Forum Response

Late Bronze Age Troy: A Response to Frank Kolb

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The clash of interpretations regarding the scope and significance of late Bronze Age Troy is hardly new: both Herodotus and Strabo, among others, questioned the validity of the Homeric accounts of the Trojan War, as well as Ilion's claim as the site of the battle. Schliemann's critics were equally vociferous in their objections, and divergent interpretations of Trojan material culture have surrounded every field project that has explored the site. The intensity of the discussion is a testament to the extraordinary appeal of the Homeric traditions, and such contention will undoubtedly figure prominently in all future field projects at the mouth of the Dardanelles.

One of the reasons for this broad range of historical reconstructions stems from the nearly 4,500 years of habitation in and around the mound of Troy; each successive settlement has substantially disrupted those that preceded it. The situation has been rendered even more complicated by the extensive erosion in the Lower City, south of the mound, which was the principal residential area for several of the settlements. These two phenomena have often made it difficult to distinguish between Bronze Age and post-Bronze Age phases at Troy, which means that those of us who excavate at the site are required to examine the site's material culture with great caution prior to publishing our preliminary conclusions.

The following sections contain responses to Prof. Kolb's article by archaeologists specializing in the Bronze Age (Jablonka) and post-Bronze Age (Rose), both of whom have been members of the Troy Excavation Project since its inception. The intention is to ensure that the readers of these articles have access to the broadest possible range of the relevant information, as well as a complete spectrum of the interpretations that have been proposed.

THE ARGUMENT (P. JABLONKA)

In 1984 Frank Kolb wrote:

> Troja VI und VIIa, welche chronologisch für eine Gleichsetzung mit dem homerischen Troja in Frage kommen können, waren armselige kleine Siedlungen und können ... keinen Anspruch auf eine Benennung als Stadt erheben (Troy VI and VIIa, which could be identified with Homeric Troy for reasons of chronology, were shabby little settlements and cannot … claim to be called a city).[1]

Even before the ongoing excavations at Troy under the directorship of Manfred Korfmann (University of Tübingen, Germany) and C. Brian Rose (University of Cincinnati) had begun, not all scholars would have shared such a minimalist view. In the light of the new evidence discovered since 1988, this statement has become untenable. Nevertheless, Prof. Kolb set out to defend the one paragraph he had previously written on Troy with sharp criticism of the present excavations and of the site director, Manfred Korfmann, in particular, first in a press campaign, and now in a series of almost identical papers.[2] Since the article in the present volume does not contain new arguments and Prof. Kolb's criticism has recently been answered in a recent issue of *Anatolian Studies* by Donald F. Easton, J. David Hawkins, Andrew G. Sherratt and E. Susan Sherratt, it should be enough to refer readers to this paper. The authors arrive at the following conclusion:

> Our findings … are entirely congruent: that Troy in the Late Bronze Age had a citadel and a lower city appropriate to the capital of a significant regional power in western Anatolia; that it can most probably be identified as Wilusa; and that it occupied a position in the trading networks of its day which, in its context, can fairly be described as pivotal. Consequently we think that the criticisms raised against Professor Korfmann are unjustified.[3]

[1] Kolb 1984, 45–6. He also writes: [on Troy II] "It might have owed its wealth to the control of trade routes at the Dardanelles (Es mag seinen Reichtum der Kontrolle der Handelswege an den Dardanellen verdankt haben)," a view he now strongly rejects. A graecocentric approach is characteristic of this book and other publications by the same author: classical Greek cities supposedly constitute a "great progress" as compared to the "anarchic, agglutinating architecture of the oriental city" (ibid., 112). With the exception of Mesopotamia and Phoenicia, the ancient world, including Egypt, Palestine, Anatolia, Crete and Mycenaean Greece had hardly any cities to speak of before Greek and Roman times (ibid., 261).

[2] Kolb this volume and 2002; 2003; Hertel and Kolb 2003.

[3] Easton et al. 2002, 106.

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Nevertheless, it is important to show how Prof. Kolb has built his case. It seems appropriate to add a few points that have, until now, been neglected.

SETTLEMENT STRUCTURE OF LATE BRONZE AGE TROY

Frank Kolb writes:

> [rock-cut ditches discovered at Troy] are best explained by the suggestion of the excavator P. Jablonka that here we have to do with quarries from which rectangular blocks were extracted to be used in the construction of Troy VI/VII buildings. The rock cuttings for quarrying then had a secondary use as water channels and reservoirs …. (Kolb p. 603)

Only a few readers, and even then, only those who speak German, will probably examine the references in the bibliography.[4] They will find that the ditches are called *Verteidigungsgraben,* defensive ditch, or moat, in the titles of the articles cited by Prof. Kolb, an interpretation explained in detail in the text.[5] Contrary to the impression given, the ditches have never been interpreted as stone quarries. To say the least, the picture of Late Bronze Age Troy painted by Prof. Kolb does not make use of the evidence as scrupulously as one would wish.

Beginning with Heinrich Schliemann, all archaeologists who have worked at Troy have been convinced that a Late Bronze Age lower city of indeterminate size must have existed. Carl W. Blegen wrote:

> It has thus become clear that the area occupied by the inhabitants of the site at the end of Troy VI extended out beyond the limits of the fortress, and ... there can be no doubt that an extramural lower town of undetermined size really existed.[6]

Only in the course of the recent excavations at Troy, however, has this important question been addressed in a systematic way. In 1992 Manfred Korfmann suggested, based on the data from earlier research at Troy as well as several new observations, that a sizeable settlement must have existed outside the citadel.[7] Since then, this hypothesis has been tested and confirmed by extensive fieldwork.

The first goal was to determine the limits of the settlement. This was successfully achieved by a combination of magnetic prospection (fig. 1) and trial excavation. It could be shown that the cause of a linear, positive magnetic anomaly along the southern and western edges of the plateau, ca. 400 m to the south of the citadel of Troy, is the fill of a rock-cut ditch four meters wide and between one and two meters deep.[8] This ditch has so far been traced over a length of more than 600 m, and an end has not been reached anywhere. A second ditch was discovered even further away from the citadel.

Magnetic prospection revealed that the line of the inner ditch was interrupted in several places, and excavation at one of these interruptions produced rock-cuttings to support a wooden construction (a palisade) behind a bridge-like interruption of the ditch (fig. 2). These are clearly the remains of a gate. In this area bedrock is less than one meter below the present-day surface, and Bronze Age layers are not preserved outside the ditch and rock-cuttings. There is also good evidence that between one and two meters of settlement deposits are missing here as a consequence of erosion: the bases of Late Bronze Age pithoi were found nearby directly under the present-day surface,[9] and the ditches were filled with Late Bronze Age settlement debris, including stones and burnt mud-brick; moreover, only the lowest courses of the foundation walls of Hellenistic and Roman buildings were preserved here.[10] This explains the seemingly puzzling fact that the rock-cuttings do not continue for more than a few meters on either side of the gate. Originally they must have been dug into a meter or more of earth, and only the very bottom of them would have been cut into bedrock at points where the construction had to be stronger, or where the overlying sediments were thinner. This situation would logically have been the case at a gate with a road leading through it.

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[4] Jablonka et al. 1994; Jablonka 1995; 1996. Stone quarries are mentioned for the Hellenistic period. It is also suggested that the large amount of rock removed when the ditches were built was used as building material. This does not imply an interpretation of the ditches as stone quarries.

[5] This is only one particularly striking example of the methods used by F. Kolb to support his argument. Others are plans of Troy and other sites for comparison published without giving a scale, with plans of Troy printed at the smallest scale (Easton et al. 2002, fig. 1), or —more subtly—the exclusion of Troy VIIa, which has been given particular emphasis by the excavators, from the discussion of Late Bronze Age Troy.

[6] Blegen et al. 1953, 351.

[7] Korfmann 1992b.

[8] Not "no more than 2–3 m wide and up to 1.50 m deep" as stated by Kolb (p. 602). Even if this is rather small, it still matches the ditches of many medieval towns and castles in size.

