

# The last myrmidon

The life, legacy, and fatal ear disorder of Heinrich Schliemann

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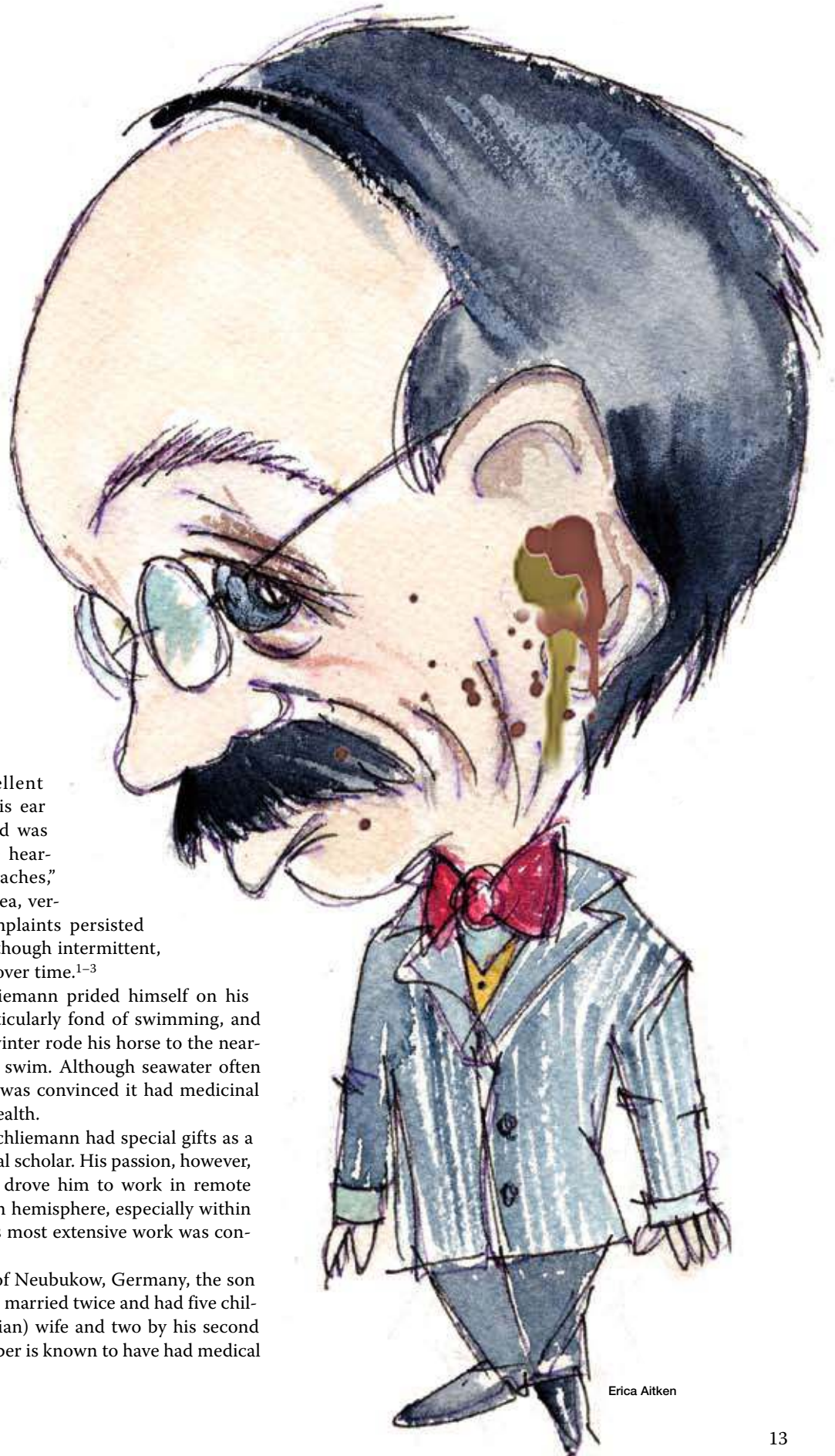
The debate over the historical basis for the story of the Trojan War, handed down to us by Homer in the eighth century BC, has enjoyed a resurgence in interest, thanks in part to Wolfgang Petersen's blockbuster movie *Troy* and the selection of Athens as the site of the 2004 summer Olympics. Was there really a city called

Troy (or Ilios)? When and where did it exist? Was a heroic battle fought there? By whom? If Homer's story is a conflation of history and myth, as seems likely, how does one differentiate the historical part from the mythological?

