

EARLY JAFFA: FROM THE BRONZE AGE TO THE PERSIAN PERIOD

AARON A. BURKE University of California, Los Angeles

as one of the most important ports of the southern Levantine coast during the Bronze and Iron Ages, limited publication of its archaeological remains and equally limited consideration of its historical role have meant that a review of its historical significance is still necessary. Careful consideration of Jaffa's geographic location, its role during the Bronze and Iron Ages, and its continued importance until the early twentieth century C.E. reveal that its emergence as an important settlement and port was no accident. This essay reviews, therefore, the evidence for Jaffa's foundation and subsequent role from the Early Bronze Age through the coming of Alexander at the end of the Persian period.

Jaffa's Geography

Jaffa was well positioned geographically to serve as the main port of the southern coastal plain between Dor and Ashkelon, most likely because of natural features that permitted its use as a port. These features include rocky outcrops that could shelter ships on its northern and western sides and a lagoon or estuary to the east of the site, the remnants of which remained visible until the nineteenth century (see below). Jaffa's most obvious advantage over coastal sites to its south, and one that suggests its comparison to ports to its north, was that it

featured a natural, deepwater anchorage along its rocky western side. A natural breakwater is formed by a ridge, located about 200 m from the western edge of the Bronze Age settlement, that can still be seen today.²

Although a geomorphological study has yet to be undertaken, a number of factors indicate that an estuary existed to the east of the site and functioned as the early harbor of Jaffa (see Hanauer 1903a, 1903b).3 The data for this include: (1) a depression that collected water to the south of the American (later German) colony known as the Baasah (Clermont-Ganneau 1874:103; see also Hanauer 1903b:258-260) (see also Figure 13.1 and Figure 13.2); (2) a wall identified as a seawall that was encountered at some depth within this depression (Hanauer 1903b:260); and (3) geological evidence for a shift in the course of the Ayalon River that has since caused it to empty into the Yarkon River (Raban 1985:27). The historical location of the Ayalon is not, therefore, its position today, and in antiquity the Ayalon provided Jaffa with a perennial source of freshwater. To this evidence we may add that the northern and eastern slopes of the kurkar ridge upon which Jaffa was situated were bedrock outcrops, as evident from recent excavations (e.g., Fantalkin 2005). As early as the Late Bronze Age, and perhaps even the Middle Bronze Age, these slopes functioned as an extramural cemetery (Peilstöcker 2000:49*). The overall pattern of Jaffa's selection is consistent with other MB II ports, as shown by Avner Raban

(1985:14), although it is both unlikely and remains undemonstrated that ships could sail any distance up rivers such as the Ayalon and the Yarkon (contra Raban 1985:14). The selection of such ports is consistent with the principles associated with Phoenician ports of the Iron Age, which, as noted by Maria Aubet (1987:151–155), included natural deepwater rocky anchorages, abundant freshwater, and access to inland markets.

The lack of other coastal settlements with continuous occupation from the MB II through the Iron Age between Dor and Yavneh-Yam supports the identification of Jaffa as the principal port along this stretch of coast (Figure 6.1).5 While many Canaanite ports emerged as waypoints along the eastern Mediterranean coast, others gained greater importance due to the access they afforded to hinterland markets or natural resources such as timber or mines. Achzib, for example, never achieved great historical import, as it lacked access to major inland routes and resources, with its hinterland identified during the Iron II period as Cabul, which means "good for nothing" (e.g., 1 Kgs 9:13). While Dor provided some access to the northern hill country, it possessed very little territory to support a substantive hinterland population. By contrast, Jaffa and Ashkelon emerged as substantial ports along the southern coastal plain during the Bronze and Iron Ages, in large part because of their coastal situation, the access they provided to inland settlements, and their relationship to routes established for access to inland regions (Ashkelon to the Shephelah and the Negev, and Jaffa to the central hill country). Therefore, from the Middle Bronze Age to the coming of Alexander, Jaffa was largely a product of its geography and thus played a central role on the maritime route connecting the southern Levant with Cyprus, Egypt, and Anatolia. Jaffa's earliest appearance was probably as a rocky promontory projecting to the north and separated from the mainland by the outlet of the Ayalon to the north and an estuary or bay to the east, as suggested above. The etymology of its name, "the Beautiful [Place]," suggests that it was a welcome sight to the earliest sailors who plied this route.

THE EARLY BRONZE AGE

While debate continues over the character of early Mediterranean sailing practices, which may have involved "coast hugging," it seems likely that during the Early and Middle Bronze Ages (perhaps even through the end of the

Late Bronze Age), most, if not all, maritime traffic in the eastern Mediterranean followed the coast closely. Reasons included the regular need for freshwater for crews and animal cargo, the limited distance sailed on average during a day with suboptimal winds, and what at one point must have been a fairly primitive state of celestial navigation. To these factors it must be added that navigating by stars in the eastern Mediterranean during the summer was and is routinely hampered by a marine layer, which often does not dissipate until mid-morning. These factors almost certainly guaranteed that early sailing along the Levantine coast, especially during the Middle Bronze Age, was an enterprise focused on port hopping and that there was no impetus to risk sailing across open water in an effort to reduce the journey by a day or two. Furthermore, putting in at different ports allowed the crew to acquire additional goods and trinkets that could be traded at their final destination, meaning that ships probably were not engaged exclusively in point-to-point trade but were also integrated in down-the-line trade.

Since architectural remains of the Chalcolithic and Early Bronze Age have yet to be encountered at Jaffa and evidence for ceramics from the Early Bronze Age consists of but a few sherds dating to the EB I (Gophna 2002:419 and n. 411), questions regarding the earliest phases of occupation at Jaffa for now remain unanswered. Nevertheless, if historical-archaeological reconstructions are correct (e.g., Stager 2001), Jaffa would have afforded a desirable shelter for ships from the EB III onward, when maritime traffic between Gebal (Byblos) and Egypt intensified (Ben-Tor 1986:20–21; Stager 1992:41).6 The earliest historical evidence for this process are Egyptian reliefs depicting so-called Kbn ships (i.e., Byblos ships)⁷ laden with goods from Byblos bound for Egypt during the Early Bronze III period (Landström 1970:63; Vinson 1994). This activity is also demonstrated by the presence of Egyptian artifacts at Byblos in the northern Levant, if not also those attested at Ebla during the Early Bronze Age, as well as the presence of cedar timbers and Levantine goods in Egypt during the second half of the Old Kingdom (Pulak 2001:27-28). Although at present nothing more can be added regarding Jaffa's role during the Early Bronze Age, it is clear that beginning in the Middle Bronze Age, Jaffa developed into the most important port along the central coastal plain of the southern Levant.

