a reconstruction in 1697. It is the only used han in Sarajevo and is located in Baščaršija, Sarači street, in Stari Grad. Morića Han is regarded as an adequate and true caravanserai example because of having the property of accommodating about 300 passengers and 70 horses. According to Evliya Çelebi, an Ottoman traveler in 1659, it was described as Hadži-Bešir's han, because Hadži-Bešir was the landlord of the han then. The han has survived several fires, most recently in December 1957 when the whole building was destroyed. Later on, it was reconstructed in 1971 to 1974. This construction was also decorated with Persian calligraphy inscriptions from poems written by Omar Khayyam. Stari Grad got ownership of Morića Han back to Gazi Husrev-Beg's endowment in 1998. The new function is for business purposes that match the historical context, including a national restaurant, a Persian carpet shop, and religious societies gathering space (URL39).



Figure 47. Morića Han Caravanserai, Bosnia and Herzegovina (URL39)

3.5.4 Büyük Han (Great Inn), Nicosia, North Cyprus

As the most important architectural symbols of the Ottoman period in Cyprus, the Büyük Han (The Great Inn) can be mentioned. It is located in the middle of the traditional commercial center within the City Walls. The Han that was built in order to provide accommodation for travelers from Anatolia and other parts of Cyprus was originally named as "Alanyalılar's Han". Externally, the Han is similar to a fortress. In fact, at the British Colonial Period, it was used as Nicosia Central Prison by the British. The windows of Hansas were high up in order to deter marauders who tried to see the rich merchants staying at the Han. Büyük Han has 68 rooms that are used as open to the arched galleries surrounded by square planned inner courtyards and 10 shops which have the entrance of the outside. An Ottoman Masjid that is made in some parts on marble piers and a fountain beneath is located in the center of the courtyard. The ground-floor rooms have a low-arched door, an arched window and a hearth. These rooms functioned as shops, store rooms or sometimes offices. At the eastern side, just on the left side of the entrance, there is a double-arched gallery. The opposite side, to the right, a single arched one is seen. During 1893 to 1961, the Han was used as a hostel for destitute families. The south colonnade was completely destroyed and in 1963 restoration began, the south west corner was rebuilt without not considering the original. Later on, restoration was resisted for a number of years. Regarding the extensive renovations during these years, the Han started to work in its original style and it was ready for visitors in 2002. Now, it is regarded as one of the Island's finest buildings. Büyük Han is known as a host for many tourists in Nicosia. The cafes and different shops serve the visitors and they can buy local shawls, local traditional handicrafts such as: paintings, pottery and carvings (URL40). Besides, there is a traditional coffee-shop and a restaurant serving in the courtyard.



Figure 48. Buyuk Han (Great Inn), Nicosia, North Cyprus (URL 41)

3.5.5 Tash Rabat Caravanserai, Kyrgyzstan

Tash Rabat is a well-preserved stone caravanserai of the 15th century in At-Bashy district, Naryn Province, Kyrgyzstan. It is located at 3200 meters height. (URL 42). It has been on the connecting roads between China, the Middle East and Europe, through countries like Kazakhstan and Kyrgyzstan for centuries. Caravans of trades travelled in all directions and carry many things. They made the market moving on which the whole economies relied. Such places were built in order to support these traders. Some of them were developed and became cities, while the others were destroyed and disappeared completely. Tash Rabat is one of those mysterious sites in Kyrgyzstan. The reason that Tash Rabat is slightly known as mysterious is its layout that is unusual for this kind of caravanserai. It looks more like a mixture between a castle and a temple. Built of hefty stone, it stands out against the mountainous backdrop and vast nothingness. Outside is bright with the sun at full force while inside everything is dark, cool and quiet. There is no tourist and the rooms are almost empty. Doorways are regarded as another distinctive feature. There is a large domed room in the center of the caravanserai that is one of the most important parts of the building. This part may have been regarded as a religious haven that would have been used for the ceremonies. In the magnificent

time of the Silk Road, people might have gathered to eat, drink or trade. In the archaeological site, there is a small tourist business part where people can rent a horse or they can go on a longer guided tour to some natural highlights. Although the monument is not renovated and reused, it is open for visits and there are some places such as yurts (tents) where people can stay in for the night (URL43).



Figure 49. Tash Rabat caravanserai and the yurt for staying near the caravanserai, Kyrgyzstan (URL43)

3.5.6 Kurşunlu Han (Caravanserai), Skopje, Macedonia

Kurşunlu Han, that means Lead Han in Turkish, derived from the use of lead. Lead was used in order to cover the roof. At the time of first World War, the lead was removed from the roof for producing bullets and the shingles were used for covering the building. Kurşunlu Han is a two-floor construction that has a square

basis with large inside courtyard. It has a garden with fountain which is surrounded by a porch. A mystical atmosphere was created by stone pillars that are connected with arches. It has 60 rooms, 28 on the ground floor that are used as storage and 32 on the first floor that are specialized for sleeping with a fireplace in each. The position of the barn for the accommodation of 100 horses with a separate entrance makes it quite different from others. The entrance is located on the south side and it has a porch with a dome roof. Throughout the history, the function of the building has been changed for several times. In the 18th century, what was known as Han was built. Later on, it was turned into a prison in where enemies of Ottoman Empire were kept. From 1904 -1912, it was used again as han and then after the First World War it was changed as a warehouse for ammunition. As the time was passing and during other years it was changed into Lapidarium Museum of Southern Serbia. It has become a part of the Museum of Macedonia since 1955 and today known as Kurşunlu - han (Lead Inn), which is located in a former ironmongers' bazaar and tourists visit this historical monument as a historical caravanserai (URL44).



Figure 50. Kurşunlu Han (caravanserai), Skopje, Macedonia (URL45)

3.5.7 Khan al-Umdan Caravanserai, Acre, Israel

In northern Israel, between Haifa and Nahariyya, in the coastal town of Acre, lies Khan al-Umdan. Built during the Ottoman era of Ahmed Jezzar Pasha, it is one of the remarkable projects that have been built (URL46). Khan al-Umdan, is a very impressive construction with many pillars that is located in the old city of Acre near the port. It was used as a storage of goods and a place for night breaks of businessmen. Moreover, it was used an internal anchorage of the port of Akko. Ahmed Jezzar Pasha who was the Governor of Acre built the hostel in 1784-5. This building that was built on part of the inner, was one of his main projects that was very valuable in improvement of the city. This site is still an inner port in Napoleon maps that are used at the siege of 1799. This building was first called Khan el-Jezzer. Later on, it was known as Khan el-Umdan – the hostel of the pillars. There is a large courtyard that is dominated by these 40 pillars that are made of-marble and were brought from the ruins of Caesarea, and possibly Atlit as well. It is now a tourist spot that is used as an open-air stage for festivals in the city, such as the Theater Festival in October. The tower raises high over the east entrance to the Khan that was built in 1906, to honor the 30-year Jubilee of Sultan Abdul Hamid II (lived 1842-1918, Sultan 1876-1909) (URL47).



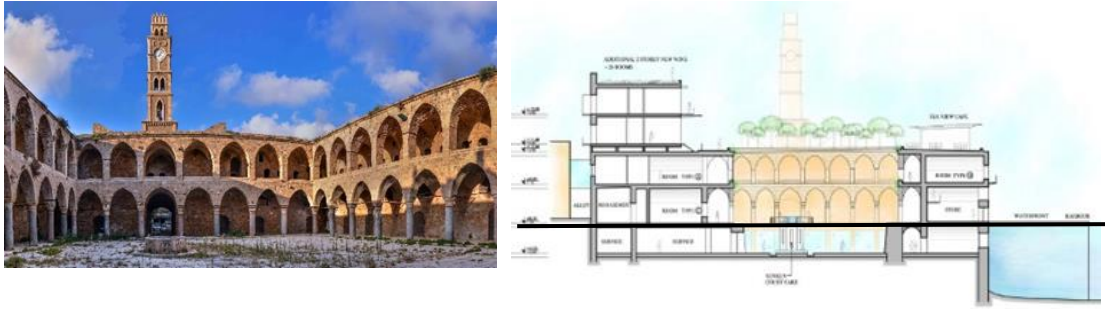


Figure 51. The top view of the Khan al-Umdan Caravanserai, Acre, Israel (URL47)

3.5.8 Manuc's Inn (Hanul lui Manuc), Bucharest, Romania

This building was constructed in the early 19th century, between 1806 and 1808. It was built by a wealthy American businessman's order Manuc Mârzaian, who had to establish such place in Bucharest in order to handle some political circumstances. The original and structural features of the construction structure is still unknown, while there is one proved certainty that the owner created a style having contrast with the previous ones and more fashionable fortress-like of the time. Hence, the inn got the characteristics of a picturesque Roman style that have the openness of its general layout as well as friendliness of the architectural traits (URL48). It was seen as new form of similar constructions that has been less served but it was more attractive. The entrance of the building had a view to the interior yard, it was made of wood and with carved arched galleries. There were monumental large stairs with stucco ornaments above doors and windows and wooden pillars. The basement has 15 arched storerooms. The ground-floor involved in 2 large halls, 23 shops, 10 warehouses and 16 rooms that were used for servants and cooks. There was also a tunnel that could fit 500 people as well as 107 rooms and lodgings on the top floor. There is a café and a garden in the middle part of the yard and it was covered by river stones (URL49).

