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WATER CULTURE IN ANATOLIA

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SUMMARY – This work provides a review of the cultural heritage related to water infrastructures in Anatolia region. The paper is focused on the historical data regarding the construction of first dams, aqueducts, irrigation canals, water conveyance systems, cisterns and fountains. Most of these infrastructures belongs to the ancient periods starting from several Centuries B.C.. Furthermore, the importance of water in the tradition and culture of Anatolia region throughout the history of civilization has been underlined.

Key words: water culture, old water infrastructures, Anatolia.

INTRODUCTION

Land, air, fire and water are four elements that marked the start of the universe. Three of these four essential elements making biological life possible owe their existence to the fourth one that is water. Thus water has been valued as a sacred endowment at all stages that mankind has passed in terms of social, economic and cultural development. Creeds and cultures have flourished nearby water.

In Anatolia too, where innumerable civilizations emerged throughout history, water gave life to various cultures and creeds and created a unique richness. Many beliefs found their ways in this land and displayed their respective rituals. In these rituals, water was regarded as sacred with its connotations to “power”, “fertility” and “well being” and also as a means to spiritual catharsis.

In Sumerians, one precious marble in the rich cultural mosaic of Anatolia, the universe had its integrity as compound of sky, land and water and among these water was conceptualized as worshipping medium for the other two. The Hittites also saw water as the origin of life and constructed their open-air temples in such locations as Eflatunpınar and İvriz where water resources were abundant. Sea, river, lake and water spring were all symbolized by the antic Greek culture as gods and goddesses and legends attributed to these elements of the nature reached our times albeit with some modifications. Beautiful Nereids symbolizing sea waves; Aphrodite, the symbol of love and beauty, in an oyster shell brought to the shore by foaming waves; the Nymphs living in freshwater sources like springs, rivers and fountains and Oceanus and Poseidon, the rulers of high seas are some examples from the classical period. Today Anatolia rooms in many architectural structures dedicated to these gods and goddesses.

Other than these legendary beliefs surviving from the ancient past, such celestial religions as Islam, Christianity and Judaism could also flourish in Anatolia.

As the symbol of abundance, fertility and well being, water is highly praised in Islam as source of life. Examples include the water of life drunk by the legendary Hızır for immortality and the river of Abikevser where Moslems bath on their way to heaven. Furthermore, special prayers as well as water brought to homes from various springs during *Hidrellez* mark the abundance and fertility that water brings to human beings. Moslem saints were believed to use their sticks to bring up groundwater where no surface water source existed. Given this high appraisal of water, it is not surprising to hear such common sayings as “be as sacred as water” come across many finely constructed fountains remaining from the Ottoman period.

The Christianity appraises water in its rituals including baptizing that signifies rebirth following purification. Within the framework of deep-rooted beliefs and traditions cherished by Anatolian civilizations, water has found its prominent place in many fields including architecture, literature, plastic arts and music. From the Hittites to the Ottoman period, successive civilizations in Anatolia

constructed cisterns, dams, aqueducts and fountains to ensure efficient use of this precious resource.

DAMS

The oldest dam in Anatolia is Karakuyu, which was built by the Hittites during the late 2nd century B.C. The remains of this dam suggest that the facility was used to irrigate Uzunyayla area. Another interesting facility dating back to the Hittites is the water spring reservoir in Boğazköy. Gölpınar dam near Boğazköy and a small water reservoir in Eflatunpınar near Beyşehir are also believed to date back to the time of the Hittites (Öziş, 1994)³. A rock inscription testifies the existence of another dam constructed by the Urartu (during the reign of Rusa the Second, 685-645 B.C.).

The port of Seleukeia Piara to the north of river Orontes was established by the Syrian king Selefkus in the period 350-280 B.C. and this port maintained its importance throughout the Roman period. The port, however, was silted by material carried by streams coming down from the Mountain of Moses in the second century A.D. The port was restored by constructing a 700-meter long canal through a rocky area to change the riverbed (Öziş, 1994)⁴.

The first of three dams constructed in Dara near Mardin during the reign of Justinianus (527-565) is known as the oldest arch-type dam in the world. The Löştüğü dam near Amasya is also believed to date back to the Byzantine period.

The Topuz Dam (İstanbul) built in 1620 is one of the dams feeding Kırkçeşme water facilities. The Topuz Dam is considered by experts as one of the first vertical vacuum pillar dams ever built in the world (Öziş, 1994)⁵.

Land-filled dam near Anadoluhisarı and Şamlar dam in Küçükçekmece are facilities built during the late Ottoman period.

