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Toilet Culture and 'Latrinas' in Asia Minor Murat Taşkıran, Ömer Uzunel and Aysun Topaloğlu

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Human cleaning practices are usually examined in three main classifications: personal; environmental; and medical cleanliness (Sevimli 2005: 1 etc.). The areas we will concern ourselves with mostly here are the personal and social categories, and it is associated with environmental cleaning in most cases.

Toilets, pits and channels were first encountered in Mesopotamia and the Indus Valley, and then in Cretan and Mycenaean civilizations. Building a toilet under the palace, Sargon I, who ruled between the Tigris and Euphrates in mid-3rd century B.C, pioneered toilets as architectural features. The horse-shoe shaped sitting part of the toilet rests over a pit into which human waste is deposited. This form is also the earliest known example of the closet type. In the mid-2nd century B.C a toilet system with siphon was built at Knossos Palace in Crete. In this example, decreasing its flow through a system of clay pipes, the rain water that gathered on the roofs was fed into the baths and toilets of the palace (Gülbay 2003: 1-3).

Various archaeological data belonging to Hittite toilet culture has been encountered. In the texts that have been found various words relating to toilets have been deciphered (Ertem 1974: 12; Sevimli 2005: 4). For example words such as *DUGkalti* – chamber pot (lavatory), *husselli* – clay pit, *dur* – urine are found on tablets with cuneiform scripts, and such passages as 'cooks will not offer the gods foods with urine (du-u-ur) and excrement (zakkar)', and 'however the rain waters clean the streets from contamination...', as well as 'do not let them throw excrement into the city Hattuşa haphazardly', attest to the fact that toilet culture improved under the Hittites (Ünal 2005: 62).

Towards the end of the late Hittite Period, the remains of Utartu castle toilets (Erzen 1978: 9) built close to water channels in the 8th century B.C., have also been found. The large drainage system at Büyükkale (Boğazköy) survived well preserved into modern times. Clay pipes were inserted into narrow ditches and arranged to flow north and south. In Alacahöyük (Fig. 1) and Maşathöyük, drainage network systems are found. In the 7th century B.C. in Çavuştepe (Fig. 2) (Erzen 1978: 5-9), the existence of a fixed toilet with a round twin-layered tub and a modern fountain has been identified. A filled-in pit at Gordion is also thought to have been used as a latrina (latrine) (Young 1966: 275).

Drainage systems and latrinas have been found in Eubia, Dystos and Nemea (Corinth region). In Hellenistic times in Pella, the streets had covered channels and the waste from connected houses flowed into them (Gülbay 2003: 2). Little has been found to date of any public toilets in Athens, but there is a single example of a Roman-era

latrina in the southwest corner of an agora dating to the 2nd century B.C. (Whitley 2003-2004: 3). Our information concerning general-purpose latrinas used in ancient Greece is limited, but even if not as sophisticated as Roman examples, it is presumed that the Greeks pioneered their early development.

In Rome, as well as roads, the maintenance of waste channels was also considered an important duty, and in the time of Augustus, under the name of *curatores cloacarum* and *redemptor cloacarum*, civil servants were responsible for this duty under the control of senior officials (Sevimli 2005: 77).

In the ancient texts, especially Greek sources, we have further information. The earliest record we have is in Hesiod, who warns us not to use the roads, to crouch down and use the courtyard wall; it is also antisocial to relieve oneself in the river (Hesiodos, 730).

In Herodotus, a major source for our understanding of the ancient period, especially the 5th century B.C., we have it that an Egyptian woman will urinate standing, whereas men sit (Herodotus II, 111).

In *The Wasps*, Aristophanes writes that urine containers hang with other containers on the walls, and that Dionysus' had a servant clean his backside with a sponge (Arılar, 14).

As well as written sources, archaeological data presents information on toilet culture. In symposium scenes described on red-figure vases of the 5th century B.C., it can be seen that human waste in vases was thrown from houses into open channels by the roadside. In these scenes servants carry the containers called *lasana*, *lekane* and *amis* (a container for male use with handle and hole). Night vessels for women called *skapphion* (Gülbay 2003: 5). Clay vessels similar to today's chamber pots were apparently used for children (Jenkins 1993: 12).