We do not have complete answers to these questions. Nevertheless, we do have some preliminary insights, in no small part because of work initiated by Heinrich Schliemann (1822–1890) in the second half of the nineteenth century. We now know with reasonable certainty that a conflict of some sort took place 1200 years before the birth of Christ at a walled city in northwest Turkey called Ilios (Troy), known in modern times as Hisarlık. Schliemann's name is indissolubly, if not altogether accurately, linked to the discovery of the site, just as it is to the birth of modern archeology. He died in 1890, at the height of his scientific career, of a protracted and mysterious ear disorder. Who was he? What did he reveal to us about the historical basis of Homer's story? What was the strange illness that abruptly ended the work of one of the most influential and colorful archeologists of the modern era?

*Schliemann—energetic,  
with a pain in the ear*

Except for intermittent (apparently bilateral) earaches,



Schliemann enjoyed excellent health until age 54, when his ear pain suddenly intensified and was accompanied by progressive hearing loss and “burning headaches,” but apparently not by otorrhea, vertigo, or tinnitus. These complaints persisted for the rest of his life and, although intermittent, became progressively worse over time.<sup>1-3</sup>

An exercise fanatic, Schliemann prided himself on his physical fitness. He was particularly fond of swimming, and even on the coldest days of winter rode his horse to the nearest body of water for a daily swim. Although seawater often exacerbated his ear pain, he was convinced it had medicinal properties beneficial to his health.

A man of many talents, Schliemann had special gifts as a linguist, financier, and classical scholar. His passion, however, was archaeology, one which drove him to work in remote sites throughout the northern hemisphere, especially within the Mediterranean basin. His most extensive work was conducted at Hisarlık.

Schliemann was a native of Neubukow, Germany, the son of a Protestant clergyman. He married twice and had five children, three by his first (Russian) wife and two by his second (Greek) wife. No family member is known to have had medical problems similar to his.

Schliemann's medical history included "hemorrhaging from a weak chest" as a child, influenza while residing in Russia as a young man, yellow fever contracted in California, and malaria while working in Greece. He recovered from each of these disorders without apparent sequelae.

When Schliemann's ear problems first intensified, he ignored them and continued his work. When they remitted, he believed himself cured. However, his relief always proved temporary, and by the time he was 64, it was clear that his earaches and deafness were progressing. At age 65, sudden hearing loss and excruciating ear pain caused him to consult his friend Rudolph Virchow, one of the most renowned pathologists of the modern era. Virchow found Schliemann's external auditory canal swollen shut and advised against further swimming. After several days, however, the pain and swelling subsided and his advice was ignored. Virchow urged Schliemann to see Professor H. Schwartz of Halle, Germany, who was then perfecting the simple mastoidectomy.

Late in his sixty-eighth year, Schliemann finally visited Schwartz. Although his ear pain and swelling had subsided temporarily and his hearing had improved, Schwartz diagnosed numerous bony outgrowths (osteomas) in the external auditory canal, for which he recommended surgery. Several months later, Schwartz excised the exostoses and performed a left "antrotomy" in under two hours using chloroform anesthesia. In his operative note, he mentioned problems encountered with "the delicate bones of the skull" during the procedure performed on the left ear, but did not clarify the precise nature of the procedure.

*The operation is a success . . .  
but the patient has pain and drainage*

Although Schwartz declared the operation "entirely successful," Schliemann complained bitterly of postoperative ear pain. His ears were irrigated daily with two percent carbolic acid solution to evacuate a discharge, and a rubber drainage tube and lead pin were inserted. Because of the persistence and the intensity of the pain, Schwartz concluded that the membrane lining the skull (the periosteum) had been injured during the course of the surgery.

