Local and Global Perspectives on Mobility in the Eastern Mediterranean

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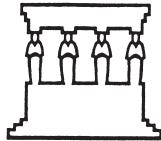
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Communication and Trade at Tegea in the Bronze Age

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Communication is a central part of any discussion of the Aegean Bronze Age and the development of the Minoan and Mycenaean civilisations. Movement and communication is always present in human society. The archaeological material from the Tegean Mountain plain indicates the importance of inland communication on the Peloponnese during the Bronze Age. I here look at the settlement structure at the Tegean plain in the Bronze Age, and its relation to possible routes of communication and trade. By discussing changes in settlement pattern, land use, and sacred space my aim is to trace possible changes in the local and regional communication networks in this area. During the EH communication and trade networks at Tegea seems primarily to have had a local focus, with some connection to the more developed trade nodes in the Gulf of Argos. A strong Minoan influenced trade network is also observed in Tegea from the MN and early LH with Analipsis and its strong connection to Laconia. The abandonment of Analipsis correlates with changes in the communication patterns due to a strong Mycenaean culture in the Argolid by the end of LH. The changes observed in the communication network suggest that Tegea, with its central location on the Peloponnese, could be seen as an interjection for all inland communication.

Introduction

Communication and trade are characteristic features of the Bronze Age in the Mediterranean. The material cultural record reflects contact between the various regions in the Eastern Mediterranean in this period. Both the Minoan and the Mycenaean civilisations very much depended on long-distance trade. As the Minoan palaces developed during the Middle Bronze Age the amount of imported artefacts from Egypt, Cyprus and the Middle East increased. There are also some indications of increased contact with the western Mediterranean in the same period. I see communication as a way to discuss the Late Bronze Age in Tegea and how the society developed and its role in the Mycenaean world. Communication implies contact as well as movement. A discussion of communication, and changes over time, may provide new knowledge on how the Bronze Age societies developed in relation to changes on the Peloponnese and the Aegean.

Inland communication

In the Bronze Age discourse, and especially in the Mycenaean society, communication usually means overseas trade. However, traces associated with travels on land are also found. The best documented cases for Mycenaean roads are found in the Argolid, but some sections are also known from Boeotia, Messenia, and Phokis.[1] Some of these roads are referred to as Mycenaean highways and are taken to be evidence of major engineering work. Culverts, bridges, kerbs and terraces were made to ensure a relatively gentle gradient on the road. The easy gradient, great width and a smooth surface are seen as indications for wheeled traffic. The Mycenaean highways are only found in proximity to the larger palaces, as Mycenae, Tiryns, and Pylos.[2] Especially in the Argolid there was a network of roads connecting the important palaces, but also insuring easy communication with the territory controlled by a palace. A network of roads links the palaces at Mycenae with the most fertile areas of its hinterland.[3] Lavery argues that Mycenaean highways were specially constructed to facilitate heavy vehicles, as four-wheeled carts drawn by oxen.[4] One possibility here is the inland distribution of goods arriving by ship. Access to the harbours would thus be important. One of the Mycenaean roads in the Argolid is the highway from Tiryns to the Mycenaean harbour at Epidauros.[5] These roads were suitable for chariots, though pack animals were probably more common. Larger building materials, as stone, would surely imply the need of some sort of vehicle. Metals, also arriving by ships, were shaped in ingots suitable for carriage by pack animals. The same is the case for pottery used as containers when transporting liquids. These vessels had handles convenient for carriage by pack animals.[6] In the Argolid were we have the most traces of Mycenaean highways there are also roads of a poorer quality, and tracks and paths were certainly also used as part of an extensive communication network during the LH. Smaller sections of well-built roads leading to a gate are also found at Mycenaean palaces. At the Mycenaean citadel of Gla in Boeotia one road leads to the south gate and another to the southeast gate.[7] Spyropoulos found a similar road construction at the Mycenaean settlement of Pellana in Laconia. It is a monumental road and Spyropoulos sees it in relation to a possible royal residence.[8]

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1. Crowley 2008, 268.
2. Hope Simpson & Hagel 2006, 146-175; Lavery 1990, 1995.
3. Hope Simpson & Hagel 2006, 152.
4. Lavery 1990, 165.
5. Hope Simpson & Hagel 2006, 158-159.
6. Hope Simpson & Hagel 2006, 170-172.
7. Hope Simpson & Hagel 2006, 147.
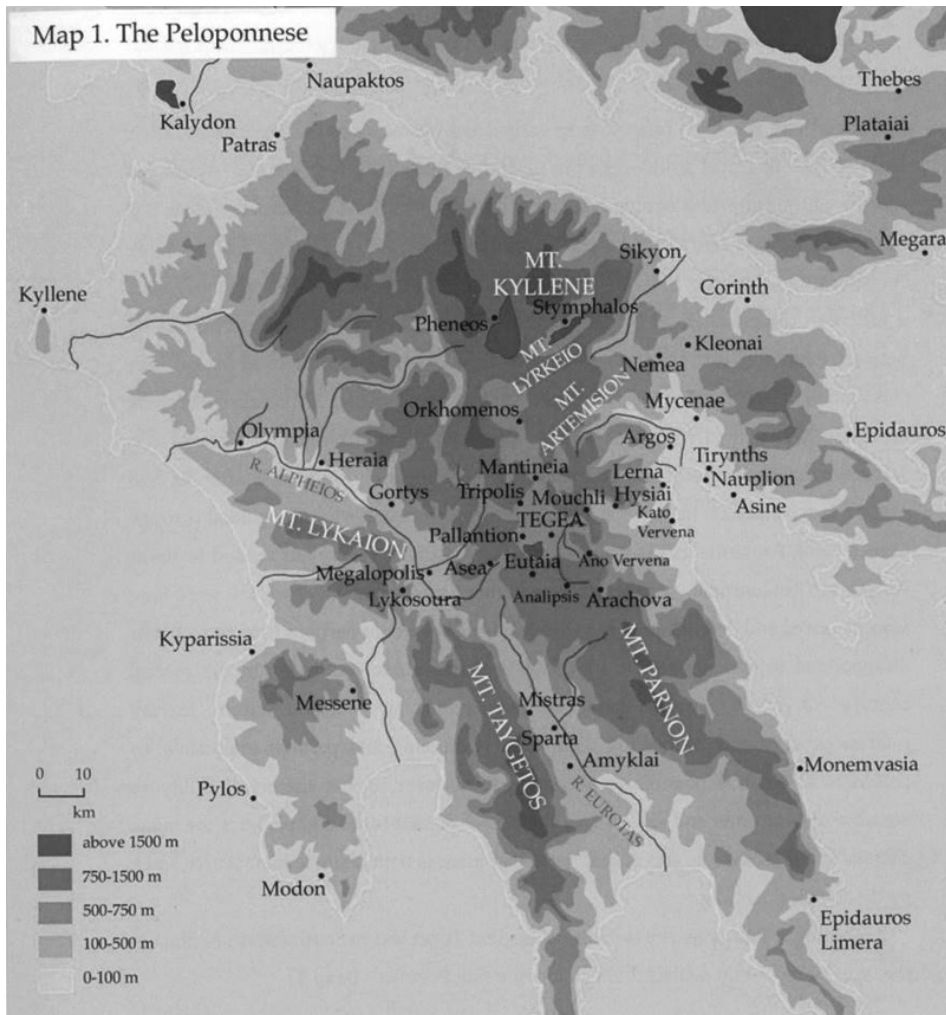8. Spyropoulos 1998, 37.