The word *latrina* stems from the Latin *lavatrina* (washing). As the word latrina generally means toilet, it is used in the meaning of washing and bathing in the sources (Metzler 1996: 1179). Emerging in a small number in Greece in Hellenistic times, latrinas spread all over the Mediterranean, becoming a feature of urban architecture, thanks to the Romans (Yegül 2006: 273). The design of these constructions developed in Anatolia and became somewhat luxurious, such as the example at Tralleis example, and up to 65 users could be accommodated simultaneously (Yaylalı 2006: 5-7).

 $^{^{\}rm l}$ The same author also mentions examples of latrinas in the Islamic period (Yegül 2006: 320).

The number of latrines increased from the 1st century A.D., and in 315 A.D. there were 140 in Rome. Public latrinas underwent several changes from the 3rd century A.D. to the Byzantium period, before their use declined in the 6th century A.D. (Gülbay 2005: 7).

Citizens necessarily continued their habits of using containers at night in Rome, with guests being offered commodes that servants would empty. The most common method used before the prevalence of latrinas and home privies in Rome was for containers called *gastra* to be used and the waste deposited the streets. Vespasian imposed a tax on these pots to raise revenues (Gülbay 2005: 22).

Understandably, latrinas were frequently unhygienic places. Brushes (Fig. 3) are known to have been used for self-cleaning, dipping them into a clean water channel before the chamber pots. These brushes are thought to have been cleaned in a central stream, giving problems of odour and hygiene and smell. It would have been rational for these brushes to have been used once and then changed. It is also known that in some latrinas small sponges were inserted into split canes to be used as cleaners (Fig. 4) (Gülbay 2003: 42). Servants would clean the brushes, however, if one considers one servant per person in a place like the Tralleis latrina (Fig. 5), with 65-70 users, such a number of servants would be unfeasible. It is more likely that in larger centres there were functionaries responsible for cleaning and maintenance in Rome and elsewhere – as today.

Latrinas in Anatolia were usually sited next to the baths in the city centre, or by the main roads. Most examples allow both men and women to use them, sitting on stone or wooden receptacles, and with scant regard for privacy. As a result the locations were known as *latrinaum antistes*, or places for sexual activity, as in baths; in Pompeii a wall painting portrays such a scene. Men and women were seemingly separated in latrinas (Fig. 6) found in 4th-century B.C. Sardes in Anatolia (Gülbay 2003: 22).

There are two categories of latrinas: public and private. Researchers separate Latrinas into various groups according to seating arrangements,² either straight or planned-type with a single row; the square or rectangular planned type; planned with peristyle; and round planned and exedra type.

The straight or planned type with a single row has been found in Miletos in Anatolia. The seats arranged along the sides hindered users and reduced socialization, one of the main functions of Rome toilet culture. These types may have been used where city/town space L-shaped latrinas of this type are known, as, for example, at Sardes.

The square or rectangular planned type, in which seats were arranged along three sides, is the most type (along with the peristyle form) in Anatolia and the Mediterranean world. Good examples include the Tralleis latrina, the Sardes

men's latrina, the Magnesia latrina (Fig. 7), the Metropolis latrina, and the Hierapolis latrina (Fig. 8). According to the single row type, it has a sitting arrangement suitable for socialization with ones neighbour. The biggest example of this type is the Hierapolis latrina. Of eleven examples that were found in Anatolia, five have a 'U'-shaped sitting plan and indicates the probable prevalence of this type (Neudecker 1994: 41).

The peristyle type was the most elaborate style of Roman latrina types with its inner decoration and structural material. Roman toilet culture reached its apogee with this style in terms of scale, high-quality workmanship, and levels of socialization. The most important examples of this type in Anatolia are at Tralleis (Fig. 5), Ephesus (Fig. 9), and Pergamon. The key characteristic of the type is the open roof, a design taken from atrium houses and known since Hellenistic times. It was preferred form in the Mediterranean and western Anatolia. Large sums were spent on them and their appearance in such metropolitan cities as Ephesus and Pergamon illustrate their importance. It was the type that was preferred by social elites and constructed in key places in the city centre. Another benefit of the peristyle types was that it increased air circulation in the latrinas, especially useful in summer. A pool was built in the centre where in rainwater was collected for use in the toilets. There are no written sources but it is probable that some perfume was sprayed in these pools (Neudecker 1994: 40-44).

