

Investigation of The Traditional Seljuks and Principalities Period Baths Within The Conservation and Restoration: The Example of Isparta Baths

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Abstract: The city Isparta is located around the Lakes Region in the Mediterranean Region of Turkey. Date of settlement in Isparta goes back to the upper Paleolithic era. Isparta went under the administration of Luvi and Arzava Phrygians, Lydia, Persia, Kingdom of Pergamon, Roman Empire, Byzantine Empire, Seljuks, Hamitoğulları Principality, Ottoman Empire and Republic of Turkey. Isparta is still a small Anatolian city along with its 12 district. Isparta represents the classical Turkish city concept with its mosques, covered bazaar, baths and churches. One of the most important historical structures of Isparta is bath. Baths came to be used less frequently with the construction of bathrooms in every apartment. The elderly people generally use the baths in Isparta. Due to a major decrease in their number, baths are not sufficiently functional and face with important protection issues. Traditional Isparta baths have been reviewed in detail in terms of their architecture and preservation within the scope of this study. Particularly the baths belonging to the era of Seljuk and Hamitoğulları Principality have major and urgent protection issues. Archive and literature review have been performed; architectural features of the structures have been examined; damages have been evaluated and reasons for deterioration have been analyzed. In the conclusion part, recommendations for protection and new functions have been stated so that these structures will be transferred to next generations by preserving their structural characteristics and individualities.

Geleneksel Selçuklu ve Beylikler Dönemi Hamamlarının Koruma ve Restorasyon Kapsamında İncelenmesi: Isparta Hamamları Örneği

Anahtar Kelimeler

Geleneksel Hamamlar
Tarihi Isparta Hamamları
Koruma
Restorasyon

Özet: Isparta Kenti, Türkiye'nin Akdeniz Bölgesi'nin Göller yöresi merkezinde konumlanmaktadır. Yerleşme tarihi, üst paleolitik dönemle başlayan Isparta, sırasıyla Luvi ve Arzava Frig, Lidya, Pers, Bergama Krallığı, Roma, Bizans, Selçuklular, Hamitoğulları Beyliği, Osmanlı İmparatorluğu ve Türkiye Cumhuriyeti Devleti yönetimine girmiştir. Isparta, halen 12 ilçesi ile birlikte küçük bir Anadolu kenti olarak varlığını sürdürmektedir. Isparta camileri, bedesteni, hamamları ve kiliseleri ile geleneksel Türk kentini yansıtır. Isparta'nın tarihi kent dokusunun önemli yapılarından birisi de hamamlardır. Hamamlar, günümüzde her evde banyoların yapılması nedeniyle daha az kullanılır hale gelmiştir. Isparta'da hamamların kullanıcıları genelde halkın yaşlı kesimidir. Bu kullanıcı kitlesinin nüfusunun da giderek azalması nedeniyle hamamlar, işlevini kaybetmekte ve önemli koruma sorunlarıyla karşı karşıya gelmektedir. Bu çalışma kapsamında Isparta'daki geleneksel hamam yapıları mimari ve koruma açısından detaylı incelenmiştir. Özellikle Selçuklu ve Hamitoğulları Beyliği'ne ait hamamların koruma sorunlarının büyüklüğü ve aciliyeti dikkati çekmiştir. Çalışmada arşiv ve literatür taramaları yapılmış, yapıların mimari özellikleri incelenmiş, bozulma durumları tespit edilmiş ve bozulma nedenleri analiz edilmiştir. Sonuç bölümünde tarihsel ve yapısal özelliklerini kaybetmeden, özgünlüklerini koruyarak gelecek kuşaklara aktarılmalı için koruma ve yeni işlev önerileri getirilmiştir.

1. Introduction

Baths built up since the ancient period function as a recreation and sports arena just like a social and cultural center along with being a health, cleaning and bathing space. The bath architecture observed in the Greeks during 300 BC constitutes a basis for Roman Baths due to its spatial and functional characteristics [1, 2].

Public baths functioning as recreation and sports area in Romans were used for a different purpose since bodily hygiene gained importance in line with the Muslim belief. In Muslim baths, privacy became a critical concern and enclosed spaces began to be formed and cells called *halvet* were used to bath. Open and close areas in Turkish baths are smaller than the Roman baths. As a difference from Ottoman baths, since some Roman Baths are bigger, supplementary ignition ovens were put in the basement [3, 4]. Another important difference is while there are pools keeping dull water in Roman baths; Ottoman baths have spaces where circulating water runs through. Still water is kept only in healing waters such as thermals. Water movement was ensured through the bubbles in these healing pools where you may go into after cleaning yourself [2, 5]. Furthermore, facades of Ottoman baths known for their introvert structures are quite simple against the embellished façades of the Roman baths [3, 4].

