Knut Ødegård and Harald Klempe: THE SANCTUARY OF ATHENA ALEA AND ITS SETTING

A visitor to the sanctuary of Athena Alea at Tegea today will in most cases enter the modern village of Alea and walk past the museum before entering the temple site from the new entrance to the north. He or she will have the clear impression of a sanctuary situated at a considerably lower level than the present village. After admiring the ruins of the temple, usually without any other tourists around, the more persistent visitor will perhaps also walk or drive over completely flat agricultural land to visit the few visible ruins of the centre of the ancient city of Tegea, chiefly the foundations of the theatre, 1.25 km further north-east. On his way, the visitor will probably not get any clear idea of the connection between these two archaeological sites and even a good archaeological guide will not be of much assistance. He will certainly not be able to discern the differences between the modern and the Classical landscape, although the fields with corn and an occasional sheep or donkey might give a suitable impression of a bucolic landscape in the good Arcadian tradition.

The aim of this introduction is to give a preliminary overview of what we now know about the immediate surroundings of the sanctuary. Most of this information was gathered during the Norwegian Arcadia Survey, an interdisciplinary project carried out from 1999 to 2001 under the aegis of the Norwegian Institute at Athens.[1] More information about the extent and layout of the ancient city of Tegea was gathered during a magnetometer survey 2003–06, which was organized and funded by the same institute.[2] We now possess far more information about the relationship between the ancient city and the sanctuary, as well as on the considerable changes of the landscape since antiquity. The present contribution will first investigate the physical environment of the sanctuary and the effect it has had on the stratigraphy documented in the excavations of the sanctuary (Klempe's contribution), and then turn to the relationship between the sanctuary and the ancient city of Tegea (Ødegård's contribution).

THE FLUVIAL ENVIRONMENT OF THE SANCTUARY *(H. Klempe)*

The temple of Athena Alea is located on the Tegean river plain. This is quite a flat area with a gradient of less than 1°, built by several channels and floodplains during a series of avulsions. Today the river Sarandapotamos flows from a gorge 2.5 km south of Alea, turns in a north-east direction, and collects more water from a couple of smaller rivers further east, until it reaches the hills west of the plain; it then follows the direction of the foothills towards the north until it turns due east through the passage at Steno and Agiorgitika. In earlier times the channel ran further west on this plain, close to where a sanctuary for the local goddess Alea had existed at least since the Early Iron Age and where later on, probably in the second half of the 6th century B.C., the city of Tegea was established.[3] The last fluvial activity near the sanctuary of Athena Alea, in medieval and recent periods, has covered this area with a thick layer of silt.

The sanctuary and its immediate surroundings are today part of the village of Alea where the area is covered by houses and asphalt roads. Cross-sections are not available here, so it is difficult to reconstruct the original surface pattern of the ancient floodplain. However, cross-sections were made by archaeological excavations in the area north of the temple by Norwegian and international archaeologists in the years 1990–1994; a trial excavation connected with a building project south of the temple has provided some information on the situation below the surface at that point, and drillings and Ground Penetrating Radar (GPR) profiles were made at the sanctuary and in the farmland north of it in 1999 by the Norwegian Arcadian Survey. Additionally, map and spatial analyses have been developed by this project in order to reconstruct the pattern of ancient river channels and floodplains by interpretating the geomorphological features (Klempe 2010; *id*. 2011).

[1] Preliminary report in K. Ødegård, "The topography of ancient Tegea: New discoveries and old problems," in E. Østby (ed.), *Ancient Arcadia* (Papers from the Norwegian Institute at Athens 8), Athens 2005, 209–21. The survey was directed by Dr Knut Ødegård and funded by generous grants by the Norwegian Research Council (NFR) and the corporation Hydro Agri, now Yara.

[2] Preliminary reports in *AR* 2007, 23–4, and in Ødegård 2010. The scientific part of the project was carried out by Dr Tatyana Smekalova under the direction of Knut Ødegård, then director of the Norwegian Institute, and funded by the same institution.

[3] See K. Ødegård's part of this contribution.

Fluvial settings

From these geomorphological analyses it appeared that the river once ran from the gorge in the south through a channel directly to the north, towards the ancient city of Tegea and the Athena Alea sanctuary. On different occasions the river changed direction because of avulsions caused by clogging of sediments in the channel during heavy floods. Wide floodplains of silt are connected with these channels. The ancient city of Tegea was located on the oldest of these floodplains which goes back to prehistoric times and has surface finds from the Neolithic and the Bronze Age. A flood in the prehistoric or Geometric period caused an avulsion that produced the channel which ran next to the sanctuary for several centuries. Fluvial sediments along this stretch of channel have been identified by cross-sections from excavations, drillings, and ground-penetrating radar (GPR).

At the sanctuary this river, as reconstructed, made a turn and behaved as a meandering river. The reason for such a turn is very often a bedrock threshold, but exposed bedrock has not been observed in this area. In the inner turn of such a curve fluvial deposits will build up. Nanson (1980) discussed the name of such a fluvial deposit and concluded that the whole feature should be termed a 'meander lobe', and the body of sediment without vegetation within the channel against the convex bank of the bend should be termed a 'point bar' according to the terminology used by Nilsson and Martvall (1972). Charlton (2008) also defines 'point bar' this way. A sacred site was established by the ancient Tegean community on this meander lobe, with the river coming in from the south, turning around the southern, western and northern sides of the sacred site, and then continuing in a north-easterly direction.