**Fig. 1:** *Map of Peloponnese (after Bakke 2008).*

No Bronze Age road constructions have been documented in the region of Tegea. There was, most likely a network of tracks and paths connecting the mountain plains in Tegea with the neighbouring areas. Hence, traces of communication are possibly to trace in the archaeological material. The presence of imported objects is an indication of communication as well as a trace of foreign influence. The archaeological material collected by Howell[9] as well as the assemblage collected by the project NAS, Part II were mainly locally

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9. Howell 1970.

Site id	Name	EN	MN	LN/FN	EH	MH	LH
1	Merkovounion – Ayiolas	X		X	X	X	X
2	Zevgolateion – Panayia				X		
3	Tripolis - Ayioi Apostoloi				X	X	
4	Agiorgitika	X	X		X		
5	Thanas – Tourkodhendri				X		
6	Tzivas – Goumaradhes	X	X				
7	Thanas – Stoyia					X	X
8	Stringon-Agios Ilias				X		
9	Stadion - Ayios Konstantions				X	X	X
10	Alea - Athena Temple		X	X	X	X	X
11	Vounon					X	X
12	Kamarion				X		
13	Garea- Cherolimnes				X		
14	Psili Vrisi – Vationa					X	X
15	Psili Vrisi – Mirmingofolies				X		
16	Mirmingofolies						X
17	Alea – Palaiochori				X		X
18	Manthyrea – Panayia				X		X
19	Pallantion					X	
20	Steno				X	X	X
21	Agiorgitika – Sallou				X	X	
22	Analipsis	X	X				X
23	Vourvoura – Kakavouleri		X				
24	Karyai-Derveni	X	X				
25	Choma - Lake Taka						X
26	Agios Sostis						X
27	Akra				X		

Fig. 2: *Bronze Age settlements at the Tegean Mountain Plain.*

produced. The poor condition of these sherds often complicates an identification of the type of decoration and thus makes it difficult to obtain additional indications of influence. The vast majority of the pottery assemblage, regardless of chronological sequence, is locally produced. There are, however, also clear indications of foreign influence. The local clay results in a reddish fabric, often kept on the interior. Influenced by the fine light-coloured wares typical for the
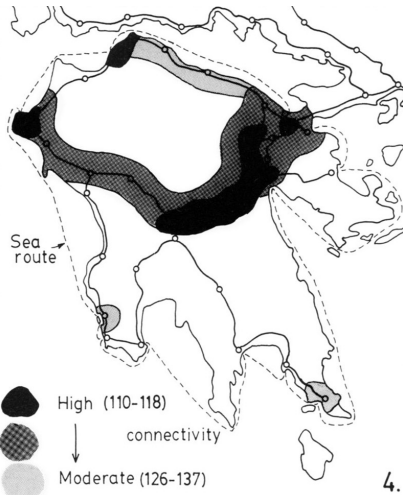
Fig. 3: *Connectivity for the Roman Peloponnese based on the Peutinger Table (after Sanders & Whitbread 1990, Fig.3.4).*
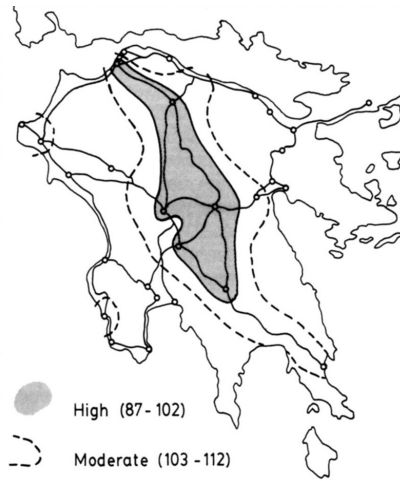
Fig. 4: *Connectivity for the Peloponnese in 1822 based on a map by George Gennadius (after Sanders & Whitbread 1990, Fig.7).*

Argolid and Corinth, the pottery very often had a bright slip on the exterior. The locally produced pottery in Tegea was also made in the same tradition, expressed in fabric and shape, as the pottery in the Argolid and at Corinth. This strong connection with the Argolid and Corinth is also seen in the locally produced pottery from Asea.[10]

Based on this brief glance at the archaeological material from Tegea one may conclude that inland communication did exist in the Bronze Age. From the viewpoint of inland communication the marginality of Tegea that have been emphasised in previous research could be questioned. In an article from 1990 Guy Sanders and Ian Whitbread discuss connectivity between ancient cities on the Peloponnese. Using the Peutinger Table (fig. 3), a medieval manuscript showing the main routes in the Roman Empire, and a later historical map by George Gennadius from 1822 (fig. 4), they review the significance of distance between the various cities that are interlinked on the maps. Distance is defined as the time needed for moving along the roads on foot. Sanders and Whitbread show that Tegea has a very central location in terms of inland communication.[11] An interesting point here is that when combining inland communication with travel by sea Tegea continues to have a favourable location in the Roman period

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10. Schallin 2003, 178.

11. Sanders and Whitbread 1990.

as well as in 1822. Caution should be made, however, when trying to stretch these data back to the Bronze Age, but their argument emphasise that in many historical periods the Tegean plain was as remote and isolated an area as is often expressed in the literature about the Greek Bronze Age.