There are many traditional baths built beginning from the Early Roman period until the Republican period in and around Isparta, bath culture and tradition of which goes back to early dates (Figure 1). However, the majority of them have been deserted and destroyed. Significant preservation problems are observed in those still in use.



Figure 1. Location of Isparta in Turkey and Location of City Center in Isparta

In this work, all bath structures in Isparta have been examined in detail in terms of their architecture and preservation without regarding the construction date. Particularly the baths belonging to the era of Seljuk and Hamitoğulları Principality have major and urgent protection issues. Archive and literature review have been performed; architectural features of the structures have been examined; damages have been evaluated and reasons for deterioration have been analyzed. In the conclusion part, recommendations for protection and new functions have been stated so that these structures will be transferred to next generations by preserving their structural characteristics and individualities.

There is not an academic study discussed in detail about architecture and conservation situations of traditional Isparta baths. In recent years, there is not enough work to growing bath restoration in Isparta and the surrounding. This problem has led to shortage of documentation and restoration. To determine the status of the extant baths originality, typological comparison is required.

2. Material

According to various archives and literature resources the number of baths is located in and around Isparta changes. It is stated in Konya Province Yearbook of 1877 that there were 5 baths in Isparta Center while there were 6 baths according to the Yearbook of 1892 [6]. Karçınzade Süleyman Şükrü [7] noted 7 baths while Böcüzade [8] indicated that there were 6 baths in 1908 [7, 8]. According to Konya Province Yearbook of 1892, there were 11 baths in total; 3 in Eğirdir, 3 in Yalvaç and its villages, 3 in Karaağaç and its villages and 2 in Uluborlu and its villages [9, 10]. From the archives, it is noted that there were numerous baths in and around Isparta, but a few of them have survived until today.

Currently there are 14 baths and 1 thermal belonging to Seljuk and Principalities period in and around Isparta. It is contemplated that 3 of them belong to Seljuks (1060-1308) while 9 of them belong to Hamitoğulları Principalities (1301-1423). Although 3 baths are known to belong to Seljuk and Principalities Period, the exact period could not be determined. These baths are Atabey Municipality Bath, Aliköy Village Bath and Yalvaç Old Bath (Table 1).

Table 1. Anatolia Seljuk and Principalities Period Isparta Baths Of Survived Until Today (Gökarslan, 2014)

No	Name	Period	Date
1	Uluborlu Baltabey Bath	Anatolia Seljuk	1179
2	Gönen Bath	Anatolia Seljuk	1220-1237
3	Uluborlu Karabey Bath	Anatolia Seljuk	1240-1278
4	Yalvaç Old Bath	Anatolia Seljuk / Hamitoğulları P.	-
5	Aliköy Village Bath	Anatolia Seljuk / Hamitoğulları P.	-
6	Atabey Municipality Bath	Anatolia Seljuk / Hamitoğulları P.	-
7	Eğirdir Esmâ Sultan Bath (Dündar Bey Bath)	Hamitoğulları Principality	1307-1308
8	Büyükgökçeli Bath (Büyük Findos Bath)	Hamitoğulları Principality	1314
9	Eğirdir Yeşil Ada Bath	Hamitoğulları Principality	1333
10	Eğirdir Burcu Bey Bath (Yazla Bath)	Hamitoğulları Principality	1333
11	Gökçe (Beydere) Village Bath	Hamitoğulları P.	14. c.
12	Eğirdir - Barla Göçeri İbrahim Paşa Bath	Hamitoğulları Principality	14. century
13	Eğirdir - Barla Çaşnıgir Paşa Bath	Hamitoğulları Principality	14. century
14	Gelendost Avşar (Afşar) Village Bath	Hamitoğulları Principality	14.-15. century
15	Şarkıkaraağaç Aslandoğmuş Thermal	Hamitoğulları Principality	14.-15. century

There are also baths which belonged to Seljuk and Principalities Period, but could not survive today in and around Isparta. 4 Seljuk and 2 Principalities period baths have been determined to have not survived until today according to the literature and archive sources. Sülübey, Uluborlu Emrem, Uluborlu Saraçbaşı and Uluborlu Çelebiler Baths are the baths belonging to Seljuk period (1060-1308) and could not survive until today. Şarkikarağaç Old Bath belonged to Karamanoğulları Principality (1256-1483) while Isparta Keçeci (Hızırbey) Bath (1327-1328) belonged to Hamitoğulları Principality and they could not be preserved until today (Table 2).