THE MIDDLE BRONZE AGE

Canaanite is the preferred identification of the Semitic (i.e., Amorite) population of the coast of the southern Levant from the Middle Bronze Age through the Iron Age, and for this reason the term is employed here. The term's relevance is suggested by the occurrence of Amorite names for the rulers of the southern Levant mentioned in the Execration Texts and is demonstrated archaeologically in the shared cultural traits of coastal settlements during the Bronze and Iron Ages. Canaanites constituted, therefore, a regional, specifically coastal, substratum of the larger Amorite ethnic group that inhabited the Levant from the Middle Bronze Age on (from ca. 1900 B.C.E.).8 The cultural continuity evinced from the Middle Bronze

Age through the Iron Age among their coastal settlements also suggests the almost uninterrupted evolution of this population and its material culture. In this essay the term *Canaanite* is used, therefore, to identify Jaffa's population from the Middle Bronze Age through the Iron Age, at which point the Greeks began identifying such populations as Phoenicians, despite the fact that these individuals appear to have identified themselves as Canaani (i.e., Canaanites).9

Although the many ports of the southern Levant that would have been frequented by Kbn ships during the EB III are difficult to identify with confidence, from the Middle Bronze Age onward it is possible to identify ports from Gebal (Byblos)¹⁰ south that served as waypoints during a journey that would probably have often

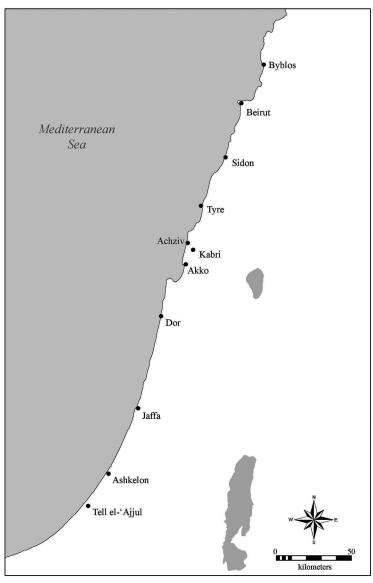


Figure 6.1. Location of Middle Bronze Age ports along the southern Levantine coast.

required at least a week's sailing. Southward from Gebal, major ports can be identified on the basis of prominent, contemporaneous tell settlements located directly on the ancient coast and affording deepwater anchorages alongside rocky outcrops, and occasionally sheltered bays.¹¹ These included Biruta ("Hunger"?; i.e., Beirut),12 Siduna ("Travel Provisions"?; i.e., Sidon),13 Sûr ("The Rock"; i.e., Tyre), 'Achzib, Akka ('Akko), 14 Dura ("Fortress"; i.e., Dor),15 Yapu ("Beautiful [Place]"?; i.e., Yafo),16 'Ašqaluna (Ashkelon; related to weighing or the shekel),17 and Sharuhen (Tell el-'Ajjul), along with perhaps a few small, unidentified Middle Bronze Age anchorages located along the northern Sinai coast. A number of smaller ports, such as Nami, probably filled in the spaces between these larger ports and offered safe harbor to passing ships when needed. The names of these ports may suggest an early perception of each port's significance, whether related to provisioning, commerce, or safe harbor (see notes 12–17).

Table 6.1. Distances between major ports from Byblos to Tell el-'Ajjul.

Port	Distance to Next Port (km)
Byblos	27
Beirut	43
Sidon	37
Tyre	26
Achzib	15
'Akko	39
Dor	65
Jaffa	46
Ashkelon	47
T. el-'Ajjul	_
Average	38.33

The average distance between the major ports along the Levantine coast, all of which were occupied from the Middle Bronze Age onward, is approximately 38 km, or 20.5 nautical miles (Table 6.1). This figure probably reflects an average minimum distance that was sailed along the coast in a single day during daylight hours. Presuming that these ports were established in an era of limited open-sea navigation and assuming that an average summer day provided 15 hours of light by which to sail, then the distance between these ports suggests a rate of approximately 1.4 knots (2.6 km per hour), which suggests that Canaanite sailors often managed this route under less than ideal sailing conditions. With approximately 380 nautical miles from the Lebanese coast to the coast of the delta, the trip could have required as much as

269 sailing hours or as few as 63, if six knots (which seems unlikely) could be achieved each day of the journey. 18 It appears, therefore, that an average of 166 hours, or approximately 11 days, were required for the voyage from Egypt to Byblos. Whatever the case may be, there is little reason to doubt that these ports constituted a network of safe harbors and stopping places for Canaanite merchants who endured unpredictable winds, whether they were inadequate summer winds or stormy winter weather. 19 Nevertheless, when weather conditions permitted, many of these ports were doubtless bypassed, thus shortening the journey considerably.

Preliminary analysis of ceramic evidence from Kaplan's excavations, in particular from areas Y and J, appears to support Kaplan's dating of Jaffa's earliest settlement to the MB IIA (contra Beck and Zevulun 1996; Kaplan 1972:74-75).20 An MB IIA date for the foundation of Jaffa finds an appropriate context within the settlement pattern of its hinterland (Figure 6.2). MB IIA sites around Jaffa include settlements at Gerisa (Herzog 1993), Qana (Tel Mukhmar), Aphek (Kochavi et al. 2000), Nebi Rubin, and Yavneh-Yam; fortresses at Tel Poleg and Zurekiyeh; a probable watchtower (magdalu) at Májdal-Yaba inland from Aphek (compare no. 39 with MB IIA evidence at al-Májdal in Burke 2007:51-52); unidentified villages associated with the cemeteries excavated at Sdeh Dov (Kaplan 1971), Namal Tel Aviv (Kaplan 1955), Azor, and Bene-Barak (Broshi and Gophna 1986; Gophna and Portugali 1988); and a number of other unwalled settlements (Peilstöcker 2004:77, Table 73).

A historically nuanced understanding of MB IIA settlement in the coastal plain is possible in light of recent work by Susan Cohen (2002) that employs the MB IIA ceramic sequence from Aphek. Her study permits the recognition that the foundation of fortified MB IIA settlements around Jaffa took place between the end of Phase 2 and Phase 4, following the establishment of fortified Phase-2 settlements north of the Yarkon River (see Burke 2008:98-100). Based on recent chronological assessments (for review, see Burke 2008:18-20), these events occurred primarily within a period of 100 years, ca. 1800 to 1700 B.C.E. This period was followed by a serious disruption of settlement in the coastal plain north of the Yarkon during Phase 3 of MB IIA (see Burke 2008:98), but whether or not these events affected Jaffa's inhabitants is unknown.

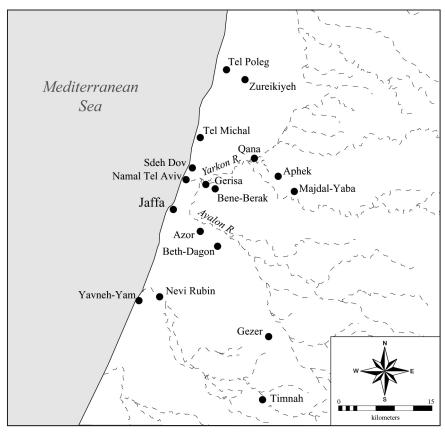


Figure 6.2. Location of settlements in the vicinity of Jaffa.

From outside, Middle Bronze Age Jaffa would have appeared as a typical tell settlement. Despite its foundation during the Middle Bronze Age atop a kurkar ridge, much like Byblos and Biruta in Lebanon, Jaffa was fortified by an earthen rampart that was undoubtedly crowned by a massive mudbrick fortification wall, despite its absence in Kaplan's soundings. A stretch of this rampart was exposed in Area B-D (Kaplan 1960, 1961, 1964) at the northern end of the site, as well as in Area A (Kaplan 1961:192). Although the exact date of the building of the Middle Bronze Age earthen ramparts remains uncertain (Burke 2008:272-273; note also Kaplan 1972:75), in light of the chronological developments discussed above, it appears likely that these defenses were constructed during the late MB IIA, probably Phase 3 (see Figure 23.2). The character and date of the rampart find parallels with Byblos's Ouvrage 3 (see Burke 2008:196 and Fig. 131), which, despite being the first Middle Bronze Age rampart at the site, included both Middle Bronze Age and earlier sherds within its fills. Although a preliminary analysis of the Middle Bronze Age sherds from Jaffa's rampart in Area

D does not provide a conclusive identification of the constructional phase of that rampart (see Chapter 23), its elliptical layout (contra Kaplan and Ritter-Kaplan 1993:658), like the ramparts of Byblos, suggests an MB IIA date for its construction (Burke 2008:49).