[9] Since no undisturbed Bronze Age contexts were present, the pithoi have been published as probably Hellenistic, with a Bronze Age date also possible, in Jablonka 1995, 53, 55–6. In the meantime a definitely Bronze Age thermolumeniscence date has been obtained for one of them: Find number w28.350, TL date 1447 ± 383 B.C. (Heidelberger Akademie der Wissenschaften, Forschungsstelle Radiometrie).

[10] see below for more on site preservation at Troy.

Fig. 1. Troy, magnetogram (Troia project).

It is therefore very likely that the palisade continued parallel to the ditch and was part of a defensive system.[11] It is also likely that at least some of the earth and rock excavated during the construction of the ditch was filled in to form a rampart behind the palisade. The ditches have been dated with the help of pottery, including some Mycenaean sherds, and a series of radiocarbon dates from their fill.[12] The inner ditch was built at some point in Troy VI Middle (ca. 15th century B.C.), and apparently slowly filled in with sediment toward the end of Troy VI (ca. 1300–1250 B.C.) and during VIIa (ca. 1250–1175 B.C.). Only a very short stretch of the outer ditch has been excavated so far, yielding pottery from Troy VI Late or VIIa. Since a cemetery from Troy VI Late, excavated by Carl W. Blegen, lies between the two ditches, one can assume that the outer ditch belongs to Troy VIIa, and that the settlement had grown to include the area of an older cemetery at that time.[13]

Direct evidence from the excavations alone is thus sufficient to reconstruct two lines of defenses—ditch and palisade with rampart—around the lower city of Troy VI and VIIa. From the Early Bronze Age to the Byzantine period, town and city defenses usually consisted of a ditch, a first wall positioned a short interval behind the ditch, an open space behind the first wall, and a main wall. It therefore seems likely that a city wall existed at some distance behind the palisade. This wall may have joined the citadel walls at the Northeast Bastion (quadrants K/L4), where we have excavated a massive stone foundation covered by mudbrick walls, built during Troy VIIa.[14] Even if the reconstruction of a city wall behind the ditch is rejected as hypothetical, the excavated remains still stand as convincing evidence for two successive Late Bronze Age defensive systems around the Lower City.

[11] As suggested by Easton et al 2002, 90.

[12] Jablonka 1995, 61–76; 1996, 73.

[13] Becks 2002 gives the exact location and a detailed plan of this cemetery.

[14] The covering slabs of a water canal, which runs diagonally through the larger structure, had indeed been mistaken for a wall before the 2003 excavation season. This does not influence the interpretation of the structure as a whole, as given in Korfmann 1997, 49–53.

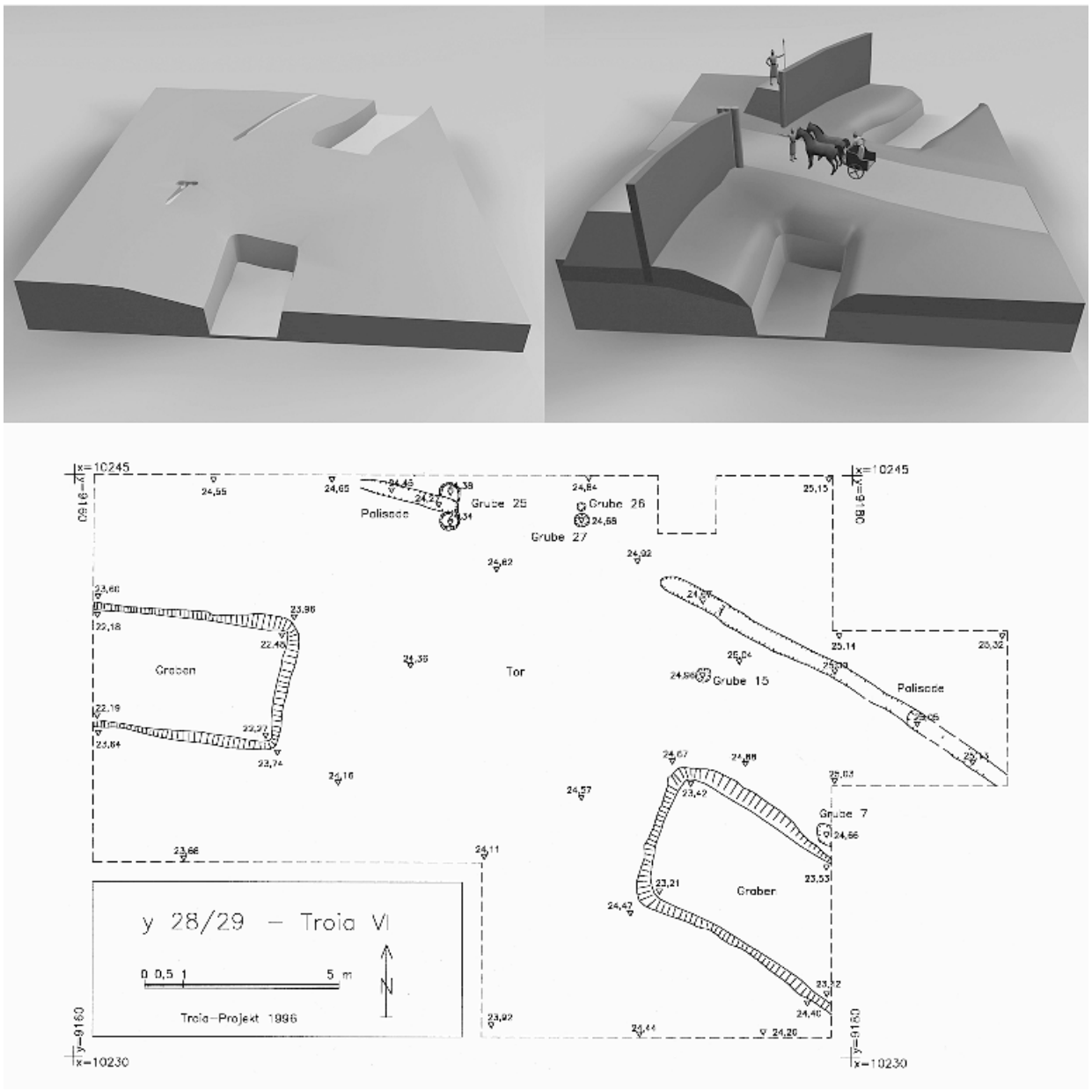

Fig. 2. Troy, Bronze Age ditch surrounding lower city and gate. Bottom, plan (Jablonka 1996, Fig. 2); Top, 3d-visualization and reconstruction. (P. Jablonka)

It is hard to imagine how these structures could have served any function other than a defensive one. There are several reasons why the ditches cannot have operated as water reservoirs or channels collecting water, as claimed by Prof. Kolb (p. 603–4),[15] the most important of them being that water cannot run uphill[16] or bridge the interruptions of the ditches, as even a cursory look on a plan will show. It is also clear that all test excavations, including one in the northwest, uncovered the same ditch. All intermittent stretches are clearly visible in the magnetogram. The reuse of the outer ditch as part of a water channel during the Roman period does not imply the same for the Bronze Age. Hellenistic and Roman "water channels" at Troy, most of which were formed of

[15] Slightly different variations of the same theme can be found in Kolb 2002, 2003

[16] Easton et al. 2002, 91.

terracotta pipes or tiles or were narrow v-shaped ditches, were never interrupted, and are very different in form from the Bronze Age ditches. The ditches could not have collected water running downhill in an attempt to prevent the plain from becoming swampy, because the plain itself—a floodplain crossed by rivers—was already swampy. These perennial rivers as well as numerous springs in the immediate vicinity of Troy also render any attempt to store large amounts of water in artificial basins superfluous, even if the Hittites did this in the dry Anatolian highlands. In short, Prof. Kolb's interpretation of the ditches can be dismissed as unfounded.

With the limits of the settlement thus determined, it also becomes clear why the attempts of Carl W. Blegen and his team to find Bronze Age cemeteries by digging narrow exploratory trenches "totalling between 2 and 3 miles in length" on the plateau ended with no success.[17] These areas of exploration were inside the settlement. Consequently, the only Troy VI cemetery known so far has been found where one would expect it: a short distance outside the inner ditch, close to the gate.