Interpretations of stratigraphical sections from the excavation 1990–94

During the excavation after 1990 inclining layers were observed. The strike of the layers was from north-west to west, and the dip direction was towards north-east and north. The observations made by the archaeologists (see section **iv** (Tarditi)) have been interpreted by the author for sedimentological analysis. The results including the sequence of layers are shown in *Tab. 1*. The sloping layers may be a product of point-bar sedimentation at the inner bend of a meander curve. This interpretation supports the conclusion from the surface analysis that this was a meander environment, and is used here as the model for the analysis of the sediments.

The pebble layer (Layer 2 in *Tab. 1*) that was produced earlier than the Geometric period can be interpreted as the gravel lag of a point bar. This was the bed formed on the bottom of the channel. This indicates that this river course started because of an avulsion before the Geometric period; from the surface finds from the area it is possible to conclude that the avulsion must have taken place before the Bronze Age, because the neighbouring floodplain has finds from the Neolithic period. *Tab. 1* shows that there was no more accumulation of fluvial sediment on the meander lobe after the end of the 6th century B.C. (Layer 15 in the table), just soil and particles interpreted as filling from the building of the new Classical temple (Layers 16–19). This could be due to an upstream avulsion in the Classical period, to the meander lobe being cut off, or to the point observed by Nanson (1980) that after 250 years of accretion at a particular point on a meander lobe no more vertical accretion may occur there. In *Fig. 4* the new channel is shown running east of the altar of the Classical temple; this is a reconstruction based on the map topography analysis.

Most papers on meandering channels discuss gravelly (Markham and Thorne 1992) or sandy rivers (Dietrich *et al*. 1979). The river running close to the sanctuary of Athena Alea must have transported much suspended silt. A river like this has been reported by Nanson (1980) who described a meandering river in British Columbia, Canada, which transported huge quantities of suspended load with meandering lobes and point bars of silt layers. These conditions can be compared to those at the Alea site.

An overview of flood events in the Holocene on the Peloponnese has been provided by Butzer (2005). Two floods have been observed in the Argolid after the Bronze Age: one in the Classical/Hellenistic period and one in medieval times. At Tegea there are no sediment layers from the Classical or Hellenistic period in the excavated area, and the lack of sediments may be due to an avulsion from a flood or a meander that was cut off, so that a new stretch of channel was formed east of the altar. In either case the old turn of the meander would have been left as an oxbow lake that surrounded the sanctuary to the south, west and north. Such a feature is often filled with water and silt where sump plants thrive.

The probable medieval flood left the sanctuary site with a 1–3 m thick covering of silt (Layer 20). The excavated stratigraphical section showed massive silt with scattered gravel; this is a sedimentary structure made by debris flow. All surface finds in this area are from modern or medieval times; since there are no finds older than that, these sediments must be medieval. The flood in medieval times produced a channel that ran westwards towards Lake Takka. The last avulsion that impacted this part of the Tegea plain occurred at the end of the gorge. At that moment the river Sarandapotamos found the channel it has today and the old Tegea plain was free of running water.

Environments

The course of the river in the Geometric and Archaic periods did not separate the city from the sanctuary. The sequence of layers in the excavated section (*Tab. 1*) was created by flood events above an older floodplain. It is assumed that the lowest clay layer (Layer 1) is part of a prehistoric floodplain which was created when the river was running further east. The sequence of layers continues with clay layers (Layers 3–4) above the pebble layer (Layer 2) from one or two flood events layered up in the inner bend of the meander in the Early Geometric period. At the top of this deposit the Geometric Building 2 was constructed. The dark brown and very fat soil has

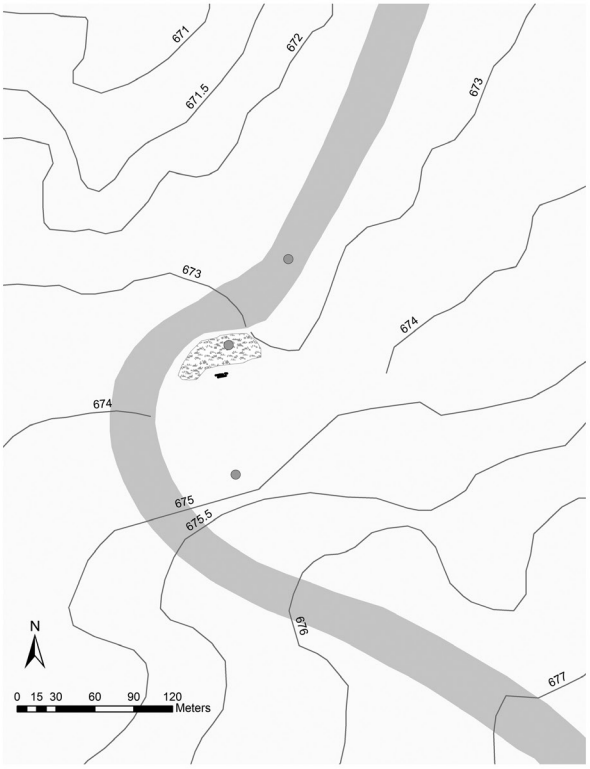

Figure 1. The riparian environment of the sanctuary in the Geometric period (8th century B.C.)