The Tegean Road Network
Having established the existence of inland communication at Tegea the challenge is to localise possible routes used during the Bronze Age. As an enclosed mountain plain there are certain topographical features that restrain communication, or at least makes it less easy. This is true for the larger Tegean plain as well as the smaller Karyai plain. One possible approach for tracing the local road network in the Bronze Age is to start a reconstruction with the major mountain passes. Björn Forsén applied a similar approach to the Bronze Age communication network in the Asea Valley. Forsén has also convincingly shown how the distribution of settlements very often did relate to such major communication lines.[12] Also information on historical roads and communication networks may give some indications of the location of Bronze Age routes.

   In the vicinity of Tegea there are traces of ancient roads as well as literary sources that describe main roads passing through mountain passes. Sometimes the sources also contain descriptions of how well suited they were for travelling. The main source here is the descriptions by Pausanias in his travel guide from the 2nd century AD. He describes the mountain passes used between mountain plains in the centre of the Peloponnesian Peninsula. Based on Pausanias and other historic information regarding ancient roads together with traces of ancient wheel-ruts a reconstruction of the ancient road network in the Tegean plain is possible (fig. 5) as have been shown by Jørgen Bakke.[13] The Peutinger Table provides important information especially for the roman period.[14] The archaeological quest for ancient roads has very much centred on identifying wheel ruts and relating them to ancient roads described in literary sources. Roads with wheel ruts were a Persian invention adopted in Greece in the classical period. This kind of wheel road network was usually built for military purposes. Even in classical times, however, roads with wheel ruts would represent a small fraction of the entire network of roads, paths and tracks used for communication.[15] In ancient as well as in prehistoric times most

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12. Forsén 2003, 63-71.
13. Bakke 2008, 94-102.
14. Bakke 2008, 122; Pritchett 1980, 197-206; Sanders and Whitbread 1990.
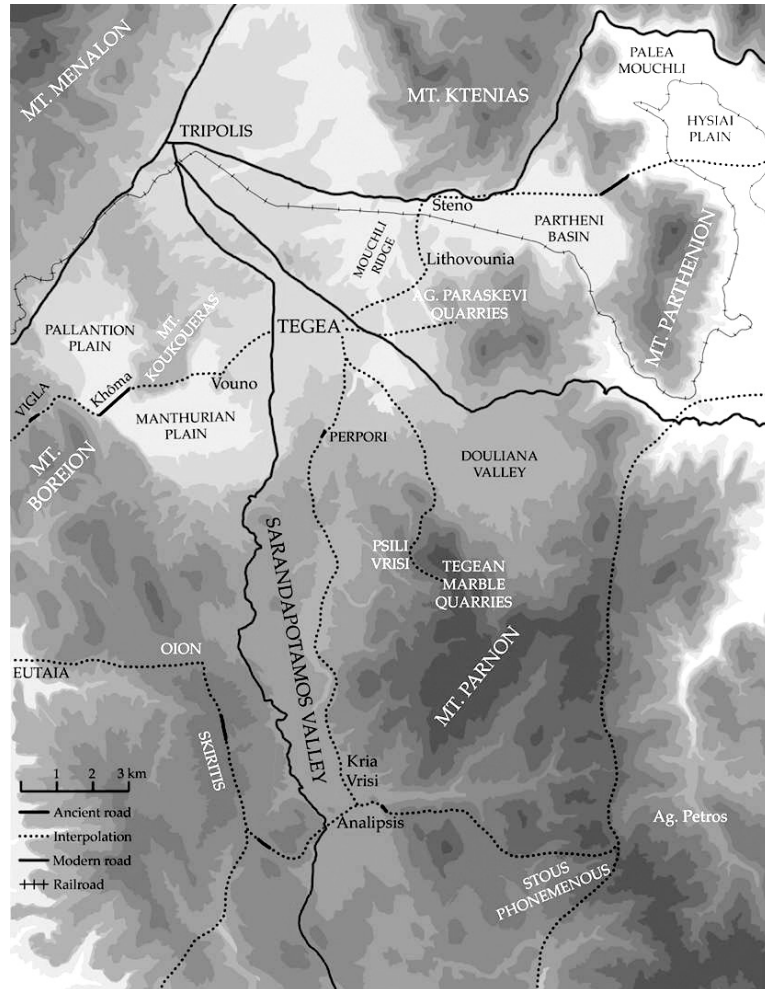15. Bakke 2008; Forsén, B. 2003; Pikoulas 1999; Pritchett 1980.

Fig. 5: *Tegean communication network (after Bakke 2008, Map 3).*

journeys would take place on foot accompanied with pack animals, none of which required roads with wheel ruts or paved roads as was a technique adopted by the Romans. The distinction between carriage-roads and roads for traveling on foot accompanied with pack animals is important because they relate quite differently to the topography. The ancient carriage-roads tend to have a rather straight course across an undulating topography and the gradient of these roads are often very steep. Roads for traveling on foot on foot, however, follow the contour of the landscape twisting and turning its way up and down the mountains.[16]

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16. Bakke 2008, 90-94; Pritched 1980, 167ff.

In the Peutinger Table there is one road that passes Tegea, the east-west connection from Argos to Megalopolis. This is the same route Pausanias describes as an excellent carriage road, a highway. According to Pausanias' description the road entered Tegea through the pass between mount Ktenias and mount Parthenion. From the Partheni Basin in east the road entered the Tegean Plain, most likely passing some of the ancient locations found there, and then continued westwards over the structured Pausanias named the *Choma* and the over the Vigla Mountain pass towards Asea and Megalopolis. This is not the place for a thorough discussion and interpretation of Pausanias. I rely here on the conclusions drawn by Bakke in *Forty Rivers* from 2008.[17] That Pausanias describes this road as a highway suggests that it was of a better quality than most roads in the area. It is also significant that this was a section of the road that crossed the Peloponnese from the Isthmus in the north to Megalopolis in the south. Ancient wheel-ruts are found on two locations in relation to this highway; at the Vigla Pass and near Dalia Sterna, an Ottoman guard station in the pass between Mt. Parthenion and Mt. Ktenias. Near the ancient wheel-ruts at Dalia Sterna there are also well preserved remains of medieval and Early Modern *kaldirimia*[18] indicating that this route was used long after the wheel-ruts went out of use. Some commentators have also argued that the Peloponnesian Highway is a route that also existed during the Bronze Age if not even earlier.[19]