Table 2. Anatolia Seljuk and Principalities Period Isparta Baths of Not Survived Until Today [13]

No	Bath's Name	Period	Date
1	Isparta Sülübey Bath	Anatolia Seljuk	1135
2	Uluborlu Emrem Bath	Anatolia Seljuk	-
3	Uluborlu Saraçbaşı Bath	Anatolia Seljuk	-
4	Uluborlu Çelebiler Bath	Anatolia Seljuk	-
5	Şarkikarağaç Eski Bath	Karamanoğulları P.	1281
6	Isparta Keçeci Bath	Hamitoğulları P.	1284

2.1. Locations of the Traditional Seljuk and Principalities Period Isparta Baths

There are traditional baths in Eğirdir, Yalvaç, Uluborlu, Gelendost, Gönen, Atabey, Senirkent and Keçiborlu districts of Isparta along with the city center. Although there is no certain evidence that there are traditional baths in Aksu, Sütçüler and Yenişarbademli districts, oral archives note that there were baths in Aksu and Sütçüler districts. However, no written data could be collected substantiating their presence.

It was determined that the baths belonging to Seljuk Period were generally located in and around Uluborlu district (1060-1308). There is a bath belonging to this period in Gönen district. Furthermore, it is known that there was a Seljuk bath in Isparta city center which could not be preserved.

Capital city of Hamitoğulları Principality which ruled the area during the period of 1301-1423 was firstly Uluborlu, and then Eğirdir district. Therefore, baths belonging to this period were mostly located in Eğirdir district and spread around the area of the principalities' hegemony. There are baths belonging to this period in Büyükgökçeli Town and Gelendost Avşar Town. Furthermore, a bath belonging to Hamitoğulları Principality in Isparta city center and another bath belonging to Karamanoğulları Principality (1256-1483) in Şarkikarağaç district has been determined.

It is considered that other 3 baths, the periods of which could not be determined, were built up around 13th and 14th centuries. Although the construction date of Yalvaç Old Bath is unknown, Nermin Şaman

Doğan [11] claims that the bath belongs to Principalities Period and even 14th century in light of its material and plan typology [11].

Location of the baths was determined according to their distance to the water resource, settlement center; their relation with nearby mosques, madrasahs and public houses as well as in line with the topography. Finding the water to be the resource for baths was considered a business harder than building the bath. Therefore, those who intended to have baths built were not allowed to construct the bath before finding necessary water source [12]. The baths in Isparta city center were provided water from Andık and Beldibi Stream while the baths in Uluborlu district were provided water from Cirimbolu Stream flowing from Kapı Dağı.

Public baths were perceived as significant structures earning income for foundations such as mosques, madrasahs, public houses and fountains. Such profit-making baths became a part of social complexes or a construction element of other foundation structures. Baths of Uluborlu Baltabay, Uluborlu Karabey, Yalvaç Eski, Barla Çaşnıgir Paşa, Eğirdir Esmâ Sultan, Gelendost Avşar Village, Büyükgökçeli Village and Atabey Municipality were established close to the mosques or madrasahs in the city center and earned profits for the foundation structures. Isparta Keçeci Bath which did not survive was built close to Hızırbey Mosque and its madrasa (Figure 2).



Figure 2. Isparta Baths Location in Seljuk and Principalities Period [13]

Market place baths constructed on their own were generally situated close to public spaces and structures in the city center. For example, Aliköy Village Bath is nested with the tomb belonging to an important person for the district people. Currently non-existent Isparta Sülübey Bath is close to the open space of the neighborhood. In the settlement areas with a certain management center, the number of

baths increased as an indicator of power. For example, in places such as Eğirdir and Uluborlu districts, the number of baths increased more as compared to other settlement centers.

2.2. Architectural Features of Traditional Isparta Baths during Seljuk and Principalities Period















General architectural structure of the baths in Anatolia is planned by arranging cold section (*soğukluk*), warm section (*ılıklık*), hot section (*sıcaklık*), water tank and furnace places in order along with a single axis. Except for these parts, some baths have sections such as *taşlık* (entrance, air spoiler) and *aralık* [14, 15]. For reasons such as topography and parcel sizes, dressing section or warm section has been separated from this axis in some baths. However, although dressing section or warm section was planned outside the axis, hot section, furnace place and water tank was always situated on the same axis due to warming technique. There are rooms for cleaning such as shaving and toilet in the dressing rooms or warm section in some baths [16, 17].

Isparta baths during Seljuk and Principalities period are consisted of main spaces such as dressing room, warm and hot section as well as bathing private cubicle. Dressing room is almost lost in certain public baths such as Baltabey and Karabey in Uluborlu, Eğirdir Barla Göçeri İbrahim Paşa and Gökçe (Beydere) baths. There are small spaces for shaving, toilet etc. in baths such as Uluborlu Baltabey, Eğirdir Barla Çarşı, Eğirdir Esmâ Sultan, Atabey Municipality. These small spaces were subsequently built in concrete in Gelendost Avşar, Gönen and Yalvaç baths (Table 3).

