

Hişn Hişnal-Tīnāt on the Islamic-Byzantine Frontier: Synthesis and the 2005-2008 Survey and Excavation on the Cilician Plain (Turkey)

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Abstract:

Cilicia on the Islamic-Byzantine frontier, or al-thughūr, in southeastern Anatolia and northern Syria has been traditionally viewed as an isolated, embattled buffer zone. Yet, it was also the main transportation corridor linking Islamic and Byzantine lands, situated between the Cilician Gates, connecting to the Anatolian plateau, and the Syrian Gates, connecting to the lands of bilād al-shām. Recent survey and excavation of a fortified site occupied from the Early Islamic to Middle Byzantine period (8th to 12th centuries c.e.) in the eastern Cilician Plain offers a different perspective on the frontier. The site can be identified with Hişn Hişnal-Tīnāt, mentioned in sources as a frontier fort and timber depot and port. Its environmental context, architecture, and material culture establish links to local thughūr and wider Near Eastern networks of exchange. Further, the frontier site alludes to the complex symbiotic relationship of a militarized and economic resource-based frontier landscape.

Keywords: excavations | coasts | pottery | timber | glazes | forts | material culture | architecture

Article:

The Islamic-Byzantine frontier (al-thughūr), stretching from Ṭarsūs to Malaṭiya, has always had a place in history as a no man’s land, a battleground for holy war on either side. However, this depiction was an ideological one; the frontier on the ground was a settled zone of interaction and competition among peripheral communities, both with one another and with central lands (Eger 2005; 2008). On the frontier, most of the sites were arranged along the inland valleys and plains of the southern Taurus Mountain areas. Coastal frontier sites were, by comparison, very few, despite the fact that the coast itself was a frontier against the mainly Byzantine-controlled Mediterranean Sea. At the intersection of two frontiers, the Plain of Issos in southeast Turkey

and the northwest corner of the Mediterranean Sea are well situated to test a hypothesis of frontier settlement and interaction. Located near the Syrian Gates in the Amanus Mountains, this narrow coastal corridor connected Anatolia (via Cilicia) with Syria (via the Amuq Plain) and was known as a key locus for the harvesting and shipment of timber. Recent results of survey and excavation on the Plain of Issos revealed a rather large Early Islamic and Middle Byzantine site situated on the coast. Its location corresponds with the thughūr coastal port site of Ḥiṣn Ḥiṣnal-Tīnāt, previously not located. From the primary sources and archaeological evidence, it becomes clear that Ḥiṣn Ḥiṣnal-Tīnāt functioned both as a military thughūr, or frontier post, and a seaport that exported timber. The site's architecture, its surrounding environment, and its material culture demonstrate systems of exchange within the well-connected Islamic-Byzantine frontier.

HISTORICAL GEOGRAPHY

Early Islamic settlement on the coasts of the Byzantine-Islamic frontier has remained elusive. However, historical accounts of seaborne Islamic invasions as far away as Constantinople and archaeological evidence of both (eastern) Islamic material culture in

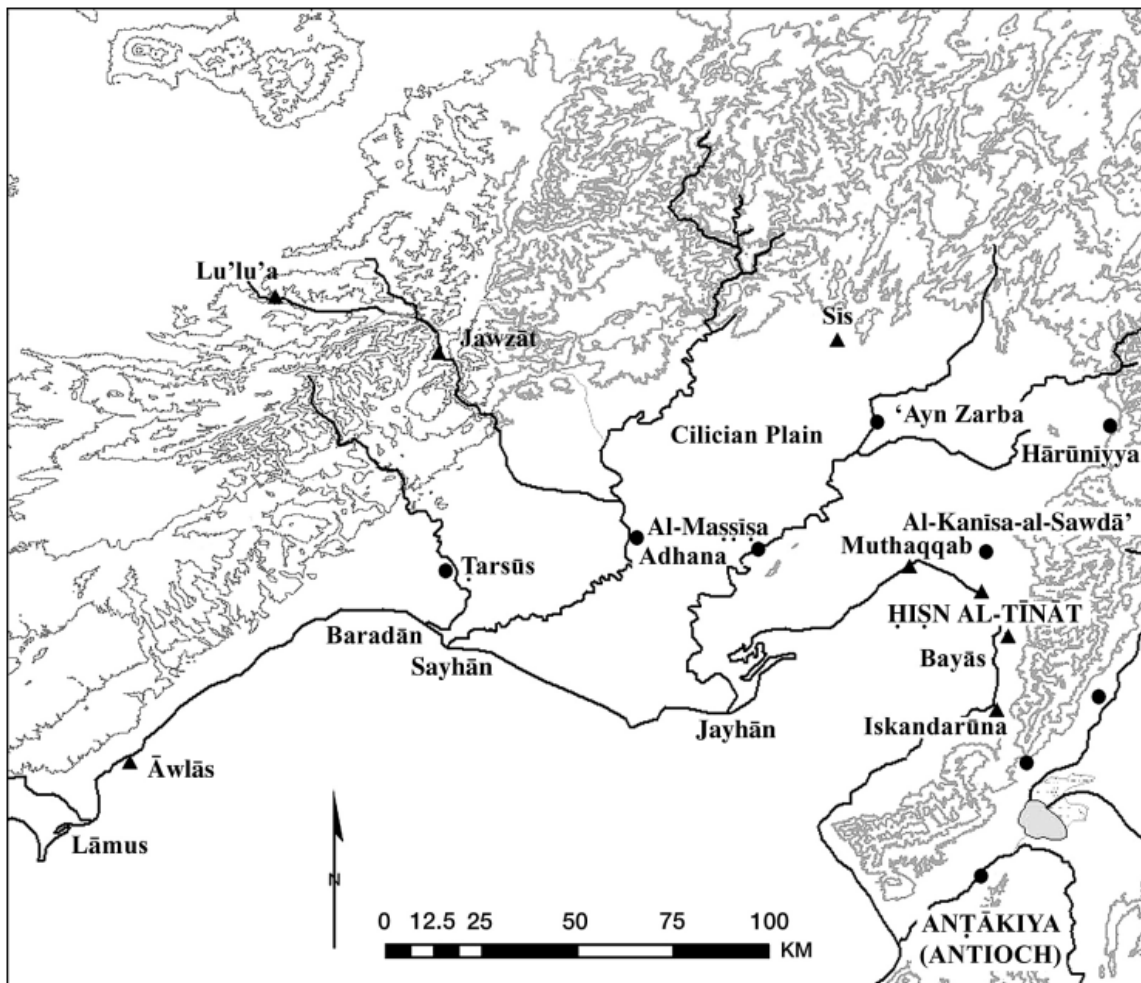


Fig. 1. Map of the western thughūr (Plain of Issos and Cilician Plain) with major (circle) and minor (triangle) thughūr sites indicated.

the west and non-Islamic material culture in eastern sites around the Mediterranean attest, at the very least, to Islamic presence and involvement in port sites, trade, and shipping. Early Islamic geographers, including Ahmad b. al-Ṭayyib al-Sarakhsi from al-Kindī (ninth century c.e.), Ibn Óawqal, Istakhri, and Idrīsī, list a succession of sites along a coastal route following Anṭākiya via the Amanus Mountains: Bayas, Tinat, Muthaqqab, Maṣṣiṣa, Adhana, and Ṭarsūs. Of these, four were major urban thughūr sites (Maṣṣiṣa, Ṭarsūs, Adhana, and Anṭākiya) (Istakhri 1967: 63; Idrisi 1989: II.652). The obvious and interesting quality shared by these sites is that none of them are actually on the coast but are quite inland (fig. 1). In the Late Roman period, sources describe the Cilician Plain sites of Mopsuestia/al-Maṣṣiṣa on the Pyramus River/Nahr Jayhan, Ṭarsūs on the Cydnus River/Nahr al-Baradan, and Antioch/Anṭākiya on the Orontes River/Nahr al-Asi as riverine ports accessible from the sea. At some point, the rivers could no longer support shipping traffic due to silting of the riverbeds. This may already have been a concern in the fourth and fifth centuries, as indicated by evidence from a law appearing in the Theodosian Code mandating that a fleet be responsible for clearing the Orontes River of obstructions—whether natural silt accumulation or pirates is uncertain (Pharr 1952: 10.24.3). Evidence that these continued to function as ports in the Early Islamic period is supported by the geographers' perceptions of these as coastal sites or sea-accessible sites. However, on Ibn Óawqal's tenth-century map, he indicates quite clearly that the sites are on rivers and not on the coast.

The geographers' list includes five Early Islamic coastal sites: Iskandaruna, Bayas, Ḥiṣn Ḥiṣnal-Tīnāt, Muthaqqab, and °Awlas. Iskandaruna (classical Alexandretta, modern Iskenderun) was named a ḥiṣn but was noted to be rich in agricultural production, specifically date palms and timber (Ibn Óawqal 1964: 167; Istakhri 1967: 63).¹ Bayas, later known as Payas (classical Baiae, modern Yakacık), is often listed as the first stop after the crossing through the Belen Pass in the Amanus Mountains.² There is virtually nothing remaining today at Bayas, save for a 16th-century Ottoman khan complex about 800 m from the present coastline, which was built over a Crusader fort and may in turn be built over the Early Islamic site.³ The association of the Crusader site over the Early Islamic one is possible, especially given the less common pattern of situating Crusader castles in this area on the coastal plain and on roads.⁴ Muthaqqab has been identified with the site of Mutallip Höyük on the coast near Yumurtalık and enclosed within the compound of a large fertilizer factory, Toros Gubre. M.-H. Gates and ı. Özgen collected a fair amount of Early Islamic pottery from the site in a 1991 survey. However, while it is mentioned as a coastal site in the Early Islamic period, the geographers and historians provide no further descriptions of the site as a port or even as associated with some type of trade. This might cast doubt on its proximity to the historic coastline and its use as a port (Özgen and Gates 1992: 388; Eger 2008; Redford et al. 2001: 79). °Awlās (classical Elaioussa-Sebaste, modern Ayav) ⁵ is the last coastal site mentioned and also a ḥiṣn. Ibn Óawqal and al-Balkhi stated that it was somewhere west of Ṭarsūs and was the farthest western site inhabited by Muslims in Early Islamic Anatolia; Yaqut said that it was between Ṭarsūs and the Nahr Lamus (Ibn Óawqal 1964: 169; Istakhri 1967: 64). By contrast, the thughur site of Ḥiṣn Ḥiṣnal-Tīnāt, the only one previously unlocated, is mentioned not only as a military frontier post but as a port invested in Mediterranean trade in the form of export shipping of timber. Ibn Óawqal (following Istakhri) in the mid-tenth century c.e. wrote that “also Ḥiṣnal-Tīnāt was a fortress (ḥiṣn) on the coast which has a cutting place (maqṭa°) [or depot {majm°a} according to Istakhri] for pine wood (khashab al-ḥanawbar) which was exported (yunqal) in large quantities (ma la yu ḥa) to Syria, Egypt, and the frontier (al-thughur), and also in it were strong warriors (rijal quttal ajlad), who had knowledge of how to harm (maḥarr) the Byzantine Empire, and knew well its fords (makha°iÎ)

and dangerous places (mahalaka)” (Ibn Óawqal 1964: 167; 1967: 173; Istakhri 1967: 63).⁶ Muqaddasi only refers to Hışnal-Tīnāt (no mention of hışn) as a madina of the province of Qinnasrin and, together with Iskandaruna and Bayas, they are the only coastal sites mentioned (Muqaddasi 1967: 154). The location of Hışn Hışnal-Tīnāt has been the object of some speculation. H. Hellenkemper, who has worked extensively on the historical geography of the Cilician Plain, and C. Cahen both asserted that Hışn Hışnal-Tīnāt is to be identified with the site of Kinet Höyük on the coastal plain near the town of Dörtüol in the Hatay province of Turkey (Cahen 1940: 150). The general location comes from the sources that list Hışn Hışnal-Tīnāt in a successive line of coastal ports between Bayas to the south and Muthaqqab and al-Maşşısa to the northwest. Kinet Höyük is the most prominent mounded site in this stretch of coast and 1 therefore was perceived as the likeliest candidate. The similarity of the non-Turkish modern name Kinet with Tinat is suggestive of a connection.⁷ However, excavations on the mound since 1992 conducted by M.-H. Gates of Bilkent University have demonstrated a long gap of abandonment from the end of the Hellenistic period (mid-first century b.c.e.) until the Middle Islamic period in the late 12th century c.e. S. Redford, working on the medieval excavations, has identified the latest settlement with Tinat or al-Tina and the Crusader port of Canamella or Calamella. Canamella and Tinat, mentioned separately in Crusader and Islamic sources, are the only ports named between Iskandaruna and Ayas (Boase 1978: 157). Looking at the history of the region from the other end, the site of Kinet has been identified with the famous settlement of Issos, sharing its name with the coastal plain upon which it is centrally located and which was made famous by Alexander the Great and Darius’s great standoff. On Kinet, the extensive and well-built site of Issos continues only until the end of the Hellenistic period. The Issos in the Roman and Byzantine periods, like Hışn Hışnal-Tīnāt, was sited elsewhere.