Björn Forsén talks about the Mycenaean highway through the Asea valley. In Asea the prehistoric settlements are located along this communication route. Especially the location of a Late Helladic settlement indicates that this route was used already in the Bronze Age.[20] Based on the description by Pausanias as well as remains in the Tegean landscape Bakke argues that the Peloponnesian Highway went along the northern side of the Partheni Basin, passed the prehistoric settlements and metallurgy sites near Ayioryitika, and continued towards Tegea and in the vicinity of Steno. These sites are, in fact, dated from the Neolithic and through to the EH. Leaving the Partheni Basin this route turned south towards the modern village Lithovounio. Towards the urban centre of the ancient city of Tegea we find the settlements Ayios Konstantinos at Stadiou and then the Ancient Temple of Athena Alea. Both sites were inhabited throughout the Bronze Age.[21] There are no archaeological traces of the Peloponnesian Highway on the Tegean

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17. Bakke 2008.
18. Paved roads like this are sometimes referred to as Ottoman roads, medieval and/or Early Modern.
19. Bakke 2008, 125-126; Forsén 2002, 83.
20. Forsén 2008, 83.
21. Bakke 2008, 119-126.

plain itself. The only attested remains are in the mountain passes leading into the plain. Westwards from the ancient city of Tegea the road most likely passed the modern village Vouno before it crossed Lake Taka on the structure which Pausanias refers to as *Choma* and then continued up to the Vigla Pass.[22] During the EH three settlements are known east of Alea, Manthirea, Stringon – Ayios Ilias and Kamarion. In the later parts of the Bronze Age two settlements are known in this area, Manthirea (LH) and Vouno (MH, LH).

As part of the ancient road Pausanias mentions a feature that he calls the *Choma*, probably some kind of artificial mound of earth or a causeway.[23] It separated the Manthurian plane from the Pallantion Plane near the katavouthries. As Jost Knauss and others have argued this suggests that its original function was as a dam.[24] In that case the *Choma* would create a dam on its northern side, thus controlling the katavouthries to the southwest. The *Choma* might accordingly have been a suitable tool for irrigation and cultivation of a marshy area. In recent times Lake Taka has been a seasonal lake that is large during the winter and dries up almost completely in summer. Presently the area has been the target of a new attempt to log the water of the plain in a new artificial Lake Taka. This project has obliterated any traces of the *Choma*. In premodern times, however, the *Choma* may have provided a tool to control water in the plain both during the rainy season in the winter and in the dry summers. An additional function, which has been suggested, could be that the *Choma* also worked as a road. As Bakke has argued Pausanias' description can certainly be taken to be of a road.[25] Accordingly the *Choma* might have represented a great improvement of the route for travel in this part of the plain with rather unstable hydrological conditions.

Several other main communication routes most likely existed in Tegean territory besides the "Peloponnesian Highway". One such route is the ancient road from Tegea to Thyrea, the plain of Astros, which passed through the Doliana valley. According to Pausanias this road traversed the river Gareates and crossed the mountain barrier at Ayios Deka.[26] The river Gareates is probably the ancient name for the present river Dolianitis.[27] Faklaris argues that the road has followed the course of the Gareates River and crossed it near the church Panayias Koubliotissas, again an assumption made on the descriptions given by

22. Bakke 2008, 94-96.
23. Pausanias, 8.44.4-7.
24. Bakke 2008; Knauss 1988.
25. Bakke 2008, 94-96.
26. Pausanias 8.54.4.
27. Bakke 2008, 25; Faklaris 1990, 212.

Pausanias rather than on the observation of actual archaeological remains.[28] Near the river as well as the church of Panayias there is also a Late Ottoman roadside fountain that indicates this route was also used in the early modern period.[29] Faklaris describes several routes leaving the Doliana valley, but only refers to one place where the Gareates River was crossed. From this point onwards one route described by Faklaris took off from the Doliana valley towards Dragouni. This route also continued further southwards to the ancient crossroad at Stous Phonemenous.[30] Here, at altitude of 1200 m. was also a road side sanctuary of Hermes. Three large cairns at the highest point of the mountain pass marked the border between the territories of ancient cities of Tegea, Argos and Lacedaimon. This was a place where several communication routes converged, among them also a route from Sparta to the Argolid.[31]

Returning to the road crossing the mountain at Ayioi Deka I would argue that it might have taken a different path through the Doliana Valley than the route crossing the river near the church of Panayias. From a topographical viewpoint a road from Tegea might also have followed the northern side of the Doliana valley, taking a similar route as the modern road to Astros. From the village Rizes there is still a dirt road that leads into the Doliana Valley. The modern dirt road most likely adopts the same route as an older road. There is an ancient watch tower at a small hillock at the entrance of the Doliana Valley. This route would pass by the Ayioi Deka continuing eastwards to Sterna Ayias Sofias and further to Elliniko (ancient Thyrea) on the Astros plain.[32] The route through the Doliana valley is not often referred to in the ancient literature, an indication that this was not a very important road. Bakke sees this road as part of a local communication network.[33]

Another modern dirt road leaves the village Psili Vrisi for the mountains towards the village Vervena. There is no reference to this route in ancient literature, but there are traces of a kaldirimi near Psili Vrisi – Mirmingofolies. There are also traces of settlements dated to Late Antiquity in this area. All documented traces of past activity are located next to the present dirt road, also the remains of the kaldirimi. The local place name here *Skala* also indicates the existence of an early modern communication route here prior to the present dirt road. Skala means steps and is a common toponym for steep winding tracks, or can even

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28. Bakke 2008, 329-331; Faklaris 1990, 212.
29. Bakke 2008, 180.
30. Faklaris 1990, 212.
31. Bakke 2008, 302-306; Faklaris 1990, 193-195; Romaios 1905; 1950, 235-236.
32. Faklaris 1990, 212.
33. Bakke 2008, 330.

Fig. 6: *Psili Vrisi located in the entrance of the Doliana Valley. Rizes seen in the background.*

Fig. 7: *View of the Tegean plain and Psili Vrisi seen from Skala. The dirt road from Psili Vrisi towards Vervena seen at Ayios Dimitrios.*

indicate the actual existence of steps as part of the kaldirimi.[34] That an ancient marble quarry is also located next to this road strengthen the argument for ancient communication route. Two prehistoric sites at Mirmingofolies are documented along this road, one with a few sherds of EH pottery and stone cairns and the second site is a LH settlement. This route enters the same road towards the cross section at Stous Phonemenous as the one passing Dragouni. This scenario also opens the possibility for communication toward the plain of Karyai and the LH settlement Analipsis.