The Manuc's Inn has been regarded as a meeting point for businessmen and travelers from different countries all over the world. This place was used as a commercial and cultural landmark in addition to hosting important historical meetings about both local and international economics and politics. It was cleaned and conserved after and appeared as it was used to be in original. For restoring the original Brancovenesc style, yard pavements and the wooden beams were replaced. Some parts such as hotel, restaurant, wine cellar and the summer garden were conserved based on the stories of grandparents (URL50).

The inn has long been used as a part of the tourist foundation of Bucharest that is offering accommodation services to the visitors of Bucharest. Momently, it plays an important role in tourist attraction just because of its architectural and historical reputation (URL50).



Figure 52. Before and after the restoration of the Manuc's Inn (Hanul lui Manuc), Bucharest, Romania (URL51)

3.5.9 Öküz Mehmet Paşa Caravanserai, Ulukışla, Turkey

This caravanserai was built in 1618 by the Grand Vizier Öküz Mehmet Pasha in Ottoman Empire era. It has a rectangular courtyard which is surrounded by thick and high walls. In this building there is an enclosed space of two-storey portico that is made of rubble and reclamation stone. The construction is the same as a small inner castle that has a triangular dentinal top. There are many rooms around the courtyard that have been restored several times. Two steps can be seen in the north-west and south-eastern corner. The entrance is located in the north and the door is made of marble and decorated with arches. It is used as a market place and the governorship and the municipality have offices in this caravanserai. (URL52).

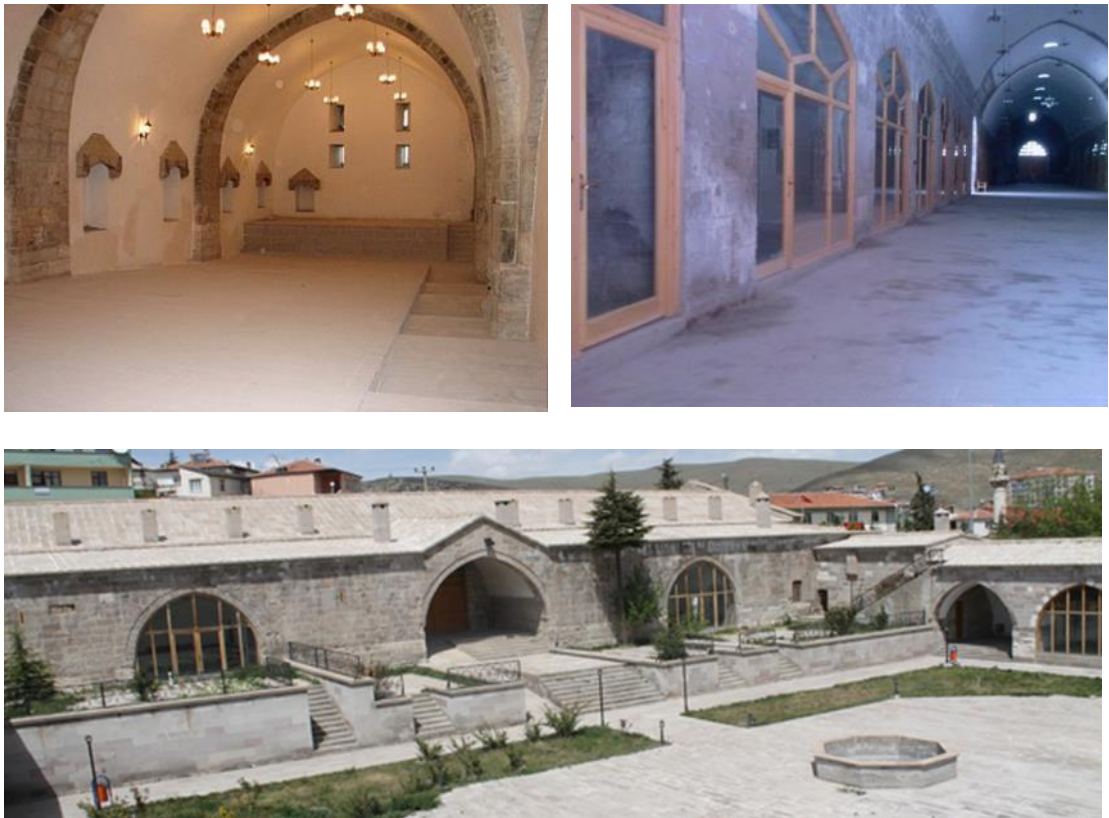


Figure 53. Öküz Mehmet Paşa Caravanserai, Ulukışla, Turkey (URL 53)

3.6 Chapter Conclusion

Heritage buildings are faced with functional, physical or social obsolescence. Conservation and adaptive reuse of heritage buildings need to be considered in terms of the condition, management, and cultural significance. Each heritage building has its own value and unique characteristic. In each society, there are obsolete buildings that can be revived and changed function. In the process of adaptation, attention to the cultural heritage values of the building, the unique characters and the authenticity of the spaces such as original form, design, materials, feelings and more factors give an opportunity for continuity. In today's living and developing the countries, the tourism issue especially cultural tourism need to be considered more, which plays an important role on architecture. Restoration and conservation of the monuments including caravanserais can contribute to the growth and expansion of cultural tourism while conserving cultural heritage. In fact, cultural tourism can be used as a key for the successful conservation of heritage buildings. The continuity in adaptive reuse projects such as caravanserai buildings are expected to keep the past layers (historical background) in spaces and add new layers as contemporary interventions for the future. These layers should be reversible and visible after the restoration and re-functioning of a heritage building which can have positive effects for welcoming the local and foreign tourists. Certainly, the standards and guidelines such as the items in the international charters for conservation and restoration by ICOMOS, help for keeping the authenticity of heritage buildings.

According to the examples of adaptive reuse, caravanserai buildings in Silk Road countries, each of these examples show the different intervention levels such as the changes in the interior and exterior spaces. In most of the examples, there is a similar point which is about developing the tourism purposes; reviving their

historical buildings; and choosing the appropriate new function for the society and future according to the building's historical background and the original functions. This chapter clarified the adaptive reuse and authenticity issues for further evaluation criteria to be used in the next chapter.

Chapter 4

EXAMINATION OF THE CASE STUDIES OF ABBASI CARAVANSERAI HOTEL IN ISFAHAN AND ZEIN-O-DIN CARAVANSERAI IN YAZD

In the silk-road countries, Iran has a rich history and from the past had an important position in each period. There are many heritage buildings in Iran such as palaces, houses, and caravanserais. The caravanserai in the cultural mind of Iranians from the temporary residence is a reminder of the world. Historical monuments such as caravanserais represent a structural and technical form and more important than this, contain a series of methods of thinking and actions that tell the way of people's life.

4.1 Selection of the Case Studies

In recent decades, cultural tourism is considered as an important part of the tourism industry in developing countries. The cultural heritage of heritage buildings in cities which are unique and shows the background of the history has the attraction for tourists. So the conservation of heritage buildings for tourism has led to restoration and re-function. Cultural tourism development had effects in the heritage buildings such as caravanserais for re-functioning and conserving as guesthouses and hotels. In this research, ten examples of caravanserais in Iran from Safavid and Qajar eras are examined and two of these caravanserais from Safavid period are selected to be analyzed in terms of different factors.

In Iran, Yazd and Isfahan are the two important cities which Isfahan was the capital city of Safavid period and the Yazd city is well-known for the historical buildings. Both of these cities are part of the Silk-road cities. The caravanserais in these two cities were used for travelers and merchants for economic issues. In recent decades the government reserved budget between the governmental and non-governmental companies and architecture companies to reuse and conserve the heritage buildings for tourism purposes.

The two case studies are selected from historical caravanserai buildings which are converted into tourism-related functions and are located in Safavid era in Iran, which have the cultural significances according to Table 1, in Chapter 2 which is explaining Caravanserai Categories besides the following features:

Selected cases are Abbasi Hotel Caravanserai in Isfahan and Zein-o-Din caravanserai in Yazd, which are reused for tourism purposes with various reuse approaches and different intervention levels. These two caravanserais are in enough variety in terms of location, climate region, form and spaces.



Figure 54. Map shows the two historical cities of Iran where two cases are located (URL 54)

Selected heritage caravanserais both show the cultural, historical and architectural background of caravanserais in Iran and are located in the ancient Silk Road.