The most comprehensive study on typology of traditional baths belongs to Semavi Eyice. In this context, in the works by Semavi Eyice, bath architecture is divided into 6 depending on the temperature and status of the bath type. The classification is as follows:

- With four iwan in cruciform and square cubicles (Type -1)
- With hot section in stellate form (Type -2)
- Private cell type arranged around a square source of heat (secluded from three angles) (Type -3)
- Multi-domed hot room type (heat separated into equally-domed spaces, supported with columns) (Type -4)
- Dual secluded type which have a central dome and heated in width (Type -5)
- Separated into equal rooms with warm and hot rooms (heat from equal spaces) (Type -6) [18].

Table 3. Analyze For Architectural Of Isparta Baths Belonging To Seljuk and Principalities Period [13]

	Name	Architectural Plan	Plan Type	Usage Type	Structure and Material
SELJUK PERIOD	Uluborlu Baltabey Bath		Type 1-b	Single	Rubble stone, cut stone, brick
	Gönen Bath		Type 6	Single	Rubble stone, cut stone, Brick, wood
	Uluborlu Karabey Bath		Type 5	Single	Rubble stone, cut stone, brick
UNKNOWN CERTAINLY	Yalvaç Old Bath		Type 5	Single	Rubble stone, regular cut stone, Brick, adobe brick,
	Aliköy Village Bath		Type 6	Single	Rubble stone
	Atabey Municipality Bath		Type 1-b	Single	Materials used in the construction cannot be determined. (Stone)
PRINCIPALITIES PERIOD	Eğirdir Esmâ Sultan Bath		Type 1-b	Single	Rubble stone brick
	Büyükgökçeli Bath (Büyük Findos Bath)		Type 5	Single	Rubble stone. Cut stone
	Eğirdir Yeşil Ada Bath		Type 5	Single	Rubble stone, regular cut stone, Brick,
	Gökçe (Beydere) Village Bath		Type 5	Single	Rubble stone Cut stone Brick,
	Eğirdir - Barla Göçeri İbrahim Paşa Bath		Type 5	Single	Rubble stone and cut stone and brick has been used.
	Eğirdir - Barla Çarşı Paşa Bath		Type 6	Single	Rubble stone, Cut stone brick Wood
	Gelendost Avşar (Aşar) Village Bath		Type 5	Single Bath	Rubble stone brick
Şarkikaraağaç Aslandoğmuş Village Thermal		-	Single Bath	Rubble stone cut stone	

Isparta and around all the baths from the Seljuk and Principalities have "single bath" plan type. Three of these baths have type-1 plan, three of these baths have type-6 plan and 7 baths have type-5 plan. Şarkikaraağaç Aslandoğmuş Thermal Bath does not enter the class of any plan type.

Uluborlu Baltabey, Atabey Municipality and Eğirdir Esmâ Sultan baths have two cornered cubicles with three iwans hot rooms. It was understood that such bath types existed both at the time of Seljuks and Principalities. Uluborlu Karabey, Yalvaç, Eğirdir Barla Göçeri İbrahim Paşa, Gökçe (Beydere) Village, Eğirdir Yeşil Ada, Büyükgökçeli Village and Gelendost Avşar Village baths are central domed, with heat in width and double cubicle plan. It was understood that such bath types existed both at the time of Seljuks and Principalities. Aliköy bath was constructed to provide equal heat in equal warm and hot rooms. Gönen and Eğirdir Barla Çarşı Paşa baths are also included in this plan despite complying with the rules partially. In these baths, there is pass through a square heat in

the middle of the oblong warm section to two cubicles on the right and left which are in equal size. The plan type peculiar to these baths are observed only in Seljuk period (Table 3).

Introvert façade character of the traditional bath architecture which is closed to outside be also observed in the public baths belonging to Seljuk and Hamitoğulları Principality periods in and around Isparta. Lightening is provided via a coverage system mostly; no façade openness is encountered except several windows in the dressing section. Doors are generally small, narrow and low in order to keep the heat inside. There are rubble walls ordered regularly and irregularly on the façades in the baths with genuine architecture. Straight cut stones are also used at the end of the corners of the structure. Doors and windows are covered with bricks or stone (Table 3).

Warm and hot sections as well as cubicles are generally square shaped and covered with a dome. In some baths such as Uluborlu Baltabey Bath, there are two vaults aside the dome in heat sections with central dome structures. In such types of baths, warm sections are rectangular and covered with pointed vaults. Dressing sections are built with timber, in rectangular form and covered with ballast roof. Vault, pendant and Turkish triangle was used as transition elements to the dome. There are embroideries on the transition parts such as quillwork (Table 3).