Since the whole area around the citadel of Troy is covered by Hellenistic and Roman Ilion, Bronze Age remains have been heavily disturbed and can only be uncovered in small areas after careful excavation of later occupational phases. Wherever excavation was possible, successive settlement strata and building remains from Troy VI and VII—and occasionally even earlier Bronze Age layers—have been found by all excavators testing the ground, beginning with Heinrich Schliemann.[18]

The development of the Bronze Age settlement could be clearly discerned in an area 150 m south of the citadel. During the Troy II period (ca. 2500 B.C.), yet another rock-cut palisade and gate marked the limit of a smaller settlement here. Graves from Troy V discovered nearby suggest that the area was uninhabited afterward. In Troy VI Early and Middle, occupation begins again with huts, pavements, a threshing floor, ovens, pithoi, metalworking, and heaps of murex and other shells. Agriculture and a variety of crafts are features characteristic of the outskirts of a settlement. In Troy VI Late and Troy VII, houses with two successive phases were built, and they included mudbrick walls on stone foundations. Other house remains have been found nearby, and the place had clearly changed into a residential area. In Troy VIIb (ca. 12th century B.C.) the houses had been destroyed, and pits containing pieces of wattle-impressed clay show that huts were built in the area once again. This indicates settlement growth during the Late Bronze Age.[19]

Closer to the citadel, houses tend to become larger and more densely built. Immediately to the west of the citadel, a larger area was excavated down to Bronze Age levels. Again, layers and building remains from Troy I, II, and V were found. If the graves discovered here were not intramural, part of the area was open space for a while at the end of Troy V and the beginning of Troy VI.

From Troy VI several phases of tightly packed houses and a cobbled street were found. Only partial excavation of these was possible because they are covered by even larger houses from Troy VIIa. Although these later houses are in turn covered by the remains of a Greek and Roman sanctuary, one of them was fully excavated. It covers an area of more than 200 m^2 and can be described as a megaron type house with side rooms, one of which contained at least a dozen large storage pithoi. The building was reused in Troy VIIb1. Finds from this house include a Mycenaean seal, a terracotta bull(-rhyton?), a bronze statuette, several gold fragments, and a fragment of blue wall plaster. There are widespread signs of several fires in the area, one of them certainly at the end of Troy VIIa. In Troy VIIb2, buildings with a different ground plan were partially excavated by Blegen. As in other areas inside and outside the citadel, occupation is denser and the finds are richer in Troy VIIa, and even in VIIb1, than in Troy VI.[20]

Buildings from Troy VI and VII have been found everywhere around the citadel except on the steep slopes to the west and north.[21] It is significant that the well inside the Northeast Bastion could be reached by a door from outside the citadel: if no one had lived there, it would have been foolish to weaken the fortification in this way. A natural spring ca. 200 m southwest of the citadel was extended into an artificial system of underground tunnels and shafts during the Bronze Age, serving the increasing demand for freshwater by a

[17] Blegen et al. 1950, 8.

[18] A recent summary of the evidence can be found in Easton et al. 2002.

[19] Summarized with references to preliminary excavation reports by D. F. Easton in Easton et al. 2002, 87.

[20] Becks 2003; Easton et al. 2002, 85–7.

[21] Easton et al. 2002, 84–7.

growing population.[22] The results of magnetic prospection show buildings in several places in the Lower City with an orientation oblique to the Hellenistic and Roman street grid, although most deeply buried remains are obscured by overlying structures. It is very likely that at least some of these buildings belong to the Late Bronze Age.[23]

Even after 130 years of fieldwork at Troy, excavation has still uncovered less than 5% of the site. A systematic survey using both excavation and magnetic prospection has recently been completed at Troy. The initial results of this survey show a continuous scatter of Bronze Age pottery in the area south of the citadel.[24] In terms of size and workmanship, the citadel's walls and the individual buildings from the center of Troy VI and VII match Büyükkale, the citadel of the Hititte capital Hattusa, as well as the Mycenaean palaces.[25]

To sum up, the body of evidence for a Lower City around the citadel of Late Bronze Age Troy is much larger than that suggested by Prof. Kolb. If the excavated areas can be considered a sample of the whole, it is indeed likely that the western half of the plateau, between the citadel and the ditches, was a built-up area (fig. 3). This Lower City was surrounded by a fortification, although the exact density of occupation, size, number, and ground plans of the houses are unknown except for a small area. Nevertheless, the presentation of a reconstruction is justified as long as the author indicates that the details of the reconstruction are hypothetical. In the computer presentation given at the Troy exhibition in Bonn, all reconstructions except those based on near-complete ground plans could be "switched off" to show how much is actually missing.[26]

Available evidence therefore shows that Late Bronze Age Troy—at the end of Troy VI *and* during Troy VIIa—was a large settlement consisting of a citadel encompassing 2–3 ha and surrounded by a fortified Lower City covering an area between 25 and 35 ha (depending on how wide a space one assumes between the ditches, a fortification wall, and the beginning of the settlement proper). It was thus similar in size to Mycenaean centers, mid-sized Hittite cities like Alisar or Kuşaklı-Sarissa, and sites such as Beycesultan or Ugarit.[27] From the area of the settlement, as well as from the agricultural capacity of the surrounding land, a population of 5000–6000 can be estimated.[28]

Archaeological survey in the Troad has also shown that Troy had no rival. At other sites, both the central mounds and outlying settlements—as inferred from surface find scatters (fig. 4)—are at most half the size of Troy. Predictably, a rank-size analysis shows that Bronze Age Troy must be considered the central place in a settlement hierarchy.[29] In its context it can thus rightly be called not only a city, but also the capital of a city-state, even a "major regional power."[30] To many scholars it seems likely that this power can be identified with the land of Wilusa, known from Hittite sources.[31]

SITE PRESERVATION

Prof. Kolb and several other scholars still insist that an archaeologist may only rely on "what is preserved (Kolb p. 578)" and the "facts as he knows them quite frankly (Kolb p. 577)." They fail to recognize that "what is preserved" will always be only a tiny fraction of what actually existed. Consequently, their interpretation of archaeological sources in general, and the picture they draw of Troy in particular, will remain biased and incomplete.[32]

To the disappointment of every visitor, Troy is a very poorly preserved site. The Bronze Age layers were saved from destruction only by the massive Troy VI fortification walls acting as barriers, and the incorporation of the prehistoric mound into the terrace on which the Temple of Athena was built. During the construction of the Temple of Athena, the center of the Late Bronze Age citadel was completely destroyed. All of the Bronze Age Lower City was covered by the ruins of Hellenistic and Roman Ilion. Compared with Classical cities elsewhere in

[22] The "cave" was already known to Schliemann, but has only recently been dated to the Bronze Age: Frank et al. 2002.

[23] Green lines on Fig. 4 in Becker and Jansen 1994.

[24] Sherds found here cannot have "rolled down the slope," as some critics have remarked, because the area is as high or even higher than the ground on which the citadel stands.

[25] As noted by J. D. Hawkins in Easton et al 2002, 77–81.

[26] For a description of this computer project see Jablonka et al. 2003. It seems a futile exercise to count houses in this reconstruction, as Kolb (p. 604–5) does, since most of them are hypothetical.

[27] For a recent discussion of settlement sizes and urbanism in the Aegean Bronze Age confer Whitelaw 2002.

[28] This is on the lower end. Korfmann 1992b, 138: "über (more than) 6000"; 1996a, 91–2: "about 6000, perhaps even 7000" has slightly higher numbers.

[29] Aslan et al. 2003.

[30] City-state as defined by Nichols and Charlton 1997; Bintliff 2002, 174.

[31] J. D. Hawkins in Easton et al. 2002, 94–101. Definite proof for this could only come from the discovery of written documents in Troy could. Because Hittite kings exchanged letters with the rulers of Wilusa, an archive must have existed there.

[32] Anthropogenic and natural processes of site preservation, site modification, and taphonomy have developed into a field of study in their own right: Butzer 1982; Schiffer 1996.