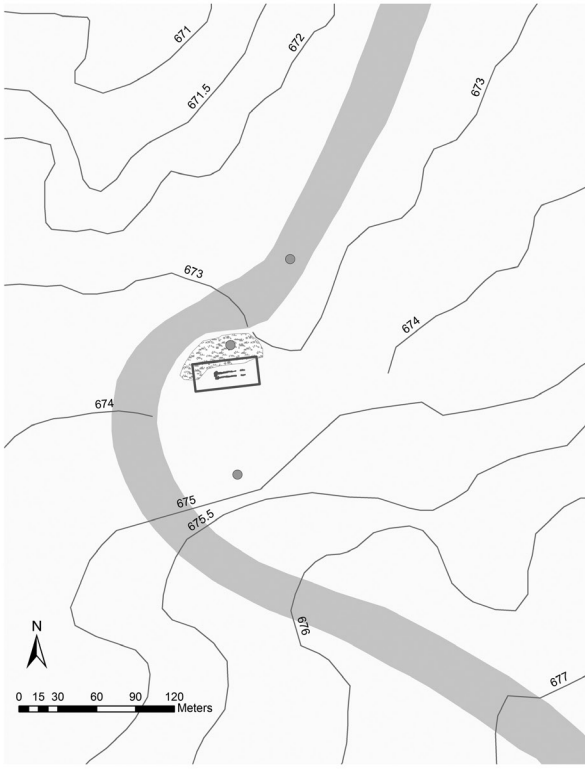

Figure 2. The environment of the Archaic temple, surrounded by a dry surface of silt and sand, since the late 7th century B.C

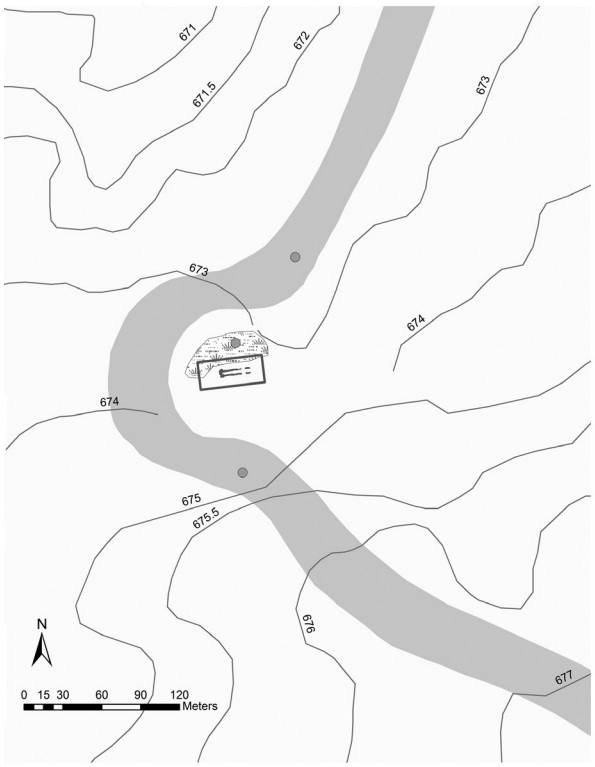

Figure 3. The environment of the Archaic temple with a wet backswamp area, after the end of the 6th century B.C.

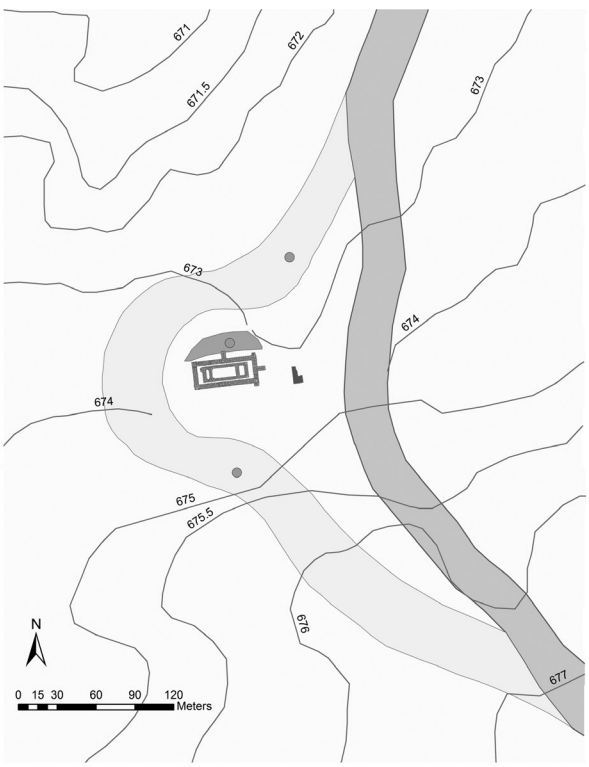

Figure 4. The environment of the Classical temple, with the deposit of waste marble chips mixed with soil from the temple construction, and a new course of the river. After ca. 300 B.C.

Maps prepared by the author.

