

## A FANTASY IN CENTRAL ANATOLIAN ARCHITECTURAL HERITAGE: DOVE COTES AND TOWERS IN KAYSERİ

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Central Anatolia is well-known mostly for its natural landscape, and especially Cappadocia's volcanic chimney-like structures that create a dreamlike atmosphere by blending nature with history in a dramatic fashion. These structures housed many people for millenniums, and are still in use today. Less is known however, about another type of landscape just neighboring the Cappadocia region. Hundreds of large tower-like stone structures are scattered around the landscape just outside the town of Gesi, in Kayseri, Turkey; they are dove cotes, reflecting an ancient tradition of Anatolia. In this article, we would like to describe this interesting landscape, and examine these structures mainly from an architectural point of view.

### VOLCANOES, TUFA ROCKS AND ROCK-HEWN SPACES OF CENTRAL ANATOLIA

Volcanoes in central Anatolia and the tufa rocks they had erupted are the main causes of interesting land formations as well as the creation of underground spaces. Landscape often resembles that of a lunar one, especially in Cappadocia, and underground spaces are fascinating surprises for those who visit the region for the first time. Such spaces range from simple caves, dove cotes and animal shelters to dwellings, churches, monasteries and even underground cities. Since tufa rocks are relatively soft, they are easily hewn and can be turned into a room or a house, a storage space, a barn or a public hall. They are generally combined with traditional stone masonry structures in front or nearby to fit to the surrounding fabric.

Dove cotes or pigeon lofts were inseparable parts of such landscapes for long periods of time, be it near the villages of Cappadocia or towns like Ürgüp, Göreme, Uçhisar; in valleys like Ihlara, Derevenk or Salkuma, the cliffs or ridges of hills are all filled with dove cotes. Such cotes on high

elevations helped doves to nest and populate in safety and in turn they produced lots of manure, which accumulated on the hillside grounds to be collected and used as fertilizers in local vegetable fields and vineyards.

The historical city of Kayseri had a belt of vineyards and orchards around it. Native people used to – and some of them still do – move to these areas during summers, spending four to five months (İmamoğlu, 2001). This belt includes some villages as well as scattered summer resort houses within vineyards, distributed in a large land; on the northern skirts of Mount Erciyes (Argeus) and higher elevations in other directions.

Depending on the suitability of the land one may come across dove cotes and dove towers in these summer resorts. Talas, Tavlusun, Derevenk, Gesi, Efker, Darsiyah, Nize, Mancusun, İsbidin, Vekse, and Ağırnas all have such structures created in different time periods.

People in such locations throughout history have been keeping and breeding doves and other kinds of birds. Doves, besides their peaceful nature, provide feather and meat for people, kill insects that are harmful to crops, fertilize the ground and especially vineyards, vegetable and melon fields. Hence, they contribute to sustain the ecological balance within the regions they live.

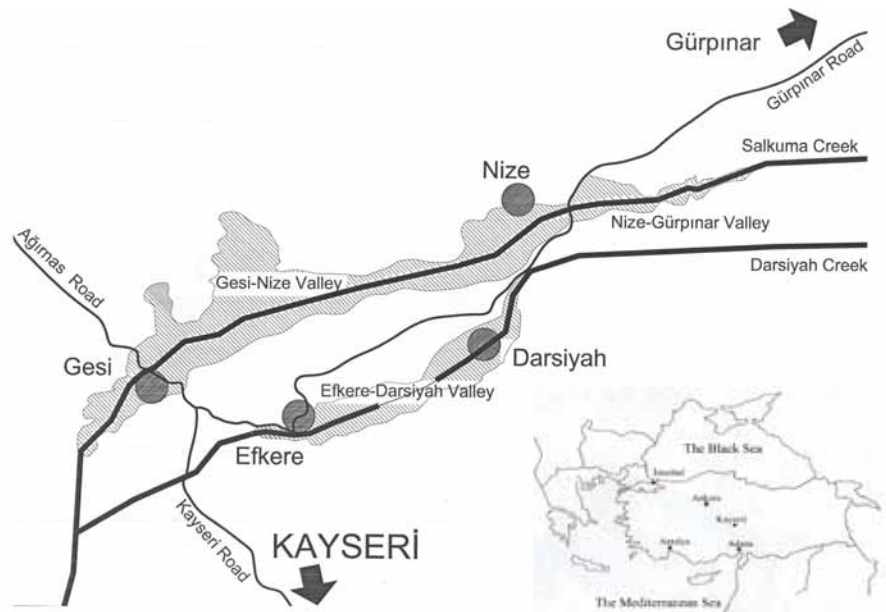
Doves and other birds, like in many other regions, attracted the attention of people in Asia Minor for ages. Breeding and feeding them sometimes went far beyond a hobby and became a full-time occupation for some (İmamoğlu, 2001). This habit or custom engaged quite a number of people and influenced their aesthetic values, extending the dimensions of love and interest into other creatures. Today, although it is not as popular as it used to be, bird-keeping and racing still survive in Şanlıurfa and Kayseri like in many other towns in Turkey and in other countries. In Şanlıurfa, for example, some doves are considered very valuable; they are lovingly looked after, and their ankles are dressed with pearls and golden rings. They live in specially built birdhouses created on the higher elevations of dwellings. Although their function as mail or message deliverers has disappeared, dove races and training still attract considerable audience as an important social, cultural and sportive event in the locality.