Rubble stone, cut stone, brick and mixed materials were used in the baths in and around Isparta. Rubble stone was used regularly and irregularly to build the walls. Cut stone was used in the corners of the façades generally, in furnace arches, door and window lintels at times. Brick was used mostly in the establishment of the coverage system such as arches, domes and vaults of the public baths pertaining to Seljuk and Principalities period. The use of mixed materials also attracts attention in the baths in and around Isparta. Mostly decorative mixed materials were used. Mixed materials can be seen in the façade, warm section, dressing section and pool sprinklers. The basins in the cubicle of Barla Çaşnıgir Bath were formed by carving the internal parts of the column heads (Table 3).

While there are many examples of basins and water-tanks with fountain preserved until today in Isparta baths belonging to Seljuk and Principalities Period, originals of the decorative elements such as heated marble platforms and vapor yashmaks (Table 3).

3. Methods

In this study, firstly archive and literature scanning, secondly on-site due diligence, photography, tabulations for better understanding of obtained data, methods are used

To tabulations, architectural features of traditional Isparta baths are examined, these baths' current preservation circumstances analyzed, are discussed in two different ways as survived and not survived today. Extant baths (survived) plan typologies are classified according to Semavi Eyice study. These typologies are compared period determination. Conservation situations are observed and corruptions reasons are identified.

In accordance of all these methods, solution recommendations are brought for conservation and transfer to next generations of traditional Isparta baths. Finally reuse recommendations are made.

4. Problem

It has been determined that the number of Isparta baths pertaining to Seljuk and Principalities Period is 21, but only 15 of them survived until today. 3 public baths pertaining to Seljuk Period are not in use and is in ruins. 5 baths and 1 thermal pertaining to Hamitoğulları Principality were destroyed for various reasons such as wrong attachment and restoration works. Among the baths of this period, only Eğirdir Esmâ Sultan and Büyükgökçeli Baths still carry out their functions. Büyükgökçeli Bath is used only in winter. Yalvaç and Gökçe Village Baths, among the baths whose period is unknown, are in ruins. Atabey Municipality Bath was destroyed for several reasons in a couple years ago and closed by municipality decisions despite being still in use. Aliköy Village Bath, on the other hand, was not used for years due to the tomb nearby and was not taken care. This bath became a place visited for its fountain to have the bride, bridegroom or circumcised boys drink water before the celebrations.

The factors leading to destruction in the historical structures have been classified under the two headings being internal and external by Zeynep Ahunbay. External factors are the location of the structure (located in a sink, uphill waterfront etc.), prolonged natural factors (wind, frost etc.), natural disasters (flood, typhoon, landslide, earthquake etc.), human factor (abandonment, misuse, wrongful repairs, fires, wars, vandalism, public works, tourism, air pollution, traffic). Internal factors are structural errors (nature of the construction technique), wrong material use, poor labor and use of detail as well as the nature of the material and construction technique used [20]. It has been determined that the baths analyzed under the scope of the work were destroyed by external factors emerging from human activities. Particularly, negligence, abandonment, abuse, wrongful repairs, vandalism, public works were reasons for the destruction.

One of the reasons for destruction in baths is natural climate conditions lasting long. The plaster made up of natural stone or brick eroding in time due to

constant rain, snow and wind lead to the collapse of the material after being disintegrated. Moisture from the basement and rain from the roof causes dampness and mosses on the walls, roofs and fringes. Additionally, blossoming was observed on the walls of some baths. Nearly all of the dressing sections structured in timber were demolished or destroyed. Doors and windows made of natural wood decayed due to long lasting unfavorable weather conditions. Water pipes in metal and copper boilers rusted due to negligence. Od stone in the burner channels which are specially designed in public baths decayed due to long-term heat. It was observed that there were no destructions depending on the internal factors of the structures (Table 4).

Unconsciousness of the public is one of the most important factors triggering destructions in the historical buildings. This is one of the major problems of Isparta baths which are located in the country and are not in use. These baths are used for wrong purposes such as warehouse, store, toilet and garbage rooms. For example, residents around Gönen Bath use the place as straw warehouse and toilet whereas Eğirdir Yeşil Ada Bath which is considered to belong to 19th century is used as garbage store by the nearby hotels and restaurants.

The baths still functioning are observed to have been subjected to wrong and additional repairs. Eğirdir Esmâ Sultan and Büyükgökçeli Baths are illustrative examples of this issue. It has been noted that the adjunctions of Esmâ Sultan Bath which were removed during the restoration of the bath were concrete, were not consistent with the natural stone material of the structure and led to heavy weight and therefore caused fractures. The bath adjunction constructed over the original part of Büyükgökçeli Port weighted heavy and is a burden on the carrier system of the bath. Concrete separator elements added to Yalvaç, Gelendost Aşar, Gönen and Atabey Baths caused the destruction of the unique plan scheme of the bath. Since the repair with original materials and techniques is difficult and expensive, using concrete based materials is more favorable for the property owners.

