

THE CONCEPTS THAT SHAPE ANATOLIAN SELJUQ CARAVANSERAIS

Caravan roads crossed Anatolia from east to west, from south to north, and from southwest to northeast, connecting trading centers both inside and outside the boundaries of the Anatolian Seljuq state (fig. 1).¹ In the thirteenth century, the major centers were, in the south-east, Tabriz in Persia, Baghdad in Iraq, and Aleppo in Syria; in the south, Ayas, Alaiye, and Antalya on the Mediterranean Sea; in the west, Ayasluğ, Izmir, and Foça on the Aegean Sea; in the northwest, Istanbul on the Bosphorus; and in the north, Sinop, Samsun, and Trabzon on the Black Sea. It was an established policy of the Anatolian Seljuq state to stage the roads that connected them with caravanserais.²

At present, information in varying amount and detail is available for about two hundred of these caravanserais. About a hundred of them are extant, though in varying states of preservation (figs. 2-4): several are almost

intact or have been restored; enough remains of the majority to establish both plan and superstructure; a few allow only a plan. The remaining hundred range from ruins to source references only. A large number have yet to be surveyed. A multitude of settlements have the word *han* attached to their names implying the existence of a caravanserai there at some point in their history.

Research over the last thirty-five years suggests that further research is likely to increase the number of known caravanserais in a good state of preservation. Unfortunately the majority of the caravanserais either had no founding inscription or it has since disappeared, and of the ones that do exist not all mention the type of building. When they do, however, the word used is either *han* or *ribat* and not *kervansaray*.³ Of the dated buildings, the earliest was constructed in 1206 and the

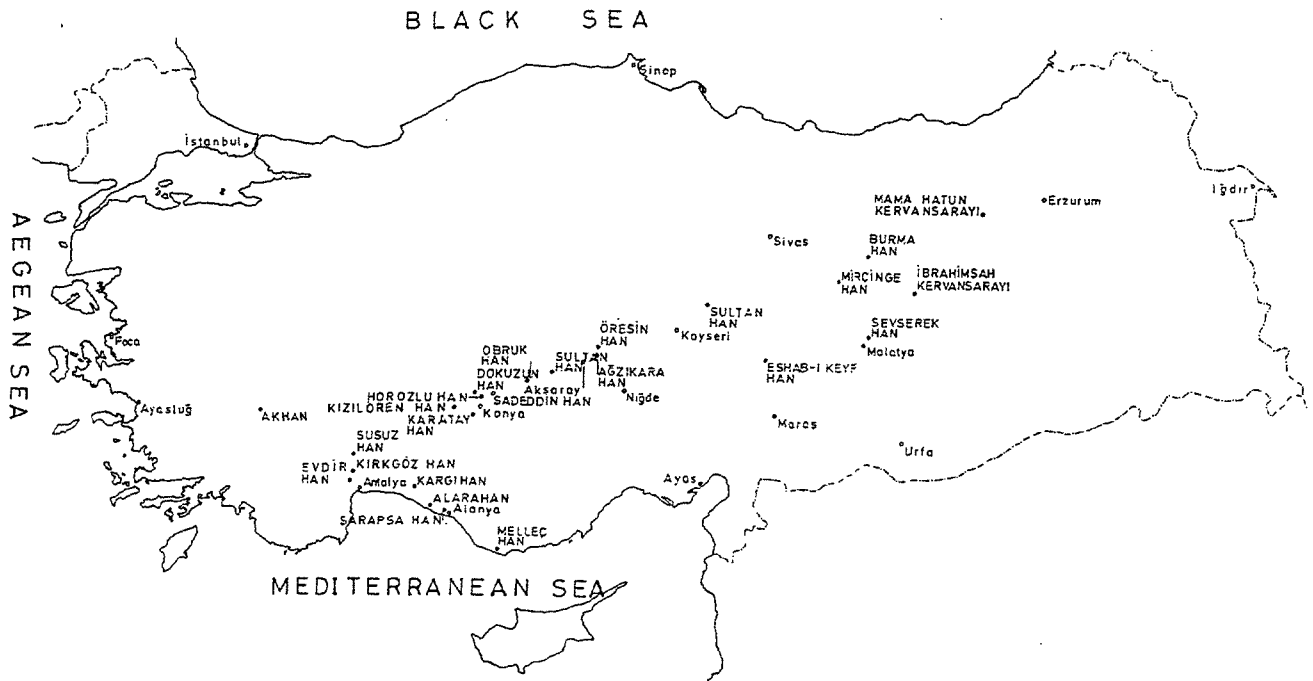


Fig. 1. Map of Turkey showing the location of the khans.

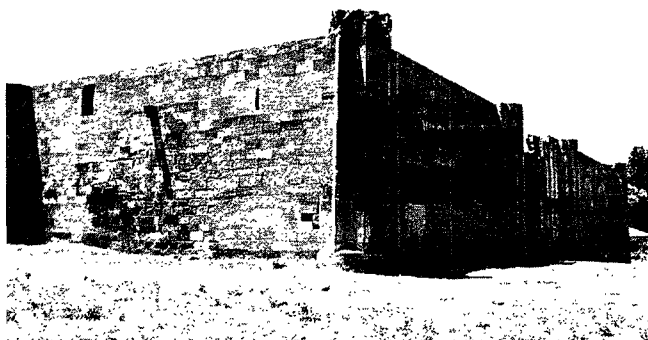


Fig. 2. Tuzhisar Sultan Han (1232–36) on the Kayseri-Sivas Road. The abutments on the front façade (1969).

latest in 1778–79; the majority were built between 1220 and 1250, at the height of the Anatolian Seljuq state.

Caravanserais served caravans, but they also had a multitude of other functions. It is generally agreed that they continued the function of the *ribats* in Transoxania, and therefore it is taken for granted that they had military uses.⁴ Ibn Bibi and Aksarayi both refer to *hans* in the context of the movement of armies, but these references are often to the location of the khans rather than to the buildings themselves, and there is no direct reference to military activities taking place in the buildings.⁵ The same is true for references to welcoming and leave-taking ceremonies for the sultans or their honored guests.⁶ They served as royal guesthouses for visiting sovereigns,⁷ as prisons,⁸ as places of refuge,⁹ and when they lost their commercial function, as *zaviyes* or for other religious purposes.¹⁰ Functions not mentioned in the sources on caravanserais, but verifiable by other means,



Fig. 3. Kızılören Han (1206) on the Konya-Beyşehir Road. Front elevation (1970).

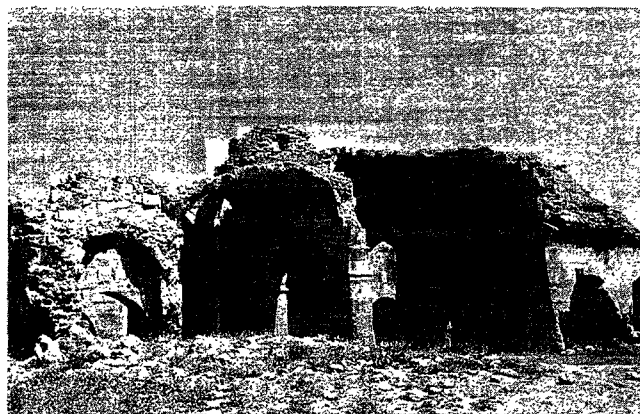


Fig. 4. Öresin Han (13th century) on the Kayseri-Aksaray Road. Northwest corner (1968).

include their use as government offices or statehouses for the sultan and his retinue when they moved from one town to another, especially between the capital Konya and Kayseri, Sivas, as well as Antalya and Alanya, which served as winter residences.¹¹ Their use as stations in the networks of the post, *menzil*, and *derbent* systems has also recently been established.¹²

Caravanserais constitute the second largest group of buildings after mosques in the Seljuq architectural heritage of Turkey. They are also the most numerous when compared with contemporary caravanserais in other countries. They have been widely published starting in the nineteenth century, in travel accounts, as monographs, in books on art history, and in an impressive corpus by Kurt Erdmann.¹³ F. Sarre seems to have been the first person to describe their various types.¹⁴ He describes the Aksaray Sultan Han as having a courtyard and a closed section, and the Horozlu Han as being entirely closed.¹⁵ The description of these two khans was used as the basis for a typology first by H. Edhem,¹⁶ then by M.F. Uğur and M.M. Koman,¹⁷ S.K. Yetkin, D. Kuban, H. Karamağaralı, and several others. Erdmann's typology was published in 1955, six years before his corpus.¹⁸ It was widely accepted and used in the monographs of M. Akok and T. Özgüç, R.H. Ünal¹⁹ and many others.

The major criterion for Erdmann's classification is the presence or absence of a courtyard.²⁰ He lists types in order of importance as (1) khans with a closed section (hall) and a courtyard; (2) khans with no courtyard; and (3) court khans. His second classification criterion is the relationship between the size of the closed section and the courtyard; the third and fourth are the number and direction of the vaults in the closed section.

