





Fig. 1 The general direction of refugee/population movements/intrusions in Anatolia, late 13<sup>th</sup>/early 12<sup>th</sup> centuries BC.

This approach is not much different from the one proposed 15 years ago by Gates (1987). At the time she proposed that synchronisms indicated by peripheral sites at the crossroads between Mesopotamia and the Levant, and Hittite Anatolia and Egypt, should be given some priority whenever they appear to conflict with absolute chronologies reconstructed from the 'heartland' cultures. She pointed out and rightly so, that heartland cultural sequences tend to appear internally consistent because they exist on a sliding chronological scale rather than one fixed by many points of intersection with other cultural zones, as occurs in the peripheries (Gates 1987, 60).

Hittite historical documents from the second half of the 13<sup>th</sup> century give the impression that the central administration was increasingly preoccupied with external and internal affairs that were threatening the political stability, if not security of the Kingdom. No doubt immediate destabilization concerns closer to home would have had priority over crisis situations in more distant provinces. These included the devastating drought that continued to plague the Land of Hatti, military setbacks against the Assyrians in the east, the instigated unrest in the west, encouraged and supported by Ahhiyawa, and finally the politically eroding royal succession problem. All these would have exposed not only the political weakness of the central Hittite administration, but also that of the army gradually losing its deterrent force in the second half of the 13<sup>th</sup> century BC.

In discussing the chronology of final destructions in Hittite controlled northwest Syria, it is important to start with Emar (Meskene). The archives of Emar are dated to the period extending from the late 14<sup>th</sup> to the first quarter of the 12<sup>th</sup> century BC.<sup>1</sup> Among the texts, a cache of nine documents from a destroyed compound (House 5) next to the palace seems to be relevant to this historically significant chronological evaluation. Apparently composed by a Babylonian scribe, the documents reveal that a number of foreigners with Akkadian and Aramean names were among the residents of this city until its final destruction (Cohen 2003). One of the documents (Text E 26), named after Meli-Šipak's second year on the Kassite throne, suggests that Emar under the jurisdiction of Carchemish was still thriving during the first two decades of the 12<sup>th</sup> century BC.<sup>2</sup> At this juncture two questions require further enquiry: how did Carchemish manage to survive the events that caused the demise of Emar, and was Emar destroyed by the "Sea Peoples" or by the Arameans? The explanation to the first question is still wanting. As to the second question, the Arameans may have been the culprits acting alone. At least one thing is clear; the viceroy of Carchemish, unable to come to the rescue of Emar close by, would have hardly been in a position to extend military assistance to Ugarit, Amurru, or even to Mukiš facing an equally precarious situation against the attacks of the "Sea Peoples". The key to understanding the gravity of event that ensued in the last quarter of the 13<sup>th</sup> century BC lies at Ugarit. The destruction date of Ugarit, a Hittite vassal state in Syria, cannot be established with a high degree of precision. It is assumed that this event must have happened before Ramses III confronted the "Sea Peoples" in the eighth year of his reign. The last king of Ugarit is known to have defied the instructions of his Hittite overlords on several occasions. Such an attitude could perhaps indicate an awareness of the waning Hittite military and political posture in northern Syria. In fact, some of the Ras Shamra correspondence gives the impression that approximately two decades prior to the destruction of Ugarit, the Hittite political authority in the region existed only nominally. Most of the documents from the archives of Ugarit, including those from the "House of Urtenu" belong to the final five decades of its long history (Singer 1999, 704–705). From some of the letters we can deduct that Ammurapi, the last king of Ugarit, the son of Niqmaddu III, came to power as a youngster during a severe and lasting drought that affected the Mycenaean lands in Greece as well as the Land of Hatti. At approximately this time, in the later 13<sup>th</sup> century BC, the political stability maintained by the Hittites and Egyptians in the eastern Mediterranean was threatened by the incursions of the "Sea Peoples". This king ruled Ugarit during the reign of Šuppiluliuma II, perhaps ascending the throne while Arnuwanda III was still in power. Talmi-Tešub, the Hittite viceroy of Carchemish, was his immediate superior. During his reign, Merneptah, Amenmesse, Seti II, Siptah, his mother Quenn Tausert, and Setnakht ruled Egypt. Perhaps the early years of Ramses III also coincide with the last days of his reign. The political undercurrents in the region are reflected in several of the Ras Shamra letters. Some of them voice the displeasure of the Hittite overlords with instances of disobedience by the king of Ugarit. One of the letters, *RS 18.038*, addressed to Ammurapi, reminds him that he is just

<sup>1</sup> See Arnaud 1975; Pruzsinzky 2004, 44; Cohen 2003.

<sup>2</sup> This king is believed to have reigned either between 1188–1181 BC, or 1181–1167 BC. See Cohen 2003; Gasche et al. 1998.

a servant of the Hittite king: "[...] to me, the Sun, your master, why have you not come for one year, two years?" In another letter, *RS 20.212*, the Hittite king expresses displeasure with his vassal, probably Ammurapi, for not complying with the instructions of the Hittite viceroy of Carchemish. The matter concerns the shipment of grain to Hatti suffering from famine. The timely arrival of the shipment was essential because of the gravity of the situation described as "a matter of death or life". The vassal king is reminded of his obligations in return for exemption from *ilku* duties. He was to provide one large ship and its crew. The shipment was to be supervised by two Hittite representatives and carried out in one or two shipments (Singer 1999, 716). A further scolding on this or a similar situation was dispatched by the viceroy of Carchemish (*RS 13.007B*). Ammurapi was criticized for being "late in sending the much-needed food shipment". The displeasure with the king of Ugarit did not only concern the delayed dispatches of grain to a starving Hatti. In *RS 34.136*, the king of Carchemish accuses him, probably once more Ammurapi, with insolence. This time, he dared to send "inadequate presents to the Hittite dignitaries". In another instance, *RS 34.143*, the king of Carchemish accused the king of Ugarit, perhaps Ammurapi, for providing false information concerning the positioning of his army. Apparently he did not obey instructions to deploy it in the territory of Mukiš. Moreover, he is chastised for not sending the required chariots using false pretences, and finally by keeping the "best *mariyannu*-troops to himself" and sending his master "worthless soldiers".<sup>3</sup> Another letter, *RS 34.143*, addressed to the governor of Ugarit, voices the displeasure of the Hittite king, perhaps Šuppiluliuma II. Following the undiplomatic opening statement referring to the youthful inexperience and ignorance of Ammurapi, the letter insinuates that the king of Ugarit failed to comply with the Hittite request to extradite a certain Ibnadušu recently released (apparently by payment of ransom) from Šikila captivity. The hostile activities of the Šikila, a group of seafaring people whose name is reminiscent of the Šekeleš listed with the "Sea Peoples" in the Medinet Habu inscription, obviously perturbed the Hittite king. Therefore, he wished to interrogate Ibnadušu and learn more about the Šikila, "who lived on ships" (Singer 1999, 722–724).

