Troy c. 1700–1250 BC

Nic Fields
Series editors Marcus

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**Artist's note**

Our sincere thanks to all who have helped in the preparation of this book. We would like to dedicate this book to our dearest daughter Alina.

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**Editor's note**

When classical authors are referred to throughout the text the standard form of reference has been adopted. The formula used is 'author', 'title' (if the author wrote more than one work) followed by a one-, two- or three-figure reference. If the work is a play or poem, the figure reference indicates either 'line' or 'book' and 'line'. Thus Homer (Odyssey 8.512) refers to line 512 of the eighth book of the Odyssey. Alternatively if the work is a treatise, the figure reference indicates 'book' and 'chapter' or 'book', 'chapter' and 'paragraph'. Thus Strabo (13.1.32) refers to paragraph 32 of chapter 1 of the 13th book of the only surviving work by Strabo. When modern authors are referred to throughout the text the Harvard system of referencing has been adopted. The formula used is 'author', publication date followed by page number(s). Thus Drews (1993: 106) refers to page 106 of his 1993 publication, that is, The End of the Bronze Age: Changes in Warfare and the Catastrophe c. 1200 BC.
Introduction

Hisarlik, the 'place of the fort', is a small site, a sandy stone-strewn mound cut up into gullies and hummocks. Troy, however, is immense. Its story sprawls across cultures, time and geography. In 1820, in an essay for the Edinburgh Review, Charles Maclaren (1782–1866), the Scottish traveller and founder-editor of The Scotsman, wrote:

Ilium was for a considerable period to the Heathen World, what Jerusalem is now to the Christian, a 'sacred' city which attracted pilgrims by the fame of its wars and woes, and by the shadow of ancient sanctity reposing upon it. (Edinburgh Review, 1863: 222)

Out of all the stories told by humankind and recorded through its turbulent history, the tale of the sack of Troy is perhaps the greatest secular story ever told. It has certainly captured the western imagination for some 3,000 years.

Despite the problems inherent in any attempt to employ Greek myths, oral traditions and, above all, the Homeric epics in a historical reconstruction of the Trojan War, recent evidence from in and around the site of Troy has prompted many scholars to take a fresh look at the 'Homerian Question'. Although the literary and historical record, which make up the background to the tale of Troy, will be touched upon, the focus of this brief work is not centred on Homer and history. On the contrary, its aim is to outline the history of the fortifications of Troy, covering in some detail the walls of Troy VI, and their correlation to the destruction of the site by the Mycenaean Greeks.

Chronology of major Bronze Age events

Please note that all chronological dates must be taken as circa not absolute.

3100 Start of Bronze Age culture on mainland Greece, Cyclades and Crete
3100–1900 Minos Pre-Palatial period on Crete (EM I–III & MM IA)
2900 Hisarlik is settled and soon fortified (Troy I)
2600 Start of Cycladic culture in the Cyclades
2450 Troy IIC destroyed but soon rebuilt (Troy II)
1900–1700 Minoan Proto-Palatial period on Crete (MM II–III)
1700–1450 Minoan Neo-Palatial period on Crete (MM III–LM IA)
1700–1250 Troy VI, established by Neo-Trojans, major trade centre and maritime power
1650–1550 Grave Circle B at Mycenae (LH I)
1650 Foundation of Hattusas-Bogazköy by Hattusili I
1628 Cataclysmic eruption of Thera (Santorini) according to scientists
1600 Cyclades under Minoan influence
1550–1425 Grave Circle A at Mycenae (LH I–IIA)
1500 Cataclysmic eruption of Thera according to archaeologists
1457 Battle of Megiddo
1450 Mycenaean at Knossos, Crete (Linear B) and in Cyclades
1380 Destruction of Knossos
1300 Treasury of Atreus at Mycenae (LH IIIA)
1275 Battle of Kadesh
1260/50 Destruction of Troy Vb (Homer's Troy?)
1250 Lion Gate at Mycenae (LH IIIB); Tawagalwas Letter written by Hattusili III
1200 Warrior Vase from Mycenae (LH IIIC)
1200/1180 Widespread destruction of Mycenaean palaces (LH IIIB/C)
1190/80 Destruction of Hattusas-Bogazköy
1185 Destruction of Ugarit
1184 Traditional date for destruction of Homer's Troy according to Herodotos
1190 Destruction of Troy VIa
1179 Ramesses III defeats the 'Peoples of the Sea' in the Nile Delta
1100 So-called invasion of Dorian Greeks from north-west Greece
1050 Migration of mainland Greeks to Aegean islands and Anatolia
**Aegean Bronze Age chronology**

All dates are approximate, not absolute, and come almost entirely from two sources, namely radiocarbon dates and artefacts. The artefacts are those foreign objects of reasonably secure date found in archaeologically sound Aegean contexts, and Aegean objects (whose relative date in Aegean contexts is secure) found as imports in foreign (mainly Egyptian) contexts whose date does not depend entirely on a relative cultural sequence.

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<td>Late Bronze Age (LBA)</td>
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**PROTO-PALATIAL PERIOD**
- LH I, Ia, & I b: Grave Circles A & B, Mycenae
  - c. 1650–1425 BC

**PALATIAL PERIOD**
- LH IIa & IIb: Mycenaean palace complexes
  - Palace destruction levels
  - c. 1425–1200 BC
  - c. 1200 BC

**POST-PALATIAL PERIOD**
- LH IIc: Transition to Iron Age
  - c. 1100–1050 BC
  - c. 1050–1000 BC

**Trojan Bronze Age chronology**

The Trojan sequence has long been known, first exposed by Schliemann, then revised and refined in later excavations conducted by the University of Cincinnati under Blegen. Recently new C-14 samples have been taken from the site of Troy itself, which may result in changes to the dates of Troy I–V, but nothing of a substantial nature. The new excavation by Korfmann may yield further revisions.

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The story so far

The story of the archaeological quest for the historical reality behind Homer's *Iliad* and *Odyssey* is almost as epic as the tales themselves, and any account of archaeological Troy, the Troy that was built by men, of stone, mud and timber, must surely open with Heinrich Schliemann (1822–90). In every sense, Schliemann was a man of colossal energy. He was a consummate businessman, who had made several fortunes for himself. He brought gold dust from the miners in Sacramento, sold potassium nitrate to the Russian Army during the Crimean War, dealt in commodities in St Petersburg, acquired and rented prime property in Paris, invested in American and Cuban railways and Brazilian bonds, to name but a few of his commercial activities. He could speak and write fluently in more than a dozen languages, including Greek and Russian. He knew large sections of the Koran (in Arabic) by heart. But it is not for these achievements that he is world famous.

A burning ambition

In 1829, when he was eight years old, Schliemann was captivated by the stories of the Trojan War and resolved that one day he would excavate Troy. He devoted the early part of his life to commerce in order to earn enough money to be able to realise his childhood dream. At last, in his mid-40s, he went to the Sorbonne in Paris to study archaeology. On a trip to the plain of Troy in 1868 he reached, on the mound of Hisarlik, the momentous decision that here, not at Pınarbaşı, as most scholars then believed, was the site of Homer's Troy. Soon after this he set about proving his theory by the evidence of his spade – the first seeker of Troy to take this practical step. His theory received dramatic confirmation at the end of May 1873, when, with the help of his wife Sophia, he discovered a large treasure next to the city wall, which he called 'Priam's Treasure'. In August 1876 at Mycenae, again with the help of his wife, Schliemann excavated golden death masks and masses of other treasure from the Shaft Graves. In one of the graves he found a mummy wearing a gold mask, which he removed and, finding the remains of a human face underneath, promptly declared in a telegram to the Hellenic minister of education, 'I have gazed upon the face of Agamemnon.' The gold death mask he called the 'Mask of Agamemnon', and it is still known by that name.

These highlights form part of the essential picture of Schliemann, as scholars and the general public alike know him. Recent research, however, has shown that every statement in the preceding paragraph is false.

It is often said that we know so much about Troy today because of one man's obsession, indeed of his childhood dreams, which he made come true. However, this is only so if we can believe Schliemann's personal account of his early life. Schliemann's is the most romantic story in archaeology and should be read with a very large pinch of salt for with Schliemann, as with the story of Troy, it is not always possible to distinguish myth from reality. Addicted to hyperbole, bragadochio and often downright lies, Schliemann, the German merchant prince-turned-keen-archaeologist, presents us with the curious paradox of being at once the 'father of archaeology' and a teller of tall stories. For deep down Schliemann desperately craved the respect and admiration of the academic world as a serious scholar and archaeologist and, on top of this, he was a romantic philhellene. Schliemann's psyche was a bundle of contradictions.

Golden Troy

In truth it was his chance meeting with Frank Calvert that gave Schliemann the inspiration to turn to archaeology and the idea of discovering Homer's Troy by excavation. Although Charles Maclaren deserves the first credit for identifying Hisarlik as Troy, it was the Englishman Calvert who was the first on the settlement-mound in 1865. Although he served as the US vice-consul in Çanakkale, Calvert was also a keen antiquarian who had purchased the eastern half of Hisarlik. It was here that he immediately uncovered the remains of the temple of Athena and the walls of Lysimachos (r. 301–280 BC), the splendid Hellenistic defences the remains of which were to be swept away by Schliemann. Calvert also struck Bronze Age levels and realised Hisarlik was deeply stratified. Schliemann, on the other hand, first visited the Iroad [Greek *Troya*], the 'land of Troy' in August 1868 and Hisarlik made no impression on him. It was only when he met Calvert at Çanakkale on his way back to Istanbul that he heard details of Calvert's excavation and his theory that Hisarlik was an artificial mound where 'the rubbish and debris of habitations had been thrown down ... for centuries' (Schliemann 1880: 40). Calvert immediately convinced Schliemann that this was the site of Homer's Troy.

Schliemann's excavation of Troy was, by modern standards, impatient and brutal. With his new Greek bride, the 17-year-old Sophia Engasteromenos, he conducted a preliminary excavation in April 1870, and from 1871 to 1873 he made three major campaigns totalling over nine months' work with anything from 80 to 160 workmen, equipped only with spades, on the site each day. Schliemann's aim was to drive a vast trench through the mound from the north, removing hundreds of tons of earth and rubble and demolishing later structures that stood in his way. He had come to Schliemann's 'Great Trench', which was driven from north to south through the settlement-mound of Hisarlik, is the result of his initial excavations. This view is looking north, and exposed in the bottom are the stone foundations, built in 'herringbone' technique, of some of the close-set long houses of Troy I. While his early methods were crude and destroyed a lot of valuable data, Schliemann did learn as he went, and later excavators were able to piece together the complex history of Troy, which contains many strata and sub-strata. (Author's collection)
Old tales, new thoughts

Increasingly, modern scholars are prepared to believe that something like the Trojan War really took place – possibly around 1250 sc – and was one of a number of forays by Mycenaean Greeks against the shores of western Anatolia. During the last 20 years a number of important discoveries have cast fresh light on the old tales, thereby opening the way for a substantial reappraisal of the archaeology of Homeric Troy.

In 1982, on the coast 8km south-west of Troy, German archaeologists under Manfred Korfmann of Universität Tübingen began to excavate an extensive Late Bronze Age burial site near the conical mound of Berg Tepe and within a few metres of what was then a sheltered sandy beach. The cemetery, which the ancients regarded as the Tomb of Achilles, alluded to by Homer (Iliad 23.126), evidently known to Strabo (13.1.32) and the scene of visits by Alexander the Great (Arrian Anabasis 1.12.1), Mehmet the Conqueror (Kritsoboulos 4.11.5) and Lord Byron (Letter to Henry Drury, 3 May 1810), was composed of some 200 burials surrounded by a perimeter wall. It does not appear to relate to any permanent settlement in the immediate area.

Many of the burials were in large pithoi laid on their sides, with their mouths covered by stone slabs. Remains of men, women and children were identified. Some had been cremated, while others had been inhumed. Over 50 of the burials contained imported Mycenaean goods together with material indigenous to the Troad, with pottery indicating a date on the borderline between Troy VII and the conclusion that Homer's Troy was the second city from the bottom (Troy II), which had been destroyed in a great conflagration and was thus labelled as the 'Burnt City'. On 31 May 1873, Schliemann found 'Priam's Treasure'. Sophia was not present, as her husband later alleged; she was not even in Turkey. Smuggled out of Turkey, this golden horde was later housed in the Ethnographic Museum in Berlin, from where it mysteriously disappeared during the dying days of the Third Reich. Recently, however, 'Priam's Treasure' has come to light. Ever since April 1945, when it was taken by a Red Army 'Trophy Brigade', it has been tucked away in the Pushkin State Museum of Fine Arts in Moscow.

Schliemann was to return to Hissarlik for two further major campaigns during 1878–79, and for another season in 1882 with Wilhelm Dörpfeld (1833–1940), an architectural historian who soon clarified the mess Schliemann had left from the earlier campaigns. The period 1889 to 1890 was his last season and it was then that he discovered the ruins of a 'megaron-style' building belonging to Troy VI outside the great ramp of Troy II, which he believed the Trojans had used to bring in the Wooden Horse inside their walls. To Schliemann's dismay Troy II had flourished over 1,000 years earlier than the alleged time of the Trojan War, c. 2450–2200 sc. It was Dörpfeld who, between 1893 and 1894, unearthed Troy VI and its impressive cut-stone fortification-walls, some 4.5m thick with their distinctive battered and lofty towers, including the massive north-east bastion. German and Turkish archaeologists believe that this wealthy and well-fortified settlement was the Troy of Priam.