The role of Jaffa during the Middle Bronze Age, especially during the MB IIB-C, appears to be straightforward based on its location and the remains exposed to date. Although it was a modest settlement of perhaps no more than 3 ha, its anchorages, freshwater, and access to inland sites assured that it was an excellent stopping place for ships plying the route between coastal Lebanon, Cyprus, and Egypt. Middle Cypriot wares such as Blackon-Red Ware and White-Painted Ware attest to this trade, as does the discovery of a number of "Hyksos" scarabs (Figure 6.3). Nevertheless, to date the evidence for the remains of Jaffa's Middle Bronze Age settlement within the ramparts is limited mostly to pits, revealed primarily in Area Y, and a handful of burials (Kaplan 1972:76–77). More recent excavations by Tel Aviv University in Area A suggest the existence of an MB IIB-C gate below the Late Bronze Age gate (Herzog 2008:1791).





Figure 6.3. Hyksos scarabs from Jaffa. Kaplan Archive.

THE LATE BRONZE AGE

Archaeological evidence of the Egyptian conquest of Jaffa during the transition between the MB IIC and LB IA remains inconclusive. Clear evidence of destructions are attested, however, at sites throughout the southern coastal plain including Aphek, Gerisa, and Michal (Burke 2008:101), and Jaffa is listed among sites conquered by Thutmose III (Simons 1937:117; also *ANET*, p. 242, no. 62). The sack of these cities by Egyptian forces seems a straightforward matter, with only a question regarding the exact dates of individual destructions, which are generally dated from the end of the sixteenth through the early fifteenth century B.C.E.

Following the taking of Jaffa, Thutmose probably established the city as a H*tm*-base, according to Ellen Morris:

Although these harbors [htm-bases] are never enumerated by name, based on information concerning harbor depots contained in the Amarna archive, it is likely that they consisted of Gaza, Jaffa, perhaps 'Acco, Yarimuta, Byblos, and Ullaza—at minimum [2005:138–139, n. 90].

Such ports "monitored the passage of people and goods," as well as communications; permitted the collection of tariffs and the hunting of fugitives; and served as storage depots (Morris 2005:139).

The next Late Bronze Age reference to Jaffa, in at least a historicizing source, is found in the Egyptian tale "The Capture of Joppa," which is preserved in Papyrus

Harris 500 (ANET, pp. 22-23)21 and is set in the reign of Thutmose III (ca. 1482-1428 B.C.E.).²² Although the first part of the document is not preserved, it is possible to infer that the Canaanite inhabitants of Jaffa had managed to rebel against its Egyptian overlord leaving the Egyptian garrison and its commander outside the city. The leader of the insurrection, identified as "the Enemy of Jaffa" for reasons that are not described, had departed Jaffa (perhaps to requisition supplies) and during his excursion met with the Egyptian garrison commander, claiming that he wished to see his great scepter. After the rebel leader became drunk, in an ironic twist the Egyptian commander, named Djehuty, clubbed the rebel over the head with his scepter and threw him in fetters. Djehuty then prepared his garrison of some 700 men to use a ruse, not unlike the Trojan horse, to retake Jaffa. The charioteer of the Canaanite rebel deceived the inhabitants of the city by asserting that his master would be returning with Egyptian prisoners and plunder from his foray against the Egyptian garrison. However, 200 men were loaded into baskets by the Egyptians and delivered by another 500 soldiers to the city, where they were given entry without question. Once the Egyptians were inside, they sprang from the baskets and retook the city. Interestingly, there appears to have been no fighting involved in the retaking of the city, and we are told only that the Egyptian soldiers bound Jaffa's rebels, who, we may infer, chiefly included the leaders of the insurrection.

Whether or not the details of this story can be accepted as historical fact, the impression supplied by this text is that by the reign of Thutmose III, Jaffa was already home to a strategically located Egyptian garrison. In light of the role the town played as a port for and garrison in the coastal plain, the need for Egyptian troops poised to quell occasional rebellions was obvious. References to both the 'apiru and maryannu also suggest the presence of these social elements in and around Jaffa during the fifteenth century B.C.E.; they are otherwise unattested in the region until the fourteenth century in the Amarna letters. The 'apiru appear to be a known threat, with the expressed concern that they might steal horses left outside the city by the *maryannu*, who were responsible for their care. If Djehuty's final request to send the rebels to Egypt as slaves may suggest an Egyptian policy during the early Eighteenth Dynasty in Jaffa, this event would have further increased the percentage that the Egyptian garrison and their families constituted among Jaffa's residents, thus further Egyptianizing the settlement.

In addition to what may be inferred about Jaffa's strategic importance from the "The Capture of Joppa," the Amarna letters from the mid-fourteenth century indicate that Jaffa's (identified as Yapu) strategic value included its granaries.²³ These pharaonic granaries, which are identified by the Egyptian word šnwty, are described in this Akkadian correspondence as the "šunuti of the king" (EA 294:20). This important function for Jaffa for the New Kingdom Egyptian Empire is also attested in the correspondence from Aphek dated to ca. 1230 B.C.E. (Horowitz et al. 2006:35-37; Singer 1983). In the seventh letter of this correspondence, which happens to be the most complete, Taguhlina reports to Haya, presumably the Egyptian provincial governor in Canaan (Singer 1983:18-23), that Adduya, Taguhlina's Ugaritian courier, had previously delivered 250 PA (parisu) of wheat (each approximately 50 to 60 liters in size, according to Singer 1983:4) to Tur-šimati of Jaffa but that these were not yet accounted for. That these letters were found in the so-called Governor's Palace (Building 1104) at Aphek suggests that it served as a stopping place for Haya during his administrative tours of the region (Higginbotham 2000:133-134), but it does not establish that Aphek served as an administrative center of Jaffa and the region. In fact, it seems more likely that Jaffa functioned as the central Egyptian administrative center over the central coastal plain. This interpretation is now clarified by recent

synthesis of the excavations at Tel Aphek and the identification of the contemporaneous settlement at Aphek as an Egyptian agricultural estate the goods from which were probably delivered to Jaffa (Gadot 2010). Its role also as an Egyptian coastal safe haven in the southern Levant is revealed in EA 138, where Rib-Hadda comments upon the pharaoh's suggestion that he should come to Yapu, where the Egyptian official Api resides.

Aside from another reference to Jaffa in EA 296:33, where Yahtiru claims to "guard the city gate of Hazzatu (Gaza) and the city gate of Yapu," references to Jaffa are surprisingly few in the Amarna correspondence. The discovery in 1999 of a Lion-Hunt scarab of Amenhotep III within Kaplan's old Area A by the Tel Aviv University (TAU) expedition under the direction of Ze'ev Herzog (Herzog 2008), which was found in a later context (Sweeney 2003), does little to clarify Egyptian activity in Jaffa during the Amarna period. Herzog has suggested that the proper original context of this scarab may be the Lion Temple, so named because of the discovery of a lion skull in the structure, which Kaplan assigned to a transitional phase between the Late Bronze Age and Iron I (the so-called Pre-Philistine phase) at Jaffa (Kaplan 1972:84). A second scarab of Amenhotep III was also recovered from Area A during the TAU excavations (Sweeney 2003:59). The large number of commemorative scarabs from the reign of Amenhotep III found throughout the Levant does not suggest, one way or the other, Jaffa's importance within Egyptian administration during the thirteenth century. Taken together with other Egyptian artifacts, however, the scarabs do reveal the Egyptianization of Jaffa during this period (Burke and Lords 2010; see also Chapter 24).