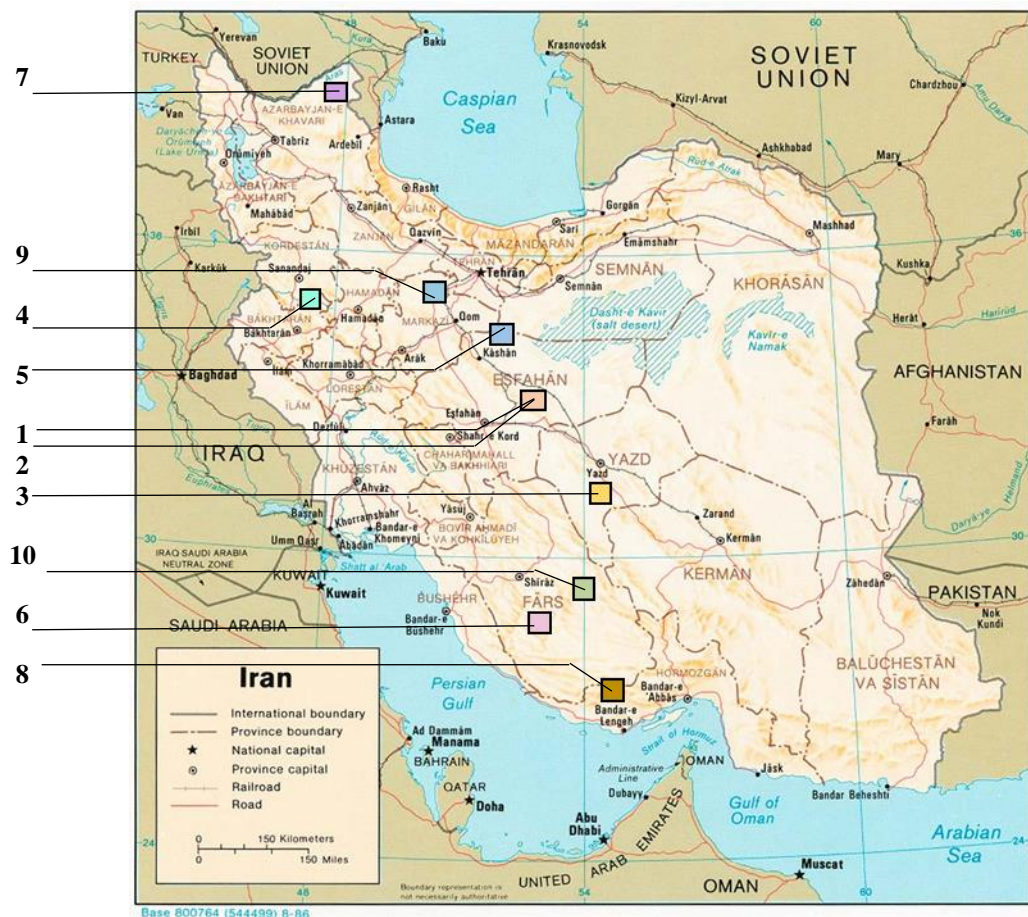
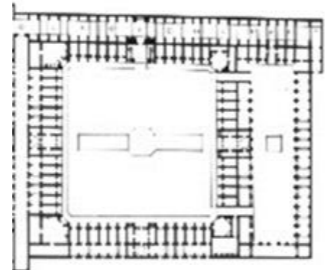
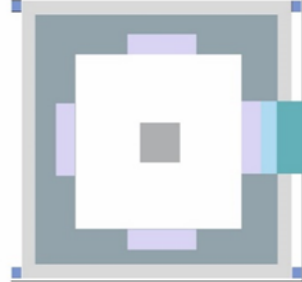
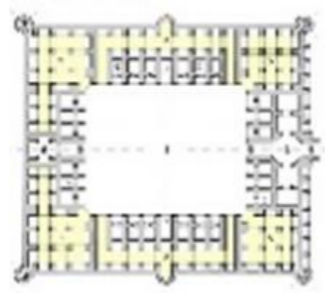
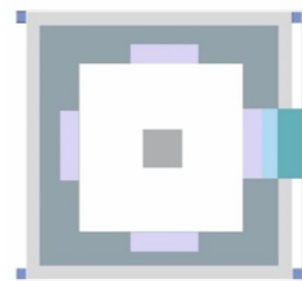
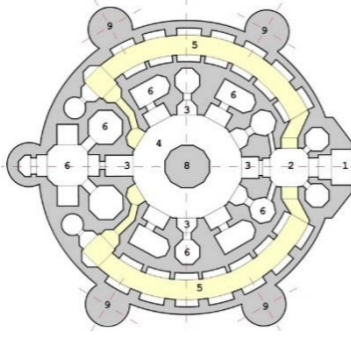
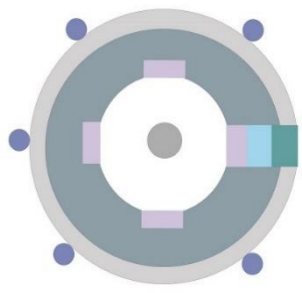


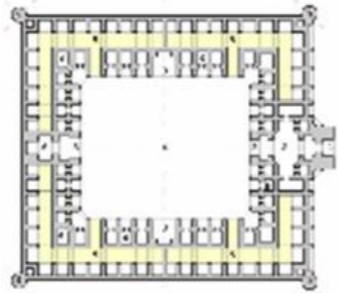
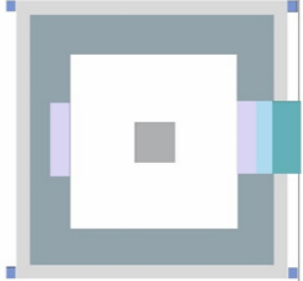
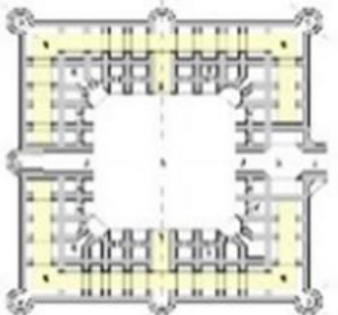
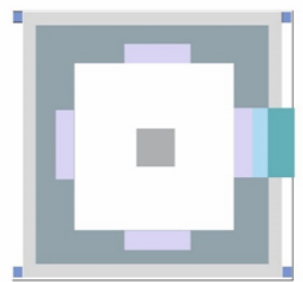

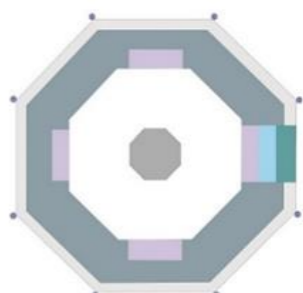
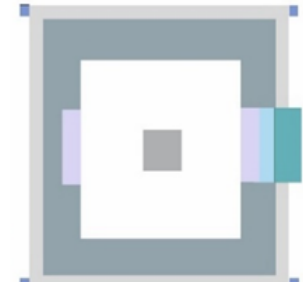
Figure 55. Map of Iran shows the provinces, cities and borders (URL 55)

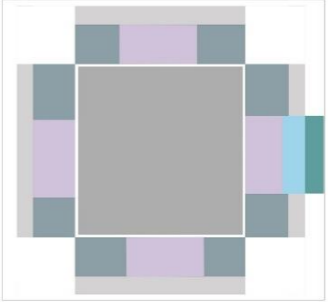

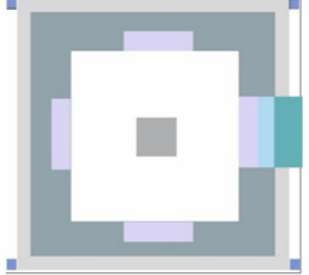
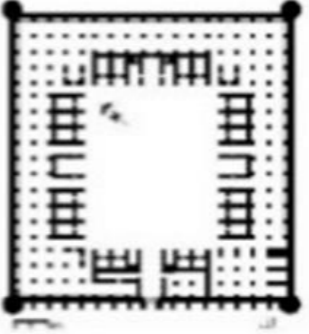
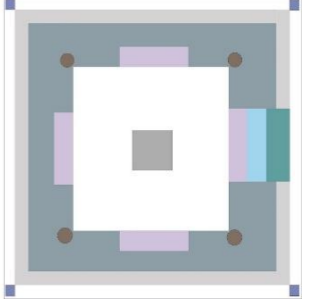
4.2 Evaluation Method of the Case Studies

The case studies are selected and the information for each case is gathered from the literature review. The evaluation of the case studies is done by firstly about the background of each caravanserai and secondly the related tables designed by the researcher for clarifying and analyzing each case. The tables are designed according to the studies in the last chapters, the principles and guidelines in International Charters for Conservation and Restoration (ICOMOS).