Turkey, Ilion is very badly preserved due to stone robbing and intensive agriculture in the area. For the Lower City, there is clear evidence that a significant amount of Bronze Age and later cultural layers have been removed by erosion, stone robbing, and modern agriculture—from the outer areas of the plateau where the ditches have been found and from areas closer to the citadel where some Bronze Age remains are still preserved.

But what has been lost still leaves traces that can be read. Some of the factors that must be taken into account by any interpretation are:

1. No natural soil has been found anywhere. Archaeological excavations and palaeogeographic boreholes have shown that both the natural soil and the settlement deposits removed from the plateau constitute a colluvium sometimes several meters deep that contains mixed finds of all periods at the foot of the hill.[33]
2. Bases of pithoi and holes in the bedrock to support them have been found even in areas where today only a few centimeters of soil remain.[34] These pithoi were between one and two meters high, and sunk into the ground, which indicates that one or two meters of Bronze Age deposits are missing.
3. On slopes to the west of the citadel, horizontal Late Bronze Age surfaces and architecture have been cut by the present-day surface, clearly indicating that the settlement continued beyond what is preserved today.
4. Some bedrock cuttings supporting wooden constructions (posts, fences, palisades) are more than one meter deep (Troy II), others only a few centimeters deep (Troy VI and VII). When no layers were present, the builders of these structures had to cut all the way down into bedrock. The shallow rock cuttings represent only the bottom of what were originally much deeper features.
5. In many cases, only foundations of Bronze Age, Hellenistic, and Roman buildings are preserved. At times, the corresponding floor levels must have been even higher than the present-day surface. Ditches, pits, and other natural and artificial depressions in bedrock are always filled with Bronze Age settlement rubble even where no Bronze Age layers are extant. It is evident that the corresponding surfaces that once existed have been removed.
6. The whole area around the Bronze Age citadel was covered by the Greek and Roman city of Ilion. Therefore, Hellenistic and Roman foundations, stone robbing trenches, pits, and basements extend down to and into bedrock. As a result, Bronze Age layers are preserved as islands at best. Even buildings from Troy VII may have partly or fully destroy levels from the preceding Troy VI levels and can hamper the excavation of those levels.
7. With the exception of some areas and phases where buildings burned down with their inventory in situ, finds from Late Bronze Age Troy are indeed poor. For example, most vessels are represented by only one or very few sherds. When it is possible to find several sherds belonging to the same vessel, they are usually scattered over fairly large areas. When one finds a single sherd of a pot, this proves that the greater part is missing. It does not prove that Troy was a "poor settlement." This is in striking contrast to Troy II, where a variety of factors contributed to the survival and discovery of the famous treasures and other components of the settlement: a tendency to collect items of wealth, the concealment of these items in times of danger, the subsequent destruction of the settlement in a catastrophic event, with the survivors—if there were any—unable to reclaim the treasures, and the sheer scale of the excavations conducted by Heinrich Schliemann.
8. A complete Late Bronze Age architectural sequence can be found only on the citadel and in its immediate vicinity. In other areas the chronology has to be obtained from pottery and radiocarbon dates. The resolution of these dating methods is not precise enough to highlight a clear distinction between Troy VI Late and Troy VIIa. In many cases it is therefore possible to date the excavated features only to "Troy VI Late or VIIa."

Most archaeologists would consider observations of this kind also as "facts," and erosion or stone robbing cannot be dismissed out of hand. It is, in fact, surprising not how little, but how much of Bronze Age Troy can still be found, at least in traces.

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[33] Kayan 1996; 1997.

[34] In one case, close to the gate in the inner ditch, dated to the Late Bronze Age by thermolumeniscence because no Bronze Age layers were preserved, see supra n. 9.