IRRIGATION CANALS AND WATER CONVEYING SYSTEMS

Many dams, water reservoirs and irrigation canals from the 1st century B.C. up to today have brought fertility to Van and its surroundings. Facilities phased in during the Urartu period, which is known as the "Hydraulic Civilization of Western Asia", were significant both in terms of their technology and in orienting local communities to farming (Beli, 1997)⁶. The Menua (Semiramis/Şamran) and Ferhat were two important irrigation canals used by the Urartu. Water originating from a source locally known as "Semiramis/Şamran) water the Gürpınar plain by two canals leading, respectively, to west and north. The most interesting feature of this 51 km long Semiramis/Şamran canal is that it passes over the Hoşap stream that flows to Lake Van. The Ferhat Irrigation Canal, another interesting specimen of water engineering by the Urartu waters farmlands around continuously for 2700 years. It is the finest of many canals bringing water to farmlands from a large freshwater source. The canal starts from the southern edge of Balık Lake and finds its way through rocks. Its first construction is estimated to be around 7th century B.C.

Water facilities in Bergama comprise 8 aqueducts belonging to the Hellenistic, Roman, Byzantine and Ottoman periods. The aqueduct in Madra Mountain, dated as the first half of 2nd century B.C., bears significance in terms of water engineering.

It is known that around 500 B.C. water was brought to the vicinity of Artemis Temple in Ephesus through a reverse siphoning system. The Pranga waterway is another conveyance system supplying water to Ephesus.

The antic city of Perge had its water from two aqueducts (one coming in from northwest and the other from west) dated as 1-3 centuries B.C. other remains in this antique city include spring pooling

³ Prof. Dr. Ünal ÖZİŞ, 1994, s. 32

⁴ Prof. Dr. Ünal ÖZİŞ, 1994, s. 103

⁵ Prof. Dr. Ünal ÖZİŞ, 1994, s. 124

⁶ Prof. Dr. Oktay BELLİ, 1997, s. 7-32

systems, cisterns and outlets for wastewater.

The Aspendos Acropolis (2nd century B.C.) had its water from a canal connecting it to Gökçeşinar 17 km to the northwest.

Aqueducts in Side as finest examples of antique architecture and hydraulic engineering are dated as belonging to the early 2nd century B.C. The water problem of antique Side was solved by water conveyance systems connecting the city to Manavgat stream at a distance of 30 km. This water abundance enabled the city to enjoy the presence of monumental fountains, pools and baths.

The antique Samosato water way (3rd century B.C.) starts from the slopes of Mount Kalayun to the south of Kahta brook and to the western bank of the Euphrates and reaches this antique city. These facilities now remain under Atatürk Dam Lake.

There is not much information relating to water facility architecture in the Seljuk period. Yet there is a water canal (1179) feeding a water mill near a bridge built on Haburman stream. Now remaining under Aslanapa Dam Lake, there used to be another water facility providing drinking and irrigation water to the city of Konya. Information derived from old foundation records testify to the existence of another facility now remaining under Sille Dam Lake.

Kırkçeşme water conveyance system constructed by the Roman Emperor Theodosius (379-395 A.D.) is one of the three significant waterways serving to the European part of İstanbul. After restorations introduced in Cebeciköy during the reign of Fatih Sultan Mehmet, a part of water was diverted to fountains under Bozdoğan Aqueduct. "Kırkçeşme" (forty fountains) derives from these fountains. During the reign of Süleyman the Magnificent, 33 aqueducts were constructed to mitigate then existing water shortage in the city.

In Üsküdar (Scutari) many civilian, military and religious premises were provided water through 16 independent conveyance systems built during various periods. These water facilities are fed by springs existing on the slope of Çamlıca hills.

The Taksim water system dating back to 1731 is 23 km long. The facility has 3 water reservoirs (Topuzlu, Valide and Sultan Mahmut). During the 18th century, the facility was supplemented by what was called "Hamidiye water way" that was used mainly for drinking water supply.

It is accepted that Taşlımüsellim (Edirne) water conveyance systems were built by Mimar Sinan. Lines start from the villages of Sinanköy and Taşlımüsellim and reach Edirne after they join around Küçük Düllük village.

CISTERNS

Cisterns used for storing water exist in many Anatolian towns. Some of these cisterns can be found in antique Greek cities. Interesting examples include those in Termessos, Sillyon, Kyaenai, Trysa, Kbyra and Selge. Aetius I, Aspar II and Hagios Maikios in İstanbul are cisterns dating back to the Byzantine (5th century A.D.) Basilica, Forum Constantini and Philoksenus cisterns are other significant water storage facilities also dating back to the Byzantine.

FOUNTAINS

Fountains stand as uniquely fine examples of water facility architecture with their styles and embellishments. For cities, fountains also had significant decorative value from the antiquity up to the Ottoman period. Important examples include fountains (Nymphaeums) in such antique settlements as Ephesus, Bergama, Side, Aspendos and Sagalassos. Fountains dating back to the time of the Seljuk were mostly components of larger architectural complexes. Water architecture in Anatolia was further enriched by Ottoman fountains and other water structures that are extraordinarily rich in terms of their architectural design and embellishments.

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