Another destruction factor for baths is the change of heat and water facilities peculiar to the public baths. Heating system in traditional baths starts with firing the furnace with wood. After the furnace is lit, the heat is dispersed to all other spaces except dressing section through the channels called *cehennemlik*. After the sections are heated via *cehennemlik*, the heat emerges out of the pipes called *tüteklik*, thus extracting pressure. Furthermore when the furnace place is lit, the copper boiler is also heated in the water tank and the basins are sent clean, warm water through the pipeline [17]. Since the principle of firing the furnace is difficult and trees must be cut down, the use of this method is gradually becoming less and

central heating is used instead of this traditional heating system [19]. *Tüteklik*s may be damaged during the repairs in some baths. This creates a great risk of pressure, which may cause explosions. While in traditional baths clean water runs through the taps over the clean water basins, dirty water flows with a light slope where the platform intersects with the upholster to hot section, cubicles, warm section and then to the toilets via conduits. Since these conduits were covered or left with dirt in them, the pipeline leads to breakdowns in Isparta baths. The basin and tap which are other structural elements of the public baths are replaced with new ones which do not comply with the relevant period.

Although restoration works for these historical places are partially funded by various corporations and institutions, these funds are not enough. Restoration works cost a lot to afford. For this reason, an efficient construction site and application cannot be provided without the support of the local and general management. It is obvious that the baths belonging to Seljuk and Principalities periods in Isparta need restoration. On the other hand, these baths are idle due to economic barriers

5. Conclusion

According to the in site determinations and analysis of destructions, traditional Isparta baths must be immediately put under protection. For this reason, legal statutes of these structures have been reviewed.

According to this research, although the number of Seljuk and Principalities period baths is 15, 10 of them have been registered. Among these registered baths, the building surveys of only Eğirdir Esmâ Sultan bath and Yalvaç bath were prepared in 2010 and 2008 respectively; then restoration projects were drawn. Only Eğirdir Esmâ Sultan Bath is under restoration. The figure of 2/15 indicates the protection problem of Isparta baths (Table 5). Unregistered 5 baths must be immediately registered.

Baths of Seljuk and Principalities period in and around Isparta belong to foundations, municipalities and the treasury. There are not privately held baths. Therefore local and general administrations take care of the protection of these baths. Local administrations must be supported by the government. Restoration works should be initiated with the support of various corporations and institutions subsequent to the search of funds. Then, the works to document in detail develop protection recommendations and find re-use solutions must be conducted under the scope of the protection of these baths.

Documentation is the first and most important step to protect the bath architecture along with its unique characteristics. There are inventory slips prepared

for this purposes by the Boards of Protection of Cultural Properties. However current inventory slips fall short to collect the data for the protection of the baths. Information such as heat, water and lightening systems pertaining to the baths must be added to the slips. Moreover, a database must be formed for the description of these baths. Thus both protections will be provided and their introduction will be achieved.

Conservation Recommendations

Fundamental approaches in protecting historical structures are divided into five: reinforcement, reintegration, reconstruction, cleaning and moving activities. Reinforcement is divided into three: reinforcement of the material, supporting system or basement. Various special compounds are used to reinforce the materials. Intersection enlargement and sheathing, supporting and underpinning, circumscribing and connection bars-strainer works are performed. The basement of the structure is enforced with injection in order to support the basement. The construction and construction elements partially or entirely damaged are completed through original materials and structure system to form unity in the first design. This work based on real structural data and documents is called replenishment. Rebuilding the structures which have demolished, been destroyed or are in ruin based on the current documents and data is called reconstruction. It is preferred in the most special cases. Cleaning is divided into three: cleaning from the accessories, adornment and façade cleaning. "Moving" is preferred when the structure cannot be protected in the region where any historical structure is located and therefore it is considered that it will be demolished [20].

We encounter with problems emerging from the comfort issues of today as per some historical structures. Facility change or addition to the structure damages the structure [21]. On condition that the heat and water facilities of the baths provide necessary comfort, the baths must be preserved in their original form.

Given the current status and deterioration varieties of Isparta baths today, it is noted that the baths are subject to various damages in terms of their structure, plan and façade.

Since the majority of the baths in Isparta pertaining to Seljuk and Principalities Period is in ruins, integration and reinforcement applications are needed in these structures. Façade cleaning must be performed in the baths not used for a long time or the baths, the walls of which are covered with plaster. Since wrong attachments to the structures such as Esmâ Sultan, Büyükgökçeli and Gelendost Avşar Village baths will damage the structure, baths should be cleaned of these attachments. Furthermore, the

concrete division elements in Gönen and Yalvaç baths must be removed. Structures such as basin, water tank with fountain, pool and terrace constructed with mixed materials must also be conserved (Table 5). If the baths are protected along with the mosques, madrasahs, public houses, schools which were important for the period they were built up as foundation, they will be the areas which have more cultural and touristic value in the entire city. To be the basis for cultural and touristic visits to these areas, the operators of the baths and the local government institutions such as Culture Administration must issue brochures and catalogues and advertise these places.