Table 3: Examination of case studies according to the related categories

Numbers:	CARAVANSERAI EXAMPLES			LOCATION		CLIMATE			GEOMETRY OF FORM				TRANSITIONAL SPACE			TYPES
	Name of the Caravanserai in Iran	Eras	Plans	Inside of town	Outside of town	In the mountainous region	In the Persian Gulf coast	In the central regions of Iran	Circular	Polygon	Recta gular	Irregular	With two porches	With four porches	With hall of columns	Schema plans
1	Abbasi Caravanserai Hotel, Isfahan	Safavid		✓				✓			✓	-		✓	-	
2	Madarshah Caravanserai, Isfahan	Safavid			✓			✓			✓	-		✓	-	
3	Zein-O-Din Caravanserai, Yazd	Safavid			✓			✓	✓			-		✓	-	

NO:	Name Of The Caravanserai In Iran	Eras	Plans	Inside of town	Outside of town	In the mountainous region	In the Persian Gulf coast	In the central regions of Iran	Circular	Polygon	Recta gular	Irregular	with two porches	with four porches	with hall of columns	Schema plans
4	Laleh Internarial Hotel,(Abbasi Cavanserai), Kermanshah	Safavid			✓	✓						-	✓		-	
5	Maranjab Caravanserai, Kashan	Safavid			✓			✓			✓	-		✓	-	
6	Khane Khowrdeh Caravanserai, Fars Province	Safavid		✓				✓		✓		-		✓	-	
7	Khajeh Natanz Caravanserai, East Azerbaijan Province	Safavid	-		✓	✓					✓	-	✓		-	

NO:	Name Of The Caravanserai in Iran	Eras	Plans	Inside of town	Outside of town	In the mountainous region	In the Persian Gulf coast	In the central regions of Iran	Circular	Polygon	Recta gular	Irregular	with two porches	with four porches	with hall of columns	Schema plans
8	Nime Stone Caravanserai, Bandar Lengeh	Qajar	-		✓		✓				✓	-		✓	-	
9	Bagh-E Sheikh Caravanserai, Saveh	Qajar			✓			✓			✓	-		✓		
10	Khan Zinan Caravanserai, Shiraz	Qajar			✓			✓			✓	-			✓	

4.2.1 Abbasi Caravanserai Hotel

Historical Background:

Abbasi Hotel which is converted from Abbasi caravanserai was built 300 years ago in the heart of the city Isfahan. This complex was built at the time of Safavid King Soltan Hossein who has attributed this magnificent complex of building to his mother (URL54). The caravanserai building was renovated and transformed into a hotel in the 1950s by French archaeologist and historian Andre Godard who was the director of the Iranian Archeological Service for many years (URL57).



Figure 56. Abbasi Caravanserai “Caravanserai of mother of Shah Sultan Hussein by Pascal Coste”, 1840, Isfahan, Iran (URL58)

The caravanserai was the place of foreign tourists, merchants, and ambassadors. According to the interview of Mahdi Ebrahimian (2017) who was responsible for the restoration and reconstruction of this caravanserai, explained that the main attempt has been to preserve the general form and they were committed to two objectives: The preservation of the originality of the outward facade and the renovation of the caravansary's chambers and remodeling them into the hotel rooms (URL56). The cultural heritage organization of Isfahan and insurance company choose him as the experts of this process. They finally started the remodeling of the

hotel in the summer of 1958 and finished it at the end of 1966. In re-use of this caravanserai, first the courtyard has changed into a garden imbued with plants and flowers. A stream flows through this courtyard, which is called "Farshadi stream". A verandah is located at the two sides of the courtyard which is aligned to two-story chambers (URL56).



Figure 57. Restored pool and remodelled landscape of the caravanserai (URL59)

They inspired from the art and architecture of Isfahan, such as palaces, and use of colors, materials according to the Islamic and Iranian ornaments in the renovations.

In 1972, Iran Insurance Company decided to expand the hotel. The expansion was possible only at the eastern side. Thus, by purchasing 11,500 square meters of land at this side, the annex or adjacent section of the hotel was built. They built eighty rooms, hall, and restaurant with hotel standard facilities. The process was around sixteen months with one hundred fifty artists, designers, and engineers (URL56). The (Figure.60) shows the restored Safavid suite with the mixture of plaster work, illumination, vaulted walls and Qajar style restaurant. The arches on the exterior walls are from Seljuk style and the style of the furniture is from Iranian miniature (URL56). The arches on the exterior walls restored from Safavid arches to Seljuk style (Figure 62).



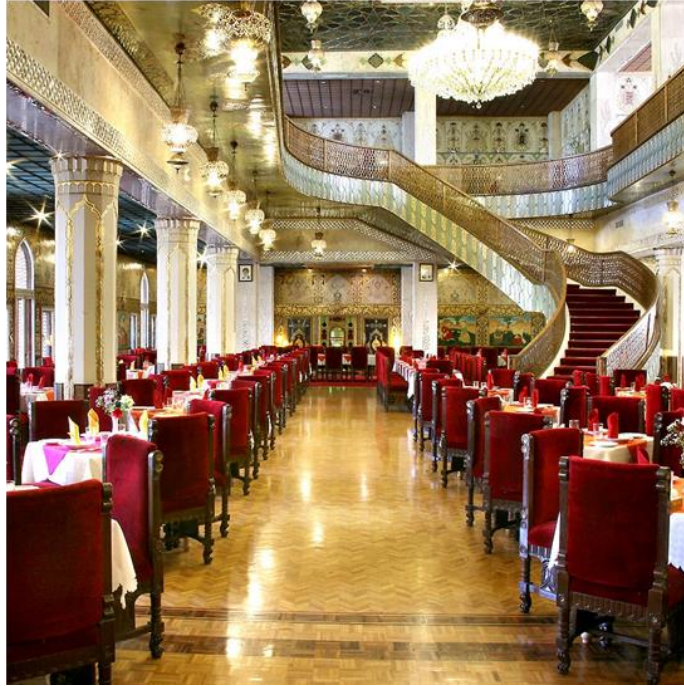


Figure 58. Safavid suite and Qajar restaurant of the caravanserai (URL60)

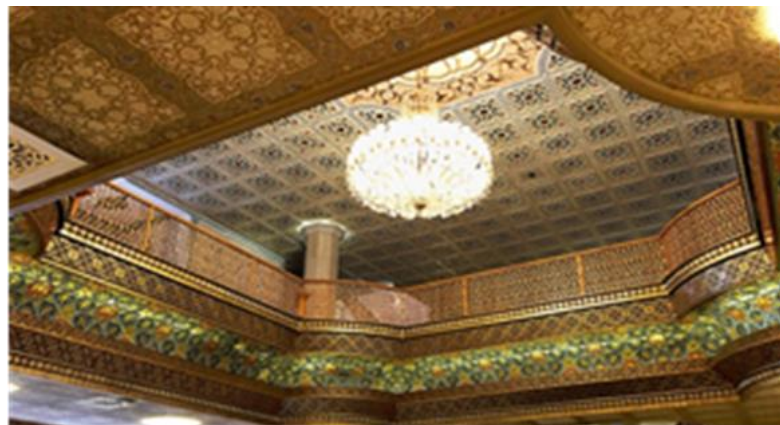


Figure 59. New ornaments and patterns in interior spaces, such as the Lobby, (Photos: Sajjad Memori, URL61)

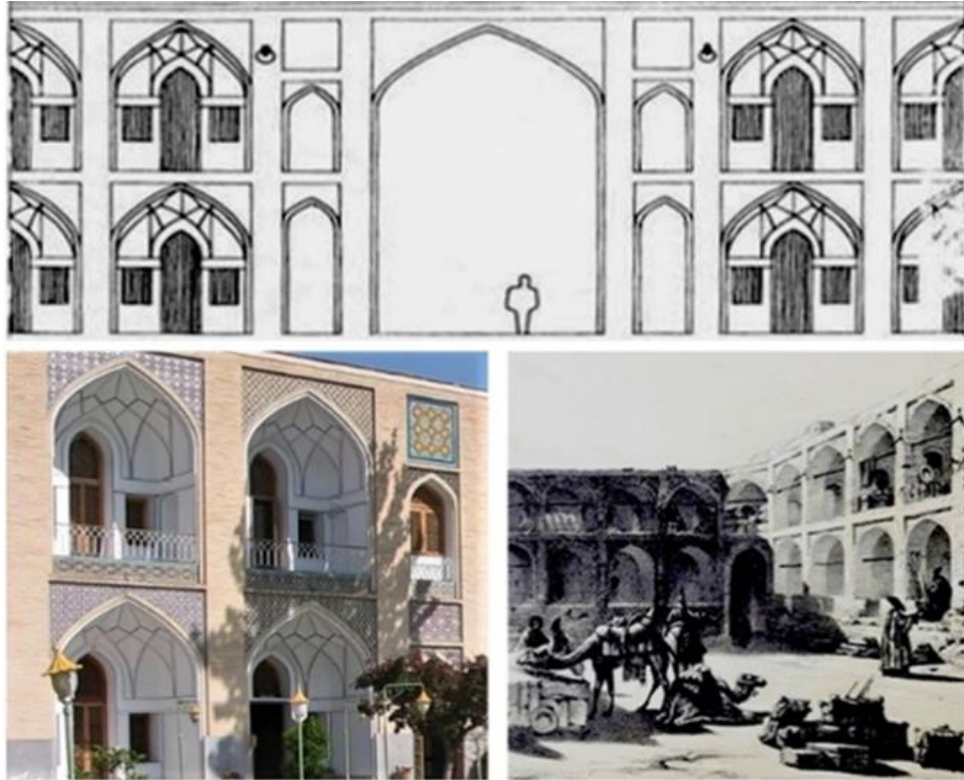


Figure 60. Original Safavid arches (right bottom) and remodeled Seljuk arches (URL62)

By passing more than 30 years from a hotel servicing, most sections of the hotel had been ruined and needed renovations. After inspections of engineers and designers, the remodeling of the hotel in many phases started at first months of 1995 and ended at first months of 2000. The above actions include the reconstruction of rooms, halls, kitchens, and engine houses, electrical and mechanical installations of the hotel. In the 1974 the Ten Little Indians movie, starring Oliver Reed and Elke Sommer, was shot here (Figure.63) (URL56).