Jaffa is mentioned in a fragmentary letter from Gezer that was most likely written during the early Late Bronze Age (see Gezer 2 in Horowitz et al. 2006:53–55). In light of "The Capture of Joppa" and the fact that no Amarna letters from Jaffa are identified, it may be suggested that Jaffa was directly administered by Egyptian officials throughout the Late Bronze Age. In any event, Jaffa's prominence on Egyptian itineraries is remembered by the scribe in the *Satire of the Trades*, preserved in Papyrus Anastasi I, which is traditionally dated to the thirteenth century (*ANET*, p. 478).

If either sporadic textual references or traces of archaeological data are considered less than decisive indicators of the nature of Egyptian presence in Jaffa, the evidence



Figure 6.4. Fragment of Egyptian gate facade of Ramesses II (MHA 2156). JCHP photo.

for an Egyptian garrison in Jaffa during the thirteenth century B.C.E. is unequivocal. The primary evidence for the garrison consists of the fortifications and monumental gateway attributed to Ramesses II on the basis of an inscription (Figure 6.4).²⁴ According to K. A. Kitchen, the inscriptions on the two doorjambs read:

[Right jamb:] Horus-Falcon, Strong Bull, beloved of Maat; Son of Re, Lord of Crowns, Ramesses II.

[Left jamb:] [Horus-Falcon], Strong [Bull], beloved of Maat; [King of S & N Egypt, Lord of Both Lands, Usimare Setepenre]" [Kitchen 1993:II, p. 229, lines 401:226–227].

Although the entire plan of this fortress was not revealed during Kaplan's excavations (Kaplan 1956, 1960), parallels for such fortresses in the north Sinai suggest the overall layout and appearance of this complex (e.g., Hoffmeier 2006; Oren 1987).

THE IRON AGE

A considerable gap exists between the last references to Jaffa among Egyptian sources and the first references to it during the Iron Age. Indeed, this gap is greater when it is recognized that the references to Jaffa associated with Solomon's reign (especially those in Chronicles, which are Persian period in date) are altogether later than the reference to Jaffa in Sennacherib's Prism. Nevertheless, despite the absence of historical references to Jaffa prior to the eighth century, a combination of historical records and archaeological evidence makes it possible to reconstruct Jaffa's role at the start of the Iron Age.

Ample evidence exists at Jaffa in the form of ceramic remains to suggest a lively interaction with and/or settlement by the Philistines during the Iron I (ca. 1180–1000 B.C.E.). Preliminary analysis of ceramics



Figure 6.5. Philistine monochrome (left) and bichrome sherds (right) from Jaffa. JCHP photo.

excavated by Kaplan reveals ample exemplars of Philistine Monochrome Ware and Bichrome Ware (Figure 6.5). Nevertheless, at this point in our analysis of the ceramics excavated by Kaplan, it is difficult to characterize the nature of this evidence and even more so to corroborate the possibility that the Sea Peoples, specifically the Philistines, might have been responsible for the destruction of Jaffa's thirteenth-century settlement associated with the Ramesside gateway, as suggested by Kaplan (1972:82).25 Thus the nature of the Philistine presence, but more generally of the Iron I settlement, at Jaffa remains poorly elucidated from excavations conducted to date, as already noted by Kaplan (1972:85). Within the framework of the historical model of Philistine expansion proposed by Lawrence Stager (1995), Jaffa would have fallen under Philistine political control during the Iron IB, some time after 1130 B.C.E. Nevertheless, this would not necessitate assuming that the population was overwhelmingly Philistine, since it is assumed that a significant Canaanite substratum remained within settlements under Philistine control, which ultimately contributed to Philistine assimilation into Canaanite culture (contra Stone 1995), even if a politically distinct region identified as Philistia persisted.²⁶

Since there is no archaeological or historical basis, thus far, to indicate the extent to which Jaffa's population during the Iron Age should be identified as Philistine, Israelite, Canaanite, or a mix of these, within the context of the cultural and historical changes that took place in the southern Levant, it is reasonable to infer that Jaffa's population during the Iron II remained largely Canaanite. While it is tempting to employ the term Phoenician to distinguish Iron II coastal Canaanite communities, which were city-states par excellence, from inland territorial states such as Israel and Judah, identifying Jaffa as a classic city-state of Phoenician extraction is problematic. Although Iron Age Phoenician city-states are traditionally identified as economically and politically independent, possessing limited hinterlands that were governed from these centers, which were, first and foremost, oriented economically seaward,²⁷ the classic Phoenician city-state also exhibits a cultural assemblage that has come to be recognized as characteristic of Iron Age Phoenician settlements. The features of such a settlement include tophet burials, Phoenician trinkets, and funerary ceramic assemblages (Moscati 1988); to date, none of these features is attested at Jaffa. Furthermore, it appears that different Phoenician city-states ascended to dominate large parts

of the southern Levant during different periods. Roughly speaking, Phoenician dominance shifted from Byblos (EB III to MB II with an EB IV interlude) to Tyre, perhaps vying against Sidon (eleventh to eighth centuries, fourth century B.C.E.), and finally to Sidon in the Late Iron Age through the Persian period (clearly by the fifth century B.C.E.), when Jaffa was added to Sidon's domain.²⁸ As it concerns the historical record, Jaffa's eclipse by the Phoenician coast was clearly the result of Sidon's late political resurgence under Persian intervention (see the discussion of the Eshmun'azar inscription below). It is perhaps unsurprising, therefore, that Jaffa's archaeological assemblage during the Persian period (and continuing into the Hellenistic period) bears, on the face of it, so much in common with Dor and Phoenician settlements along the Levantine coast to the north of it.

Within the historical framework of the political and economic development of the southern Levantine coast during the Iron Age, Jaffa's continued role as a Canaanite port from at least the tenth century must be considered. This is all the more relevant in light of biblical traditions concerning the employment of Tyrian craftsmen, trading ventures with Phoenicia employing Tarshish ships during the reigns of David and Solomon mentioned by both the Deuteronomist and the author of Chronicles, and the story of Jonah's ill-fated voyage from Jaffa to Tarshish.²⁹ A closer examination of these traditions reveals the important connections that Jaffa maintained with Phoenician settlements during the Iron II period.

While the book of Kings makes no explicit reference to Jaffa in connection with Tyrian involvement with Israel during the United Monarchy, the reference in 2 Chronicles 2:16 [Heb. 2:15] concerning Solomon's building of the temple, which is probably of a fourth-century date, suggests that this activity necessitated Jaffa's involvement. In the Chronicler's account, Hiram corresponded with Solomon: "We will cut whatever timber you need from Lebanon, and deliver it to you (as) rafts upon the sea to Jaffa; you will take it up to Jerusalem."

Although we cannot determine what sources the Chronicler possessed that would have illuminated the traditional account, it is possible, as in other cases in Chronicles, that the author took the liberty of providing details concerning what were particularly obvious facts during the author's life. In this case, to the writer, the port of call for this monumental endeavor was, naturally, Jaffa, a place that was beyond Yehud's political power during

the Persian period. The specifics of Jaffa's role in Iron II trade remain to be illustrated by archaeological findings, however.

The Chronicler was probably correct in identifying Jaffa as the primary zone of interface between Israel and the Phoenician city-state of Tyre. That it was not merely a retrojection of the circumstances of the author's own day is suggested by references in Kings to joint Israelite-Tyrian maritime ventures beginning during the United Monarchy. To date it has remained almost impossible, however, to illuminate the historical context of references to these joint maritime trading ventures, which are ascribed to Solomon (Kgs 10:22): "Because *Tarshish-*ships belonging to the king were at sea with Hiram's fleet, every three years the *Tarshish-*ships transported gold, silver, ivory, apes, and peacocks (?)."