Reuse Recommendations

Continuity of the original function of the bath architecture for reuse or assigning new functions to them depends on the needs in the relevant region. Almost all baths in Isparta are located close to the center of the settlement. Therefore it is advisable to use them for their original purposes.

In the baths for which new functions are considered to be applied should be restored in a way not to damage their original function. Moreover these should be opened for use for activities such as culture, art and education instead of heavy functions. Contemporary attachments must be realized without damaging original function, material and form of the baths.

In this study, we think that all baths in Isparta except Baltabey and Karabey in Uluborlu should continue to carry out their original functions. Baltabey and Karabey Baths are located in the area called Old Village of Uluborlu district and they are far away from the settlement center. As the fountains and antique city along with Baltabey Bath may form a touristic and cultural area, it is considered that the bath may be assigned new functions covering cultural activities. Due to the special condition of the Aliköy Village Bath in line with the traditions of the local people, the bath should be preserved along with the tomb (Table 5).

21 baths were constructed in Isparta and its districts during Seljuk and Principalities period; 15 of these baths survived until today and only 10 out of 15 baths were registered. As per their status of protection, 6 of them is in good condition, but was changed a lot. The remaining baths are in ruins. Strength of these structures is at risk. Given the deterioration condition of the baths, it has been determined that they were damaged due to external reasons. Human intervention is the most striking factor among these reasons.

These baths, which are very old as per the periods they were constructed, must be registered, put under

protection and restored. Heat, water and lightening systems peculiar to these structures must also be taken into consideration in the preparation of the inventory slip necessary for registration. For this reason, inventory slips which are special to the baths must be arranged. Furthermore, seminars and conferences must be organized to inform the local people about the bath culture and tradition. These activities will help the people to protect the baths and obtain public support. The bath architecture which is the focus of interest for domestic and foreign tourists is among the most important structures to contribute to the city both in terms of culture and touristic value. Within this framework, in addition to the restoration works, publications explaining the architecture, tradition and culture of Isparta baths must be issued to inform local people and foreigners

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Table 4. Deteriorations Reasons of Isparta Baths Belonging To Seljuk and Principalities Period (Gökarslan, 2014)

No	Bath Name	External Reasons							Internal Reasons			
		Abandonment	Vandalism	Improper Uses	Squalidly	Wrong Repairs	Public Work Effects (Bayındırlık)	Intentional Destruction	Climatic Conditions	Ground Conditions	Structural Design Failures	Material Usage
1	Uluborlu Baltabey B.	X	X						X	X	X	X
2	Gönen B.	X	X	X	X				X		X	X
3	Uluborlu Karabey B.	X	X						X	X	X	X
4	Yalvaç Old B.	X	X						X		X	X
5	Aliköy Village B.	X		X	X	X						X
6	Atabey Belediye B.	X		X	X	X			X		X	X
7	Eğirdir Dündar Bey B.				X	X	X				X	X
8	Büyükgökçeli B.			X	X	X			X	X	X	X
9	Eğirdir Yeşil Ada B.	X	X	X	X	X	X				X	X
10	Eğirdir Burcu Bey B.	X						X	X		X	X
11	Gökçe Village B.	X	X	X	X				X		X	X
12	Barla Göçeri İ. P. Bath	x	X	X	X				X	X	X	X
13	Barla Çaşnıgır P. Bath	X	X		X	X			X	X	X	X
14	Gelendost Avsar Bath	X		X	X	X			X		X	X
15	Ş. Aslandoğmuş Bath	X		X	X	X			X		X	X

Table 5. Analyze For Protection of Isparta Baths Belonging To Seljuk and Principalities Period (Gökarslan, 2014)