GEOMORPHOLOGY

According to the sources, Hışn Hışnal-Tīnāt, and possibly Issos as well, acted as coastal depots for the collection of cut timber and export to points throughout the Mediterranean. Such activities required location both on a river to manage the floating timber from the mountains and on the coast (a coastal lagoon or river estuary) for access to a harbor and boats. The coastal plain is part of the eastern Cilician Plain or Aleian Plain (modern Çukurova), extending from Kanisat al-Sawdā’ (modern Gözeneler, classical Epiphaneia) down to Iskandarūna and the Belen Pass. This area has been referred to as Black Cilicia or the Plain of Issos and is separated from the low expanse of Smooth Cilicia or Cilicia Pedias farther west by the small Jebel Misis range and a series of low volcanic hills. The Cilician Plain has always shared a long history of settlement, in large part due to its very rich and fertile loamy soil which made it a center for the production of various cereals, fruit trees, and wine. In addition, the region is frequently referred to as a crossroads of importance, embracing the corridor between Anatolia and Syria. The smaller Plain of Issos is subdivided into two parts: a large northern area between the Amanus and Jebel Misis, and a narrow southern strip of plain along the northern Levantine coast. The southern part of the plain at its northern end is about 7.3 km wide and gradually narrows down to 4 km south of Payas where the Amanus reaches the sea. The region is known today for fruit trees, specifically citrus. This is mainly a result of the suitable stony and loamy soil, plentiful stream runoff, and wet and humid climate. The climate is the most humid in all of Turkey, with a mean annual rainfall of 1,080 mm in the main town of Dörtüol (Beach and Luzzadder-Beach 2008: 416–28). This is due to the narrow strip of plain located on the windward side of the sudden uplift of the

Amanus. Wilbrand von Oldenburg (1212) and Marco Polo (1270) who traveled through the area remarked on its fertile soil and plentiful game for hunting. Additionally, Marco Polo noted that there were many villages and towns in the region. The heat and malaria-infested coastal swamps were an impetus for the population of Kinet and other villages to go up into the mountains during the summers, a system practiced today with the *yayla* settlements in the Amanus. An anonymous author and historian of William of Tyre noted on his visit in 1190: “The Armenian plains in the summer are hot and stifling. The mountain is fresh and healthy. As such, the inhabitants of the land have their ways in the mountain, and live there because the heat is not harsh, from the start of June until the middle of September, and before they descend to the plain because the land is temperate and less stifling”(Morgan 1982: 99).⁸

Several rivers flow from the Amanus Mountains into the Mediterranean Sea (fig. 2). These include, from south to north, the Payas Çayı, the Kuru Çayı, the Özerli Çayı, and the Deli Çayı. The Deli Çayı is nearest to Kinet Höyük and reaches the plain at Kuzuculu, where it flows in a course of 2.75 to 5.5 m wide.⁹ As outlined by J. Tobin, coastal streams flowing down the Amanus create alluvial fans, and where the streams and sea meet, they form marshland (Tobin 2004: 1–2). In addition, the coastal rivers are braided and meandering, frequently migrating because of avulsion from the riverbanks, erosion, and earthquakes, and have changed their course along the coastal plain. F. S. Ozaner, who conducted geomorphological work around Kinet in the early 1990s, has shown the movements of these rivers (Ozaner 1994: 513–27). The Deli Çayı once flowed just south and adjacent to the mound in the Hellenistic/Early Roman period (where it served as an anchorage), and migrated from its location to an earlier channel 2 km south along the plain in the Roman/Late Roman period, as evidenced by an extant bridge (Kırıkköprü). The river migrated farther south to its present position in the Ottoman period, 2.7 km south of Kinet, as evidenced by an Ottoman bridge and inscription. Ozaner attributed the migration from the mound south in the Hellenistic/Early Roman period to an earthquake in 50 c.e. Another river, the Tüm Çayı, a branch of the Deli Çayı, migrated across the plain in the opposite direction. At an earlier point sometime in the mid-Holocene, the Tüm Çayı flowed approximately 700 m north of Kinet Höyük and has since meandered farther north along the plain to its present location within the Botav Petroleum Pipeline Corporation complex.¹⁰

The effect of migrating coastal streams has produced a blend of marshland and stony, loamy alluvium from relic streambeds along the southern Plain of Issos, with two main consequences. As a result of the soil composition (as well as the high humidity and annual rainfall), the main produce of the region is field crops and fruit trees. Today, the region is known for its cultivation of citrus. The second impact on the region is the change in coastline. Erosion and colluvium from the rivers and marsh have resulted in degradation and aggradation of the plain, silting in the coastline nearly 1 km from its ancient position (Redford et al. 2001: 78). As a result, the harbors of sites such as Kinet Höyük, Kara Höyük, and Mutallip Höyük (Muthaqqab), which had estuarine river ports since the Bronze Age, are now filled in. However, the progradation of the coastline is not as severe as at sites on the western Anatolian coast, such as Ephesus and Troy (Beach and LuzzadderBeach 2008: 425–26). The deep and subsided nature of the Bay of Iskenderun and the existence of a fault line that runs parallel to the coast contributed to a gradual subsidence of the plain. The coastline is 525 m from Kinet, but further coastal progradation must overcome subsidence of the Bay of Iskenderun.

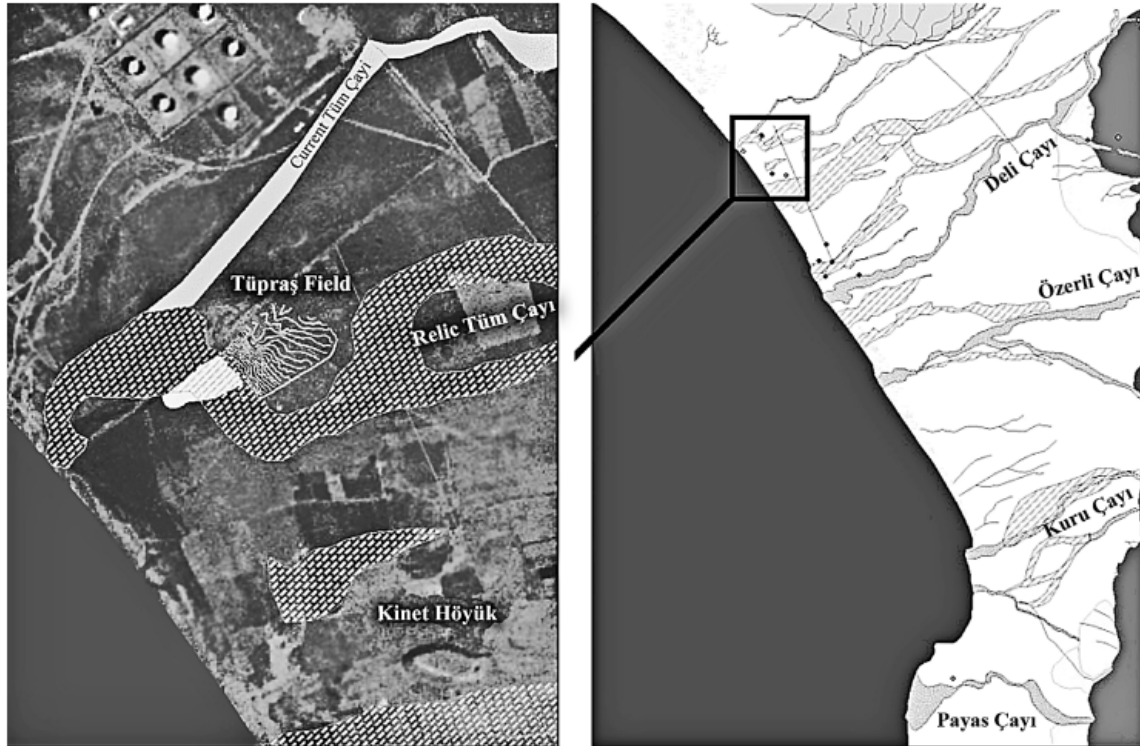


Fig. 2. Plain of Issos, with relic streambeds (cross-hatched) and current streambeds (solid) indicated. Left image: CORONA satellite taken September 36, 1967 (courtesy of the U.S. Geological Survey).

New geomorphological work conducted by T. Beach showed more specifically the amount of aggradation and sedimentation linked to chronological time. Beach and S. Luzzadder-Beach excavated cores and manually dug nine soundings on the east, west, and north sides of Kinet Höyük, analyzing soil composition and content, linking its geomorphology to architectural features and to dates based on artifact and radiocarbon analysis. They determined that the area around Kinet accumulated all of its sediment in the middle and late Holocene—between 2 and 4 m between roughly 300 b.c.e. and 1000 c.e. Between the Hellenistic and Late Roman periods, sediment accumulated at a rate of 0.23 cm/annum, or 2.3 m per 1,000 years. From the Early Islamic period until the present, the plain accumulated 0.09 cm/annum, or 0.9 m per 1,000 years. The pre-Hellenistic periods had the same rate of accumulation as the Islamic. As such, most of the migration of the coastal streams due to the aggradation of high-energy alluvium occurred during the Hellenistic through Late Roman periods. One specific example of this was found in units T2–T6 northwest of the mound, where excavations uncovered a Roman road. The road was built over 3 m of Hellenistic/Early Roman sediment and itself was buried by 1–2 m of Late Roman accumulation. This shows that the majority of sedimentation around the mound and the silting of the harbor were already well advanced by the Roman period, when there was no occupation of the mound (Beach and Luzzadder-Beach 2008: 425–26).

Comparatively, the rates of accumulation and sedimentation in the region of Kinet Höyük on the Plain of Issos were significantly higher than in the Amuq Plain on the other side of the Amanus Mountains. Specifically, sedimentation was 1.3 times higher for the Hellenistic to Late Roman periods (1.75 m/1,000 years for the Amuq) and 1.9 times higher for the Medieval period to the present (0.48 m/1,000 years) (Beach and Luzzadder-Beach 2008: 425–26; Yener et al.

2000: 178). This would have to be due to the larger amount of precipitation in the coastal plain as compared with that in the Amuq. Nevertheless, the trend needs further explanation.

As discussed for the Amuq Plain (Casana 2008: 429–42), the debate for the cause of erosion falls along the lines of natural vs. anthropogenic factors. Earthquakes, meandering coastal streams, and climate change (including heavy precipitation), and the adjustment of the floodplains to rising sea levels could be cited as causal factors. However, Beach and Luzzadder-Beach have shown that in antiquity, the rates of earthquakes (based on known occurrences) and sea level were not so different from today's. What was different was the continued stress in the Roman and Late Roman periods on the uplands due to intensive cultivation, high-elevation settlements and roads, and the breakdown of terracing. Although survey in the higher uplands was restricted, in the lower uplands Beach noted the presence of large and extensive gullies, mass movement scars on the slopes linked with Roman and Hellenistic sites built on ancient terraces. Some of the ceramics from the 2003 and 2005 geomorphology surveys were examined by A. U. de Giorgi and me in 2005. The majority were Late Roman wares (fourth–seventh centuries c.e.), with a significant number of finewares, no Hellenistic wares, and only one Early Islamic sherd.¹¹ As such, upland settlement and stress increased during the Roman period and peaked in the Late Roman period. Subsequently, the greatest upland erosion occurred toward the end of the Late Roman period and afterward, and was strongly linked with anthropogenic factors.

Although the region was susceptible to heavy precipitation and seismic occurrences, intensive land-use activities in both lowlands and uplands, such as agriculture, grazing, and the abandonment of terracing and sites, were important factors to this Roman and Late Roman phenomenon. Iron mining and heavy deforestation of trees for ship building, firewood cutting, and charcoal production and the subsequent transportation of lumber to coastal sites also contributed significantly to erosion. The western slopes of the Amanus Mountains were known throughout antiquity for their lumber resources and, accordingly, coastal sites on the Plain of Issos were involved in the lumber industry (Rowton 1967; Meiggs 1982; Lombard 1971; Watson-Truemann 2000/2001). As posited for the Amuq Plain, similar intensive land use and settlement on (or abandonment of) the slopes, coupled with climatic changes and sporadic earthquakes (such as one in 551 c.e.), could have caused heavy sedimentation on the plain. The consequence is that by the late sixth or early seventh century (end of the Late Roman period/beginning of the Early Islamic period), much of the coastal plain had been gradually transformed and coastal rivers and marshes greatly shifted.