Even with the amount of information that was avail-

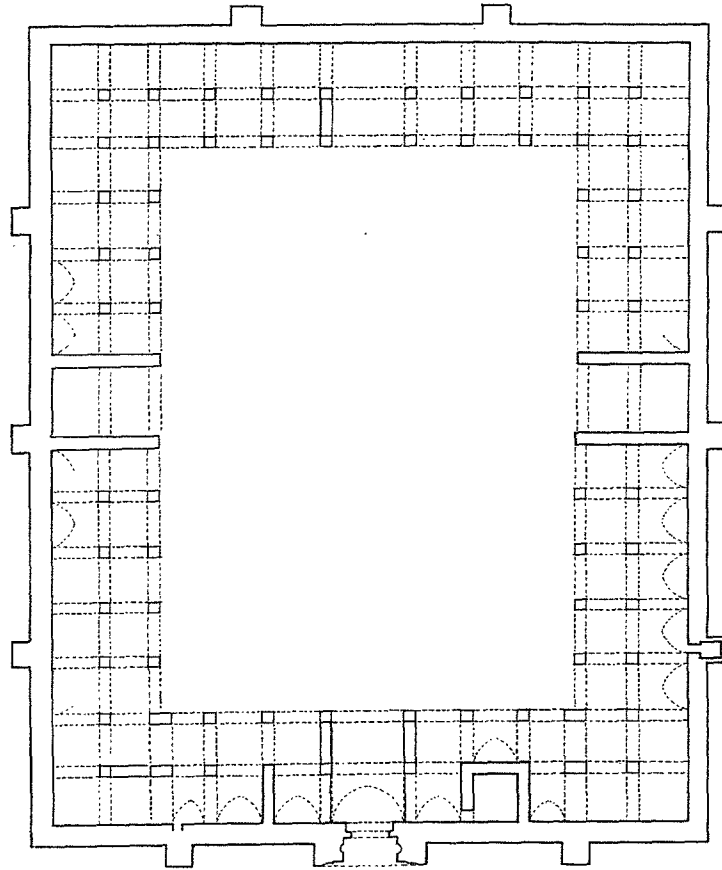


Fig. 5. Emdir Han (1210–19) on Antalya-Korkuteli Road. Reconstruction plan (revised Erdmann plan).

able and was collected from the buildings by Erdmann, this classification presented some problems. One was the masjīd attached to the Şarafa Han, as the building had an extra space outside the hall, although it belongs to the group of khans without a courtyard. The problems were more acute in the third group, the court khans. Among the five khans listed in this group, Emdir Han (fig. 5) was the only one which fit. Kırkgöz (fig. 6) and Kargı (fig. 7) actually belonged to the group with a courtyard (Kırkgöz Han was already noted by R. Riefstahl in 1931 as having a courtyard²¹). The last two, Alara (fig. 8) and Eshab-ı Khef (fig. 9), displayed a very different plan type and design concept that did not fit any courtyard category. The closed courtyard of the Alara Han was overlooked by scholars, and its plan was interpreted as a variation on the court khan with a reduced courtyard surrounded by a hall on three sides.²²

The decision to choose the courtyard as the deciding feature for the typology is questionable. The Anatolian Seljuq caravanserais do not allow for a classification

according to the presence of a courtyard because the court is only a circulation space and not the nucleus of the plan around which the whole design revolves. That is why the assumption that Anatolian Seljuq khans are similar to Karakhanid, Gaznavid, Persian, and other eastern khans,²³ where the courtyard is the starting point of the design with a formal symmetry on two axes, is not acceptable. Very few Anatolian khans display symmetry, and when they do, it is only on one axis; all of them, including Kuruçesme, Kızılören, Ertokuş, and Obruk, are medium-sized khans. None of the large khans which are referred to as the Sultan Han type show any symmetry at all.²⁴ The best indication that the courtyard is not the starting point of the design is the presence of a construction joint between the closed section and the courtyard, giving priority to the former.

Erdmann also assumed that the relationship of the width of the closed section to the courtyard was an indication of the khan's date. If the width is equal, it belongs to the first quarter of the thirteenth century; if the

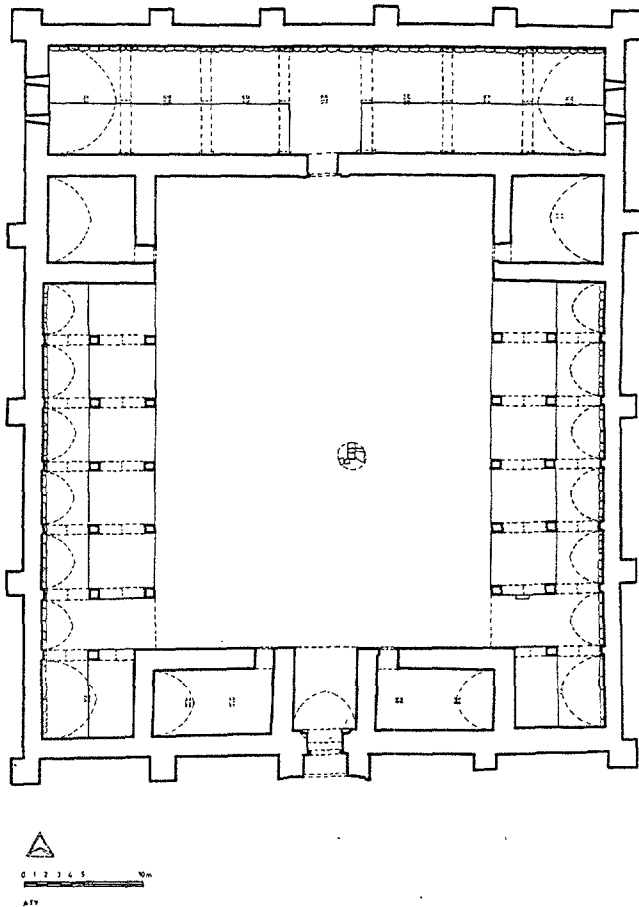


Fig. 6. Kırkgöz Han (built during the reign of Gıyasettin Keyküsrev II (1236–46) on the Antalya-Isparta Road. Reconstruction of platform using T. Süer's plan as base plan.

courtyard is wider than the closed section, then it belongs to the "period of the larger buildings of the [12]30's and 40's."²⁵ Since the size of the courtyard is determined by the number and types of spaces that are lined up along its sides, such an assumption does not seem valid. Besides, khans of an earlier date, such as the Hekim Han and Kadın Han, have wide courtyards, as Erdmann himself notes. The most striking example of a courtyard as a circulation area is that of the Sadettin Han, which has a construction joint between the two sections.²⁶ The courtyard widens on the north side only, forming a very elongated rectangle. The spaces along its long sides are of unequal size, and the deeper semi-open galleries have been pulled back, receding to the north exterior wall of the courtyard to make a continuous, if not symmetrical, court façade.

The Evdir Han (fig. 5) is exceptional in that the court

is the basis of the design; this is possible only because it does not have a closed section. There is symmetry on the two axes, and the cross-axiality of the plan is expressed by an iwan in the middle of each side,²⁷ complying with a plan type that can be traced back to the Khurasan house with four iwans. The court concept of the Evdir Han is very different from the Syrian court khans which Erdmann considered to be their source.²⁸ In the Syrian court khans the starting point of the design is the periphery wall, in contrast to the interior elevations of the courtyards of the former type. Various spaces, semi-open or closed, are lined up along them.²⁹ This concept is not observed in any of the Seljuq khans in the Erdmann catalogue.³⁰

The emphasis on the courtyard is reinforced by the assumed presence of the *revak* or arcade that encircles it by authors such as Erdmann, Akok, Gabriel, and Ünal. The galleries of double bays with parallel or perpendicular vaulting are not semi-open circulation areas similar to the *revak* in Ottoman city khans. The galleries in Seljuq khans were not meant for circulation but for accommodations. Only two khans — the Tuzhisar Sultan Han³¹ and the Mama Hatun Kervansarayı — have anything similar to a *revak*. In the Tuzhisar Sultan Han a single-bay gallery runs in front of the spaces on the west side of the courtyard, but it is not a circulation area. Narrow, vertical corridors directly connect the doors of the rooms to the courtyard, and the remaining area is taken up by a raised platform to sit on. Only bits of the *revak* remain in the Mama Hatun Kervansarayı, but it is likely that the treatment there was similar.³²

In the past thirty-five years valuable information about caravanserais has come to light in both published and visual material. Many khans have been revisited, resulting in the correction and revision of earlier publications, and many have been subjected to more extensive research, especially as topics for architectural-restoration dissertations. Some that have been restored after excavation revealed new information about water systems, pavements, and platforms, or vandalism by treasure hunters revealed water pipes hidden in the masonry. In this period, more than forty khans were published for the first time.³³

The starting point for establishing a new typology for these buildings was the Alara Han,³⁴ which does not fit into the court-khan group with its closed courtyard and design concept. In 1967 the Alara and Eshab-ı Khef, together with the Mama Hatun Kervansarayı (figs. 8–9) were determined to be concentrically planned;³⁵ by today six concentrically planned khans have been pub-

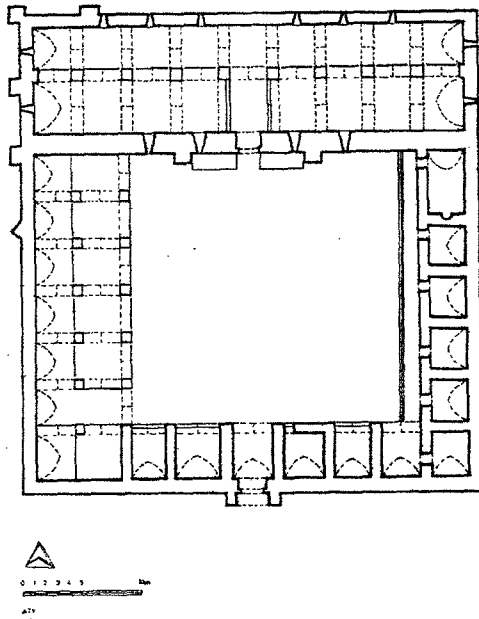


Fig. 7. Kargı Han (13th century) on the Alanya-Konya Road. Reconstruction plan.

lished, and two unpublished examples remain.³⁶ Their variations helped to complete a classification first developed in 1971.³⁷ This new classification is based on an analysis of the functions as reflected in the existing spaces, and the design concepts that governed the organization of the different plan types.