Approximately a month after the procedure, the pain (at least in one ear) subsided, and Schliemann discharged himself against medical advice so that he might spend Christmas with his family in Greece. En route, he visited Virchow in Berlin, presenting him with two little boxes containing three bones removed from his ears. To Virchow, Schliemann appeared deaf but not particularly ill.

Schliemann traveled next to Paris, arriving there on a bitter cold December 15. He was again complaining of ear pain and

complete left-sided deafness. From Paris he traveled to Naples, where he collapsed suddenly while walking on the street on Christmas day. Although initially conscious, he was unable to speak, and by the next day began exhibiting evidence of progressive right-sided paralysis. Surgeons opened his ear and discovered that "the trouble had attacked the brain." Schliemann died shortly thereafter before trephining could be performed.

*Fatal triad—exostoses, seawater,  
and surgery*

Based on this clinical history, it is likely that Schliemann had multiple exostoses of the external auditory canal that had completely occluded both ears, and caused his deafness and the chronic infections of his external ear canals. Whether the infections had spread to contiguous structures such as the inner ear or the mastoid bone prior to the operation is unclear. However, in view of Schliemann's resulting aphasia and progressive right-sided paralysis, it is likely that the infection invaded the left temporal lobe postoperatively. Schliemann's sudden collapse was probably due to either rupture or thrombosis of a cerebral vessel immediately adjacent to a temporal lobe abscess, or overwhelming bacterial meningitis.

Because Schwartz's operative note has been lost, we have no way of knowing precisely what procedures were performed. The small bones Schliemann presented to Virchow after the operation suggest that Schwartz chiseled at least three exostoses from Schliemann's auditory canals. Whether the "antrotomy" he performed was one of his early mastoidectomies is uncertain. Schwartz's reported difficulty with "the delicate bones of the skull" suggests that he inadvertently punctured the floor of Schliemann's skull, creating a portal through which bacteria in the ear infected the adjacent temporal lobe.

Although a temporal lobe abscess is almost certainly the condition leading to Schliemann's death, its seed (exostoses of the external auditory canal) may have germinated only because it had been watered so faithfully with the seawater prized by the patient for its medicinal properties. Studies conducted in laboratory animals have shown that chronic exposure of the external ear canal to frigid water promotes formation of such exostoses.<sup>4</sup> Moreover, by obstructing the auditory canal, exostoses create an environment conducive to chronic external ear infections. Thus, Schliemann's passion for exercise and his pride in his physical fitness might have played an indirect but critical role in producing his terminal illness during perhaps the most productive period of his life, one devoted to the pursuit of the historical basis of Homer's *Iliad*.

*The wealthy tourist begins  
digging for Troy*



When Schliemann arrived in Turkey as a tourist in 1868,<sup>5</sup> a site called Pınarbaşı was generally considered to be the location of Homer's Troy. With striking natural springs, it fit well with Homer's description. The site's remains were small and late, however, and were consistent with only a purely fictional tale. A British resident of the area, Frank Calvert—of the same family as the Earls of Baltimore—pointed Schliemann to a different site, Hisarlık. Hisarlık had been discovered 70 years earlier, and contained inscriptions indicating that in Greek and Roman times it was widely regarded as the site of ancient Troy. Calvert himself had dug there and found evidence of preclassical occupation in strata underlying the Greek and Roman remains. When Schliemann arrived, he was 46 and fabulously rich, thanks to his success as a commodities trader. In the throes of a midlife crisis, he resolved to begin his own excavations.