SURVEY

Initial hypotheses from the geomorphology work deduced that the Roman, Late Roman, and Early Islamic sites were located along the strong Deli Çayı and that the sites must have moved with the Deli Çayı and would be located near its banks south of Kinet Höyük under 1 m of sediment. This further supported the hypothesis that the Roman/Byzantine settlement may have been located near the bridge and continued into the Early Islamic period, following patterns of settlement continuity of off-mound settlements (Gerritsen et al. 2008; Eger 2008). This, then, set the stage for an investigation into the Roman, Late Roman, and Early Islamic settlements. As a complementary yet separate investigation, de Giorgi and I conducted the Kırıkköprü Survey for two weeks in June and July of 2005 as an intensive walking survey in the immediate area of Kinet Höyük. The boundaries of the survey were the Botav Field to the north about 800 m, the

modern Deli Çayı about 2.5 km to the south, and the railroad line about 2 km east from the coastline, totaling an area roughly 6.5 km² (fig. 3). Modern development in the form of summer beach housing communities, and at least seven large gas and oil companies and their compounds (consisting of massive storage tanks ranged along the coast), posed an obstruction to archaeological investigation. Nevertheless, following transects spaced 5 m apart, we investigated all accessible fields and citrus orchards owned by both landowners and gas companies in and out of the compounds. The largest of these companies was Botav, which marked the northern edge of the survey area with a tall chain fence with guard posts. Although the Kırıkköprü Survey encompassed all periods, the primary goal of the survey was to locate the Roman, Late Roman, and Early Islamic settlements not attested on the mound.

Between the site of Kinet Höyük and the present Deli Çayı, some 2.0–2.7 km south of the mound, were the remains of a large ancient bridge (Kırıkköprü/KS 1), now part of the Ipragaz natural gas company and in the middle of an orange grove. Salvage cleaning and trenches along the piers by B. Claasz Coochson revealed that the bridge was maintained by at least three phases of building and rebuilding (Coochson 2005: 12–14). Although virtually no pottery was found, it is likely that the main extant portions of the bridge, including the ramp from the road leading up to it, are probably Late Roman.

Several sites were found in association with the bridge and the line of the road, which linked the patches found north of Kinet with the bridge (fig 3). Kırıkköprü Survey site (KS) 2 was located between the bridge and coastline, and was almost a meter higher than fields to the west and separated by a raised berm. The raised berm was ca. 300 m inland from the sea and suggests the location of the ancient coastline. The site shows up as a dark oval anomaly on the CORONA image, about 3.5 ha in area. Intensive field collections identified very dense areas of pottery mainly on the southwest side of the field which included finewares (Late Roman C form 3, stamped African Red Slip) and other ceramics (plainware juglets, Late Roman 1 amphora fragments, plainware ledge-rim basins, and unguentaria) dating from the fourth to the seventh century c.e.¹² There were also many roof tiles and marble and mosaic fragments. At least two building groups could be discerned based on roof tile groupings. Locals say they have continuously found materials every plow season, including a building stone 1.5 m high. The site's occupation can be securely dated between the fourth and the seventh centuries; however, the presence of one Eastern Sigillata A sherd and one Early Islamic holemouth brittleware¹³ rim suggests activity attributed to those periods somewhere in the vicinity.

KS 6 is on the south side of the Ipragaz/Aygaz complex southwest of the Roman bridge; it consists of a small area amidst an orange grove dating from the third to the sixth century. Compared with KS 2, K6 had little pottery (an Early Roman Flavian bowl fragment, third/fourth-century pottery including a North Syrian mortarium and two plainware basins, and fifth/sixth-century pottery including a cooking pot brittleware rim, an African Red Slip plate, and an amphora fragment). In addition, there were fragments of hypocaust round tiles, marble fragments (including one decorated piece), water pipe fragments, mosaic and wall plaster fragments, sherds with hydraulic plaster on one side, and many roof tiles. These artifacts suggest the site was a bathhouse, which would have made use of the constant water flow of the Deli Çayı. South of KS 6, the soil was very stony, indicating that it likely was part of the relic branch of the Deli Çayı that ran under the bridge and around the site.¹⁴

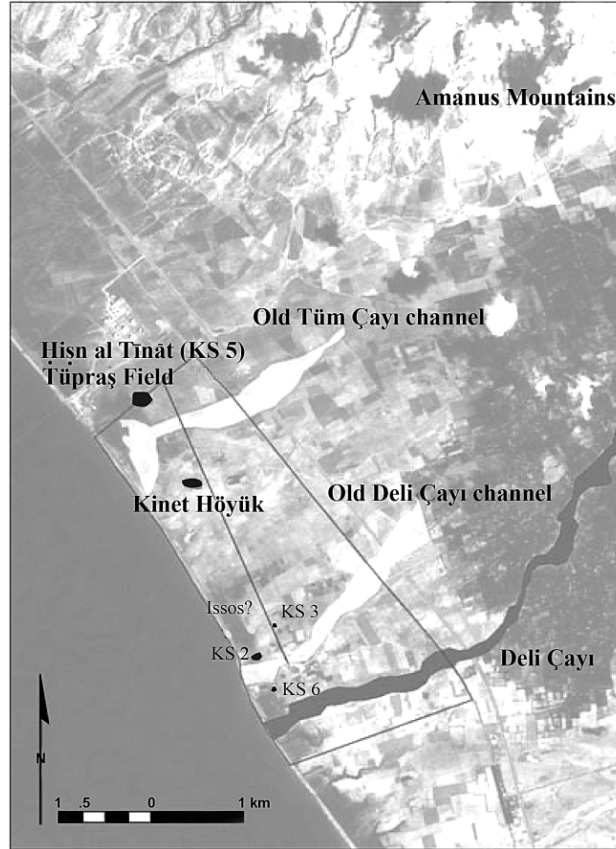


Fig. 3. Kırıkköprü Survey, 2005.

Only one site was found north along the proposed line of the Roman road from the bridge.¹⁵ KS 3 is a cemetery site in an orange orchard located due north of the Roman bridge and probably associated with the road. There was a small scatter with roof tiles and Late Roman fourth- to seventh-century c.e. pottery over an area of about 20 x 10 m (.02 ha), although it was difficult to discern. In the next field north (3b), there were spaced-out piles of mainly roof tile ceramics and very little pottery. These were identified as graves with “cappucina”-style tiled grave covers.

The three seemingly disconnected sites on either side of the Roman/Late Roman bridge and north along the road overlapped in fourth- to seventh-century c.e. occupation. The cemetery to the north along the Roman/Late Roman road probably marks the northern boundary of the site, as the custom of extra-urban cemeteries during these periods was quite common. The presence of an area of buildings, large architectural fragments and finewares (KS 2), a bathhouse with marble and mosaic decoration (KS 6), and a small cemetery (KS 3) suggests that this may have been the later Roman and Late Roman site of Issos. Little is known of Issos other than the assumption that it may have been a small coastal villa or *mansio*. In the Late Roman period, Issos was also known as the place where the Emperor Heraclius fought several battles against the Sasanians in 622 c.e.¹⁶ The sites affirm the existence of the Deli Çayı and the use of the bridge until at least the sixth century. One or two sherds of Early Islamic brittleware may attest to a continuation into the second half of the seventh century, that is, an Umayyad-period occupation.

Apart from a small coastal Hellenistic site (KS 4) located 100 m inland dating to the first half of the fourth century b.c.e.,¹⁷ there were no sites to the north until the very limits of the survey area were reached.

KS 5 (Tüpraş Field site) was a large, low mound 800 m north of Kinet Höyük covering a series of cultivated fields owned by the Tüpraş Petroleum Refineries Company. Visible in a 1969 CORONA satellite image, the site extends to the other side of the Botav southern security fence that cuts through it (fig. 3). South of the site is a relic streambed of the Tüm Çayı opening up into a delta extending west of the site. Southeast of the site, in the fields near the mound of Kinet Höyük, was a continuation of the Roman/ Late Roman road that extended from the Kırıkköprü Bridge. This road, uncovered in the excavations, was the primary north–south coastal road and most likely associated with KS 5.¹⁸ Like Site 2, there is a slight berm that demarcates the ancient fault line which is roughly 550 m from the present coastline. Several monumental stone blocks, masonry, and other architectural fragments were located mainly on the highest part of the site in a small overgrown area of unplowed fields where the stone architecture was visible just under the grass. Within this presumed building area, a small robbing trench revealed an 80-cm-deep section of a well-built stone wall just 40 cm below the surface and continuing downward. In an adjacent field, a white marble column of high quality was found, measuring 65 cm in length and with a diameter of 43 cm at the base and 38 cm at its other end. Pottery was found over a large area of roughly 400 x 400 m (16 ha), but with a very dense scatter of pottery in an area roughly 50 x 50 m (0.25 ha) within vegetable fields.¹⁹ The composition of these surface collections overall was Early Islamic and Middle Byzantine (mid-8th through early 12th centuries), with very few Roman/Late Roman abraded sherds. Previous geomorphological investigation of the site in relation to the coastline in 2005 by Ozaner led to the conclusion that the area between the ancient coastline and present coastline was the Tüm Çayı estuary, and a lagoon and would have served as a perfect anchorage for the site (fig. 2; Ozaner, personal communication, 2006).

The Kırıkköprü Survey has shown two important sites or site groupings on the marshy coastal plain that fit the missing settlements (fig. 3): one dating to the Roman and Late Roman periods south of Kinet Höyük on the Deli Çayı (KS 2, KS 3, and KS 6); and one dating to the Early Islamic period north of Kinet on the Tüm Çayı (KS 5). The former is a likely candidate for Roman Issos, while the latter can be hypothesized as the Early Islamic *thaghr* and port of Hişn Hişnal-Tināt.

EXCAVATION

During the 2006 Kinet excavation season of three weeks, seven soundings (TF [soundings] 1–7)²⁰ were placed to gain a window of coverage in KS 5 and elucidate the architectural plan and excavate down to obtain a full stratigraphic record and chronology of the settlement. A large fortification wall and tower and several walls that were perpendicular to it appeared just under the surface, strongly suggesting that there indeed was a hişn or fort. Five more trenches (TF 8–12)²¹ were excavated in the Tüpraş Field site in three weeks during 2008, concentrating on the fortification, external structures, and the ancient coastline/presumed harbor area (fig. 4). Both soundings and trenches were oriented with the existing field boundaries, in a northeast–southwest direction. The excavations confirmed and delineated the layout of the fortification hypothesized from the 2006 excavations. Moreover, the stratigraphic phasing from the 2006 soundings remained consistent, with four architectural phases. However, the chronology of the architectural phases of the buildings was further clarified and revised to two

main periods. The results from the architectural phasing and preliminary analysis of the material culture show that the site was first occupied in the middle of the 8th century and continued through the Middle Islamic (or, in this case, Middle Byzantine/Medieval) period until the early 12th century, when it was abandoned for Kinet Höyük.

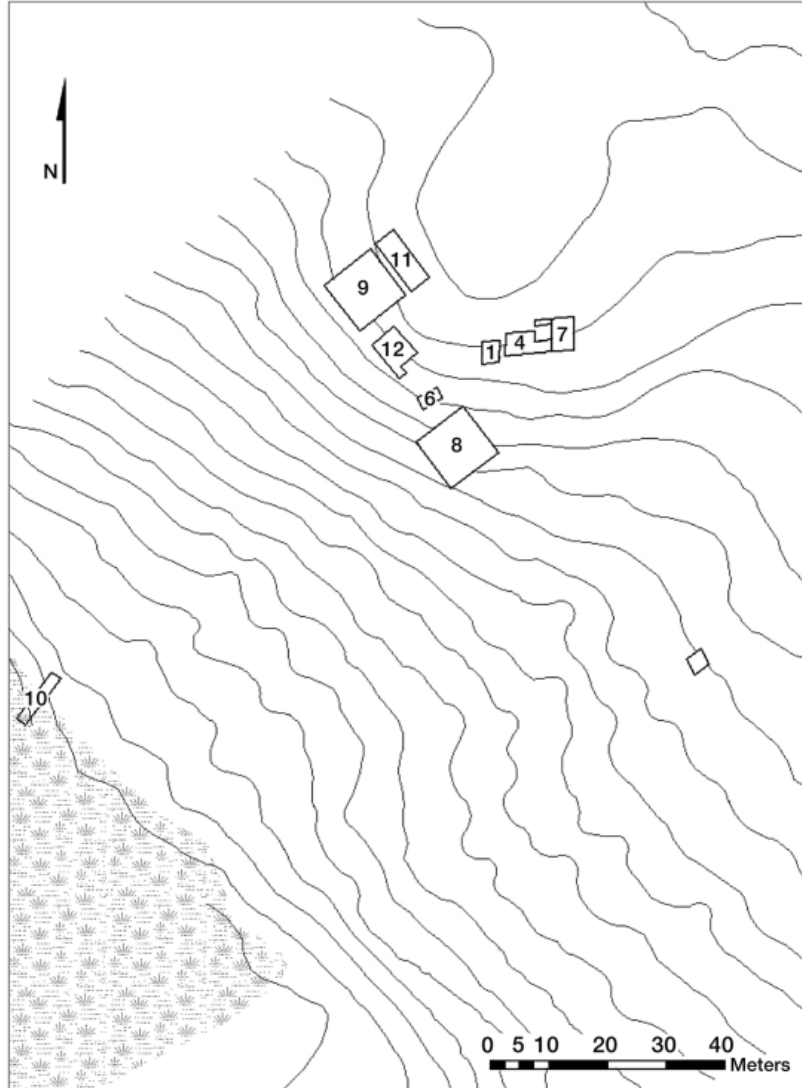


Fig. 4. Tüpraş Field with 2006 topographical map (courtesy of B. Claasz Cockson and R. Kabatiarova) and 2006 and 2008 excavation trenches.