Providing safety and shelter were the basic functions of a caravanserai and these functions are reflected in the sturdiness of the buildings (fig. 2).³⁸ The thick stone-masonry walls are pierced by a single entrance and occasional slit windows just above eye level. Most of the walls have buttresses and are topped with crenellation. These thick, buttressed walls, slit windows, and crenellations (fig. 10) are part of the exterior expression of Anatolian Seljuq architecture generally, although they are not as extensively used together in other buildings as they are in caravanserais. The roofs of the khans were clearly used for defense: many of them can be reached by staircases, and some even have special rooms on the roof at strategic positions that give the most advantageous view of the road (fig. 11). The doors of the buildings were closed at sunset and opened at dawn to ensure the safety of the goods and people inside. The single entrance facilitated control of access; the door was bolted with a wooden bar which slid across it into the walls on either side. In khans with a courtyard, the same system is

repeated for the second, interior, entrance.

Shelter is the essential function of the building type; it is reflected in the architecture of all khans, whatever their plan or size. Shelter included stables for bedding and feeding the animals, places for loading and unloading goods, and accommodations for travelers. These activities took place on parallel bands at two different levels (fig. 12). The lower band on the ground level housed the stables; the upper band in the form of a 0.6m. to 1.3m.-high *seki* or platform accommodated goods and people. The platforms have cut-stone side walls and pavement. About twenty khans still have these platforms in various degrees of preservation, but for the most part they are missing, even in the best preserved khans. It is possible to ascertain their position, however, from the faces of the arches that were in contact with the platforms, as well as from the projections made in the lower parts of the pillars to support the arches for a better bond between the platform and the supports. Remnants in a few khans show that the area underneath the arches had a series of stone basins, probably for fodder and water for the animals (fig. 13). All the platforms are flat on top, but the height of the sides tapers off from the entrance to the rear because the ground level slopes upward. It can be assumed that the highest part of the platform, which is always nearest the entrance, is built to the height of the animals for easy loading and unloading and so that pack animals of different sizes (e.g., a camel and a donkey) could be fed from the stone basins.

The platform in the Kargı Han retains almost all its original features, although in varying states of preservation (fig. 12). In addition to the row of basins underneath the arches, the platform is further divided lengthwise into two bands: a corridor band 1.4m. wide next to the basins, and the rest of the platform about 3.8m. wide and 0.2m. higher than the corridor band. People spread their bedding and kept their goods on the higher level. This difference in level maintained different degrees of cleanliness, since the strip underneath the arches between the basins and the corridor kept the animals at a distance and raised the sleeping level above the dust and dirt of the corridor.

A few platforms show remnants of a *tandır*,³⁹ or clay oven, used for heating, cooking, and baking, another of the varied functions of the platform (fig. 14). A *tandır* consists of a pit in the ground or, as in this case, sunk into the platform. It is about 0.5m. deep, and 0.4m. to 0.6m. wide, with a small mouth and a large belly in which a pot can be placed or the cavity itself plastered and used for cooking. A hole at the bottom or lower side

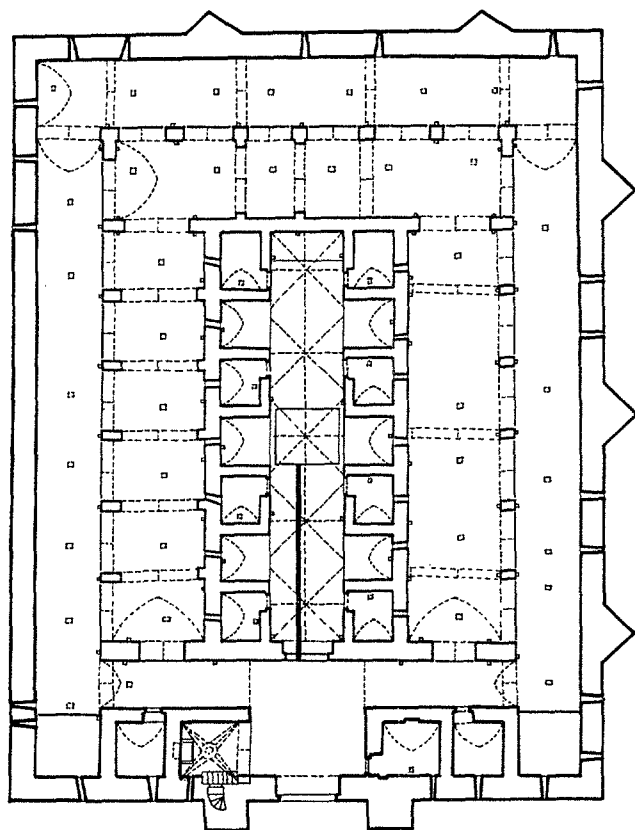


Fig. 8. Alara Han (1232) on Alanya-Konya Road. Reconstruction plan.

is connected to a horizontal shaft to provide air. The fire is built at the bottom of the *tandır*. Bread is baked by pressing the dough against the preheated surface of the *tandır*, or a pot or a pan could be placed on its mouth for cooking. It could also be used to keep people warm: in that case a small stool is placed above it over which a quilt or blanket is spread. People sit around it and stick their feet underneath the quilt. The *tandır* is still common in Central Asia and India, and in use in traditional houses in several regions of Turkey.

In a few khans such as Şarafsā and Kırkgöz (fig. 6) the platform band and the stable band are covered with a single barrel vault, but in the majority of caravanserais, each band is covered with a barrel vault. In some, a platform band has a stable band on either side; in such an arrangement the platform band is made much wider to accommodate the increased number of people and

merchandise from the two stable bands. This is the usual solution when shelter consists of three vaulted galleries, as it does in Akhan (fig. 15). When there are five bays, the platform band forms a U, but the vaults may change direction (figs. 16–18). This is true for khans with large shelters like the Sultan khans. In some khans, as in the Alara (fig. 19) the shelter bands are not grouped together but distributed around various parts of the building. No matter where the double bands are located, they are very closely related to the plan of the superstructure and reflect it in the ground plan. They are defined by the beginning or ending of the vaults or by the arches of the banded barrel vaults.

Not all shelter galleries are treated as continuous bands of stables and platforms. Some caravanserais have other smaller, individual platforms at the ends of the shelter (fig. 8) and the semi-open galleries. These smaller platforms were probably used to store goods or by the people responsible for taking care of the animals. In a few khans, such as the İbrahimşah and Mirçinge (figs. 20–21), entrance to the galleries used by the travelers or animals is controlled by a door.

The shelter sections of the khans have rather high vaults with two centered pointed profiles. A row of small rectangular holes, or oculi, at the keyline of the vaults serves more for ventilation than for daylight. Most of the shelters have slit windows in the exterior walls, but several have no exterior opening besides the entrance. The spaces are quite dark and only a few khans had any facilities for artificial lighting. The Alara Han has lion-faced consoles at the spring line of the arches in the galleries, as well as in other spaces, to place oil lamps on. The Kızılören Han has simple consoles with a hole in them to hold a burning torch or oil lamp.

Many caravanserais consist only of shelter: in others the two bands of the shelter plus latrines were supplemented with services. Nothing remains of the latrines, but they must have been at the end of the stables and had wooden partitions similar to those in the group of latrines in the courtyard in Aksaray Sultan Han, or partitions with curtains, a common means for dividing spaces, as can be inferred from passages in Ibn Bibi.⁴⁰ What is meant by services in this context is not wet services only. It covers every activity and facility reflected in a space or resulting as a space, in addition to the above-defined minimum offered by the shelter. What the types of services might be, the amount of space they occupied in the layout, and their nature varied considerably. No two caravanserais have exactly the same plan, even though they may have similar facilities. The services may

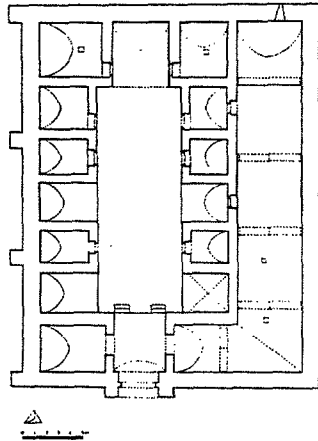


Fig. 9. Eshab-ı Khef Han (before 1235) on Besni-Kayseri Road. Reconstruction plan (revised M. Akok and T. Özgüç plan).

include a semi-open shelter (fig. 22), a masjid (figs. 23–24), rooms for various purposes, iwans (fig. 25), a fountain (figs. 8, 24), a bath, latrines, and in a few instances, rooms for keeping watch over the road (fig. 11). Not all caravanserais with services have rooms for the use of travelers. Such rooms are few when compared with caravanserais to the east of the Anatolian Seljuq territory and the later Ottoman examples. Living spaces are not limited to rooms only: many khans have varying numbers of iwans to be utilized by travelers to sit in during the day in warm weather (figs. 7–8, 25).

The shelter of the khans has a symmetrical layout, but the arrangement of the services is rarely symmetrical, again unlike the eastern caravanserais. This is especially true for the khans where the services lined the courtyard.

The most common service spaces were the single or double galleries with vaults parallel or perpendicular to the exterior wall. The gallery wall facing the courtyard is

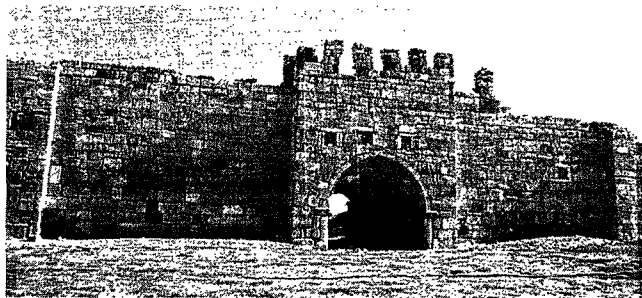


Fig. 10. Obruk Han (13th century) on the Konya-Aksaray Road (1989).