Indeed, the references to ships of Tarshish in later biblical passages from the eighth century on, such as in the oracles against Tyre (Isa 23; Ezek 27:25), have been interpreted as a basis for the contextualization of the entity of Tarshish in the Iron IIB-C. Thus the biblical reference to a joint maritime venture involving Tarshish ships during Solomon's reign is usually interpreted as a retrojection of later enterprises (if they are accepted as historical at all) intended to embellish the accomplishments of Solomon's reign. Nevertheless, this assertion is problematic since scholarship on the identification of Tarshish (Akk. Tarsisi), although extensive, has yet to produce a consensus regarding the appropriate characterization of the Tarshish phenomenon as known in the biblical texts or to yield the location of a city, land, or kingdom by this name.30 It is equally difficult to accept that in a world of long-distance military and trade expeditions, which characterized the Iron Age, Tarshish should instead be identified as an Atlantis (i.e., a mythical, treasure-filled land), as many are now resigned to believe.

Such a skeptical approach is entirely unnecessary, however, if Tarshish is identified as an early Tyrian colony founded in the western Mediterranean. Identifying it as such may clarify Jaffa's role as a mercantile entrepôt between Israel and its Mediterranean neighbors during the Iron II period. In this light, Tyrian (1 Kgs 5) and Tarshish-class merchant ships (i.e., "ships of Tarshish;" 1 Kgs 10:22)³¹ at Jaffa reveal the historical setting for the tale of Jonah's departure from Jaffa for Tarshish (Jon 1:3):

But Jonah rose to flee to Tarshish (away) from the presence of Yahweh. He went down to Yafo and found a ship bound

for Tarshish. He paid his fare and boarded it to go with them to Tarshish, away from the presence of Yahweh.

The references to the activities of Hiram of Tyre during the tenth century and to the ships of Tarshish from the tenth through the eighth century suggest domination of the coast of the southern Levant by the Phoenician citystate of Tyre throughout this period. Such would appear to have been the case through the eighth century when Sidqia of Ashkelon made Jaffa part of his territory (see below).

It is difficult to know the best context in which to discuss the biblical references to the borders of the Israelite tribe of Dan mentioned in Joshua 19:40–46, which list Jaffa:

The tribe of Dan according to its families drew the seventh lot. ⁴¹ The territory of its inheritance included Zorah, Eshtaol, Ir-Shemesh, ⁴² Shaalabbin, Ayalon, Ithlah, ⁴³ Elon, Timnah, Ekron, ⁴⁴ Eltekeh, Gibbethon, Baʻalath, ⁴⁵ Yehud, Bene-Berak, Gath-Rimmon, ⁴⁶ and the waters of the Yarkon, and the Rakkon at the border opposite Yafo.

However, this passage may be most appropriately discussed within the historical context of the authorship of Joshua, which is almost unanimously attributed to the Deuteronomic reforms of the late seventh century B.C.E., although this passage is often accepted as indicative of territorial boundaries during most of the Iron II period. Several of these towns, including Bene-Barak, Eltekeh, Timnah, and Yafo (Jaffa), are again mentioned in Sennacherib's account of his conquest of this portion of the coast during the eighth century (see below). The recognition of the Yarkon River's role as a natural boundary north of Jaffa finds historical confirmation from both the extent of Sidqia of Ashkelon's conquests, which included Jaffa (see below), and the earlier limits of Philistine conquests, discussed above.

The first evidence to suggest that Tyre's control of this region, and Jaffa in particular, was contested during the Iron II emerges during the reign of the Assyrian king Sennacherib:

In the continuation of my campaign I besieged Beth-Dagon, Joppa, Banai-Barqa, Azuru, cities belonging to Sidqia [of Ashkelon] who did not bow to my feet quickly (enough); I conquered (them) and carried their spoils away. . . . In the plain of Eltekeh, their battle lines were drawn up against me and they sharpened their weapons. Upon a trust(-inspiring) oracle (given) by Ashur, my lord, I fought with them and inflicted a defeat upon them. In the mêlée of the battle, I personally captured alive the Egyptian charioteers with the(ir) princes and (also) the charioteers of the king. I besieged

Eltekeh (and) Timnah . . . assaulted Ekron and killed the officials and patricians who had committed the crime and hung their bodies on poles surrounding the city [ANET, pp. 287–288].

In addition to Jaffa, the settlements mentioned in this text, which are said to have been annexed by Sidqia of Ashkelon, can be confidently identified with toponyms in the vicinity of Jaffa: Beit-Dajan (Beth-Dagon), Bene-Berak (Banai-Barqa; Ar. Ibn-Ibraq), and Azor (Azuru; Ar. Yazur).32 While this source portrays Sennacherib's conquest of these towns from Ashkelon in 701 B.C.E., it is difficult to know if Sidqia considered these towns part of the traditional territory of Ashkelon and for how long Ashkelon had controlled this stretch of coast; Rainey, for example, suggests that Sidqia conquered Jaffa and its hinterland between Tiglath-pileser III's 734 and 732 B.C.E. campaigns (Rainey and Notley 2006:282). More than likely, Sidqia considered that he was seizing what appeared to be an opportune moment after Sennacherib's conquest of Phoenician territories from the Lebanese coast to the coast of northern Israel.

Although little of the Iron II settlement was revealed by Kaplan's excavations, some archaeological evidence for the settlement in this period is available. In particular, a wine production complex of Iron IIA date was revealed on the eastern slope of the mound (Fantalkin 2005). Additional Iron II domestic remains were exposed to the north of Mifratz Shlomo Street (Peilstöcker 2005), in the area of Rabbi Hanina Street, during 2008 (Orit Segal, personal communication, 2008), and Iron II ceramics have been recovered from Clock Tower Square and areas south of the Ganor Compound (Martin Peilstöcker, personal communication, 2008). By the Iron Age, therefore, the settlement had expanded slightly, such that the line of the Iron Age rampart, which was revealed by Kaplan in Area B within the Hammam (Kaplan 1960, 1961, 1964), does not appear to represent the actual limits of Iron Age settlement in Jaffa. Instead, the settlement was considerably larger than the Bronze Age town and included substantial areas outside the core of the Iron II settlement enclosed by the ramparts. Kaplan's excavations revealed that the Iron Age earthen rampart featured a mudbrick glacis intended to protect the rampart from weathering, a development that is paralleled at the Phoenician towns of Byblos and Beirut, where stone glacis were added to protect the ramparts from erosion (see Burke 2008:190-197).

THE PERSIAN PERIOD

During the Persian period, Sidon gained political supremacy over the Phoenician coast, replacing Tyre as the most important Phoenician city-state (see Elayi 1982:97–104). In addition to ample evidence of this phase of Jaffa's history revealed during Jacob Kaplan's excavations (Kaplan and Ritter-Kaplan 1993:656–657, 659), a cemetery excavated from 1993 to 1994 produced a Phoenician inscription from this period (Avner and Eshel 1996). Likewise, in 1995 a Hebrew seal dated to this period based on its paleography was discovered in the Ganor excavations (Peilstöcker and Sass 2001).

Solomon's exploits in garnering the resources and Tyrian craftsmen for the building of his palace and the temple of Yahweh find a distant echo in Ezra's account of the building of the Second Temple (Ezra 3:7), which was completed in 515 B.C.E. This account provides one of the few references to Jaffa during the Persian period: "They gave silver to the masons and carpenters, and food, drink, and oil to the Sidonians and the Tyrians to bring cedars from Lebanon to the sea to Jaffa, according to the grant of King Cyrus of Persia."

