

The Hacimusalar Project Regional Survey:
landscape and settlement investigations in the Elmalı Basin

Pedar W. Foss

Department of Classical Studies, DePauw University¹

INTRODUCTION

The Hacimusalar Project Regional Survey was a diachronic, multidisciplinary, intensive (non-site) and extensive (site) survey conducted between 1992 and 2005 by Bilkent University with the cooperation of DePauw University and the Associated Colleges of the South. During that time, 133 locations of various periods were classified as ‘sites’ within the Elmalı and Gölova plains of the Elmalı Basin (Fig. 1), including settlements, fortifications, cemeteries, roads, waystations, wells, inscriptions, and architectural features. While a major aspect of the survey has involved non-site *intensive*, transect-based survey based on deliberate and random samples centered on the site of Hacimusalar Höyük (ancient Choma, Site 100; see Fig. 2), the project also mapped and sherded sites during *extensive* survey operations -- particularly settlement and fortification sites on the basin perimeter. This paper presents sites discovered using both methods. All data was geolocated using meter and sub-meter accuracy Global Positioning Systems (GPS)

¹ For this report on the survey work I directed from 1997-2005, I acknowledge: Prof. Dr. Ilknur Özgen, Bilkent University for providing permission, and Prof. Dr. Mark B. Garrison, Trinity University for providing support to carry out the survey. I also acknowledge the exemplary efforts of graduate students Sean Lockwood, University of Cincinnati and Elif Denel, Bryn Mawr College. I also thank my colleague Prof. Dr. Kenneth S. Morrell, Rhodes College; and Kristina Bradley, Sarah Craft, and Sara Robertson, who, as undergraduates at DePauw University, helped to make the Hacimusalar Geographic Information System possible. Various faculty development funds from DePauw University and grants from the Andrew W. Mellon Foundation to the Associated Colleges of the South provided the bulk of the funding.

equipment, and the illustrations represent the output of a Geographic Information System (GIS) that includes digital elevation models, satellite photography, scanned maps and geolocational data not only for this basin, but also for much of the Lycian Peninsula. This is the first survey carried out with modern methods in this basin; accordingly, this paper sets out some major trends in the types and periods of settlement as they are currently understood. It should be stressed that the data and conclusions reached here are preliminary in nature.

ENVIRONMENTAL BACKGROUND

Paleoenvironmental investigation of sediment cores from the Karagöl and Avlan Gölü areas (Fig. 2) in the Elmalı Plain indicate, within the primary chronological boundaries of the project, several major climatic phases with resultant effects on lake levels and sizes:

<i>Phase</i>	<i>Period</i>	<i>Summary</i>
A	8600 - 3510 B.C.	Thermal maximum; marshy rather than lacustrine environment.
B	3510 - 1000 B.C.	Moist climate; larger and deeper lakes.
C	1000 B.C. - A.D. 335	Drop in lake levels, and a shift from lake area to marshland.
D	A.D. 335 - 900	Warmer climate, additional evaporation and still lower and saltier lake levels.
E	A.D. 900 - present	Modern conditions; moderately higher lake levels (until their drainage in the 1960s and 1970s).

Table 1. Long-term environmental patterns for the Elmalı Basin, from lake-bed cores (based on Doerner, forthcoming).

It is not absolutely certain that these long-term environmental cycles, as currently understood, played a direct role in settlement pattern changes. However, dramatic fluctuations within the larger trends outlined above seem to have had significant consequences. The largest chronological gap in our evidence, for instance, spans the end of the Early Bronze Age to the beginning of the Early Iron Age, ca. 2000 -1000 B.C. It is,

in fact, about 2000 B.C. when we see a spike in lake levels even *within* the otherwise high-water level Bronze Ages of Phase B (Table 1). It may be that this spike, which lasted until a precipitous fall-off ca. 1000 B.C., made the basin effectively uninhabitable until water levels suddenly dropped (perhaps due to a natural opening of the karstic sink-holes which today line the southern and eastern edges of the Elmalı Plain, and still drain water underneath the Beydağları mountain range through the rapids of the Büyük Düden), and large tracts of rich bottomland became available and arable. Other examples of possible interplay between environment and settlement are discussed below.

CHRONOLOGY AND CERAMICS

We have generated a series of twenty-two period maps (which cannot all be reproduced here), based primarily on ceramic data collected from site locations between 1992-2005, and analyzed in the summer of 2005. With the exception of detailed, sector-based collections carried out at Avşar Kalesi (Site 843), Pirhasanlar Höyük (Site 849) and Zumrutova Kalesi (Site 864), they represent random grabs of diagnostic material across the surface of each site. The following table summarizes the ceramic chronology established during the 2005 season, after extensive analysis of the stratified deposits from the Hacımusalı Höyük excavations; it also characterizes (preliminarily) our understanding of settlement during each period.

<i>Period</i>	<i>Summary</i>
Upper Paleolithic, ca. 60,000-12,000 B.C.	No dated evidence so far.
Mesolithic, ca. 12,000-8,000 B.C.	No dated evidence so far.
Neolithic, ca. 8,000-5,000 B.C.	Nucleated settlements emerge near Karataş in the Gölova Plain and Akçay in the Elmalı Plain.