Figure 61. The shots of the Ten Little Indians movie, beyond interiorspace of Abbasi hotel (URL 63)

Architectural Background:

The caravanserai site is divided into three successive plans, which include the school, the bazaar, the caravanserai and the stable from west to east. A covered arched Bazaar is then placed on the northern side of the plan which runs along the three parts and joins them. The school is a four-Iwan and the main Chahar-Bagh Boulevard opening.

There are 150 rooms on two floors around the central courtyard: Each room consists of three areas (small porch “Iwan”, study room and room for sleeping). The

interior spaces are whitewashed with blue vaulting lines, while the courtyard façades are geometrically tiled patterns.

The Iwan in south opens onto the sanctuary, a domed room with a columned prayer hall next to it. The dome is very similar to the Shah mosque and follows the same technique of vaulting. The sanctuary is symmetrically flanked by two square courtyards, offering access to lavatories and service areas (Bryce, O'Gorman & Baxter, 2013).

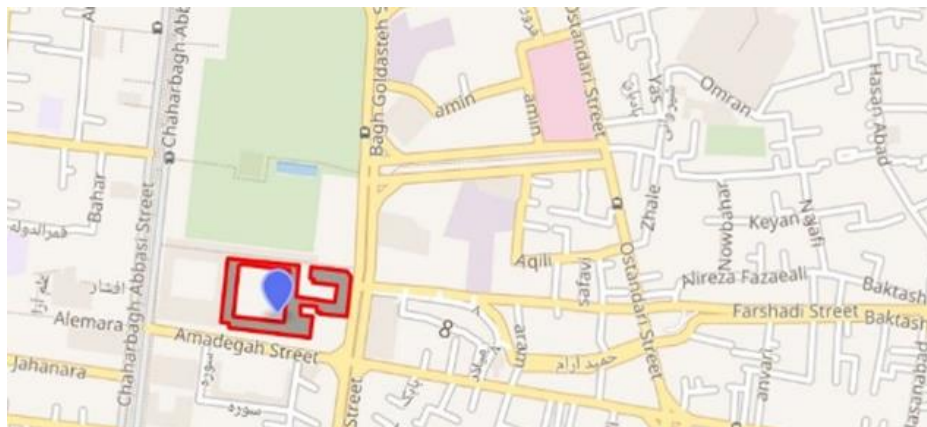


Figure 62. The location of the complex (URL 65)

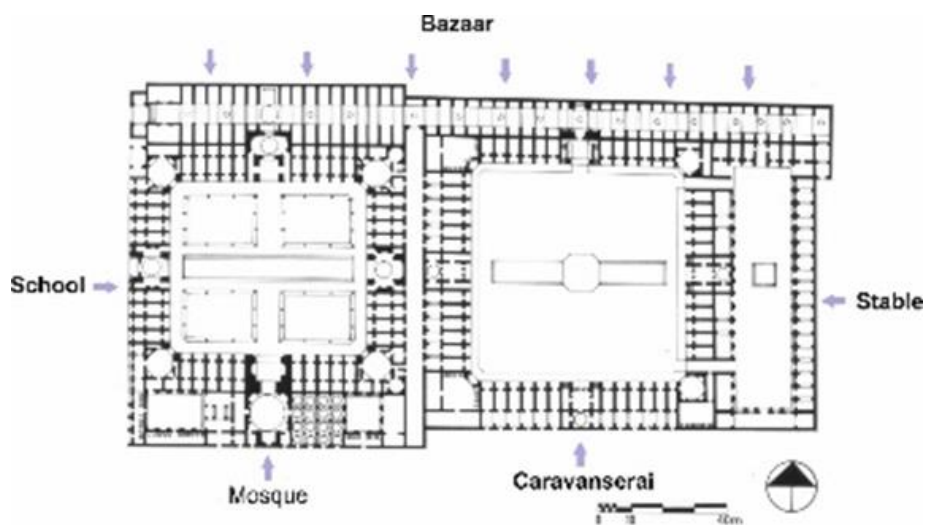


Figure 63. The original plans of the complex (URL 66)

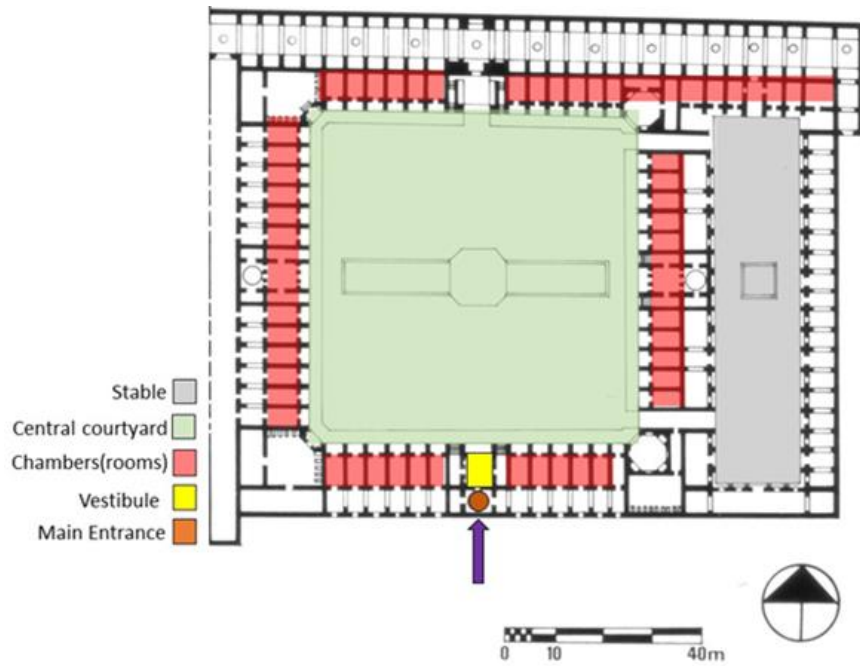


Figure 64. Spaces on the original plan of the caravanserai (Author, 2019)

The treatment of the corners is an important feature of the plan: while they are usually occupied by large rooms or service facilities such as a kitchen or bathroom, the architect left them as open - roofed foyers surrounded by utility rooms and stairs.



Figure 65. Qajar suite with Qajar architectural design (URL 64)



Figure 66. Cheshm Andaz room (URL 64)

The caravanserai building is separated from the school by a covered hallway which probably acoustically isolated the school. The same four layouts–Iwan is also used for caravanserai. Its main axis of courtyards is emphasized by a pool extending from east to west; the same stream of water runs through the courtyard of the school, following the same tripartite apartment as the rooms of the school. There are large doors in the center of four sides. The northern Iwan connects the caravanserai to the bazaar, a covered arcade about 220 meters in length, with serial chambers and the same cellular structural grid as the school and the caravanserai (Khosravi,2018).

4.2.2 Zein-o-Din Caravanserai

Historical Background:

According to the study of Iran's caravanserais, there are three round shaped caravanserais. The Zizeh caravanserai on the Yazd – Kashan road which dates back to the Safavid era is damaged completely. The Tajabad-e-Sofla Caravanserai's form is round, on the Hamadan Province road which dates back to Qajar period. This caravanserai is restored but it doesn't have any new function.

The Zein-o-Din caravanserai is located in the 100 km outside of the Yazd city among the direction of the Afghan border, is built in the 16th century and is situated on the ancient Silk Road. The neglected monument was owned by the Iran Cultural Heritage and Tourism Organization. Four years ago, the three brothers chose to rent the caravanserai for 12-years by an agreement to renovate the caravanserai as a guests' space and design to its original style (Bryce, O'Gorman & Baxter, 2013, p.216). It is renovated, furnished and was given the UNESCO award for the best-renovated building in 2006 (URL68). The round shaped interior walls of Zein-o-Din caravanserai, narrow corridors between the 32 rooms are built on platforms.





Figure 67. Central courtyard with a water pool and front view of the façade (URL68)





Figure 68. The view of the chambers, yard, and semi open shade (URL69)

Some spaces are separate with wooden doors and others with just a thick curtain separating them from the corridor. Thick Persian carpets cover the floors and decorate the walls. Everything is traditionally made to evoke the feeling of a Silk Road travel. There are two types of rooms: Smaller ones inside along the main corridor and other spacious ones opening to the courtyard which come with beds (URL70).



Figure 69. The corridor space, bedrooms, bathrooms and restaurant of the caravanserai (URL71)

According to the tourists' comments on the "Trip Advisor" website, there's not much privacy in the Zein-o-Din caravanserai and everybody can easily hear people giggling in their rooms and walking in and out all night long. A tourist staying at one of the rooms opening to the courtyard would expect a lot of noise. This place is not very big but popular with foreign tourists and many tour operators have this place on the itinerary (URL72).