The relatively tense diplomatic relations with Hatti may have prompted Ugarit to initiate a political rapprochement with Egypt. Despite the fact that it was not overtly publicized, the contents of some of the Ras Shamra letters seem to confirm that such a policy was pursued by the royal administration. Obviously, either Niqmaddu III or Ammurapi were making political overtures to ensure Egypt's protection in the eventuality that the Hittite kings, being more preoccupied with perpetual crisis closer to home, would be hard pressed in diverting the required forces to deal with the security problems in the northeast Mediterranean.<sup>4</sup> In *RS 88.2158*, which is a letter of Merneptah in response to a request made by Niqmaddu III or his successor Ammurapi, this policy of rapprochement transpires quite clearly. It seems that the king of Ugarit had asked for an Egyptian sculptor to be sent in order to make an image of Merneptah in front of the renovated Temple of Ba'al. The reply of Merneptah to

this request could be interpreted of being rather diplomatic in style, promising no immediate commitments of political significance: "Your ancestors were indeed the servants of the king, the excellent son of Ra; you are too the servant of the king, the excellent son of Ra, like them." The Egyptian ruler explained that he could not immediately comply with the request since the sculptors are in the midst of a royal project. However, once they are finished working for him, they will promptly arrive in Ugarit. Obviously, the Egyptian ruler did not see any reason to compromise the delicate balance of power his predecessor had established with the Hittites concerning the national interests of both powers. Nevertheless, in order to keep the diplomatic channel open, he sent the king of Ugarit, as a token of his friendship, rich presents including an impressive consignment of textiles, clothing and ebony. Another document of some political significance addressed to Ammurapi is the letter of Beya (*RS 86.2230*). He was the "chief of the troops of the Great King, King of the land of Egypt". The letter leaves no doubt that the king of Ugarit maintained contact with Egypt through the intermediary of a high-ranking official. In view of this letter one may wonder whether the sworn loyalty of the king of Ugarit to his Hittite overlord was being eroded due to unexpected security problems. This figure apparently served at least two Egyptian rulers: Merneptah's son Seti II and his son Siptah until his death in the 4<sup>th</sup> or 5<sup>th</sup> year of Siptah. Therefore, the letter would have been written no later than 1192 BC.

Security related political crisis in the eastern Mediterranean region is both directly and indirectly referred to in a number of royal documents from Ugarit. A letter (*RS 16.402*) that might have been written during the later part of the reign of Tudḫaliya IV by Irr-Šarruma, a military commander on Mt Amanus, describes the threat he faces by an advancing enemy in Mukiš. He requests additional troops from the king of Ugarit.<sup>5</sup> From the contents of this letter, one could presume that the king of Ugarit withholds sending his troops to help the Hittite line of defense. Already during the later part of the reign of Tudḫaliya IV or that of Arnuwanda III, the Hittite sub-kingdom at Carchemish was having problems coping with hostilities and asserting its authority in parts of northern Syria, formally under its jurisdiction. The enemy faced by Irr-Šarruma could have been an expeditionary force of the "Sea Peoples" (Singer 2000, 27).

The diplomatic and military developments referred to in the Ugarit documents give the impression that the Hittites were not in full control of the political situation in the northeast Mediterranean basin. Therefore, the success claims of the Hittite king Šuppiluliuma II in his campaigns against the enemy of Alašia "three times at sea and once on land" cannot be given much credence. Aegean groups, particularly those referred to as the "Sea Peoples", through their bridgeheads on Cyprus, were probably in the process of gaining footholds in the Cilician coast. The campaigns of Šuppiluliuma II in Lukka, Tarḫuntašša and additional places may have been undertaken to deal with the increasing threat posed by the "Sea Peoples". It is rather questionable that these campaigns resulted in the "defeat of the enemy" as reported by the Hittite king.

<sup>3</sup> For details and references, see Singer 1999, 723.

<sup>4</sup> For more details see also Singer 2000; Singer 1999, 711.

<sup>5</sup> For the interpretation of the historical context of this letter, see Singer 1999, 724–725.

Additional problems causing internal instability not only in Hatti, but also in Ugarit had to do with ravaging famines. One of the letters from Ugarit, *RS 34.152.9–14*, concerns a desperate plea by a provincial town official in Ugarit to his king: “The gates of the house are sealed. Since there is famine in your house, we shall starve to death. If you do not hasten to come, we shall starve to death. A living soul of your country you will no longer see.” A letter (*RS 94.2002+2003*) mentioning a consignment of grain sent from Egypt to relieve the famine in Ugarit corroborates the situation described in *RS 34.152.9–14*. As to the famine in Hatti, a letter in the archives of Hattuša (*Bo 2810*) leaves no doubt as to the gravity of the situation threatening the stability of the kingdom, and that of its vassal states in northwestern Syria. A high official, perhaps the king himself, urges his son-in-law, either the king of Ugarit or Mukiš, to “hold on to lands and let no one defect”. In the second paragraph, the king orders the urgent dispatch of grain by ship (from either Mukiš or Ugarit) to one of the Cilician ports. The wording “My son, do you not know that there was a famine in the midst of my lands?” stresses the need for immediate action. The fact that more than one port is mentioned for the shipment – Ura, and the second probably Lašti – could perhaps indicate that in the Hittite capital they no longer knew which of these was safer.

