

Technique and Form of the Land: The Systems and the Morphologies of Turkish Caravanserais The Design of the Landscape, the Caravan Routes, the Silk Road, the Caravanserais

Loredana Ficarelli

Department of Civil Engineering and Architecture (DICAR), Polytechnic University of Bari
via Orabona 4, Bari, Italy
l.ficarelli@poliba.it

ABSTRACT

This research doesn't want to offer defined and systematic contributions; it isn't a cataloguing or an historico-critical analysis of the "caravanserais" phenomenon. The aim consists in the effort to explain the relationship linking the form to geography, morphology and landscape architecture. The purpose is to offer a critical reading of the typological differences own of these structures, in relation to urban and suburban settlements, with particular reference to the examples scattered throughout the Mediterranean, in Egypt, Syria and Turkey.

The caravanserais, commercial architectures on the ancient trade routes, are the topic of this paper. The cognitive analysis rebuilds a global vision about their origin, their character and the way in which these buildings build the landscape and the city. These complex and recognizable structures, the network of the routes, the land subdivision, the pattern crops are the elements contributing to the recognition of the landscape identity, where the physical factor and the historical events determine the perpetuation of techniques and forms.

KEYWORDS: Landscape architecture, Turkish caravanserais, Silk Road, Commercial buildings

1 INTRODUCTION

The aim of the research is the morphology of the specialized commercial architecture, that's to say the caravanserais, whose treatment is made by a cognitive path that aims at reconstructing a general view about the origin, the character, the way by which these buildings trace the shape of the land and the cities. These complex structures, very recognizable, together with the routes, form an elaborate system that contributes to the recognition of the identity of this landscape.

These road layouts developed from the Far East to the West, from Syria to Mesopotamia, from the Persian Gulf to the Red Sea, Turkey and Asia.

The shape of these buildings is like a single body, a single finished product. The caravanserais represent the most authentic expression of the nomadic and semi-nomadic culture, the model of a civilization that has greatly influenced the design and the organization of the landscape. The shape of the landscape is not separated from the shape of its constructions, since the site establishes a formal order followed by the human works, which in turn contribute to describe their own specific nature, content in every act of settlement.

The study of the morphological feature of the sites is one of the main elements on which the architectural project is based as it allows you to describe the condition of a place through "simplified" categories, starting from their construction materials and the relationship between them.

This method, based on a simplification, is complementary to the "figural" one, based on the contrary on the contribution of different knowledge with the ambition to create a complex idea of the action. The design is a cognitive activity, so its method follows the general rules of any theory of knowledge.

The knowledge is a deep acquisition of information and, above all, of choices made according to the rules and the basics of a discipline. The idea of architecture is formed and based on the relationship between the reality and the knowledge of the history. Thinking about the features and the identity of each culture allows us to examine their contribution to the history. The order is a syntactic rule useful to think to the relationship with the history, not to propose a nostalgic return to the forms of the past, but to introduce a new contribution to the idea of the living culture.

The architecture thus become an important value of the human condition that forms the reality and conforms the matter in accordance with the aesthetic concept.