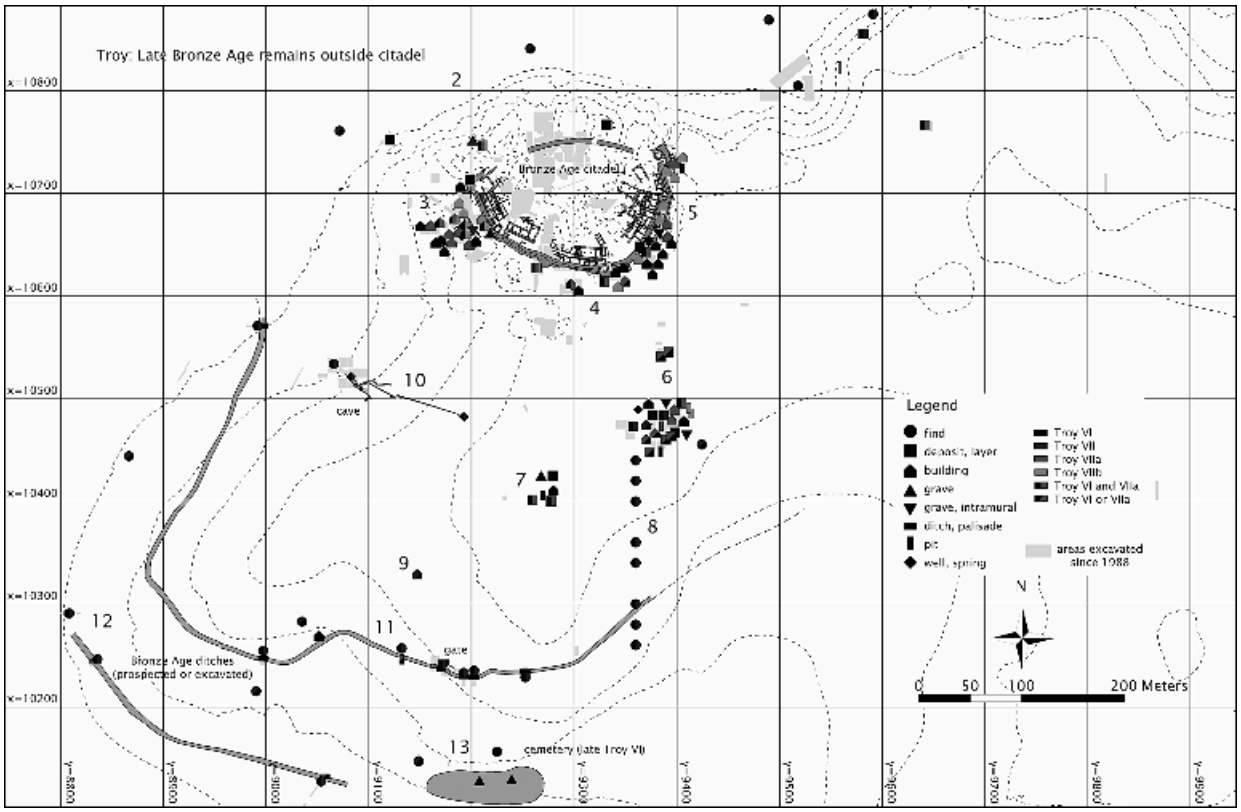

Fig. 3. Troy, Late Bronze Age remains outside citadel. (P. Jablonka) References grouped in areas numbered on plan. *1* Northeast of citadel: Finds, Troy VI (Blegen et al. 1953, 5, 375); finds, Troy VI and VII (Blegen et al. 1950, 199; 1953, 375); deposits, layers, Troy VI and VIIa (unpublished); finds, Troy VI or VII (Kayan 1996); deposits, layers, Troy VI and VII (Blegen et al. 1950, 199). *2* North of citadel: Deposits, layers, Troy VI (Becks 2002, 300–303; Blegen et al. 1953, 394–396); finds, Troy VI or VII (Kayan 1996); grave, Troy VII (Becks 2002, 303–304; Blegen et al. 1958, 134); finds, Troy VI or VII (Kayan 1996); deposits, layers, Troy VI (Blegen et al. 1953, 158–162, 206–210, fig. 502); deposits, layers, Troy VI, VIIa and VIIb (Blegen et al. 1950, 277; 1958, 132–135). *3* West of citadel: Architecture, Troy VI (house 661, Blegen et al. 1953, 366–368, fig. 503, 504; Korfmann 2002, fig. 10); Architecture, Troy VIIb (Korfmann 2002, fig. 10); architecture, Troy VIIb (house 791, Blegen et al. 1953, fig. 503; 1958, 241–243, fig. 363, 366; Korfmann 1997, 42–45, fig. 40, 41; 1998a, 40, fig. 37; 2002, fig. 10); architecture, Troy VI (Korfmann 2002, 14, fig. 15); architecture, Troy VI (Korfmann 2000, 25–26, fig. 21; 2001a, 16–18, fig. 15–16; 2002, 14, fig. 15); architecture, Troy VI and VIIa (Korfmann 2002, 14–15, fig. 10–12); architecture, Troy VI (Korfmann 2001a, 21–24, fig. 17,18; 2002, fig. 10); architecture, Troy VIIa (Korfmann 2001a, 20, 21, fig. 18; 2002, 18, fig. 10); architecture, Troy VI (Korfmann 1997, 41, fig. 35; 2002, fig. 10); architecture, Troy VIIa (Korfmann 2001a, 20, 21, fig. 18; 2002, 18, fig. 10); architecture, Troy VI (Korfmann 1997, 41, fig. 35; 2002, fig. 10); architecture, Troy VIIa (house 749, Blegen et al. 1953, fig. 503; 1958, 130–132, fig. 363–364; Korfmann 1994, 24–27, fig. 28–31; 1995a, 21–24, fig. 20, 21; Korfmann 1996a, 32–37, fig. 25–29; 1997, 41–42, fig. 27; 1998a, 38–39, fig. 27, 36; 2002, 15–18, fig. 9–11, 14; 2003, 11–14, fig. 11–14); graves, Troy VI (Korfmann 2002, 18, fig. 15–16); architecture, Troy VIIa (Korfmann 1998a, 37; 2000; 25,26, fig. 21; 2002, 15, fig. 9,10); architecture, Troy VIIa (Korfmann 2002, fig. 10); architecture, Troy VI and VIIb (Korfmann 1995a, 21–24, fig. 20, 21; 1996a, 32–36, fig. 25–29; 1998a, 39–40, fig. 27 2002, 18, fig. 10); architecture, Troy VI and VIIb (Korfmann 1994, 24–27, fig. 28–31; 1995a, 21–24, fig. 20, 21; 1998b, 37, 39; 2002, fig. 10); architecture, Troy VI and VIIb (Korfmann 1998a, 32, 37; 2001a, 19–20, fig. 17; 2002,

fig. 10); architecture, Troy VI, VIIa and VIIb (Korfmann 1998a, 37, fig. 27, 30, 35); architecture, Troy VIIa (Korfmann 2002, fig. 10); architecture, Troy VI (Korfmann 2002, fig. 10); architecture, Troy VIIb (Korfmann 1997, 42, fig. 39; 2002, fig. 10); deposits, layers, Troy VI (Blegen et al 1951, 217, 218, 297, 298, fig. 318; 1953 fig. 506; Korfmann 2000, 27,28); grave, intramural, Troy VII (Korfmann 1996a, 34). *4* South of citadel: Architecture, Troy VI (anta house, Blegen et al 1953, 249–254, fig. 451, 471); architecture, Troy VI (Korfmann 1999, 14, fig. 13); architecture, Troy VIIb (Korfmann 1992a, 27–30, fig. 24–25; 1992b, 140, fig. 18–22; 1993, 14–19, fig. 18; 1994, 19–21, fig. 21–23; Korfmann 2000, 30–32, fig. 27–29; 2001a, 22–27, fig. 20–22); deposits, layers, Troy VI, VIIa and VIIb (Korfmann 2000, 30–32, fig. 27–29; 2001a, 22–27, fig. 20–22); architecture, Troy VI or VIIa (Korfmann 1993, 19,20, fig. 19,20); architecture, Troy VIIb (Korfmann 2003, 16–17); deposits, layers, Troy VI and VIIa (Korfmann 2003, 14–17, fig. 16,17); architecture, Troy VI and VIIa (Korfmann 1994, 21–23, fig. 26; Korfmann 1999, 14); architecture, Troy VI (Korfmann 1993, 19,20, fig. 19,20). *5* East of citadel: Architecture, Troy VIIb (Korfmann 1997, 49–53, fig. 48, 50, 52); architecture, Troy VIIa (Korfmann 1996a, 39–43, fig. 33–36; 1997, 49–53, fig. 48); architecture, Troy VIIb (Dörpfeld 1902, pl. 6); architecture, Troy VI (Blegen et al 1953, fig. 472); deposits, layers, Troy VI and VIIa (Korfmann 1994, 23, 24, fig. 27); architecture, Troy VIIb (Dörpfeld 1902, pl. 6, marked as VII1 (VIIa); architecture, Troy VIIb (unpublished); pits, Troy VI (Korfmann 1997, 50, fig. 47); grave, intramural, Troy VI (Easton and Weninger 1993, 55–56, fig. 18–21; Korfmann 1993, fig. 21); architecture, Troy VI (Korfmann 1992b, 140–144, fig. 23–27; Easton and Weninger 1993; Korfmann 1992a, 30, 31, fig. 26; 1993 fig. 21); architecture, Troy VI Late (Easton and Weninger 1993; Korfmann 1993, fig. 21); architecture, Troy VI Middle (Easton and Weninger 1993; Korfmann 1993, fig. 21); architecture, Troy VI Early (Easton and Weninger 1993; Korfmann 1993, fig. 21); deposits, layers, Troy VI (Korfmann 1993, 23); architecture, Troy VIIb (house 787, Blegen et al 1953, fig. 472, 1958, fig. 339; Dörpfeld 1902, pl. 6); graves, intramural, Troy VI (child burials, unpublished); architecture, Troy VIIa (house 740, Blegen et al 1953, fig. 472; 1958, fig. 338); architecture, Troy VIIa (house 741 Blegen et al 1953, fig. 472; 1958, fig. 338); architecture, Troy VIIb (Dörpfeld 1902, pl. 6). *6* South of citadel, on plateau: Deposits, layers, Troy VI or VIIa (2 points, Korfmann 1991, 17–28, fig. 20); deposits, layers, Troy VI and VII (Korfmann 1993, 25,16, fig. 27); deposits, layers, Troy VI and VII (Korfmann 1997, 53–62; 1998a, 49–56); architecture, Troy VI or VIIa (Korfmann 1998a, 52); deposits, layers, Troy VI (Korfmann 1997, 53–62, fig. 54, 63; 1999, 21–22; 2000, 28,29); deposits, layers, Troy VI and VIIa (Korfmann 2000, 28,29); architecture, Troy VIIa (Korfmann 1997, 58, fig. 58–60; 1998a, 51, fig. 46, 47; 1999, 21,22); grave, intramural, Troy VI (Korfmann 2000, 28, 29); architecture, Troy VI (Korfmann 1998a, 51–52; 1999, 21,22); architecture, Troy VI (Dörpfeld 1902, 236); deposits, layers, Troy VI or VIIa (3 points, Korfmann 1991, 17–28, fig. 17); finds, Troy VI or VII (unpublished); pits, Troy VIIb (2 points, Korfmann 1999, 21,22); architecture, Troy VIIa (unpublished); pits, Troy VI and VIIa (Korfmann 1998a, 49–56); grave, intramural, Troy VI (Korfmann 1997, 59, fig. 54, 62); deposits, layers, Troy VI (Korfmann 1995a, 25, fig. 22); architecture, Troy VI or VII (Korfmann 1994, 28, 29, fig. 32, 33); pits, Troy VI (Korfmann 1994, 28–30, fig. 32,35); well, Troy VI (Dörpfeld 1902, 236). *7* South of citadel, southwest of 6: Deposits, layers, Troy VI and VIIa (2 points, Korfmann 1994, 31, fig. 36, 37); pits, Troy VI (Korfmann 1994, 31, fig. 36); deposits, layers, Troy VI (Dörpfeld 1902, 237); architecture, Troy VI (Korfmann 1994, 31, fig. 36); grave, Troy VI (Dörpfeld 1902, 237). *8* Drill cores on plateau: Finds, Troy VI and VII (Korfmann 1992b, 139). *9* Magnetogram: Architecture, Troy VI or VII? (Becker and Jansen 1994, fig. 4). *10* Cave: Rectangular shaft (Korfmann 2002, 20–23); spring in tunnel system (Korfmann 1998a, 57-62; 1999, 22–25, fig. 20; 2000 32–37, fig. 30–32; 2001a, 36–40, fig.30–34; 2002, 20–23). *11* Inner ditch: Ditches, palisades, Troy VI (Jablonka et al. 1994; Jablonka 1995; 1996; Korfmann 1994, 34–37, fig. 42; 1995a, 25,26; 1996a, 44–48, fig. 38–40; 1997, 62; 2001a, 27, 28, fig. 23–24); Rectangular grid of pits to support pithoi, Troy VI or VIIa (Jablonka 1995, 53–57, fig. 1, 13; Korfmann 1995a, 26–28, fig. 26); architecture, Troy VI ("crematory", Blegen 1953, 391–394; Korfmann 1992b, 128); finds, Troy VI or VII (unpublished). *12* Outer ditch: Ditches, palisades, Troy VI or VIIa (Jablonka 1996; Korfmann 1996a, 48–49); finds, Troy VI and VII (unpublished). *13* Cemetery: Cemetery, Late Troy VI (Dörpfeld 1894, 123–125, fig. 82, 83; Blegen et al 1953, 370–391; Becks 2002); finds, Troy VI (Blegen et al 1953, 375, fig. 278; Becks 2002).