Chalcolithic, ca. 5,500-3,000 B.C.	Settlements expand in the Gölova Plain, and begin to spread out along lake edges in the Elmalı Plain.
Early Bronze Age, ca. 3000-2000 B.C.	Major mound settlements grow along a high-ground, NE-SW line from Karataş to Pirhasanlar to Choma to Akçay; other, apparently smaller sites fan out on either side of that line, including the top and southern slopes of Çatal Tepe.
Middle Bronze Age, ca. 2000-1550 B.C.	Abandonment of human habitation, perhaps because of high lake levels.
Late Bronze Age, ca. 1550-1150 B.C.	The basin remains abandoned.
Early Iron Age, ca. 1150-900 B.C.	The lakes in the Elmalı Plain drain suddenly ca. 1000 B.C.
Middle Iron, 9 th century B.C.	Possible (scanty) evidence from Choma.
Late Iron I, 8 th century B.C.	The basin is re-inhabited. Choma is re-settled and fortified; sites appear on Çatal Tepe to the north; at Zumrutova Kalesi and Buralye Höyük to the south, and Pirhasanlar Höyük to the northeast; rich tombs at Bayındır show connections to the outside world.
Late Iron II, 7 th century B.C.	Settlement grows around Choma, Çatal Tepe, and Buralye; new sites at Ördekbeli, Yakaçiftlik Höyük. Tombs at Bayındır continue.
Archaic, 6 th century B.C.	Expansion continues in the first half of the century, adding sites around Choma, and the fortified site of Avşar Kalesi. However, the painted tomb at Kızılbil in the late 6 th century seems to mark a significant settlement abandonment (including Choma) or shift elsewhere to presently unknown locations.
Early Classical, 5 th century B.C.	Evidence comes only from cemeteries: Karaburun, Gölova, Boztepe, Sarılar Cemetery (just west of Choma), and perhaps the north spur of Balıklar Dağ.
Late Classical, 4 th century B.C.	After the Kızılca inscriptions and Podalia coin hoard, belonging to ca. 380-360 B.C., evidence for activity explodes ca. 350 B.C. Gilevci, Buralye and Avşar Kalesi are strongly fortified at entrances to the Basin. Settlement appears to spread across the basin and the bases of the mountains. Decorated and inscribed Lycian house-type tombs are cut into the rocks at Aytaş Mevkii, above Kızılca, and at Eskihisar, Armutlu, and Buralye.
Early-Middle Hellenistic, ca. end 4 th -mid 2 nd century B.C.	Intense development of Choma and its suburban mounds; activity on the top and the southern slopes of Çatal Tepe returns, including small farmsteads. Occupation of Karahöyük and Sivri Höyük begins; settlement returns to Yakaçiftlik Höyük and Zumrutova Kalesi. Abandonment, however, of small lakeside mounds such as Pirhasanlar Höyük and Buralye Höyük.

Late Hellenistic, mid 2 nd - 1 st century B.C.	The basic pattern of the previous period continues, but with the loss of Sarılar Cemetery west of Choma and the Aytas Mevkii Cemetery, and the appearance of Küçük Söğle. Choma and Podalia produce autonomous coinage.
Early Roman I, 1 st century A.D.	Intensity of ceramic activity decreases across the board, though almost all sites continue to be used, except Kocapınar, Avşar Kalesi, Yakaçiflik, and Sivri Höyük; evidence appears at Yapraklı (Orpeeni) and Büyük Söğle, and returns to the lakeside mounds of Pirhasanlar Höyük and Buralye Höyük, as well as a new site along the bottom of the eastern flank of Buralye Ridge.
Early Roman II, 2 nd century A.D.	The Early Roman I pattern continues. Evidence reappears at Avşar Kalesi and Aytas Mevkii and probably Ördëkbeli (mainly in the form of monumental tombs, decorated sarcophagi, and inscribed and decorated grave stelai), but there is nothing from the top of Çatal Tepe just north of Choma.
Middle Roman I, 3 rd century A.D.	While continuing sites thin out on the slopes of Çatal Tepe and Buralye, settlement becomes slightly more concentrated around Choma. Activity returns to Kocapınar and Yakaçiflik mounds, and appears at Mursal.
Middle Roman II, 4 th century A.D.	The 3 rd -century pattern continues. Either during that period or this one, the fortification walls of Avşar Kalesi and Buralye are extensively repaired, re-using earlier material.
Late Roman I, 5 th century A.D.	Activity continues strongly at Choma and all its suburbs; Sarılar cemetery is used once again, as are sites on the top and slopes of Çatal Tepe. Conversely, activity at the top of Buralye declines, even as it returns to the lower eastern base of the ridge. Evidence also drops off at Pirhasanlar Höyük and Karahöyük. Avşar Kalesi continues as before.
Late Roman II, 6 th century A.D.	No appreciable change from Late Roman I.
Early Byzantine, 7 th -9 th centuries A.D.	Activity continues in Choma and its suburbs (at a slightly lower level), and concentrates at the large site on the south slopes of Çatal Tepe (disappearing elsewhere on that hill). A new, large site begins to grow on the plain east of Choma and just west of the modern town of Beyler. At Buralye, evidence continues only on the citadel and at the cemetery in the saddle to the south. Zumrutova Kalesi is abandoned, and there is a hiatus at Karahöyük. Settlement returns at long last to Ördëkbeli.
Late Byzantine, 10 th -12 th centuries A.D.	More intensive evidence almost everywhere in the basin; all of the perimeter fortified sites seem to be active; activity on Çatal Tepe switches to the north peak, which can monitor the northern pass into the basin. Large and