Schliemann's and Dörpfeld's work was later carried on by C.W. Blegen (1887–1971) – who believed Troy VIIa was Homer's city and not Troy VII – and archaeologists from the University of Cincinnati. Blegen's dig at Troy lasted seven seasons between 1932 and 1938 and it was a model excavation for its day. Schliemann's, Dörpfeld's and Blegen's combined efforts have revealed 46 levels of occupation and nine 'cities', dating from c. 2900–2450 sc to c. ad 550, one of which may have been the 'well-walled city' of the Iliad.
Troy Villa, the likely period of the Trojan War. At the centre of this burial complex stood a substantial grave-house (Tomb 15) measuring some 4 by 3m, with a pithos in its inner chamber containing the remains of three separate cremations. Fragments of bronze objects that could have been swords or daggers were also recovered. The grave goods here included a fine Mycenaean krater, a terracotta vessel used for mixing wine and water, together with fragments of gold jewellery, remnants of the rich contents, which had been looted by robbers after the cemetery was abandoned. A large storage vessel, or pithos, in the porch of the grave-house yielded the first Mycenaean seal-stone to be found in situ in Anatolia, a lentoid seal of black stone with the representation of a 'human' face. It seems reasonable to infer that Korfmann's cemetery provides evidence of mercantile, and possibly also military, activity by Mycenaeans in close proximity to Troy at or about the time of Troy Vih. In other words, his finds have an important bearing on the Trojan War of Greek tradition.

Korfmann transferred his attentions to Troy itself in 1988 and a larger international team made up of German, American and Turkish specialists has been operating there since that date. Project Troia, as it is officially known, is an enormous enterprise with over 100 archaeologists who, along with more traditional procedures, make extensive use of modern scientific and technological methods. One of the most notable findings of the project is that the plateau lying just south of the mound and citadel of Hisarlik was a densely inhabited area, not only in the time of Graeco-Roman Troy (Novum Ilium), but also in the Late Bronze Age. This area, then, was the lower town of Laomedon's and Priam's Troy and was protected by its own circuit-wall. The magnetometer has revealed the line of this extended fortification curving round to join the monumental walls of Troy VI.

Homer's Troy has now been revealed as one of the largest fortified sites of the entire Bronze Age, on a par with Hattusa-Bogazkoy or Mycenae. In one stroke, the area of the fortified city has been increased from some 20,000 to around 270,000 m² (c. 27ha). What Schliemann discovered was just the upper citadel of a much larger settlement. Schliemann was always troubled by the comparative smallness of the Troy he knew, especially as Homer had painted it as a grand metropolis with towering ramparts.

The nine 'cities' of Troy

What is now an inconspicuous bluff scarred by heaps of spoil and debris, the settlement-mound of Hisarlik came into being through a happy combination of circumstances. First, its favourable location on a limestone spur projecting into a shallow marine embayment, long since silted up, caused it to be reoccupied time and again for some 3,500 years. Second, mud-brick was largely used for building the walls of the houses. The most convenient and serviceable of all substances for low-cost construction clay, in the form of sun-dried bricks scarcely known in Europe, was and still is the traditional building material in the Near East. When building took place, the mud-bricks from previous structures were of no value and buildings of the preceding phase were always levelled. Thus a raised site, or tell, gradually grew up. The bottom seven layers of the settlement-mound, Troy I-VII, contain the remains of 42 building phases belonging to the Bronze Age. On top of these come the remains of Greek (Troy VIII) and Roman (Troy IX) constructions. Altogether the process produced an artificial accumulation of earth that is some 20m high.

Location and landscape

The settlement-mound of Hisarlik occupies the western tip of a low limestone ridge running eastward from Mount Ida (Kaz Dağ), between the alluvial plain of the Skamander (Karamenderes) to the south and the marshy valley of the Simos (Dümrek-Su) to the north. This ridge, which in the Bronze Age was a sea-girt headland, ends somewhat abruptly in steep slopes on the north and west and a more gradual descent toward the south. Some four miles distant westward beyond a low range of hills, and across what was once the bay in front of Troy, is the Aegean Sea. To the north and less than an hour's walk away is the Hellespont, the narrow straits now called the Dardanelles, with the steep cliffs along the Gallipoli peninsula rising in the background, a region rich in historical associations from ancient to modern times. Controlling navigation between the Black Sea and the Mediterranean, the Dardanelles have long been of immense strategic and commercial importance.

Troy lies at the point where East and West, the Black Sea and the Mediterranean all meet - a location very favourable to trade and ideal as a centre of power. Maintaining a strategic maritime advantage due to its position at the opening of the Dardanelles, it also controlled a land route that came up along the western coastal region of Anatolia to the shortest crossing of the
LEFT: Troy and its surroundings in the Late Bronze Age, with the Dardanelles (Homer's Hellespont), the marine embayment, and the Iliac plain. Also shown is Bejika Bay, the site of a possible Mycenaean cemetery.

BELOW: Looking south-west towards the promontory at Bejika Bay. The conical mound on the left of the picture is the so-called Tomb of Achilles (Bejika Tepe), the scene of visits by Alexander the Great and Lord Byron. According to Plutarch, Alexander stripped naked and ran a ceremonial race round Achilles' grave mound. He says that Alexander also remarked that Achilles was most fortunate in having a great poet to sing of his deeds after his death (Alexander 15.4). Byron also made a pilgrimage to the site, and then swam the Dardanelles from Abydos to Sestos in imitation of the ill-starred Leander. (Author's collection)
strait from Asia to Europe. From its vantage grounds it could dominate traffic both across and up and down the narrow strait, and presumably tolls of some kind were extracted from those who passed by land or by sea. As a result, Troy gained wealth—and made enemies.

Still, the large bay in front of Troy must have been a magnet for Bronze Age seafarers, who had a safe haven once they had left the main channel of the Dardanelles. Opening directly onto the strait, the mouth of the bay between the rocky headlands of Sigeum (Kum Kale) and Rhoea (in Tepe) was about 2km across. Inside, it opened out to about 4km of shallow sea fringed by the alluvial flats of the rivers, salt marshes, reedy lagoons and wind-blown sand dunes. There would have been no real harbour, just a trading post where vessels tied up or, alternatively, simply put aground.

The bay was also especially rich in shellfish, oysters and sea urchins.

To the south of Troy was perhaps a kilometre or two of alluvial plain stretching to the seashore. In the low-lying areas near to the Skamander much of the land was marshy in winter but otherwise dry. The alluvial soil, fertile enough where not waterlogged, could maintain a sizeable population. Barley was the chief food crop, although a small amount of domesticated emmer wheat, an old form of wheat first cultivated in Jericho (c. 9000 BC), was cultivated on the sandy shores. Unquestionably Troy had its own ships, not only for trading purposes but also war galleys to protect its maritime interests from perennial raiders and pirates. In turn, these oared warships would also have allowed the Trojans to raid for slaves and booty. Smaller, local craft would have included fishing-boats, especially at the time of the seasonal migrations of mackerel and tunny, which still swim through the Dardanelles each autumn.

The bay was also especially rich in shellfish, oysters and sea urchins.

The south curtain-wall of Troy I, looking west towards the well-preserved east bastion of the South Gate. Showing signs of having been repeatedly strengthened, the wall has a distinct batter and was constructed using unworked limestone blocks mortarless together with clay. (Author’s collection)

Troy I (c. 2900–2450 BC, Early Bronze Age II)

Built directly on bedrock, some 1m above sea level, the earliest settlement had a total of 11 building phases (Ia-Ik). It was an extremely small settlement, and even at the height of its development the diameter of Troy I was only 90m.

Despite its unpretentious size the settlement was always protected by well-planned fortifications. A circuit-wall of rough unworked stones, which was repeatedly improved and strengthened, encircled the citadel mound. This was pierced by two gateways that allowed access from the landward side. The south gateway (Gate FN), with its flanking four-cornered bastions, is one of the earliest fortified gateways in Anatolia. Still in a very good state of preservation, this impressive entranceway is 2.97m wide and shaped like a corridor. The extant remains of its east bastion reach to the height of 3.5m. The base of the bastion is composed of fairly large stones that become progressively smaller,
The south gateway (Gate FM) of Troy I, looking south from within the citadel. Complete with four-cornered bastions, this is one of the earliest gateways in Anatolia. (Author's collection)

The lifestyle was based on agriculture, stockbreeding and fishing (cf. Homer’s ‘Hellespont where the fish swarm’), and also hunting to a lesser degree. Barley was the staple cereal crop, although emmer wheat makes its first appearance towards the end of this era. Pottery was handmade and monochrome grey or black. Spindle whorls, loom weights, and bone and copper needles of various sizes indicate that these people were familiar with weaving. Stone beads and ornaments, bone and stone idols, and the incised decoration encountered on baked clay pottery appear to have been their only contact with moulded art. The limestone relief of a human face found by Blegen is regarded as being the oldest example of sculpture encountered in the area so far. Weapons and tools were made from obsidian or flint or from raw copper or lead.

The Troy I culture has a distribution covering the coastal regions of the northern Aegean and the Sea of Marmara. Trade and cultural connections are attested far into the Mediterranean, Europe and Anatolia. Archaeologists believe that the history of Troy I ended with a fire.

**Troy II (c. 2450–2200 BC, Early Bronze Age II)**

Although Troy I was destroyed catastrophically, there was no break in the time sequence or any change in the culture between the two settlements. On the contrary, the culture of Troy I continued to develop in Troy II.

The seat of an important king or chieftain, the citadel of Troy II was solidly planned and strongly built on an area of no more than 9,000 m² (c. 0.9ha). To this citadel, however, there belonged a lower town, whose existence has been demonstrated in the recent excavations. After eight building phases (IIa-IIh) and many alterations to the fortification walls, it was twice destroyed by terrible conflagrations. With its precise plan, rarely encountered in other settlements of the period, the ‘Burnt City’ (Troy IIb) is one of the most impressive monuments

The south-west gateway (Gate FM) of Troy II, looking north-east. Leading up to the gateway is a steep, well-paved ramp with a parapet. At the point where the ramp and the entrance meet there stood a wooden door of two leaves strengthened with copper or bronze sheets. This gateway has four inner pilasters, two on each side, which narrowed the entrance at these two points, and is the earliest example of this type. (Author's collection)
of the Early Bronze Age. It was originally considered by Schliemann to be the Troy described by Homer. However, Schliemann learned more in the course of his excavations and he probably recognised his mistake, a mistake that today we can see to be of the magnitude of roughly 1,250 years.

A circuit-wall, some 330m long and 4m thick with a limestone substructure surmounted by a perpendicular superstructure of sun-dried mud-brick, encircled the citadel mound. Four small, rectangular towers, about 3.8m wide and projecting 2.25m beyond the circuit-wall, added to the defensive strength of the enceinte on its landward side. This was pierced by two monumental gateways that allowed access from the landward side via the lower town below.

The south-east and south-west gateways have typical entrance chambers, and leading up to the latter (Gate FM) is a steep, well-paved ramp (21 by 7.55m) with a stone parapet that once supported a mud-brick superstructure. The ramp rises some 5m to the level of the gateway at a gradient of approximately one in four, too steep for wheeled traffic. At the point where the ramp and the 5.25m-wide entrance meet there once stood a double-rung wooden door, which was strengthened with copper or bronze sheets. This gateway has four inner pilasters, two on each side, which purposefully narrows the entrance at these two points, and is the earliest example of this type. The south-east gateway (Gate FO), though of greater dimensions, exhibits essentially the same plan as the south-west gateway, except that no ramp was built as the ground here falls off in a gentle slope toward the plateau occupied by the lower town.

A further gateway (Propylon IC) and a rooted colonnade separated off the interior of the citadel. Within lie the remains of large long houses with porches, the so-called megaron-style of building. The most common feature of the megaron was the existence of a hearth situated in the centre of the room. Particularly noteworthy is the huge size (35m by 13m) of the largest of the megaron buildings (Megalon IIa), and the long period of its use. It had two floors and probably served as an assembly room or an audience-hall, although the recent finds of cult amphora with idols in adoration gestures on the handles suggest that in its last phase (III) it was a place of cultic activity.

From in and on the burnt debris of the citadel came the more than 20 'Troy Treasures', including the legendary 'Priam's Treasure' (cf. Homer's 'Troy rich in gold'). These treasures – jewellery and drinking vessels of gold, silver, electrum, bronze and copper – demonstrate that Troy II had extensive trading links reaching out in all directions of the compass. In particular, the jewellery are masterpieces of craftsmanship (granulation and filigree work, as well as enamelling) such as are rarely found outside Mesopotamia and Egypt during this period. The settlement obviously had very skilful metalworkers that presumably offered their services to foreign rulers, travelling from one region to another. Among the metals they worked are gold, silver, lead and copper – all found in Anatolia – and tin, which is thought to have been imported from the Zagros Mountains (southern Iran) or the Iberian Peninsula.

Amongst the more mundane finds, pounding or grinding stones and decorated spindle whorls are numerous. The high number of sheep and goats confirms the expanding yarn and weaving industry. The inhabitants probably utilised metal scissors to shear sheep and did not have to pluck them by hand as their Mesopotamian counterparts did. Beans, lentils or vetch and emmer wheat are known to have been added to the already existing food sources such as domestic animals and seafood. Most unusual in these latitudes is the extensive use of the potter's wheel. Likewise the possession of bronze, an alloy of copper and tin, a crucial prerequisite for the mass production of cast metal weapons and therefore for military superiority. However, archaeologists believe that Troy II suddenly succumbed to attack. The layer of destruction that represents the end of Troy II is on average 1m thick and bears all the hallmarks of a deliberate holocaust.