Layer no.	Stratigraphical identification	Level under 0 m	Thickness, m	Description	Interpretation	Date
20	"Phase 4–5"	– 0.72 in south, – 1.50 in north	0.72 to 1.50	Sand, fine silt, clayey silt Scattered gravel	Debris flow Channel filling Floodplain sediment	After 7th, before 11th century A.D.
19	Layer with marble chips D7/13c, E6/12c, E7/19	– 1.39 to – 1.67	0.09 – 0.28	Marble chips mixed with light brown soil	Probably fill from construction of the Classical temple	350–300 B.C.
18	First layer with bronze objects D7/14, E6/17 – /18, E7/29, C6-C7/107, C7/80	– 1.51 to – 1.85	0.04 – 0.22	Fill of light brown soil	Probably fill from construction of the Classical temple	350–300 B.C.
17	First pebble floor E7/30, C6/112, C7/90, /103	– 1.44 to – 1.94	0.02 – 0.04		Pebble floor, walking surface	350–300 B.C.
16	Second layer with bronze objects E7/20, /31 C7/105	– 1.54 to – 1.87	0.08 – 0.18	Fill of dark brown soil	Probably fill from construction of the Classical temple	350–300 B.C.
15	Second pebble floor D7/43, E6/29, E7/32, C7/89	– 1.61 to – 2.06	0.02 – 0.04		Pebble floor, walking surface	End of 6th century B.C.
15	First walking surface D7/16, /50, E7/41, /64, C7/113				First walking surface	End of 6th century B.C.
14	Sedimentary layer	– 1.72 to – 2.13	0.04 – 0.12	Compact clayey soil Greyish beige Root channels Slope towards north	Floodplain with vegetation Floodplain ponds Backswamps	End of 6th century B.C.
13	Second walking surface D7/28, /29, /58 – /59, E6/35, E7/46				Second walking surface	Second half of 6th century B.C.
12	Sedimentary layer	– 1.74 to – 2.14	0.03 – 0.10	Compact reddish brown soil Lenses of sand and yellow clay Scattered gravel Root channels	Debris flow of clay and sand Floodplain with vegetation Backswamps	Second half of 6th century B.C.
11	Third walking surface D7/64, E6/37, E7/48				Third walking surface	
10	Sedimentary layer	– 1.78 to – 2.23	0.04 – 0.12	Friable reddish soil Small lenses of fine gravel and yellow clay	Debris flow of silt and gravel	
9	Fourth walking surface D7/65, E6/38, E7/49	– 1.87 to – 2.26	0.04 – 0.15		Fourth walking surface	First half of 6th century B.C.

Layer no.	Stratigraphical identification	Level under 0 m	Thickness, m	Description	Interpretation	Date
8	Sedimentary layer	– 2.17	0.095 (0.04 – 0.15)	Friable reddish soil mixed with sand	Levee of silt and sand.	First half of 6th century B.C. (?)
7	Debris layer D7/34, /66, E7/50	– 2.07 to – 2.43	0.09 – 0.15	Fill of friable reddish soil mixed with large quantity of burned terracotta fragments		Second half of 7th century B.C.
6	Sedimentary layer D7/67	– 2.21 to – 2.26	0.50	Grey, medium-sized sand, mixed with small pebbles at the bottom	Point-bar layer	
5	Sedimentary layer D7/70			Grey, medium-sized sand, mixed with small pebbles at the bottom	Point-bar layer	
4	Sedimentary layer D6/15	– 2.63 to – 2.72	0.40 – 0.50	Dark brown, very fat soil	Marshland Floodplain ponds Floodplain	Geometric
3	Sedimentary layer D6/16	– 3.22	0.20 – 0.25	Yellow clay	Floodplain ponds Floodplain	Geometric
2	Sedimentary layer D6/20	– 3.36	0.10	Pebbles	Point-bar lag	Geometric?
1	Sedimentary layer Drill core	– 3.46	0.55	Clay	Floodplain ponds Floodplain	Geometric?
	Bottom of drill core	– 4.01		End		

Table 1. Sedimentological layering observed in the excavated area north of the temple of Athena Alea in Tegea.

a high content of organic matter, which could be due to wet conditions from a high groundwater level, organic contributions to fertilized farmland, or a sanctuary site where animals were sacrificed. Another flood in the late 8th century B.C. produced two sand layers with a gravel layer at the bottom of each (Layers 5–6, *Tab. 1*). The Geometric Building 1 was built on this point-bar layer perhaps at a place with a thicker deposit than observed here. The surface seems to have been dry. Building 1 burned early in the 7th century B.C. and waste from this destroyed building was spread across the point bar. A new Archaic temple (Layer 7) was built at the end of the 7th century followed by a flood which produced a point-bar accretion of silt and sand (Layer 8). This surface was also probably dry, but it was paved with flat stones for walking; maybe it was a processional road leading from the city to the temple (Layer 9). After that there were two floods with debris flow (Layers 10 and 12). This implies heavy soil erosion due to either heavy rain or the decline of the cultural landscape with broken terraces. Both of these point-bar layers were paved for walking (Layers 11 and 13). The uppermost layer contains root channels and the environment is interpreted as a wet floodplain area called a 'backswamp'. In this case there was a dry levee along the channel and a lower wet area inside the levee. This place, which became humid, was once again paved for walking. A new flood contributed by depositing clay in the sample area (Layer 14). During the flood a pond was formed here and the depression was filled with clay from the suspension load in the river water. Root channels developed indicating a marshland. In general this backswamp environment is the top layer of a meander lobe and at this time the meander bend had moved further away from the centre of the lobe. A new paved walking surface was established above the backswamps (Layer 15). The Archaic temple burned down in 394 B.C.

Almost all of the finds from the excavated profiles are of Geometric to Archaic date; from the Classical period and later very few finds have been made, and this is probably due to a new course of the river and its channel east of the altar, as mentioned above. In the Late Classical period a new temple was built and the backswamps were filled with soil and waste from this activity. Three such layers have been observed (Layers 16, 18 and 19). The first of these layers has been covered by a pebble floor interpreted as a walking surface (Layer 17). At this time the old meander turn was left as an oxbow lake filled with stagnant water, surrounding the Classical sanctuary on three sides.