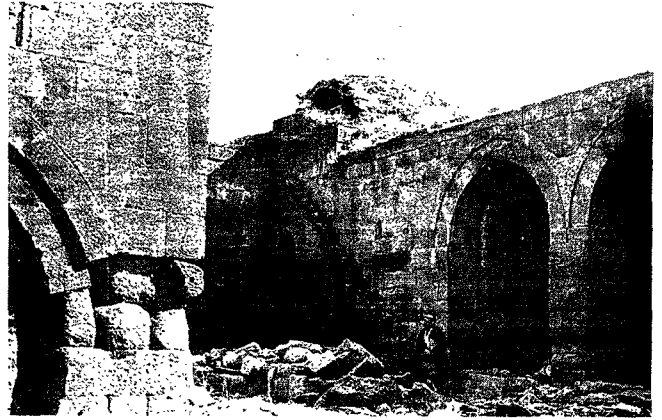


Fig. 11. Ağzıkara Han (1336–40) on the Kayseri-Aksaray Road. The southeast corner of the courtyard, the stairs to the roof, and the watchroom (1968).

pierced with arches, reducing the wall to a row of pillars exactly like the shelter. The row of arches gives the false impression of a *revak*. These single or double galleries were used to accommodate people, goods, and animals in warm weather. A platform is on the band near the arched openings. The band at the rear was the stables (figs. 8, 18, 22). One of the arched openings at one end of the gallery, usually the one nearer the entrance, led to the stables. In several khans, as in Akhan, the location of the entrance can easily be discerned because its opening is smaller than the others. Stone basins line the inner side of the platforms. In several khans, e.g., Kırkgöz and Kargı, where the galleries extend between the walls of the courtyard, the corner farthest away from the shelter has a smaller platform like the ones in the shelter of the Alara Han.

The enclosed spaces were not all used as rooms for travelers. The rather large and sometimes interconnected rooms near the entrance were more likely to have been used for storage and administration. Many have no windows, unlike the travelers' rooms which either have a slit window or a window over the door and

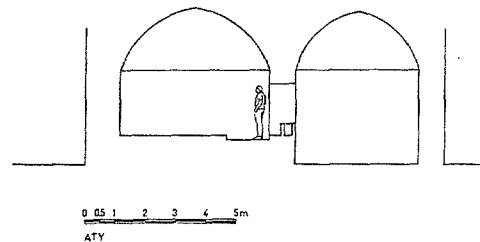


Fig. 12. Kargı Han (13th century) on the Alanya-Konya Road. Section of the shelter.

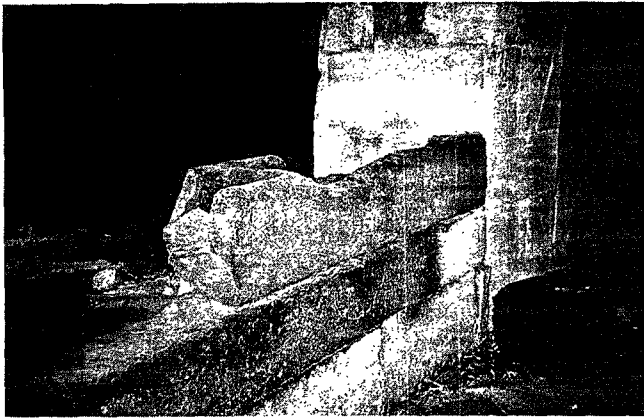


Fig. 13. Karatay Han (built around 1236, courtyard 1240–41) on the Kayseri-Malatya Road. The basins in the shelter (1995).

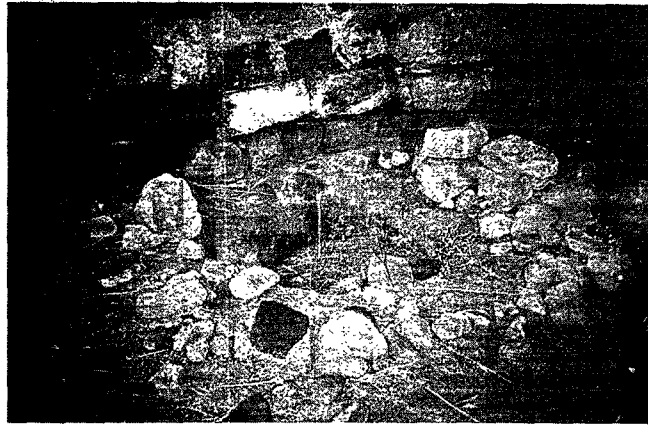


Fig. 14. The second khan in Kızılören (13th century) on the Konya-Beyşehir Road. The *tandır* on the platform (1994).

are much smaller; they are usually lined up along the sides of the courtyard (figs. 25–26). Most khans have iwans (fig. 8), spaces enclosed on three sides, for the daytime use of travelers and sometimes for sleeping in warm weather. They are always raised by 0.3 to 0.7 meters above the courtyard pavement, once more indicating a hierarchy of cleanliness by raising the level reserved for people from the ground level where animals circulate. All the living spaces, both rooms and iwans, vary in number from one khan to the next; the number does not seem to be related to the size of the caravanserai itself, but it is to some degree related to the plan type. The iwans, together with the semi-open shelter galleries, show that some services were for seasonal use only.

Not all khans had masjids. Where they were provided, masjids, which are easily identified by the mihrab, are sometimes on one side of the entrance portal (fig. 8), sometimes above the entrance (fig. 18), sometimes next to the portal of the shelter, and sometimes in the middle of the courtyard — this last is known as a “kiosk masjid” (figs. 16–18). When the masjid is above the portal, it is reached by a staircase independent of the one leading to the roof. Many of these masjids have ornate staircases, entrances, mihrabs, and even decorated muqarnas or umbrella vaults.

The number and type of wet services offered depended on the availability of water in the khan. Even when there is a water system inside the building, the caravanserais are still located near running water or a well. The present level of information and more careful analysis of the spaces show that more caravanserais than was originally thought had water systems, including drain-

age and sewerage, in the building. Some spaces first thought to be rooms turned out to be latrines or baths. Fountains usually had their own iwans (figs. 8, 18, 24) or were underneath the kiosk masjid if there was one. As in the Alara Han, when there is a fountain inside, there is another corresponding one on the outside, at its back using the same terra-cotta water pipes.

Even a khan with several services did not necessarily have a bath. They were not always necessary because at every four or five stops was a town with public baths. Several caravanserais, like the Mamahatun Kervansarayı and the Ağzıkara Han had small baths constructed near, but not abutting, the khan itself; several of the larger khans, like the Akhan (fig. 1), Tuzhisar Sultan Han, had baths in the building proper, many of them including all the traditional hammam spaces from cold to hot, although miniature in scale.

Not all khans with services always have latrines among the wet services because there is inevitably one in the shelter anyway. The Evdir Han had a latrine in one of the abutments (fig. 5), recalling the Umayyad palace at Mshatta. In several khans the latrines were grouped together in a large corner space (figs. 7, 16). The latrines at Aksaray Sultan Han occupy the large space at the northwest corner of the courtyard, with a deep stone channel encircling the space on the east, north, and west sides. Apparently there were several individual latrines along the channel, divided by timber partitions.

The Anatolian Seljuq caravanserais have no space that can clearly be identified as a kitchen — that is, no chimneys, fireplaces, and water outlets combined to suggest that function. But we know that a *tandır* could be used as an alternative to a fireplace, and those on the platforms

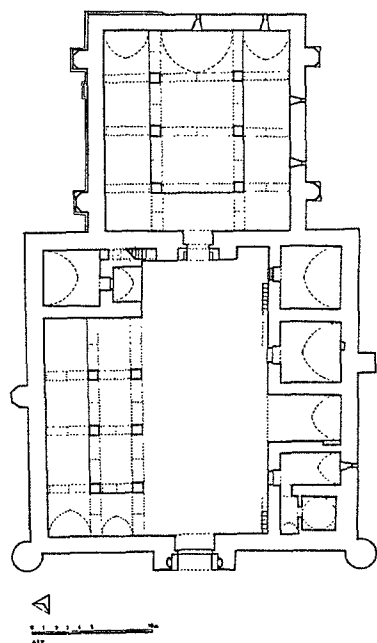


Fig. 15. Akhan (1253-54) on the Egridir-Denizli Road. Reconstruction plan (reconstruction of platforms in A. Mocan's reconstruction plan).

(fig. 14) as well as those in the rooms were also used for cooking and baking, so any one of these spaces identified as a room could have been used as a kitchen merely by being equipped with one or more *tandırs*. Presumably cooking using *tandırs* went on in any number of places, rather than in a single space designated as a kitchen.

The analysis of the way that functions reflect the spaces of a caravanserai shows that the shelter answered the needs and constitutes the essence of those roadside institutions. Since no khan could be without a shelter, the minimum it offers becomes the major criterion for any grouping: there are Shelter Only Khans and Khans with Shelter and Services.⁴¹ Two distinct designs in the organization of the plan can be discussed in khans with or without services. In one approach, the spaces are arranged in an additive fashion, one after the other (figs. 6-7; 15-18). In the second approach, the spaces are arranged in rings radiating concentrically (figs. 8, 9, 26).