One distinction that can be made, however, is that while the text underscores the acquisition and delivery of Lebanese cedar by Phoenicians to Jaffa, it is by no means clear, as with the Solomonic Temple, that Phoenician "masons and carpenters" were involved in the construction. Indeed, the construction of the sentences may be understood as a subtle clarification suggesting otherwise. Although, as with the references to such activity during the United Monarchy, the historicity of these events cannot be confirmed, there is no basis for denying their historicity since indeed a Second Temple existed and would have required some timbers of this sort, and Lebanon was the natural source for them.

The next reference to Jaffa occurs on the sarcophagus of Eshmun'azar, king of Sidon, and is variously dated from the late sixth to the fourth century B.C.E. but is probably of mid-fifth-century date. In this inscription, following a lengthy introduction of himself, Eshmun'azar describes how the Persian king made him sovereign over the southern coast: "Furthermore, the Lord of Kings gave us Dor and Joppa, the might lands of Dagon, which are in the plain of Sharon, in accordance with the important deeds which I did. And we added to the borders of the country, so that they would belong to Sidon forever"

(ANET, p. 662). This passing reference to Jaffa indicates an important shift in Jaffa's political relations during the fourth century, the historical and cultural implications of which remain to be elucidated. Nevertheless, in the years prior to Eshmun'azar's sovereignty, it is uncertain whether Jaffa and Dor were under Tyrian control.

Conclusion

The foregoing review provides the historical context for a reconsideration of the significance of the historical role played by Jaffa as a port from the Bronze Age through the Persian period. This Canaanite center and entrepôt, perhaps as early as MB IIA, appears to have been continuously inhabited until the arrival of Alexander the Great. Its role as an outlet to inland centers, including those within the highlands, such as Jerusalem, and the safe haven it afforded ships traveling along the coast certainly appear to have contributed to its characterization among Phoenician ports as "the Beautiful Place." Still, many questions remain unanswered. In what phase of the Middle Bronze I (IIA), for example, was Jaffa established? Was Jaffa ever a true Phoenician town or primarily a coastal Canaanite enclave playing host to mariners from other regions? What evidence remains of the interaction of Israelites and Judeans with the inhabitants of Jaffa in the Iron Age? What material evidence connects Jaffa with the Phoenician coast during the Persian period? These and other questions provide a starting point for further study of Jaffa in the Bronze and Iron Ages.

ACKNOWLEDGEMENTS

I would like to thank William Schniedewind, Matthew Suriano, Wolfgang Zwickel, and Martin Peilstöcker for their insights regarding this article.

Notes

- 1. Although Avner Raban claimed that "Jaffa lacks the features for the direct shipment of mass cargoes," his assertion is undermined by the identification of "the large basin east of the site of ancient Yaffo . . . known for centuries as 'El-Basa'" (1985:27), which may, in fact, be identified with the port associated with Phoenician shipments of goods to Jerusalem.
- 2. This outcrop has been built over since and was expanded during the Ottoman and Mandate periods (e.g., Shepstone 1937).
- 3. Paleogeographical studies of the harbors of Tyre and Sidon have been undertaken in recent years (Marriner 2006).

- 4. It is possible that Caesarea Maritima was, in part, constructed during Herod's reign because of the state of Jaffa's port; its bay may already have mostly silted up. However, anti-Herodian elements in Jaffa may also have made it a more difficult town for Herod to control and thus an unreliable port.
- 5. Tell Qasile, for instance, is not located on the coast and features no Middle Bronze Age occupation. Thus it is unlikely to have served as an early port. Gerisa, although also occupied from the Middle Bronze Age onward, was not on the coast or directly on the banks of the Yarkon. Thus it too should not be considered within the framework of networks of Mediterranean ports (contra Marcus 2007:166).
- 6. Given the possibility that Jaffa featured an estuary, it is not unlikely that the unidentified port of the EB III was located off the mound along the edge of this body of water. Indeed, it is remarkable that to date, no network of EB III ports along the coast has been identified with the route between Egypt and Byblos. Nevertheless, the discontinuity between Early and Middle Bronze Age sites with respect to their locations, which is potentially the result of changes to the geomorphology of the coast, is probably responsible for this situation.
- 7. It is noteworthy that such ships were considered so appropriate to the task that all early seagoing ships in Egypt came to be known as Byblos ships, even until the Eleventh Dynasty (Landström 1970:63, 89).
- 8. The use of the term Hyksos (Egy. bk3w H3swt) to refer to this Semitic population has created a misnomer, as these Canaanites were not "foreign rulers" in their homeland in the southern Levant. Thus the term Hyksos should be reserved to refer exclusively to the rulers of Avaris in Egypt during the Fifteenth Dynasty (ca. 1640-1540 B.C.E.).
- 9. 9. For one of the clearest explications of these terms available, see Donald Harden (1962:21–22).
 - 10. Execration Texts references f3 and E63.
- 11. The assertion that settlements located up small streams, such as Kabri, functioned as ports (e.g., Kempinski 2002:451; Marcus 2007:164) cannot be sustained, since these "ports" are substantially above sea level today and there is no clear evidence to suggest that they were otherwise during the Middle Bronze Age. Indeed, to argue for such conditions requires accepting that such inland sites were nearly at sea level but that somehow other MB II ports, which were situated on the coast, were not inundated by the same geomorphological events. Furthermore, the present distance between such settlements and the coast suggests that even if ships could have navigated shallow twisting rivers, these sites would not have been preferred as way stations for regular north-south traffic along the coast.
 - 12. Old Babylonian *berûtu*, meaning "hunger" (*CAD* B, p. 213).
- 13. Old Babylonian *sidītu*, meaning generally "provisions" or more specifically "travel provisions" (*CAD* Ş, p. 172–73).
 - 14. See Execration Texts reference E49.
- 15. Old Babylonian $d\bar{u}rum$, meaning "wall" or "fortress" (CAD D, pp. 192ff.).
 - 16. West Semitic word meaning "beautiful" (cf. CAD J, p. 325).
- 17. See Execration Texts references e23–25, f15, and E2. On the origin of the name, see Stager and Schloen (2008:7).
- 18. With regard to the time required for sailing such distances, Ezra Marcus observes the following: "A direct sail from the shores of

- the eastern Delta to the modern border of Lebanon and Syria covers a distance of approximately 270 nautical miles. A vessel sailing at 3 to 6 knots (nautical miles per hour) would make that voyage in 45 to 90 hours, i.e., 2 to 4 days. In contrast, a ship's course that brought the vessels as close to the shore as possible would cover approximately 377 nautical miles in 63 to 126 hours, or 2.5 to 5 days. Naturally, ships would not have traveled in such straight lines, and if they called at ports along the way or were waylaid by inclement weather, the distance covered and the time would have increased commensurately. Even if the speed is cut to 1 knot, the maximum actual time at sea (12 to 15 days) is fairly negligible compared to the entire length of the expedition" (2007:146).
- 19. For a discussion of Canaanite ships, see Shelley Wachsmann (1998:49–61).
- 20. Among the ceramics are an MB IIA bowl with a painted cross decoration (Amiran 1970:pl. 25:22), an MB IIA piriform juglet, and, in Area J, a Levantine Painted Ware storejar.
- 21. A number of editions of this text are available (e.g., Goedicke 1968; Simpson 2003:72–74).
 - 22. New Kingdom dates follow K. A. Kitchen (2000).
- 23. The appearance of these granaries is suggested by those exposed at Bir el-'Abd by the North Sinai Expedition (Oren 1987:78–80, pl. A).
 - 24. See KRI II. Fasc. 7, no. 401 (Kitchen 1975-1990).
- 25. It is unlikely, as Kaplan speculated (1972:82), that Merneptah was responsible for the destruction of Jaffa at the end of the thirteenth century, since a reference to Jaffa would be expected alongside Ashkelon, Gezer, and Yanoam on his stele.
- 26. The recognition that Philistia vis-à-vis the Middle Bronze Age kingdom of Ashkelon constituted a political territory prior to Philistine settlement (Burke 2008:125–139) also undermines Stone's hypothesis. A contiguous territory may persist politically, but this does not by any means support its ethnic or cultural continuity.
- 27. There is no phenomenon of political organization throughout the Bronze and Iron Age in the Levant for which the term *city-state* is more appropriate than the development of Phoenician city-states from the coast of Lebanon toward the end of the Iron I period (for the definition of *city-state*, see Charlton and Nichols 1997). During this period, these city-states functioned with both political and military autonomy and, as suggested by many references to them, were ethnically distinct as through identification with specific home cities (e.g., Tyrians, Sidonians, Gebalites, Arwadites), in particular among Semitic sources.
- 28. The dates offered here reflect the limits of our understanding of the diachronic development of Phoenician political organization of Levantine settlements.
- 29. Space does not permit a lengthy discussion of recent reappraisals of the historical events attributed to the reigns of David and Solomon by the Deuteronomist and later biblical authors, such as the Chronicler. Nevertheless, within the context of eleventh- and tenth-century Phoenician colonization of Cyprus (Bikai 1994), which was likely a product of Tyrian commercial activity, and with the foundation of Carthage by Tyrian colonists not later than the late ninth century, it is difficult to accept that the account of Tyrian involvement