The maps in *Figs 1–4* illustrate not only the changing directions of the river, but also the size of the temples. The Geometric Buildings 1 and 2 were quite small, but the Archaic temple was almost as big as the huge Classical temple. It is to be assumed that the temple site on the meander lobe with the early small temples was a much more natural landscape with freely moving water than it became with the huge Classical temple, but all the successive temples must have been located on the top level point of the meander lobe.

FLUVIAL ACTIVITY AND ARCHAEOLOGICAL STRATIGRAPHY IN THE SANCTUARY *(K. Ødegård)*

Already V. Bérard, in his pioneering study from 1892 of the topography of ancient Tegea, was aware of the problems caused by flooding from the river Sarandapotamos on the almost flat plain of Tegea.[4] Since the riverbed in Bérard's days as well as today passes slightly more than one kilometre to the east of the ancient city and even further away from the sanctuary of Athena Alea, the river must at an earlier date have passed much closer to these sites if it was to have had any effect on the landscape surrounding the sites. Bérard thought that an earlier riverbed had once turned west and flowed into Lake Takka in the south-western corner of the plain of Tegea. Bérard's point was taken up by W.K. Pritchett in an attempt to defend Pausanias' claim that the Sarandapotamos was to be identified with the river Alpheios, flowing underground from the plain of Tegea towards western Peloponnese.[5] As Pritchett readily admits, Pausanias' statement about the Alpheios cannot be accepted entirely, but the important point is that the Sarandapotamos once flowed westwards, towards the Lake Takka. The geologist Harald Klempe's research in the framework of the Norwegian Arkadia Survey has redefined the problem, pointing out that the Sarandapotamos has several earlier riverbeds, two of which pass close by the sanctuary of Athena Alea.

The excavations of 1990 to 1994 north of the temple provided evidence of heavy floods over long periods after the end of antiquity,[6] but this is not our only evidence for the effects of the Sarandapotamos on the sanctuary. In the excavated area north of the temple, particularly in square D7, sand, silt and pebbles in the contexts from the 7th and 6th centuries B.C. indicate that floodings also occurred at this early date.[7] Around the middle of the 6th century B.C. a mud-brick wall was constructed in an east–west direction in square D6; perhaps it marked the northern boundary of the sanctuary at this time.[8] After this time, there are no indications of floods before the post-Classical ones mentioned above.

To sum up, the excavation in the sanctuary of Athena Alea provides evidence for unstable hydrological situations after the end of antiquity, probably sometime between the 7th and the 12th centuries A.D., and in the Archaic period from the 7th to 6th century B.C. There are no indications of similar episodes in the intervening time span, *i.e.* from the Late Archaic to the Early Byzantine periods. This has important consequences for the history of the sanctuary and the settlement of the area in long-time perspective. It hardly seems a coincidence that the urbanization of Tegea probably took place in the late 6th century B.C., inaugurating an urban phase in the history of the Tegean plain that lasted without interruption until the Early Byzantine period, when the urban centre shows signs of transformation, for instance through the construction of the 6th century A.D. basilica of Thyrsos right in the middle of the ancient agora. It is to the urbanization of Tegea and its relationship to the sanctuary of Athena Alea that we must now turn our attention.

Since the 19th century, scholars have located the centre of the ancient city of Tegea about 1 km north-east of the sanctuary, at Palaia Episkopi, where the substantial remains of a Hellenistic theatre are still visible under a Byzantine church. According to Pausanias the theatre was located "not far from the agora",[9] and excavations by the Hellenic archaeological service in the 1980s uncovered remains of what they considered to be the agora in a rectangular area slightly north-west of the ancient theatre.[10] The walls of Tegea have not received much attention after Bérard's publication in 1892.[11] Through trial trenching, Bérard succeeded in finding the walls at three, perhaps four points, and tried on the basis of this to trace a hypothetical elliptic perimeter. It should be remarked, however, that even Bérard expressed doubts on the southernmost point, which included the sanctuary of Athena Alea within the walls.[12] Bérard did not explicitly date the walls, but he evidently thought that they were similar to the walls of Mantineia and Messene; consequently a date in the early 4th century B.C. would be presumed.[13]

The distribution maps of archaeological material in the surface produced by the Norwegian Arcadia Survey clearly showed a concentration of artefacts in the area of the ancient city of Tegea.[14] They generally confirm the validity of Bérard's argument, with a few, but very significant corrections. First of all, the frequency of archaeological material from antiquity in the surface is densely concentrated around Palaia Episkopi and drops significantly towards the south. To discover more about

[4]. Bérard 1892, 530–4.

[5] W.K. Pritchett, *Studies in ancient Greek topography* I, Berkeley 1965, 122–31.

[6] See section **iii** (Luce), 47–9 on "Phase 4".

[7] See section **iv** (Tarditi), 80–5.

[8] See section **iv** (Tarditi), 75–6.

[9] Paus. 8.49.1.

[10] These excavations have not been properly published. The main results are, however, briefly summarized in Th. and G. Spyropoulos, *Αρχαία Αρκαδία*, Tripolis 2000, 23–6.

[11] Bérard 1892.

[12] Bérard 1892, 547.

[13] Bérard 1892, 548.