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34. Bakke 2008, 90-91.

In addition to the network of main roads discussed so far there also seems to have been a network of various paths in the mountain area between the Tegean plain, the Hysiai plain and southwards to the high plain of Karyai and further down to Laconia. Passing there have been several such routes both towards east and south probably passed through the Doliana Valley. Between the main Tegean Plain and the Doliana Valley there is a low ridge next to the village Psili Vrisi. On a hollow in the southeast part of this hill is the settlement Psili Vrisi – Vationa, established during the MH and abandoned in the beginning of the LH. Most routes departing from the Doliana Valley seem to have been for local communication, at least during Antiquity.[35] Still, these local routes probably connected with the important route from Sparta to Argos and the major crossroad at Stous Phonemenous. At this crossroad there was also a route westwards to Analipsis on the small mountain plain of Karyai. Analipsis was, in fact, a highland node in the ancient road network, since both east-west and north-south routes intersected here.

Analipsis is located along the ancient road between Tegea and Sparta. Ancient wheel-ruts have been observed at there as well as further northwest near the modern village Arvanitokerasea.[36] As in the Doliana Valley there was also at Analipsis several minor intersecting routes enabling communication both east-west and north-south. From the Western Peloponnese there are also several routes that were used during in Antiquity. Some of those routes might also have passed by Analipsis. From the Asea Valley there are two main connections towards Laconia that would pass by Analipsis. The Manaris pass and a mountain pass at Mt. Agios Konstantinos, entering the Langada basin. Both are documented both by written sources and archaeological finds as roads suitable for wheeled traffic.[37] Forsén see the presence of a Neolithic settlement found in the Langada Basin as an indication that this route was known and used also during the prehistoric period.[38] Both the Manaris route and the Langada route would have passed Analipsis.

Ancient wheel ruts are also found at Perpori in the Sarandapotamos Gorge, an indication that the ancient road here followed the Sarandapotamos River from the plain of Karyai and Analipsis all the way north to the Tegean Plain. On a small plateau above the river gorge, just before entering the Tegean Plain, the site Palaiochora is located. There are no clear indications of exactly what track the ancient road followed as it entered the Tegean plain. The local communication

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35. Bakke 2008, 330.

36. Bakke 2008, 106-109.

37. Bakke 2008, 106-109; Forsén, B, 2003.

38. Forsén, B. 2003, 64.

centre in the plain would, no doubt, have been the ancient city of Tegea. The city plan of Tegea is well documented by magnetometer survey and archaeological excavations in the urban centre.[39] It is safe to assume that roads entering and leaving the ancient city of Tegea would approach the urban site with an orientation that related to the city plan.

One important major road from Ancient Tegea was the northwards route to the ancient cities of Mantineia and Orchomenos.[40] There is little information on the exact location of the ancient road northwards from Tegea. Just north of the urban site is the ridge between Ayios Sostis and Akra. This ridge was outside the urban centre. Archaeological remains do, however, indicate human presence over a long period. Two prehistoric sites are found here along with votive deposits of figurines raging from Archaic to Hellenistic times.[41] A road along this ridge in prehistory as well as in Antiquity would be favourable to avoid the marshy plain. Also related to this prehistoric route between Tegea and Mantinea is the site of Ayioi Apostoloi just outside Tripolis, dated to the EH and MH. Following the western slope of Mount Menalon this route would also pass the hill of Merkovounio, which was settled throughout the Bronze Age. This hill lies in the narrow passage between the Tegean plain and the plain of Mantineia. Other roads have most likely existed, both during the prehistoric periods as well as in later times.

There were certainly alternative routes in the eastern part of the Tegean plain, towards the Partheni basin.[42] An archaeological investigation in the northern part of the Tegean plain would probably result in the documentation of more prehistoric settlements, and would supply better information for discussing possible communication routes in this part of Tegean territory. I would, however, argue that the main route northwards followed the western side of the Tegean plain. This is probably a most ancient route since it passes prehistoric sites on several locations: the hillside of Ayios Sostis, Ayioi Apostoloi and Merkovounio before it enters the Mantineian plain. Along the western side of this part of the Tegean plain smaller hills creates an elevated zone between the plain and the mountain slopes of Mount Menalon. The topography of the opposite side of the plain is very different. First of all, the slopes of Mount Ktenias are rather steep making passage on the mountain slope very difficult. The lowland is also quite difficult in this area. Today this part of the plain is characterised by an abundance of water: marshes and the small lake of Pelagos. This northern part of the plain is

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39. Ødegård 2011.
40. Paus. 8.10.1.
41. Bakke 2008, 155-156.
42. Paus. 8.54.5.

drained through sinkholes on the plain of Mantineia. The present situation may not represent the exact situation during the Bronze Age, but the unstable surface water here has been a problem ever since ancient times.[43]

Having established the various communication routes in the Tegean landscape that may have been used already during the Bronze Age I wish to discuss overall changes during the Bronze Age and how to relate this to the topic of communication.

Bronze Age Communication

In the EH settlements are documented over the entire plain of Tegea but not on the plain of Karyai. The lack of EH settlements on the plain of Karyai may suggest that in this period there was also little contact between Tegea and Laconia. The Palaiochora site just south of the Tegean Plain was, however, settled in this period. The Palaiochora site is situated on what at least in later periods will become one of the main north-south routes. Still, I would argue that the early settlement at Palaiochora should rather be regarded in the context of favourable local resources and soil well suited for EH agriculture. Local interaction with the Tegean Plain should not be ruled out, but there is nothing to indicate that Palaiochora was a station on a main route between Tegea and Laconia in the EH.

There is a marked concentration of prehistoric settlements in the border zone between the Partheni Basin and the Tegean Plain. Both settlements and metallurgical activity, both mining and production of copper, have been documented in this area.[44] Little is yet known about the size of this metal production or how, and to what extent, metal was exported from the area. The activity appears to have been restricted to the EH before it was restarted much later in the Early Iron Age.[45]

Interestingly, the so-called Peloponnesian Highway also passed through this area.[46] An important connection on the prehistoric Peloponnesian Highway was the site at Lerna. Strategically situated in the Argolid Bay Lerna had developed into an important local centre during the EH period, and had also become part of the regional trade network in the Aegean in this period.[47] In terms of distance the Partheni Basin, and Tegea, are not fare from the EH settlement at Lerna.