In Shelter-Only khans using the first design approach, the number of vaulted galleries varies from one to five. In the simplest plan both the stables and the platform are covered with the same barrel vault. No example exists of a Shelter-Only khan with a single gallery: the two examples in the Erdmann catalogue, Şarafsā and Ortayam, both have service spaces.⁴² When the shelter has

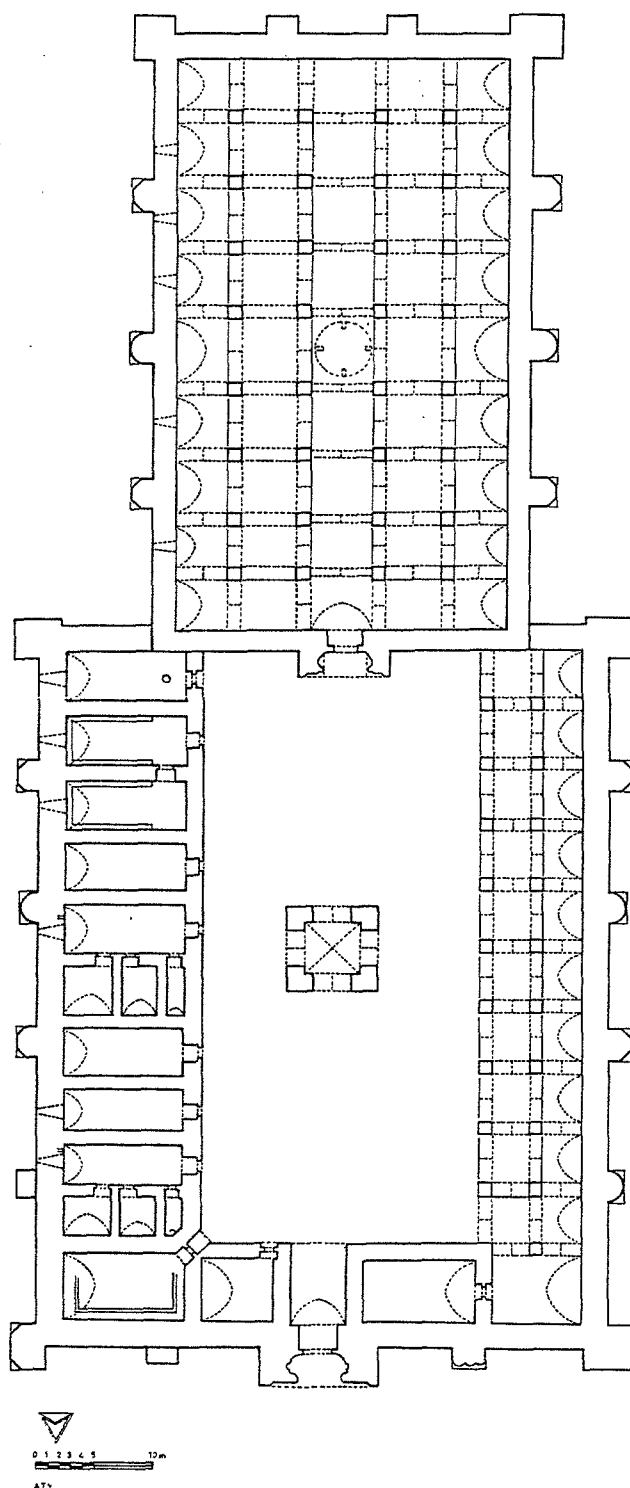


Fig. 16. Aksaray Sultan Han (1229) on Konya-Aksaray Road. Reconstruction plan (revised Erdmann plan).

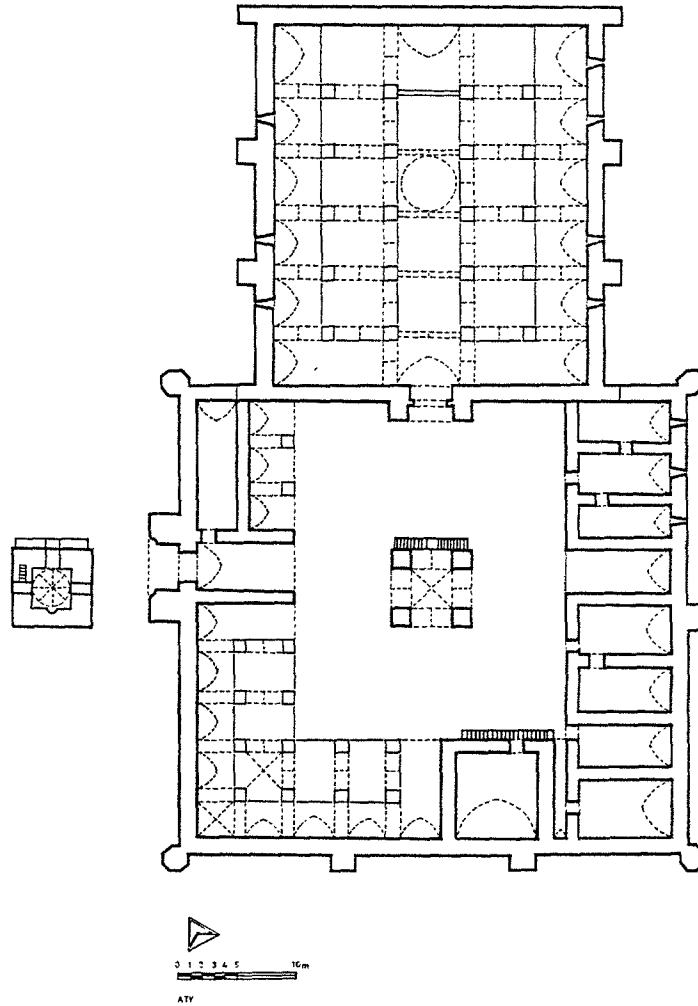


Fig. 17. Ağzıkara Han (1236-40) on the Kayseri-Aksaray Road. Reconstruction plan (revised Erdmann plan).

two parallel vaults, each bay has its own vault and the wall between the vaults is pierced with arches. The entrance to a Shelter-Only khan with two galleries is from the short side; it is from the middle of the long side in a khan with services, especially when they are situated around a courtyard. Two khans of this type are the second khan in Kızılören between Konya and Beyşehir and the khan at Melleç between Alanya and Anamur. The former was known before Erdmann had published his catalogue, but he did not consider it to be a khan because he thought that no khans had double galleries,⁴³ and he overlooked the shelter of the Kargı Han because he put it under the category of court khan. The majority of the Shelter-Only khans have three parallel aisles entered from the end wall of the central vault. Here, the wider central bay houses the platform and the

side ones house the stables. Five-aisle khans are also rare; in these, for example, in the Zıvarık Han, the central vault runs parallel whereas the side bays are covered with vaults perpendicular to the side wall. The walls between are pierced with high arches so that the U-shaped platform can run continuously. The Öresin Han is an exception; there, two high vaults running along the middle of the sides meet at a dome at the center. The single galleries on the short sides and the double galleries on the long sides are vaulted parallel to their respective walls. The platforms follow the vaulting, resulting in four separate pieces underneath the inner, vertical pieces.

In the additive design, the plan of the shelter repeats in the khans with shelter and services. The difference is in the arrangement of the service spaces. When the ser-

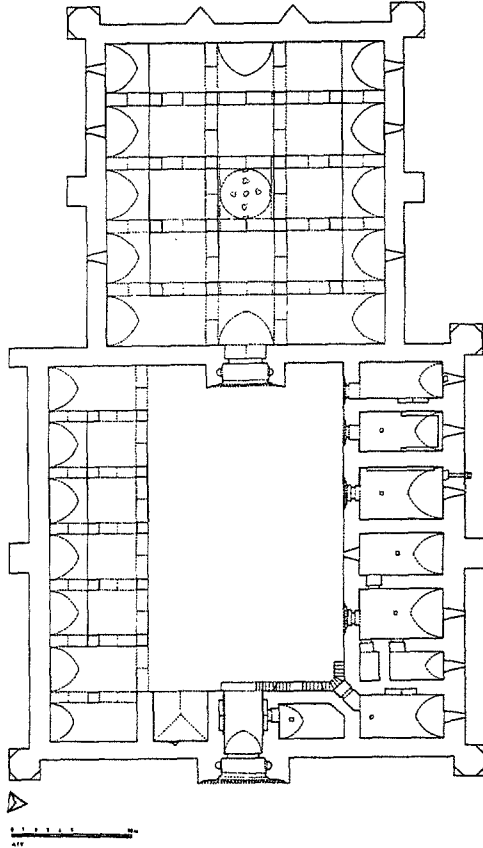


Fig. 18. Sarı Han (13th century) on Kayseri-Aksaray Road. Reconstruction plan.

vices of the khan are limited, they are attached to either side of the entrance. They can be entered directly from the outside, from the portal iwan in the middle, or from the inside. In khans with a single gallery, the service space is attached to one of the short walls, as in the masjid of the Şarafsā Han. The existence of service spaces without the prerequisite of a courtyard is encountered in khans of various sizes and plans; all of the examples have been published since the Erdmann catalogue, which lists only the Şarafsā Han as an example of a khan without a courtyard. When a khan has a large amount of service space, services are lined up along the courtyard, which can be equal to or even larger than the shelter. Their variety and arrangement varies from one building to the next. None of the courtyards have spaces on two levels on the enclosed three sides. Some khans have a partial first floor on the entrance side, but it is there to emphasize the entrance rather than to create more space. One of these spaces usually houses the masjid.