in building activity during the reigns of David and Solomon needs to have been invented or retrojected to be accepted as historical.

30. To the extent that a consensus exists, it follows the one presented in Michael Koch's work (1984), that Tarshish should be identified with the region of Tartessos in southern Spain, with which we are familiar only from classical sources. Yet, even in the 25 years since Koch's study, this identification has not been further elucidated, and the equation rests on a tenuous chain of reasoning: Tarshish was a Phoenician entity that traded largely in metals; Tartessos is a metaliferous region with a reasonably similar name; the coast of Tartessos was colonized by Phoenicians; thus the land of Tarshish should be identified with classical Tartessos. However, because of the varied dates of the biblical and classical references identified with Tarshish and their occurrence in wholly different corpora, not to mention the various other characteristics associated with Tarshish that are not addressed in the traditional identification, the equation of Tarshish and Tartessos is highly questionable.

31. The reference to "Tarshish-ships" in this passage suggests the early use of this term in the biblical text to designate a class of ship rather than to suggest that sailors or ships from a place called Tarshish were engaged directly with Israelites in naval expeditions. Instead, as with Kbn ships of the third millennium B.C.E. (discussed above), Tarshish, although likely a historical place, was used in this context as a designation for a class of ship, the precise details of which elude us, that was employed by Israel and outfitted with Tyrian sailors.

32. Also mentioned in Joshua 15:41.

WORKS CITED

Amiran, Ruth

1970 Ancient Pottery of the Holy Land: From Its Beginnings in the Neolithic Period to the End of the Iron Age. English ed. Rutgers University, New Brunswick, New Jersey.

Aubet, Maria Eugenia

1987 The Phoenicians and the West: Politics, Colonies and Trade.
 1st ed. Translated by M. Turton. Cambridge University,
 Cambridge.

Avner, Rina, and Esther Eshel

1996 A Juglet with a Phoenician Inscription from a Recent Excavation in Jaffa, Israel. *Transeuphratène* 12:59–63.

Beck, Pirhiya, and Uza Zevulun

1996 Back to Square One: A Review of Scarab Typology and Archaeological Context: An Essay on Middle Bronze Age Chronology. Bulletin of the American Schools of Oriental Research 304:64–75.

Ben-Tor, Amnon

1986 The Trade Relations of Palestine in the Early Bronze Age. *Journal of the Economic and Social History of the Orient*29(1):1–27.

Berger, P.-R.

1982 Ellasar, Tarschisch und Jawan, Gn 14 und Gn 10. Welt des Orientes 13:50–78.

Bikai, Patricia Maynor

1994 The Phoenicians and Cyprus. In *Cyprus in the 11th Century BC: Proceedings of the International Symposium*, edited by V. Karageorghis, pp. 31–36. Leventis Foundation, Nicosia.

Broshi, Magen, and Ram Gophna

1986 Middle Bronze Age II Palestine: Its Settlement and Population. *Bulletin of the American Schools of Oriental Research* 261:73–90.

Burke, Aaron Alexander

2007 Magdalūma, Migdālîm, Magdoloi, and Majādīl: The Historical Geography and Archaeology of the Magdalu (Migdāl). *Bulletin of the American Schools of Oriental Research* 346:29–57.

2008 "Walled Up to Heaven": The Evolution of Middle Bronze
Age Fortification Strategies in the Levant. Studies in the
Archaeology and History of the Levant 4. Eisenbrauns,
Winona Lake, Indiana.

Burke, Aaron Alexander, and Krystal V. Lords

2010 Egyptians in Jaffa: A Portrait of Egyptian Presence in Jaffa during the Late Bronze Age. Near Eastern Archaeology 73(1):2–30.

Charlton, Thomas H., and Deborah L. Nichols

1997 The City-State Concept. In *The Archaeology of City-States: Cross-Cultural Approaches*, edited by D. L. Nichols and T. H. Charlton, pp. 1–14. Smithsonian Institution, Washington, DC.

Clermont-Ganneau, M.

1874 Letters from M. Clermont-Ganneau. *Palestine Exploration Fund Quarterly Statement* 1874:3–7, 103–104.

Cohen, Susan L.

Canaanites, Chronology, and Connections: The Relationship
of Middle Bronze IIA Canaan to Middle Kingdom Egypt.
 Studies in the Archaeology and History of the Levant 3.
 Eisenbrauns, Winona Lake, Indiana.

Elayi, Josette

1982 Studies in Phoenician Geography during the Persian Period. *Journal of Near Eastern Studies* 41(2):83–110.

Fantalkin, Alexander

2005 A Group of Iron Age Wineries from Ancient Jaffa (Joppa). Salvage Excavation Reports 2:3–26.

Gadot, Yuval

2010 The Late Bronze Egyptian Estate at Aphek. Tel Aviv 37:48–66.

Goedicke, Hans

1968 The Capture of Joppa. *Chronique d'Égypte* 43:219–233. Gophna, Ram

2002 Elusive Anchorage Points along the Israel Littoral and the Egyptian–Canaanite Maritime Route during Early Bronze Age I. In *Egypt and the Levant: Interrelations from the 4th through the Early 3rd Millennium B.C.E.*, edited by E. C. M. van den Brink and T. E. Levy, pp. 418–421. New Approaches to Anthropological Archaeology, T. E. Levy, general editor. Leicester University, London.

Gophna, Ram, and Juval Portugali

1988 Settlement and Demographic Processes in Israel's Coastal Plain from the Chalcolithic to the Middle Bronze Age.

Bulletin of the American Schools of Oriental Research
269:11–28.

Hanauer, J. E.

1903a The Traditional "Harbour of Solomon" and the Crusading Castle at Jaffa. *Palestine Exploration Fund Quarterly Statement* (July):258–264.

1903b The Traditional "Harbour of Solomon" at Jaffa. *Palestine Exploration Fund Quarterly Statement*:355–356.

Harden, Donald

1962 The Phoenicians. Thames & Hudson, London.

Herzog, Ze'ev

1993 Gerisa, Tel. In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, edited by E. Stern, pp. 480–484. 2nd-English ed. Vol. 2. Israel Exploration Society, Jerusalem.

2008 Jaffa. In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, edited by E. Stern, pp. 1791–1792. English ed. Vol. 5. Simon & Schuster, New York.

Higginbotham, Carolyn R.