Phase IV: The Early Islamic Period (Mid-Eighth through Mid-Tenth Centuries)

The earliest phase of the site, Phase IV (Early Islamic, eighth through tenth centuries), was only revealed in small areas (fig. 5). In TF 7 was a section of a large north–south fortification wall (Wall 14), 4 m long and 1.6 m wide. The wall had a foundation of cobbles and upper courses of large, rectangular, alternating header and footer ashlar with a mortar and rubble core. Its preserved top elevation was 6.69 m a.s.l. In TF 9 and TF 11, two sections of a thick wall

of very large rubblestones were found under the later fortification walls. In TF 11, the wall runs west and then turns north 90°, and is seen in TF 9 (Wall 30) having turned west again. This last section is oriented

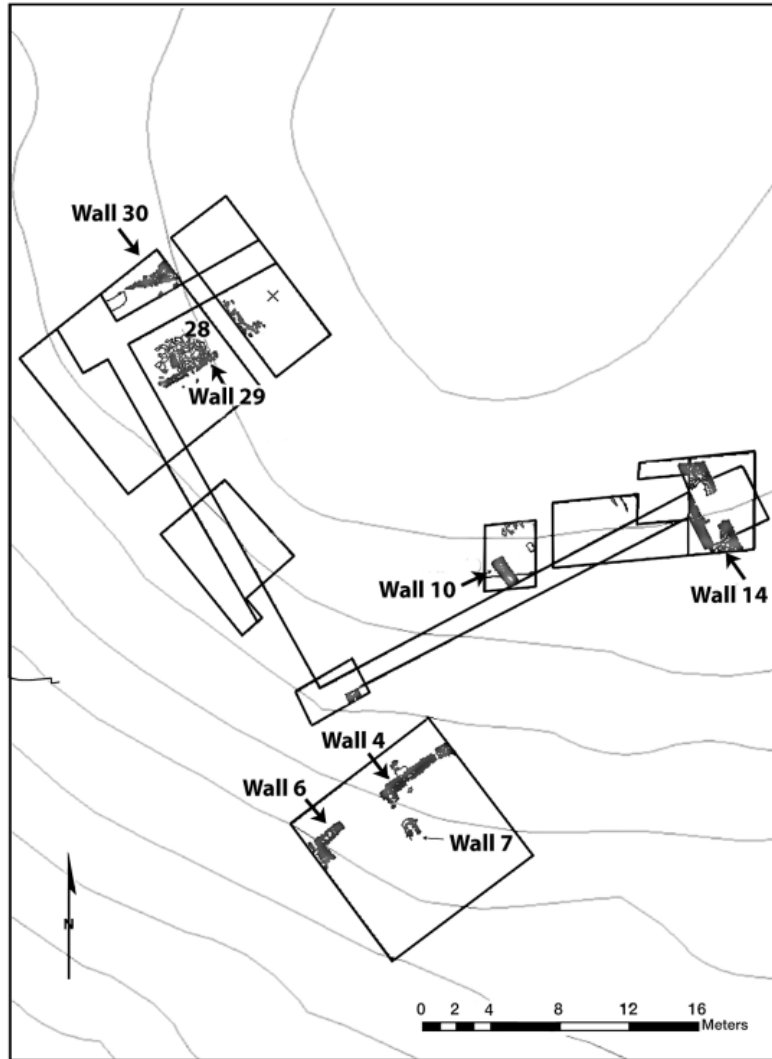


Fig. 5. Phase IV (Early Islamic, mid-8th to mid-10th century) plan of Tüpraş Field.

60° off north, running more northeast–southwest. A small interior north–south wall (Wall 10) in TF 1 of only one course and an east–west wall (Wall 29) in TF 9 of one course, two rows wide, and bounding a stone pavement (28) room, comprised some of the internal elements of the structure. Outside this room to the south were two small but deep pits with large quantities of bone and ceramic. A patch of tile floor was found north of the later Phase I/II fortification’s northwest tower which was built directly over it. These were likely part of the original structure of the site and are assumed to be the fort known by Islamic geographers as *Hişn Hişnal-Tināt*. The orientation and plan of this structure have yet to be better revealed. The evidence of a fort at present is unconfirmed and is based on the small area of excavated walls and floor, the primary

source descriptions, and a hypothesis of the continuity of the architectural form to the Middle Byzantine fortified building.

A domestic building found south of the structure contained several rooms around a possible courtyard. A main east–west wall consisted of two courses of irregular rubble and cobblestones with a foundation packed in with very compact, chunky, dark brown, marshy clay. On top of the wall was a continuous line of fallen roof tiles. The wall was comprised of two main sections (Walls 4 and 6) separated by a large threshold (2.8 m), and a third section separated from the others by a smaller threshold (0.94 m). The main threshold was flanked to either side by low, square, ashlar stones. The western one had the remains of a poorly preserved plastered colonette, suggesting that the threshold was flanked by a set of colonettes. A square, flat, sunken ashlar plastered on either side functioned as the smaller threshold. Midway along both main sections of the wall was a curious feature: a small niche created by two long stones that took up the width of the wall (rather than the double course of stones). The long stones were laid to create a small niche. The function of the niches may have been to hold vertical wooden beams to support a roof or upper story. A small, partially destroyed and perpendicular north–south wall (Wall 7) created a room space to the south. The walls of this phase were generally thinner and had no evidence of much restructuring or rebuilding, perhaps suggesting a short-lived occupation. Further, they contained spolia from the Roman/Late Roman settlement, including a basalt grave stela with a crude Greek inscription²² and the top broken half of a limestone stela (used as one of the niche’s long stones). The stela had a semicircular blank cartouche, a broken-off pediment, and single three-petal flower in relief at the corner. Grain bins indicate a domestic function. Faunal material included bones of cattle, sheep, goat, fish, and two different species of bird (one possibly chicken) but, interestingly, no pig bone, in contrast with the upper phases within the fort (see below).²³ Fishing activities, both riverine and marine, are attested by various fish remains, including a mullet (*Mugilidae*) operculum and four elements of the African catfish (*Clarias gariepinus*).

A remarkable set of ecofacts came out of TF 10, a 2 x 10 m slot trench which was excavated to catch part of the downslope of the Tüpraş Fields (farmland and occupation), the coastal faultline berm, river channels, and marshland (fig. 4). It was also placed to catch an anomalous feature detected on the geophysical survey. Successive courses of gravel flood deposits (with heavily abraded rolled ceramics) overlay a layer of silty, fine, wet sediment with organic material and marsh clays. This layer received flood depositions and was likely a riparian wetland margin. Below was a peat layer (which gradually filled in with water) containing many well-preserved pieces of wood, with rings, twigs, and bark visible. The wood pieces lay along parallel lines (east–west) outside of a tile and plaster floor, which was bordered to the south by a rough line of stones dated to Phase IV.²⁴ Associated with the floor area was a discrete cluster of large, sharply broken (not river-worn) ceramic pieces, including two Early Islamic large cream-buff amphora fragments and an Early Islamic eighth- to tenth-century brittleware holemouth cooking pot. Interestingly enough, these were the best-preserved examples of amphorae found from any of the trenches. Also in this context were a young equid burial, a camel bone of a Bactrian-Dromedary hybrid, and perhaps a human skull. Although the recovery was limited, the presence of coastal structures, amphorae, and timber in this inhabited area, most likely at the edge of the river and coast, add valuable insight into the harbor facilities of Hişn Hişnal-Tināt in the Early Islamic period as a port and depot for cut lumber from the Amanus Mountains.

A geophysical survey was conducted in the area between the fortified structure and TF 10, the ancient fault line. Several anomalies were present. A set of clusters of point-like features (high magnetic readings) located within closed spaces on a whitish background (low magnetic reading) suggest that these indicate local fires (such as hearths) on compact surfaces (such as floors) within domestic structures.

Results indicate that there are more extramural buildings like the domestic structure concentrated on the southwest corner of the later fortified structure.²⁵ This raises the possibility that during this period there was continual settlement down to the sea but not relegated within the confines of a fortification. Of course, the implications of this are quite interesting, suggesting that what was defined as a frontier fort (*ḥiṣn*) by Islamic authors may have been an unwallled coastal port surrounding a walled structure, which could have also served as a refuge. The question of a militarized frontier under constant threat needs to be questioned.

Phase III: The Early Islamic/Middle Byzantine Periods (Mid-10th to the 11th Century)

Phase III consisted of thin internal walls characterized by small, square-cut blocks with tile courses seen in TF 4, 9, and 11. In TF 9, the wall (Wall 6) ran parallel but just next to the earlier single-course Phase IV wall (fig. 5). Two marble column fragments in TF 11 and 1 and two monolithic single blocks in TF 9 and TF 11 may also belong to this phase but were found in secondary reuse. A square tile pavement set in plaster on a compact soil foundation was found under and just north of the later fortification in TF 9. These occurred within the later fortification. Bones were recovered from cattle, sheep, goat, pig, and a gray triggerfish (*Balistes carolinensis*). Pottery and other material culture found at the levels of these internal walls were in mixed contexts and contained destruction fill from the upper phases. Yet, under the TF 9 internal east–west Wall 6 (whose lower courses were Phase III) there were two coins, as yet unidentified and cleaned but possibly Byzantine folles, and 10th/11th-century ceramics. The date for this phase is still undetermined but should fall in the 10th or 11th century, either from the Early Islamic or Middle Byzantine period.

Phases II and I: The Middle Byzantine Period (11th to the Early 12th Century)

A well-preserved and articulated fortified structure was uncovered (figs. 6, 7). Measuring 25 x 25 m, it had corner square towers and tower buttresses arrayed along the midpoints of the massive (ca. 1.44 m wide) fortification wall. It belonged to Phase II and cut into the Phase III walls. The walls (Walls 8 and 13 in TF 9; 10 in TF 11; 2 in TF 1; 11 in TF 7, 5 in TF 12) were built on a foundation of six to seven courses of river cobbles and rubble heavily bonded with mortar. This was a partially sunken foundation on a mortar base packed with very dense and compact reddish-brown silty clay that probably came from nearby marshes. The walls, although robbed and leveled probably after the site went out of use, originally supported a superstructure with smaller stones in mortar approximately 46 x 88 cm over lower courses of larger ashlar that were also used in tower construction (measuring about 1.15 x 0.56 x 0.50 m and 1.10 x 0.56 x 0.43 m). The external building walls were preserved to a depth of 1.10 m: the preserved top elevation of the leveled walls ranged between 7.66 m (in TF 11) and 7.11 m (in TF 12); the lower courses of large ashlar beneath the smaller stone superstructure started at 7.28–7.31 m; and the bottom elevation of all exterior fort walls was uniformly 6.30 m. The lowest plaster footing of

the sunken foundation curved under the wall. The northern building wall was at 240°, while the western wall was at 150°.

The southeast tower (2) was built on a mortared and stone cobble platform 0.30–0.45 m thick, with rounded corners measuring 1.9 m east–west and 3.2 m north–south. The platform rested on a foundation of very compact, silty clay and a packed plaster layer and gravel bedding that overlaid the earlier Phase IV north–south wall (Wall 14), used as a foundation. The superstructure integrated the upper-course ashlar blocks of the earlier Phase IV wall into a rubble/cobble and mortar solid tower measuring 1.9 m square, recessed from the outer edges of the platform by about 0.60 m. The whole tower measured 3.2 m north–south x 3.5 m east–west.²⁶ The northwest corner tower (22) projected west 1.55 m and north 2.60 m into the balk. The tower consisted of solid ashlar blocks surrounding a mortar and rubble core similar to the southeast one. At the internal intersection of the northwest corner tower, where the north and west walls (Walls 8 and 13) meet, were large and long ashlar blocks, nearly identical to those found in the lower part of the southeast tower. The top of these large, long stones was at 6.93 m, while in the southeast tower they rose to 6.80 m. Interestingly, there was no western sea gate found in the assumed center of the western structure wall, but there was a protruding square on the midway point, suggested as a buttress (fig. 7). The buttress feature was smaller than either the northwest or southeast tower of the fort, and did not have the large ashlar blocks around its perimeter (though some may be underneath, as excavation did not continue in this trench, TF 12). Rather, this was a smaller and slightly weaker plastered square buttress measuring 2.1 m north–south x 1.6 m east–west.

