The Documentation of Rural Wooden Minarets in Akseki- Manavgat- İbradi Regions of Antalya and Determination of Their Construction Systems

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ABSTRACT

The target of this study is documenting the wooden minarets of Akseki İbradi and Manavgat districts of Antalya; which havenot been studied or published yet. Although there are many wooden minarets in Anatolia, the rural minarets of Akseki-Manavgat-İbradi region are typologically different in shape, construction and are unique in the region. Within this research, the region examined and the rural wooden minarets which exists today are determined and documented. The historic information which can be obtained, the measured drawings , photographs and construction details which can be taken, presented.

Keywords: Timber - Wooden Minaret, Rural Architecture, Akseki, Manavgat, İbradi

1. INTRODUCTION

In every period of history, Antalya province is one of our provinces subjected to the settlement with its ports, fertile soil, forests and climate features. Its history starting with Karain and Beldibi caves belonging to Paleolithic era can be followed by the remaining traces of Greek and Roman civilizations to the present day [1]. The province keeping its importance during the Seljuk and Ottoman Empire continues to be important, especially in the context of cultural and marine tourism today. In the city where many civilizations had settled, monumental buildings, the ancient city remnants and rural architectural heritage have been in existence as intertwined. Wooden minarets which are the subject of
2. THE CHARACTERISTICS OF THE MINARETS IN AKSEKİ, MANAVGAT AND İBRADİDISTRICTS

For wooden minarets available in the rural areas of the province of Antalya, Akseki, İbradı and Manavgat districts that are the region, where they were detected to be the most intensively, were selected. For the documentation of minarets that survived to the present day, it was reached to some of the villages of these districts by car and it has been given information by contacting the head of the village 'mukhtar' of some of them. In this way, by scanning all the villages in the region, existing minarets today have been determined and documented in situ. In each of the villages -without exception-that are reachedor communicated for the documentation of minarets, it was learned that there had been wooden minarets in the past. According to the information taken from the elderly people and the mukhtar in the villages, the mosques and minarets that had not been repaired were destroyed and reinforced concrete mosques and minarets were made instead of them. With the construction of new mosques, traditional mosques and their minarets are left in some villages and their destructions by natural causes are ignored. Some of these minarets that have not survived are documented and photographed by the authors and explorers. For example, while the minaret in Geriş district was being photographed by Özkanak, "Geriş town burned down in 1953. Pay attention to the peculiarities of the village minarets"[6] is noted under the photograph. Like him, 'Sümüle' presents the photograph of the minaret that have been destroyed today with the information "Villagers are preparing to construct new and big mosque" in the notes he gave about Günya village [7].

Within the scope of the study, 6 minarets according to this topology were detected in the region. Of these minarets, the ones within the boundaries of Akseki district are in Belenalan village, Çımköy village, Güzelsu village and Akarcı recreational facilities area. The one within the boundary of İbradı district is in Ormana village. And the unique minaret within the boundaries of Manavgat district is in Yaylaalan village. Yaylaalan old mosque minaret located in here was destroyed by the villagers with the aim of renewal in September 2015 when the study of this paper was made. All kinds of data related to construction system are obtained by removing parts of this collapsed minaret and by determination of the details. Instead of the destroyed minaret, still according to this typology, a new minaret was made using new wooden elements by the villagers.

this study constitute important examples of rural architectural heritage of the recent past.

It is encountered with the mosques with wooden minarets in almost every region of Anatolia having access to wood. In almost all of these minarets, the boom pole ‘seren’ fixed as the main core, carries body/shaft ‘gövde’, balcony ‘gerefe’, spire ‘külah’ and stairs as a whole. Seren usually embedded into the load bearing walls provides minarets rising from the roof of the mosque. The steps arranged around seren are again usually covered with timber cover boards. As in masonry minarets, it is reached to the minaret balcony by a door opened from the upper part ‘petek’ of the minaret, at the end of the stairs[2,3,4,5].

In Antalya province, it is also encountered with such wooden minarets. Among them, Alanya Güçüoğlu Mosque (beginning of 20th century) and Antalya İskel Mosque (1903) can be listed [3]. The minarets of these mosques had been designed to be very different from each other in terms of size, ornamentation and quality. But when going to rural areas towards Taurus from the city center of Antalya to the north, minaret architecture is being specialized to this region and forms a certain-unique type. The steps of these minarets where ‘seren’ carries the ‘gerefe’ and ‘külah’ in a completely clear way separately are designed to reach from the inside of the courtyard to the minaret balcony as unrelated to ‘seren’. This type of minarets, very few of which are able to survive today, constitutes the important elements of rural architectural heritage of Akseki, İbradı and Manavgat region. As there is no study made about them, the documentation of these minarets has a great importance before their extinction.