[14] See Ødegård 2010, 11 fig. 1, for a preliminary publication of this map. The full publication will take place in *Tegea* III.

the structure of the city, a magnetometer survey was carried out in the centre of the ancient city from 2003 to 2006. This project documented a regularly planned street grid, with *insulae* measuring about 25 × 75 m. (See the preliminary, reconstructed plan, *Fig. 5*) The extension of the street grid coincided closely with the concentration of artefacts in the surface, with the exception of the northern part, to which we will return below.

In the magnetometer survey, we tried to follow the lines of the streets as far north as possible. We had hoped to be able to confirm Bérard's hypothetical perimeter, mentioned above, but all of these streets stopped abruptly at a negative anomaly about 300 m north of the agora. This negative anomaly indicated a line of walls about 2–5 m wide. There is also a positive anomaly running alongside this presumed line of walls of the same character as the previously documented streets. The character of the structure, as well as the fact that no less than three streets stop abruptly in front of it, clearly suggest an identification with the walls of the city, with a street running along the inner face of the walls. The location is, however, further south than Bérard suggested. It should be added, however, that there is evidence for streets and other archaeological structures also north of these presumed fortifications (marked as streets I, A and B on *Fig. 5*), but they are evidently not connected with the streets inside the structure, suggesting perhaps that another street grid with the same orientation, but with a different module, existed there. Some other structures along the possible fortifications deserve to be mentioned. At irregular intervals of about 50 and 65 m, at least three square or rectangular stone structures have been documented. These are presumably to be identified as towers. The interior of these possible towers all have traces of positive magnetic anomalies, which should either be interpreted as fireplaces, with traces of burning, or as evidence for secondary use, such as kilns. It should also be mentioned that one street (7 in *Fig. 5*) probably passes through the wall; we have then the presence of a gate, the only one we have managed to document so far. This means that Bérard's line of fortifications in the north probably was a secondary extension of the city to the north.

The magnetometer survey in the southern part of the presumed area of the ancient city was mainly carried out in order to find the southern limits of the ancient street grid. As is evident from the geological survey, the area around the sanctuary of Athena Alea has since antiquity been covered by deep sedimentary layers of sand, silt and gravel, and the archaeological surface survey turned up only medieval and later material. Consequently, there was a possibility that the archaeological survey presented a distorted image of the extension of the ancient city towards the south-west. Precisely for this reason, it was an important task for the magnetometer survey to investigate whether this method would unravel any archaeological features that could contradict the impression left by the archaeological surface survey. This was not the case. Several fields south of Palaia Episkopi and between the villages of Alea and Stadio were surveyed and no significant archaeological traces were discovered. Particularly important was the investigation of a field close to Alea, where the regular street pattern documented further north would suggest that at least one major north–south road would be found. No traces of such a road were found further south, however. Although such arguments *ex silentio* are always difficult, this would seem to suggest that the ancient city of Tegea did not extend as far as Alea or Stadio and that Bérard's estimate of the extension of the ancient city was exaggerated. The ancient city simply did not extend to the south-west as far as the sanctuary of Athena Alea.

The earliest artefacts found in any significant quantity within the area of the city during the Norwegian Arcadia Survey were from the late 6th century B.C. Architectural fragments, chiefly three Doric capitals of the late 6th century B.C., testify to monumental buildings in the city from this time. The character of the urban plan, with its long, narrow *insulae,* also fits a Late Archaic context. In short, the new documentation of the urban plan of Tegea points to urbanization in the late 6th century B.C. at a site which had previously been virtually uninhabited. Furthermore, the city did not grow up close to the sanctuary of Athena Alea, but was founded slightly more than 1 km further north. The sanctuary thus became an extraurban, or perhaps more accurately, a periurban sanctuary after the late 6th century B.C.

The new evidence presented here on the environmental as well as the urban history of Tegea has some important repercussions for the history of the sanctuary of Athena Alea. First of all, the sanctuary was established in a fluvial environment. In the Early Archaic period the sanctuary was enclosed to the south, west and north by the river, in an area that must have been marshy and waterlogged during winter. This may have been one important aspect for the definition of the goddess and her place of worship. River banks were present on all sides of the sanctuary, except to the east where the natural place of worship at the altar was provided. In other words, a natural delimitation of the sacred space was provided by the river. Such a location, within a marshy and fluvial environment, must have been an appropriate setting for a goddess like Alea, who originally may have been a goddess closely connected to wilderness and water.[15] Because of the abundance of water, the area around the sanctuary must also have been an important area for animal husbandry, with good opportunities for grazing even during the dry summers, an activity which has left traces in the epigraphic record from a later period.[16] Such activity also finds confirmation in the votive material from the sanctuary, which includes figurines of terracotta and bronze depicting animals and water-bearers.[17]

The location might be appropriate for the goddess,

[15] For the character of this goddess, see M. Jost, *Sanctuaires et cults d'Arcadie* (Études péloponnésiennes 5), Paris 1985, 373–4; and *Tegea* I, section **i** (Østby), 14 with notes 20–22.

[16] *IG* V.2.3 (4th century B.C.). For references, see section **i** (Østby), 12 note 12.

[17] See *Tegea* I, section **vii** (Voyatzis), 506 and 508–10 for animal figurines (**Tc 1–4**), and *ead., Sanctuary,* 304 no. B4, pl. 56, for the water-carrier.