	dense sites appear in the flat bottomland east and south of Choma, even as Choma and all of its suburbs show revived strength. At no other period do locations so far out in the basin from Choma show activity, possibly because of lower water levels. Finally, Akçay and Mursal once again show occupation.
Early Turkish, 12 th -15 th centuries A.D.	Evidence exists in the vicinity of Choma and Islamlar. Also, a number of dry-masonry 'waystations' and 'lookouts' appear at road junctions at Buralye, along the road from Elmalı to Bayındır at Ardiç, and possibly along the road from Mursal west to Islamlar. A pattern of road stations and settlement on the bottomlands may be indicative of Seljuk nomadism. By the 14 th century, the modern pattern of villages in the basin is established.

Table 2. Preliminary ceramic chronology and settlement summary for the Hacimusalar Project Regional Survey (cf. Figs. 1-2).

Intensive total-collection of material in randomly selected field transects was also carried out using 'off-site' methodology (Fig. 2), but this off-site material has not yet undergone full chronological inspection. Most of the intensive and extensive collection was done in the Elmalı Plain (Fig. 1). With a total area of ca. 900 sq. km., comparable coverage of the entire Elmalı Basin has not yet been possible; at this time it is only possible to present a partial view, although it is an instructive one.

Patterns do emerge from the parade of period summaries listed in Table 2. Settlement size and density steadily increases from the Neolithic through the Early Bronze Age, until a complete hiatus for the second millennium B.C. occurs, which is probably related in some specific way (not yet determined) to a significant rise in already-high lake levels. After the lakes drain (equally suddenly, according to the lake cores) around 1000 B.C., strong settlements and rich burials begin to appear during the eighth century B.C., often

along the edges of lake- and marshland (e.g., Choma, Site 100; Buralye Höyük, Site 806; Pirhasanlar Höyük, Site 849).

Growth peaks in the early sixth century B.C., until about the time the Persians take control of Lycia, ca. 540 B.C.² After that -- despite the presence of the famous painted tombs of Kızılbél and Karaburun,³ as well as other tombs at Boztepe (Site 882), ruined examples north of Ördekbéli on Balıklar Dağ (Site 842) and at Gölova (Site 885) -- ceramic evidence for settlements disappears. The Persians may not have wished to leave a large fortified site such as Choma inhabited, and perhaps undertook a program of population relocation or redistribution, even as local aristocrats cooperating with the Persians celebrated their success through the painted programs in those tombs.⁴ Where settlement went during this time, however, remains unknown. This author suggests, due to its central location in the basin at the nexus of the road networks (Sites 824, 827, 831) and connected to those tombs and beyond, that Elmalı itself (ancient Akarassos⁵) may have become an administrative center (Fig. 2). A prominent höyük (Site 825) in the center of the old town, defensible and supplied with a permanent spring, but now walled-off, built-over and inaccessible, may ironically be the place to look.⁶ Still, it would not be possible to farm much of the Elmalı Plain from that one location, and so the wider presence of material belonging to the ‘Classical’ period, if the basin contained the levels of population necessary to support such aristocratic display, remains a problem.

² Hdt. 1.176

³ Mellink 1998.

⁴ Garrison, forthcoming, “Introduction”.

⁵ Adak and Şahin 2005, 74.

⁶ Mellink 1998, 1-2 remarks that the mound shows “classical habitation.”

A program of fortifying major passes into the basin, notably Gilevgi, site 861; Podalia, site 805; and Avsar Kalesi, site 843; also (*non vidi*) Çatal Tepe near Kuzuköy and Asarlık Tepesi near Söğle,⁷ apparently occurs towards the mid-fourth century B.C., heading a new wave of settlement across the basin (Figs. 1, 4). These fortifications bear large-block “squarish polygonal” and “coursed polygonal” masonry styles similar to those found in Hekatomnid Caria.⁸ It is not yet clear who is responsible for what appears to be a concerted and coordinated effort to defend the basin from the coast (there are no known large forts at the northern pass to the Upper Xanthos valley), and what connection might exist with Pericles of Limyra, undoubtedly the person named in the only Lycian-language inscriptions from the basin, associated with rock-cut tombs above Kızılca (Site 866) and dated to 370-360 B.C.⁹

The Hellenistic age exhibits some of the most intensive settlement in the basin. Certain large mounds prosper: in the center, Yakaçiftlik Höyük (Site 808) and Choma, with all its suburbs (see below), are reinvigorated, and we witness the debuts of Karahöyük (Site 855) below Gilevgi Fortress in the northeast corner of the basin and Sivri Höyük (Site 810) in the north, towards the pass to the Upper Xanthos river valley. This is a period when lake levels were, according to our paleoenvironmental chart, particularly low; perhaps the foundation of the additional mound sites just mentioned aided in the agricultural exploitation of newly-available bottomlands by bringing large settlements

⁷ Adak and Şahin 2005, 73 and 76 (Abb. 11), for the latter two sites, respectively.