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43. Bakke 2013.
44. Spyropoulos 1989, 121; Spyropoulos and Spyropoulos 2000.
45. Spyropoulos 1989; Spyropoulos and Spyropoulos 2000.
46. Bakke 2008, 125-126; Forsén 2002, 83.
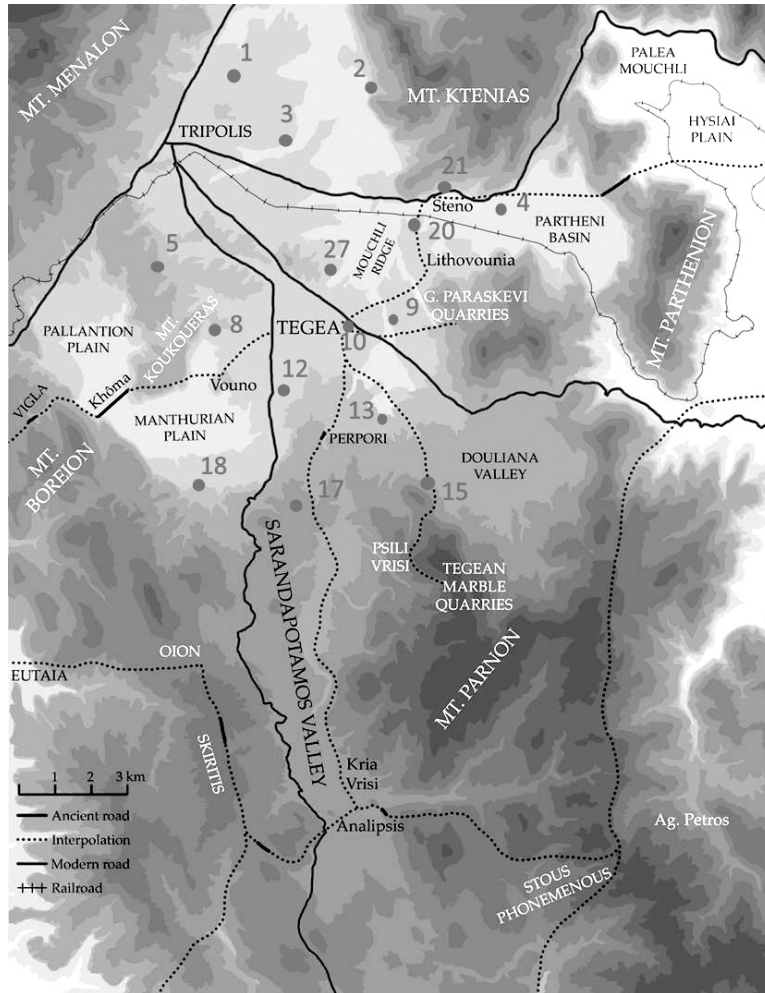47. Alberti 2013.

Fig. 8: *The settlement pattern during the EH period.*

It is accordingly more than likely that in the EH copper from the Partheni Basin would find its way to Lerna where Melian obsidian would have been a favourable exchange item.

Communication and trade networks at Tegea in the EH seems primarily to have had a local focus, but the copper source in the Partheni Basin also makes it very likely that Tegea was connected to the more developed trade nodes in the Gulf of Argos. Through the Lerna node Tegea might also have been connected with the large east-west trade network coined by Maria Alberti as the *Cycladic*
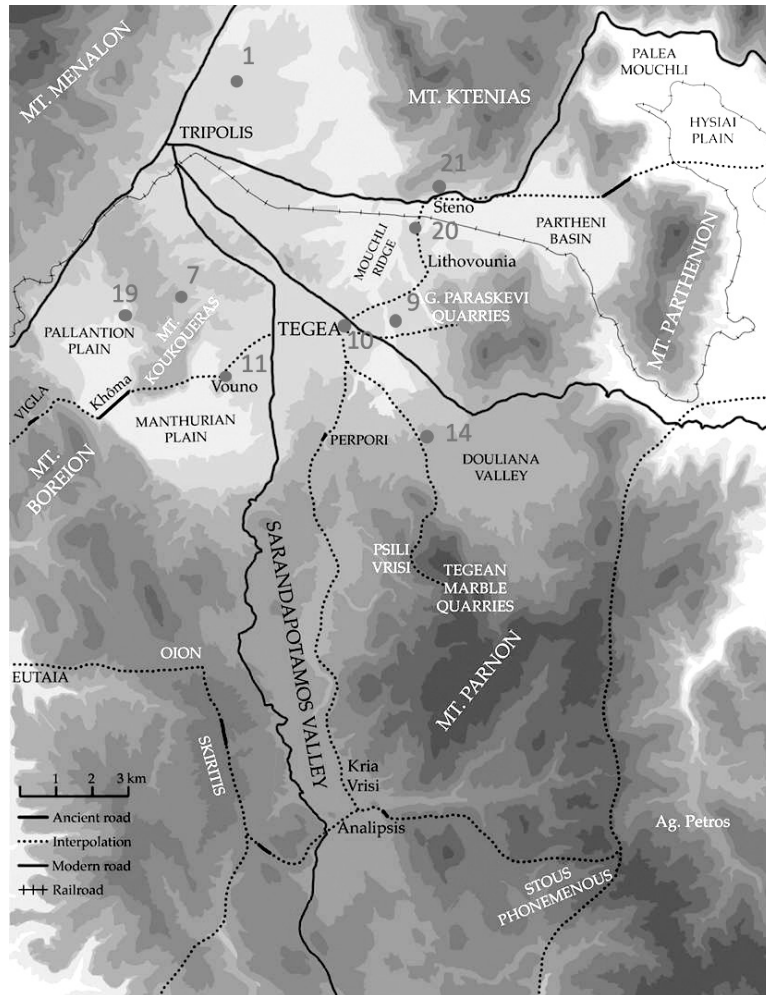
Fig. 9: *The settlement pattern during the MH period.*

circuit.[48] The route leaving the Tegean plain at the Partheni basin would thus be a major regional route for communication and trade during the EH. The easy access from Tegea to the Gulf of Argos may also have facilitated transportation further east as well as north to the settlements at the plain of Asea and the plain of Mantineia. I would here argue that the main route in the EH towards Mantineia would pass from the settlement and production site at Steno-Sallou and over the mountain towards the Loukas basin, along a kaldirimi still visible today. To the west of the Tegean Plain there are several possibilities. The concentration of

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48. Alberti 2013, 26-28.

settlements in the southern part of the Tegean plain suggests that the route over the Vigla pass near Pallantion is the most likely candidate.