A letter containing tactical defensive instructions (*RS LI*) dispatched to Ammurapi, either by the king of Alašia as is generally believed, or by the king of Carchemish as presumed by Singer (1999, 728 with n. 394), could shed some light on the immediate dangers faced by Ugarit threatening its survival. The letter is in reply to Ammurapi's emergency message that he sighted enemy ships. The king advises him to “surround your cities with walls. Place your infantry and chariots in their confines. Be on the lookout for the enemy and make yourself very strong!” Although not acknowledging the untenable situation formally, the Hittite overlord might be signaling helplessness extending much needed military support to his vassal. Another letter (*RS 20.238*), most likely from Ammurapi to an unnamed king, either the viceroy of Carchemish (Singer 1999, 720 with n. 394) or the king of Alašia, probably written soon after *RS LI*, describes the destructions suffered by Ugarit at the hands of the attackers: “Now the ships of the enemy (seven in number) have come. They have been setting fire to my cities and have done harm to my land.” This shows that Ugarit was having problems protecting its territory even against a small ship borne expeditionary enemy force perhaps numbering about 200 warriors. It may well be that this was only one in a series of similar attacks that took place. The intensity of each attack would have depended on the number of participants. This particular incursion probably did not have serious consequences, otherwise the king would not have found the time to write, let alone have the means to dispatch the letter. In describing the situation the king insinuates that he has not enough forces to protect his own kingdom: “The army is in Hatti and the navy in Lukka.” A letter (*RS 20.018*) sent by Ešuwara, the senior governor of Alašia, to Ugarit is also indicative of the inability of local powers to prevent belligerent actions of the sea borne groups in the northeastern Mediterranean Basin. Rejecting responsibility for calamities caused by enemy ships in Ugarit, he is nevertheless capable of providing intelligence on the hostile deployment of the enemy: “Twenty ships expected to land in a mountainous location changed course for another destination.”

Texts referring to the end of Ugarit leave no doubt that the Hittites were no longer in a position to come to the rescue of their important vassal state in Syria. One of the last letters from Ugarit (*RS 19.011*) written by an unknown person describes quite clearly the disastrous outcome of enemy action: “When your messenger arrived, the army was humiliated and the city was sacked. Our food in the threshing floors was burnt and the vineyards were destroyed. Our city is sacked. May you know it! May you know it!” (Singer 1999, 726 with n. 416–417). Another letter (*RS 4.475*) sent by a certain Ewri Šarri (?) to his interlocker is equally explicit about the disaster that has befallen Ugarit: Referring to his sources (two persons, one of them perhaps an Anatolian), he relays: “I have heard that we were beaten. But if we were not completely beaten send me a messenger. The arm of the gods will be greater than the force of the warriors if we resist. Put your reply and whatever you hear there in a letter to me.” (Singer 1999, 726–727). Considering the events described in the 8<sup>th</sup> year of Ramses III, this letter referring to the last days of Ugarit prior to its final destruction would have been written not much earlier than 1176/75 BC.<sup>6</sup>

Unlike other cities, after its final destruction Ugarit with its palace, temples, and public buildings was neither rebuilt by its inhabitants, nor by those who caused its downfall. The presence of what has been described as a few imported LH IIIC vessels among the Mycenaean wares prior to the final destruction level is chronologically significant.<sup>7</sup> Probably exported from Kos or Miletos, such wares suggest that maritime contacts between the Aegean and east Mediterranean ports were not suspended in the Mycenaean Post-Palatial period. Nor did maritime activities cease following the destruction of Ugarit. Fine quality LH IIIC wares, both of local manufacture and imports from Cyprus, in the post-destruction level at Ugarit attest to such activity probably through the port city of Ras Ibn Hani. Situated c. 5 km south of Ras Shamra, the more exposed Ras Ibn Hani may have been evacuated shortly before the destruction of Ugarit (Caubet 1992, 124). However, unlike Ugarit, this secondary royal residence was soon reoccupied after it met its destruction. This stratum with new public buildings erected within the destruction level could be dated with the help of a locally produced assemblage of LH IIIC early phase ware. However, one should be cautious treating this assemblage as a precise chronological marker for calculating the absolute destruction date of Ugarit at the hands of the “Sea Peoples”.

The Hittite province of Qode/Kizzuwatna occurs among the list of lands reported by Ramses III as “destroyed” by the “Sea Peoples”. The account no doubt refers to the geo-political situation years before his victory over them. The appearance of LH IIIC early phase pottery in the final LBA levels at Tarsus and Kilisetepe suggest that the Hittite control of its southern coast in the third or fourth quarters of the 13<sup>th</sup> century BC was far from being effective. Apparently not much time elapsed, if any at all, between the destruction of Hittite administered Tarsus and its reoccupation. The Aegean elements arriving from Cyprus and/or from the West Anatolian/East Aegean interface could have made Tarsus, as well as other coastal settlements in Cilicia, their permanent homes in the final decades of the 13<sup>th</sup>

<sup>6</sup> See Singer 1999, 729; Yon 1992, 119–120; Yasur-Landau 2003, 236.