Figure 1. Old photo of Geriş town (a) [6], Old photo of Günya village (b) [7].
2.1. Belenalan Old Mosque in Belenalan Village

Belenalan village is located in the borders of Akseki district and at the 94th kilometer of Manavgat-Konya highway. There is Çanakpinar village in the east, Bucakalan and Büyükalan villages in the west and Sarıhacılar village in the north. There is only a little information about Belenalan old mosque. There is not an instruction panel ‘kitabe’ on the mosque, and besides there is no written or oral information about having in the past, it has not been encountered with any trail that might indicate where the instruction panel is. The only written document that can be found on the old mosque is written by ‘Enhoş’. In this publication; there is the expression that “To the mosque built by Çimi’li Mir Miran Abdi Pasha in Belen, Esseyyid Mustafa bin Ahmed was appointed as preacher in 1883” [1]. The other authors giving information about the village transferred this text. In this context, taking the year of 1883 as the construction year of the mosque can be possible with precautionary record.

Climbing to the minaret where a single monolithic cedar trunk is used as a boom pole, that is 1015 cm in height, is provided with L-shaped staircase starting adjacent to the courtyard wall. Minaret ladder was constructed with the method of fitting the dovetailed steps ‘basak’ between two notch boards (Fig.2d). The size of the steps are 21 x 41 cm and it is in a width to allow only one person to pass. After the first 12 steps, it is reached to a platform at +2.93 level. The platform is 29x54 cm in size and it is fitted on notch boards from one side and timber girders extended out of load bearing walls of the mosque on the other side. After the platform, a wooden arch was designed at the beginning of the stairs ongoing to the minaret balcony. It is accessed to the minaret balcony with 18 steps after this arch. There is a timber guard rail that is 72 cm in height, constructed on notch boards, on both sides of the stairs (Fig.2b,c,d,e).

The minaret balcony was designed as an octagon having about 47.5 cm at each side. Boom pole extends to the end ornament ‘alem’ by passing right through the center of the minaret balcony. There are plain timber plates which are about 80 cm in height and designed between

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Figure 2. The measured drawing (a,b,c) and photographs (c,d) of Belenalan old mosque [8].
the timber columns at the edge of the minaret balcony as guard rail. At the minaret balcony that is extremely narrow, the area between the boom pole and timber plates as guard rail is about 45 cm in width and it is in the size where a man can barely fit. The spire of the minaret is covered with green colored zinc sheet now. The end ornament on the spire was recently installed during the repair and made of brass.

2.2. Minaret of Mecidiye Madrasah in Güzelsu village

Güzelsu village became a township center of Akseki district in 1912 and a town with the establishment of Gündoğmuş district in 1936. Today, it is a village of Akseki district and it is located 5 km away from Akseki-Manavgat highway. Sadıklar village is located in the north and Gündeşkaya village at the west of the village.

Mecidiye Madrasah of Güzelsu village is located at the north of the village in the border zone where the forested land begins. The madrasah section has not reached up to today. Minaret is still standing although it is ruined. Madrasah was built in 1845 by Hasan Rifki Efendi who was a professor, Ruus mentor and the peace mentor of Sultan Abdülmecit [1,6,7]. Madrasah is known to have 15 cells and 3 classrooms. But it is expressed by M. Enoş that it was collapsed in time because of neglect, rather a new building was built for the course of Koran [1]. Today, this building made for Koran course is ruined either. (Fig. 3e)

Minaret is 8.9 meters in height up to the spire and only the end ornament, spire and a part of minaret balcony have reached today. In the photo of the minaret in 2010, it is seen that minaret balcony and the bottom of it seem to be present. [9] (Fig.3a). But, when it was reached to the village for the study in 2015, it was seen that minaret balcony and the bottom of it had been completely destroyed. There is no information or trace about the direction or starting point of the stairs of the minaret. Due to the fact that the traces about the madrasah have been vanished, the minarets direction or position according to the madrasah is not known either. In the section where minaret balcony is combined with the spire, there are arch shaped, engraved and elegant timber panels ‘yaşmak’. Since there are serious cracks and separations on the boom pole, there is a possibility of the minaret being collapsed if it is not repaired immediately.