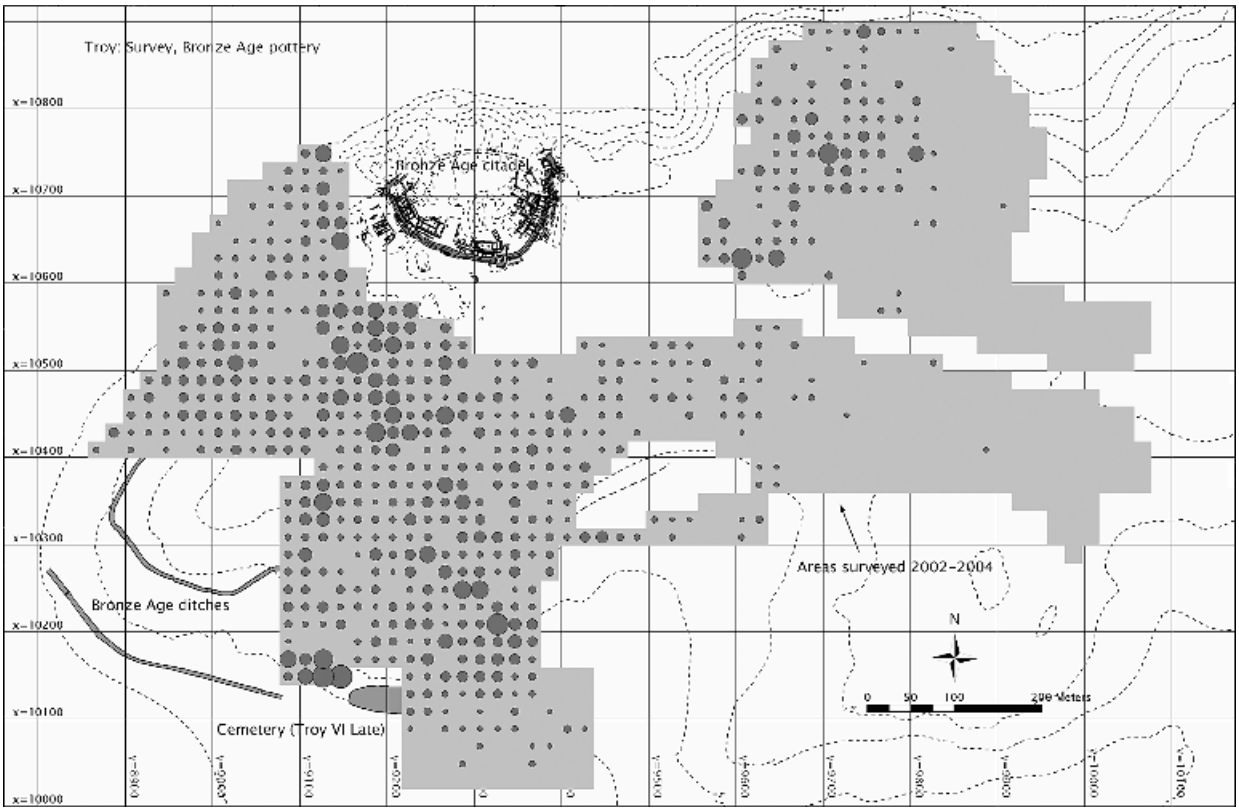

Fig. 4. Troy, survey (surface find collection). Bronze Age pottery, 1 (smallest symbol) to 35 (largest symbol) sherds per collection area. (P. Jablonka)

TRADE AND FOREIGN GOODS IN LATE BRONZE AGE TROY

According to Prof. Kolb, "a discussion of the importance of trade in the Bronze Age has to start from the available written sources, since they alone can provide us with explicit information about economic structures (p. 581)."[35]

If one then proceeds to define trade as the exchange of goods in a market economy with a monetary system by specialists (profit-oriented merchants) and a "trading center" or "commercial city" as a place whose economy is based exclusively on trade, as opposed to places with a "mixed economy based on agriculture, handicraft and trade (p. 586),"[36] then trade and places of trade would hardly exist during the Bronze Age. Such a narrow definition is not helpful in trying to understand the role and importance of Late Bronze Age Troy. The volume of trade was certainly much smaller during the Bronze Age than during later periods,[37] and goods may have been exchanged for a variety of reasons, but this does not mean that trade did not exist at all. Probably no one would doubt the ability of archaeology to determine the distribution and provenance of goods, establish patterns of exchange, and explain the forms of trade and economy that may have caused them, even where no written documents exist.

Of the pottery that has been found at Troy, one could cite several thousand Mycenaean sherds and

[35] He even finds it worthwhile to quote Theodor Mommsen as having said "Archäologie ist Wissenschaft, die zu wissen sich nicht lohnt knowledge not worth knowing", of course only to stress that this is not his opinion (Kolb 2002, 8)

[36] Kolb tries to further play down the role of trade by calling the numbers of foreign items discovered "small" and insisting that "trade" was predominantly "gift exchange between elites", while the authors quoted by him speak of "a significant body of evidence which may be utilized by scholars studying the trade and interconnections of the ancient Mediterranean," and state that "trade was primarily commercial, although some gift exchanges … appear to have taken place as well" (Cline 1994, 106).

[37] Horden and Purcell 2000, 368–72 point to the fact that, judging from the number of shipwrecks, trade seems to have been significantly greater during the imperial Roman period than at any time before the 19th century. On Bronze Age ships from the Mediterranean see Wachsmann 1998.

others of Minoan and Cypriot origin and at least two pieces that can be identified as Canaanite.[38] By the same token, Trojan or Western Anatolian Grey Ware has been found in Cyprus and the Levant.[39] Other foreign or valuable materials from Late Bronze Age Troy include 10 objects of gold,[40] four of silver,[41] at least 22 of ivory,[42] several stone and alabaster vessel fragments,[43] some of which are Cretan, one fragment of a faience vessel,[44] numerous ostrich egg fragments,[45] and hundreds of beads made from glass, faience, carnelian, and other semi-precious stones.[46] Metalworking, with its need for raw materials, is further attested by about 20 moulds or mould fragments.[47] Apart from thousands of spindle whorls and loomweights, concentrations of crushed murex shells might point toward textile production.[48]

It is true that the only direct evidence for writing at Bronze Age Troy is a Luwian seal bearing the name of a scribe,[49] and that only a few seals have been found. Still, the presence of about twenty Bronze Age seals in the archaeological record here (most of them Troy VI or VII) indicates some degree of administrative organization of the economy.[50] This proves beyond doubt that Late Bronze Age Troy participated in a network of production and exchange of some sort (and extends the incomplete list of items given by Prof. Kolb). The items listed are by no means only luxury items involved in diplomatic gift exchange among political elites. It is therefore more appropriate to speak simply of "trade." It is likely that many perishable goods not preserved in the archaeological record must also have been exchanged, the possible candidates for which are, among others, textiles, wine, oil, timber, animals, and slaves, but it is not necessary to invoke them to argue in favor of Troy's role in trade.[51] One needs to explain how and why these materials reached Troy, a place at the periphery of the Mediterranean world (as rightly stated by Prof. Kolb), and what Troy might have had to offer in return.