<sup>7</sup> For the LH IIIC at Ugarit see also Yon et al. 2000; Monchambert 1996.

century BC.<sup>8</sup> Therefore, it is likely that the destruction levels at Tarsus and Ugarit resulted from repeated but not necessarily synchronized sea borne actions by the "Sea Peoples". The difficulty in establishing a more reliable chronological framework for the LH IIIC pottery in the east Mediterranean basin derives from the absence of such wares in Egypt, and the lack of late 19<sup>th</sup> (post-Ramses II) and 20<sup>th</sup> Dynasty Egyptian royal name bearing objects in the Aegean world (Hankey 1993, 112; Yasur-Landau 2003, 235). Following the defeat of the "Sea Peoples" by Ramses III, the situation that emerged in Egyptian dominated Canaan could shed some light on the political developments in the eastern Mediterranean. The scientific dating of Aegean type wares from Ugarit, Beth Shean, and their derivatives from Ashdod, Ashkelon and Tel Migne/Ekron, could help us confirm and when necessary revise the chronological estimates derived from historical synchronisms.<sup>9</sup>

Establishing the date for the earliest appearance of LH IIIC ware in Canaan with greater precision is important with regard to the imposed presence of Aegean groups in the eastern Mediterranean. A relative date for the LH IIIC middle phase imported pottery from Cyprus comes from Beth Shean in the Jordan valley. Recovered from the earliest EIA occupation (Stratum VI), its presence is roughly dated to the first half of the 12<sup>th</sup> century BC.<sup>10</sup> Corroboration for such high dating of the LH IIIC middle phase pottery comes from the unique painting of Aegean stirrup jars in the tomb of Ramses III (Hankey 1995, 123; Yasur-Landau 2003, 239). They show a strong similarity to those found at Beth Shean. Since such pottery is rather rare at other settlements of the southern Levant, Mazar does not believe, perhaps rightly so, that it could have appeared at this site so far from the coast simply as a result of trade. He rather believes that the vessels were brought from Cyprus by Aegean mercenaries serving at the Egyptian garrison at Beth Shean (2003). The presence of such "Sea Peoples" affiliated mercenaries at the employ of the Egyptians could be substantiated by the presence of clay coffins, a burial form that was previously unknown in Canaan. The final destruction of the town at a time when it was still under Egyptian rule is believed to have taken place in the late 20<sup>th</sup> Egyptian Dynasty. As for the chronological setting of the locally produced LH IIIC wares with pictorial painting at Ashdod, Ashkelon and Tel Migne, they are more difficult to date. Variations in the style of pictorial painting suggest that the Aegean settlement in Philistia was not a single chronological event. Each site may have been settled at slightly different times and by seafaring groups arriving from various localities in the Aegean basin (Yasur-Landau 2003, 240).

<sup>8</sup> During the rebuilding of the settlement some structures were constructed according to traditional LBA plans. The monochrome ware now having a inferior quality than before retained some of the earlier forms and characteristics. Appearing together with LH IIIC pottery, it was produced for some time. This suggests that after the events, which led up to the destruction of the LBA settlement, at least a segment of the population of this important site either remained or returned soon after to their homes by now also populated by groups of immigrants, some of Aegean affiliation. For sources and cultural evaluation, see also Yakar 1993, 14–18.

<sup>9</sup> Differences in the dating of regional LH IIIC ceramics occur for a variety of reasons, among them are stratigraphical confusions and stylistic misconceptions. Adding to that is our inability to determine the independent chronologies of historical events.

<sup>10</sup> A basalt statue of Ramses III, an inscribed limestone lintel and other finds provide a chronological setting for the LH IIIC imports at this site. The occupation in question may have lasted well into the reign of Ramses IV. For a recent discussion on the subject see Yasur-Landau 2003. For the Egyptian chronology relevant to the period in question see also Kitchen 1987.

Mycenaean civilization	current date	Assiros phases	new absolute date	revised date	pottery period
beginning of Mycenaean Palatial Period	1400 BC				LH IIIA
		destruction of Assiros Phase 9	results awaited		LH IIIA2
likely date of Trojan War	1250–1200 BC			before 1270/50 BC	LH IIIB
destruction of Mycenaean palaces	1200–1180 BC			before 1270/50 BC	LH IIIB (end)
		construction of Assiros Phase 7	c. 1270 BC ± provisional		LH IIIC
end of Mycenaean civilization	1025 BC			before 1070 BC	LH IIIC (end)
start of Protogeometric Period	1025 BC			before 1070 BC	Early Protogeometric
		construction of Assiros Phase 3	1080 BC +4 -7		Early-Mid Protogeometric
		construction of Assiros Phase 2	1070 BC +4 -7		

Fig. 2 LBA and IA sequence and dendrochronologically related <sup>14</sup>C dates from Assiros (based on Assiros Research Pages: <http://www.Assiros1.htm>).

At this point of the discussion, a brief review of the political and cultural environment of the Mycenaean Post-Palatial period in the Aegean is required. In Greece, this period may have lasted two centuries. As already pointed out, the absence of cross-dates from chronologically sound inscribed objects from the Near East prevented until recently to achieve a more accurate time-frame for the LH IIIC ware group in the Aegean. The Assiros dates from Macedonia allow a way out of this impasse. The distribution of this ware leaves no doubt that the maritime trade relations continued in the Post-Palatial period – perhaps at a lower intensity and involving far less prestige products than before. However, a multitude of regional variations in decoration, as well as conservatism in retaining old painted styles in new products, make an accurate chronological evaluation of particular styles a difficult task (Deger-Jalkotzy 2003, 455). Excavations at Assiros Toumba in Central Macedonia produced a series of occupation levels extending from the Middle Bronze to the Middle Iron Age (fig. 2). Several of the occupation levels destroyed by fire produced construction wood. Among these oak timbers, there is a group from Phase 7. This occupation phase represents a horizon contemporary with the final stage of the Mycenaean period that followed the destruction of the palatial centers. The chronological marker of this building-level at Assiros is a LH IIIC early phase ware, which had developed following the Mycenaean palace period.

Four of the oak timbers recovered from Phase 7 have been radiocarbon dated and wiggle matched. They produced a felling date of c. 1270 BC. This estimate is the first direct and reliable scientific date for the end of the Mycenaean palace civilization in northern Greece. Allowing a correction margin of two decades, it indicates that the destruction of the palatial centers could have occurred c. 50 years earlier than previously estimated. In taking this assessment a step further, one could propose that the pinnacle of Mycenaean political involvement beyond the Greek mainland, highlighted by its commercial activities and cultural diffusion, would have occurred before 1250 BC.