Just south of the buttress feature, the western fort wall was broken or cut through, creating an uneven and narrow space. Though this is not suggestive of a formal gate (and indeed there is no repeating flanking buttress south of it to match the aforementioned one), this may have functioned as a drain for the building, utilizing an earlier Phase III wall. A second possibility is that the wall was sundered by an earthquake.

The internal walls created rooms about 3.4 m to a side within the building. The walls were constructed of rubblestone, and even later herringbone-style walls were built above earlier (Phase III) leveled walls, using them as thresholds (TF 11) or wall foundations (TF 9). In some cases, the newer walls were built just parallel and beside the older ones and used them as foundations for possible drains (TF 11, TF 12, TF 1, TF 4). The rectilinear enclosure likely had an internal organization of perpendicular rooms around a central courtyard. No solid floors were found, which might be due to destruction and burning following the occupation of the structure. A thin black floor surface (fig. 8) 0.75 m from the top of the fortified walls indicates that the upper half was above ground but the lower half was a sunken foundation. Large sized ceramic sherds above the floor, as compared with smaller pieces below, corroborate the living surface designation. The structure was destroyed by fire, evident from thick layers of burning within the building in the uppermost phase seen in 2006 and 2008 excavation trenches and corroborated by geophysical evidence of burning only in the eastern portion of the surveyed area (the fortified structure) and not in the central or western portion down to the sea.²⁷ The Phase II fortified structure and Phase I internal architectural phases are close in date, the latter following soon after the construction and occupation of the former (during the 11th century and possibly the late 10th century) and its abandonment (by the early 12th century). It is possible that Phase I, however, can be divided into two subphases.

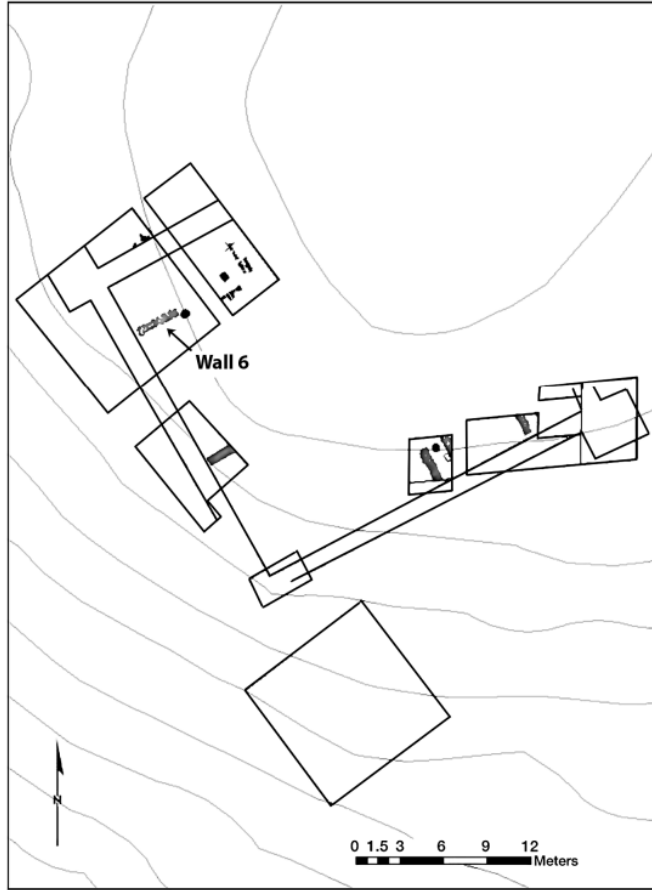


Fig. 6. Phase III (Early Islamic/Middle Byzantine, mid-10th to 11th century) plan of Tüpraş Field.

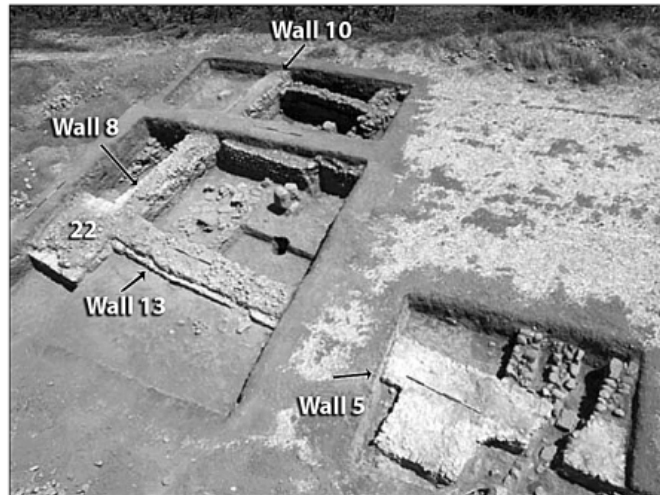
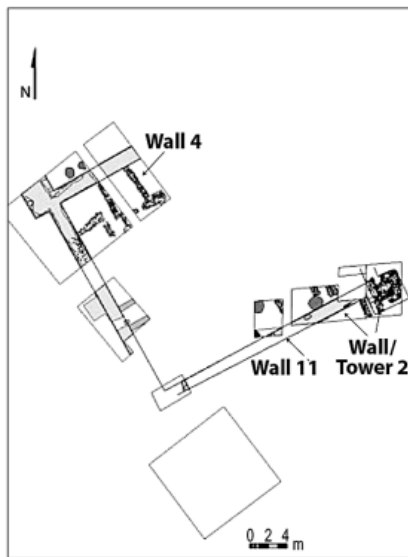


Fig. 7. Phase I/II (Middle Byzantine, 11th to early 12th century) plan of Tüpraş Field and 2008 photo of excavations (courtesy of M.-H. Gates).

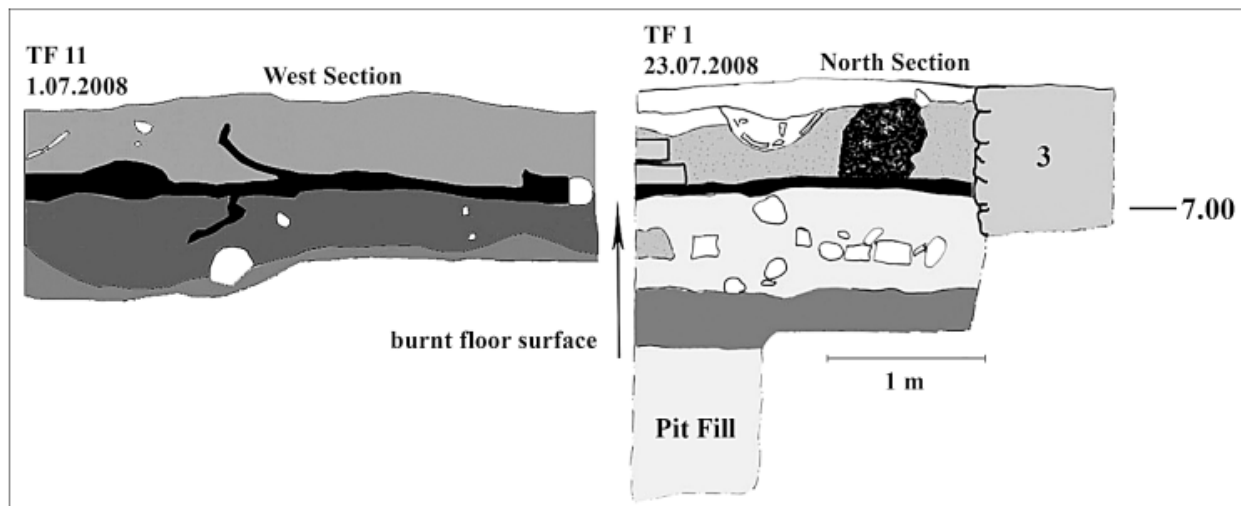


Fig. 8. Sections of TF 11 (2008) and TF 1 (2006) showing line of burnt floor surface.

Preliminary faunal analysis showed a significant presence of pig, as well as the usual cattle, sheep, and goat (Cakırlar, personal communication, 2008). The pig remains from the fortified structure contexts (TF 9 and TF 11) represent domestic animals, showing that pig herds were kept at the settlement. Almost all pig remains come from infantile and juvenile individuals, a kill-off pattern that typifies managed pig populations bred for meat production. In addition, specimens with butchery marks are abundant in the faunal assemblage from the fort. Cervids were also only identified in the contexts within the fort. They are represented by two antlers, which may very well have been collected as shed antlers, to be worked into tools or ornaments, and a tibia fragment from a fallow deer (*Dama dama*), attesting to the hunting activities of the populations that lived here.

Material Culture and Chronology

The ceramic evidence needs to be further analyzed to differentiate the close chronology of Phase III from either the earlier or later phases of building. Taken together, the Early Islamic and Early Islamic/Middle Byzantine horizons located under the burnt floor layer (fig. 8) within the fortified architecture and also in the adjacent house revealed very little later material culture. The unquestionably Early Islamic assemblage included glazed wares, brittlewares, and creamwares. Glazed wares were few by comparison with those in the Middle Byzantine phase. The main types were Syrian yellow glaze (late eighth to early ninth century), known primarily from the Balikh Valley and Anṭākiya, which were also production centers (fig. 9b, c; table 1; Watson 1999: 81–87; Redford 2002). There was also “mustard and cress ware,” a yellow glaze with large brown and green underglaze dots from the ninth century, with parallels in Afamiyya (Apamea), Raqqa, Balis, and Jerusalem (Prag 2008: 204). The widespread polychrome or color-splash glazes dating to the ninth and tenth centuries also appear either as green and yellow dripped or splashed glaze, or decorated with black lines and dots. Single examples of green and white ware and lusterware from the ninth and tenth centuries were imported from Iraq.

Brittleware cooking pots included very few vertical walled types (possibly of the early eighth century), consisting instead mainly of the holemouth variety (eighth through tenth centuries; fig. 10d; table 2), decorated most commonly with a zigzag rocker and, less commonly, with slashed incisions or a sharp stylized rocker pattern. From petrographic analysis of sherds in Turkey and Syria, the main production areas are Tell Jenderes and west of Óalab (Aleppo); Afamiyya; and likely for Tinat, the Amanus zone in the Hatay between Anṯakiya and the Taurus (Schneider et al. 2007: 717–19). A vertical, polished brown variation pot was likely local from ṽarsus (fig. 10f).²⁸ The non-cooking coarsewares were buffwares of various types and fabrics, ranging from buff to a greenishbuff and dating from the eighth through tenth centuries (fig. 10c, h). This last fabric was most commonly seen on the ubiquitous thin-walled, mold-relief pitchers mainly from the ninth century (fig. 10a, e). Though they are known primarily from Iraq and the Jordan Valley, a large quantity of intact vessels was found at Anṯakiya, suggesting possible local production. Lamps included all ninth-century types: an intact brittleware lamp (fig. 10g), a kerbschnitt lamp fragment, and a molded cream torpedo lamp. Besides pottery, there was a 9th- to 11th-century molar flask, with facet-cut V-shapes or triangles, a horizontal band around the midsection, and four short, wedge-shaped feet tapering to points.²⁹ There also was an °Abbasid copper coin with only the reverse legible, reading “Muhammad rasul allah °adala,” from the Early Islamic house. Although there is no mint legible, on the basis of similar inscription phrases, it is likely that it was from Iraq, given the fact that Iraq was the main center issuing coins with these inscriptions. Equally, it must date between 150 a.h. and 201 a.h. (767/768–816/817 c.e.) on the basis of the parallels and is therefore considered early ‘Abbasid.³⁰ The material culture shows both local frontier manufacture and long-distance imports, mainly with °Abbasid central lands during the eighth through tenth centuries, implying that the frontier, beyond a military no man’s land, was part of an interconnected economic trade network.