**Troy III–V (c. 2200–1700 BC, Early Bronze Age III to Middle Bronze Age)**

The foreign invaders who destroyed Troy II did not occupy the site, since no evidence has been found of a change in culture during the subsequent settlements of Troy III–V. During this era, however, what we do witness is the gradual fading of the former glory of Troy and its decline in prosperity.

Over the centuries the citadel expanded to cover an area of 18,000m² (c. 1.8ha), but there is no evidence to indicate that the lower town continued to flourish. Schliemann at the beginning of his investigations mainly excavated the settlements of Troy III–V. But his sequence has now been further subdivided on the basis of the excavations of Blegen into four building phases in Troy III (IIIa-IIIb), five in Troy IV (IVa-IVe), and four in Troy V (Vα–Vδ). In the light of his own excavations, Korfmann now considers Troy I–III as one cultural unit, the 'Maritime Troia Culture'.

Although each seems to have had a circuit-wall, it has been assumed that the settlements of Troy III–V were either unpeopled, with small houses standing continguously, one beside another, and narrow, winding streets. Yet some of the artefacts that make up 'Priam's Treasure' may derive from these strata. The domed oven makes its first appearance on the site during this period. Hunting provides a markedly greater proportion of the diet, with venison as the most popular kind of meat. The rather abrupt appearance of deer in appreciably greater numbers than before presumably mean that new methods of hunting had been developed, such as the acquisition of better deer hounds or the invention of more effective weapons of the hunt. There is little change, however, in the pottery. Typical pots and tall slender, two-handled goblets (cf. Homer's dépas amphikykelon 'for wine'). The final building-phase (Vδ) was destroyed by fire.

**Troy VI (c. 1700–1250 BC, Middle Bronze Age to Late Bronze Age)**

A completely new princely or royal citadel was built covering an area of 20,000m² (2ha). In size, and probably in importance, it surpassed the citadel previously known at Hisarlik and all others so far investigated in western Anatolia. Eight building phases (VIa–VIIb) and three main periods (Early, Middle, Late) can be identified which represent the long, continuous history of the site, from the opening of the Middle Helladic period to the Late Helladic III.
period on the Greek mainland and the Hittite New Kingdom period in central Anatolia.

The fortifications around the citadel are in a new style, amounting to some 350m in length and technically superior, consisting of gently sloping walls of well-cut masonry with vertical offsets and massive towers (cf. Homer's 'angle of the lofty walls', and 'strong-towered Ilion'). The circuit-wall, which can still be seen today, is 4 to 5m thick and more than 6m high, it would have reached up a further 3 to 4m with its vertical mud-brick superstructure. Five gateways and posterns led into the citadel, with the principal gateway (Gate VII) lying to the south flanked by a tower (Tower VII) notable for the six polygonal stelae that stood along its front (cf. Homer's 'Scaean Gate'). From this gateway a wide paved street (Street 710), complete with a central drain, led up into the heart of the citadel.

Behind the fortifications, buildings in the interior were disposed on three concentric terraces rising up towards the centre of the citadel mound. There were palatial free-standing buildings, including megaras, sometimes two-storied and invariably trapezoidal in plan, with their shorter sides facing the summit and their longer sides facing the fortifications. Of importance are House VII, with its steep retaining wall of smooth-cut stones, and House VIII with its stone supports and its recesses for stout wooden beams, while on the floor are 12 stone bases for pillars. Equally interesting is the once two-storied House VIII with its L-shaped plan and its carefully built retaining wall, nearly 27m long, which once had a smoothly finished sloping outer face that was marked off by four vertical offsets into five segments. Even in decay the building displays a very attractive silhouette, rising up in the form of a miniature fortress. It is assumed that the royal residence lay on the summit, and House VIII surely formed part of the Troy VI palace complex. Most of its remains were removed when the temple of Athena was rebuilt in the early 3rd century BC (Troy VIIIA). The whole imposing layout of the citadel, undoubtedly planned by a central authority, was excavated under Dörpfeld's direction and he rightly interpreted it to be Homer's Troy.

The final building phase (VIIb) was severely damaged by an earthquake, as is evident from the large vertical cracks in the surviving fortification walls.
Nevertheless, Dörpfeld found evidence for fire or fires at various places in the destruction level of Troy VII and saw this destruction as the work of men. Likewise Köpfmann's excavation has also revealed signs of war, namely a thick charcoal layer dated roughly to 1250 BC, as well as slingshots, bronze spearheads and arrowheads scattered in the debris and lodged in the fortification walls. Of course, linking Hisartik to Homer will always prove to be highly controversial.

In 1988 Koefmann began a renewed attempt to find a lower town to the citadel of Troy VI. Its existence has since been demonstrated and it is now known that it was bordered by a defensive installation some 450m to the south of the citadel mound. 'Negative' signs of impressive wooden structures have also been revealed and these are believed to be the houses that once crowded the lower town. With a settlement covering an area of nearly 270,000m² (c. 27ha), Troy VI is now 13 times larger than previously supposed. Its population has been estimated at between 5,000 to 10,000 inhabitants. These findings place Troy among the larger trading and palatial settlements of Anatolia and the Near East in this period.

Completely new styles of pottery imitate metal prototypes. This is particularly the case with grey luxury ware, referred to as grey Minyan Ware, which is burnished and decorated mostly with horizontal wavy lines. This type of pottery is a distribution as far afield as mainland Greece. Indeed, there are intensive commercial and cultural links with the Aegean and the Mycenaean world that are documented by an orderly sequence of imported Mycenaean ware found in the eight strata (VIa-VIIb) with increasing regularity as time goes by. Another notable innovation was the frequent use of the horse, attested by a skeleton and finds of numerous other equine bones (cf. Homer's 'horse-taming Trojans', or Illos, famed for its horses'). Likewise, several pommels of white marble or of alabaster, found from throughout the history of Troy VI, offer evidence that the sword was no longer a rare commodity. This conclusion is supported by the discovery of numerous whetstones of a new type. These are pencil-like bones clearly designed to facilitate the sharpening of blades to a keen edge.

It can be concluded that the inhabitants of Troy VI were people of a different culture to those of the previous settlements. This new stock of vigorous people employed horse-drawn chariots in war, utilised efficient bronze weapons and also built strong fortifications that display increased knowledge of military engineering together with technical advances in masonry. It has been suggested that the earliest chariot warfare took place in Anatolia and chariot-warriors may have established Troy VI (Drowes 1993: 106). Arriving in Troy with this new military technology, the Neo-Trojans soon came to dominate the Troad.

**Troy VII (c. 1250-1050 BC, Late Bronze Age to Early Iron Age)**

The remains of houses of Troy VI, together with parts of the citadel fortifications, were hardly repaired and reused and many new ones built in former empty spaces. There is no cultural break between Troy VII and Troy VIIa but, from the point of view of workmanship, a considerable drop in quality. For the new domestic structures are noticeably shabbier, smaller and more cramped, while the rebuilt houses are partitioned. All the evidence points to an increase in population, and in the number of large storage-vessels (pithoi) set deeply into the ground, inside the citadel.

Some have attributed this phenomenon to the fact that the Trojans of this period did not feel secure and thus had adopted a 'siege mentality'. Whereas Dörpfeld's view (1902: 181-2) had been that the city destroyed by Homer's Achäans (Achänoi) was Troy VII, Blegen (1953: 14, 331) equated the Troy VIIa settlement, which the Achäans were captured, looted and put to the torch, with Homer's Troy. Blegen's arguments remain influential. However, considerations of the architecture and planning of Troy VII make it difficult to share this orthodoxy. For although the inhabitants repaired the fortifications and the ruined houses, they did not achieve the high artistic standards and intricately thought-out town planning representative of Troy VII.

The subsequent building-phases (VIIb1-VIIb2) show considerable continuity, with, for example, parts of the fortification walls remaining in use. Yet there are significant new cultural elements, such as crude handmade pottery suddenly reappearing after the potters' wheel had been used for centuries. There are also changes in wall-building techniques, with the lower parts of the circuit-wall now being faced with irregular, vertically placed stone slabs (orthostats).

How Troy VIIb1 perish is unclear. There is no evidence of destruction whether by earthquake or by human hands and probably the settlement was taken over by a related cultural group without serious disturbance. Prominent amongst the handmade pottery is a striking dark-coloured ware decorated *Inter alla* with ribs and knobs like horns, the so-called Knobbed Ware or *Buckelkeraunen*, for which analogies are to be found in south-eastern Europe. Similarly, a number of bronze axe heads found by Schliemann, although their context of discovery is not certain, have been attributed to Troy VIIIb, and have
Three megaron-type houses of Troy VIII, House VII (right, rear), House VI (left) looking west. Situated on one of the terraces below the palace complex, these once impressive two-storyed buildings would have belonged to the retainers and kinmen of the royal family. The rectangular cutings in the west internal wall of House VI, once held wooden support beams, while the upper storey was wood-framed with mud-brick and plaster. The remains of the east gateway (Gate VII) run in the foreground of the picture. (Author's collection)

their best parallels in Late Bronze Age Hungary. As the Buckelkeramik has a parallel across the Hellespont it appears that its makers may have migrated into the Troad from Thrace, to which in turn they may have moved from further west. Troy VIIIb, was brought to an end by fire. Conceivably the settlement was taken by force and put to the torch.

Troy VIII (c. 700-85 BC, Archaic to Hellenistic Periods)

According to current scholarly opinion some 250 years later, at the time when Homer lived, Aeolian Greeks from the north-western Aegean resettled the mostly abandoned site. Remains of Troy VI/VII monuments were incorporated in the newly erected fortification walls and houses.

At first it was a modest settlement, although literary sources do mention a temple of Athena of this period despite its notable absence in the archaeological record. Herodotus, for example, says that Xerxes, prior to crossing the Hellespont en route to conquer Greece, 'sacrificed a thousand oxen to the Trojan Athena' (7.43). Almost 150 years later and having crossed the Hellespont in the opposite direction, Alexander the Great also made a pilgrimage to Troy. He went to the temple of Athena and, in the words of Arrian, 'dedicated his full armour in the temple, and took down in its place some of the dedicated arms yet remaining from the Trojan War' (Anabasis 1.11.7).

Later, and especially in the time of Lysimachos, one of Alexander the Great's successors, there was deliberate veneration of the 'sacred city of Ilion', with the building of a sanctuary dedicated to Cybele-Demeter outside to the south-west and the rebuilding of the temple to Athena on the citadel mound. Of the latter, nothing remains apart from a few blocks from the superstructures of the altars and some scattered marble components. When the temple was rebuilt, if not before, the central and most elevated buildings of Troy VI and Troy VII were cut away. To the south a lower town of regular design extended over and among the ruins of the lower town of Troy VII.

In 85 BC, during the war against Mithridates VI Eupator, the site was thoroughly destroyed by the renegade Roman legate C. Flavius Fimbria. It is said he afterwards boasted that he had done in 11 days what the Achaeans took ten years to accomplish. One Trojan wit responded by saying that they had not had Hector to defend the city.

Troy IX (48 BC-AD 550, Roman Period)

C. Julius Caesar rebuilt Troy after a visit to the site in 48 BC. Indeed, the Romans had a very particular interest in Troy, tracing their ancestry back to the Trojan hero Aeneas, son of Aphrodite (Venus). According to post-Homeric legend, Aeneas not only survived the sack of Troy but also fled to Latium in Italy. As a result, the Romans viewed the Trojan hero as their progenitor and believed Troy to be the 'mother-city' of Rome. This belief is well documented on coins of Caesar, whose clan, the gens Julia, developed their political ideology by claiming Iulus (Ascanius), son of Aeneas, as eponymous founder and thus descent from his divine grandmother Venus. A noteworthy example is the silver dominus of Caesar portraying the flight of Aeneas with the Palladium, a small wooden image of armed Athena, in his right hand and his father Anchises on his back.

Troy's chief landmark was the Doric temple of Athena, and this was rebuilt and enlarged, especially under Caesar's heir and successor Augustus (c. 27 BC-AD 14). Of this monument there survive only the long sections of the massive foundations supporting the porticoes and surrounding walls of the 9,500 m² rectangular sacred precinct. On the southern slope of the ruins of 'sacred Ilium', as the Romans called Troy, are altars and a bouleuterion (council-chamber), also an odeion, which, among other things, was intended for the presentation of musical performances. These two public buildings date from the period of Augustus but were extensively rebuilt under Hadrian (c. AD 117-38). Not far from these civic buildings is a gymnasion-bath complex with mosaic floors. North-east of the temple platform is a large theatre set into a natural declivity that offers a view of the Sinois valley and the Dardanelles beyond. Although only partially excavated, it is claimed that the theatre could have held over 6,000 spectators.

Scattered marble architectural elements are all that remain of the Temple of Athena, once a dominant feature of Troy VIII/IX. Probably built by Lysimachos, one of Alexander the Great's successors, around 300 BC and restored by order of the Emperor Augustus (c. 27 BC-AD 14) whose imperial family the Julio-Claudiens, honoured Troy ('Sacred Ilium') as the supposed home of their ancestor Aeneas, whose mother was the goddess Venus. Visible in the background are the ruins of the foundation wall of the temple precinct, which covered an area of some 9,500m². The precinct was the focal point of a great annual festival in honour of Athena, which was marked with sacrifices and athletic contests. (Author's collection)
The ruins of the public gymnasia-

mum-bath complex of Troy IX, looking

south. Here mosaic floors were

discovered (no longer preserved)

decorated with human and animal

figures. In the same location,

archaeologists discovered a burial

ground, which is thought to have

been used during the last period

of Troy VI. Cremated human remains

had been placed in jars, which

were covered with a stone lid and

stood upright on a few centimetres

below the ground.