Another interesting dimension related to birds in Anatolian culture is the use of miniature birdhouses built on street fountains, mosques, madrasas, inns, libraries or house facades. These are tiny, decorative kiosks located in a strategic position on the walls providing shelter for birds. They are colourful expressions of love and affection people feel for birds since very early history (Akay, 2004; Altıntaş, 2001; Barışta, 2000; Önge, 1977).

#### THE AREA AROUND THE TOWN OF GESİ

Valleys formed by creeks in central parts of Anatolia seem to have offered suitable environments for ancient settlements. Two such valleys nearby the town of Gesi accommodate a number of villages surrounded by hundreds of dove cotes (**Figure 1**). Salkuma Valley in the east of Gesi seems like one of the most attractive valleys in the region. It is a tiny canyon created by Salkuma Creek springing from Gürpınar village and ending at the northern border of the town of Gesi. It is about 10 km long and since it is sunken, it cannot easily be perceived when travelling on the large plain of the peninsula. It houses several villages, vineyards, orchards, vegetable fields, stone quarries as well as ruins of monasteries and watermills. The second, Efker Valley, is located on the west of Gesi,

formed by Çayırşuyu, which also sprung from Gürpınar village. This valley is located between the villages of Darsiyah and Efkere and is comparatively shorter in length. A dam was recently constructed near



**Figure 1.** Gesi region and its location in Turkey.

Efkere to collect the water of Çayırşuyu creek, which created a human-made lake used both for irrigation and recreation.

Population loss is a common problem for the region, as in other rural areas in Anatolia. Although their population is constantly decreasing, most of the villages preserve their authentic built environments: Narrow, undulating streets formed by one or two level courtyard houses, shops, bridges over the creek, street fountains in the intersection points of roads, mosques and churches next to each other in public open spaces. Because of a mild microclimate created in the canyons, temperature and humidity are quite favorable all along the valleys. In addition to this, the ground is very fertile. All these factors have led to a beautiful environment: fauna and flora are impressively rich, and dense greenery dominates the area. Different kinds of birds, cats, rabbits, foxes populate the valleys. As for the flora, many kinds of flowers, as well as big fruit trees, – apricots, almonds, cherries, apples, and pears – majestic walnuts, poplars and pine trees are around. Thick vegetation covering the ground helps to create a pleasant and peaceful atmosphere. The history of the settlements in Salkuma and Efkere valleys is also impressive which may be traced back to several millenniums and of course, this makes the valleys quite attractive for archeological, anthropological and architectural studies.

The town of Gesi is 20 km away from Kayseri and has a population of 9000. Upon approaching the town, there is an intersection of roads; left turn leads to Gesi, right turn to a hilly ground that turns into a fascinating landscape; at first a few, then dozens of large tower-like stone structures are seen. These are the upper parts of underground caves each of which accommodates hundreds of dove nests (**Figure 2-4**). They are in different forms and sizes, scattered in the undulating landscape; at the lower and upper sides of the road, on the slopes of both sides of the valley and at the bottom. These towers have square, rectangular, circular or ellipsoidal base



**Figure 2.** Small dove towers with doves on them.



**Figure 3.** Dove towers spread in the landscape..

plans (**Figure 5**), good workmanship, and strong architectonic expressions. Their forms resemble the fairy chimneys of neighboring Cappadocia region, but they have well-finished geometric shapes. Though lower in height, they remind one of the towers of San Gimignano and Bologna in Italy; those in villages in Peloponnesus, like Vatheia; and settlements in valleys like Svanetia in the western Caucasus, as well as, those in Yemenite towns (Rudofsky, 1964). Rudofsky provided photographs of mudbrick pigeon towers at Lindjan, near Isfahan, Iran, as well as pigeon cotes in the Nile valley (Rudofsky, 1964). Bourgeois reported that there were around 3000 pigeon towers around Isfahan, Iran at the beginning of the 18th century, some of which still exist. Those were massive mudbrick structures, often 10 to 15m high and 10m in diameter, providing housing for pigeons in exchange for droppings used as fertilizer (Bourgeois, 1983).

Unlike the mudbrick examples mentioned above, the dove cotes near Gesi are all built out of stone. Sometimes they are aligned like the leftovers of



**Figure 4.** An aerial view of the dove towers.



(1) s.v. "domestic pigeon", *Encyclopedia Britannica*.

(2) "Pigeons"; *Chambers's Encyclopedia*.

(3) (<http://members.aol.com/Duiven/dovecote/dovecote.html>, last visited 04.01.2006).

watchtowers of ancient castles; sometimes they form a cluster defined by a certain topography; and other times, they surround a monastery, rock tomb or a farmhouse, creating a small colony. It is difficult to decide where to look, which one to visit and examine. Though few in number nowadays, a bunch of doves stroll on the walkways of these towers and take off all together flapping their wings with an utmost noise when someone approaches them, breaking the astonishing silence and serenity of the valley one may not have noticed before.