Figure 3. Old photo of Mecidiye Madrasah Minaret in Güzelsu village (a) [9]. Photographs of minaret taken in 2015 (b,c), measured drawing of minaret - elevation(d) and photograph of old Koran course taken in 2015 (e).

2.3. The Mosque with Wooden Minaret in Çimi Village

Çimi village is 5.4 km away from the center of Akseki district and was founded on the hillside of Western Taurus. The village where there is Hüsamettinköy and Akseki district in the west is surrounded by dense cedar and pine forests. There is no written document about the mosque with wooden minaret which is also known as ‘aşağımahalle mosque’. Although it was learned that the mosque was of 300 years old, it should be approached with precaution[10]. From the same source, it is learnt that the mosque is repaired in 2010, its roof is fixed and various parts in the minaret are replaced with the ones made as same as the original.

In the mosque with wooden minaret in Çimi village, entrance is made from the main door on the west wall, which is not original. Right opposite the main door, there is a women’s section ‘mahfel’ 115 cm above the ground. The pulpit which was located adjacent to the south wall is not original as well. But the wooden altar is original and decorated with high quality and elegant carvings. The ceiling of the mosque is covered with timber sidings. At the center of the ceiling, there is a
wooden centerpiece 'tavan göbeği' that is usually encountered in Akseki region (Fig.4e). The windows are not original like the main door.

Climbing to the minaret of the mosque with wooden minaret in Çimi is made with L-shaped stairs fitted opposite the 'Harim' door (Fig.4b,c). The first flight of stairs, rising from the courtyard is reinforced concrete and it was made again in the same dimensions instead of the existing stone stair, during repair [10]. The original timber part of the stairs starts over courtyard walls. There is a wooden arch at the starting point like Belenalan old mosque as a typology for these wooden minarets. Wooden part of the stairs has been manufactured with fitting the joint steps between the notch boards as in the other minarets stairs. Steps are 45 cm in width. There is a wooden guard rail that is around 70 cm in length on the notch board.

![Figure 4](image1.png)

Figure 4. The measured drawing of mosque with wooden minaret and minaret in Çimi village (a,b), and photograph taken in 2015 (c)

The boom poleis located at the intersection of north and west walls of the mosque right next to the double winged main door of the mosque to come up through the courtyard wall. As in other minarets, it is made of a single monolithic cedar trunk. Minaret balcony is 4.9 meters above from the ground and with octagonal plan. There are wooden tables about 70 cm in length designed between the wooden columns on the edge of the minaret balcony as guard rail on three of these wooden tables which used as guardrails, a flower motif is carved as an ornament, consist of 8 diamond shaped petals. At the top and on the bottom of the minaret balcony, wood carved fascia boards rowed with triangles and squares.

Between the columns on the corners of the octagon making up the minaret balcony, were covered with arch shaped decorative carved timber panels 'yaşmak'. Minaret spireis now coated with zinc sheet, which is known to be made of timber originally. The original timber end ornament was changed to a zinc one during the repair as well. The mosque is open only in the month of Ramadan and used for religious activities except for the time prayers.

2.4. Zelili Mosque Minaret in Ormana Town

Ormana is a town of İbradı district in Antalya. It is surrounded with Eynif plain in the northwest, Gembos plain in the north, Karadağat the west, Söğütmount at the north and Elmacık Mount at the east.

![Figure 5](image2.png)

Figure 5. The measured drawing of minaret (a), Current photos of the Minaret taken in 2015 (b,c,d)
The minaret is located in the area where there were Wooden Zelili Mosque and Madrasah are not available now, at the edge of the tomb of Zelili Ali, at 'yukarı mahalle'. The Tomb of Zelili Ali was made by M.Şevket Ersoy in 1985; there is no information on the original [7]. Existing tomb is square-shaped reinforced concrete structure with a dome as top cover. Zelili mosque and madrasah have not survived. The top of this area covered by concrete slab is not any information about the madrasah is that Sheikh Abdurrahman Hadimi was the teacher [1,6,7] and the building is demolished in 1928 [11]. There is not any information about Zelili Mosque except being “recorded in 2421 number of the foundation in Ormana, located upper neighbourhood” [6]. Besides being certain of the original minaret, it was demolished in 1968. The minaret that is available today was built by Refet Keleş in 2008 and opened for use [11].

Since a part of boom pole of the original minaret is protected by Ormana Foundation, the place of original minaret is known (Fig.5d). The existing minaret today has been built right next to the old minaret. The boom pole of the original minaret is uncoated like in other existing minarets. In the minaret that is existing today, the boom pole is surrounded by cover boards. Since the boom pole coated with wood cover boards takes up more space than the normal, the octagonal minaret balcony has been made wider than the other minarets. Since it was built in the near past, there is not any deterioration. The woodworking of the minaret built in accordance with the original construction techniques is meticulous (Fig.5c). It is used for touristic purposes today and is not functional.