(Author's collection)

Mud-brick construction

Before we turn our attention to the fortifications of Troy VI, a word or two on

mud-brick construction is necessary. What may seem a digression at first glance

will become a matter of relevance when it is considered that mud-brick was

the common building material of Troy. Moreover, the Trojans who made their

houses of mud-brick did not use the material solely for this purpose, for the

fortification walls that protected them were also, in part, constructed of mud-

brick.

Mud-brick as a building material, both for civic and military architecture,

has a long history that stretches back into early Near Eastern practice, where

it is still carried on—in a domestic role at least—using age-old techniques. The

method of making or 'striking' bricks used today by the Egyptian brickmaker

is, therefore, worth description.

Modern Egypt

First, the brickmaker searches for a deposit of Nile mud of a suitable

consistency for his purpose and clears as large and flat a space as possible. His

assistant, the mud-mixer, then digs up the mud and puts it into a smallish hole

in the ground, where water is slowly added to it until it has the consistency

of a very thick homogenous paste. The mixing is done with the aid of a

cultivator's hoe, the feet assisting in the operation. During this part of

the process sand and chopped straw are mixed in varying amounts with the mud

paste. Having thoroughly mixed up the paste, the mud-mixer then takes a

The fresco from the tomb of

Rakhmu, once vizier of Upper

Egypt during the reigns of Thutmose

Il and Amenhotep Il (1479-1460

B.C.), showing the various stages

involved in the manufacture of

mud-bricks. Scene one depicts two

men taking Nile mud from a pool. Scene

two shows the brick paste being

compressed into individual wooden

moulds, the work being directed by

an overseer armed with a switch. In

scene four the bricks are being

stacked so as to dry them in the

sun. Finally, in scene five the finished

bricks are being laid in order to

construct a wall. (Reproduced from

Gardner Wilkinson, J. The Ancient

Egyptians: Their Life and Customs,

John Murray, London, 1854)
round mat made of strips of palm leaf and, having dusted it over with fine dry mud to prevent sticking, he puts as much of the paste on it as he can carry and leaves it beside the brickmaker.

The brickmaker squats down holding an oblong wooden mould fitted with a handle, the mould being the size of the bricks he wishes to strike. Having filled the mould with the mud paste, the brickmaker scrapes off the surplus and lifts the mould, leaving a sticky mud-brick just sufficiently hard to retain its form. He continues striking a series of such bricks, one alongside the other but slightly apart, until the available space is filled. The bricks are left to dry in the sun for about three days before being turned over and, by the end of a week they are firm enough to be stacked up in a pattern that allows the air to circulate. A week or two latter they appear quite dry, though they may be damp inside, and are now ready for building. Brick walls are built without scaffolding; the builders simply walk on top of the section they have built. Since they are barefooted their weight helps to solidify the work.

**Ancient Egypt**

In ancient Egypt the method was identical with that used today, the only difference being that in the Egyptian frescoes we see the mud paste being carried in a pot instead of on a mat. A New Kingdom fresco from the tomb of Rekhmira, once vizier of Upper Egypt during the reigns of Thutmose III and Amenhetep II (1479–1401 BC), shows the various stages involved in the manufacture of mud-bricks. Scene one depicts two men taking Nile mud from a pool. Scene two has them working the material into a paste. In scene three the brick paste is being compressed into individual wooden moulds, the work being directed by an overseer armed with a switch. Scene four shows the bricks being stacked so as to dry in the sun. Finally, in scene five we witness the finished bricks being laid in order to construct a wall. The ancient bricklayers worked very much as do their modern counterparts, except that, instead of cement mortars, they laid in mud identical to that with which the bricks were made. Before the mud mortar dried, it united with the adjoining bricks, so that all cohered as a unity.

**Mud and straw**

Accompanying the fresco from the tomb of Rekhmira is an inscription that reads 'making bricks to build anew the storehouse of the temple of Karnak' (Spencer 1979: 3). Of all the surviving monuments of Egypt, the most famous are the great stone pyramids of Giza and the stone-built mortuary temples of Luxor and Abydos. However, the vast majority of Egyptian buildings were constructed more rapidly and economically by the extensive use of sun-dried mud-brick as the major material. Herodotus (2.136), for instance, mentions the brick pyramid of Aschés (Sheshong I, founder of the XXII Dynasty) on which the following inscription can be read:

Do not consider me mean in comparison with stone pyramids, for I am as far above them as Zeus above the other gods. For they thrust a pole deep into a marsh and collected that which

remained of the mud on the pole, and made bricks therefrom. In this way they have built me.

Alternatively, the Babylonians, again according to Herodotus (I. 450 BC), fashioned bricks for their city wall 'out of the earth which was thrown out of the fosse' (1.179). Similarly, though on a much smaller scale, in 429 BC the Peloponneseans, having failed with their siege mound and siege engines, decided to invest Plataea by encircling it with a mud-brick wall. The clay for the bricks, according to the contemporary Athenian historian Thucydides (2.78.1), came from the ditches they dug both inside and outside the line of circumvallation.

Modern studies show that pure Nile mud may shrink by over 30 per cent in drying, but the sand and straw serve to make the brick dry and shrink as one unit, thereby preventing the formation of cracks. Although their frescoes do not necessarily depict this part of the manufacturing process, the ancient Egyptians clearly understood the problem caused by shrinkage and the means to overcome it. The Old Testament (Exodus 5:7) mentions the manufacture of bricks in Egypt by Hebrew slaves, and it is stated that straw was used in the process. The sun-dried bricks of El-Kāb and those of the Dahshūr pyramids, contained, beside chopped straw, calf's hair, animal dung, plant leaves and parts of grasses. The use of straw or other organic substances raises the tensile strength of the bricks. Again modern studies confirm that straw alone will raise the breaking strength of a brick by 244 per cent, while the addition of manure produces an exceptionally hard brick.
The siege of Mantinea

When Pausanias (8.8.7–8) makes reference to the siege of Mantinea, that mounted by Agis I of Sparta in 385 BC, he says the following:

Against the blows of engines brick brings greater security than fortifications built of stone. For stones break and are dislodged from their fittings; brick, however, does not suffer so much from engines, but it crumbles under the action of water just as wax is melted by the sun.

Agis's siege of Mantinea ideally illustrates the inherent problem of employing mud-brick fortifications, that is, their vulnerability to water. After initially laying waste to the surrounding countryside, says Xenophon (Hellenika 5.2.4), the Spartan commander detailed half of his army to dig a trench and erect a siege-wall around the city, thereby investing it. Despite this, however, the Mantineans continued to hold out as they had taken the precaution of stockpiling a large reserve of grain within their walls. Not wishing to commit the forces of his Peloponnesian allies to a long and drawn-out siege, Agis resorted to the strategem of diverting the river Oapha, which flowed through the city by use of a makeshift dam. Due to the heavy rains of the previous winter, the river was in full spate and, subsequently, the diverted water soon rose above the stone plinth of the circuit-wall. At the rising water began to melt the lower courses of mud-brick; the upper ones also weakened. First cracks began to appear in the wall's superstructure and then signs of collapse. Even though the Mantineans valiantly shored up their crumbling defences with timber, total collapse was imminent, and so it was decided that the best course of action was to surrender (Xenophon, Hellenika 5.2.4–5, Diodorus 15.12.1).

M. Vitruvius Pollio, the military-engineer who served C. Iulius Caesar, describes in detail the properties that a good brick should have and also the forms in which it is best prepared. He says (2.3.1) that the clay used for making bricks should be neither sandy nor stony nor gritty. It should be capable of being kneaded easily. The best materials are white chalky clay, red earth or ‘male’, a very firm and hard sand. The bricks made from either one of these materials are light and at the same time solid. In the State of California, where sun-dried mud-brick (adobe) is still used for domestic architecture, the 1997 Uniform Building Code (Section 24-15, 2403) specifies the clay content of the bricks must be between 25 and 45 per cent. Too much clay and the brick cracks as it dries and too little clay means the brick will be weak and crumbly when it dries. Care must be taken that the outer layer does not dry up while the interior is still wet. If wet bricks are used for building they contract in the wall and they work themselves loose from the plaster, which then falls off. Vitruvius (2.3.2) recommends drying for two years in the shade, beginning in spring or autumn rather than in the heat of summer, for then drying out will take place slowly and uniformly.

Taking precautions

An unprotected mud-brick edifice would have had a very limited life span and the chance that the whole structure might revert to mud necessitated precautions at every level. A stone plinth obviated the worst menace, that of contact with standing water, its height varying according to the terrain traversed by the circuit-wall and the climatic conditions indigenous to the locality. Upon completion, the whole surface of the mud-brick superstructure was smoothed with mud and plastered with clay or lime to prevent rainwater percolating into the joints. The plastering of mud-brick fortifications is well attested in late 4th-century BC Athenian inscriptions (IG II 167.82–84, 463.81–85, 106–9, 1663, 1664). Likewise, Thucydides (3.20.3) mentions that the unplastered sections on the face of the Peloponnesian siege-wall at Platata revealed the brickwork beneath.

Walls coated with pure clay were more attractive and durable, with a perfectly smooth surface having a hardness that is comparable to that of stone. The advantages of a clay over lime facing were considerable since, being subject to the same rate of contraction and expansion as the wall itself, the clay had less tendency to crack and peel. The one plus point in favour of lime plaster was its ability to extract any extraneous water from a new wall. Another requirement was to prevent rainwater from collecting along the top of the wall, especially around the base of the battlements, which might be dangerously weakened. According to Thucydides' testimony (3.22.4) the battlements of Greek fortification walls were usually covered in terracotta tiles. However, if the wall carried a walkway (paralele), a more expensive paving of stone slabs was preferable to tiles. An Athenian inscription of 307/6 BC ordains that the paraleles and other portions subjected to wear be given a hard covering imposed on a 'finger-thickness of sieved earth' (IG II 463.81–85).

The Egyptians habitually safeguarded their great structures of brickwork by laying it within a continuous skeleton of timber, the Middle Kingdom fortresses in Upper Nubia, for example, were all in mud-brick with timber bonding. An Athenian document of 307/6 BC orders repair of decayed brick walling to include bonding with wooden baulks (IG II 463.74–75) and it figured in a makeshift addition to the circuit-wall of Platata, thereby 'preventing the structure from becoming weak as it attained height' (Thucydides 2.75.4–5).

Pros and cons

Completion in brick unquestionably saved a great deal of time and money as bricks could be made rapidly with little apparatus and by unskilled labour. In the extant texts dealing with his fifth campaign the Assyrian king Sennacherib (704–681 BC) proudly boasts that he enslaved all those who did not submit to his will and promptly forced them 'to carry the headpan and mould bricks' (Lutkenbill 1968: 166.383). Nor were speed and cheapness the only advantages brick offered. Mud-brick is fireproof and practically indestructible to the weather when the surface is properly protected. It also has considerable resiliency to minor earthquakes. Demosthenes of Athens speaks (3.25–26, 23.207) of the mud-brick houses of Themistokles, Miltiades and Aristides as still inhabited in his day, nearly 150 years later. Indeed they were evidently in good condition and quite indistinguishable from their neighbours.

According to Apollodorus of Damascus (Polliotelka 157.1–158.3), the Greek military engineer employed by both Trajan and Hadrian, and to Pausanias (8.6.7–8) a mud-brick fortification wall had a greater ability to resist a battering ram or the stone-shot from a catapult. Here the shock of impact was cushioned and localised, whereas in stone it was transmitted from block to block. On the other hand, if enemy sappers managed to reach the base of the brickwork they could easily cut a breach in a matter of minutes. Egyptian and Assyrian siege scenes often include sappers who, armed with rods and picks, are busy opening breaches in mud-brick ramparts (e.g. Nimrud, NW Palace Throne Room [British Museum 124552, 124553]).
Fortifications of Troy VI

The extant remains of the principal gateway (Gate VIa) lying to the south of the citadel of Troy VI, looking north. Clearly visible are the remains of the projecting tower (Tower VII) that flank the gateway, and in front of it the six stone steps on which Dörpfeld thought images of the Trojan gods had been placed (cf. Homer's 'Skaias Gate').

In the centre of the picture can be seen the wide paved street, complete with a central drain, that led from the south gateway and ascended the terraces into the heart of the royal citadel.

(Author's collection)

The fortifications of Troy VI are by no means of uniform style throughout and at least three major phases of the circuit-wall construction around the citadel mound are represented, which are hypothetically correlated with the Early, Middle, and Late phases identified within the culture of Troy VI as a whole. Corroborative evidence can be seen on the south side of the circuit-wall, where three successive gateways (Gates VIa, VIb, VIc) correspond to these three principal phases of fortification architecture. Gates VIa and VIb lie inside of VIc, just to the east of the so-called Pillar House, one of the largest houses in Troy VI.

Building programmes

The extant ruins of Troy VI give the impression that the citadel was divided radially into six sections (Sections 1–6) by wide streets starting from the five gateways (Gates VIa, VIb, VIc/VIr, VIh, VIv). The order of construction of the circuit-wall of Late Troy VI can thus be determined as follows. First Section 5 in the west. Second, Sections 2 and 3 in the east, which are dated to Troy VII. Sections 1, 4, and 6 at the north-east, south, and north-west respectively, the last being securely dated to Troy Vb. Finally, the addition of the east and south towers (Towers VIa, VIh), which are both dated to the final building phase (VIIb).
During the XII Dynasty the Egyptians embarked on a programme of expansion into Nubia (Sudan), bolstering their position with a long chain of fortresses between modern Aswan and the region of the Second Cataract. Virtually all of the fortresses were built in sun-dried mud-brick, from the reign of Sesostris I to that of his great-grandson Setnakht (c. 1971–1841 BC). The fortresses of the 21st and 22nd Dynasty kings were larger, with more sophisticated design and construction techniques.