It is in this context that Troy's unique geographic position has to be taken into account. In the Late Bronze Age, Troy was situated on a promontory next

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[38] Blegen and his team reported 31 Mycenaean pots and 1000 sherds, which must come from 700 to 800 vessels, Minoan and "a good many fragments" of Cypriot pottery from Troy VI (Blegen et al. 1953, 16–7); 60 imported, more than 250 local Mycenaean sherds, and 8 Cypriot White slip sherds from Troy VIIa (Blegen et al. 1958, 23); and 27 imported, 128 local Mycenaean, 1 Cypriot sherd from Troy VII b (Blegen et al. 1958, 156–7). More than 2000 Mycenaean and Minoan sherds have been registered by the new excavations. The term "local" as used by specialists in Mycenaean pottery does not necessarily imply that this pottery was produced in Troy, it only means that it is different from pottery found in the Argolid. Kozal (2003, 69) mentions 60 Late Cypriot II sherds from Troy. The Cananite amphora sherds found at Troy have find numbers B7.8.104, K4.472.16. There is, in addition, a large amount of unidentified, foreign-looking pottery at Troy. The provenance of this pottery is currently being examined by a combination of archaeological, mineralogical, and chemical methods.

[39] Allen 1991; 1994.

[40] Five from Troy VI and five from Troy VII; A. Götze in Dörpfeld 1902, 395; Tolstikow and Treijster 1996, nr. 149, 240; Blegen et al. 1953, 297, 379; Blegen et al. 1958, 205; Troy find numbers K8.767.8, z7.1071; A7.788; A7.642; and A7.681; Easton and Weninger 1993; Korfmann 1996a, fig. 28.1, 28.3, 28.7. I am most grateful to Ralf Becks for providing lists of objects found at Troy.

[41] Two from Troy VI and two from Troy VII; Blegen et al. 1953, 297; Troy find numbers I8.579, z7.1098, A7.685; Korfmann 1996a, fig. 28.2, 28.5.

[42] Fifteen from Troy VI and seven from Troy VII; A. Götze in Dörpfeld 1902, 398, 399; Blegen et al. 1953, 263, 271, 298, 380; 1958, 66–7, 125, 186, 189, 205; Troy find numbers A7.1349, z7.396, E9.952; Balfanz 1995.

[43] Most of them are from Troy VI, some are from Troy V and VII; A. Götze in Dörpfeld 1902, 391, 400, 402, 417; Blegen et al. 1953, 123, 151, 208, 230, 231; 1958, 52, 82; Troy find numbers E8.225.1.

[44] Troy VI; A. Götze in Dörpfeld 1902, 402.

[45] Blegen et al. 1953, 263.

[46] From Troy VI and VII; A. Götze in Dörpfeld 1902, 398; Blegen et al. 1953, 199, 232, 262, 263, 264, 270, 272, 298, 314, 315, 353, 380; 1958, 59, 60, 84, 85, 124, 129, 135, 199 205; Troy find number. Z6/7.297.2, K8.767.10, K8.767.11, z6.879.2, z7.181, z7.336, z7.462.1–3, z7.478, z7.527, z7.1099, z7.1101, z7.1102, A7.626, A7.643, A7.647–649, A7.653, A7.684, A7.686, A7.691, A7.714, A7.790–791, A7.1173, A7.1264, A7.1270, A7.1272, A8.1107, C29.206, K4.607, K17.1126, KL16/17.712, 720, z8.1645, E9.1224; Easton and Weninger 1993; Korfmann 1996a, pl. 2.2; 1998, fig. 35.

[47] About half of them are from Troy VI and half from Troy VII; A. Götze in Dörpfeld 1902, 397, 405, 420; Blegen et al. 1953, 230; 1958, 87, 124, 205; Troy find numbers z7.366, z7.694, z7/8.1497, z7/8.1735, A5/6.15, A7.1463, E9.577, E9.1254.21, K13.201.33.

[48] More than 10 kg in one place (Troy VI): Korfmann 1998a, 52.

[49] Hawkins and Easton 1996.

[50] A. Götze in Dörpfeld 1902, 400, 418; Blegen et al. 1953, 218, 298; 1958, 186; unpublished seal impressions on clay objects from Blegen's excavations in the Archaeological Museum, Istanbul; Troy find numbers E9.30, E9.573, A5/6–14, A7.691, z7.6.3, z7.707, KL16/17.752; Hawkins and Easton 1996; Korfmann 2000, fig. 25; 2001a, fig. 10.

[51] But even Carl W. Blegen wrote: "The discovery at Kültepe, under somewhat similar conditions, of a hoard of inscribed tablets recording the activities of a colony of Assyrian merchants, whose itemized bartered goods have perished without trace, shows how unsound an argument based on the failure to find any such actual objects may be (Blegen et al. 1953, 17)."

to a shallow bay, at the mouth of the largest river connecting its hinterland with the coast, and at the mouth of the Dardanelles, the narrow straits connecting the Mediterranean with the Black Sea, and separating Europe from Asia—a position literally "at the crossroads" connecting Anatolia, the Mediterranean, Thrace, Southeast Europe, and the Circumpontic region.

Because of the strong currents flowing out of the Dardanelles and the prevailing winds from the northeast, it is very difficult for sailing ships to enter the straits.[52] Ships therefore had to wait for favorable winds at the mouth of the straits. Nevertheless, there is evidence that Bronze Age ships made the journey from the Mediterranean into the Black Sea.[53] At least 150 stone anchors resembling Bronze Age Aegean and Near Eastern types have been found off the coast of Bulgaria. Some of the larger ones are made from stones that do not occur locally at the coast of Bulgaria. Several oxhide ingots are also known from Bulgaria and from the shores of the sea of Marmara.[54] It has long been known that double axes, swords, and other weapons in the Circumpontic region resemble Aegean types.[55] It has even been claimed that horse domestication and the two-wheeled war chariot reached the Aegean from this area.[56] The largest Bronze Age copper mining district that we know of was Kargaly in the southern Ural mountains, northeast of the Black Sea.[57] On the Uluburun shipwreck a ceremonial axe of Pontic origin and a Mycenaean seal very similar to one from the Besiktepe cemetery near Troy have been found.[58] Schliemann's treasure L from Troy also contains stone axes of a Pontic or Caucasian type. The raw material of three of them is nephrite, and one consists of lasurite from Central Asia. The same treasure contains amber and carnelian beads, as well as rock crystal knobs of a shape known from Mycenae and Minoan Crete and from Ukrainia and the Caucasus; even a piece of iron was present. The date of this treasure—whether third or second millennium B.C.—is still open to discussion, but it certainly contains objects deriving from the Black Sea region and beyond.[59]

The thriving Bronze Age cultures of the Black Sea region, dominated by major rivers and open steppes that connect them with Europe and Central Asia, evidently had some connections with the Mediterranean world. Exactly how these connections operated still remains to be explored. This is admittedly difficult due to the state of research and specialization by scholars: the Mediterranean world is indefinitely better known to most Western researchers than the vast realms of southeast Europe, Russia, and Central Asia.[60]

Late Bronze Age Troy thus was situated "on the edge of the Bronze Age urban world, and at a gateway to the territories beyond."[61] Troy, or the nearby Beşik Bay on the Aegean shore, could be reached by ships from the Mediterranean and by others coming from the Black Sea. River and inland routes from Anatolia also ended here. This is precisely the natural location for a "port of trade," as it has been defined by Karl Polányi,[62] or a "gateway settlement," as it is usually called by prehistoric archaeologists: a place at the periphery of one political and economic system, and at the border of a different, "less developed" one, where people from both spheres can meet and goods can be exchanged under the protection of a local political entity.[63]

CONCLUSION

Professors Korfmann[64] and Kolb[65] provide two very different pictures of Late Bronze Age Troy. Korfmann presents Troy as a major city, a regional political power, and a *Drehscheibe des Handels,* hub of trade. Kolb, in contrast, describes Late Bronze Age Troy as an insignificant settlement that does not even

[52] Neumann 1991. Even if difficult, it was nevertheless possible even for square-rigged ships depending entirely on the wind blowing from behind to enter the straits on days with favourable conditions: Labaree 1957.