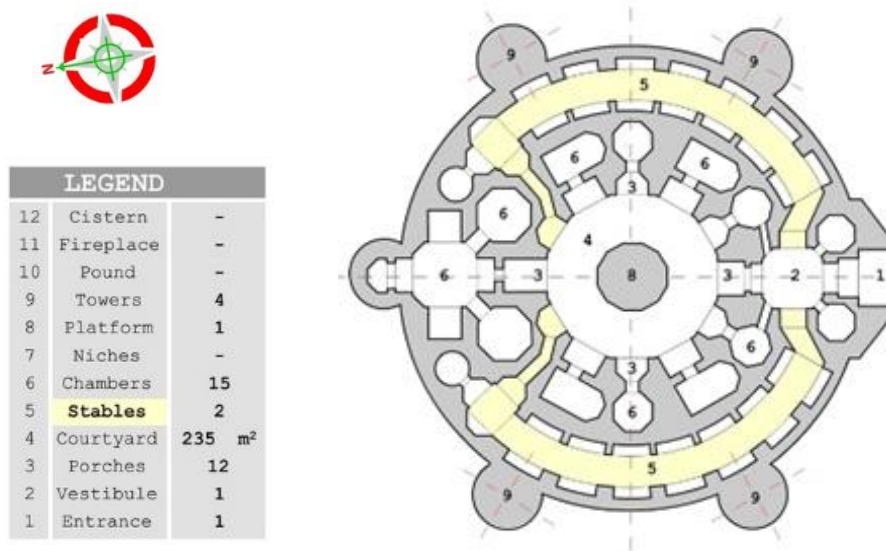
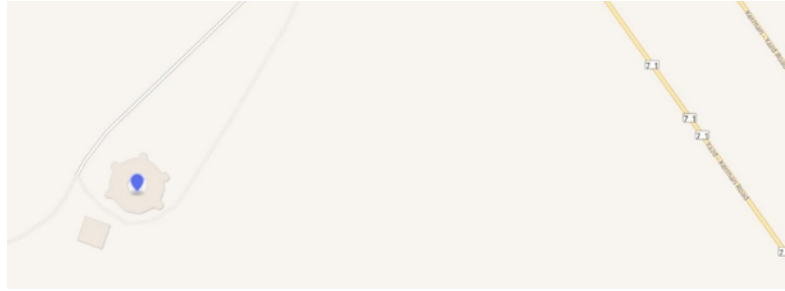


Figure 70. The location of the caravanserai, the space around the caravanserai and the original plan (URL73)

Architectural Background:

Originally, the Zein-o-Din caravanserai provided basic human needs in the desert. It has a circular plan, which is formed with the entrance and five protective towers which are 8 meters' height in each corner. The design offers robust protection

against natural elements and attacks as an exposed desert building. This simple but effective security control merchants from threats and protect the elements in an exposed environment. The angled brick walls avoid the wind and heavy sandstorms in the area (Bryce, O'Gorman & Baxter, 2013).



Figure 71. Exterior angled walls of the caravanserai (URL74)



Figure 72. The roof top of the caravanserai (URL 75)

The main gate of caravanserai is usually closed at dusk and not opens until the next day. Guests have a different experience in this social space in the desert environment with the central courtyard and circular rooms This would be a safe place for merchants and their markets, and there was a stable facility and space for reparations and health problems while staying (Bryce, O'Gorman & Baxter, 2013).

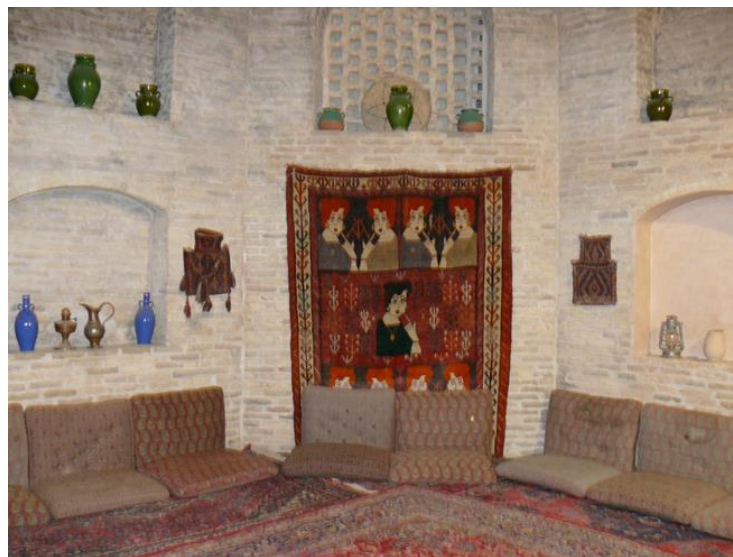


Figure 73. The main space for gathering (URL76)

“This is a typical example of a caravanserai that has facilitated trade. Caravanserai faced security and protection problems”, looter or bandit threats and storm exposure “meant that the exterior was built for strength and isolation rather than access and aesthetics”. The built environment refers to the focus on security, just like medieval castles, “they have a single protected entrance to control a single threshold”. The building was completely self-contained and all requirements would be dealt with internally “(Bryce, O'Gorman & Baxter, 2013, p.216).



Figure 74. The wooden door and old inscription (URL76)

The central passageway that runs all around “the caravanserai had larger rooms inside”, which opened up to the central market. The external wall of the building on the other side of the passageway contained the basic accommodation space. These quarters would be modest, slightly raised off the ground, covered by a simple curtain, with carpets and sheets for convenience. Merchants would use these facilities to work, socialize, share news and look after with camels, stocks or personal health. “The smells and sounds that they experienced in such a caravanserai would be intense, as the business with a wide range of products and products on offer, camels stable nearby and many people sleeping, working, toileting and eating in close proximity to each other” (Bryce, O’Gorman & Baxter, 2013, p.218).

4.2.3 Comparative assessment of two cases

Comparative assessment will be made according to the continuity of caravanserai architectural elements, continuity of spaces, continuity of five principles in Iranian architecture in Safavid caravanserai buildings, intervention levels in reused caravanserais and continuity of authenticity.

Table 4: Analysis of continuity of caravanserai architectural elements

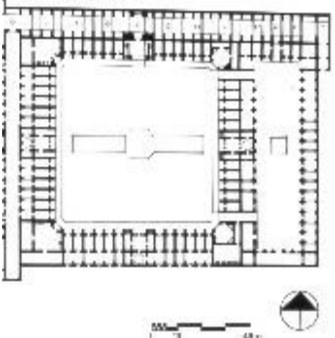
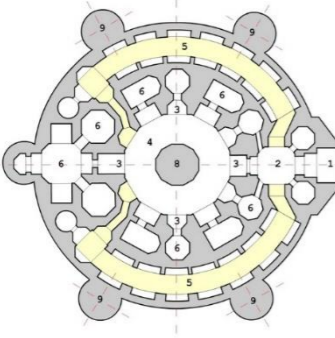
Name of the caravanserais	Protective towers	Decoration	Wind catcher	Roofs	Opening	Inscriptions	Services water supply- Lighting -heater
Abbasi Caravanserai Hotel 	There are no protective towers in the original building.	The decorations of the spaces are not according to the Safavid style of caravanserais. For example, in restaurant section, the Qajar style gives false information.	There are no wind catchers in the original building.	The roofs structure is preserved and the material of it is changed.	The doors and windows are changed with new style (traditional style of Isfahan) and some of them are repaired.	The inscriptions are not preserved during the restoration process.	The services are implemented in the caravanserai after the restoration process.
	-	See Figures 60-61	-	See Figure 62	See Figures 59	×	-
	Original	×	✓	×	✓	✓	✓
Re-use	×	×	×	✓	×	×	✓
Zein-o-Din Caravanserai 	There are five protective towers which are preserved, <ul style="list-style-type: none"> ▪ One is placed against the gate, on the North side ▪ Two are placed on the West side ▪ Two are placed on the East side. 	The restoration is done with circumspection and according to orders, in respect with decorations from the Safavid caravanserais.	The Shah Neshin is placed in the northern side of the courtyard. This room has a Badgir (wind catcher) that is used to cool the room and other sections of the caravanserai.	The roof structure is preserved and new addition is the wooden shading element around the roof towards courtyard which is compatible with its original.	There are wooden doors as the main doors in the courtyard. Thick curtains are used for separating rooms from the corridors inside as original.	The inscriptions are preserved during the restoration process.	The services are implemented in the caravanserai after the restoration process.
	See Figures 72-73	See Figures 71- 75	See Figure 74	See Figure 72-74	See Figures 69-70-76	See Figure 76	-
	Original	✓	✓	✓	✓	✓	✓
Re-use	✓	✓	✓	✓	✓	✓	✓