**Method of construction**
As was true during the Early Bronze Age at Troy, the construction of fortifications around the citadel mound appears to have been a more or less continuous activity throughout the Middle and Late Bronze Ages. That is, as was true of the Pharaohs' use of pyramids during the Egyptian Old Kingdom, the rulers of Troy appear to have used the construction of fortifications surrounding their citadel as a massive, never-ending public works project.

The method of construction of the fortifications of Troy VI, especially clear in cross-section in Section 6 at the west, is entirely different from that characteristic of the Cyclopean building tradition of Mycenaean fortification architecture, that is, the use of drystone masonry of huge blocks or boulders. The roughly rectangular blocks that make up a curtain-wall, for instance, make contact not only at their exterior faces (as in Mycenaean ashlar masonry) but for the entire width of the block. Moreover, a curtain-wall as a whole is not built as two megalithic 'skins' with a fill of smaller rubble, as is typical of Cyclopean masonry, but rather consists of a solid mass of carefully fitted blocks. To increase the stability of a curtain-wall the courses were laid with a slight downward slant toward the interior.

The fortifications were bedded on foundations extending under a metre or more below the contemporary ground level outside of the citadel, but the foundations rested neither on bedrock nor on virgin soil, in contrast with standard Mycenaean practice. Perhaps the leaving of a cushion of hard-packed earth between the foundations and bedrock was a conscious anti-seismic precaution, that is, as a simple shock absorber between the foundations and the rock. The latter is a more active conductor of vibrations than loose or even hardened earth. However, this cautionary technique does not seem to have served its purpose since the fortifications were severely damaged at the end of Troy VIII in what most authorities feel confident in identifying as a sizeable earthquake.

**Curtain-walls**
Little has survived of the first and second phases of wall construction, but enough is preserved to show that the curtain-walls of Troy VI were always characterised by vertical offsets. These vary between 10, 15 and 30 cm in depth and recur at regular intervals of slightly over 9 m, thereby breaking the circuit-wall up into distinct segments. This is a novel feature of Trojan fortification architecture, which is functional rather than decorative. The offsets allow slight changes of direction in the circuit-wall thus allowing it to turn without the use of corners, the weak points in any defensive system. Another novelty of the curtain-walls is the receding slope or batter. While the internal face is vertical, the exterior face of the stone portion of a curtain-wall is strongly battered, having an inclination of approximately 1 in 3, a feature common to the fortification walls of the previous settlements but not encountered elsewhere in western Anatolia.

Completing that of Early Troy VI, the circuit-wall of Middle Troy VI probably ran along the line of the south wall of the 'Pillar House' and the east wall of House VII. In turn, the circuit-wall of Late Troy VI was built in sections to replace the preceding fortifications of Middle Troy VI. These later sections were constructed in several slightly different masonry styles and their building clearly extended over a long period of time. Thus it is possible to see the steadily increasing skill of the masons in stone cutting and jointing, and the third circuit-wall in chronological order is by far the most ambitious and impressive. The south curtain of Section 4 is a good example of the fully developed, elegant but functional style of masonry that reveals the stonecutter's mastery of the material. The blocks are carefully fitted together at the joints, their surfaces are smooth, and neat angles are formed where the vertical offsets are cut.

The extant circuit-wall, which runs for a total distance of some 335 m, is built of hard, durable limestone blocks and slabs, efficiently shaped, and solidly fitted together without the use of mortar. The faces of these blocks are rectangular almost arithmetical, although the courses are not all of equal height, that is, the masonry is not isodomic. The joints between the blocks in successive courses are carefully alternated so as to maximise the strength of the construction. Large stones are freely used in the lower part, smaller material in the upper part of the wall. Once a curtain-wall had been erected, its outer, inclined face was worked over in a final dressing that gave it a relatively smooth finish from top to bottom so that it offered a very difficult surface to scale. With an average thickness of 4.75 m at the base and in some places attaining 5.25 m in height above the contemporary ground level outside the citadel, a timber-framed superstructure in sun-dried mud-brick originally surrounded this stone substructure. The total height of a curtain-wall therefore would have exceeded 9 m.
East gateway of Troy VI

This reconstruction takes the form of an oblique aerial shot from the south, thereby showing the all-important relationship between the east tower (Tower VII) and the east gateway (Gate VI). Although the east tower is not actually positioned beside the east gateway, it does cover the approach, which stands some 28m away to the north. Moreover, the gateway itself takes the form of an L-shaped corridor about 2m wide and 5m long between overlapping walls. These walls overlap in such a way as to force anyone bold enough to storm the gateway to suffer exposure to missile fire from two sides at once. Also, the entrance between the walls is not located directly opposite but beyond the turn of the narrow L-shaped corridor. This would present a further difficulty for any approaching enemy, who would be crowded into the narrow approach to the barred gate around the corner. The east gateway was clearly designed to confine and trap the enemy within a 'killing box'.
In the late phases of Troy VI, except in Section 1 where brick was found still 
in situ, the original mud-brick superstructure of the circuit-wall was replaced by 
a stone wall some 1.8 to 2m thick. This is preserved in places up to 2m in height 
but was originally higher, and is built consistently of neatly squared, well-fitted 
blocks of limestone of small size, closely resembling, both in shape and 
dimension, bricks of clay. Behind this strictly vertical, uppermost portion of the 
circuit-wall was a wall-wall 2 to 3m wide, which served as a firing platform for 
the defenders. It was raised some 2m above the contemporary ground level 
within the citadel, and was at least 2m lower than the parapet fronting it.

Towers

Although the blocks used in the curtain-walls are not Cyclopean but smaller, 
the fortifications of Troy VI are imposing in their total effect. This is partly due 
to the strong towers. These structures, which project from the external face of 
the circuit-wall at a number of points, clearly illustrate the architects' concern 
for the capability of defenders to direct enflaming fire on attackers, particularly 
in the vicinity of major gateways.

The east tower (Tower VIb) has a breadth of 11.25m across its front and 
projects more than 7m from the face of the east curtain and covers the 
approach to the east gateway (Gate VIa), which stands some 28m away to the 
north. Its north and south walls are each 2.2m thick, but the east wall is much 
more substantial, having a thickness of 3.4m. All three exterior faces show a 
slight inward batter. Inside it a chamber (8.8 by 7m) is formed and a second 
storey once stood over it, the floor of which was supported by heavy timber 
beams laid transversely from north to south. The floor itself probably consisted 
of clayey earth laid over a bed of smaller transverse timbers and rushes. Access 
to the room beneath was only possible at second-storey level by means of a trap 
door and a ladder. The upper room, however, extended westward across the top 
of the curtain-wall, at the inner edge of which it could be entered through a 
small doorway some 1.7m wide. The door was approached from outside by 
means of a ladder, since the threshold once stood nearly 1m above the ground 
level on this side. How the top was finished is difficult to judge, but it probably 
formed an open platform surrounded by a crenellated parapet, from which the 
defenders could hurl missiles at the enemy who might attack the east curtain 
and east gateway.

In its lower storey the east tower was constructed of large, square blocks of 
hard limestone, carefully fitted together in almost regular courses, and laid so 
that the joints did not coincide along each row. Furthermore, they were placed 
as an alternation of headers and stretchers. When the tower was completed 
its exterior face was treated with a final dressing, which produced a smoothly 
finished surface from top to bottom. The difference in the masonry of the 
tower and the east curtain point to two different building periods. A more 
developed method of construction is used in the tower, which is not bonded to 
the east curtain and therefore is evidently an added feature. Yet another 
difference is to be seen in the foundations. Whereas the curtain-wall was 
founded on a cushion of hard-packed earth, the foundations of the tower 
were laid directly on the bedrock, which explains the large cracks visible today. 
The tower was presumably built in the final building phase (VIb) as a further 
protection of the east gateway.

Flanking the south gateway (Gate VIb), the south tower (Tower VIIb) projects 
10.2m beyond the south curtain and is 9.5m wide. This massive rectangular 
structure replaced, probably during the final building phase (VIb), an earlier 
tower (Tower VIIa) of smaller dimensions (7.2 by 5m) that stood nearly 9m to 
the west of the gateway. The new tower, however, was erected directly beside 
the entrance, thereby giving the defenders a better vantage point from which 
to cover the gateway and its approach. In its material and construction this 
tower is exactly like the east tower (Tower VIb).

To ensure a safe supply of water in times of stress a 10m-deep artesian well, 
or cistern, was sunk within the north-east bastion (Tower VIc), the north- 
eastermost portion of the circuit-wall also known as Section 1. The well, 
approximately square, has an open shaft measuring about 4.25m on a side and 
was lined all round with a massive stone wall some 2m thick. It extended some 
2m down below the bastion floor to the bedrock, and continued down to a 
further depth of 7 or 8m. Too large to be a normal well, too deep for an ordinary 
cistern, it may have been intended to serve both purposes.

The north-east bastion, which was also accessible from the outside (Gate 
VIa), consists of an enormous limestone substructure measuring approximately 
22 by 8m and originally stood, according to calculations made by Dörpfeld, at 
least 9m high above the bedrock at its northern foot. The distinctive shape 
of this bastion – its south corner is a sharp-edged, acute angle – makes it a 
very imposing structure. The well-dressed, hard, durable limestone blocks are 
carefully joined and placed in horizontal courses of somewhat irregular height 
(18 to 40cm). Here and there in some courses two thin slabs were used to make 
up the required height, and occasionally a polygonal style of joining appears. 
The outer face of the bastion was finished with a fairly smooth dressing and has 
the characteristic broad batter some 3m above its base. The angles of the 
bastion were deliberately planed and constructed with alternating headers and 
stretcher. On top of this massive substructure once stood a lofty timber- 
framed superstructure of sun-dried mud-brick. Built as an observation platform, 
the bastion dominated not only the citadel but also the whole of the lower 
town that lay below to the south and south-west.
'Well-built stronghold of Iliion'
A reconstruction panorama, looking from the south, illustrating Troy VI. One of the cutways shows House VIh, which probably formed part of Priam’s palace. This two-storey building stands on the lowest terrace of the citadel mound, just within the circuit-wall of the citadel. Its inward leaning retaining-wall is 27m long and has four vertical offsets, which divide it into five distinct sections. The limestone blocks are carefully cut and closely fitted together without mortar, with larger blocks used as corner stones. The superstructure is of sun-dried mud-brick reinforced with timber and stuccoed. The flat roof is of ceiling beams covered with reeds and a thick mud plaster. Inside the L-shaped layout are several rooms. Two small rooms on the western side of the lower level are for food storage as indicated by large storage vessels (pithoi). The larger room to the east is for cooking, as indicated by a preparation area in the northern corner, and eating. The upper-storey rooms are living and sleeping quarters. In contrast, the houses of the lower town are small, simple two-storied structures, standing close together and forming the continuous sides of streets. Constructed of sun-dried mud-brick reinforced with timber and plastered with mud, these stand on low, rubble-stone foundations. The inhabitants of a house generally dwell in the upper storey; the lower storey having two or three rooms that serve as storerooms and workshops. The flat roof, which is timber and reed coated with thick mud plaster, is commonly used by the inhabitants to sun-dry grapes and figs, as well as serving an ideal place to relax and watch the world drift by.

**KEY**
1. North-east bastion (Tower VIc)
2. East gateway (Gate VIb)
3. East tower (Tower VIh)
4. South tower (Tower VIh)
5. House VIh
6. House VIc
7. House VIc
8. Lower town

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Gateways

The circuit-wall of Late Troy VI, preserved in a great horseshoe swing from the north-east around to the west, is pierced by five unevenly spaced gateways (Gates VIa, VIb, VII, VIIa, VIIb) of different types.

A postern (Gate VIa) gave access, via a flight of four stone steps, up to the floor of the north-east bastion (Tower VIIa) from the outside world. Forming the division between Sections 1 and 2, the entrance is a narrow passage 4.65m long and 1.5 to 1.7m wide. A door at the southern end of the passage would have secured the entrance, beyond which the floor of the passage ran horizontally some 2.25m and then descended the short stairway. The door, which was fitted in a wooden doorframe assumed on a pivot, could swing back into a recess in the eastern side of the passage.

As we have seen, the east tower (Tower VIIa) is not actually positioned beside the east gateway (Gate VIb). Nevertheless, the gateway, separating Sections 2 and 3, takes the form of L-shaped contours about 2m wide and 5m long between overlapping walls. These walls overlap in such a way as to force anyone bold enough to storm the gateway to suffer exposure to missile fire from two sides at once. Also, the entrance between the walls is not located directly opposite but beyond the turn of the narrow, L-shaped corridor. This presented a further difficulty for the approaching enemy, who were crowded into the narrow approach to the barred gate around the corner. By their very nature gateways are, like corners, weak points in any defensive system. The east gateway was clearly designed to confine and trap the enemy within a ‘killing box’.