The second, concentric, type of plan in its simplest

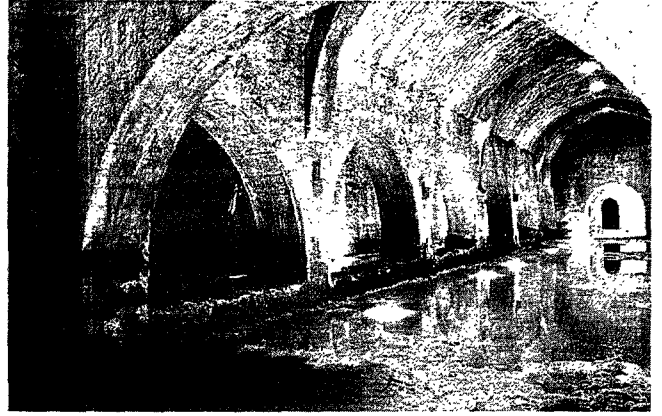


Fig. 19. Alara Han (1232) on the Alanya-Konya Road. The east stable band (1990).

Shelter-Only form has one ring around a core. The core is occupied by a platform and surrounded by stables on all four sides. The Mirçinge Han is a perfect example of the concentric plan, a concentricity further emphasized by the vault of the stable ring which does not break but folds at the corners, completely encircling the core on all four sides (fig. 21). There is no example of a Shelter-Only concentric plan with more than one encircling ring for the shelter. However, the khans with both shelter and services show variations in the concentric plan such as three rings encircling an open courtyard, as in

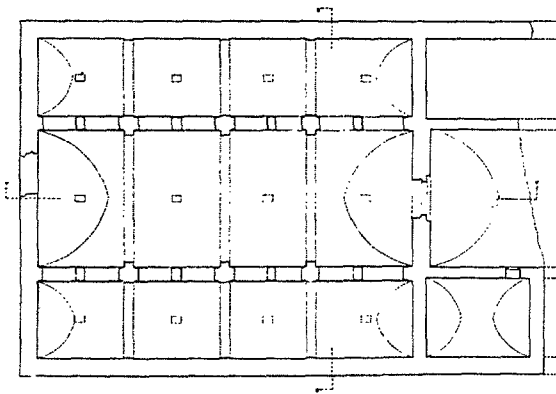
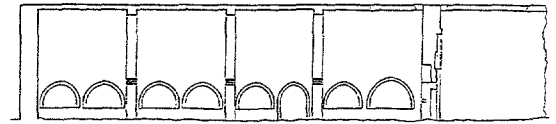


Fig. 20. İbrahimşah Han (13th century) on Arapkir-Harput Road. Plan (from *Doomed by the Dam*).

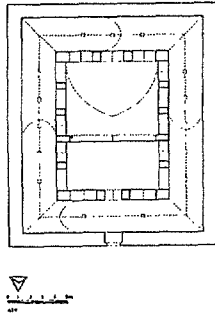


Fig. 21. Mirçinge Han (before 1240) on Divriği-Arapkir Road. Reconstruction plan.

the Mama Hatun Kervansarayı (fig. 25) and the Eshab-ı Kehf Han (fig. 9), or the closed courtyard as in the Alara Han (fig. 8). The rings may continue on three complete or almost complete sides. In the concentric plan type,

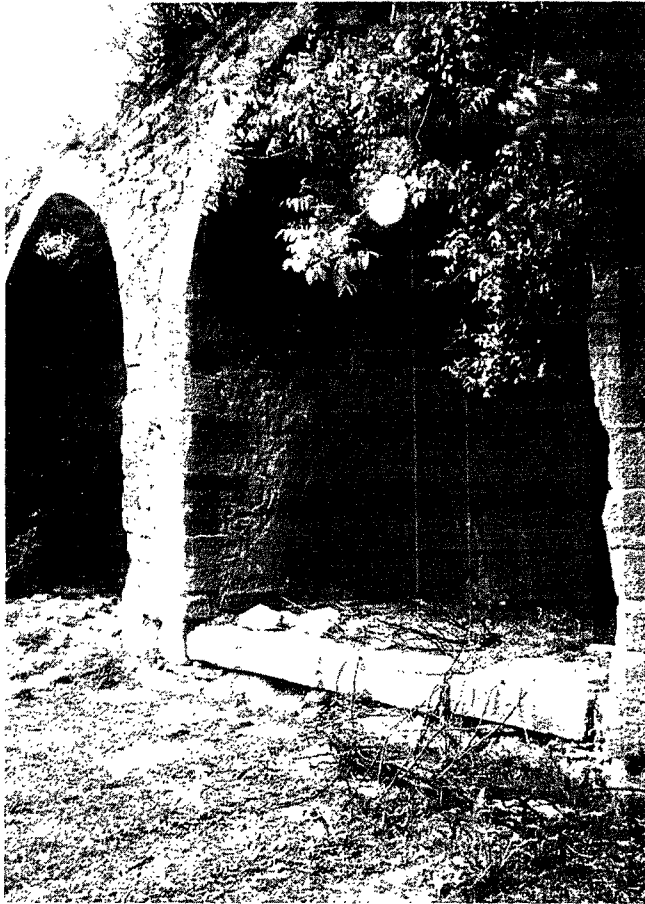


Fig. 22. Kargı Han (13th century) on the Alanya-Konya Road. The semi-open shelter on the courtyard (1992).

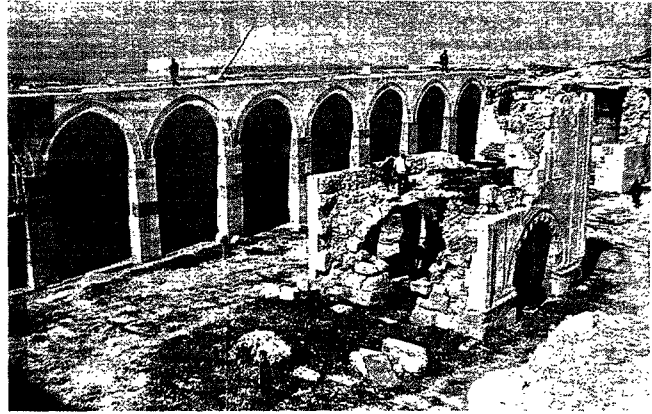


Fig. 23. Aksaray Sultan Han (1229) on the Konya-Aksaray Road. The courtyard and the kiosk masjid (1969).

regardless of the number of rings and how they envelop the core, the core is not a circulation space with services lined up around it. Instead the spaces around the courtyard are used only for accommodations; when other services are available, they are located near the entrance or sometimes around a secondary courtyard, as in the Alara Han. In khans with few services, such as the Sevserek Han (fig. 26), they are attached to the entrance wall in a manner very like their counterparts in the additive-design type.

Comparing two developed examples of the two design concepts — the Aksaray Sultan Han (fig. 16) and the Alara Han (fig. 8) — further emphasizes the differences between them. In the Aksaray Sultan Han, the shelter is planned as a building consisting of five aisles lined up next to each other. The platform is U-shaped, with the long sides of the U covered by vaults that are



Fig. 24. Avanos Sarı Han (13th century) on the Kayseri-Aksaray Road. The east side of the courtyard, entrance, and fountain iwan, and the masjid above the entrance (1970).

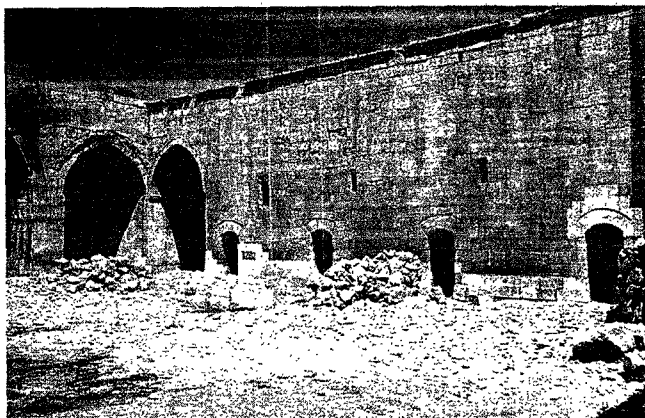


Fig. 25. Mamahatun Kervansarayi (13th century) on the Erzin-can-Erzurum Road. Rooms and iwans around the courtyard (1969).

perpendicular to them. The service quarters were added to the front of the shelter with a construction joint between the two. The large variety and size of the services required a courtyard for circulation. The service spaces, which consist of single or linked spaces, are lined up along the three sides of the courtyard; the fourth side has only the entrance to the shelter. The service space to the east of the entrance iwan is entered from the north end of the semi-open shelter. Another space, most probably for administration, is to the west of the portal. The large space at the northwest corner is the common latrine. To the south is a group of spaces belonging to the first bath. Next to it is a room, then the second bath and another single room. The next two rooms are connected to each other and the north one can only be entered from the south one. The last single room, where Sarre saw the *tandır*, closes the loop. The two connected rooms have projecting cornices around 1.5 m. from the floor level, suggesting a mezzanine.

The concentrically planned Alara Han does not have a separate shelter nor services lined up around the courtyard. At the core of the concentric rings is a long, narrow courtyard covered with a row of cross vaults with a small square pool at the center. Rooms alternating with iwans are lined up along the long sides of the courtyard to form the second ring. The third and fourth rings are the shelter, encircling the core on three sides; there is a corridor on the fourth side, leading to the shelters at both ends. The platform occupies the third ring and the stables constitute the fourth ring of the shelter. There are small individual platforms at the north ends of the stables. The double bands of the shelter do not continue on the north side of the khan. In

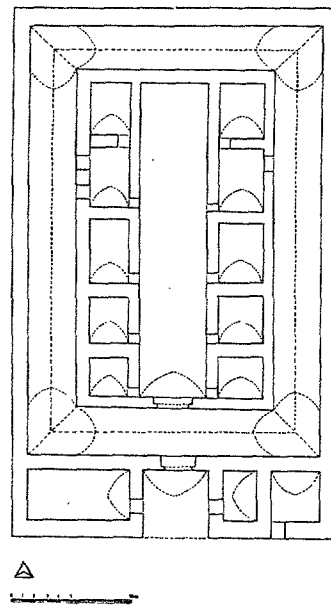


Fig. 26. Sevserek Han (13th century) on Malatya-Pötürge Road. Reconstruction plan (revised R.H. Ünal plan).

front of the portal is a small, open courtyard. On the east side of the portal is the fountain iwan and on the west side is the *maşjid*. There are two spaces, one east, one west of the fountain and *maşjid*, entered from the north corridor. The one on the east was possibly a latrine since it is near the source of water.