To the knowledge of the authors there are no written documents about the history of dove cotes and dove towers in Gesi area. However history of doves and pigeons go back to very early times. Figurines and mosaics have portrayed the domestic pigeon since at least 4500 BC (Mesopotamia). Its role as a messenger has a long history too (1). Egyptians and Romans used doves for this purpose. Turks employed them against crusaders, and later Ottomans and Europeans used them for similar functions. This trend went on until the end of the Second World War (2).

Constructing or carving domiciles in various forms for doves probably took place in early history. The earliest example of such a building type is the Roman columbarium or birdhouse. Hence, they are considered as the ancestor of the European dove cotes. These structures, some quite elegant, were all over Europe for centuries. Although far, far fewer today, England boasted over 26,000 dovecotes, during the 17th Century, on the monasteries and manor houses. Such dovecotes were self-standing buildings with different plan types and architectural expressions (3). One may also predict that the history of dove cotes near Gesi be traced back to Roman times. Presence of Christian monastery ruins with their earth-hewn dove caves in this region is the supporting evidences of such a prediction. It is probable that these birds provided cheap nutrition for the clergy living in the monasteries, helped to fertilize the vegetable gardens, vineyards and produce vegetables and wine for them. Additionally dove drops are rich in potassium nitrate, and we know that they were used to produce gunpowder until the modern times. This was another reason why dove cotes were built almost everywhere in the Mediterranean region, starting from Iran and Egypt, up to France and Scotland.

There are approximately one thousand dove towers built over dove cotes in Salkuma and Efkere valleys in between Gesi-Nize, Efkere-Darsiyah, and Nize-Gürpınar settlements (**Figure 1**). As noted above, they are all built out of stone and resemble large chimneys. Each one possesses an identity of its own, exhibiting a small difference from neighboring ones due to the time period it was built, sensitivity of its designer and conditions of the topography. Hence, a wide range of design solutions and forms are apparent (Korumaz, 2002; Türkmen, 2000). The way these towers are placed in the valley is noteworthy: They are spread all over the landscape, creating a spectacular appearance. Since the area is quite large and the towers are numerous, it is not possible to perceive them at once; each move gives a different view and a different perspective to the onlooker.

As mentioned before, these towers are the upper parts of rock-hewn caves that house dove cotes, historically named as "*kuşhane*" (Çetinok, 2002). They provide a living environment for birds: They protect the wild or semi-wild doves from their predators and extreme weather conditions; they not only supply space for birds, but also help them to be fed in harsh conditions such as storms, long winters or thick snow cover. We may

name the combination of dove cotes and their towers as 'dove shelter structures'. As explained below, such units near the city of Kayseri are generally made of two parts: First part is the domicile or the nest – a large cave space – housing a series of dove cotes carved underground into a sloping land. The second one *burç* is a big tower or a chimney constructed over the first part to be used by birds while going in and out of the nest. The cave is not perceived from outside, but only the tower.

## METHOD

The present study was conducted in the Gesi region of Kayseri in Turkey. About 100 dove cotes probably constructed in the last three centuries were visually examined, and about 50 of these were examined in detail for understanding the varying architectural types of their towers. During the study, unstructured interviews with knowledgeable adult residents of the region were also conducted. These interviews, combined with the first author's personal experience of the life around the dove cotes provided valuable information for the paper.

## RESULTS AND DISCUSSION

### Dove Shelter Structures

In this section, first, the structures of dove shelters are described; second, information about the current state of dove cotes and dove towers of Gesi are presented.

#### a) The nest (*hazne*)

The nesting or shelter part is like a lofty room or a well, in square, rectangular or circular plan, usually measuring 5m x 5m or 5m x 7m and their heights varying between 2.5m and 4.5m. Hundreds of regularly carved small cotes surround this central space from top to bottom, each to be used by a dove family. Sometimes one may come across larger nests that have complex plans and sections. Such nests usually have a large central hall connected to smaller individual rooms around, all surrounded by dove cotes. The towers in these cases are constructed on top of the central space. In order to let the incoming doves to adapt to the interior space, four or five timber beams or rafters are placed across this space. Doves coming into the central hall perch for a while on these beams before they move to their own nests.

Each of the caves or nests takes its air and natural light from the opening on its top, extended by the structure of the tower (**Figure 6**). The periphery of the nest (or central hall and all other nesting spaces around) is surrounded by dove cotes arranged in a clear egg crate order. The sizes of each cote are around 20cm x 20cm or 25cm x 25cm, just large enough to house a bird couple and their eggs. The depths of cotes range between 18cm and 25cm. Hundreds of these tiny small niches carved around the nest exhibit an interesting display; light coming from the tower above emphasizes the edges, leaving the caves in darkness and creating a dramatic atmosphere. If it is a nest with doves, upon their perception of a moving body, birds get frightened and start flapping their wings; at which time a small dust cloud fills the nest. After a period of time they adapt to the new situation and start humming and filling the space with noise.

Nests open to the sky by a large hole formed at the top of the space over which the dove tower is built. The diameter of the hole measures around