⁸ McNicoll 1997, 19-22, plates 3-4.

⁹ Bean 1971, 22-23; this date coincides roughly with the deposition of the Podalia silver coin hoard; see Olcay and Mørkholm 1971.

with resident farmers closer to those fields. Accordingly, small mound sites that were *once* near lakeshores (Buralye Höyük, Site 806; Pirhasanlar Höyük, Site 849) and which perhaps relied on lacustrine resources, seem to have been vacated (in favor of hilltop sites on Buralye (Site 805) and Çatal Tepe (Sites 104, 105) respectively?). Civic identity may have become more pronounced by the first century B.C., when Choma and Podalia first produce autonomous coinage, though there is relatively little ceramic evidence from Choma mound for that period.¹⁰ The Elmalı basin, part of the ‘Milyas’ region, was peripheral to Lycia until the outside power of the Romans, first by Caesar in 46 B.C. and then by Claudius in A.D. 43, formally linked the two areas.¹¹

During the Roman period, settlement looks somewhat less intense, but the patterns are quite stable on the large scale, with local waxing and waning, of course. Additional weakness in material density appears in the Late Roman period, and sometime just before or during this period (third-fifth centuries A.D.?) the major fortifications on the basin edges (first erected in the late fourth century) were re-built.

In the Early Byzantine period, a new settlement (Site 112-113-124) emerges about 2 km. east of Choma. It grows to prodigious size (ca. 8.5 hectares) by the Late Byzantine period, and produces marble revetment and architectural fragments (some perhaps moved from Choma). This site may have been the start of a true successor to Choma, and an ancestor to Beyler, a small village in the central portion of the plain. The Late Byzantine

¹⁰ Adak and Şahin 2005, 68; Troxell 1982, 240; Garrison, forthcoming, “Introduction”.

¹¹ Adak and Şahin 2005, 68, referencing an unpublished treaty in the first instance and the nearly fully-published *Stadiasmus Patarensis* (*vide infra*) in the latter.

period has an overabundance of evidence. Fortified and defensible sites within and at the edge of the basin are active again. Even as Choma (with an expanded cathedral in the 10th century) and its suburbs thrive, the proto-Beyler site grows. Meanwhile, Sites 111 and 122, which due to numerous tiles and storage jar fragments may have been farms, stake out territory in the central bottomlands of the Elmalı plain.

During the Early Turkish period, we have evidence for a characteristic Seljuk pottery¹² for which a production site called Sarnıç Düzü (Site 891; *non vidi* -- the Bilkent University team collected pottery and wasters there in the early 1990s) exists somewhere in the hills above Avlan Golü. Given that pottery's appearance at many Late Byzantine sites, it is likely that many features of that settlement pattern continued into Early Turkish times, grading into the small nucleated villages that have since characterized the basin. Extensive herding patterns directed by nomadic Turks may have evidence in a series of simple but well-built dry-stone masonry enclosures located *at elevated points* along roads or at their junctions (Fig. 4). Examples include the Buralye Enclosure (Site 848), Ördekbeli saddle (Sites 839, 840, 841), the Ardiç Enclosure (Site 878), and Ovacık Minor (Site 830), with 'corrals' attached to a smaller walled shelter, the latter perhaps for the use of the drovers. The better-preserved enclosures (Buralye and Ardiç) are still used for the same purpose during the biannual transhumant movements of flocks between this high plain and the coast. These roads, which probably continued thoroughfares of earlier periods (see below), also feature springs, wells or fountains at regular intervals (the latter

¹² Armstrong 1998; Armstrong 2001.

now dried up after the draining of the lakes) and small cemetery areas with simple rubble-mounded graves, sometimes marked by plain upright markers.

SETTLEMENTS AROUND CHOMA (SITE 100)

It seems worth taking a closer look at the development of sites in close proximity to Choma at the center of the Elmalı Plain (Fig. 3), because that site has been the starting point and heart of the project. First, nearly all of the ‘suburb’ settlements circling Choma have evidence for Early Bronze Age habitation, and all share the second millennium B.C. hiatus. Revival appears first at Choma mound itself, in the eighth-seventh centuries B.C., when the site of Choma expands to receive its first (mud-brick on a stone socle) fortification circuit.¹³ At about the same time, evidence appears at Site 114-123-139, located on a projecting ridge along the southwest slopes of the prominent hill of Çatal Tepe, about 1.5 km. north of Choma. Ceramic material is spread out upon these badly eroded slopes, and it is unclear at present where the core of that site once stood.

The Archaic period is strong at Çatal Tepe, as it is around Choma, but the control of the Persians from the late sixth to mid-fourth century B.C. seems to bring about an abandonment of these particular sites (as noted above, that settlement gap exists everywhere we have surveyed). Re-settlement and a new (stone) city wall greets Choma in the mid-fourth century B.C., apparently in concert with the fortifications constructed at northeast, southeast and southwest passes to the basin (Gilevgi, Site 861; Podalia, Site 805; Avşar Kalesi, Site 843; respectively).

¹³ Garrison, forthcoming, “Introduction”.