Although the Alara Han is only about half the size of the Aksaray Sultan Han, the area occupied by the shelter is almost the same — the stable band is just a little longer in the Aksaray Sultan Han. Both offered a variety of services, but because the Alara Han is much smaller, its service spaces are smaller as well. Both have *maşjids* and fountains (the Aksaray Sultan Han's fountain is underneath the kiosk *maşjid*). Both have baths — the Alara Han bath is separate, but not far from the main building. Both have rooms — the Aksaray Sultan Han has four, and the Alara Han has eight. The Alara Han has no semi-open shelter. The Aksaray Sultan Han has no iwans for living space; the Alara Han has six.

On the whole, the plan for the Aksaray Sultan Han displays the characteristics of an additive design and the Alara Han shows the symmetry inherent in the concentric rings devoted to its various functions. One striking difference between the two types is the importance given to traveler accommodations in one, as clearly expressed in the large number of spaces devoted to them and the high degree of privacy offered. Especially when size is taken into consideration, these two factors

become more striking in the concentric khans with services.

The concentric plan type is not the most common; the majority of Anatolian Seljuq caravanserais follow the additive design approach. However, the eight known concentric-plan khans and the characteristics of the plan type are more than enough to suggest that these buildings should be classified according to function.

Functional analysis shifts the emphasis from the courtyard to the shelter, whether the closed or semi-open one, as in the single example of the Evdir Han. A khan fully performs its basic function only if it has a shelter; it can be a khan without having other services, but it cannot be a khan if it has services but no shelter, so it is only logical that the classification should start with the shelter to which later additions can be appended. Putting a khan in a category with or without a courtyard places too much emphasis on the courtyard, whereas the khan with shelter and services gives the shelter and its accessories the correct degree of importance. A courtyard is not a prerequisite for the existence or placement of services; it provides only one of the solutions for their arrangement, as the concentric-plan khans show.

Starting with function eliminates attempts to prove a hypothesis about origin, tracing their source to Syrian court khans or to other eastern khans through the existence of a courtyard. Any courtyard with different sources of influence or region can be placed under khans with shelter and services, as a subheading of the organization of the services. This classification does not negate the sources of influence or regional preferences but does not use them as criteria. The functional analysis of spaces and the design approaches that govern their organization pave the way for deciphering the functional emphasis given to a specific khan, whether by choice of size, plan, or features of the shelter or by the existence, number, repetition, and organization of some of the service spaces. Only after functional analysis of the khans is complete can other functions, such as their use as statehouses or postal stations, be established and new ones identified.

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NOTES

1. The most extensive and reliable information on the Anatolian Seljuk roads can be found in M. Kemal Özergin, "Anadolu Selçuklu Çağında Anadolu Yolları," Ph.D. diss., Istanbul University, 1959, available in the Istanbul University Library, thesis no. 2797.
2. Osman Turan gives detailed information on the policy of the state in "Selçuklu Kervansarayları," *Belleten* 10, 39 (1946), re-published in *Selçuklular ve İslamiyet* (Istanbul, 1971), pp. 93–116. Also see Şerafettin Turan, *Türkiye-İtalya İlişkileri I, Selçuklulardan Bizans'ın Sona Erişine* (Istanbul: Metis Yayınları, 1990).
3. Caravanserai is the term used in texts written in Persian (such as Ibn Bibi and Aksarayi) and seems to have been the term more widely used in Turkey during the Ottoman period.
4. Osman Turan, "Selçuklu Kervansarayları," *Selçuklular ve İslamiyet* (Istanbul, 1971), p. 109. Doğan Kuban, *Andadolu Türk Mimarısının Kaynak ve Sorunları* (Istanbul: İstanbul Teknik Üniversitesi, 1965), pp. 157–59.
5. Ibn Bibi, *Anadolu Selçuklu Devleti Tarihi*, trans. M.N. Gençosman (Ankara: Uzluk Basımevi, 1941), pp. 164, Aksarayi Kerimeddin Mahmut, *Müsamerat-al-ahyar*, trans. M.N. Gençosman and F.N. Uzluk (Ankara: Recep Uzunoğlu Basımevi, 1943), p. 158.
6. Ibn Bibi, *Anadolu Selçuklu Devleti Tarihi*, pp. 88–89; 1. Hakkı Konyalı, *Konya Tarihi* (Konya, 1964), p. 1047. For the interpretation of this type of use, see Aysıl Tükel Yavuz, "Anadolu Selçuklu Kervansaraylarında Mekân-İşlev İlişkisi İçinde Savunma ve Barınma," *IX. Vakıf Haftası Kitabı* (Ankara: Vakıflar Genel Müdürlüğü, 1992), p. 254.
7. The Mamluk Sultan Baybars stayed at the Tuzhisar Sultan Han and the Karatay Han during his 1277 campaign in Anatolia as documented in Osman Turan, "Selçuklu Kervansarayları," pp. 102, 111; Faruk Sümer, *Yabanlı Pazarı* (Istanbul: Türk Dünyasını Araştırma Vakfı, 1985). The latter includes a translation of the chronicle of Abdüzzahir who provides extensive information especially on the Karatay Han.
8. Osman Turan, "Selçuklu Kervansarayları," p. 111, relates two incidents with reference to Aksarayi.
9. Aksarayi *Müsamerat al-ahyar*, p. 336.
10. Karatay Han is referred to as a *zaviye* in fifteenth-century documents. Osman Turan, "Celalettin Karatay, Vakıflar ve Vakfiyeleri," *Belleten* 12, 45 (1948): 567.
11. Aysıl Tükel Yavuz, "Anatolian Caravanserais and Their Use as Statehouses," *Proceedings of the Xth International Congress of Turkish Art*, September 1995 (in press).
12. Aysıl Tükel Yavuz, "Anadolu Selçuklu Dönemi Hanları ve Posta-Menzil-Derbent Teşkilatları," *Profesör Doğan Kuban'a Armağan*, (Istanbul: Eren Yayınevi, 1966), pp. 25–38.
13. Kurt Erdmann, *Das Anatolische Karavansaray des 13. Jahrhunderts*, parts 1–2, 2 vols. (Berlin: Verlag Gebr. Mann, 1961); parts 3 and 4 were published by Hanna Erdmann in 1976.
14. Friedrich Sarre, *Reise in Kleinasien* (Berlin: Geographische Verlagshandlung Dietrich Reimer, 1896). Sarre visited six khans (Goncalı Akhan, İshaklı, Eğridir, Obruk, Horozlu and Aksaray Sultan Han) and published the inscription of the Incir Han. He drew plans for Akhan, Horozlu Han, and Aksaray Sultan Han, and a section for the last.
15. Horozlu Han (Chorashi, as Sarre writes it) has a courtyard. The remains of the courtyard were clearly visible even before it was excavated during restoration work done in the 1980's. This