Situated on the east coast of Attica, the cemetery at Perati in the Porto Bay provides some clues concerning the extent of cultural continuity in the wake of the collapse of Mycenaean Palatial Civilization. The existence of a dense LH IIIC cemetery suggests a significant population nucleation, perhaps due to an influx of displaced groups on the east coast of Attica as in Rhodes and other locations. This resettlement trend was in the wake of the destruction of the palaces and houses at Mycenae and Tiryns, and following the desertion of the citadel at Gla, the tombs at Prosymna and the settlements at Lerna and Berbati. The settlement associated with the Perati cemetery may have been situated on the Raptis Island in the middle of the Porto Bay. This isolated location could suggest that the nearby site of Brauron inhabited in the LH IIIA-B or other sites in Attica were no longer safe for settlement. The Perati cemetery provides a three-phased chronological setting for the Late Mycenaean pottery of the decentralization period.<sup>11</sup> Phase I is dated by the LH IIIC early phase pottery still preserving some of the LH IIIB features. The wares are similar to the Mycenaean pottery found in the final level at Ugarit. Phase II usage of the cemetery covered almost the entire LH IIIC middle phase, perhaps starting slightly earlier. The wares have parallels at Troy VII b1 as well as in the post-Hittite stratum (LH IIb) at Tarsus. Phase III represents the entire LH IIIC late phase. Iakovidis (2003, 508) has remarked on analogies with two sub-Mycenaean vessels from Salamis in Cyprus.

Returning to the site of Assiros, another group of burnt construction timbers recovered from Phases 3–2 and analyzed at Birmingham, Cornell, and Heidelberg Universities using dendrochronology, and radiocarbon determinations produced an absolute time frame of 1080/1070 +4 –7 BC for the time of their felling. Additional analyses still in progress are not expected to change this date by more than twenty years or so.<sup>12</sup> Scattered on the floor

<sup>11</sup> In describing the gradual decentralization it is important to emphasize that although at Mycenae the Granary was destroyed, the citadel continued to function a little longer. The same may be said for the city of Argos. Life went on as before in Athens and Attica, where one more settlement near Keratea was established. See Iakovidis 2003, 508–510.

<sup>12</sup> The 100-year span of the Assiros timbers also allowed the application of a powerful technique, dendrochronological <sup>14</sup>C wiggle-matching (DWM), in which samples extracted at approximately 20 year intervals from the timbers were processed at the Radiocarbon Facility of the Heidelberg Academy of Sciences and the Institut für Umweltphysik at the Ruprecht-Karls-Universität Heidelberg. Seven determinations were matched statistically with the internationally recommended radiocarbon calibration curve, INTCAL98. It is important to point out that fluctuations in this curve are particularly marked during the final part of the 2<sup>nd</sup> millennium BC, making it impossible to distinguish the correct absolute date deriving from a single <sup>14</sup>C determination. However, when matching a series of closely related determinations the results are far more reliable. The time series represented in the tree-rings at Assiros were matched with the <sup>14</sup>C fluctuations using a dendrochronological <sup>14</sup>C wiggle matching model. The matching provided a 1075 ±7 BC date, which is statistically indistinguishable from the date provided by the dendrochronology match.

of a second settlement building (Assiros Phase 3) and sealed by the floor of a third settlement building (Assiros Phase 2) were the remains of a Protogeometric amphora. The dendrochronology of the oak construction timbers recovered from the two successive buildings provide an early 11<sup>th</sup> century BC date for this vessel whose style marks the beginning of the Iron Age in Greece. This dating, considered as absolute final, imposes an adjustment of up to fifty years upwards on the time-scale in the entire Aegean and East Mediterranean basins. It provides, for the first time, independently derived beginnings for the Protogeometric period within the time segment of 1100 and 1070 BC. Considering that the fabric and decoration of this amphora-type vessel have good parallels not only in central and northern Greece but also at Troy, the revised dating from Assiros could also affect the estimated beginning of the Troy VIIb3 phase settlement. This scientific calculation for the early occurrence of the Protogeometric style pottery at Assiros could require a reassessment of the estimated date for the end of the Mycenaean period. This in turn could necessitate a chronological revision of the LBA–EIA transition in the Aegean basin, southern Anatolia, and as far as the Levant.

A conditional endorsement of the high Assiros date comes from northern Israel. The storehouse complex of Early Iron Age Stratum IV at Tel Hadar produced part of a Protogeometric vessel imported from Greece (Fantalkin 2001, 118). On stylistic grounds it is believed to belong either to the middle or late phases of this ware class.<sup>13</sup> The destruction of Tel Hadar Stratum IV has been dated, using Canaanite ceramic correlations, to no later than 980 BC. In other words, it is not very likely that this Middle or Late Protogeometric vessel was imported after this date. The port-city of Tel Dor in northern Israel provides another relative dating for three Late Protogeometric vessels recovered from its Phase 8b occupation stratum. The excavators date this level to the late 11<sup>th</sup> century BC, certainly no later than the early 10<sup>th</sup> century BC (Stern et al. 1997, 42). Since these two sites are more or less in agreement regarding the approximate date of such imports, the Assiros date in the first half of the 11<sup>th</sup> century BC for the beginning of the Protogeometric style in Northern Greece seems rather reasonable.

The demise of the Mycenaean palaces in mainland Greece did not have such a disastrous or political impact in the “East Aegean–West Anatolian Interface” (Mountjoy 1998). Continuity of settlement activity in this region, delimited by Troy at its northern extremity and Rhodes at its southern one, gives some credence to this assumption. In the late 13<sup>th</sup> century BC, the presence of Mycenaean affiliated groups in the southern zone of the “East Aegean–West Anatolian Interface” somehow increased, perhaps because of the infusion of new arrivals from the Greek Mainland. This is well on record at the Eleona–Langada cemetery at Kos and at Ialysos on Rhodes. The increase in the number of burials during the LH IIIC early and middle phases is rather striking. Some of the burials clearly belonged to affluent members of the old Mycenaean society. They were buried with personal objects made of gold, silver, bronze and glass. These included scarabs, hematite cylinder seals, and Mycenaean figurines and so on. The repertory of finds clearly points to continued maritime

<sup>13</sup> Coldstream 1998, 357–359. Kopcke relates it to Attic Early Geometric (Fantalkin 2001, 118).