2 THE MEDITERRANEAN

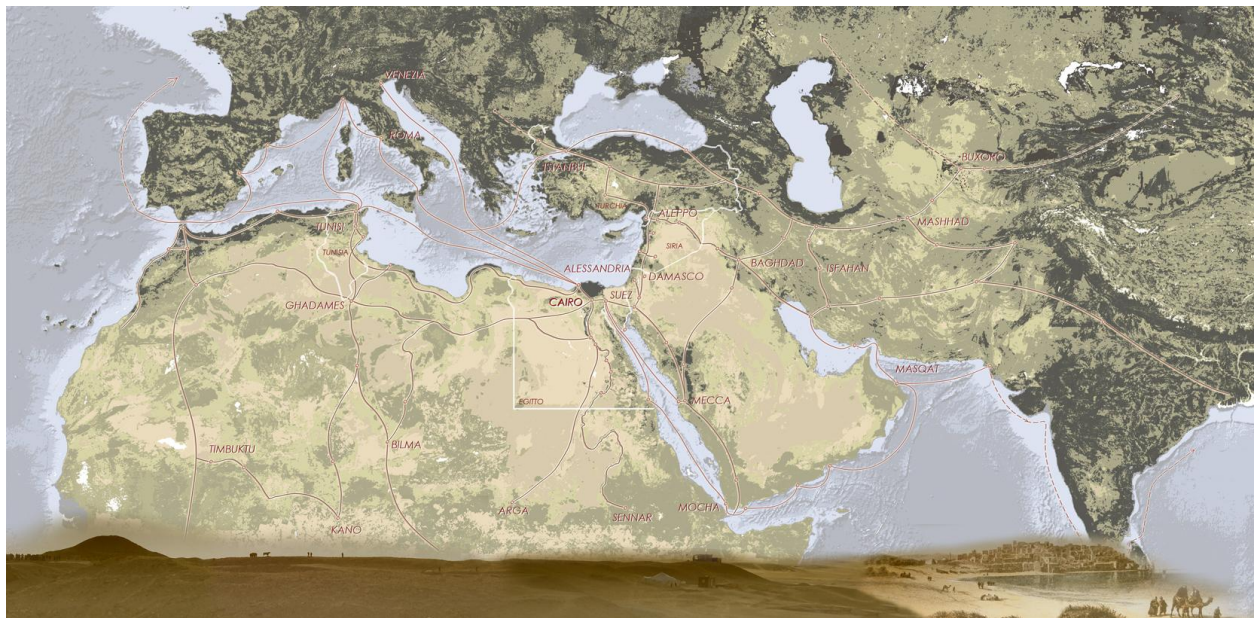


Figure 1: Ancient trade routes

"The Mediterranean is a sea surrounded by land and a land bathed by the sea", a composite universe that holds together all historical and symbolic aspects of bathing continents, Europe, Asia, Africa, with their differences, but also, and above all, with their deep cultural and uniform roots.

From any point of view you analyze the evolution of these lands, that is an architectural, historical or anthropological consideration, it's unthinkable not to consider the importance of this sea, which was the cradle of Western civilization, making it quite different from the New West, the America, following a unified conception, but with a plurality of meanings and influences. It's the "mare nostrum" of the Romans, who conquered all the regions facing the Mediterranean; it's the same place where Greek philosophy and politics were born; where Christian, Jewish and Muslim religions confront one another.

The Mediterranean sea, rather than represents himself, represents the lands, the cultures and the people that surround it, tied together by a complex network of communications. Those lands create a

continuum that goes beyond national borders, a *continuum* made of dense settlements always disposed to bring their knowledge to the sea, to the ports, where ships have the task of linking, of exchange, thus contributing to a dense and continuous flow of knowledge.

Although the Mediterranean has been the basin of the more important cultural conflicts of the history, often religious or political, there is one element that characterizes and, more importantly, unifies the Mediterranean area, that's to say the presence of a natural coastal environment that has always favored human communications and cultural exchanges, thus helping to give birth to a large homogeneous culture that has made use of the contributions from all civilizations.

The Mediterranean regions show a long series of common elements linked to the same environmental conditions and to the high frequency of trades; so they represent homogeneous areas always open to hybridization of knowledge and traditions, to cultural exchanges. Due to the peculiarities of these exchanges, the identity and the singularity of Mediterranean civilization have preserved constant over time, an identity we can see in the marks left by man on these lands, despite the influences from other worlds.

The study of the Mediterranean brings the study of architecture, cities and places described by a historical survey, but also a "geometric" one, which documents how the man has lived through cities and architectures by modifying the land and drawing the landscape. We can therefore speak of Mediterranean identity.

2.1 The route of the caravan roads, the colonnade or trade roads and the Silk Road

An essential element for the creation of this Mediterranean identity is represented by the routes that allowed the communication and the intersection of different cultures, exchange of goods and products. In fact, with the decline of Roman Empire, in addition to coastal towns, different inland cities arised, such as Aleppo, Damascus, Apamea, placed on the crossroads of the main trade routes; about in the VI century AD, the monumentality of these urban centers is represented by stoai, by arcades, not more facing a square, but placed on the sides of the main roads used to enter the city. In this way the 'caravan cities' arose, cities characterized by colonnades, behind which there were public or private buildings, and shops.