The material culture from the Middle Byzantine phase also consisted mainly of glazed and unglazed local and imported pottery, as well as glass, metal, and weaving objects; these were associated above the burnt floor layer (fig. 8) and were confined to the fort itself and its occupation and refuse pits outside its walls. The glazed wares consisted mainly of polychrome, lightly incised underglaze sgraffiato bowls (fig. 9d, e) with slightly everted rims and thick bases, a transitional stage between the color splashes of the ninth/tenth century and the more deeply incised sgraffiato ledge-rim bowls such as Port St. Symeon Ware (late 12th to early 14th century) produced in the area of Armenian Cilicia, including Kinet Höyük. Port St. Symeon Ware was not found at Tüpraş, however. There were three main types of glazed wares: a green/yellow splashed glaze with light sgraffiato in curvy or straight lines; a cream glaze with purple, yellow, and green splashes or drips and geometric sgraffiato, and a green glaze with darker green sgraffiato designs often on very small “finger” bowls (fig. 9a). There were also turquoise wares (fig. 9g), including closed forms with interior and exterior glazing over lighter fabric, and a pink-bodied closed form of lusterware, possibly Fatimid Egyptian. The date of all of these should be 10th to early 12th century, and some polychrome sgraffiato and turquoise wares belong undoubtedly to the poorly defined Phase III, the Early Islamic/Middle Byzantine transition. Two examples of a yellow-glazed sgraffiato with a brittleware paste were found in the 2005 survey and 2008 excavation. The 2008 piece had large, curvy sgraffiato lines (fig. 9f), paralleling a piece found in the late 12th- to early 14th-century excavations at Kinet Höyük that had a slightly everted rim, seen in many of the Tüpraş glazed bowls (Redford et al. 2001: fig. 22.3). The 2008 sherd was from TF 11 in the narrow space between internal Wall 4

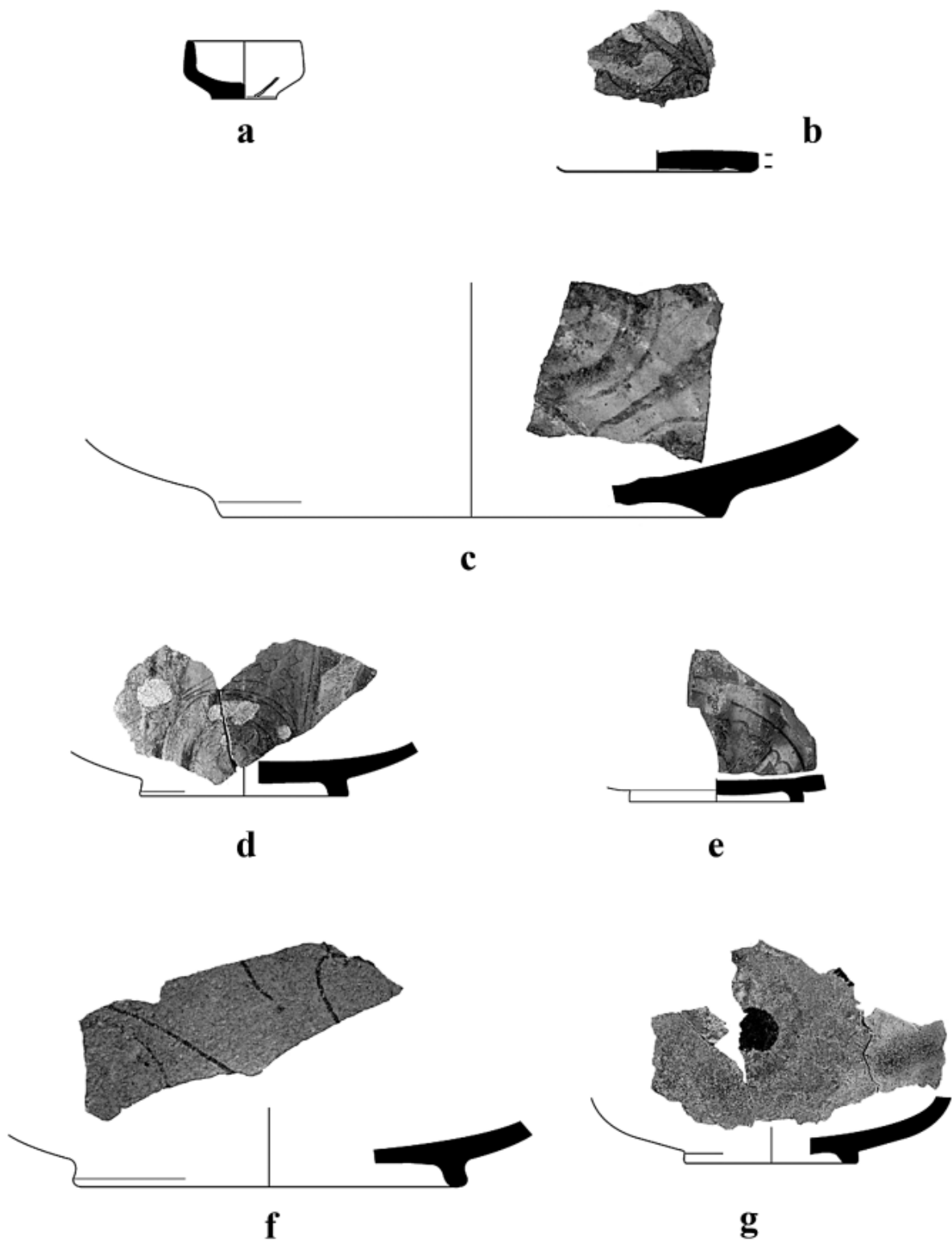


Fig. 9. Finewares (glazed wares). See table 1 for descriptions.

Table 1. Description of Finewares (Glazed Wares) Shown in Figure 9.

<i>Fig. 9</i>	<i>Discovery location</i>	<i>Year found</i>	<i>Diam. in cm</i>	<i>Description</i>
a	TF 11, KT 26030	2008	6	Exterior: unglazed; interior: abraded light greenish/yellow glaze; core: orange; moderate medium sand; common very very small red grits
b	TF 7, KT 23322	2006	?	Exterior: buff; interior: yellow glaze family, glossy yellow and black and green paint; core: orange; moderate fine sand; no inclusions
c	TF 9, 26076	2008	26	Exterior: orange; interior: yellow glaze family, glossy yellow and black paint; core: orange; moderate fine sand; very rare black grits.
d	TF 1, 23312	2006	22	Exterior: green and yellow stripe beyond base; interior: clear slip, sgraffiato, yellow green, brown glaze; core: orange; moderate fine sand; very small rare red grits.
e	Survey KS 5–14	2005	17	Exterior: yellow and green splashed glaze; interior: color-splashed green, dark yellow, brown lines, white slip; core: buff; moderate medium sand; very small white grits
f	TF 11, KT 26030	2008	9.5	Exterior: unglazed, traces of white slip; interior: thin white slip, yellow glaze, brown sgraffiato; core: dark red; moderate medium sand; common very very small white grits.
g	TF 7, KT 23802	2006	18	Exterior: unglazed; interior: abraded turquoise and green glaze, black paint; core: greenish buff; moderate medium sand; rare small black grits.

and the east balk (fig. 7). The presence of this sherd at Tüpraş Field in Middle Byzantine Phase I levels may suggest a slightly earlier date of production for this ware. The Crusader-era ware, which was found in all levels of Kinet Höyük and was produced locally (such as at Beirut), may have initially been a Byzantine import (likely from Cyprus) before it was locally distributed.³¹

Cooking wares were of two types: manganeseglazed brittlewares (10th to 11th century [figs. 10b, 11f; tables 2, 3], though perhaps as early as the 9th century) and coarser brownwares with decorated handles and polished smooth exteriors, the latter technique also seen on coarseware jugs. Lids were also of two types: unribbed, thick brown, with scalloped rims (earlier, fig. 10i) and sharply ribbed, non-scalloped lids. Non-cooking coarsewares were mainly micaceous black/brown fabric and brown/orange surface jugs with one handle, and jars with incised or painted designs (fig. 11a–e). Many pithoi with orange surfaces and gray-black pastes were found in pits. The rims were wider than the late 12th- to 14thcentury examples and were scalloped, incised, and notched (S. Redford, personal communication, 2008). An imported free-blown, marvered glass, “spear”-

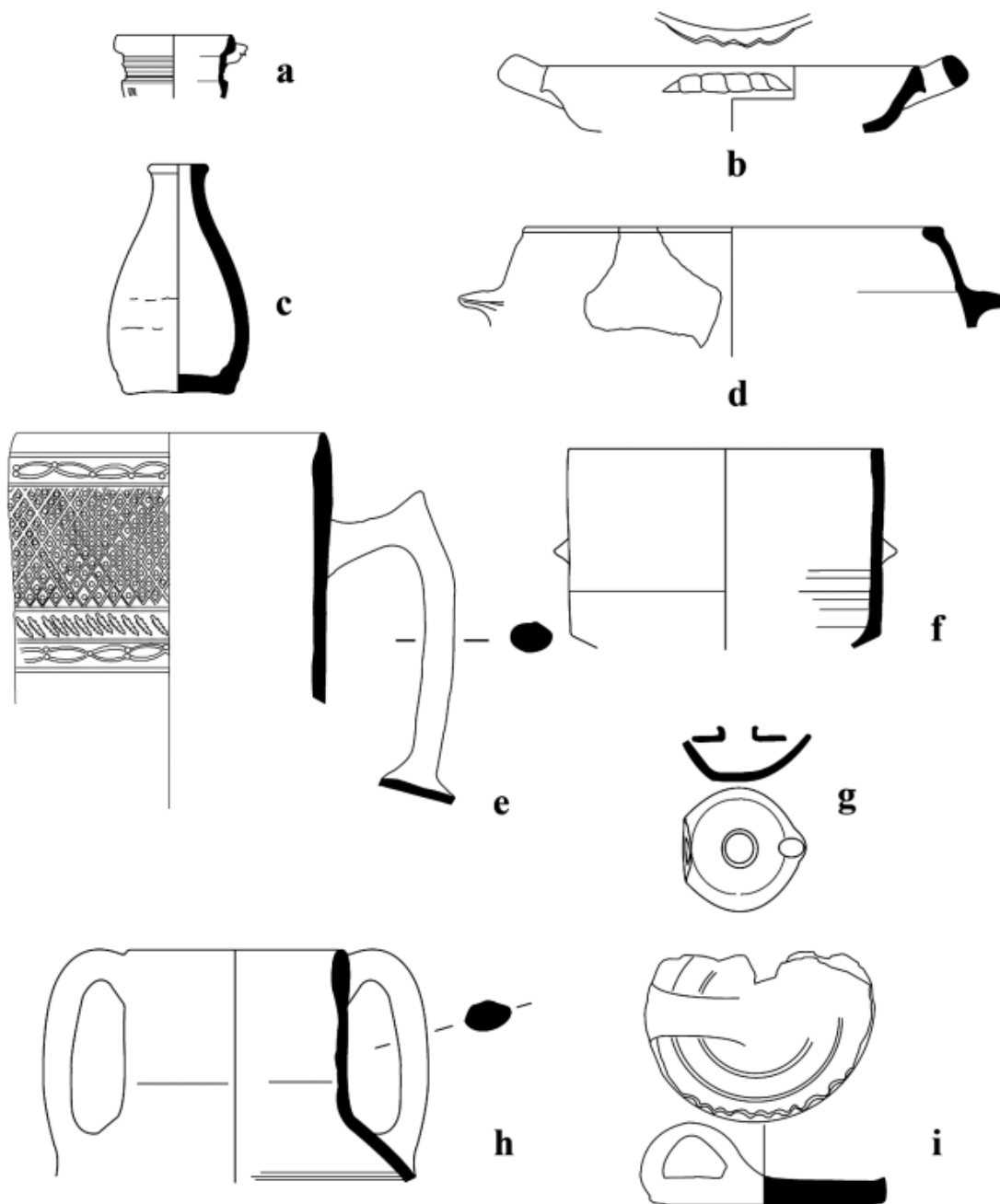


Fig. 10. Coarsewares (creamwares/buffwares, brittlewares, brownware). See table 2 for descriptions.

shaped bottle with opaque white festoons on an opaque dark blue glass was found, likely from Egypt in the 11th or 12th century.³² Also found was a small teardrop-shaped aqua glass bottle with two pinched sides and an asymmetrical, everted, and flattened rim of uncertain date. The presence of so many metal and industrial objects and objects related to weaving suggests that some rooms were used as workshops, stables, or other livestock areas. Some may have had function-specific usage; for example, one room contained at least four clay pestles while another room had none. Although later in date, a 1285 treaty between the Mamluk Sultan Qalawun and King Leon III mentions the importance of manufactured iron from the area, specifically

horseshoes and nails (Redford, in press). The discovery of great quantities of iron objects from the excavations, along with the textual evidence, suggests the importance in manufacture and/or trade in iron.