The center of the basin sees intense activity during the Hellenistic period. In fact, it is the *first time* since the Early Bronze Age that all of the ‘suburb’ mounds circling Choma are occupied. While that extent of occupation continues during the Roman period, its intensity seems to level off somewhat. Other than Choma itself, just two of the mounds (Site 102 to the north and Site 109 to the west) maintain high levels of activity.

By the late Roman period, the weight of evidence shifts westward slightly to the mound at Site 107. This shift coincides with the return of evidence just slightly further west at Sarılar Cemetery (Site 108), the first time since the Middle Hellenistic period at that location. Numerous decorated late-style architectural blocks at Site 108 suggest that a church may once have stood there, perhaps serving the growing communities west of Choma mound. Subsequently in the Byzantine period, even as activity continues at Choma (with major building phases of its basilica from the fifth-seventh and in the ninth-tenth centuries BC¹⁴) and west of Choma (strengthening further in the 10th-12th century with the revival of Site 101), a large new site begins *east* of the Mound (Site 112-113-124). Even before Choma is abandoned at the end of the Byzantine period, portions of that central settlement may be moving both eastward and westward, towards the modern towns of Beyler and Sarılar, respectively. In those towns (as well as Hacimusalar to the northwest), worked and inscribed blocks belonging to Choma have been found.¹⁵

¹⁴ Garrison, forthcoming, “Byzantine church area”.

¹⁵ Reger, forthcoming; Bean and Harrison 1967.

While the nature and function of these sites cannot be clarified without excavation, and while they doubtless included habitation, in the northern and western ‘suburbs’ of Choma (particularly at Sites 101, 102 and 107), we have also collected evidence for glassworking (glass slag). Finally, cemeteries, including standard Lycian hog’s-back sarcophagi (which, though seldom *in situ*, cannot have traveled far: see Sites 115, 117, 125, 128) line the north-south and east-west thoroughfares that crossed at the site, connecting Choma to all parts of the basin, and to the major roads leading into the basin.

OTHER LOCALITIES WITHIN THE ELMALı PLAIN

Several sites beyond Choma drew our attention over the course of the project, because they held a naturally strategic position, possessed significant architectural remains, showed interesting ceramic assemblages, or were suffering illegal excavations. None have previously received systematic and sustained attention. Below we briefly introduce the essential features of Avşar Kalesi, Zumurutova Kalesi, and Buralye (see Fig. 3). The former site was mapped between 1999-2002; the latter two were planned in 2005.

Avşar Kalesi (Site 843) guards a southern approach through the Susuzdağ Mountains into the basin. An initial circuit of well-dressed, Cyclopean-esque polygonal blocks probably belongs to the fourth century, even though the earliest evidence from the site is Archaic (there is no Classical material from the site). The fortification wall was subsequently rebuilt (no earlier than the third century A.D., judging from a re-used inscription in the wall). Belonging to the Roman imperial period (second-third century A.D.) are some 40 sarcophagi outside the city walls (small green rectangles on the plan). Some are decorated

with lions (of the northern Lycian type) or reclining couples, although most are of the undecorated Lycian hogs-back form. Also of the same date are two funerary inscriptions, the only epigraphy so far found at the site. Off the northwest side, foundations of large buildings two rooms deep, amongst the sarcophagi, may be all that remains of the kind of temple-tombs known at Aytaş Mevkii (Site 823) and popular elsewhere in Lycia. The site's life continues right to the Late Byzantine period, from which the most intensive evidence comes.

The fortification wall still stands up to 5 m. high; gates guard the three accessible sides of the site (the southeast is naturally defended by a steep cliff), and several interior staircases give access to the top of the wall. There may be towers guarding the edges of the natural cliff, but those areas are so ruined that it is difficult to tell. A road leads from the northwest gate, past numerous exterior structures only roughly planned at present. We have not been able to follow its course all the way down to the plain, so we do not yet know how the site was connected to the local road network (see below). Inside, several dozen buildings are visible, though badly ruined (all are built of dry field-stone masonry, occasionally and partially dressed), and in some places streets can be detected. Houses are trapezoidal in shape, adapting locally to the steeply terraced nature of the topography. They consist of one or two rooms back-to-back; thick walls (0.7 to 1.25 m.) and steep terrain argue for multi-story buildings, though more than three to four courses of stone are rarely preserved. The houses seem typical of other Late Roman - Early Byzantine examples in Lycia, as at Kyaneai.¹⁶ Some thresholds are preserved. A triangular building

¹⁶ Özgenel 2005.

near the center of the site contains a room with a small apse. Just to the south, a larger (but shallow) curved wall marks the western edge of the largest open area of the site, where column fragments have been found. If a church or chapel existed on the site, these examples represent the most likely candidates. A large cistern is cut into the rock near the top (southwest corner) of the town. Almost 150 looting pits mar the surface of the site; the cemetery area west of town is particularly badly damaged. The ancient name of the settlement is unknown.

The site of Zumrutova Kalesi (Site 864) also watches over an approach to the plain through the southern mountains. It rests on top of a naturally sheer limestone promontory, improved by a roughly built but thick fortification wall on the north, east and west sides which probably dates to the Middle or Late Roman period. A strongly built gate gives access on the southeast corner, and a possible tower extends off the east side, where the terrain is most shallow and vulnerable. A series of six vertical cuttings, overcut with horizontal channels, in front of the southern corner of the fortification wall may be evidence of stelai footings (though no carved or inscribed fragments have been found), features paralleled at Avşar Kalesi (Site 843) and Eren Tepe at Mursal (Site 809). Perhaps three building complexes: in the center, to the north, and at the south, occupied the interior, but they are so badly ruined that their nature cannot be known without a serious clearing operation.