Moreover with the expansion of the Ottoman Empire, trade flows were added pilgrim flow of pilgrims who wanted to reach La Mecca both by sea, along the Red Sea, and overland going through the Balkans, Anatolia, Syria or Iran. In the XVII century the British and Dutch "India Companies", created cheaper sea routes linking the Iberian Peninsula and Indian Ocean, so caravan system became less important and only small internal connections stayed alive. Since ancient the caravan routes connected the East and West, promoting the meeting between merchants often at the edge of the desert; with time the great powers of the past tried to create stable land routes or sea navigable routes with the aim of intensifying the trade.

The three great cultures linked to the Mediterranean, Romans, Greek-Byzantines and Muslims gave a prominent role to the market and exchange, which reached their highest expression in the Islamic world, where the bazaar and mosque become the representative elements of the urban centers.

The traditional Silk Road is not a single road used for the silk trade from the far China to Europe, but a bundle of caravan routes along which all the trades between the Far East and Europe articulated from the second half of the I millennium BC to the half of the II millennium A.D.

The Silk Road passed through a 7000 miles long area, connecting the valley of the Yellow River to the Mediterranean Sea via the current Iraq, Iran and Syria. It has allowed not only the good trade, but the exchange of important scientific discoveries and technological innovations, too. The commercial trade were based on many other goods, such as gold and other metals, precious stones, ivory, glass, furs, ceramics and spices. All the three major routes linking East and West pass through Anatolia, a natural bridge between the two continents.