Table 2. Description of Coarsewares Shown in Figure 10

<i>Fig. 10</i>	<i>Discovery location</i>	<i>Year found</i>	<i>Diam. in cm</i>	<i>Description</i>
a	TF 11, KT 26162	2008	7	Creamware/buffware; exterior: greenish-buff; interior: greenish-buff; core: greenish-buff; moderate medium sand; rare very very small black grits.
b	TF 9, KT 28528, 25808	2008	22	Glazed brittleware; exterior: brittleware red, unglazed; interior: brittleware red, manganese glaze on bottom only; core: brittleware red; moderate medium sand very rare small white grits.
c	TF 1, KT 23713	2006	3.2	Creamware/buffware; exterior: greenish-buff; interior: greenish-buff; core: buff; moderate medium sand; rare medium black grit, common small black grit. Possible trace of handle.
d	Survey KS 5-2	2005	25	Brittleware; exterior: dark red; interior: red; core: red; moderate medium sand; few mica.
e	TF 8, KT 25791	2008	18.5	Creamware/buffware; exterior: greenish-buff, molded decoration; interior: greenish buff; core: greenish-buff; moderate medium sand, very few, very very small black grits.
f	TF 9, KT 25969	2008	19	Brownware; exterior: brown/black; interior: black; core: black inner, brown outer; moderate medium sand; common very very small white grits.
g	TF 8, KNH 1653	2008	7.5	Brittleware; exterior: brittleware red; interior: brittleware red; core: brittleware red; moderate medium sand; few very small white grits.
h	TF 10 KT 25888	2008	12.5	Creamware/buffware; exterior: greenish-buff; interior: greenish-buff; core: buff; moderate medium sand; medium small white grits.
i	TF 11, KT 26096	2008	14	Brownware; exterior: orange-brown; interior: orange-brown; core: dark brown (burnt?); moderate coarse sand; many small white grits.

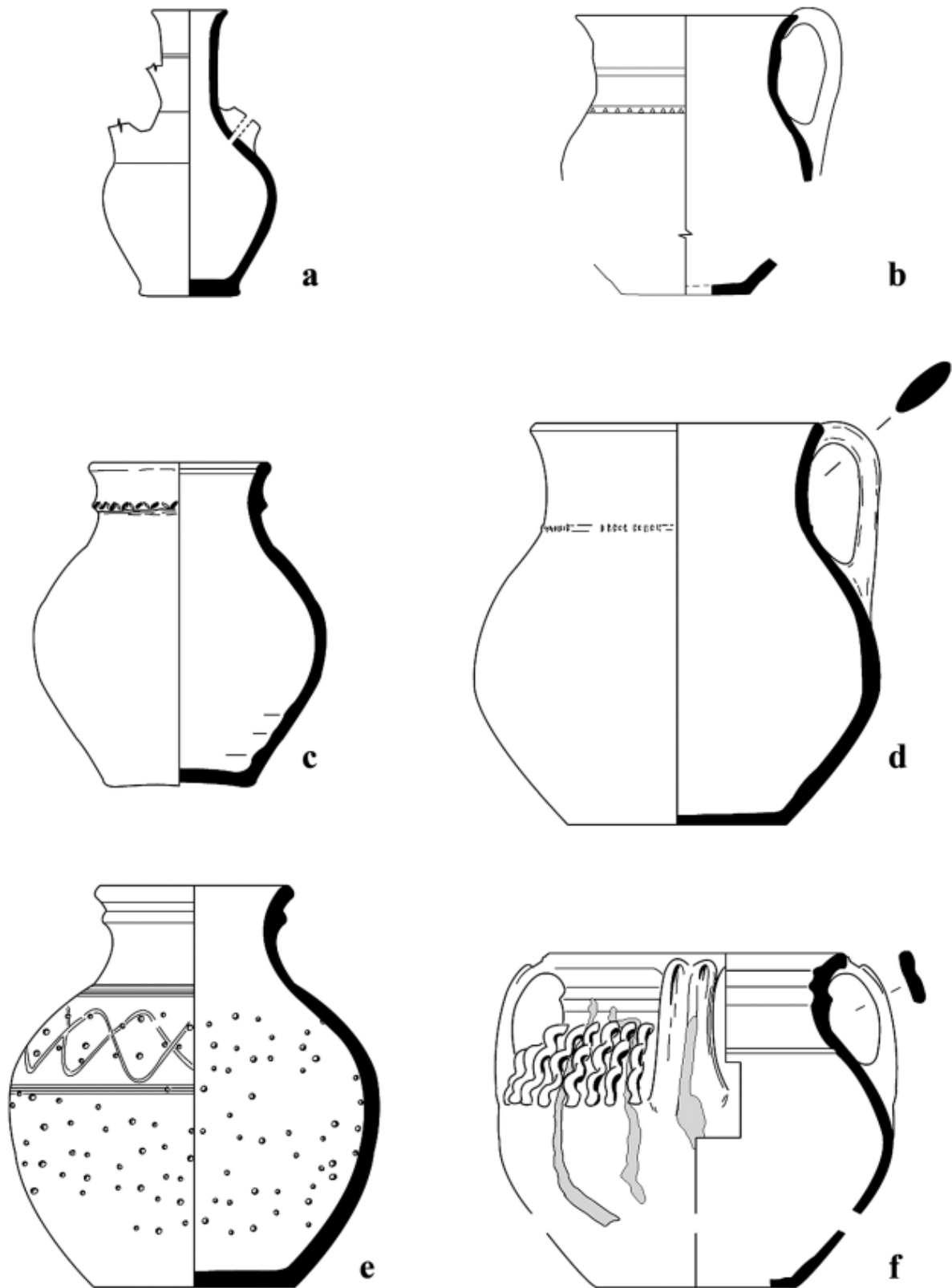


Fig. 11. Coarsewares (non-cooking). See table 3 for descriptions.

Table 3. Description of Coarsewares (Non-Cooking) Shown in Figure 11

<i>Fig. 10</i>	<i>Discovery location</i>	<i>Year found</i>	<i>Diam. in cm</i>	<i>Description</i>
a	TF 11, KT 26046	2008	4	Exterior: buff; interior: buff; core: brown/orange; moderate medium sand; few very small white grits, rare red pebbles. Spout.
b	TF 11, KT 26096	2008	13	Exterior: reddish-brown; interior: reddish-brown; core: red; moderate coarse sand; very common small white grits and mica.
c	TF 4, KT 23876	2006	10	Exterior: red; interior: red; core: red; moderate coarse sand; very common medium white gray angular grits and pebbles, mica.
d	TF 7, KT 23313	2006	16	Exterior: brown; interior: brown; core: black; moderate coarse sand; few small white grits.
e	TF 1, KT 23187	2006	10.5	Exterior: brown; interior: brown; core: brown; moderate medium sand; common medium white grits and angular pebbles. Pierced with holes.
f	TF 1, KT 24005	2008	16.5	Exterior: manganese (brown to olive green glaze) with yellow glaze drips, no slip, appliqué loops; interior: orange; core: brittleware red; moderate medium sand; common small white grits, few medium pebbles.

DISCUSSION

Several important conclusions can be drawn from the preliminary evidence of the excavation of Tüpraş Field and the coastal Kırıkköprü Survey. These relate to (1) the site's location, environment, and settlement patterns; (2) the fortified structure; and (3) local and wider networks of trade and cultural exchange.

Site Location, Environment, and Settlement Patterns

The almost complete lack of Roman and Late Roman pottery or other material culture would indicate that Tüpraş Field was an Early Islamic foundation. This differs from the pattern seen throughout the frontier during the Roman through Early Islamic periods, when all thughur sites in the Early Islamic period, without exception, were built on Roman/ Byzantine cities. Rather, the large de novo Early Islamic site matches several key sites founded along canals and in marshes in the Amuq Plain and Kahramanmarav Valley. Roman and Byzantine Issos (probably continuing into the second half of the seventh century Umayyad period) was likely located in the complex of surveyed sites south of Kinet around the area of the Roman bridge, the Kırıkköprü. The marble column, other architectural masonry and marble fragments, and abraded pottery at Tüpraş Field likely came from Roman/Byzantine Issos or even Epiphaneia.

From the textual evidence, survey, and excavation, the Tüpraş Field site can be identified with the Early Islamic thaghr Hişn Hişnal-Tīnāt. No single site surveyed in the Amuq or Kahramanmarav Plains on the other side of the Amanus Mountains exhibited quite the amount, range, and value of both local and imported Early Islamic pottery, and indeed no site in either plain survey came close to showing a total dominance of Early Islamic pottery as compared with other periods.

Despite the fact that there was no earlier occupation, the Early Islamic site followed in the style of Roman and Late Roman ones. It was an off-mound site that was flat, low, and open and connected to a river and was well accessed by road and sea. Further, it contrasts significantly with our picture of an Early Islamic-Byzantine frontier of inaccessible, defensible, upland castles. Rather than continuing to occupy the Late Roman town or place the Early Islamic site adjacent to it, the deciding factor to move the site in the Early Islamic period seems to have been based on changes in the local environment and, in particular, on the location of the river system. When triggered by heavy precipitation and seismic activity during the Late Roman period and the start of the Early Islamic period, the intensive land use in the Roman and Late Roman periods (and/or their abandonment of conservation features) seems to have caused great erosion of the Amanus Mountain slopes onto the plain. As a result, coastal streams that were crucial for the harvesting of timber from the Amanus shifted, as did the lowland marshes, expanding into some areas and being buried in others. The site was relocated along the northern Tümü Çayı, which ran just south of the site.³³ The movement of the Early Islamic site shows that these thughur sites had a strong connection to the local region as marsh and river sites that relied heavily on natural resources.

The Middle Islamic/Middle Byzantine fortification seems an exception to settlement patterns of this period; it does not resemble its upland castle contemporaries. Rather, it closely follows the Early Islamic architectural plan of the fortified square enclosure with an internal organization of perpendicular rooms. Although the Early Islamic building plan is not yet well understood, one may infer its presence here from two pieces of evidence. First, the earlier large fortification wall below the tower in TF 7, which dates to the mid-eighth century (early °Abbasid), shows an earlier fortified enclosure of uncertain configuration that had internal walls. Second, the plan of the Middle Byzantine superimposed building, its precise location above it, and its similar orientation and composition (although it was later refortified with towers) point to a continuity of the fortified square enclosure. As a transitional site in the mid-10th to mid-12th century, one may posit stronger connections with earlier Islamic settlement patterns that changed definitively in a process of *incastellamento* in the mid-12th century. The shifting of the Tümü Çayı coastal stream farther north and the silting of the harbor prevented the site's continued use as a coastal port and timber depot. In the last quarter of the 11th century, the region became unstable, shifting hands among Byzantines, Saljuqs, Armenians, and Crusaders, and the site was subsequently destroyed by fire. Settlement was relocated once again back on the high and more secure mound of Kinet.

The Fortified Structure

This building type—a fortified enclosure with evenly spaced buttresses or towers and perpendicular rooms arranged around a central courtyard—corresponds with a type of structure common throughout the pre-Islamic and Islamic Near East at Roman legionary forts, *quṣur* (“desert castles”), *khans*, *caravansarais*, *ribaḥat*, and other sites. Looking beyond the terminology of the individual structure, it is necessary to see how these buildings related to one another spatially and temporally as settlement systems in the frontier landscape. The site of Tüpraş Field, whose full size is still undetermined, is similar in scale and has more in common with another type of site, one that is poorly known but is found in other surveys and excavations throughout the Byzantine-Islamic thughur: in the western coastal/land Iskandaruna–°Ayn Zarba–Sis route that Hışn Hışnal-Tīnāt was part of, the Anḥakiya–Mar°ash road (AS 190/possible Buqa in the Amuq

Survey: Gerritsen et al. 2008: 270–71), the central Balis–Manbij–Raʿban–Hadath route (Site 4/Pınar Tarlası in the Birecik-Carchemish Survey: Algaze, Breuninger, and Knudstad 1994: 28, 94), the eastern Raqqa–Sumaysat–Malatya route (Madinat al-Far: Haase 1994: 245–53; Kurban Höyük: Algaze 1990: 124, fig. 132; Lidar Höyük: Redford 1998: 17 n. 74), and possibly a Khabur route (near Tell Brak: Ur and Karsgaard 2004; 2006; near Tell al-Hawa: Wilkinson and Tucker 1995: 70–71, 128, fig. 78, 153 fig. 7, fig. 20). These were new, early ʿAbbasid eighth-century foundations, smaller than the well-known urban frontier centers and not always identified or known by name in the primary sources. They were similar to one another in architectural plan, but they varied in size. As settlement systems, they are best considered waystations, all placed on key south–north land routes connecting North Syria (al-ʿawaḥim) and Northern Mesopotamia (al-Jazira) with the thughur and Byzantium. As fortifications sited on open connected routes, they were not necessarily strong enough to repel armies. But their relatively thick walls, towers, and buttresses could probably fend off bandits on these supply, trade, and communication routes. Bandits such as the Jarajima (Mardaites) on the Amanus, for example, were known to raid down on the Plain of Issos and Amuq Valley below. As such, the waystations are like the Saljuq fortified caravansarais of Anatolia. Hişn Hişnal-Tīnāt’s emplacement as a small fortification may also have been to protect the timber resource. Further, these buildings symbolically represent power, dominating their setting and providing refuge for the surrounding community. The imprint of a distinct Islamic Near Eastern architectural type based on Umayyad and ʿAbbasid forms and duplicated along the marginal frontier region becomes a visual symbol for Islamic authority. This system of newly founded sites does not constitute a frontier defensive line but fits within the preexisting Byzantine and Umayyad settlement system of large urban centers and rural settlements.