The place is small, about one-quarter that of Avşar Kalesi, and may have only been a citadel; high densities of ceramics in the plain below to the west, next to a seasonal

mountain wash, may indicate the location of the main settlement, just south of the present town of Zumrutova. Our collections indicate differential spatial use of the site (see Fig. 3). The western and southern sides produced almost exclusively Late Iron Age-Archaic and Hellenistic pottery; the presence of looted graves on the south side suggests that this site was used as a cemetery during those periods. The interior of the site, as well as the north and east sides, contained Roman material, so the extant walls should date accordingly. Unlike most sites in the basin, this site delivered no Byzantine or Seljuk material. Given its position overlooking a transhumance route through the southern range, that seems odd, and deserves further inquiry.

The peninsular sites of Buralye (ancient Podalia) watch the southeast pass to Arykanda and Finike, and have been mentioned in some detail already. They occupy the northern and southern peaks, as well as the saddle and the eastern and northern bases, of the ridge. The fortified citadel (Site 805), protecting *numerous* buried interior structures, has a complete circuit constructed probably in the fourth century B.C. and rebuilt in late antiquity (evidenced by the inclusion of architectural and sculpted fragments in the northern, most exposed, stretch). A large, nearly square tower at the southwest corner, set to look over the roads approaching the site from that side, may be Byzantine in date (it should be noted that mortared construction of the kind seen even so nearby as Arif [Arykanda] is lacking in the Elmalı Basin; dry masonry is preferred). A gate to the citadel seems to have been located in the southeast corner, connecting to a path that winds down to the saddle, where we located a cemetery (Site 869) next to a well-built lookout (Site 870). We tentatively argue a Seljuk date on the basis of masonry style for the lookout, by

comparison with the waystation (Site 848) at the saddle junction of roads to the southwest, and the two shabby lookout posts on the south ridge (Site 871). The cemetery has Iron Age-Archaic, and Early Roman, pottery; in the vicinity of the lookout (Site 870), we found Hellenistic and Late Roman-Early Byzantine material. In general, the quality and variety of wares collected at Buralye was higher than anywhere else in the basin. As the closest window the region had to the outside world (and not far distant from cosmopolitan Arykanda), it is not surprising that Buralye has a more metropolitan feel, even as its buildings lay deeply buried both on the crest of the hill and in the plain below.¹⁷ To these eyes, it represents the most promising location for future excavation.

A höyük (Site 806) below the north ridge shows occupation during the Iron Age, Archaic, and Late Classical periods, with an interruption until the Roman period. Watching over that small mound are two (fourth century B.C.?) rock-cut tombs, one of them unfinished, which adorn the northeast face of the north ridge.¹⁸ A larger settlement (Site 807) below the ridge to the east seems to belong mainly to the Late Byzantine period, though it has some life in the Early Roman period; a church may have been established at the southern edge of this site (many appropriately decorated, late-style architectural blocks lie in the fields there). As a whole, Buralye is carefully placed at the junction of numerous roads, and commands the route that winds around the west side of Avlan Gölü, which breaks off

¹⁷ *Contra* Adak and Şahin 2005, 71, the fortified hill of Buralye (Site 805) is too large and too crowded with buildings (though ruined, buried and covered by brush) to be simply an acropolis; it was the center of the settlement, which expanded at certain periods (principally during the Byzantine period) to the edge of the plain at the eastern base of the ridge (Site 807) or to the höyük to the north (Site 806).

¹⁸ Bean 1968; Bean 1971, 28-32.

with roads to both the northwest (Site 872) and the northeast (Site 874) at the site of the probable Seljuk enclosure (Site 848).

THE COMMUNICATIONS NETWORK

The discovery of the *Stadiasmus Provinciae Lyciae* at Patara has helped to clarify several points of geography and urban identification in the basin.¹⁹ There can no longer be any doubt about the locations of Podalia (Buralye), Soklai (Söğle) and Akarassos (Elmalı), for instance.²⁰ Our discovery of road traces in the basin also adds new information to the discussion about the location of the otherwise unknown polity of Kodopa.

Kodopa is mentioned in the Claudian-era itinerary as thirty-some stades (5.6 - 7.2 km) from Choma, as the list moves in an easterly direction towards Akarassos.²¹ During intensive field survey, a linear feature (Site 136) appeared running east from Choma (where it would have entered the eastern edge of the city exactly at a low point in the mound topography, and so where a city gate might be located). Site 136 in fact lines up with a field road that continues east-northeast across the basin, directly towards the north edge of Yakaçiftlik Höyük (Site 808), a major mound 4.5 hectares in area, with evidence

¹⁹ Şahin and Adak 2004; Şahin and Adak, in press.

²⁰ Adak and Şahin 2005, 71-75.