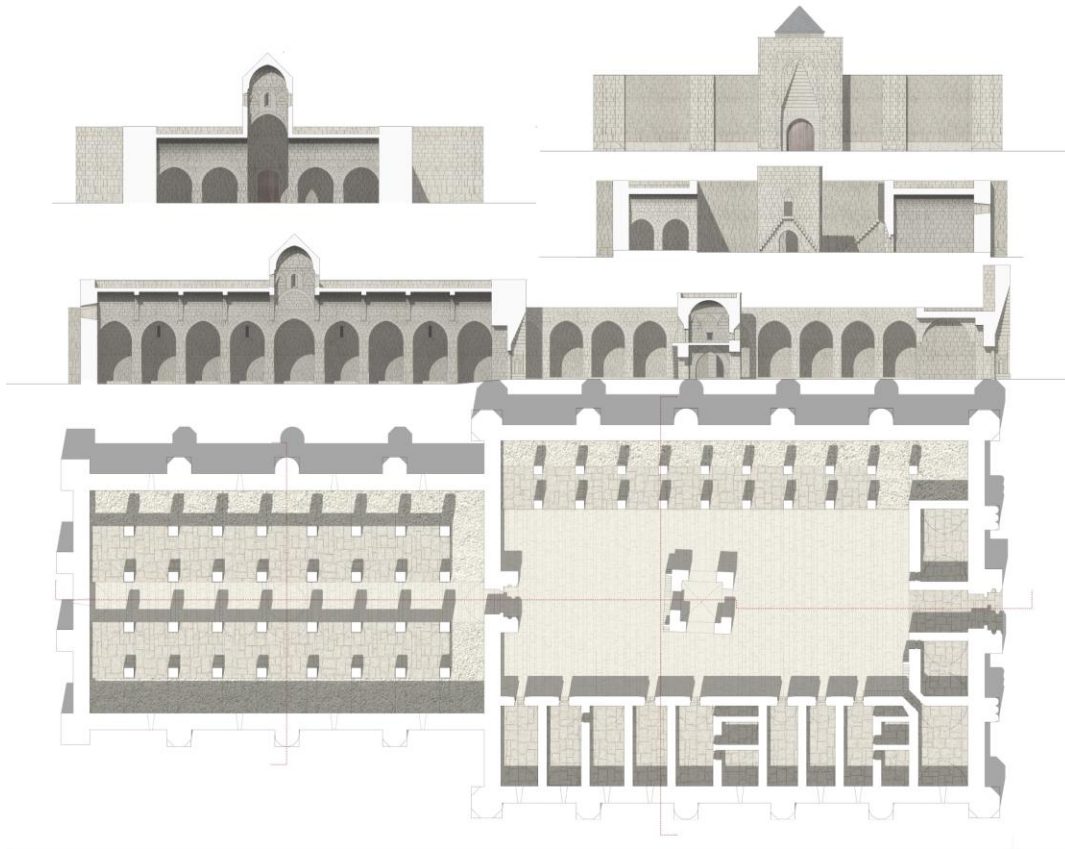


Figure 2: Sultan han, 1229-1236 AD, sited between Konya and Aksaray

The "Diagonal Route," so named because it cuts across Anatolia departing from Istanbul and arriving to Damascus and Aleppo; the "Baghdad *Yolu*," or "Northern road", which ran through the main towns in the north of Turkey to reach Tabriz and then Baghdad, capital of modern Iraq; finally there is the "*Uzun yolu*" linking together Bursa and the other major production centers such as Konya, Sivas and Erzurum. These are tracks evolved over time, depending on the successive powers in the territory: Hittites, Assyrians, Persians, Romans, Byzantines, Seljuks and Ottomans. The trip was seasonal and, generally, it began on Friday, following the Qur'anic injunction: the merchants moved or riding animals or by foot with almost the same speed during every moment of the way, neither too fast nor too slow in such a regular manner to be sure to arrive to the destination in the right time. Along the way, at regular intervals, that's to say more or less at the end of a day's journey, there were places for refreshment and rest: the caravanserais. The term is the result from the combination of the two words *caravan*, and *serai*, Palace, therefore it indicates a "building for the caravan" placed along the road or within a city. Together with this Persian world, there are other words used to describe the same kind of buildings: *han* used in Turkish area, *khan* widespread in Syria, *wakala* present in Egypt, especially in Cairo, *funduq* in North Africa, *alfondiqa* in the Andalusian cities and *ribat* used in Persia.

In Egypt, the caravan routes linked the cities placed within the limitless open area of the Egyptian desert, making possible to connect the Red Sea, Syria and the Mediterranean coast. These roads allowed the connection to the Nile Valley, location of the Pharaonic power, thus representing a kind of furrows in the earth where economic goods coming from the regions of the Western Desert circulated and through which the royal court maintained active its political and military control. The market is the center of a network, so the market set reproduces the total of relationships in which a society identifies.