contacts with the east Mediterranean centers (Mountjoy 1998, 53 with n. 153). One could presume that independent affluent families were now in a position to organize the maritime trade formerly supervised by Mycenaean royal palaces. Since political and economic vacuums do not last forever, one can envisage a situation where competition for markets would have led to mergers ensuring expansion and security. In this reorganization, Rhodes due to its location could have retained its strategic importance for ships sailing between the east Mediterranean and Aegean ports. Moreover, one could further speculate that Rhodes together with Crete and nearby Kos, perhaps including port cities such as Miletos, Iasos and others, would have collaborated for a substantial share in Mediterranean maritime trade.<sup>14</sup> At Miletos, the third phase of the LBA occupation, which was in fact a rebuilding of the LH IIIB period settlement, seems to have continued uninterrupted until the end of the LH IIIC period (Gödeken 1988; Greaves 2002, 59–60). At c. 1100 BC, perhaps slightly later or earlier, the settlement was destroyed. During this third phase referred to as Miletos VI, imports from the Argolid and exports from Miletos to Mūskebi in Caria, Tiryns and Ugarit are demonstrated by ceramic evidence.<sup>15</sup> It is important to point out that this phase is equally well represented at Değirmentepe, the extra-mural cemetery of Miletos. It is important to point out that Miletos continued to maintain its strong ties with Crete throughout the LBA, perhaps because of ethno-cultural affiliations. Despite the fact that no remains of sub-Mycenaean buildings have been recovered so far, nevertheless on the basis of sub-Mycenaean pottery there seems to be a continuity of occupation from the LBA to the EIA Geometric levels (Greaves 2002, 73).

Further information on demographic changes in the wake of settlement activity during the LH IIIC period comes from Bademgediği Tepe (Meriç/Mountjoy 2002). Situated north of classical Metropolis near the Izmir-Aydın highway, the fortified second millennium BC settlement unearthed at this large mound is identified with the Arzawan town of Purunda mentioned in the Annals of Muršili II. Level II with its three building phases produced some LH IIIC pottery encompassing all its three phases. The bulk of the pottery consists of locally produced Grey, Orange-Brown, Red and Gold Wash wares; with the first two groups in the local tradition of the earlier period. The excavators point out that prior to this stratum, which they arbitrarily date to after 1200 BC, no sign of earlier Mycenaean pottery than LH IIIC early phase has been found, perhaps not yet (Meriç/Mountjoy 2002, 82–83). The question is how long after the destruction of Purunda by Muršili II, a local community that included some Aegean elements and/or interacted with them resettled the site. Again, the answer to this question lies in our ability to establish the chronology of the LH IIIC early phase pottery from the Aegean. Provisionally applying the mid-13<sup>th</sup> century Assiros date to Level II of this site would create a picture showing the presence of Post-Palatial Mycenaean elements in this region already during the reign of Tudḫaliya IV.

The chronological assessment of the settlement sequence of Troy VII could provide some clues whether the decentralization process in the Aegean and eastern Mediterranean had

a significant impact on the political developments in northwestern Anatolia. The destruction of Troy VIIa is thought to have happened not earlier than late LH IIIB and no later than the Transitional LH IIIB2–IIIC early (Mountjoy 1999, 300). Those that survived the VIIa destruction created the phase VIIb1 settlement. This assessment is based on the occurrence of wheel-made pottery still showing some of the VIIa characteristics. In this phase, locally produced Mycenaean pottery constituted a very small percentage of the total assemblage. The cultural decline from VIIa to VIIb1 is marked in architecture and by the appearance of the handmade so-called “Barbarian” ware, which in phase VII b2 became more common.<sup>16</sup> This handmade coarse ware, often with lugs and finger impressed plastic horizontal bands and often burnished, can be closely correlated with a similar ware group known from northern Greece, where it is found as early as in LH IIIB period. The Phase VIIb1 settlement constructed towards the end of LH IIIB2 was inhabited throughout LH IIIC early and into part of the LH IIIC middle phase (Mountjoy 1998, 53). The next settlement, Phase VIIb2, is characterized by the use of small stone slabs in architecture. The pottery assemblage consists of a few LH IIIC middle and late phase vessels, increasing numbers of Barbarian Ware and Knobbed Ware class vessels that gradually replaced the Grey and Tan wares (Mountjoy 1999, 333–334). This might have been a relatively long occupational phase. Phase VIIb3 is culturally defined and dated by the occurrence of Protogeometric ware, divided into four typological groups of chronological significance (Lenz et al. 1998). The few Early Protogeometric (Group I) examples recovered from a clear context are dated to the late 11<sup>th</sup> century BC. Considering the strong commercial and cultural ties between the Troad and northern Greece at this time, the Assiros Early Protogeometric date could influence the dating of Troy VIIb3, by placing its beginnings as much as 50 years earlier.

In conclusion, I believe that the recent absolute dating of the LH IIIC early phase ceramics from Assiros in Greek Macedonia, if sustained by additional dates from Macedonia and neighboring regions, could necessitate a chronological revision of the final destruction of the Mycenaean palaces in Mainland Greece. The Post-Palatial Mycenaean culture characterized by the LH IIIC pottery is a politically undefined period that was succeeded by an equally undefined political period characterized by Protogeometric pottery. Some scholars maintain that this latter fashion emerged earlier in the East Aegean/West Anatolian interface than it did in the Argolid. Naturally, such an assumption requires further verification. In the meantime, it complicates the chronological evaluation of the imported or locally produced versions of this ware in the Near East. Since it is difficult to establish either its chronological framework or its internal division by recourse to particular historical events in the Near East (Fantalkin 2001), reliance to scientifically procured dates becomes essential. Therefore, with the Assiros chronology, the beginning of the Protogeometric period in northern Greece can be tentatively established with some degree of cautious confidence.

<sup>14</sup> LH IIIC stirrup jars with painted octopus designs from Rhodes attest to close contacts with Crete.

<sup>15</sup> For bibliographical details, see Greaves 2002, 61–63.

<sup>16</sup> The new houses constructed using the stumps of earlier house walls as foundations had more rooms. The habitations in the densely settled citadel created irregular blocks separated by streets and curving lanes.