The principal entrance to the citadel was the south gateway (Gate VIIa), which gave access from the lower town to the main thoroughfare (Street 710), which ascended to the summit of the citadel. It is notable that the main gateway to the citadel-mound has always been in the south, ever since the founding of Troy I. The south gateway belongs to the direct-access type, in contrast to the overlapping type, as its opening is merely a gap some 3.3m wide between the vertically finished end of Section 3 and the similar beginning of Section 4. Thus forming the division between Sections 3 and 4, the architects designed this simple opening with defence as their primary concern. First, the end face of Section 4 is set back from the corresponding face of Section 3. Second, the south tower (Tower VIIa), projecting some 10m from the south curtain, borders the roadway on the west. The entrance was thus flanked for a distance of more than 3m on the east and 12m on the west by solid protective works from the top of which defenders could discharge missiles in a crossfire against hostile forces attempting to storm the gateway. Although the evidence is lacking, it is assumed that a proper portal closed it.

The south-west gateway (Gate VIIb) forms the division between Sections 4 and 5. Its plan is somewhat similar to that of the south gateway (Gate VIIa), although its opening is slightly wider at 3.8m. It seems that the gateway was in the process of being replaced on a more ambitious scale, but for some unknown reason the project was not carried to completion. Consequently, the old gateway was no longer left open to traffic, but was sealed off by a solid and durable wall of heterogeneous stones.

A postern (Gate VIIc) pierces the north-western portion of the fortifications, a simple opening between two units of the circuit-wall, Sections 5 and 6. The latter is set forward toward the west some 4.5 to 5m beyond the line of the former. The gap between the two is some 2.5m, and the approach each entrance from outside the citadel was evidently from the south-east via a roadway that ascended alongside Section 5 and then turned sharply eastward through the opening. Attackers attempting to storm the gateway, therefore, would have their right (unshielded) sides exposed to the missiles of the defenders on the wall above and would also have to face a frontal fire from the top of Section 6.

Outer defences

Conceivably the most important discovery of the renewed excavations at Troy under Körnmann is the exposure of an outer ring of defensive architecture consisting of a wide ditch located some 450m south-west of Section 4 of the previously known circuit-wall of Troy VI. This ditch has so far been traced for roughly 200m in a shallow east to west arc at what must have been its southernmost end. Periodically interrupted by unexcavated ‘bridges’ that presumably mark the locations of majorentryways through this defensive circuit, the ditch is likely to have been the foundation trench for an outer circuit-wall, which has been entirely robbed out by later builders in historical times.

A short length of what is likely to be a portion of the same defensive system, but here consisting of limestone blocks still in situ, has been found just to the east of Section 1 at the original citadel’s north-east corner. This newly discovered circuit defines what can be identified as a fortified lower town, a standard feature of Near Eastern urban centres of the third and second millennia BC. The original fortress of Troy VI thus becomes an inner royal citadel, the site of the ruler’s palace complex, the settlement’s chief temples, and perhaps also the residences of the ruler’s principal officials and warriors.

Close-up shot of the east tower (Tower VIIa) of Troy VI showing one of the large vertical earthquake cracks on the wall facing the east gateway (Gate VIa). The final building phase (VIIa) was severely damaged by an earthquake, as is evident from the large vertical cracks in the surviving fortification walls. Nevertheless, Dönhoff found evidence for fire or fires at various places in the destruction level of Troy VIIB and saw this destruction as the work of men. (Author’s collection)
The Mycenaean's written language of record keeping, Linear B, is a mixture of three elements: numbers, ideograms and syllabic signs. Deciphered by Michael Ventris in 1952, this script is clearly a pre-Doric dialect of Greek, where the syllabic signs (87 in total) were used to spell out the phonetic shape of the word. The ideograms were not used as a means of writing, but merely as a symbol to indicate what the numerals were counting. Linear B tablets were meant for short-term use. The clay tablets were preserved by accident, as they were baked hard by the terrific conflagration that destroyed the palace in which they were kept. The tablets therefore represent a snapshot of the palace's state of affairs in its last year around 1200 BC. Yielding inventories and receipts, which were kept by the palace bureaucrats, they speak of personnel, livestock, agricultural produce, taxes and manufactured goods such as textiles, storage vessels, furniture and weapons. (Author's collection)

There is a significant and growing body of evidence to show that the Mycenaeans of the 14th and 13th centuries BC, the heyday of their civilization, were involved in armed forays on the shores of western Anatolia. Indeed it is fair to say that we now have a plausible context for the tale told by Homer. In the Linear B tablets from Pylos particular groups of women are recorded doing menial tasks such as grinding grain, carding flax and spinning wool. Their ration quotas suggest that they were numbered in the hundreds. Many are distinguished by ethnic adjectives, presumably denoting the places they came from, and though some of these are still not understood, several of the women come from eastern Aegean islands or the western seaboard of Anatolia – Knidos, Milettes, Lemnos, Halikarnassos, Chios and AS-WJJA. The last name frequently occurs at Pylos, Knossos and Mycenae (e.g. PY Ab 315, KN Sc 261, MY Au 65), and seems to denote an area originally known as Asia, that is Lydia (Assuwa in Hittite). Recorded on one tablet from Pylos (PM Ep 705.6) there is even the enigmatic name TO-RO-JA ('woman of Troy').

The Pylos tablets name 700 women, with their 400 girls and 300 boys who ‘belong to them’. Some of the ethnic groups are sizeable: 21 women of Knidos (KI-NI-DE-JA), with their 12 girls and ten boys (PY Ab 189) or '16 women of Milettes (MI-RATI-JA), with their three girls and seven boys' (PY Ab 573). These descriptions often use the term LA-WJ-AL, ‘captives’, which is the same word used by Homer (Iliad 20,193) to describe women (Ieitadas de gruina) seized by Achilles at Lyrnmesos during a predatory foray south of Troy. It is a remarkable fact that Homer also names a number of islands in the eastern Aegean as homes of women taken on Achaean raids, including Lemnos, Skyros and Tenedos (Iliad 9:128–30, 270–72, 664–65, 11:625–27).

Of sheep and women

A few of the women listed on the Pylos tablets are domesticus, such as ‘bath-pourers’, but the majority seem to have been workers who were producing woolen and linen cloth of various kinds. Indeed, textiles for trading purposes appear to have been a main source of Mycenaean wealth. At Knossos alone, where a third of all the tablets in the archive are concerned with sheep and wool, records for a single season list at least 70,000 to 80,000 sheep (KN Od series). The vast majority of these are wethers (neutered males), which give the finest fleeces, but no milk and only tough meat. At upward of a pound and a half of wool per sheep, by the Mycenaean’s own reckoning, we come up with some 60 tons of wool – a count that checks well against the Knossos accounts of cloth made. This was not a cottage industry.

These Linear B tablets provide vivid evidence for the predatory nature of Mycenaean activity in the eastern Aegean. The women were either captured during seaborne raids, or brought from slave traders in entrepots such as Milletes. The fact that they are usually mentioned with their children but not with men implies the familiar

raiding pattern of predatory warbands, where the men are killed and the women carried off. A clay tablet from Pylos (PY Ab SS5) speaks of rations sent to textile workers and their children. The inscribed text, which reads from left to right, says:

WHEAT 16, FIGS 16
Pylos loom-workers: 38 women, 20 girls, 19 boys.
Wheat: 16 measures. Figs: 16 measures.

In Homeric Greek the terms for ‘girls’ and ‘boys’ are koumi and koumi respectively. The Linear B symbol for WOMAN is an ideogram showing her head and long skirt. The numerals operate on the decimal system, though the weights and measures show traces of the Babylonian system of division in 60 parts.

The Iliad and the Linear B texts complement each other here in a remarkable way, and it is safe to assume that Homer is here preserving a genuine Late Bronze Age memory. Right from the opening of the Iliad (1.366–69, 29–31) Agamemnon makes the following boasts:

We went against Thebes, the sacred city of Eteon,
and the city was sacked, and carried everything back to this place, and the sons of the Achaeans made a fair distribution,
and for Atreus’ son they chose out Chryseis of the fair cheeks ...
The girl [Chryseis] I will not give back; sooner will old age come upon her in my own house, in Argos, far from her own land, going up and down by the loom and being in my bed as my companion.

Being carried off appears to be a constant threat for women during Mycenaean times, especially those living near the sea. A Phoenician servant-women in the Odyssey (15.426–28) reports her entry into bondage thus:

[Men from Taphos [a Greek island],
pirates, caught me and carried me away as I came back home from the fields, and carried me to this place and sold me here in this man’s house, being paid a fair price for me.
Many Achaian princes kept captured women as servants and bed-partners. In the former occupation they spent much of their time spinning the wool produced by their masters' flocks and weaving garments, bedding, seat-covers and wraps.

**Sackers of cities**

The Mycenaean were warlike and brutal, and it did not need many ships full of armed raiders to threaten and sack a small coastal settlement and enslave its women. A generation before the Achaeans sailed against Troy under the leadership of Agamemnon, Herakles, leading the crews of six vessels, stormed Laomedon's Troy and 'widowed the streets' (Iliad 5.638–42, cf. 14.250–1). Other versions say that Herakles came with 18 ships (Diodorus 4.32.2, Apollodorus 2.6.4), but all agree that he brought only a small force to destroy Troy.

Small groups of predators, chieftains and their personal warbands, appear at many places in the 13th-century sc. Near Eastern texts. The large city of Ugarit (Ras Shamra), which had been an important trade centre in western Syria since the Middle Bronze Age, was destroyed by fire at the end of the Late Bronze Age and was not, unlike Troy VI, reoccupied. As well as numerous arrowheads, the destruction level contained some 100 clay tablets and so from this site we have documents written prior to Ugarit's demise. One of these tablets (RS 20.238) is a letter from Hammurabi, the last king of Ugarit, to the king of Alashiya (Cyprus):

> Behold the enemy's ships are already here, and they have set fire to my towns, and have done very great damage in the country. Does not my father know all my troops and chariots (?) are in the Hittite country, and that all my ships are in the land of Lydia and have not yet returned? So that the country is abandoned to itself ... Consider this my father, there are seven ships of the enemy that have come and done very great damage upon us.

Thus with just seven ships the anonymous raiders sail in, wreak havoc and raze settlements and then sail away. Not long afterwards (c. 1185 sc) Ugarit itself was sacked and burned.

In the Hittite texts from Hattusha-Boğazköy there appears the term 'Land of Abhiyawa', a powerful seafaring state ruled by a 'Great King'. In one important document, the so-called Tawagalawas Letter (KUB 14.3) written by Hattushili III (ft. 1250 sc) to the unnamed king of Abhiyawa, the main subject is the buccaneering adventures of a certain Piyamaradu. Piyamaradu, a powerful renegade, is raiding Hittite lands apparently in collusion with Tawagalawas, a brother of the king of Abhiyawa, Mileramuwa is the point of departure for these seaborne raids, and eventually Hattushili enters the city, from which Tawagalawas and Piyamaradu...
have fled overseas to Abhiyava. Though demanding the extradition of Piyanaradus, Hattuili is anxious not to provoke an international incident and assures the addresssee that he will despatch a royal kinsman as a hostage to guarantee safe conduct of Piyanaradus from Abhiyava to the Hittite kingdom and back. Formerly a high-ranking subject of Hattuili, Piyanaradus had evidently turned freebooter as a protégé of the king of Abhiyava. It was in this capacity that he was now making piratical raids upon the Hittite king’s vassal states of western Anatolia.

Hittitologists are generally convinced that the place-name ‘Land of Abhiyava’ refers to the Mycenaean world, or at least to part of that world. It is no mere coincidence, therefore, the similarity between the name Abhiyava and the Homeric designation of the Late Bronze Age Greeks as Achaiwol. Thus Milinkauskas, which is most probably Mileto (Mr-RA-TRJA in the Linear B texts) where the presence of Mycenaean colonists is indicated by Mycenaean-type burials and domestic architecture, serves as their main base in western Anatolia. And it is this settlement that provides the means for continuing Mycenaean or Mycenaean-sponsored encroachment on Hittite subject territory.

Intriguingly, the archaeological evidence for the destruction of Therni on Lesbos, the island’s main city and one of the largest Bronze Age settlements in the Aegean, can be compared with the Hittite account, the so-called Manapa-Tashunda Letter (KUB 19.5), of the attack on Lesbos (Lazarus in Hittite) by Piyanaradus. A thriving trading port on the eastern side of the island and thus close to the shores of the Troad, Therni shared the culture of Troy VI and was sacked and burned by hostile invaders at the same time, that is, around 1250 BC. It would be no surprise to learn that we could also associate the destruction of Therni with the Homeric tale of Achilles’ sack of ‘strong-founded Lesbos’ (Iliad 9.129, 271).

The title Mycenaean sea-raiders most coveted, if we can trust Homer, was ‘sacker of cities’. In the Homeric epics it was the warlord’s greatest claim to glory. Achilles, Odysseus, Nestor (‘in my youth I was one’) and even Pallas Athena, the pro-Achaian goddess of conventional warfare, bear the title of ‘sacker of cities’ (Iliad 2.278, 5.765, 21.550, Odyssey 13.359, 14.447 etc.). In the Iliad the sack of cities does not destroy and slaughter to increase his political power, on the contrary, he sacks cities to gain booty, treasure, horses, cattle, gold, silver, fine armour and weapons and, last but not least, women (Iliad 9.278–81, 591–94, 16.830–32). The possibility of men being enslaved and women killed never arises. We should bear in mind that it was the custom of one woman, Helen of Sparta, which was the causa bellii of the Trojan War. Already at the very beginning of the Iliad there is a pernicious quarrel between Achilles and Agamemnon over a woman who is part of the spoil. Time and time again Homer tells of the fight for ‘the city and its women’ (Iliad 6.95, 18.265, Odyssey 11.403, 24.113 etc.). When Achilles tells Odysseus of the 23 cities he has sacked, he mentions only booty and women as his gain (Iliad 9.325–31, cf. 18.28–29). Men and real estate are destroyed; women and movable property are taken as spoils. Winning profit and prestige, this is what makes him proud and gives him fame.