²¹ Using Pliny's measurement figure for a stade: Plin. *HN* 2.21, where he states that a stade is 125 paces. That number is equivalent to 625 standard Roman feet; a standard Roman foot equaled 29.64 cm, providing a figure of 185.25 m. for the stade. Adak and Şahin 2005, 70, 73 and n.15, argue that only 32 and 36 stades are possible options for the missing second digit in the inscription, on the argument that only those two numbers in the 30s are divisible by eight (or four) and (because eight stades equaled one Roman mile), only such even numbers would have been used to mark Roman waystations (at mile intervals). Given that other stade distances *not* divisible by eight or four are present in the inscription (e.g., Pinara to Telmessos: 177 stades; Telmessos to Kalynda: 187 stades; Işık, Yılmaz, et al. 1999), this does not seem an entirely convincing argument.

(from limited sherding) for Chalcolithic-Early Bronze Age, Late Iron-Age-Archaic, Hellenistic, and Middle Roman (third-fourth century). Yakaçiftlik Höyük is 7.4 km. distant from Choma, on the high side of possibility for Kodopa.

Another candidate is Eymir Höyük (Site 800), a mound half the size of Yakaçiftlik Höyük, along the current modern road to Elmalı, which we have not sherded (it is in use as a cemetery and contains numerous architectural spolia that appear to be Byzantine in date), located 6 km. from Choma. Locating Kodopa any more directly towards Akarassos is impossible because Karagöl, until it was drained, blocked any road directly to the northeast towards Akarassos. Adak and Şahin have consequently offered up the small hilltop fortress of Çatal Tepe near Kuzuköy (6.6 km. north of Choma) as the location of Kodopa, connecting to a known road circuit far around the north side of Karagöl.²²

However, Adak and Şahin's reasoning *against* a location in the direction of Yakaçiftlik or Emir Höyük (which causes them to look northward for a solution) is problematic. They claim that the entire east-central portion of the Elmalı Plain was marshland in antiquity, which precluded road construction there.²³ Their evidence is a twentieth-century 1:200,000 map, which could never offer enough resolution to articulate clearly the variable swampland borders, much less speak for the situation two thousand years earlier. There is in fact a low rise of several meters elevation visible on the 1:25,000 topographic maps that runs west-east across the Elmalı Plain, dividing the drainage basins of Kara Göl and Avlan Gölü, and this is where the modern road (and a likely ancient route as well,

²² Adak and Şahin 2005, 73-74.

²³ Adak and Şahin 2005, 73.

given the number of sarcophagi found alongside it at various intervals) runs. We have evidence (from Yakaçiftlik, Eymir, and Pirhasanlar for instance), that there were settlements in that area. We also know from our lake cores and historical sources that the lake and marsh boundaries varied considerably over time, and according to season. Wet ground in winter or spring could be perfectly passable in summer and autumn.²⁴ Furthermore, water levels in the basin were lower in antiquity than they were one hundred years ago (see above, Table 1). Finally, Adak and Şahin themselves must postulate causeways, across far more waterlogged ground, for the route that linked Podalia eastward (across 3 km. of marshland) to the road that cut through the Nohutlu Dağ range to Soklai, and for the road from their location of Kodopa at Çatal Tepe near Kuzuköy northward to the clearly visible stretches of road along the west side of Balıklar Dağ.²⁵ We therefore have at least three possibilities for the site of Kopoda of Milyas; no evidence from any of these sites can presently be said to cinch the argument.

By examining the provisional (and incomplete) road network mapped out in Fig. 4 (in which even the interpolated roads follow known field roads or highways), it is immediately clear that the locations mentioned in the itinerary are not just major sites, but major junctions in the road network, the sort of places it is necessary to reach (and recognize) before continuing a journey. All show evidence for crossroads. Podalia completely oversees the southeast entrance to the basin, and at that point we have clear evidence for roads going in at least three directions. Choma is the central crossroads of the Elmalı Plain, and Akarassos plays the same role at the interface between the two

²⁴ See, for instance, Woodward and Ormerod 1909-10.

²⁵ Adak and Şahin 2005, 76 and 74, respectively.

plains that make up the basin. By this argument, the sites of Yakaçiftlik Höyük and Çatal Tepe near Kuzuköy are good candidates for Kodopa, resting at clear intersections in the communications network.

Besides these sites, two other places (discussed in passing above) demonstrate significant road traces: Ördekbeli in the west, and a road directed at Soklai in the east. The site of Ördekbeli, reached by a long and well-preserved portion fashioned both of set stones and cut bedrock, has evidence for the seventh-sixth century B.C., but then (aside from Hellenistic-Roman sarcophagi) shows no activity until the Early Byzantine period. It would not be a reasonable candidate to appear on an imperial itinerary. The road that takes the pass through the Nohutlu Dağ from Podalia to Soklai includes one of the best-preserved stretches of pavement in the basin: largish dressed curbstones on both outside edges, and well-laid surface stones spanning the ca. 2.5 m. width of the road.²⁶ It does not seem prudent to assign specific dates for any of these roads at present. All seem to have been active in the Late Byzantine and Seljuk periods, whose pottery is associated with the enclosures or waystations (see above) that often appear along those routes, but at what time the courses were either initiated or improved with formal roadwork cannot yet be determined. The Claudian itinerary has not yet been completely published, but there is no reason to believe that it commemorates any major program of road *construction*.