The development in Minoan palatial culture on Crete by the beginning of the 2nd millennium BC has profound influence on the Aegean trade network.[49] Innovations in ship technology in this period also had an impact on communication and trade. Use of boats with sails opened for longer travels overseas. The introduction of donkeys as pack animals would also have had some impact on inland communication.[50] By the Middle Bronze Age Crete was an important station connecting the Aegean with the entire eastern Mediterranean. The Aegean trade network is in this period also very much linked with Crete in north-south trading circuits. The literature on this period does, however, favour the importance of local communication networks.[51]

During the MH there is a marked reduction in number of settlements at Tegea. This change is also reflected in regional communication and trade networks. Besides from two settlements in the north-western part of the Tegean plain there is a marked concentration in the southern part of the plain in the MH. Settlements established during the MH would most likely have a location which related to the current communication network. The Psili Vrisi-Vationa site on a hill situated at the entrance to the Doliana valley was settled during the MH period. The location is quite important in the local communication network when the communication routes leading east which also connect with the north-south route between Laconia and the Gulf of Argos are taken into consideration. Laconia had a central role in the Minoanisation of the Peloponnese that can be observed during the MH and early LH. At the settlement Agios Stephanos in the Helos plain large quantities of Minoan and Minoanising pottery has been found.[52] During the MH in the Tegean plain I would argue that there is an increased focus on some major communication routes connecting both north-south as well as east-west. This can especially be observed in the marked concentration of settlement activity in the southern part of plain.

The beginning of the LH period also marks the peak of contact with Laconia as well as Minoanization at Tegea. For one thing the large tholos grave at Analipsis is from the LH period. The total lack of evidence from a LH settlement at Analipsis does, however, limit our understanding of the importance and character of this site. The finds from the cemetery do indicate that it resembles
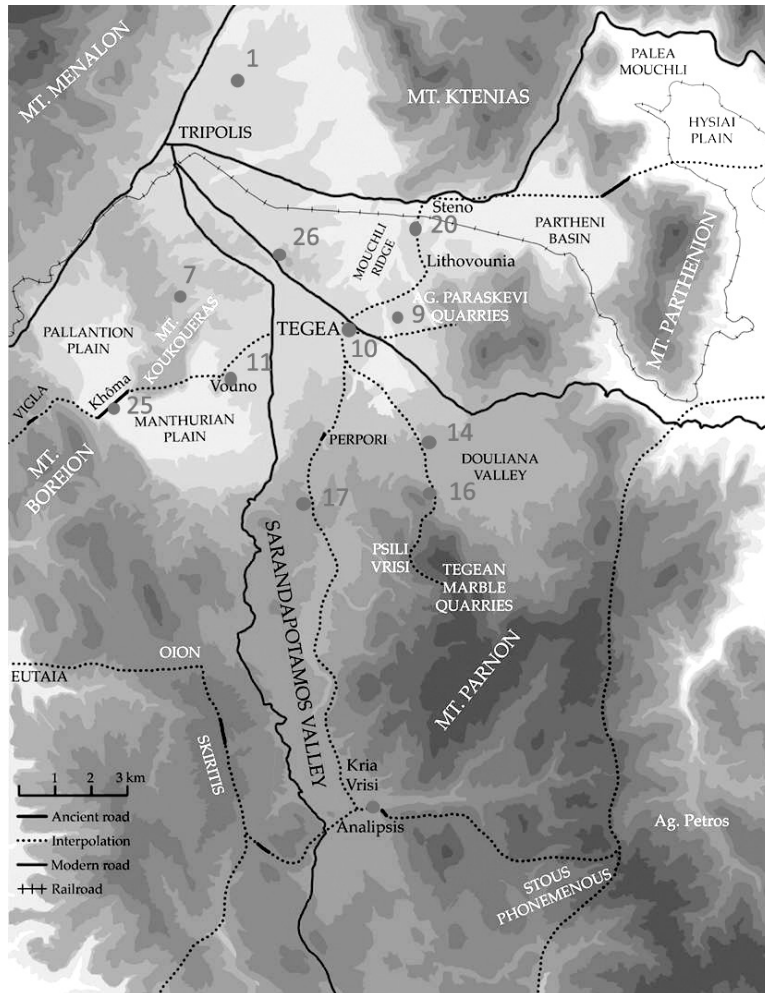
49. Betancourt 2008, 214.
50. Alberti 2013, 29.
51. Alberti 2913, 30-32; Burns 2010, 86-87; Wright 2008, 243.
52. Cavanagh and Crouwel 2002, 144-147; Dickinson 1994, 239-250.

Fig. 10: *The settlement pattern during the LH period.*

the larger LH settlements found in Laconia.[53] Excavations at Menelaion and Pellana have shown that these settlements were, in fact, large administrative centres although not on the same scale as Pylos and Mycenae. The tholos graves do, however, show that a warrior-elite also had its place in Laconia as well as at Analipsis. The palatial style jars found in the tholos at Analipsis certainly indicate contact with Crete. Along with the palatial style jars in the tholos at Analipsis a variety of other exotic goods were found. Items of gold, silver, ten arrow heads in bronze as well as two ivory combs and tree amber

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53. See Cavanagh and Crouwel 2002.

Fig. 11: *The large tholos at Analipsis.*

pearls are some of the imports.[54] In a group of miniature tholoi at Analipsis the grave goods do not stand out in the same manner as that from the large tholos. Faience pearls, bronze knifes and various imported figurines and pottery have been uncovered here.[55]

The palatial style jars at Analipsis clearly indicate to contact with Laconia. It is also reasonable to assume that Laconia was the source for other imported goods. It would accordingly appear that the route between Analipsis and Laconia was well established in the LH. In addition to the connection with Laconia there are also indications of contact with the north-eastern Peloponnese. Some of the pottery as well as arrow-heads in bronze do originate from the Argolid.[56] High up in the mountainous border zone between Laconia Arcadia the Analipsis site would have been somewhat of a node in the LH Peloponnesian communication and trade network.