No	Name	Possession	Registration Status	Physical Condition	Damage Condition			Protection Recommendation	Region Needs	Recommendations for Use
					Plan	Facade	Structure			
1	Uluborlu Baltabey Bath	Treasury	Registered	In ruins	X	X	X	Reinforcement, reintegration, façade cleaning.	It was in the Old Village and is far away from the current settlement center. A touristic culture sphere can be formed with nearby madrasah, mosques, Karabey Bath, historical fountains and antique city.	It may be used as a culture center or Uluborlu Museum.
2	Gönen Bath	Gönen Municipality	Registered	Part of bath were demolished.	X	X	X	Reinforcement, reintegration, façade cleaning, decoration cleaning	The local people needs bath.	It is recommended that the bath is restored and used as bath due to the needs of the public and its closeness to the mosque.
3	Uluborlu Karabey Bath	Treasury	Registered	In ruins	X	X	X	Reinforcement, reintegration, façade cleaning, decoration cleaning	It was in the Old Village and is far away from the current settlement center. A touristic culture sphere can be formed with nearby madrasah, mosques, Baltabey Bath, historical fountains and antique city.	It may be used as a culture center or Uluborlu Museum.
4	Yalvaç Old Bath	Yalvaç Municipality	Registered	In ruins (at the stage of Restoration)	X	X	X	Reinforcement, reintegration, façade cleaning, decoration cleaning	The local people needs bath.	It is recommended to be used as bath. A restoration project has already been prepared.
5	Aliköy Village Bath	People lives in Aliköy Village	Unregistered	Strong (subjected to alterations)	X	X	X	Reinforcement, Cleaning from adds, façade cleaning, decoration cleaning	It is a significant structure due to the believes of the local people. Both the tomb and the bath must be restored in line with the requests and needs of the people.	It is recommended that the bath should be restored together with the tomb in accordance with the believes of the local people and used as a religious place.
6	Atabey Belediye Bath	Atabey Municipality	Unregistered	Strong	X	X	X	Reinforcement, Cleaning from adds, façade cleaning	The other two baths were demolished. It has been observed that it is the single bath in the region and open to public use.	It is recommended that the bath is used as bath due to the needs of the public.
7	Eğirdir Esmâ Sultan Bath	Eğirdir Municipality	Registered	Strong (at the stage of Restoration)	X	X	X	Reinforcement, façade cleaning, cleaning from adds, decoration cleaning	Restoration of the bath which is located in a touristic region continues.	It will be used as bath.
8	Büyükgökçeli Bath	Büyükgökçeli Municipality	Unregistered	Strong (subjected to many alterations)	X	X	X	Reinforcement, reintegration, façade cleaning, cleaning from adds, decoration cleaning	It is observed that the bath is mostly used in winter by the local people.	It is recommended that the bath is restored and used as bath due to the needs of the public.

9	Eğirdir Yeşil Ada Bath	Yeşil Ada Society	Registered	In ruins	X	X	X	Reinforcement, reintegration, façade cleaning, cleaning from adds, decoration cleaning	Yeşil Ada's elderly population they want to use the bath. In addition, many domestic and foreign tourists coming to the island attracts the attention.	It is recommended to use as a bath because of the needs of the public and tourism.
10	Eğirdir Burcu Bey Bath	Culture Ministry	Registered	In ruins	X	X	X	Excavation, Conservation, Modern Addition	Eğirdir is a tourist district. This bath ruin is spinning, with other sightseeing spots can create a culture route.	It is ensured the conservation with a contemporary upper cover. This area is identified as a touristic culture area.
11	Gökçe Village Bath	Gökçe Village	Unregistered	In ruins		X	X	Reinforcement, reintegration, façade cleaning, decoration cleaning and moving.	The local people needs bath.	It is recommended that the bath is restored and used as bath due to the needs of the public and its closeness to the mosque which is 70 meters.
12	Eğirdir - Barla Göçeri İbrahim Paşa Bath	Barla Municipality	Unregistered	In ruins		X	X	Reinforcement, reintegration, façade cleaning	It is located in a place which was close to the settlement center of Barla Village, but not it is distant from the center which is not much preferred by the local people. Due to religious significance of the place, another bath is also needed	Since the local people earn their lives from religious tourism, it is recommended that this bath should be used as bath and restored together with other structures nearby.
13	Eğirdir - Barla Çarşın Paşa Bath	Barla Municipality	Registered	In ruins		X	X	Reinforcement, reintegration, façade cleaning, decoration cleaning	The local people needs bath.	The structure is a part of the traditional street along with the mosque and touristic houses. It is recommended that the bath should be restored and used as bath due to the local people's needs and its closeness to the mosque. Its use as a bath will attract the attention of local tourists.
14	Gelendost Avşar Village Bath	General Directorate For Foundations	Registered	In ruins	X	X	X	Reinforcement, cleaning from adds, façade cleaning, decoration cleaning	The local people needs bath.	Due to the requirements of the local people, its façade to the open area and closeness to the mosque, it is recommended that the bath should be restored and continue to be used as bath. Furthermore, the structure adjacent to the bath should also be restored so that both of them will have been preserved.
15	Ş. Aslandoğmuş Village Thermal	Aslandoğmuş Village Mukhtar	Registered	Strong (subjected to many alterations)	X	X	X	Reinforcement, façade cleaning, decoration cleaning	This thermal must be immediately restored since it is considered that it will provide both cure and economic income with the people.	It is recommended to be used as thermal.