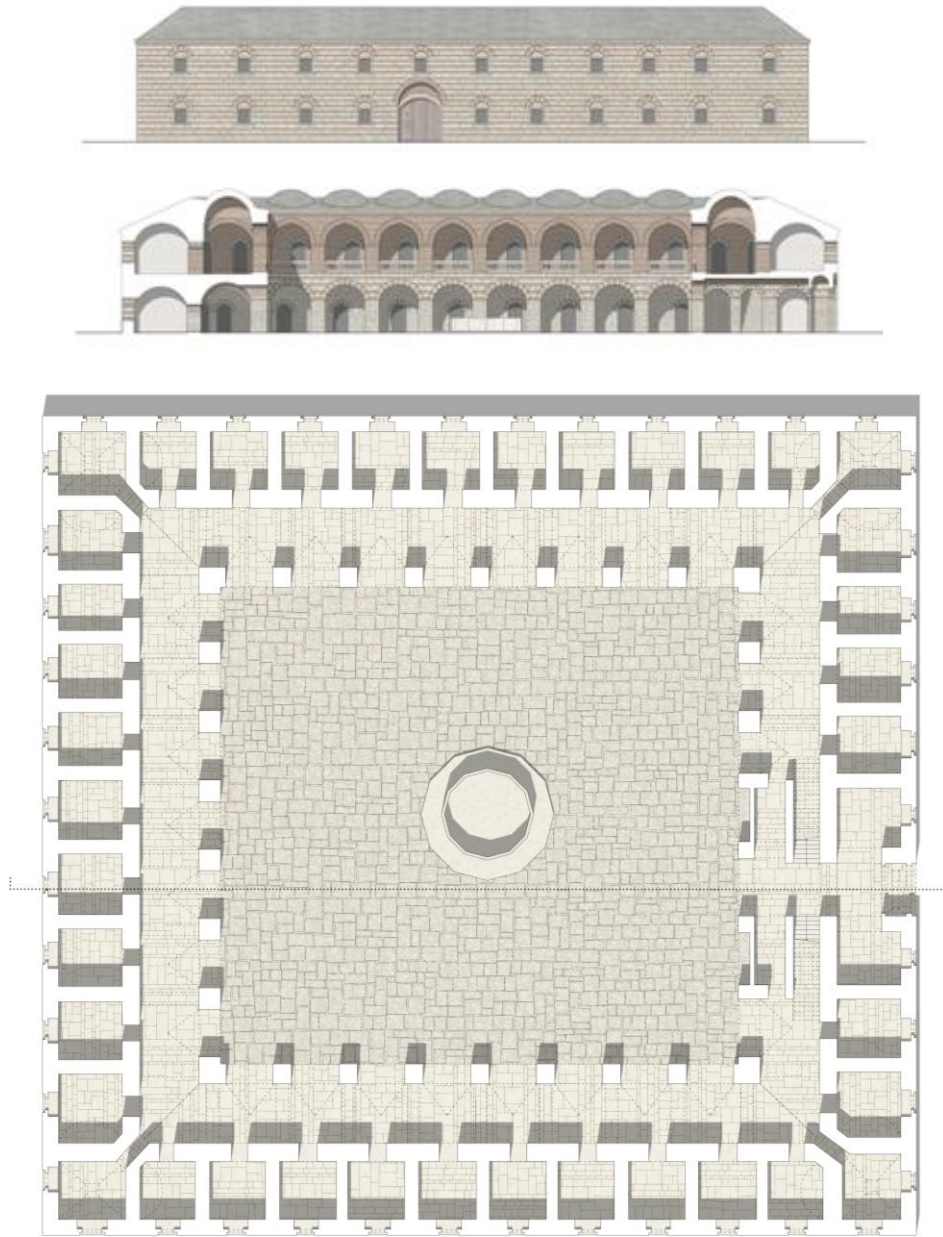


Figure 3: Iski Ipek han, 1424 AD, Bursa

The Islamic caravanserai provided shelter, food and water for both travelers and their transport, under one only roof.

Despite an history made of several changes in the urban organization, the old town center of Cairo, for example, has maintained a strong sense of identity of urban image along its main road, a long connecting axis called Qasabat al-Qahira.

This road runs through the trade center intercepting the various *suq* and connecting directly with the routes that link the city to the caravan routes.

In caravan buildings still remain the geometric-formal and metric-dimensional features: the Khan in Damascus and Aleppo still represent a vital part of the tourist and commercial life of the city. Some of

the khan still function as storage space for business, others were transformed to become centers to revive the traditional Damascus crafts, such as glass, metal and fabric works.

The Anatolian caravanserais, divided between Seljuk and Ottomans ones, are too numerous and represent the broader phenomenon.

The Seljuk kingdom established in Anatolia from 1075 to 1318, when Byzantium lost its control over the trade flow through Asia Minor; in this period Seljuks controlled this commercial channel with the aim to develop the inland cities of Sivas, Sinop, Konya, Kayseri, Denizli, linked by roads along which they built the *hans*.

The main trade routes of that period were those that connected these centers with other major trading centers of the Middle East such as Tabriz, Aleppo or Baghdad.

The ports, too, were very important: we remember Samsun, Alanya and above all Antalya, from which ships to Europe sailed. Certainly the main route was the *Uzun Yolu*, which passed through the cities of Konya, Aksaray, Kayseri, Sivas, where it divided into two ways, one to Iran and the other to Mesopotamia; instead from Konya it went ahead toward the major ports of southern Turkey.

Most of the Seljuk caravanserais, nearly 300 in all, are located on this road. Placed in desolate and uninhabited areas, about 30-35 km distance from each other, they were used above all as a safe place to stop, and then even for other functions, such as to provide food (there was a fireplace, the *tandır*); to function as royal pensions during rulers visits, as places for welcome ceremonies for the guests of honor, as prisons or government offices, post stations, guard towers and areas for troops' encampment in case of war (although they hadn't primarily a defensive function).