Table 5: Analysis of caravanserais in terms of continuity of original spaces

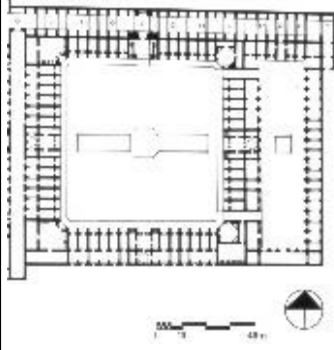
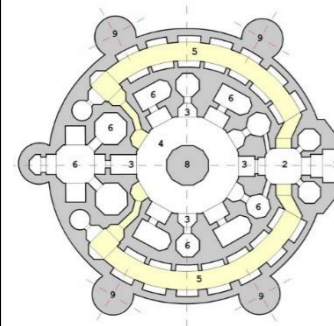
Name of the caravanserais	Travelers Rooms	Entrance and Hall	Vestibule	Livestock storage (Animal shelter)	Central courtyard	Shops	Water Closets and Bathrooms	Iwan	Food preparation space	Prayer space
<p>Abbasi Caravanserai hotel</p> 	<p>In the restoration process 80 rooms had been made and now there are 225 rooms, hall, and suites with standard single and double rooms. Existing passenger rooms are preserved.</p>	<p>The connection between entrance space and the main hall and lobby is preserved.</p>	<p>The vestibules are preserved and they exist around the caravanserai</p>	<p>The livestock storages are completely damaged and not restored during the restoration process.</p>	<p>The central courtyard is remaining from original version and historical pool is preserved, however the courtyard has changed during the adaptation process and new elements, plants are added according to Iranian garden style.</p>	<p>In the past the shops were located outside of the caravanserai and they have continued on the ground floor after the restoration as handicraft shops.</p>	<p>The form of WC and bathroom are changed to contemporary style with new elements.</p>	<p>The Iwans are preserved after the restoration process.</p>	<p>The food preparation spaces are changed to the temporary kitchen.</p>	<p>The prayer space is preserved.</p>
Original	✓	✓	✓	✓	✓	×	✓	✓	✓	✓
Reused	✓	✓	✓	×	✓	✓	✓	✓	✓	✓
<p>Zein-o-Din Caravanserai</p> 	<p>The caravanserai has accommodation capacity for 68 people. Existing spaces are restored.</p>	<p>The connection of the entrance space with other spaces is preserved.</p>	<p>The vestibules are preserved and they exist around the caravanserai.</p>	<p>The livestock storages are Preserved.</p>	<p>The original form of the courtyard is preserved. Shading element is added partially.</p>	<p>There aren't any shops near the caravanserai. There were no shops around former caravanserai as well as in reused version.</p>	<p>The form of WC and bathroom are changed to contemporary style with new materials.</p>	<p>The Iwans are preserved after the restoration process.</p>	<p>The food preparation spaces are changed to the temporary kitchen.</p>	<p>The prayer space is preserved.</p>
Original	✓	✓	✓	✓	✓	×	✓	✓	✓	✓
Reuse	✓	✓	✓	✓	✓	×	✓	✓	✓	✓

Table 6: Continuity of five principles of Iranian architecture in Safavid caravanserai buildings

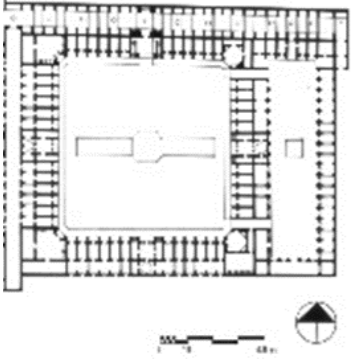
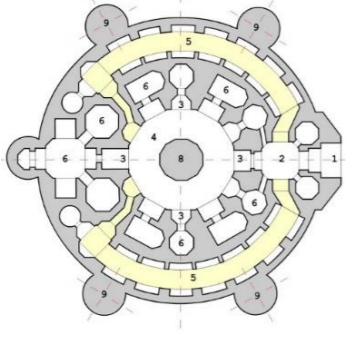
Name of the caravanserais	Humanism 'Human scale' (Mardumvari)	Introversion 'Inward looking' (Darun-geraei)	Self-sufficiency (Khudbasandegi)	Avoiding non-essentials (Parhiz az Bihoudegi)	Structural rigidity (Niaresh)
Abbasi Caravanserai hotel 	Order and proportions in the spaces and form are in proportion with the human body and scale.	Central courtyard, rhythm, confidentiality, hierarchy, appropriate access, different inputs are according to the different uses. Light is taken from inner courtyard through the interior spaces of the building.	Use of local structure and some local materials such as brick and stone which are in harmony with its surrounding environment.	Additional decorations for having decorative aspects are in contrast with the historical background of spaces.	Construction technology: use of brick on the exterior facade to replace missing parts are integrated harmoniously with the whole parts.
	See Figure 62	See Figure 66	See Figure 59	See Figure 60-61	See Figure 62
Original	✓	✓	✓	✓	✓
Reuse	✓	✓	✓	×	✓
Zein-o-Din Caravanserai 	Order and proportions in the spaces and form are in proportion with the human body and scale.	Central courtyard, rhythm, confidentiality, hierarchy, appropriate access, different inputs are according to the different uses. Light is taken from inner courtyard through the interior spaces of the building.	Use of local structure and local material such as brick and stone which are in harmony with its surrounding environment.	Avoiding non-essentials such as avoiding the use of new materials, decorative elements are visible in the spaces.	Construction technology: use of local material as brick on the exterior facade to replace missing parts that integrated harmoniously with the whole parts.
	See Figure 69-76	See Figure 71	See Figure 73	See Figures 71-75	See Figure 74
Original	✓	✓	✓	✓	✓
Reuse	✓	✓	✓	✓	✓

Table 7: Analysis of intervention levels in reused caravanseraies

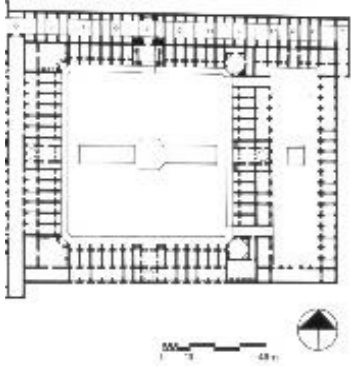
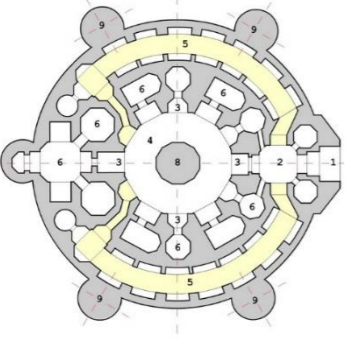
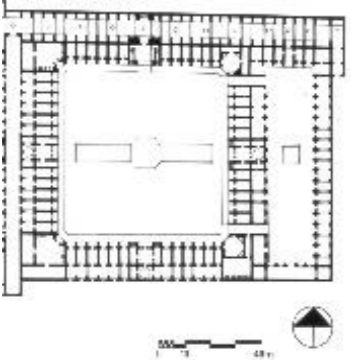
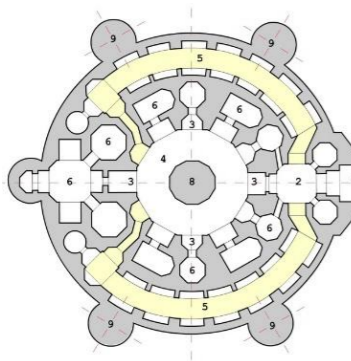
Name of the caravanserais	Level of changes	Ornamentations	Furniture and furnishings	Interior additions	Exterior additions	Changes and additions
<p>Abbasi Caravanserai hotel</p> 	<p>According to (ICOMOS), Venice Charter Article 1, the cultural significance of the building is not preserved.</p>	<p>According to (ICOMOS) New Zealand Charter, fixtures, fittings, and contents 13, All of the ornamentations do not belong to the architecture of Safavid caravanserai.</p>	<p>According to (ICOMOS) New Zealand Charter, fixtures, fittings, and contents 13, the furniture concept is from Iranian miniature and traditional art of Isfahan, not Safavid caravanserais styles.</p>	<p>According to (ICOMOS) New Zealand Charter, Adaptation. 21, additions (bedrooms, bathrooms, halls, restaurant) where they are necessary for a compatible use of the place were used.</p>	<p>According to (ICOMOS) New Zealand Charter, Adaptation. 21, they added new building for developing the hotel spaces. New addition is not separable.</p>	<p>The changes and additions of the caravanserai has not attempted to preserve the overall space character and style of the building, and only the apparent alteration and arrangement of its central courtyard is in the form of genuine Iranian gardens.</p>
Appropriate intervention	×	×	×	✓	×	×
<p>Zein-o-Din Caravanserai</p> 	<p>According to (ICOMOS) Venice Charter Article 1, the cultural significance of the building is preserved.</p>	<p>According to (ICOMOS) New Zealand Charter, fixtures, fittings, and contents 13, the ornamentations totally belong to the architecture of Safavid caravanserai.</p>	<p>According to (ICOMOS) New Zealand Charter, fixtures, fittings, and contents 13, the furniture concept is from ancient Iranians and in harmony with Safavid caravanserais. Use of curtains for room separation. Use of the Persian carpets Use of cushions for sitting. Instead of the bed, use of the mattress.</p>	<p>The interior spaces are preserved during the process of adaptation. There are no interior additions to the original building.</p>	<p>There are no exterior additions to the original building.</p>	<p>The changes and additions of the caravanserai have attempted to preserve its overall form. The wooden shade around the courtyard, converted partially open space to semi-open space in a compatible manner.</p>
Appropriate intervention	✓	✓	✓	✓	✓	✓