The exedra and round-plan was an ideal design for smaller groups. People could see and communicate with each other thanks to the semi-circular seating plan. This type can be seen near the theatre in Side in Anatolia (Neudecker 1994: 45). One of the best examples can be seen at Hadrian's Villa in Tivoli (Jansen 2007).

There were also, of course, private latrinas in Roman times. Private toilets were different in that they were intended for less people. They tended to be small, dark rooms, without a great deal of decoration (Jansen 2005: 109). These could be found in houses and were sometimes provided with small windows. This type of latrina was generally for one person, with wooden benches. Although the walls were usually plain, some examples with marine decoration and flower motifs also been found. Good examples of wall ornamentation can be seen in the toilets in the 'Side Houses' at Ephesus. Private toilets could be constructed in, or connected to, the kitchen, and the pit was also used for general kitchen waste (Gülbay 2005: 23-25).

Generally for Roman architecture, functionality takes first place. In Rome, such bath complexes as Traianum, Caracalla, the edges of which face the city, were ornamented with niches, aediculas and arches. These places also served as shops and exedras. Latrinas also had these features. Especially in the functional sense, latrinas were constructed in or next to such places as theatres, baths and agoras (Neudecker 1994: 75ff), where there would be crowds of people (Neudecker 1994: 73ff). In excavations in western Anatolia, different types of latrinas have been

 $^{^2}$ R. Neudecker classified latrinas in $\it Die\ Pracht\ der\ Latrine$ (1994), and his classifications are used in this study.

found. Although these are from bigger cities, they also had to be available in smaller settlements.

The city of Ephesus revealed many toilets (Fig. 9-10). At least 18 toilets have been excavated and identified so far: ten group toilets were found, in areas all over the city; eight smaller, private toilets are concentrated mainly in the Hanghauser (Jansen 2005: 109). Due to the intensity of the work many of these toilets have been published. Of interest are the many graffiti, inscriptions and paintings on the walls of Ephesian toilets. There is, for example, a building inscription mentioning a public toilet near a brothel. On another public toilet in the Vedius Gymnasium, the columns carry the names of several professions, probably indicating seat reservations for guild members. (Scheibelreiter 2005: 71). One of the private toilets contains paintings of philosophers and advises users of the importance of regular bowel movements. These poems, paintings and graffiti indicate a lively toilet culture, including toilet humour (Jansen 2005: 109).

In the finds so far, it has been calculated that the seating platforms of the Ephesian latrinas vary between 57 and 60cm. From this can be calculated how many people could use them. It is known that many of the toilets in Ephesus were constructed between the 4th and 7th centuries. The latrina in the Ephesus Scholastica Bath is for 45 people and was used between the 2nd and 4th centuries. There are two latrinas for 60 people in the Vedius Gymanasium. There are smaller latrinas in the Low Agora, Domitians Terrace, Harbour Bath, Byzantium Bath and State Agora. There are also some toilets for up to 12 people in the Hanghaus (Thür 2005, 4, 44, 84.), at the bath near the Mary Church, the Bouleuterion, and the Episcopium.

Although Priene, which was designed in Hellenistic Age, is a small settlement, four latrina examples have been discovered so far (Kienlin 2004; Koenigs 1983).

The Tralleis latrina (Fig. 11) is located at the north-eastern corner of the gymnasium and measures is 20 x 16m. It is 'U'-type and could accommodate up to 65 people. It had three entrances, two in the east and the other in the northern part of the western wall. Between the two entrances in the east, there is a smaller pool compared to the main central one. This pool is thought to be have been used for storing clean water. The waste water coming from the bathing section of the Bath-Gymnasion is connected to the sewer system of the latirna under the western and southern walls of the latrina. When the inclines of the channels were examined it was discovered that the waste ran from west to east from the Bath-Gymnasium (pers. comm., Aysun Topaloğlu).³

The latrina at Metropolis was situated at the eastern corner of the southern axis of the Bath-

Gymnasion complex, ending with the Acropolis road. There are two channels – one for waste and the other for

clean water. The waste channel is connected to the main sewer system from the south. The dimensions of the latrina are 11.50 x 5.75m and it could be entered from the Acropolis route to the south and from the street to the east. The walls of the latrina were constructed with stone blocks and it does not have a regular construction. The roof was wooden and was probably left open in the centre for ventilation purposes. In the middle there was a marble basin (0.60m in diameter and 0.41m deep) in which the sponge sticks were placed (Gülbay 2003).