Over seven seasons, between 1870 and 1890, he explored the site on a scale beyond the capabilities of any museum or learned society of that time.<sup>6–10</sup> His was the first major prehistoric excavation in Greece or Turkey, and exposed a nearly continuous sequence of occupation stretching (as we now know) from 3,000 BC to at least AD 500. He assumed that the stratum destroyed in the Trojan War existed near the site's bottom. When he found the remains of a heavily burnt citadel at a depth of ten meters in the second main phase of the sequence (Troy II), he assumed he had located Homer's Troy. Various finds seemed to confirm this conclusion, most notably a collection of metalwork so impressive he took it to be King Priam's treasure.<sup>11–12</sup>

While conducting these operations at Hisarlık, Schliemann also excavated sites on the other side of the Aegean, ones which according to Homer were the cities of the Achæan heroes who fought in the Trojan War.<sup>13–15</sup> Digging at Mycenæ, Tiryns, and Orchomenos, he exposed for the first time the wealthy, preclassical Greek civilization we now refer to as Mycenaean. When he returned to Hisarlık in 1890 for what was to be his last season, he uncovered Mycenaean-style pottery not in Troy II, but in a layer much higher and later—Troy VI—and was forced to reassess the intellectual edifice he had constructed during nearly 20 years of earlier work.

Was Schliemann a modern day despoiler of Troy in the image of the Myrmidons who followed Achilles there in search of plunder and fame?<sup>16–17</sup> To be sure, he was touchy and egotistic, and his early work was hurried and crude. With experience, however, he matured in technique and understanding. He was observant and thoughtful, and published his findings promptly. He was ahead of his time in incorporating a wide range of ancillary sciences into his work, his enlightened collaboration with the brilliant architect Wilhelm Dörpfeld bringing technical precision to the recording and analysis of his findings at an extraordinarily complex site. And he was rich. What is more, he used his wealth to amass a vast body of material that laid the foundation for the study of Aegean prehistory.

## *A Trojan War . . . probably A Trojan horse . . . maybe*

The work begun by Schliemann on the prehistory of Greece, Anatolia, and the Aegean has been enlarged by numerous subsequent surveys and excavations. Together, they have enabled us to trace the development of local cultures as far back as the Paleolithic period. The discovery and study of the Minoan civilization in Crete and the Hittites in Anatolia have been especially revealing. Nevertheless, the question that most concerned Schliemann lingers on: Was there really a Trojan War, or is it just a myth? What we know of the answer to this question derives from three classes of evidence: literary, historical, and archaeological.<sup>18–20</sup>

Homer's *Iliad*, composed about 730 BC, is our earliest literary source for the Trojan War. And yet, it is not really a story of the Trojan War at all. Rather, it is a psychoanalytical study of two Greek heroes, Achilles and Agamemnon. The Trojan War is merely a backdrop for the *Iliad*. In fact, the Trojan Horse, the single best-known motif in the tradition, is not even mentioned in Homer's account. This and other elements of the story come from other ancient authors, which suggests that the story of the Trojan War was already widely known in Homer's day.

Archeological evidence shows that Mycenæ dominated the Greek Peloponnese between about 1600 and 1200 BC, and that the heyday of many of the cities named by Homer as sources of Achæan troops was during this time. Likewise, some of the weaponry and armor Homer described in the *Iliad* was current only during the Mycenaean period. This evidence places the origins of the story 500 years or more before Homer's lifetime,<sup>21</sup> and would even allow the Trojan War to be placed in the time frame proposed by chronographers: between 1250 and 1135 BC.

Oral tradition, by which Homer must have received such reminiscences from previous generations, is necessarily limited in its ability to recall history accurately. It is a process in which important details, if not entire segments of critical events, are liable to be lost within just a few years or generations. Over time, people forget who was contemporary with whom or what with what. Allowance must also be made for creativity on the part of the author. Homer earned a living telling his stories and, in the process, must have adapted them to different audiences. One can imagine that, while entertaining the courts of Greece and Asia Minor, he incorporated local heroes and legends into his recitation to excite the audience. The *Iliad* as we know it may therefore be a "maxi-version" of the tale written for posterity, and including all of his best local variations. Thus, Menelaus, Achilles, Priam, and Hector might each have existed, although not necessarily all together at a particular time or place in history.