[53] Buchholz 1999b, 86–104; Höckmann 2003; Jablonka 2003.

[54] Höckmann 2003. One of them consists of gold and was found on the sea floor near Cape Kaliakra in northern Bulgaria (Höckmann 2003, 143).

[55] Bouzek 1985.

[56] Lichardus and Vladár 1996.

[57] Černych 1997; 1998.

[58] Buchholz 1999a.

[59] Tolstikow and Treister 1996, 148–76, 220–223.

[60] For a summary see Parzinger 1998. Promising opportunities for future research are to be found here. This is the reason why Manfred Korfmann has recently started fieldwork in Georgia (Caucasus).

[61] A.G. Sherratt and E.S. Sherratt in Easton et al. 2002, 102.

[62] Polányi et al. 1965.

[63] A.G. Sherratt and E.S. Sherratt in Easton et al. 2002, 101–6, arrive at similar conclusions. For early forms of trade see Köhler 1985 and Stjernquist 1985; on trade in the Mediterranean in general see Horden and Purcell 2000; for the Aegean Bronze Age see Renfrew and Bahn 2000, 335–368 (with "port of trade" defined as "both A and B send their emissaries to a central place (port of trade) which is outside the jurisdiction of either"); Cline 1994; Harding 1984, 17–41.

[64] E. g. Korfmann 1995b; 1996a; 1998a; 2001a.

[65] Kolb this volume and 1984, 45–6; 2002; 2003; Hertel and Kolb 2003.

deserve to be called a city, and one that played at best a negligible role in the politics and trade of its day. He does so by excluding Troy VII from the discussion of Late Bronze Age Troy, by a very selective reading of the published data on Troy VI,[66] by defining concepts like "city" or "trade" in an extremely narrow way, and by denying archaeology the right and ability to address questions of ancient economies, both in theory and in practice. He has also indicated that Prof. Korfmann has inflated the importance of Troy beyond any limits supported by the available facts, using anachronistic metaphors, indulging in idle speculation, and exploiting the popularity Troy enjoys for its literary associations with the aim of securing continuous funding for the excavations. Such a perspective is indeed a polemical one.

While one may concede that some of Prof. Korfmann's more far-reaching interpretations on the role of Troy lack terminological precision and are indeed hypothetical, especially where he addresses a non-specialist audience, the substance of his claims holds firm when tested against the available data:

1. Late Bronze Age Troy—both Troy VI and Troy VII—was a settlement consisting of a citadel and a fortified Lower City covering between 25 and 35 ha.
2. It was by far the largest site in the Troad, clearly at the top of the settlement hierarchy in the region. It can therefore be termed the capital of a city-state that encompassed the Troad.
3. The finds, the unique geographical position of Troy, and the evidence for contact between the Black Sea and the Mediterranean during the Late Bronze Age, indicate that it played an important role in trade.

One is therefore justified in calling Late Bronze Age Troy a city and assigning to it both an important political function and a role as a place of trade. The minimalist view of Troy provided by Prof. Kolb should be rejected.

THE PERSPECTIVE FROM THE POST-BRONZE AGE (C.B. ROSE)

I write as an archaeologist who has specialized in the Post-Bronze Age levels of Troy during the last fifteen years; in the course of my work I have faced many of the same issues with which Prof. Kolb is now attempting to grapple. His concerns have centered on the Lower City, where we have conducted excavations and surveys during each of the years in which this project has been active. Our conclusions regarding habitation in this area, which stretches from the early Bronze Age through the late Byzantine period, are based on excavation of only 2% of the entire area, and the reconstructions have always been presented as hypothetical. We have explored the area using as much remote sensing/magnetic prospection as possible, since digging down to Bronze Age levels means dismantling the Hellenistic and Roman houses situated above those levels.

These houses are worth describing here, because the circumstances of their discovery are applicable to the larger issues involving Bronze Age habitation in the area. For the first eight years of excavation in the Lower City, I found no evidence of Hellenistic housing anywhere except at the area's southern limit, nearly 400 m to the south of the mound. I became convinced that these were the houses to which Strabo referred in his *Geography* (13.1.27). Since there was Hellenistic pottery throughout the city, but no discernable house walls, I developed an elaborate theory that nearly all of the Lower City was sacred land held by the priests of the Temple of Athena, who would have permitted no construction there.[67]

Only in 1998 were we fortunate to locate the robbing trenches of Hellenistic houses in one of the excavation units in the center of the Lower City (K/L16/17). It quickly became clear that there had been Hellenistic housing throughout this area, but the Roman builders had spoliated the stones and built on such a massive scale that most of the robbing trenches were obliterated.[68] Those that had not been obliterated by subsequent Roman construction had been almost completely washed away by heavy erosion in this area at the end of the Hellenistic period. One can only assume that the same fate befell most of the late Bronze Age structures in the same region.

The archaeological record at Troy is so lacunose that it is sometimes only luck that directs an excavator toward the trench that yields the answer he or she is seeking. For several years, the head of our post-Bronze Age ceramics division, Dr. Billur Tekkök, doubted the existence of stamped Italian

[66] This reading of 13 volumes of *Studia Troica* (1991–2003) and other relevant literature by Kolb and other critics has aptly, even if perhaps too politely, been called "cherry-picking" (Easton et al. 2002, 78).

[67] Rose 1997, 102–3.

[68] Rose 1999, 52–3.

sigillata imports, since none of the enormous assemblages of pottery from the Lower City or the mound had yielded any examples. If we had not, by chance, excavated trench w9 at the southwest edge of the mound, we still would not know that such wares were imported to Troy from Italy during the early empire.[69]

The same problems in interpretation surrounded the large cave in quadrants t/u14/15, the interior of which has now been traced for a distance of over 100 m. It was clear at the outset of our investigation that the cave had served as an important water source for the Roman and Byzantine settlements, although the exact chronology of use was uncertain. If we had based our conclusions only on the pottery within the cave, we would have arrived at a date of ca. 50 A.D. for the beginning of its use. Excavating twenty meters in front of it yielded material that allowed us to push the date back to the second half of the third century B.C. But our ability to link the origin of the cave as a water source to the early Bronze Age was due only to the relatively new technique of Uranium Thorium (^{230}Th/U) dating, which enables one to ascertain the date of a water source by subjecting the sinter from the interior of the channel to thermal ionizaton mass spectrometry.[70] Subsequent use of the cave had completely removed the evidence of earlier operations, and this is a problem that we face throughout the mound with so much habitation concentrated in such a finite area.

In the post-Bronze Age periods we have the invaluable assistance of ancient historians' accounts and honorific inscriptions, since the mound had been identified as the site of the Trojan War at least as early as the fifth century B.C. Otherwise, the material culture *per se* of the site would tell us nothing about the alliance of Troad cities of which Ilion served as the capital, nor about its exemption from taxes by Rome, or its connection to the Black Sea kingdoms.[71] In other words, the absence of more writing from the Bronze Age settlements of Troy effectively pulls a cloak over much of its history.

The current Troy Project has used the latest techniques of materials analysis and remote sensing to unravel, to the best of our ability, the mysteries of habitation at the site from the early Bronze Age to the late Byzantine period, and subsequent generations of archaeologists, armed with better tools and techniques, will be able to pull even more information from the fragmentary material record. Our commitment to publish all of our discoveries within a year of their excavation, which we have done since the project began, has meant that spirited discussion of the significance of those discoveries could take place earlier and more extensively than is usually the case in field projects. We stand by this goal of presenting to the public an archaeological overview as comprehensive as we can make it, even in the face of the criticism that it has recently engendered.

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