Table 8: Continuity of authenticity in caravanserai buildings

Name of the caravanserais	Form	Tradition and technique	Material and substance	Location and setting	Use and function	Design
<p>Abbasi Caravanserai hotel</p> 	<p>According to (ICOMOS) Venice Charter Article.9, the Conservation of cultural heritage in all its form is preserved. According to Nara document on authenticity.7, the form of the new building is compatible with the original form.</p>	<p>According to (ICOMOS) New Zealand Charter, degrees of intervention for conservation purposes. 17, invisibility of new structure remains in harmony with its original structure.</p>	<p>According to (ICOMOS) New Zealand Charter, fixtures, fittings, and contents 13, The ornamentations are not belonging to the architecture of Safavid caravanserai.</p>	<p>According to (ICOMOS) New Zealand Charter, Reconstruction.20, the missing elements of the interior and exterior spaces reconstructed with new techniques and style.</p>	<p>According to (ICOMOS) International Cultural Tourism Charter, principle.2, the authenticity of the heritage building and tourism purpose are well managed.</p>	<p>According to (ICOMOS) New Zealand Charter, fixtures, fittings.13, the new additions such as the furniture style, the floor, material materials and patterns are incompatible with the style and background of the building.</p>
Continuity of authenticity	✓	✓	×	×	✓	×
<p>Zein-o-Din Caravanserai</p> 	<p>According to (ICOMOS) Venice Charter Article.9, the Conservation of cultural heritage in all its form is preserved. According to Nara document on authenticity.7, the form of the building is compatible with the original form.</p>	<p>According to (ICOMOS) New Zealand Charter, degrees of intervention for conservation purposes. 17, invisibility of new structure remains in harmony with its original structure.</p>	<p>According to (ICOMOS) New Zealand Charter, fixtures, fittings, and contents 13, the ornamentations belong to the architecture of Safavid caravanserai.</p>	<p>According to (ICOMOS) New Zealand Charter, Reconstruction.20, the missing elements of the interior and exterior spaces reconstructed with new techniques and materials.</p>	<p>According to (ICOMOS) International Cultural Tourism Charter, principle.2, the authenticity of the heritage building and tourism purpose are well managed.</p>	<p>According to (ICOMOS) New Zealand Charter, Fixtures, fittings.13, The new additions such as the furniture style, the floors, and walls materials and patterns are compatible with the style and background of the building.</p>
Continuity of authenticity	✓	✓	✓	✓	✓	✓

4.3 Findings about the Case Studies

According to the examination of the case studies – which were based on the location, climate, form, transitional spaces, analysis of continuity of caravanserai architecture elements, analysis of caravanserai continuing of spaces, five principles in Iranian architecture in Safavid caravanserai buildings, intervention levels in reused caravanseraies, and authenticity in caravanserai buildings – it appears that there are some weaknesses in restoration, preservation, and adaptation processes. These weaknesses involve the new works and additions (ornamentation, colors, and elements) in Abbasi hotel because they interfere with the style of the Safavid Caravansaries, which were free of superfluous or vain decorations and ornamentations. In the restoration process of Zein-o-Din caravanserai, the privacy issues in the rooms were not addressed and people easily hear the conversations and noises from nearby rooms because there are not any doors for closing and segregating the spaces. Similarly, problems of the site can be discussed. The problems of accessibility included undefined access to the roads in the area around the Abbasi caravanserai and Zein-o-Din caravanserai, and the distance from the parking area to the caravanserai buildings and their close surroundings. Because the parking area is ill-defined, it also causes problems for security and controlling access. Together, this cause traffic congestion inside the city and outside the caravanserai. According to the examination of the case studies revealed positive and negative points for each caravanserai:

- The Abbasi hotel is well-known in terms of facilities and tourism attraction, but it is weak in terms of conservation and continuity of originality and authenticity.

- The Zein-o-Din caravanserai has achieved continuity of originality and authenticity of the building, in terms of conservation but it is weak in terms of the tourism facilities and security.

If heritage caravanserai buildings are reused for tourism purposes or made the central point of tourists' attention and tourism development, it is highly recommended to preserve and keep the uniqueness and authenticity of the spaces without modernity. As an example after the restoration, the Abbasi caravanserai name's changed to Abbasi hotel which shows the decrease of caravanserai historical background. Functional spaces and elements should respect the style of the historical background, architectural values, and cultural sustainability according to Iranian architecture principles.

It can be concluded that assigning a new purpose (tourism) to a heritage building – such as a caravanserai that is converted into a hotel – requires accurate attention and extensive study of the existing conditions. Re-functioning and restoring with new additions should be based on international conservation principles and various evaluations for keeping cultural sustainability, uniqueness, and authenticity.

4.4 Chapter Conclusion

This chapter covered and examined the Abbasi hotel caravanserai in Isfahan and Zein-o-Din caravanserai in Yazd caravanserais according to the related tables in chapter two and considered the related guidelines from the conservation charters. The means of analyzing the cases is to show how the cases are reused in terms of new materials, elements, structures, new additions, the five principle in Iranian Architecture in Iranian Safavid Caravanserais and deep details in the cultural significances, continuity of spaces, and continuity of authenticity. The findings about the case studies have been deeply discussed at the end of this chapter. The next chapter will be concluding the research with some recommendations.

Chapter 5

CONCLUSION

5.1 General Findings

Re-functioning a heritage building, such as a caravanserai, for a new purpose is a worthwhile challenge. This study tried to answer the main question, “How can we achieve the continuity of uniqueness and authenticity of historical caravanserai buildings and their interiors during the process of adaptation for tourism in Iran?”

Continuity of uniqueness and authenticity during the process of adaptation for tourism can be achieved in Iranian caravanserai buildings, through the consideration of many aspects such as the continuity of caravanserai architectural elements, continuity of original spaces, continuity of five principles in Iranian architecture, appropriateness of intervention levels, and continuity of authenticity

Keeping old components and inserting contemporary interventions needs to be balanced when re-functioning spaces. At the same time, composing different additions and layers, makes it unique and preserves the space’s authenticity in terms of architectural value and historical background. Adaptability and harmony between old and new with minimal levels of intervention are major issues to be considered in the new states of heritage buildings according to the literature reviews and the case studies in this study. It is utterly important to illuminate the interventions of new function with contemporary signs and designs which are harmonious with the historic parts of the space in order to make pure, authentic, and unique spaces. Assigning a new purpose and function, especially tourism functions to a heritage

building like caravanserai, must be based on existing features such as interior spaces, architectural and spatial elements, locations, and context. In some cases, such as a damaged historic building, determining new additions should be considered due to the existing conditions of the building. New interventions to historical spaces have to respect, protect, and preserve the space authenticity and achieve cultural sustainability.

It can also be argued that Iranian caravansaries, in addition to having architectural value, are also socially important. Historic monuments, including caravansaries, are extremely valid and trusted historical records of their time. As well, they serve as narrators for the lives of ancestors and illustrations of the way of people lived. Studies and research should be followed to encourage the public to protect the architecture of the past in line with developing cultural tourism. These can be effective steps toward conserving such caravanserai buildings and incorporating them into the social arena today and in the future.

The specific climatic and geographic conditions in Iran, have caused the cities and villages of this land to be distant. Under these circumstances, only a regular communications network could integrate these remote locations. Therefore, the construction and extension of roads and, consequently, the establishment of residential facilities such as the caravanserais, along the pathways have been inevitable. Attention to the caravansaries, especially in relation to the political and social conditions of each period was important. Especially during the Safavid Era and the time of Shah Abbas I, the construction of the caravanserai was flourishing in Iran, and as a result, communications and trade were in the high level.

Caravansaries in Iran, unlike many other historical structures such as palaces, mosques, are monuments that are not in isolation, because they are not essentially

separate. As a part of a communication path, each caravansary has to have other buildings along the same road to have effective operation to complete the communication chain such as a castle or mosque, bazaar near the caravanserai. Safavid Caravansaries had spaces and content that outweighs the commercial and communicative needs of hosts. According to this study conducted in different types of architecture of the Safavid caravanserai, one of the important aspects to realize was that in the architecture of these buildings, the five principles of Iranian architecture that Humanism 'Human scale'(Mardumvari), introversion 'Inward looking'(Darun-geraei), self-sufficiency (Khudbasandegi), avoiding non-essentials (Parhiz az Bihoudegi), structural rigidity (Niaresh) has been respected. And this suggests that the architecture of these spaces has its own pure Iranian architectural principles. So it can be said that the architecture of Iranian caravansaries is one of the memorials of Iranian architecture that has the authenticity of Iranian architecture in its own right.

5.2 Further Study

Adaptive reuse of heritage buildings such as caravanserais are unique and masterpiece buildings example of Iranian architecture in each period. These buildings have different structures, forms and decorations according to the locations and climates which played an important role in connecting the bridge between societies and history. There is a chain for reviving heritage buildings, tourism development, uniqueness, authenticity, cultural sustainability and the techniques of restoration and reuse. According to this study, the accurate adaptation process by keeping the authenticity of the spaces, using the suitable materials and technics are the important factors. From simple caravanserai with fewer decorations to the more ornamented, caravanserais were built for servicing the merchants and travelers from

different countries outside the trade roads such as silk road that were far from any settlements and when the cities were developed, they joined to the cities. The research is done to guide the reviving heritage buildings such as caravanserai to shows the Iranian culture and hospitality for developing local and foreign tourism with keeping authenticity during the process of adaptation, consider the space harmony with new additions which are expected to add different layers to the whole complex to be more attractive to its visitors and users.

For further studies, people who are interested in this subject can continue with deep details and suitable function rather than only as hotels or guesthouses such as bazaar, according to the urban necessities with invisible modernity. These caravanserais have the capability to become a place of sharing the ideas, traditions, knowledge and much more between people from different cultures. The number of cases can be extended for other cities and countries to reach other conclusions and surveys can be made with tourists to find out user opinions related with continuity issues.

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