Networks of Trade and Exchange

The material culture of Tüpraş, occupied continually for nearly four centuries before being abandoned for the mound of Kinet, has implications that are quite important for the archaeology and history of the frontier region.

In both major periods of occupation, there was a certain element of variety, value, and wealth in the range of material culture. Further, the mixture of high-quality finewares and imported glass (including perfume bottles from the 2006 and 2008 seasons) suggests two scenarios. If the items were used by the occupants of the site, then we must question the conventional description of the site as occupied by a garrison. It may be that the garrison occupants settled with their families (under land incentives) or perhaps used the items themselves. In a second scenario, if, as at several medieval Islamic castles such as Damascus Castle, finewares and imports are identified as items of exchange or currency, then we find further support for the argument that these settlements were connected waystations rather than lone outposts.³⁴

Locally, the site’s material culture shows strong connections to its own landscape. The site establishes an important continuity from the mid-8th century to the early 12th century, a period of occupation not represented on the mound of Kinet Höyük, which ended at the Hellenistic period and resumed in the late 12th century.

For the wider frontier region, the site’s habitation provides relatively stable evidence for the mid-10th to mid-12th centuries, a turbulent period of history characterized by one of general decline, abandonment, or occupation by nomadic tribes. Survey evidence from the Amuq Plain

to the east (Gerritsen et al. 2008: 274–79) and the Kahramanmaraş Plain to the northeast (Eger 2008) showed significant abandonment of sites and consolidation/nucleation of villages following the mid-10th century, corresponding with the collapse of °Abbasid influence on the frontier, the incursion of Arab nomadic tribes, and the fragmentation of the region into small dynasties. The renomadization that followed changed settlement patterns and land use. However, the Byzantine reconquest of Cilicia and Antioch by 969 c.e. may have contributed to different sociopolitical dynamics on the coast than were present in the inland plains. Connections with other major thughur cities and centers of production such as ʿarsus, Anʿakiya, and Raqqa in Syria show involvement in a largely inland frontier regional economy. However, trade networks with Iraq and Egypt continue throughout the site’s history, implying connections between °Abbasid central lands and the frontier and a Levantine Mediterranean maritime system of exchange. This is supported textually, not just through goods coming into our site; we can recall Ibn Óawqal’s remarks that Ḥiṣn Ḥiṣnal-Tīnāt exported timber to Syria, Egypt, and other frontiers. The site’s continued occupation may be reflective of its importance as a timber site and port connected with a string of coastal sites and a maritime economy. Still, the scale of these long distance networks needs to be better understood.

As the idea of a central state disintegrated in the Middle Byzantine/Islamic periods, so too did the idea of a physical frontier. Frontier groups may have had more in common with one another than with the central state. One can argue further, as several scholars have (Ellenblum 2002: 105–19; Riley-Smith 2002: 121–31), that the periphery was repositioned as the center and from it radiated spheres of influence encompassing human frontiers of religious plurality, ethnic diversity, and cultural production. The frontier site of Ḥiṣn Ḥiṣnal-Tīnāt alludes to the complex symbiotic relationship of a militarized and economically resource-based frontier, disintegrating the notion of an empty war-torn no-man’s land or a hermetically sealed border zone, and revealing the frontier as a dynamic process in relation to the world around it.

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REFERENCES

Algaze, G.

1990 *Town and Country in Southeastern Anatolia, Vol. 2: The Stratigraphic Sequence at Kurban Höyük*. 2 vols. Oriental Institute Publications 110. Chicago: Oriental Institute of the University of Chicago.

Algaze, G.; Breuninger, R.; and Knudstad, J.

1994 The Tigris-Euphrates Archaeological Reconnaissance Project: Final Report of the Birecik and Carchemish Dam Survey Areas. *Anatolica* 20: 1–96.

Beach, T., and Luzzadder-Beach, S.

2008 Geoarchaeology and Aggradation around Kinet Höyük, an Archaeological Mound in the Eastern Mediterranean, Turkey. *Geomorphology* 101: 416–28.

Boase, T. S. R., ed.

1978 *The Cilician Kingdom of Armenia*. New York: St. Martin's.

Bosworth, C. E.

1992 The City of Tarsus and the Arab-Byzantine Frontiers in Early and Middle 'Abbāsīd Times. *Oriens* 33: 268–86.

Cahen, C.

1940 *La Syrie du Nord à l'époque des Croisades et la principauté franque d'Antioche*. Institut français de Damas, Bibliothèque orientale 1. Paris: Geuthner.

Casana, J.

2008 Mediterranean Valleys Revisited: Linking Soil Erosion, Land Use and Climate Variability in the Northern Levant. *Geomorphology* 101: 429–42.

Cockson, B. C.

2005 The Roman Bridge at Yeşilköy/Dörtyol (Hatay). *Newsletter of the Department of Archaeology and History of Art* (Bilkent University) 4: 12–14.

Eger, A.

2005 Islamic Frontiers, Real or Imagined. *al-'Usur alWusta* 17: 1–6, 10. 2008 The Spaces between the Teeth: Environment, Settlement, and Interaction on the Islamic-Byzantine Frontier. Ph.D dissertation, University of Chicago.

Ellenblum, R.

2002 Were There Borders and Borderlines in the Middle Ages? The Example of the Latin Kingdom of Jerusalem. Pp. 105–19 in *Medieval Frontiers: Concepts and Practices*, eds. D. Abulafia and N. Berend. Burlington, VT: Ashgate.

François, V.; Nicolaïdes, A.; Vallauri, L.; and Waksman, Y.

2003 Premiers éléments pour une caractérisation des productions de Beyrouth entre domination franque et mamelouke. Pp. 325–40 in *VIIe Congrès international sur la céramique médiévale en Méditerranée, Thessalonique, 11–16 Octobre 1999, Actes*, ed. Ch. Bakirtzis. Athens: Caisse des recettes archéologiques.

Gates, M.-H.

2007 2006 Season at Kinet Höyük (Yevil-Dörtyol, Hatay). *Kazı Sonuçları Toplantısı* 29: 281–98.

Gerritsen, F.; de Giorgi, A. U.; Eger, A.; Özbal, R.; and Vorderstrasse, T.

2008 Settlement and Landscape Transformations in the Amuq Valley, Hatay: A Long-Term Perspective. *Anatolica* 34: 241–314.

Haase, C.-P.

1994 Is Madinat al-Far, in the Balikh Region of Northern Syria, an Umayyad Foundation? *Aram* 6: 245–57.

Hild, F., and Hellenkemper, H.

1990 *Kilikien und Isaurien. Tabula Imperii Byzantini 5; Denkschriften (Österreichische Akademie der Wissenschaften. Philosophisch Historische Klasse)* 215. Vienna: Österreichische Akademie der Wissenschaften.

Ibn Hawqal

1964 *Kitāb ṣurat al-ārd*. Beirut: Dar Maktabat al-Óayah.

1967 *Kitāb ṣurat al-ārd*. 3rd ed. Bibliotheca Geographorum Arabicorum 2. Leiden: Brill.

Ibn Khurradadhbih

1967 *Kitab al-masālik [wa]-al-mamālik*. 3rd ed. Bibliotheca Geographorum Arabicorum 6. Leiden: Brill.

Idrisi

1989 *Kitāb nuzhat al-mushtāq fī ikhtirāq al-āfāq*. Beirut: 'Ālam al-Kutub.

Istakhri

1967 *Kitab masālik al-mamālik*. 3rd ed. Bibliotheca Geographorum Arabicorum 1. Leiden: Brill.

Killebrew, A.; Gates, M.-H.; and Lehmann, G.

2007 The Mopsus Survey (2004–2007 Seasons): Landscape Archaeology in the Issos and Iskenderun Regions, Eastern Cilicia. Paper presented at the annual meeting of the American Schools of Oriental Research, San Diego.

Le Strange, G.

1965 *Palestine under the Moslems: A Description of Syria and the Holy Land from a.d. 650 to 1500*. Khayats Oriental Reprints 14. Beirut: Khayats.

Lombard, M.

1971 *Espaces et réseaux du haut moyen âge*. Savoir historique 2. La Haye: Mouton.

Meiggs, R.

1982 *Trees and Timber in the Ancient Mediterranean World*. Oxford: Clarendon.

Morgan, M. R., ed.

1982 *La Continuation de Guillaume de Tyr, 1184–1197*. Documents relatifs à l'histoire des Croisades 14. Paris: Geuthner.

Muqaddasi

1967 *Aḥsān al-taqāsim fī ma'rīfat al-āqālim*. 3rd ed. Bibliotheca Geographorum Arabicorum 3. Leiden: Brill.

Necipoglu, G.

2005 *The Age of Sinan: Architectural Culture in the Ottoman Empire*. Princeton: Princeton University.

Ozoner, F. S.

1994 Dörtüol-Payas (Issos) Ovası'nda (Antakya) Tarihi Çağlardan Günümüze Süregelen Jeomorfolojik Degisikliklerin Kinet Höyük Üzerindeki Etkileri. *Araştırma Sonuçları Toplantısı* 12: 513–27.

Özgen, I., and Gates, M.-H.

1992 Report on the Bilkent University Archaeological Survey in Cilicia and the Northern Hatay: August 1991. *Araştırma Sonuçları Toplantısı* 10: 387–94.

Pharr, C., trans.

1952 *The Theodosian Code and Novels and the Sirmondian Constitutions*. Corpus of Roman Law 1. Princeton: Princeton University.

Prag, K.

2008 *Excavations by K. M. Kenyon in Jerusalem 1961–1967, Vol. 5: Discoveries in Hellenistic to Ottoman Jerusalem: Centenary Volume: Kathleen Kenyon 1906–1978*. Levant Supplementary Series 7. Oxford: Oxbow.

Redford, S.

1998 *The Archaeology of the Frontier in the Medieval Near East: Excavations at Gritille*. Archaeological Institute of America Monographs, N.S. 3. Philadelphia: University Museum, University of Pennsylvania.

2002 Early Islamic Antioch. Paper presented at the Third International Congress on the Archaeology of the Ancient Near East (3 ICAANE), Paris.

Redford, S. In press A Twelfth Century Iron Workshop at Kinet, Turkey. *Byzas* 10.

Redford, S.; Ikram, S.; Parr, E. M.; and Beach, T.

2001 Excavations at Medieval Kinet, Turkey: A Preliminary Report. *Journal of Ancient Near Eastern Studies* 38: 58–138.

Riley-Smith, J.

2002 Government and the Indigenous in the Latin Kingdom of Jerusalem. Pp. 121–31 in *Medieval Frontiers: Concepts and Practices*, eds. D. Abulafia and N. Berend. Burlington, VT: Ashgate.

Rowton, M. B.

1967 The Woodlands of Ancient Western Asia. *Journal of Near Eastern Studies* 26: 261–77.

Schneider, G.; Vokaer, A.; Bartl, K.; and Daszkiewicz, M.

2007 Some New Results of Archaeometric Analysis of Brittle Wares. Pp. 715–29 in *LRCW2: Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean: Archaeology and Archaeometry*, eds. M. Bonifay and J.-C. Trégliat. 2 vols. BAR International Series 1662. Oxford: Archaeopress.

Tobin, J.

2004 *Black Cilicia: A Study of the Plain of Issus during the Roman and Late Roman Periods*. BAR International Series 1275. Oxford: Hedges.

Ur, J. A., and Karsgaard, P.

2004 The Evolution of Settlement at Tell Brak, Syria: Preliminary Results of the 2003 Surface Collection. Paper presented at the annual meeting of the American Schools of Oriental Research, San Antonio.

2006 The Evolution of Settlement at Tell Brak: New Data on Urban Emergence. Paper presented at the annual meeting of the American Schools of Oriental Research, Washington, DC.

Watson, O.

1999 Report on the Glazed Ceramics. Pp. 81–87 in *Ar-Raqqa I: Die frühislamische Keramik von Tall Aswad*, ed. P. A. Miglus. Mainz am Rhein: von Zabern.

Watson-Truemann, B.

2000/ 2001 Beyond the Cedars of Lebanon: Phoenician Timber Merchants and Trees from the “Black Mountain.” *Die Welt des Orients* 31: 75–83.

Wilkinson, T. J., and Tucker, D. J.

1995 *Settlement Development in the North Jazira, Iraq: A Study of the Archaeological Landscape*. Iraq Archaeological Reports 3. Warminster: Aris & Phillips.

Yaqut

1955– 1957 *Mu'jam al-buldān*. 5 vols. Beirut: Dar Sadir.

Yener, K. A.; Edens, C.; Harrison, T. P.; Verstraete, J.; and Wilkinson, T. J.

2000 The Amuq Valley Regional Project, 1995–1998. *American Journal of Archaeology* 104: 163–220.