An actual settlement at Analipsis cannot presently be documented. The archaeological material at Analipsis does, however, provide strong indications that there was an important settlement in its vicinity. As an intersection between

54. Kalogeropoulos 1998, 9-16.
55. Kalogeropoulos 1998, 17-20.
56. Kalogeropoulos 1998, 27-60 and 68-69.

north-south and east-west routes Analipsis appears to have been especially
important for local Minoanization. The strong link between Analipsis and
Minoan civilisation is further indicated by the abandonment of Analipsis. The
palatial style jars from the large tholos at Analipsis suggests a dating preceding
the peak of the Mycenaean civilisation. However, there are finds from some of
the miniature tholoi dating to the LH IIIB. So far the documentation indicates that
the settlement at Analipsis was abandoned by the end of LH IIIB.

Analipsis is also the site where the Minoanization of this period is most
clearly expressed. There are, however, other changes that mark the shift from a
strong influence from the Minoan centres in the south towards strong Mycenaean
centres in the Argolid by late LH, LH IIIB. Another Tegean settlement that is
abandoned by LH IIIB is Psili Vrisi - Vationa. Due to limited archaeological
material there are some difficulties in distinguish the detailed chronological
sequence for all LH settlements at Tegea. It is of great interest here, however,
that the changes observed may also be linked to altered routes of communication.
Between Analipsis and Tegea, along the north-south route passing Analipsis,
there is another LH settlement, Palaiochora. The excavated material here, though
limited, do suggest a settlement later than Analipsis, LH IIIC. Both the settlement
and the tombs at Palaiochora have a strategic location in relation to the route
southwards to Laconia. This point in the direction of long-term use of this route
in the Bronze Age, but with a knot closer to the Tegean plain in the later phases
of the Bronze Age.

The changes that can be observed in the settlement pattern in the Doliana
Valley could be due to altered routes in communication. During the LH IIIB the
settlement at Mirmingofolies was interconnected to a route across the mountains
towards Vervena. This route connects with another north-south route from Laconia
and the Gulf of Argos, which would facilitate easy access both to the Mycenaean
centres in the Argolid as well as the rich mountain region of Parnon and the
lowland in Laconia. Next to a present dirt road that adopts this route a site defined
by a cluster of low cairns was dated by Roger Howell to the Early Helladic. Since
very little archaeological material has been documented around these cairns the
date for a settlement here is, at best, questionable. Alternatively they could be
interpreted a graves related to a LH settlement. An attractive interpretation of
the change in settlement pattern that can be observed in the Doliana valley is to
regard it as the impact of increased importance of Mycenaean centres in Argolid.
The shift of focus in this valley affected communication both towards north and
south. Primarily it should also be regarded as response to the abandonment of
Analipsis as a major junction in the Peloponnesian communication and trade
network.

Fig. 12: *The Manthurian Plain and Lake Taka.*

Another marked change is seen on the Manthurian plain where the present Lake Taka is situated. It has been argued that the Choma mentioned by Pausanias initially was a hydraulic regulation project from the Bronze Age aimed at controlling the surface water of Lake Taka.[57] From Pausanias' description it is evident that in the days of the Roman Empire this structure also functioned as the foundation for a road across the Manthurian Plain. The date of the Choma has been questioned, but I would argue that the Late Helladic is the most likely period.[58] By the LH period there are two settlements in the vicinity of Lake Taka, Vouno and Manthirea. A construction of a dam here would also have benefitted the settlement at the site of the later sanctuary of Athena Alea. The social organisation and possible differentiation between these settlements is not known due to the limitations by the archaeological material. Instead of searching for one large administrative centre with resources to organise the construction of such a dam, I rather choose to see it as the possible result of a joint effort between several larger LH settlements in the area. The initial purpose of this structure may not have been to serve as a road, but we know from the description given by

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57. Knauss 1988.
58. Hope Simpson 1994; Knauss 1988.

Pausanias that it later also was used as a road.[59] Because it would provide a stable passage across the Manthurian Plain it is plausible that the dam was used as a road already in the LH. Such a well-built road secured from the risk of flooding would especially have favoured traveling with pack animals, and accordingly the Choma may have been a most important structure for the maintenance of regional communication and trade in the LH Peloponnese.

Changes over time – concluding remarks
Movement and communication is always present in human society. How and where people move depend on the society they are part of. The Greek Bronze Age is no exception. How and where people move and communicate has changed with the various changes taking place in Greek Bronze Age society. I have here looked at the settlement structure at the Tegean plain in the Bronze Age, and its relation to possible routes of communication and trade. By discussing changes in settlement pattern, land use, and sacred space my aim has been to trace possible changes in the local and regional communication networks in this area.

During the EH there is a rather dispersed settlement pattern in the Tegan Plain and its vicinity. The Plain of Karyai represents an interesting anomaly that is important take into consideration. There is a marked concentration of activity in the Partheni Basin that is probably associated with metal production as well as important nearby settlements. The overall pattern in the EH indicate a strong connection with Lerna in the Argolid and towards the south. The communication network in this period seems to have had a focus on local interaction. During the MH and early LH there is a shift of emphasis southwards. A marked reduction in the number of settlements along with a stratification seen as can be observed in the tholos graves at Analipsis in the early parts of LH provides a local context for this shift of emphasis. The local settlement pattern as well as documented archaeological material point to a strong link with the Minoan cultural sphere in this period. No doubt the geographical mediator in this contact with Crete was Laconia. By the end of the LH the settlement at Analipsis is abandoned. The changes in the Peloponnesian communication network are obviously influenced by the establishment of strong Mycenaean centres in the Argolid. During this period the Tegean plain develops into an important node in the inland communication network of the Peloponnese. The construction of a dam in the Manthurian Plain where large amounts of surface water probably created challenges for travel in the wet season was probably also used as a road, and as such would ensure easy

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59. Bakke 2008, 94-96.

access westwards throughout the year. The main influence and focus is in the LH is clearly towards the Mycenaean centres in the Argolid.

Surrounded by high mountains in the middle of the Peloponnese the Bronze Age society at Tegea was never completely isolated. With a focus on communication and trade we can observe the strategic position of Bronze Age settlements in the Tegean Plain. The changes that took place in its settlement pattern and communication network illustrates how this area was very much in tune with the overall changes that took place in the Aegean during the Bronze Age.

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