2.5. Akarca Recreational Facilities Area Masjid and Minaret

Akarca recreational facilities area is 5 km away from Akseki district in the north east, 5 km away from Bucakalan village at the south and on the D695 Konya-Manavgat highway. The masjid located in the Akarca recreational facilities area is an unqualified concrete masjid. The minaret was built 20 years ago to attract tourists to the facility area by using the same materials and construction systems with minarets in the region and again by the wood craftsmen in the region [12]. Today, it is used for touristic purposes and is not functional.

Figure 6. The measured drawing of the minaret - elevation (a), Current photos (b,c)

3. THE CHARACTERISTICS AND CONSTRUCTION SYSTEM OF OLD MOSQUE MINARET IN YAYLAALAN VILLAGE

Yaylaalan village, also named as Avasun/Avason village locally, in Manavgat is 24 km away from the center of Manavgat district and 4.2 km away from Oymapınar Dam Lake. It is surrounded by Tıtkiler village at the southwest and Sevinçköy village at the east. The information about Yaylaalan old mosque is extremely weak like in the other rural buildings. There is no instruction panel today as well as its traces on the structure, that there may be one, but it is deleted due to the repairs. ‘Konyalı’ gives the information about the structure “ The new mosque has a very original minaret; it was casted by adding a minaret balcony made of timber in arabesque style on a pine tree and a speaker was installed on it” [13]. Since it is known that his visit to the village occurred on 11 November 1971 and the village residents at the age of 50 or older talk about what they remember from the mosque and theminaret from their childhood [14], it can be concluded that the minaret is at least of 50 years old.
The mosque is close to Yaylaalan village center and situated at the opposite way with the new concrete mosque on the main road of Yaylaalan village. A courtyard wall with metal railings separates the road from the mosque. The courtyard is 14.49 meters in rectangular shape and it is covered the entire south west load bearing wall of the mosque. The main entrance of the mosque is from the northeast corner of the courtyard and a concrete porch, which is 3.70 cm in length, covers the top of this part. This area is used for late comers and has a concrete slab floor. The original must be flagstone pavement, but no information is found either visual or documental, to confirm this assumption (Fig. 8 a).

It is reached to women’s place mahfel which is 6.27x7.18 m in dimension, with stairs from just the front of harim door of the mosque. It is located 1.90 m above the harim level, placed between the load bearing walls. The structural system of the mahfel floor is formed by the rough-hewn timber girders which are supported by the load bearing walls of the mosque are located 20 cm away from each other. The girders of the mahfel floor are also supported by rough hewn -30 cm in diameter - 2 timber columns at the middle of the Harim floor (Fig. 8a,c). The top and bottom of the timberriders are covered with timber cover boards. The mahfel is not original. It is understood that the mahfel is enlarged during repair, by the girder in the right middle of the window on the body wall in the southwest. And it is also understood the originality from the wood used for coating, which is pine timber with machine cutting [14]. But traces of the original related to the size and order has been deleted in the past.

Harim is in rectangular shape, in the size of 13.54 x 7.18 m. Altar 'mihrap' and pulpit 'mimber' on its south load bearing wall is original (fig.8b,8c). Although they were painted by oil paint several times in the past, meticulous and qualified woodworking can still be read clearly. The ceiling is coated with timber siding, which is 10 cm in width and it is not original as the 'mahfel'.

There is an 8-pointed star shaped timber centerpiece in the geometric center of the ceiling (Fig. 8d). The harim floor is covered by 15-20 cm of cover boards. The windows and doors have been changed in time.
The load bearing walls of the mosque are made of rubble stone masonry with timber beams on every 50-60 cm. The top cover of the mosque is 4-way sloping gable roof. The tilting fillet on eaves board is made of round shaped engraved timber, similar to the dwellings of the region. Minaret is approximately 9.65 m. It is understood from the old photos that it is made with a timber staircase located along southwestern body wall (Fig. 7a). Neither the original of the photograph is found nor the information about the date when it is taken can be learned. For this reason, the destruction date of the staircase is unknown. Boom pole is positioned to pass through the eaves board 15 cm away from the southwest load bearing wall and is made of solid cedar trunk. The trunk is rough hewn, only purified from the knots and branches is known to be buried about 1 meter under the ground. At the point where it is fitted on the ground, the pole diameter is 30 cm while its diameter in 14 cm at the point where it finishes on the spire. The minaret peak finishes with wood carved monolithic end ornament of 60 cm length. This timbered ornament consists of a crescent 'hilal', large cube 'büyüküp', pear 'armut' and bucket 'kova' sections from top to bottom (Fig. 9a,b). The 'kova' part is approximately 20 cm and it is fixed with nails to the boom pole. This section also is the section where the timbers in 2 cm thickness forming the spire are fixed by using wedges.