Going back to the LH IIIC ware, its distribution in the Aegean and eastern Mediterranean, especially its middle phase style, was temporally spaced and therefore can hardly be tied to a single historical event. The Assiros chronology suggests a longer duration for this ware group and an earlier appearance for its early phase. The question is, should we give priority to such absolute dates over historical ones? Most scholars remain largely apprehensive about replacing the historical chronologies supported by archaeological data with self-standing absolute estimates derived from tree-ring measurements supported by high precision calibrated radiocarbon dates. Nevertheless, some of us believe that a solidified timescale based on dendrochronology could eventually reduce our hesitations considerably when faced with the choice of discarding a set of conventional dates in favor of scientifically approved dates.

As far as the pursuit of maritime contacts during the “Crisis Years”, the Cape Gelidonya shipwreck, sunk at the end of the 13<sup>th</sup> century BC, indicates that long distance trade in the East Mediterranean basin continued with the participation of Canaanite, Mycenaean, Syrian and Cypriote groups. At the end or towards the end of the 13<sup>th</sup> century copper continued to be mined in Cyprus, imported tin could still be obtained at Syrian ports.<sup>17</sup>

Syrian ports such as Ras-ibn-Hani, the outlet of Ras Shamra/Ugarit, continued to trade in various commodities, including imported copper and tin. A mold used for casting four-handled copper ingots of the kind recovered from the Cape Gelidonya shipwreck and found in the debris of the Ras-ibn-Hani palace corroborates this assessment.<sup>18</sup>

There are no indications that the activities of the “Sea Peoples” started before the end of the Mycenaean palatial period. Towards the end of the LH IIIB phase, Lefkandi and Naxos in the Aegean, Rhodes, Kos, Miletos and Mūskebi in the Dodecanese and southwest Anatolia continued with their maritime activities. Imports were still reaching Troy VIIb1. In the Mycenaean Post-Palatial Period, maritime trade not only did not suffer much, but decentralization or privatization could have boosted it further. Indeed, during the LH IIIC period commercial activities of Aegean groups seem to have expanded towards the northeastern Aegean and eastern Mediterranean (Mee 1998, 144–145). At Tarsus, the LBA IIb levels that produced a considerable number of LH IIIC wares attest to such commercial activity and possibly some presence of immigrants from Mainland Greece as in Cyprus. In the LH IIIC early phase, continued contacts with Melos, Cyprus and Syrian coast and western Anatolia indicate that the activities of the “Sea Peoples” in the east Mediterranean did not seriously disrupt the sea-traffic. At this time Crete primarily interacted with the East Aegean/West Anatolian interface and Mainland Greece with the north and east. Moreover, Syrian, Canaanite, and Cypriote involvement in the east Mediterranean maritime trade, which

<sup>17</sup> The sinking of the boat has been dated to the late thirteenth century BC by two nearly intact Mycenaean IIIB stirrup jars and by a radiocarbon date of 1200 BC  $\pm$  50 yrs from brushwood found on the wreck. See also Bass 1991; Cline 1994.

<sup>18</sup> G. Bass believes that the stone-anchor found in the wreck and the fact that the only merchant ships depicted in Egyptian art of the time are Syrian, and therefore the ship was probably of Near Eastern origin (<http://ina.tamu.edu/cappegelidonya.htm>).

intensified during the 14<sup>th</sup> century BC, appears to have continued through the mid-11<sup>th</sup> century BC. Could it be that the “Sea Peoples” did not interfere because they somehow were involved or profited from the maritime trade?

The final disintegration of the Hittite Kingdom may have well started in the peripheries like a domino effect due to central administration's failure to prevent the aggravation of political and military conflicts in the fourth quarter of the 13<sup>th</sup> century BC, or perhaps starting slightly earlier. The political situation in the eastern provinces of the Kingdom, with their large concentrations of Hurrians, was never too stable. During the reign of Shalmaneser I, who ruled Assyria until 1234 BC, the border disputes with the Hittites involved the districts in the upper reaches of the Habur, Balikh and the lower Euphrates valleys (Yakar 1993, 18). During the reign of Tukulti-Ninurta (1233–1197 BC), the expansionist policies of the Assyrians won them the Subari Lands situated north of Hanigalbat. During this time, neither Tudḫaliya IV nor his successors succeeded in preventing the Assyrians from dominating areas so close to Isuwa, whose strategic value to the Hittites was immense. Since Assyrians dominated most of the highland region of Anatolia east of the Euphrates, population movements from the east could not have gained momentum until the temporary weakening of the Assyrian power towards the end of Tukulti-Ninurta's reign. It was Tiglath-Pileser I, the Assyrian king who, 83 years later, confronted the tribal confederations from the Caucasus already roaming the highland territories from Erzurum in the north to as far as Malatya in the south (Yakar 1993, 19).

The chronology of final destruction or abandonment levels at the Hittite capital and district centers indicates that these were not depopulated simultaneously. At Boğazköy, the radiocarbon dating of the Iron Age levels at Büyükkaya suggests that the site was re-occupied by a rural community soon after the Hittite capital was abandoned. Although the precise date of this Early Iron Age occupation within the 12<sup>th</sup> century BC cannot be ascertained yet, the time-gap between the two events may have been a short one, perhaps no more than a few decades (Seeher 2000, 373–374).

In the Tokat province, the final level at Maşat Höyük, Level 1, produced a dendrochronological measurement of c. 1392 BC (recently revised to 1375 +7/-4 BC) deriving from the last preserved ring of a construction beam (Kuniholm 1993, 372; Manning et al. 2001). The imported Late Helladic IIIB stirrup-jars found in this badly destroyed stratum suggest that it was still occupied in the second quarter of the 13<sup>th</sup> century BC, or roughly speaking during the early part of the reign of Hattušili III (Özgüç 1978; 1982). This Hittite town situated in the close proximity of hostile Kaška tribes could have met its final destruction during the third or fourth quarters of the 13<sup>th</sup> century BC – before the Hittite capital was abandoned, and certainly not at the hand of the “Sea Peoples”.