- mistake is repeated by Halil Edhem, M. Ferit Uğur, and M. Mesut Koman, without reference to Sarre.
16. Halil Edhem [Eldem], "Anadolu Selçukî Hanları," *Türk Yurdu* 14, 104 (1915-16): 186.
 17. M. Ferit Uğur and M. Mesut Koman, "Karatay Kervansarayı," *Konya* 35 (1941): 3027.
 18. Kurt Erdmann, "Notizen zum Inneranatolischen Karavansaray: Beobachtungen auf einer Reise in Juli 1953," *Kunst des Ori-ents* 2 (1955): 5-29.
 19. Rahmi Hüseyin Ünal has published the largest number of monographs on newly discovered caravanserais. His ideas on typology are best reflected in "Osmanlı Öncesi Devirden Yayınlanmamış Birkaç Han Üzerinde Bir İnceleme," *Araştırma Dergisi in Memoriam Prof. Albert Louis Gabriel* (Ankara: Atatürk Üniversitesi, 1978), pp. 462-70.
 20. Erdmann, *Das Anatolische Karavansaray*, Catalog, Text, pp. 21-24.
 21. Rudolf M. Riefstahl, *Cenubugarbî Anadolu'da Türk Mimari Eserleri*, trans. C.T. Berktin (Istanbul: İstanbul Maarif Basımevi, 1941), p. 54. The English original was published in 1931).
 22. Erdman, *Das Anatolische Karavansaray*, Catalog, Text, p. 187. In fact Erdmann does not include the Alara and Eshab-ı Khef Han in the court khan group in "Das Anatolische Karavansaray," *Zeitschrift für Kulturaustausch* (Stuttgart, 1962), vols. 2-3, pp. 163-70, trans. Fügen Tunçdağ as "Selçuk Kervansarayı," *Önasya*, 2, 13 and 14 (1966). He considers the Evdir, Kırkgöz, and Kargı Han to be a small group related to Persian and Syrian buildings that can be traced to the Sasanians.
 23. Oktay Aslanapa is a fervent defender of this view: see idem, *Türk Sanatı I* (Istanbul: Milli Eğitim Basımevi, 1972), pp. 32-93.
 24. Kurt Erdmann, "Bericht über den Stand der Arbeiten über das Anatolische Karavansaray des 13. Jahrhunderts," *Atti del secondo congresso internazionale di arte turca, Venezia 26-29 Settembre 1963* (Naples: Istituto Universitario Orientale, Seminario di Turcologia, 1965), p. 78.
 25. Erdmann, "Bericht über den Stand der Arbeiten über das Anatolische Karavansaray," p. 75.
 26. So far sixteen khans are known to have construction joints between the closed section and the courtyard. The two Sultan hans, Ağzıkara, and Karatay, are among them.
 27. Riefstahl has only the entrance iwan, Riefstahl, *Cenubugarbî Anadolu'da Türk Mimarisi*; Erdmann has the side iwans (Erdmann, *Das Anatolische Karavansaray des 13. Jahrhunderts*, Katalog, Abbildungen, plate XXIX).
 28. Erdmann, "Das anatolische Karavansaray."
 29. See Jean Sauvaget, "Caravansérails syriens du Moyen-Age I. Caravansérails Ayyubides," *Ars Islamica* 6 (1939): 48-55; idem, "Caravansérails syriens du Moyen-Age II. Caravansérails Mamelouks," *Ars Islamica* 7 (1940): 1-19.
 30. Actually there are two khans of the Syrian type in southern Turkey, published after the appearance of Erdmann's study (Gönül Güreşsever (Cantay), "Urfa'da İki Kervansaray," *MTRE Bütteni*, 3, 9-10 [1977]: 12-27). One is an undated khan in the village of Çar Melik between Suruç and Urfa and the other is the dated 1228-29 khan in Han Elbağrur to the south of Harran, only 15 km. from the Syrian border. G. Güreşsever (Cantay) claims that they are Seljuq, based on a document which indicates that this region was under Seljuq rule until 1234. For the time being, I refrain from including them among the Seljuq khans for several reasons: one is the term "this region" which is vague; more information has to be collected to verify the location. The inscription panel gives no reference to a ruler, nor a title for the donor. Second is the existence of fireplaces in both buildings, which seems questionable for the assumed date. In Han Elbağrur they can be later additions, but in Çar Melik Han they seem to be an integral part of the buildings, as in seventeenth-century Ottoman derbent khans, which is what I think this building is, with a separate mosque and a periphery wall. If the fireplaces in Han Elbağrur are accepted as original, they reflect a heating technology not observed in the other buildings of the period. Third, the plan arrangement, the treatment of the spaces, and the superstructure with continuous cross vaults bear no similarity to Anatolian Seljuq khans as far as can be observed from the plan and photographs, but they are similar to Ayyubid and later Syrian caravanserais.
 31. Yavuz, "Anatolian Caravanserais and Their Use as State-houses," fig. 2.
 32. For the plan, see Ayşıl Tükel Yavuz, "Anadolu'da Eşodaklı Selçuklu Hanları," *METU Journal of Faculty of Architecture* 2 (1976): fig. 12.
 33. The plans reproduced here are the results of these studies and have varying degrees of accuracy. Those of Evdir, Ehab-ı Khef were revised after revisiting the buildings; those of the Aksaray Sultan Han and Ağzıkara Han were redrawn after measuring a major part of the interior, but not the exterior walls; that of Mirçinge is a survey with straight measurements only; those of Kargı, İbrahimşah, and Öresin were accurately surveyed on field trips together with students; those of Alara, Kırkgöz and Akhan were the result of extensive and accurate measured surveys for restoration theses. The plan of Alara was revised after the partial restoration in 1989. The only khan not visited is Sevserek; the revisions for it were done with the aid of photographs sent by the author and measurements taken by İsmail Aytac. The sources for the base plan are Erdmann, *Das Anatolische Karavansaray des 13. Jahrhunderts*, Katalog, Abbildungen, bl. XXIX, fig. 1, XI, VIII; for Evdir, Aksaray Sultan and Ağzıkara Hans, respectively, Tahsin Özgüç, and Mahmut Akok, "Afşin Yanındaki Eshab-ı Khef Külliyesi," *Yıllık Araştırmalar Dergisi* 1 (1958): 85; for Eshab-ı Khef Han, Middle East Technical University, Faculty of Architecture, Department of Restoration, *Doomed by the Dam* (Ankara: Türk Tarih Kurumu Basımevi, 1967), p. 46, for İbrahimşah Han; Tomris Süer (Yardımcı), "The Kırkgöz Han in Antalya," M. Arch thesis METU Faculty of Architecture, 1975; for Kırkgöz Han: Ahsen Mocan, "The Akhan Caravanserai in Denizli," M. Arch thesis, METU, Faculty of Architecture, 1972, for Akhan; Rahmi Hüseyin Ünal, "Sevserek Hanı (Malatya-Pötürge) ve Yerhan (Erzincan-Refahiye) Hakkında Bir İnceleme," *I. Türkoloji Kongresi Tebliğleri* (Istanbul, 1979), p. 964, for Sevserek Han.
 34. Ayşıl Tükel (Yavuz), "Il Restauro d'Alara Han," Ph.D. diss., Scuola di Perfezionamento per lo Studio ed il Restauro del Monumento, Rome, 1967.
 35. Ayşıl Tükel (Yavuz), "Documentation and Comparative Study of Alara Han," *Belleten* 33, 132 (1969): 429-91.
 36. R.H. Ünal has mentioned a concentrically planned khan called Murat Han. A khan in Şişman Köyü to the east of Malatya also has a concentric plan with services; İsmail Aytac, "Malatya-Elbistan Kervanyolu Gürzergâhi ve Kurttepe Hanı," *VI. Milli Selçuklu Kültür ve Medeniyeti Semineri Bildirileri* (in press). For the published six, see Ayşıl Tükel Yavuz, "Mirçinge Han and Concentric Planned Anatolian Seljuk Period Cara-

- vanseerais," *Proceedings of the 9th International Congress of Turkish Art*, 23–27 September 1991 (Ankara, 1995), pp. 449–70.
37. This typology was presented at the First International Congress of Turcology, Istanbul 1971.
 38. Aysıl Tükel Yavuz, "Anadolu Selçuklu Kervansaraylarında Mekan-İşlev İlişkisi İçinde Savunma ve Barınma," *IX Vakıf Haftası Kitabı* (Ankara, 1992), pp. 253–84.
 39. Information about the *tandır* has become available through excavations done in the last decade and not yet completely published. Haluk Karamağaralı told me that in excavating the Çifte Minareli Medrese in Sivas, he found *tandır*s in the floors of student cells. Evidence for their use in caravanserais came later. In 1992, while R. Hüseyin Ünal was visiting the Susuz Han, on the Antalya-Konya road, one of the students accompanying him fell into a pit full of ash. The contractor responsible for the restoration told them that there were several others lined up along the platform and that he had filled them in and closed their openings. The same year I visited the Susuz Han and saw the only existing *tandır* there, but excavations and research in the buildings themselves have increased the number of examples. In Dokuzun Derbent Han near Konya there is a *tandır* in one of the rooms. Haşim Karpuz, "Konya Dokuzun Hanı Kazı ve Restorasyon Çalışmaları, 1993," *XVI. Kazı Sonuçları Toplantısı* (Ankara, 1995), p. 379. There is another one on the *seki* of the second khan in Kızılören between Konya and Beyşehir, Yavuz, "Anadolu Selçuklu Dönemi Hanları ve Posta-Menzil-Derbent Teşkilatları," pp. 25–38. It is now obvious that what Sarre thought was a cistern in the last room on the east wing of the courtyard in Aksaray Sultan Han is a *tandır* (Sarre, *Reise in Kleinasien*, p. 78).
 40. Ibn Bibi, *Anadolu Selçuklu Devleti Tarihi*; on p. 151 there is reference to partitioning a court tent by curtains; on p. 101 there is reference to the use of curtains in palace spaces during the welcoming ceremony for Muhyi al-Din ibn al-Jawzi by Alâaddin Keykubad I.
 41. Erdmann notes that the majority of the khans he studied consist of a courtyard and a closed hall. Among the 59 buildings he studied, 40 are of this type, 18 do not have courtyards, and 5 are court khans (idem, "Bericht über der Stand der Arbeiten über das Anatolische Karavansaray des 13. Jahrhunderts," p. 75). In the last thirty years more khans belonging to his latter two groups have been discovered than those to his major one.
 42. In June 1994, I surveyed the Ortapayam Han and an unpublished khan on the road between Konya and Antalya. They have the same plan as the Şarafa Han, with a service space attached to one of the sides. Erdmann's plan of the Ortapayam Han does not include this space.
 43. This khan was turned into a mosque at a later date (Erdmann, *Das Anatolische Karavansaray des 13. Jahrhunderts*, p. 48, Katalog, Abbildungen, Abb. 338–342, pl. XXX). For the same building, see Rahmi Hüseyin Ünal, "À propos de la destination de l'édifice situé au sud-est du Khan de Kızılören," *Proceedings of the 9th International Congress of Turkish Art*, 23–27 September 1991 (Ankara, 1995), 3: 413–23, and Aysıl Yavuz, "Anadolu Selçuklu Dönemi Hanları ve Posta Menzil-Derbent Teşkilatları," pp. 25–38. I call the building the second khan at Kızılören and assume it to be a stage in the postal system. For the khan in Melleç, see Aysıl Tükel Yavuz, "Melleç'teki Han ve İki Sahınlı Anadolu Selçuklu Hanları," *VI. Milli Selçuklu Kültür ve Medeniyeti Semineri Bildirleri* (in press).