The timber cover boards forms the sides of the octagon spire by tampering, starting from the 15-20 cm to the top of the end ornament's 'kova' section. The number of timber covers used in each edge is originally 3. But with the repairs in time, the number of timber on some edges and the width changed. In these repairs, pine was preferred instead of cedar that was used for the original parts (Fig. 9c).

These timber cover boards which forms the octagonal spire are fixed to the end ornament by the wedges, to the spire's stringer by nails and to each other by wedges at the middle of the spire (Fig. 9a,c; Fig. 10a). There is a zinc plate cover on the timber cover boards that formed
the spire, but it is known that there is no coating on such minarets originally [8].

An octagonal shaped timber flashing 'etek' which projected outward up to 5 cm, is designed on the stringer of the spire. Just below the flashing, there are 8 timber girders in 5x5x5 cm size, extended from each bisector of the octagon to the boom pole. These girders are fixed at the center by notching of the boom pole. They are covered by the tilting fillet and supported by the timber columns of the minaret balcony. Bottom of the girders are covered with timber cover boards that are 10 cm in width to form an octagon and the inside of the spire is prevented to be seen from the minaret balcony (Fig. 10b).

![Figure 10. The measured drawing of Yayladan old mosque minaret](image)

The minaret balcony 'şerefe' is 180 cm in length and 45 cm in width from the boom pole to the edge and it is octagonal in shape. This dimension that only one person can barely fit is standard as encountered in the original minarets surveyed. Between the columns extending upward from all bisectors of the octagon, it is closed with timber tables as guard rail which is 90 cm in length to leave the edge where the staircase is open (Fig. 10c). These timber tables between the columns of minaret balcony is taken in the timber frames on 4 sides and formed by the timbers of 10x85x2 in size. The bottom of the minaret balcony is enclosed with timber cover boards identical with the ceiling. It is seen that during the repairs made in time, the floor of the minaret is coated with zinc sheet, on top of the cover boards as in the spire (Fig. 10d).

The columns of the 'şerefe' were located on 8 girders, fixed at the center by notching of the boom pole. The exposed ends of these girders are covered with an eave board ended as semi-circles. The girders are in sizes of 7x7x50 cm and manufactured again with cedar. The supporters of these girders are 8 struts - one for each girder - which are also fixed by notching to the boom.
pole (Fig.10c,f). These struts formed the bottom of the balcony and collar; which are unique for each minaret in the region. The outer parts of the struts were covered with the continuous application of cleaved woods about 5 cm in width. These cleaved woods were fixed to the two struts with nails from two directions. Bottom of the minaret balcony was completed by fixing the smallest woods at 44.83 level to the boom pole.

4. CONCLUSION

Within this study, the original wooden minarets, which are the important elements of the Akseki, İbradı and Manavgat regions rural architectural heritage, are examined. They constitute a specific typology by their position right next to the harim entrance originally, şerefe and ‘külah’ positioned on a single boom pole without a cover and stairs reaching to the şerefe, through courtyard, without any contact to the boompole.

Rural architectural heritage is one of the issues agreed in importance in recent years all over the world. Unfortunately, in our country, the studies about rural architecture is very few especially in Akseki, İbradı and Manavgat regions. The extinction of rural architecture accelerates by the absence of any recording or documentation, unconsciousness, illiteracy, inability to find sufficient building masters or the difficulty of finding financial resources. The number of surviving minarets learnt to be available in every village in the past reveals the severity of the status. For this reason, the promotion of the universities, civil society organizations and the local governments to make the necessary research on rural architectural heritage carries great importance. As well as the necessary research, it is necessary to provide financial resources for restoration. To raise awareness of people about it by local municipalities, NGOs and universities will be an important step for achieving these unique examples in place and in a healthy way for future generations.

CONFLICT OF INTEREST

No conflict of interest was declared by the authors.

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[12] Interview with Şükri Öz.( August 2015)


[14] Interview with Necmi Doğan (September 2015).

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