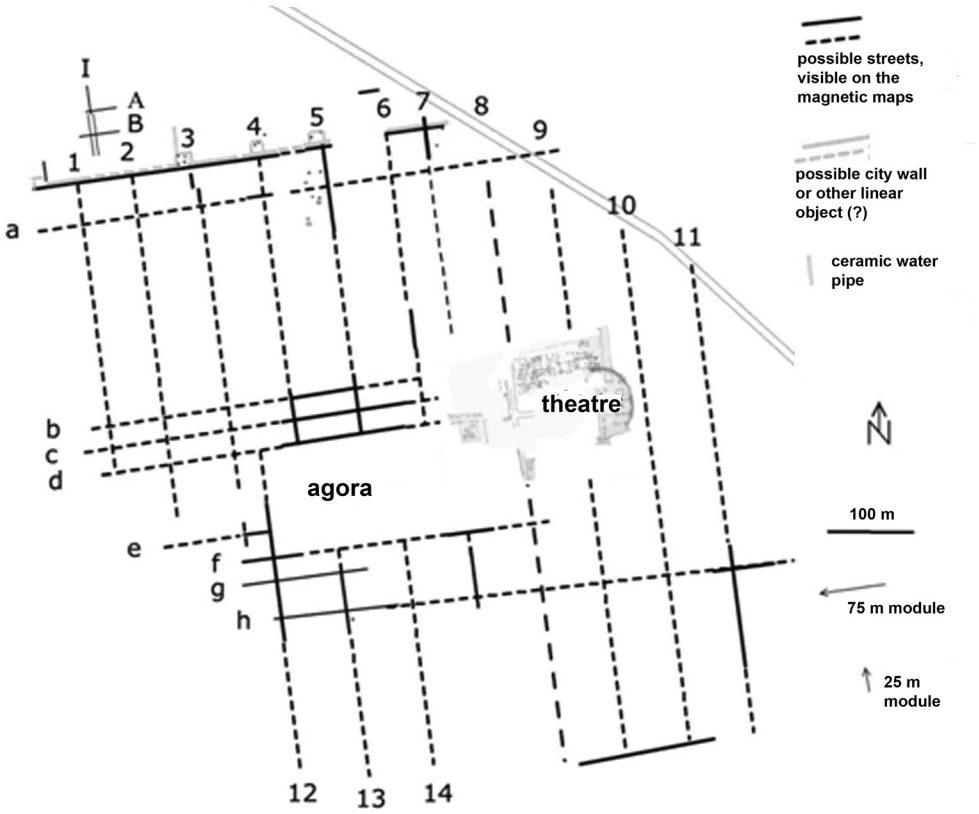

Figure 5. Reconstruction of the urban plan of Tegea, based on magnetometric investigations 2004–06. (Produced by the author)

but it was also very exposed to flooding during winter and spring. As mentioned above, stratigraphical evidence shows that sand and water-borne gravel were deposited occasionally in the sanctuary in the 7th and 6th centuries B.C. Some of these episodes must have been quite serious, with so-called 'crevasse splays' breaking through the river banks, destroying buildings and depositing gravel, sand and silt. Several of these floods must also have kept the area waterlogged for some time, thus interrupting cultic activity and prompting new building activity once the water and humidity receded. Perhaps the small mud-brick wall going in an east–west direction in square D6 from the mid-6th century could have been intended as both a temenos wall and a protective barrier against floods.[18] However, this is not a large structure and it was evidently not able to contain the situation, since new floods occurred in the late 6th century. It was probably as an answer to these repeated problems in the northern part of the sanctuary that a much larger wall of mud-brick was constructed further north in the sanctuary precisely during the late 6th century.[19] In any case, no new floods are attested in the sanctuary until a very late period when the historical as well as the hydrological situation had changed completely.

The riverbed in the northern part of the sanctuary could perhaps also provide a clue in relation to the enigmatic platform on the northern side of the Late Classical temple.[20] If water was an important part of the identity of the goddess, a platform overlooking the river to the north could have been one way of incorporating the natural setting into the architectural frame of the house of Alea.

The hydrological history may also offer another clue for the changes in the cult of Athena Alea. As in many other sanctuaries of Greece, the nature of the votive offerings changes in character and quantity from the Archaic to the Hellenistic period. While this must in some way be connected to changes in religious ritual from individualistic to institutionalized behaviour, at Tegea it may have also been related to changes in the actual physical environment of the sanctuary. At a still unspecified date in antiquity, but probably sometime in the Classical period, the river Sarantapotamos broke away from the ancient riverbed and created a new one, cutting across the area east of the temple and the altar to take a direct course northwards; this is demonstrated in Klempe's contribution. The new riverbed may have been a drastic change in the topography of the sanctuary, but it created a natural delimitation for the city, with a river flowing to the south, west and north of the ancient city, thus creating a strong defensive addition to the fortifications of Tegea. There is a similar situation at Mantineia: when the city was founded anew in the 4th century B.C., the river Ophis was led around the city to strengthen the defences

[18] See section **iv** (Tarditi), 75–6.

[19] See section **v** (Ødegård), 92–4.

[20] See section **xvi** (Østby), 340–1.

and to protect the urban area against flooding. At Tegea, the new course of the river was to be the definitive one as long as the city flourished in antiquity. We may suppose that the floods could still threaten both the city and sanctuary, but we must also imagine that the hydrological situation was now controlled through focussed, public works, such as strengthening the river banks. We have no secure archaeological evidence for this activity, but again the arguments *ex silentio* are revealing: there is no evidence for flooding in the sanctuary or in the central areas of the ancient city until the situation again changed in the medieval period, when the city of Tegea had been reduced to a small settlement around the ancient agora.