The Hierapolis latrina, which could accommodate up to 100 people, is the largest found to date in western Anatolia. It measures 26 x 6m (Fig. 8) and was probably constructed in a Doric style; it is of 'U'-type plan and there are 11 columns along its middle axle. The waste channel is 0.13m deep and indicates that the drainage system was effective here. The Latrina was constructed to the east of the main street, where there was a heavy level of traffic (D'Andria 2006: 80-85).

There are two latrinas at the Asklepion in Pergamon; the sexes were separated. Both latrinas resemble the Sardes examples, particularly the plan of the waste channels. The male toilets were constructed in peristyle and measured 8.42 x 7.77m. The clean water channel is 0.27m wide and 0.11m deep; with its blocks of 0.52m width it is the biggest clean water channel. In the centre there are still remnants of the pool that collected (Radt 2001: 234). The female toilets, 'U'-type in plan, was constructed at the north-western corner of the male latrines; it measures 7.59 x 4.43m and the absence of the peristyle indicates that the roof was completely closed (Radt 2001).

Two late-period latrinas were constructed as an early Byzantium addition at the southern-west corner of Sardes' Bath Complex in the 4th century A.D. They were probably designed as separate facilities for the sexes (Yegül 1986: 21ff).

The Magnesia latrina (Fig. 7) is thought to have been a later construction behind the northern stoa of the Artemision. Capable of accommodating 32 people, it is divided into two sections and was entered from a north door into a room with pool; a turn through the west door led to the toilet area that had two fountains, water channels, and carved seats. A drain took the waste from the building (Kadıoğlu 1997).

Conclusion

Although the latrines (latrinas) mentioned in our study are mostly from larger centres, they had to be available also for smaller communities. The number of public latrinas increased fast from the 1st century A.D. In 315 A.D., 140 latrinas were available in Rome. Public latrinas underwent several changes from the 3rd century A.D to the Byzantine Period and their use declined during the 6th century A.D. All the latrinas known in the Mediterranean are dated between the 2nd century and 6th centuries A.D. (Gülbay 2005: 7). As can be seen from Ephesus (Jansen 2005: 110), most latrinas from the Roman Period were rebuilt in

³ The Tralleis latrina has not yet been published. I am grateful for details supplied by its excavator, Aysun Topaloğlu, in the course of a thesis).

Late Antique times or their materials reused. This shows that the importance given to toilet culture and hygiene continued in the early periods.

Bibliography

Aristophanes, 2000. *Eşek Arıları* (Yargıçlar), çev. Sabahattin Eyuboğlu, İstanbul.

D'Andria, F. 2004. *Hierapolis*, İstanbul.

Ertem, H. 1974. *Boğazköy Metinlerine Göre Hititler Devri Anadolu'sunun Florası*, Ankara.

Erzen, A. 1978. İ.S. 7-6. yy. *Urartu Miamrlık Anıtları ve Ortaçağ Nekropolü*, Ankara.

Gülbay, O. 2003. *Batı Anadolu ve Metropolis Hamam-Gymnasium Örneğinde Latrinalar*, (unpublished graduate thesis, İzmir).

Gülbay, O. 2005. Antik Devirde Latrinalar, İstanbul.

Herodotus, 2006. *Heredot Tarihi*, çev. Müntekim Ökmen, İstanbul.

Hesiod, 1977, *Hesiodos Eseri ve Kaynakları*, çev. Azra Erhat, Sebahattin Eyüboğlu, Ankara.

Jansen, G., 2006, "The Toilets of Ephesus. A Preliminary Report", in G. Wiplinger (ed.) Cura Aquarum in Ephesos, BABesch suppl. 12/Sonderschrift ÖJh 42, pp. 109-112.

Jansen, G. 2007. 'Toilets with a View The Luxurious Toilets of the Emperor Hadrian at his Villa near Tivoli'. *BABesch* 82, 171-187.