CONCLUSIONS

²⁶ Adak and Şahin 2005, 75-76, Abb. 10.

For reasons beyond the author's control, our team's work in the Elmalı Basin has concluded, and it will be published as part of a forthcoming monograph on the entire Hacimusalar Project. While many questions remain unanswered, we hope to have established a base of knowledge and a standard for recording that will facilitate future generations to continue exploring a fascinating region that suffers badly from looting. Though formerly ill understood, the Elmalı Basin demonstrates a melding of influences from the interior plateau, coastal regions, and occasionally the larger Mediterranean world into local traditions throughout its history. Despite drastic environmental changes, the land provided rich farming and extensive grazing. Its inhabitants built in stone and mud-brick, both in the plain, and on defensible hill-tops. They buried their dead in pithoi, tumuli, vibrantly painted chamber tombs, rock-cut Lycian house-type tombs, lion-encrusted sarcophagi, and simple pit graves. While not boasting the sophisticated and impressive constructions of their better-connected neighbors, they do offer a glimpse of unpretentious life in the *longue durée*, which in many ways endures to the present day.

REFERENCES

- Adak, M., and S. Şahin. 2005. "Das römische Strassen- und Siedlungssystem in der lykischen Milyas (Elmalı-Hochebene)." *Gephyra* 1:67-83.
- Armstrong, P. 1998. "Nomadic Seljuks in 'Byzantine' Lycia: new evidence." in *H Byzantinē Mikrá Asía*, edited by S. Vryonis and N. Oikomedidès, 321-38. Athens.
- Armstrong, P. 2001. "Seljuqs before the Seljuqs: nomads and frontiers inside Byzantium." In *Eastern approaches to Byzantium*, edited by A. Eastmond, 277-86. Aldershot: Ashgate.

- Bean, G. E., and R. M. Harrision. 1967. "Choma in Lycia," *JRS* 57: 40-47.
- Bean, G.E. 1968. "The site of Podalia." *AnzWien* 105: 157-63.
- Bean, G.E. 1971. *Journeys in northern Lycia 1965-1967*. Ergänzungsbände zu den Tituli Asiae Minoris. Österreichische Akademie der Wissenschaften, Philosophisch-Historische Klasse Denkschriften 104. Wien.
- Doerner, J.P. forthcoming. "The paleoenvironment of the Elmalı Basin," *Hacimusalar Project Preliminary Publication*, ch. 7.
- Garrison, M.B. forthcoming. "Excavations at Hacimusalar Höyük 1994-2001: Introduction," *Hacimusalar Project Preliminary Publication*, ch. 9.
- Garrison, M.B. forthcoming. "Excavations at Hacimusalar Höyük 1994-2001: the Byzantine church area," *Hacimusalar Project Preliminary Publication*, ch. 14.
- Işık, F., İşkan Yılmaz, H., et al. 1999. *Miliarium Lyciae. Das Wegweisermonument von Patara. Lykia* 4. Antalya: Anadolu - Akdeniz Kültürleri.
- McNicoll, A. 1997. *Hellenistic fortifications from the Aegean to the Euphrates*. Oxford: Oxford University Press.
- Mellink, M.J. 1998. *Kızılbél: an archaic painted tomb chamber in northern Lycia*. Philadelphia: University of Pennsylvania Museum.
- Olçay, N. and Mørkholm, O. 1971. "The Coin Hoard from Podalia." *NC* 11: 1-29.
- Özgenel, L. 2005. "Late antique domestic architecture in Lycia: an outline of the archaeological and architectural evidence," Paper read at the IIIrd International Symposium on Lycia, 7-10 November, Antalya.

Reger, G. forthcoming. "The epigraphic evidence from the Elmalı Basin. A catalogue and discussion of new and previously published material," *Hacimusalar Project Preliminary Publication*.

Şahin, S. and Adak, M. 2004. "Stadiusmus Patarensis. Ein zweiter Vorbericht über das Claudische Straßenbauprogramm in Lykien." In *Siedlung unter Verkehr im römischen Reich. Römerstraßen zwischen Herrschaftssicherung und Landschaftsprägung*, edited by R. Frei-Stolba, 227-82. Bern: Akten des Internationalen Kolloquiums zu Ehren von Heinz E. Herzig, 28-29 June, Bern.

Şahin, S. and Adak, M. In press. *Stadiusmus Patarensis. Itinera romana provinciae Lyciae*. Abschnitt 3, s.v. Itinera.

Troxell, H.A. 1982. *The coinage of the Lycian League*, New York.

Woodward, A.M. and Ormerod, H.A., "A journey in southwestern Asia Minor." *BSA* 16: 76-136.

ILLUSTRATIONS

Fig. 1. General map of the Elmalı Basin, showing major sites studied by the survey.

Fig. 2. Map of the Elmalı Plain, showing intensive survey sample (outlined in 1-km. boxes), principal sites, and location of lakes.

Fig. 3. A montage of major sites in the Elmalı Plain: Choma and suburbs, Podalia, Avşar Kalesi, and Zumrutova Kalesi.

Fig. 4. Map of the partially reconstructed road network in the Elmalı Basin (sites in *italics* are candidates for the town of Kodopa, mentioned on the *Stadiusmus Patarensis*).