The Wooden Horse of Troy

We leave the Iliad at Hector’s tomb and open the Odyssey to find Troy sacked and the Achaeans still on their wandering homeward way. Homer mentions the Wooden Horse in three brief, exciting, but almost casual passages (Odyssey 4.265–74, 8.487–520, 11.523–32), while Aeschylus (Agamemnon 823–28) and Euripides (Trojan Women 51–30, Hecuba 905–31) show some overlapping moments. But it is the Roman poet Virgil (70–19 BC) who takes us to the heart of the matter. He uses the traditional setting for the sack of Troy, a moonlit night, when the Trojans all aslee as the Horse enters wth its dangerous brood. Virgil might have been at Troy itself: here is no academic fiction, but the real thing – the flames, the chaos, the forlorn hope, the bravery of the old, the endless line of captive women.

Harbinger of doom

In one scene in the second book of Virgil’s Aeneid we are deeply conscious of the Horse’s presence throughout. First the Horse appears; then the Trojan seer, Laocoön, gives his warning; the Greek ‘fugitive’, Simon, tells his tale; Laocoön and his two sons perish; the Horse is taken into Troy, and its menace is fulfilled. For Virgil the Horse is completely sinister, without pedigree, appearing from nowhere.

Late Greek epic shows the Horse in glorious Technicolor. Already in Euripides it is the ‘golden-decked thing’ (Trojan Women 820). Tryphonodorus (Taking of Ilios 57–89), on the other hand, gives it a mane of purple and gold, blood-red amethyst eyes set with green beryl, rows of white jagged teeth, and hooves of bronze. While Quintus Smyrnaeus (Fall of Troy 12.149–50) sees it as swift and mettlesome, just as long as it seems to neigh. But Virgil keeps free from temptation. For him the Horse is a practical and deadly instrument of war, the doome of Troy.

According to the anonymous author of the Ilias Furva (Apollodoros Epitome 5.14) the Horse held 3,000 men, a figure even medieval tradition reduced to a thousand. Homer says ‘all the best of the ARGives’ (Odyssey 8.512) were in it but names five only. Stesichorus (fr. 199) gave 100. Apollodoros (Epitome 5.14) 50. Quintus Smyrnaeus names 30, ‘with many others’ (Fall of Troy 12.314–30), and Tryphonodorus (Taking of Ilios 152–83) lists 23 men. But Virgil’s mountain-scale animal held nine men only (Aeneid 2.261–64).

So a single Horse captured Troy, as Philostratos (Life of Apollonios of Tyana 5.26) says, and Dio Chrysostom (Orations 64.22) equates it with the Great King of Persia Cyrus the Great as a conqueror of cities. The Horse can, of course, be explained away as a ship. Apollodoros (Epitome 5.13) describes the process of putting men inside the Horse with the word enthudho, a term regularly used of putting men on board a ship. Homer does say ships ‘serve as horses’ (Odyssey 4.708) for men crossing the sea. Euripides compares the Horse to a ‘dark ship’ (Trojan Women 539), and in an inspired
A device depicted in tombs of the XIX Dynasty at Beni-Hassan was a long-shafted weapon with a hefty bronze point, which required three men to wield. As we can see in this fresco from Tomb 17 the machine was operated directly below the battlements, the crew being protected by a large parapet, which was probably constructed of ox-hides stretched over a wooden framework. It was either used to prise apart the mud-bricks of the ramparts or to keep sections of the wall clear of defenders to enable the assault by scaling-ladders. (Reproduced from Shaw, Egypt, Warfare and Weaponry, for Shove Publications, Prince Risborough, 1991)

moment Tryphiodoros calls it a ‘vessel’ (Taking of Ilios 185), while Quintus Smyrnaeus (Fall of Troy 12.427–34) elaborately likens its entry into Troy to a ship launching. Or again, the Horse was really a siege machine, a view held by two early critics, Pliny the Elder (Natural History 7.202) and Servius (2.15). Pausanias even goes as far as to say that ‘anyone who does not think the Trojans were utterly stupid will have realised that the Horse was really an engineer’s device for breaking down the walls’ (1.23). Servius offers other suggestions, such as the gate opened by the traitor Antenor had a painted horse upon it, or the Horse was in fact a mountain called Hippios, behind which the Greeks lurked prior to the assault. In more recent times it has been held to be a theriomorphic manifestation of Poseidon the Earth-shaker and a siege-engine of Assyrian type.

The ‘Assyrian Horse’

Geniuses of siege warfare, the Assyrians commonly employed a device known as a ‘wall-fly’ whenever they laid siege to a city or fortified town. The palace bas-reliefs depicting siege-engines clearly illustrate them equipped with a drill or pair of drills and mounted on a length and topped with a spear-shaped head. The device itself was mounted on a light wooden framework some 5 to 8m long and 1.5 to 2m wide and covered by various materials, inside which the crew of the machine worked. The whole structure was mounted on wheels, usually four in number, which enabled it to be advanced up to the enemy’s walls along a ramp constructed of several layers of stone or logs tightly packed with earth. During the reign of Tiglath-Pileser III (745–727 BC) and in the Sargonid period (726–705 BC) the machine was more or less cubic in shape and was provided with a tower in front and, as a rule, the whole device was mounted on four wheels. Here it is important to bear in mind that the Wooden Horse was mobile, a fact proved by wheels attached to its hooves (Tryphiodoros Taking of Ilios 100, Quintus Smyrnaeus Fall of Troy 12.424–27, cf. Virgil Aenid 2.35–36).

The framework of an Assyrian siege-engine was covered with a protective material, probably canvas, felt or hide (Nimrud, Central Palace, British Museum 118001, 118003). Of particular interest are recommendations of the 4th-century BC: Greek soldier-scholar Aineas Taktikos (33.3) for protecting flammable wooden towers and parapets from fire by covering them with felt or hide and this was undoubtedly the case with these Assyrian siege-engines. Aineas (34.1) also suggests the use of vinegar to douse out fires, the vinegar also having the added property of making it much harder for fires to restart. The ‘wall-flies’ depicted in British Museum 118001, for instance, are each shown with a crewmember who is armed with a ladle from which he is pouring water or, perhaps, vinegar. The possibility that these coverings were made of soft material is clearly evident in the Lachish Relief, a remarkable series of bas-reliefs commemorating the siege and conquest of the Judean city of Lachish by Sennacherib (704–681 BC). Here each siege-engine is protected by a covering of hides fastened by a series of loops and pegs, and equipped with one long spear-shaped drill (Niniveh, Palace of Sennacherib, Room XXXVI: British Museum 124906, 124907). Moreover, they were somewhat animal-like in shape with a body and neck, and contained men inside.

Although siege-engines were not shown on the Assyrian representations prior to the reign of Ashurnasirpal II (883–859 BC), documentary evidence from Mari (Tal Al-Hariri, Syria) and Hatu-ussar-Balakjyuki does indicate that such machines were already in use as early as the 18th century BC. These documents also tell us these machines were named after animals: the ‘wild ass’ at Mari and the ‘wooden one-horned animal’ at Hatu-ussar-Balakjyuki (Dossin 1956: Letter 131, Jean 1900: Letter 7). A similar device is depicted in the tomb of the Egyptian XII Dynasty noble Khety at Beni-Hassan (Tomb 17). It has a single long-shafted weapon with, presumably, a hefty metal point, which required three men to wield. This is shown operating directly beneath the mud-brick ramparts of a well-fortified town, the crew being protected by a sort of movable hut. A similar mud-brick superstructure surrounded the fortifications of Troy VI, and, as the evidence suggests, siege-engines were often named after animals and invariably looked like them. The Wooden Horse, therefore, can be rationalised as a siege device in a mobile, horse-shaped housing in which men could operate.

The siege of Lachish

The Old Testament simply says that ‘King Sennacherib of Assyria laid siege to Lachish’ (II Chronicles 32:9, cf. II Kings 18:14, 17, 19, 20, 36:2, 37:8). More informative, however, are the extant Assyrian texts that cover Sennacherib’s Palestinian campaign of 701 BC, a punitive expedition that was directed against a confederation of rebel kingdoms headed by Hezekiah of Judah. Here we read (Pism of Sennacherib, II.27–49, cf. II Kings 18:13) that the Assyrian king:

laid siege to 46 of his [Hezekiah’s] strong cities, walled forts and to the countless small villages in their vicinity and conquered [them] by means of well-stamped [earth-]ramps, and great wall-floes brought near [to the walls combined with] the attack by foot soldiers [using] mines, breeches as well as sapper work.

The archaeological level representing the city of Lachish (Level III) besieged by Sennacherib has been securely identified along with the main siege ramp complete with evidence of the flint battle and ensuing destruction of the site. Situated against the south-west corner of the outer circuit-wall, the ramp is composed of enormous amounts of rubble heaped on the surface of the open area at the foot of the tell and laid against its slope. The upper layer of the ramp consists of stones bound with hard mortar. This layer was the mante of the ramp added on top of the loose boulders in order to create a compact surface. The whole structure — according to existing surface remains — was relatively wide and probably fan-shaped, narrowing to its apex at the base of the outer circuit-wall, a wall of sun-dried mud-brick resting on stones up to 3.5 to 4m thick. It is estimated that the overall width of the ramp at its bottom was about 55 to 60m, and its height about 16m. The Lachish Relief depicts each ‘wall-fly’ standing on a track made of wooden logs, and is studded, therefore, that a narrow track of logs or wooden beams was laid along the sloping surface of the ramp for each attacking siege-machine to enable its smooth ascent to the top.
Aineias’ drill

The three-man crew of the Egyptian siege-machine described above are poking at rather than battering against the ramparts. In his treatise How to Survive under Siege, the Arcadian soldier-of-fortune Aineias Taktikos (fl. 350 ac) offers us a glimpse of a similar device in operation (32.5–6). The implication here is that the hand-held drill or borax (tripronon), as opposed to the battering ram (kranos), was a far better device for breaching walls of mud-brick. In their edition of the treatise Hunter and Handford (1927: 221, cf. Whitehead 1990: 194–95) supposed Aineias was using the term tripronon for the nose of the battering ram. However, this left them unable to explain the manoeuvre with the counter-ram (anti-kranos), which is evidently used to combat the drill by breaking through the wall from the inside and snap off the point of the enemy drill, the former, according to Aineias, being ‘the stronger of the two’ (32.7). If we assume that Aineias is speaking throughout of mud-brick walls and the drill proper, the problem is less formidable, for the opening of a small aperture in a mud-brick wall cannot have been very serious, and the hole could quickly be filled. In fact the Plataians, according to Thucydides (2.75.6), used this very means to thwart the earth-mound that had been thrown up against their city wall by the Peloponnesians during the siege of 429 ac.

Although he obviously knows what he is talking about with regard to siege tactics, Aineias Taktikos can be frustratingly vague when it comes to technical detail. He thus says nothing of the drill’s actual construction. The Roman military engineer M. Vitruvius Pollio (fl. 50 ac.), on the other hand, is much more lucid on this subject. For he describes a drill that consists of an iron-pointed beam, some 25m long, which moves back and forth on rollers along a wooden trough, thereby rendering ‘its movement quicker and more violent’ (10.13.7). This particular drill is housed within an arched framework covered in rawhide and, thus, is not too dissimilar to that employed by the Egyptians and, presumably, explains by example the siege-machine used by the Mycenaeans at Troy.

Alternative means

Bronze Age siege tactics, however, also included stratagems of deceit. The Wooden Horse, therefore, could be explained as a simple deception motif, which is worth discussing if only to be rejected. According to an Egyptian tale, that known as The Taking of Joppa (Papyrus Harris 500 [British Museum 10068]), when the forces of Thutmose III (c. 1479–1425 ac) failed to capture Joppa (Jaffa) by traditional siege methods, the city was ultimately taken by a stratagem reminiscent of Ali Baba. Djehuti, the pharaoh’s general, conceals 200 of his soldiers in 200 wicker baskets, fills 300 other baskets with cords and fetters and loads 500 other soldiers with these baskets, and sends them into the city in the character of captives. Once inside the gates and night had fallen, the bearers liberate and arm their comrades, take the place without a fight, and make all the inhabitants prisoners.

Whatever the truth of this story, and there are many scholars who feel that it is pure fable rather than actual fact, Djehuti himself was a historical character who
The Trojan Horse as illustrated in the late 15th-century manuscript of Raul Laffere's French version of the medieval story of the Sack of Troy. The hatch of the Horse is open, and a ladder is ready for the descent of the Greeks inside. While the Horse is shown standing at a breach in the walls beside a gateway named Le Porte Dardanie or the Dardanian Gate, in the background the Greeks, who wear medieval plate armour, have already started butchering the inhabitants in La Ville de Thess, or the City of Troy. (Reproduced from Sövini N. Teos, A Turizm Press, Istanbul, 1996)

The modern replica of the Wooden Horse of Troy situated at the entrance of the site of Troy. Constructed in 1974, this tourist attraction has become an icon of Troy ever since. When it was built, reference was made to the various depictions on ancient pottery and descriptions of the ancient writers. (Author's collection)

served Thutmose III. In fact, the general's tomb at Thebes contains an inscription, the so-called Northampton Stela, describing his role in the pharaoh's Megilloid campaign (c. 1457 BC). Thus there is little reason to doubt the fact that Djehut was sent by Thutmose to capture Joppa, although, admittedly, he took the stronghold by an extraordinary route that would perhaps later be the origin of a number of tales. Still, Ainelas Taktikos (29.3-10) cites the trick of smuggling weapons into a city so as to facilitate its capture by enemy forces during a public festival. Concealed in containers and cargoes and moved into the city, the arms and armour were then issued to fifth columnists during the night of the festivities, the opportune moment to seize control as the unsuspecting citizens 'had become thoroughly drunk' (29.8).