The Ottoman Empire ruled the Middle East for over six centuries, from the XIV to the XX century, as the successor of the Muslim Seljuk kingdom. During the Ottoman supremacy economic policy shifts in western Anatolia, to Istanbul.

In this period the three main routes of the empire were: the western route, which connected the capital to the Black Sea and Tabriz; the central route linking Istanbul and Edirne to Baghdad; finally the diagonal road that reached Damascus and La Mecca.

2.2 Typological characteristics of caravanserais

The caravanserai is mainly composed of two parts, an open courtyard, accessible by a large portal, and a big inner room.

The hall had one, three, or five naves covered with a pointed barrel vaults. It is not perceived as a hypostyle hall, but as a series of side by side tunnels at different heights through elevated platforms for the accommodation of the animals and goods.

The ribbed vaults of the covered hall are quite high, the interior is rather dark, lit only by small slits; you can often find in the center of the solemn nave, a hemispherical dome stood on stone pendentives, enriched with windows, and externally covered by a conical roof.

Instead the discovered area is a quadrangular courtyard surrounded by arcades made by arches on pillars or by closed cells; these spaces represent different accommodations facing the court, often divided in two levels a lower one for the housing of the animals and a higher one for the rest of men, often equipped with a *tandır* for cooking food and for heating.

The other courtyard spaces were used for various kinds of services: there are the *masjid*, or mosque, offices for administration, the *iwan*, the toilets, the fountain for ablutions, and often a *hammam*.

Since the main function of the caravanserai was to provide safety and shelter, the walls were made in cut stone, wide often more than 2 m with a few small slits, there is only a single entrance, towers at the corners, flat roof reachable by internal stairs used to control the territory.

The main austere facade is identified by the presence of the portal, which is often a *unicum*, decorated with *muqarnas*, framed by friezes with floral, humans and geometric elements, thus gracefully emphasizing the act of entrance.



Figure 4: Portal detail

3 CONCLUSION

We can then define the features of the archetype Han or khan, a kind of buildings consist of a large central rectangular enclosure which leads the locations along the outside walls. Essentially we can identify a few basic elements:

- the caravanserai structure consists of two elementary parts: a courtyard with different services around, and a covered hall;
- the inner hall consists of several aisles each with its bays. The nave, slightly larger than the lateral ones, and higher, is emphasized with a central dome;
- the courtyard is considered the formal element around which the whole han is built. The court, therefore, as the distinctive element;
- a quadrangular *masjid* generally stands at the center of the courtyard; a fountain could be placed below the cloister of the *masjid*;
- one of the most important artistic and architectural element of the *han* is the external entrance portal, often characterized by moldings, by bands with geometric and floral decoration or by *muqarnas*;
- the construction shows a particular attention to the stereotomic carved stone, to the use of brick faced wall, to the presence of the central dome supported on spherical pendentives, the conical covering above the high tambour, the sloping roofs, the use of two colors stones, the decorations made by geometric and floral designs, the lack of outside tracks suggesting the internal subdivisions, small excavations on the walls to accommodate weapons.



Figure 5: Sultan Han inner cour, 1229-1236 AD, sited between Konya and Aksaray (left); Tuz han inner court, 1454 AD, Bursa (right)

The peculiarity of these buildings makes the land where lie too representative, it gives the context a prestige due to the material construction and in the relationship between these works and the physical place, between cultural and symbolic field and the economic one concerning the local communities.

The morphological, hydrographic, climatic aspects, the different shapes of nature, the historical tradition, the knowledge about the art of construction, have influenced the shapes of these buildings as recognizable elements of the landscape. These works represent a historic and architectural heritage too important to recognize the character of the landscape containing them.

This study goes through the grooves of the trade routes, the fragile and changing network of intercontinental caravan routes, filled with ancient evidence of architecture, between high mountains and barren deserts; all these elements have represented a past civilization and have greatly influenced the organization and construction of landscapes. Typical of the Mediterranean, they have always inspired myths and legends, influencing the historical evolution of mankind.

A journey rich in history and culture revealing the mysteries of the desert and of what lies beyond its borders.

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