The topographical situation of the sanctuary changed drastically in the Late Classical or Hellenistic period. Where riverbeds had once delimited the sanctuary to the south, west and north, the river now passed in front of the altar, east of it. From the entrance to the temple, an ancient visitor could see eastwards and first observe the imposing altar, then the river and in the distance the particular shape of Mount Parthenion. This mountain had important mythological connections with the sanctuary, which are reflected in the pedimental sculpture of the temple: this was where the infant Telephos had been exposed, according to one version of the myth.[21] What had once been the natural limits of the sanctuary now became redundant, and the ancient river banks, which may have been important cultic locations, no longer existed; the old river channels may have been left either empty or as recipients of stagnant water.

It is one strange aspect of the history of the sanctuary, as evidenced by the Norwegian excavations in the northern part of the sanctuary, that there are very few indications of activity there after the construction of the new temple in the 4th century B.C.[22] The surface formed by the marble debris from the final work on the temple seems to have been in use for a long time, but, apart from the monument bases near the temple, there are few indications of any activity in this part of the sanctuary. Could perhaps the new topographical situation, with the river running to the east of the sanctuary instead of framing it on the southern, western and northern sides, have been one factor in determining the virtual abandonment of cultic activity after the 4th century B.C. in the northern sector?

In any case, the natural environment around the sanctuary must have remained fairly stable for the rest of antiquity. The evidence from the Norwegian excavation for cultic activity in the sanctuary is virtually non-existent after the Late Classical or Hellenistic period. The life of the city of Tegea was completely different. Although evidence from excavation is still scarce, the frequent references in ancient literature and the surface finds from the Norwegian Arcadia Survey indicate that Tegea was a large city in Hellenistic and Roman times. Both recent rescue excavations by the Prehistoric and Classical Ephoria of Arcadia and the ongoing Hellenic-Norwegian excavations in the centre of ancient Tegea seem to indicate that the settlement contracted to the area around the ancient agora in the Early Byzantine period. In the 6th century A.D. the so-called 'Basilica of Thyrsos', and very likely also another, three-aisled basilica, were erected in the middle of the ancient agora. To the north-west of the ancient theatre Christian buildings also began to encroach on the ancient civic centre, showing how the Christians took possession of the symbols of civic life in antiquity. Some civic authority must have persisted even as late as the 12th century A.D., however, since the last pavement of a street running on the northern edge of the agora, paved with pebbles and broken roof tiles, was laid out at this time.[23] In this period there is also evidence for renewed and prestigious activity at the site of the sanctuary.[24]

At such a late date, the sanctuary of Athena Alea cannot have been more than a faint memory. With reduced capacity for drainage works, the ancient riverbed of the Sarantapotamos once again affected what must now have been the ruined remains of the sanctuary. This late sedimentation at the sanctuary site has been known as long as archaeologists have worked at the site. The first investigations at the temple of Athena Alea were carried out by German archaeologists before and after 1880, and already A. Milchhöfer commented upon the layer of sediments overlying the ancient stratigraphy.[25] He claimed that this layer was about 40 cm thick and attributed it to floods from the Sarandapotamos. Milchhöfer mainly excavated in and immediately around the temple. The thickness of the sedimentary layers corresponds closely to what the Norwegian excavations have uncovered in the areas closest to the temple. Underlying the archaeological contexts connected to village houses and Byzantine burials, a thick alluvial layer of sterile silt has been documented in all sectors excavated by the Norwegian team.[26] At the far northern end of the Norwegian excavation (squares C-D 9-10) this layer of alluvial silt is almost 1 m thick, indicating how the silt had now to a large extent levelled the considerable downward slope north of the temple.[27] There may have been a similar situation south of the temple. About ten years ago, the Ephorate of Prehistoric and Classical Antiquities made a trial excavation about 75 m south of the temple before the construction of a new house. The excavation went down to a depth of about 2.50 m, and encountered only massive layers of alluvial silt, with lenses of pebbles towards the southern end of the trench.

[21] For these traditions, see *Tegea* I, section **i** (Østby), 11 with note 4.

[22] See section **vi** (Tarditi), 104–6, and the introduction, 5.

[23] These are so far unpublished results from the ongoing Hellenic-Norwegian excavation project at the agora.

[24] For this evidence, see the excavation reports sections **iii** (Luce), 40–5 ("Phase 2") and **vi** (Tarditi), 101–3, and the literary evidence collected and discussed in section **xx** (Drocourt).

[25] Milchhöfer, *Untersuchungsausgrabungen*, 57.

[26] See the contributions sections **iii** (Luce), 47–9 ("Phase 4") and **vi** (Tarditi), 103–4.

[27] See section **v** (Ødegård), 87–9.

We have no further information on the layers of silt to the south of the temple. In the Norwegian excavations, these deposits of sterile silt have also proven difficult to date, precisely because they are completely void of archaeological material. The stratigraphical sequence does, however, provide some clues. Luce distinguishes several phases of flooding from the 7th to the 12th century A.D., but it is impossible to specify more precisely when, or for how long, this phase of floodings lasted. It is definitely later than the 7th century A.D., when the marble blocks from the temple were being quarried for secondary use,[28] but also earlier than the first evidence for tombs and Byzantine architectural structures in the area.[29]

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[28] See section **iii** (Luce), 48–9.

[29] See sections **iii** (Luce), 40–5, and **i** (Østby), 25–6.