## *History and the Iliad*

The historical basis for Homer's story has been greatly illuminated by the discovery of the Hittite civilization.<sup>22</sup> Since 1906, excavations at Boğazköy in central Anatolia have uncovered evidence of an advanced civilization contemporary with that of Mycenæ. Most revealing have been thousands of inscribed clay tablets that yield a detailed history of Anatolia in the Late Bronze Age, about 1650 to 1200 BC. Homer's two names for Troy, *Troia* (for the district) and *Ilios* (for the city), are both mentioned in these Hittite texts—in the former instance as *Tarwisa* (perhaps pronounced *Troi·sa*) and in the latter as *Wilusa* (perhaps pronounced *Wilios·a*). Newly discovered or newly deciphered monumental Hittite

inscriptions—in particular one at Karabel east of Izmir—clarify Hittite geography and confirm that Wilusa and Tarwisa occupied a site in northwest Turkey, in the area of Homer's Troy.<sup>23</sup>

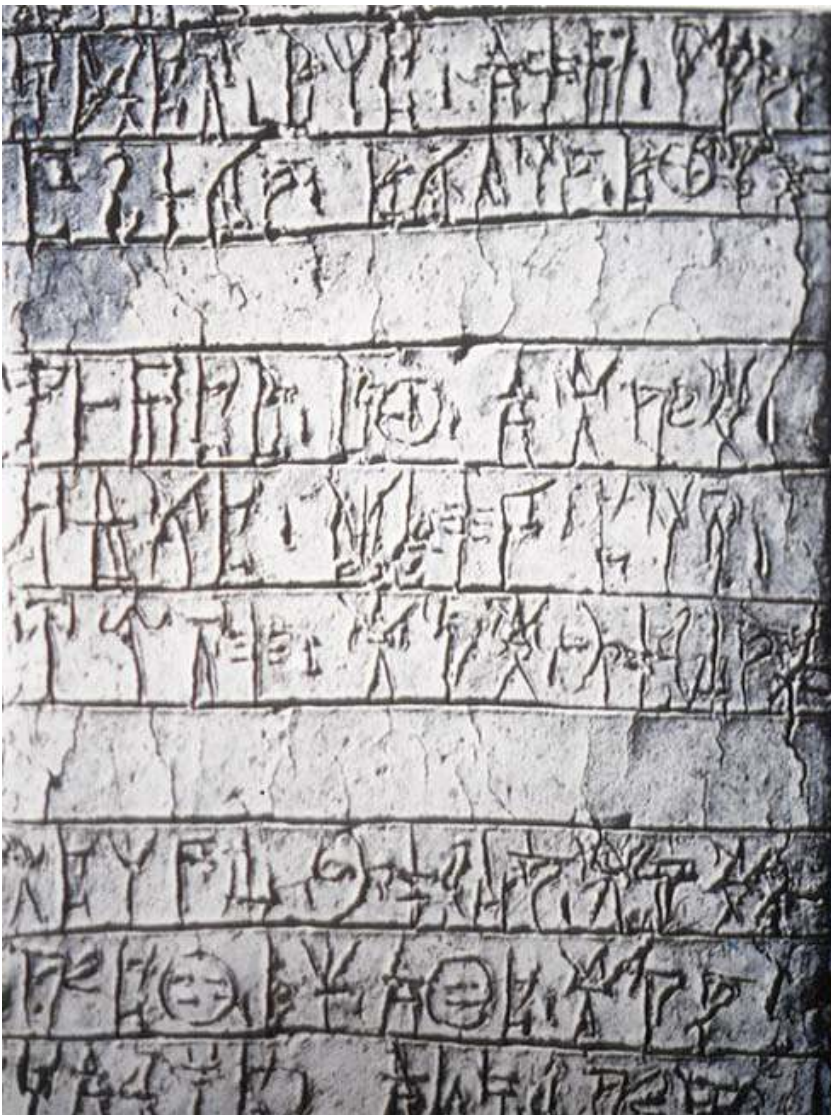
Wilusa was conquered by the Hittites in about 1390 BC.<sup>24</sup> One hundred years later, the Hittite king, Muwatallis, installed the Wilusan prince, Alaksandus, on its throne after fending off an attack on the city. The prince's name is of interest, because it recalls one of those given for the Trojan prince who ran off with Helen: Alexandros.