The Trojans celebrated what they thought was their final victory and dragged the Wooden Horse into Troy. That night, after most of Troy was asleep or in a drunken stupor, Simon unsealed the belly of the Horse and let the Greek warriors out, who then opened the gates to the waiting Greek Army. And so Troy succumbed to fire and sword.

‘The castle of Priam blazing’

Troy VI was the loci of a maritime power on a promontory in a marine embayment adjacent to the strategic straits of the Dardanelles (cf. Homer’s ‘Hellepont’). Exercising control over the straits, the Trojans probably proved troublesome to many seafarers and thereby protected themselves against possible retaliation as the remarkable fortification system indicates. Reefs along the European side of the narrow strait as well as strong currents and stubborn winds would have proved of benefit to the controller. At a time when Mycenaean contacts were spreading throughout the eastern Mediterranean, there can be no doubt the warlike Mycenaeans were all too familiar with the wealthy, fortified settlement near the straits; the substantial amount of their ceramics found here attest it.

Against the wind

Funnelled through the straits in a south-westerly direction, a current runs through the Dardanelles at an average speed of 2.5 to 3 knots (cf. Homer’s ‘swift-flowing Hellepont’). In order to reach the Sea of Marmara, therefore, a constant rowing speed of at least 5 knots was necessary to successfully pass up the Dardanelles. A further complication to the outward-flowing current is the strong and nearly ceaseless winds, which usually blow from the north-east in a south-westerly direction parallel to the current. The daily average speed of these winds is a little over 16km/h (cf. Homer’s ‘windy ilion’). Such north-east winds, which the modern Greeks call the meltemi, remain prevalent from spring to early autumn, the months best suited to navigation in the Aegean. For the ancient mariner, with his rig of a single sail hung square on a horizontal yard, the technique of sailing close-hauled to the wind or beating up against it was unfeasible.

The site of a possible Mycenaean cemetery, Beşik Tepe lies within a few metres of Beşika Bay, a shallow embayment with a gently sloping sandy beach. Entrance to the bay is open and not blocked by reefs. The bay itself is sheltered from the prevailing north-easterly winds and remains just in the lee of the Dardanelles current. It even has freshwater sources. Moreover, evidence from recent palaeogeographical studies reveal that in the Bronze Age the sea reached far inland beyond the present shoreline and, like the bay in front of Troy, Beşika Bay has silted and filled in the course of time. Located only 8km south-west of Troy, this bay was provided the first natural harbour south of the entrance to the Dardanelles. Often identified in the past as the most likely anchorage of any seaborne force attacking Troy, the bay also served as the logical stopping point for ships seeking to pass up the Dardanelles but forced to wait for the necessary favourable winds. The Black Sea Pilet (1908: 7) speaks of the summer wind from the Dardanelles sometimes continuing for so long that it is not uncommon to see 200 or 300 vessels in the 11km-wide channel between Tenedos and the mainland or in the other havens, waiting for a change of wind.

Compelled to bide their time awaiting weather conditions favourable for the journey up the Dardanelles, it is not hard to imagine Bronze Age seafarers beaching their ships along the sandy shore of Beşika Bay. But these were Trojan waters. Here the Trojans could exact levies from, and provide goods and services to, the hapless crews of stranded vessels. Well-built Troy may have grown wealthy from tribute and trade — and long been a thorn in the side of merchant entrepreneurs like the predatory Mycenaean. To draw a line between maritime trade and piracy is difficult in any period, and the building of the increasingly
stronger fortifications during the heyday of Troy VI may have been in response to an excessive interest in the prosperous coastal settlement on the part of Mycenaean seafarers. But when attack came, neither economic prosperity nor strong walls were to be of any use as shown by the fate of Troy VI when it fell to raiders and was brutally sacked.

The stuff of legend

The impressive fortification walls of Troy VI, as excavated, mostly belong to the late phases of the settlement. Troy VIIa was a settlement at the height of its wealth and glory and architectural development. Troy VIIa, on the other hand, was rather nondescript. The pre-Blegen view, put forward by Dörpfeld (1902: 181–82), was that Troy VIIa, albeit damaged by an earthquake, had been sacked. Dörpfeld had found evidence for a great conflagration at various places in the destruction level of Troy VIIa and had interpreted the destruction as the work of men, not of nature. But while Blegen (1953: 330–32) acknowledged that Troy VIIa had been burned, he argued that this proud settlement was the victim of a catastrophic earthquake and not a warlike action. For him the attackers had sacked the humdrum Troy VIIa.

Blegen’s arguments were given close scrutiny by Michael Wood (1985: 225–20) and, following up some of Wood’s ideas, Donald Easton (1985: 188–95) reviewed in detail the evidence upon which Blegen based his theory that Troy VIIa was the victim of an earthquake. The seismic damage to Troy VIIa was severe but not catastrophic. Admittedly a number of the palatial houses were ruined and the superstructure of the circuit-wall fell in places, but there is no archaeological evidence to suggest that the fortifications of Troy VIIa were actually toppled. Conversely, there is no archaeological evidence to suggest that any of the palatial houses of Troy VIIa retained their original function after the earthquake. For these are either left in ruins or divided up, while the wide streets than run between them become cluttered with disused tenements. In other words, the character of the whole citadel is now so radically different it looks very much as if the ruling elite who resided in houses like House VIm were no longer there. As Wood writes, ‘It seems likely that the great houses ... ceased to shelter a powerful royal race’ (1985: 227). In other words, this dramatic change may be explained by the disappearance of the ruler and his warrior-aristocracy. First weakened by earthquake, there is every reason to believe that Troy VIIa was then attacked and sacked by Mycenaean marauders, who removed and processed the survivors – executing some and enslaving others – before putting it to the torch. The era of peace and prosperity, and of the successful rule of a strong citadel, its ships, horses and chariots, was over.

The dates for the destruction of the two levels are much disputed, but it is now likely, as Korfmann (1990: 232) argues, that Troy VIIa fell sometime around 1250 BC. This was the time when, at the height of their own power, Mycenaean contacts with Troy were at their most intense. In the aftermath of that destruction, a crowd of people – humbler, but sharing the same material culture as the elites of Troy VIIa – moved into the citadel, repairing the fortifications as best they could and building a warren of shanties. This reconstructed, crowded settlement, Troy VIIa, was destroyed sometime around 1180 BC, that is, after the collapse of the Mycenaean civilisation. ‘It would appear’, says Wood, ‘that Troy VIIa cannot be Homer’s Troy: Troy VIIa could be’ (1985: 225).

It was improbable that the sacking of Troy VIIa could have resulted in the Iliad, while the apocalyptic end of majestic Troy VIIa was never celebrated. The Iliad bears evidence of its Mycenaean roots, but as the generations passed successive storytellers may have transformed a polemical drinking-song about an audacious seaborne raid into an epic clash between Aspatic Troy and a unified force of Greek-speaking warriors. The irony in this is that a Wooden Horse would take a city famous for taming wild horses. This is a far better tale and it would appeal to the audience, as it has appealed to subsequent generations for some 3,000 years.
The site today

The Iliad has made Troy one of the most tangible mythological events in the world and few can resist the chance to tread among its remains. The reality, however, can be less than satisfying. Unless the visitor is well acquainted with the history of the site or has a fertile imagination, the impression given by the present condition of the ruins may be one of disappointment. Considering that nine separate ‘cities’ of altogether 46 settlement-layers were found on the same spot, as well as the fact that the early excavations were not carried out in a scientific way, the difficulties of understanding the extant ruins of Troy are all too obvious. The visitor, therefore, is strongly advised to arm himself or herself with a good guidebook, such as Korfmann and Mannsperger’s A Guide to Troy. This publication can be readily purchased from the shop situated at the entrance to the archaeological site.

Situatated near the modern village of Truva, the archaeological site of Troy is easily reached from Çanakkale some 30km away. A thriving town on the Asian side of the Dardanelles, which at this point are a little more than 1km wide, Çanakkale has frequent bus services via Bursa and Eceabat to Istanbul, and, via Edremit to Izmir. At the same otogar (bus station), some 500m inland from the sea front, you will also find a regular dolmus (minibus) service to Troy. For the return journey you may have to hire a taxi, as the last dolmus often leaves Troy in the mid-afternoon, well before the site closes. The alternative is a 5km hike to the main road, where it is possible to pick up a bus.

Because of its proximity to the battlefields of the Gallipoli campaign, Çanakkale has an ample (and varied) selection of hotels and restaurants. The Tourist Information Office near the ferry terminal can advise on accommodation and places to eat, as well as on excursions to the battlefields and Troy.

Troy itself does not possess a museum; however, there is one in Çanakkale. The Archaeological Museum is some 1.5km from the town centre on the main road south towards Troy. Its collections, although not very large, include artefacts from excavated sites in the Troad, including Troy. Objects coming from the various settlement-layers of Troy are well displayed and arranged chronologically, and include some from the Calvert collection.

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Bibliography

The following list is relatively short, and in the main, fairly elementary. Most of the books and articles given below have their own more or less comprehensive bibliographies, which will allow further research into this fascinating subject. One title I thoroughly recommend, and the most readable, by far, is Michael Wood’s In Search of the Trojan War. For those readers who wish to read Homer himself, there are the fine translations of the two epic poems in verse by Richmond Lattimore and, more recently, Robert Fagles.

Alexander, C., ‘Echoes of the Heroic Age’, National Geographic 185.6, 1999, pp.54–79
Blegen, C. W., Troy and the Trojans, London: Thames and Hudson, 1963
Boudreau, E. H., Making the Adobe Brick, Berkeley: Fifth Street Press, 1971
Dörpfeld, W., Troy and Ilion: Ergebnisse der Ausgrabungen in den vorhistorischen und historischen Schichten von Ilion, Athen: Barth and von Elst, 1902
Easton, D. F., ‘Has the Trojan War been found?’ Antiquity 59, 1985, pp.188–96
Leaf, W., Troy: A Study in Homeric Geography, London: Macmillan, 1912
Appendix I: Homeric epithets for Troy

In the Homeric epics cities need epithets as much as gods and heroes do, and Troy is certainly no exception. Indeed, Troy has epithets that are always consistent with its site and appearance and often illuminating and picturesque.

- Strong-walled: Iliad 7.71, 16.700, 22.195
- Gate-towering: Iliad 21.447
- Impregnable: Iliad 2.12, 29, 66, 141, 9.28, 14.88, Odyssey 22.230 etc.
- Great: Iliad 2.332, 803, 6.392, 7.296, 9.136, 22.251, Odyssey 3.108 etc.
- Sacred/Hallowed: Iliad 4.46, 164, 416, 5.648, 6.96, 277, 448, 8.551, Odyssey 1.2 etc.
- Beautiful/Elegant: Iliad 5.210, 22.121
- Steep/Sheer: Iliad 9.419, 13.625, 17.327, Odyssey 3.130, 11.533, 13.316 etc.
- Windy: Iliad 3.305, 8.499, 12.115, 13.724, 18.175, 23.64, 297

Glossary

An unusually extensive and specialist vocabulary has developed in the field of military architecture. A glossary has therefore been supplied to guide the reader through the technical terms used in the literature covering the fortifications of Troy. Obviously many of the terms below are common to pre-gunpowder fortifications in general.

ashlar – worked stone with flat surface, usually of regular shape and square edges
bastion – structural rather than inhabitable and generally serving as a fighting platform
batter – the receding slope of the exterior face of the stone portion of a curtain-wall
cistern – storage place for possible water
crenellation – fortified parapet, complete with merlons and crenels, at the top of a curtain-wall
curtain – main wall of a defensive work or the part of a rampart hung between two contiguous towers
Cyclopean – drystone masonry of huge blocks or boulders
enceinte – area enclosed within a citadel’s main line of ramparts, but excluding its outworks
header – a stone block laid across a wall so that its end is flush with the outer surface (cf. stretcher)
mortar – a mixture of clay and water used to bind stones together, as opposed to dry-laid masonry
offset – vertical indentation in a curtain-wall that allows a slight change in direction
parapet – low, narrow, defensive wall, usually with crenels (open part) and merlons (closed part), along the upper outer edge of a curtain-wall
polygonal – drystone masonry of large roughly worked blocks
postern – small additional gateway
stretcher – a stone block laid horizontally with its length parallel to the length of a wall (cf. header)
wall-walk – walkway, usually protected by a parapet, along the top of a curtain-wall
Design, technology and history of key fortresses, strategic positions and defensive systems

Troy

c.1700–1250 BC

Hisarlik is a small place, a sandy, stone-strewn hillock cut up into gullies and hummocks. Yet this is all that remains of the legendary Troy, a city whose story sprawls across cultures, time and geography. The tale of the siege of Troy is perhaps the greatest secular story ever told. It has certainly captured the imagination of the Western World for some 3,000 years. Although there are many difficulties in using Greek myths, oral traditions and the Homeric epics to reconstruct the Trojan War, this title uses the latest archaeological evidence to reconstruct in detail the fortifications of Troy as well as making more general observations about the possible historical events behind the epics of Homer.