Jenkins, I. 1993. *Antik Devirde Çocuk Eğitimi*, İstanbul. Kadıoğlu, M. 1997. *Menderes Magnesiası Latrina Opus Sectileleri*, (unpublished graduate thesis, Ankara).

Kienlin, A. 2004. *Die Agora von Priene*, (unpublished doctoral thesis, München).

Koenigs, W. 1983. 'Der Athenatempel von Priene', İstMitt 33, 134-234.

Metzler, J.B. 1996. *Der Neue Pauly Enzyklopedie*, Iul-Lee 6, Stuttgart.

Macqueen, J.G. 1999. *Hititler*, Istanbul.

Neudecker, R. 1994. *Die Pracht Der Latrine*, München. Radt, W., 2001, Pergamon Antik Bir Kentin Tarihi Yapıları, (München)

Rumscheid, F. and Koenigs, W. 2000. 'Priene: Küçük Asya'nın Pompeisi' Rehberi, İstanbul.

Scheibelreiter, V. 2005. 'Ein schwarzfiguriges Mosaik aus dem Vediusgymnasium von Ephesos', *Römusche Historische Mitteilungen*, 47. Band, 55–79.

Smith, R. 1998, 'Archaeological Reserach at Aphrodisias in Caria', *AJA*, Vol. 102, No.2, 225-250.

Sevimli, Ş. 2005. *Anadolu Uygarlıklarında Temizlik Kavramı ve Uygulamaların Evrimi*, (unpublished doctoral thesis, Adana).

Thür, H. 2005. 'Hanghaus 2 in Ephesos die Wohneinheit', *Forchungen in Ephesos Band VIII/6*, Wien.

Ünal, A. 2005. 'Kent Yaşamı ve Sağlık, Kentlerde Temizlik ve Sağlıkla İlgili Kuruluş ve Yapılar ve İçme Suyu İle İlgili Tesisler', *Hititler Devrinde Anadolu*, Kitap 3, İstanbul.

Yaylalı, A. 2007. '2006 Yılı Tralleis Antik Kenti Kazı ve Restorasyon Çalışmaları', 29, *KST*, I. Cilt,561-566.

Yegül, F. 2006. *Antik Çağda Hamamlar ve* Yıkanma, İstanbul.

Young, S.Y. 1966. 'The Gordion Campaign of 1965', *AJA*, Vol.70, No.3, 267-278.

Whitley, J. 2004. 'Archaeology in Greece 2003-2004', Archaeological Reports, No. 50, 1-9



Fig. 1. Alacahöyük: canal system



Fig. 2. Cavuçtepe: plan of courtyard sewer and toilet stone

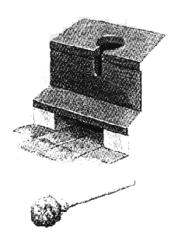


Fig. 3. Toilet sponge stick



Fig. 4. Metropolis: small pool for sponge stick



Fig. 5. The latrina at Tralleis (plan)

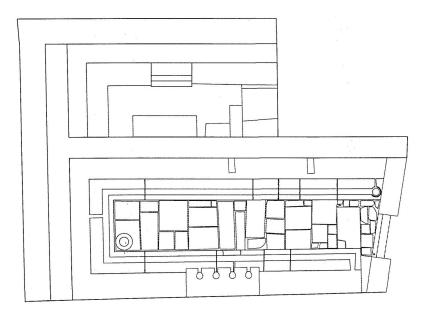


Fig. 6. The latrina at Sardes (plan)



Fig. 7. The latrina at Magnesia

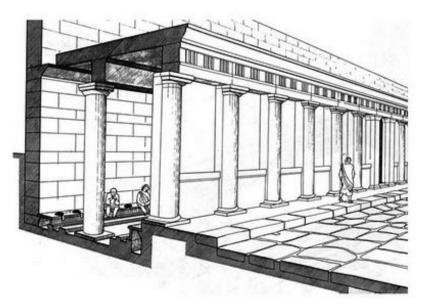


Fig. 8. The latrina at Hierapolis



Fig. 9. Ephesus: the latrina of the Vedius Gymnasium



Fig. 10. Ephesus: Late Antique toilet from a stairwell in a house west of the Bouleuterion



Fig. 11. The Tralleis latrina: attempted reconstruction