Homer calls the Greek forces besieging Troy *Achaiói*: Achæans. These too are mentioned in the Hittite archives. Twenty-four mostly fragmentary texts allude to a place called *Ahhiya* or *Ahhiyawa*,<sup>25–26</sup> beyond the shores of west Anatolia. Ahhiya had a king equal to those of Hatti, Egypt, Babylonia, and Assyria. It also had a colony at Miletus and hoped to establish others in the Aegean and west Anatolia during a period (1400 to 1200 BC) coinciding with the apogee of the Mycenæan civilization. The Hittite texts, however, make no mention of a Trojan War.

## *Archaeology—the joy of discovering the truths of the past*

When Schliemann died in 1890, he had just concluded that Troy VI, with its Mycenæan pottery, not Troy II, was the city destroyed during the Trojan War. On exposing more of this phase in 1893 and 1894, Dörpfeld found additional evidence of a Mycenæan connection, as well as signs that the city uncovered in phase VI had come to a violent end. Signs of fire and much fallen masonry seemed to confirm Schliemann's suspicion that Troy VI was the walled citadel destroyed by Homer's Achæans.<sup>27</sup> Nevertheless, a team from the

Inscribed Hittite clay table (circa 1650–1200 BC). From the collection of one of the authors.







Tunnel (left) and basins (right) outside Troy VI, thought to be the sacred springs where Homer says that Achilles killed Hector.  
From the collection of one of the authors.

University of Cincinnati led by Carl Blegen arrived at a different conclusion<sup>28–29</sup>; based on the results of excavations performed between 1932 and 1938, they concluded that an earthquake had destroyed Troy VI, and that the subsequent phase, VIIa, also heavily burnt, is the best candidate for King Priam's Troy.<sup>30–31</sup>

The site exposed by Schliemann has often been dismissed as an unlikely residuum of Homer's Troy because it is small: a mere 250 meters across. Indeed, new excavations by Professor Manfred Korfmann of Tübingen University, indicate that Schliemann's site was simply an acropolis below which lay a lower town stretching half a kilometer to the south and surrounded by a large ditch and a heavy palisade. This lower town, which Schliemann hoped to explore after 1890, is of the size and layout typical of a capital city of an Anatolian kingdom, precisely what would be expected of Wilusa.<sup>23</sup>

On the west side of the lower town, Schliemann began excavation of a man-made cave shown by Korfmann to be a network of tunnels running under the lower town. These tunnels course through permeable limestone bedrock and were designed to gather rainwater. At one end they discharge into basins outside the city perimeter. Uranium/thorium dating of the earliest calcium deposits on the face of the tunnel suggest construction in about 2600 BC.<sup>32</sup> Homer tells us that Hector died outside the walls of the citadel at sacred

springs where, in peacetime, Trojan women washed their clothes.<sup>33</sup> The cave and basins first identified by Schliemann fit such sacred springs. Moreover, in Muwatallis's treaty with Alaksandus, the "divine underground water-course of Wilusa" is invoked,<sup>34</sup> lending additional credence to the belief that Hittite Wilusa and Schliemann's Troy are one in the same.

Schliemann's excavations at Troy, Mycenæ, and Tiryns gave us our first glimpse into Aegean prehistory and introduced us to the civilization behind the legend of the Trojan War. Only recently, however, has new research put beyond doubt his claim of having unearthed Homer's Troy. While we may never establish a full historical basis for all of the events described by Homer, or prove that Achilles or Menelaus or Hector or the Myrmidons truly fought there, the work of Schliemann and those who followed him have established the possibility that a Trojan War of some sort did take place in the vicinity of the site now known as Hisarlık.

How Schliemann's illness might have influenced his legacy as the discoverer of Troy and the father of modern archeology is difficult to know. Had the surgery that killed him not been necessary, a few more seasons of excavation might have enabled him, rather than Dörpfeld, to uncover Troy VI–VII, and the lower town might have been found a century earlier than it was. Had he not lost his hearing and

been in constant pain during his later years, he might have reacted differently to both the criticisms of his enemies and the advice of his friends and been more measured in his approach to his excavations at Hisarlık . . . or perhaps, less so. Only the gods know for certain.

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