The destruction date of the Hittite settlement at Gordion, a small town situated on a major east-west route linking northwest Anatolia to Hatti proper, can be only estimated by the approximate date of the succeeding Early Iron Age village (Phase 7). Although exact correlations with Trojan VIIb1–2 Barbarian Ware of Southeast European affiliation are somehow lacking, the new form of pit-house architecture and handmade pottery assemblage

having no demonstrably convincing antecedents in the region nevertheless suggests that a rural group perhaps arriving from the west resettled it.<sup>19</sup> The excavators believe that the settlement was reoccupied following a considerable break (Voigt/Henrickson 2000, 41). On the other hand, the revision of the date of the handmade ware on the basis of the Assiros chronology, where it appears together with LH IIIC pottery, allows us to assume that the town may have been deserted before the Hittite capital was abandoned.

In the Göksu valley, the dating of the Kilisetepe LBA II occupation is also crucial in understanding the sequence of events that caused the disintegration of the Hittite Kingdom. The Hittite settlement produced a number of wood samples. One of them, found in the wall construction of a phase IIc building, has a last preserved ring measurement of 1350 BC, suggesting that this building and the phase it represents is slightly later than this date (Kuniholm 2001, 82). Indirect confirmation of such a possibility is provided by a dendro-chronological date of c. 1380 BC for level IIId, which could place its destruction sometime in the mid-14<sup>th</sup> century BC (Hansen/Postgate 1999, 111 with n. 2). Generally speaking, the local pottery repertory of levels II a-d shows continuity from the previous period. The excavators report that after IIId certain new shapes and patterns appear, while some earlier LBA types disappear.<sup>20</sup> The presence of some LH IIIC early phase pottery in the final LBA level IIId could indicate that certain elements affiliated with Post-Palatial Mycenaeans, either arriving from the Greek Mainland and/or Cyprus, were already present along the southern coast of the Hittite Kingdom at least during the reign of Šuppiluliuma II.

About half a century or more after the Hittites abandoned northwest Syria to its fate, the Egyptian control of Canaan ended in stages. In the later part of the reign of Ramses III (1184–1153 BC) or Ramses IV (1153–1147 BC) the military garrisons and administrative towns suffered serious destruction. Shortly after, during the reign of Ramses VI (1143–1136 BC), the Egyptians had to abandon Canaan including its peripheries (Weinstein 1992, 147). The hostile activities of the “Sea Peoples” mentioned in Egyptian sources coincide with the diffusion of the LH IIIC pottery in the eastern Mediterranean. Although the events that ignited the coordinated actions of certain Aegean and Mediterranean groups are difficult to reconstruct, it is obvious that the deteriorating political stability in the east Mediterranean basin was not the consequence of a single massive event. Spaced out by short intervals and originating from different directions, the dangers posed by these sea-borne incursions eventually required the intervention of the Hittites and Egyptians on more than one occasion. Šuppiluliuma’s sea and land campaigns were no doubt undertaken to eliminate the threat faced by the Hittite settlements in the south. The fact that Ramses III had to confront the “Sea Peoples” suggests that the earlier campaigns of the Hittite king in sea and land battles against the enemy off the coasts of Alašiya and Lukka were either limited successes or complete failures. Upon returning to Hattuša, although the king seems to have found the time to supervise the erection of monuments describing his decisive victories,

<sup>19</sup> Yakar 1993:10–14; Voigt/Henrickson 2000, 42–46.

<sup>20</sup> The forms that are no longer popular include flask stands, trefoil mouth jugs and shallow bowls with incurving rims. On the other hand, bowls with bands of red paint below the rim persist, with groups of diagonal lines becoming more popular. See Hansen/Postgate 1999, 113, fig. 6–10.

the fact remains that the hostile activities of the “Sea Peoples” in the eastern Mediterranean basin continued unabated until 1176/75 BC when Ramses III locally dealt with them. Unlike large armies that required months to organize, the “Sea Peoples” most likely took advantage of their mobility to mount surprise attacks at the least expected times. Their success had to do with the fact that they did not hold on to the large cities, they were satisfied with plundering and burning them. In other words, at least initially, they did not disperse their fighting power.

Taking into consideration the temporally slightly spaced out conflicts along the long borders of the Hittite Kingdom at a time of some internal disunity, I doubt that the final collapse of the Hittite Kingdom could be tied to a sudden event. The Hittites perhaps already lost or were losing control of districts in the east (Sarissa, Tappiga), north (Šapinuwa) and west (Wiluša, Seha River, Mira), and found it difficult to cope with the crisis in the eastern Mediterranean basin. When they finally did intervene, it was apparently too late and too little to change the course of events. It is likely that with the destruction of Ugarit and Mukiš, supplies of grain to a hunger stricken Hatti could have taken a longer time to organize from stores in Egyptian controlled Canaan. However, it is difficult to substantiate that the loss of the political control over the Mediterranean ports and vassal states could have had a direct impact on the disintegration of the Hittite Kingdom.

#### Son Tunç Çağı Yerleşimlerinin Son Yıkım/Terkediliş Döneminin Tarihlendirilmesi: Hitit Krallığının Çöküşüne Neden Olan Olaylar

Anadolu ve Yunanistan’da Son Tunç-Erken Demir Çağı kazılarında elde edilen bağımsız radiokarbon destekli dendrokronolojik tarihler Hitit, Arzava, ve Miken yerleşimelerindeki son yıkım tabakalarının zamanını daha güvenilir bir şekilde değerlendirebilmektedir. Hititlere komşu bölgelerdeki yerleşimlerden elde edilen eş değerde güvenilir tarihler de bunlara ilave edilirse, Hitit krallığının yıkılmasına sebep olan olayların mahiyetini ve gelişmesini daha iyi anlayabiliriz. Halen geniş ölçüde desteklenen geleneksel kronolojilerle çelişkiye düşme endişesi yüzünden, Eski Yakın Doğu tarih ve kültür uzmanlarından sadece birkaçı bu bilimsel koşullar ile elde edilen kronolojik değerlendirmelerin tarihi açıdan önemlerini kabullenmektedir.

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