2000 Egyptianization and Elite Emulation in Ramesside Palestine: Governance and Accommodation on the Imperial Periphery. Culture and History of the Ancient Near East 2. Brill, Boston.

Hoffmeier, James K.

2006 "The Walls of the Ruler" in Egyptian Literature and the Archaeological Record: Investigating Egypt's Eastern Frontier in the Bronze Age. *Bulletin of the American Schools of Oriental Research* 343:1–20.

Horowitz, Wayne, Takayoshi Oshima, and Seth Sanders

2006 Cuneiform in Canaan: Cuneiform Sources from the Land of Israel in Ancient Times. Israel Exploration Society, Jerusalem.

Kaplan, Jacob

1955 A Cemetery of the Bronze Age Discovered near Tel Aviv Harbour. *Atiqot* 1:1–11, 11–13 (Hebrew & English).

1956 Notes and News: Jaffa. *Israel Exploration Journal* 6:259–260.

1960 Notes and News: Jaffa. *Israel Exploration Journal* 10(2):121–122.

1961 Notes and News: Jaffa. *Israel Exploration Journal* 11(4):191–192.

1964 Notes and News: Jaffa. *Israel Exploration Journal* 14(4):285–286.

1971 Sdeh Dov (Tel Aviv). Revue Biblique 78:422-423.

1972 The Archaeology and History of Tel-Aviv-Jaffa. *Biblical Archaeologist* 35(3):66–95.

Kaplan, Jacob, and Haya Ritter-Kaplan

1993 Jaffa. In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, edited by E. Stern, pp. 655–659. 2nd-English ed. Vol. 2. Israel Exploration Society, Jerusalem.

Kempinski, Aharon

2002 History of the Site and Its Environs: The Late Neolithic to the End of the Persian Period. In *Tel Kabri: The 1986–1993 Excavation Seasons*, edited by A. Kempinski, pp. 449–452. Monograph Series 20. Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University, Tel Aviv.

Kitchen, Kenneth A.

1975–1990 Ramesside Inscriptions Historical and Biographical. Blackwell, Oxford.

1993 Ramesside Inscriptions 3: Translated and Annotated. Blackwell, Oxford.

2000 Regnal and Genealogical Data of Ancient Egypt (Absolute Chronology I). The Historical Chronology of Ancient Egypt: A Current Assessment. In *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium B.C.: Proceedings of an International Symposium at Schloss Haindorf, 15th–17th November 1996 and at the Austrian Academy, Vienna, 11th–12th of May 1998*, edited by M. Bietak, pp. 39–52. Contributions to the Chronology of the Eastern Mediterranean 1, M. Bietak and H. Hunger, general editor. Österreichischen Akademie der Wissenschaften, Vienna.

Koch, Michael

1984 Tarschisch und Hispanien: historisch-geographische und namenkundliche Untersuchungen zur phönikischen Kolonisation der iberischen Halbinsel. Madrider Forschungen 14. Walter de Gruyter, Berlin.

Kochavi, Moshe, Pirhiya Beck, and Esther Yadin (editors)

2000 Aphek-Antipatris I: Excavation of Areas A and B, The 1972–1976 Seasons. Monograph Series 19. Emery and Claire Yass Publications in Archaeology of the Institute of Archaeology, Tel Aviv University, Tel Aviv.

Landström, Bjorn

1970 Ships of the Pharaohs: 4,000 Years of Egyptian Shipbuilding.

Doubleday, Garden City, New York, New York.

Marcus, Ezra S.

2007 Amenemhet II and the Sea: Maritime Aspects of the Mit Rahina (Memphis) Inscription. Ägypten und Levante 17:137–190.

Marriner, N.

2006 Geoscience of Ancient Mediterranean Harbours. *Earth-Science Reviews* 80:137–194.

Morris, Ellen Fowles

 2005 The Architecture of Imperialism: Military Bases and the Evolution of Foreign Policy in Egypt's New Kingdom.
 Probleme der Ägyptologie 22. Brill, Leiden.

Moscati, Sabatino (editor)

1988 The Phoenicians. Abbeville, New York.

Oren, Eliezer D.

1987 The Ways of Horus in North Sinai. In Egypt, Israel, Sinai: Archaeological and Historical Relationships in the Biblical Period, edited by A. F. Rainey, pp. 69–119. Tel Aviv University, Tel Aviv.

Peilstöcker, Martin

2000 Yafo. Hadashot Arkhaeologiyot—Excavations and Surveys in Israel 111:47*–49*, 69–70.

2004 Khirbat Shaʻira: Excavations of a Rural Settlement from the Middle Bronze Age II in the Vicinity of Tel Afeq (Aphek). *'Atiqot* 47:193–207.

2005 Yafo (Jaffa). *Hadashot Arkhaeologiyot—Excavations and Surveys in Israel* 117. Electronic document, http://www.hadashot-esi.org.il/report_detail_eng.asp?id=227&mag_id=110. July 17, 2010.

Peilstöcker, Martin, and Benjamin Sass

2001 A Hebrew Seal from Jaffa and the Hebrew Script in the Post-First Temple Period. *'Atiqot* 42:199–210.

Pulak, Cemal

2001 Cedar for Ships. Archaeology and History in the Lebanon 14:24–36.

Raban, Avner

1985 The Ancient Harbours of Israel in Biblical Times (from the Neolithic Period to the End of the Iron Age). In *Harbor Archaeology*, edited by A. Raban, pp. 11–44. BAR International Series 257. Archaeopress, Oxford.

Rainey, Anson F., and R. Steven Notley

2006 The Sacred Bridge: Carta's Atlas of the Biblical World.
Carta, Jerusalem.

Shepstone, Harrold J.

1937 Palestine's New Lighterage Ports. *Palestine Exploration Quarterly* 69:263–267.

Simons, Jan Jozef

1937 Handbook for the Study of Egyptian Topographical Lists Relating to Western Asia. Brill, Leiden.

Simpson, William Kelly

The Literature of Ancient Egypt: An Anthology of Stories,
 Instructions, Stelae, Autobiographies, and Poetry, pp. 598.
 3rd ed. Yale University, New Haven, Connecticut.

Singer, Itamar

1983 Takuhlinu and Haya: Two Governors in the Ugarit Letter from Tel Aphek. *Tel Aviv* 10(1):3–25.

Stager, Lawrence E.

1992 The Periodization of Palestine from Neolithic through Early Bronze Times. In *Chronologies in Old World Archaeology*, edited by R. W. Ehrich, pp. vol. I:22–41; plates: vol. II:46–60. University of Chicago, Chicago.

1995 The Impact of the Sea Peoples in Canaan (1185–1050 BCE). In *The Archaeology of Society in the Holy Land*, edited by T. E. Levy, pp. 332–348. Facts on File, New York.

2001 Port Power in the Early and Middle Bronze Age: the Organization of Maritime Trade and Hinterland Production. In *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*, edited by S. R. Wolff, pp. 625–638. Studies in Ancient Oriental Civilization 59. Eisenbrauns, Winona Lake, Indiana.

Stager, Lawrence E., and J. David Schloen

Introduction: Ashkelon and Its Inhabitants. In Ashkelon
 1: Introduction and Overview (1985–2006), edited by
 L. E. Stager, J. D. Schloen and D. M. Master, pp. 3–15.
 Final Reports of The Leon Levy Expedition to Ashkelon
 1. Eisenbrauns, Winona Lake, Indiana.

Stone, Bryan Jack

1995 The Philistines and Acculturation: Culture Change and Ethnic Continuity in the Iron Age. *Bulletin of the American Schools of Oriental Research* 298:7–32.

Sweeney, Deborah

2003 A Lion-Hunt Scarab and Other Egyptian Objects from the Late Bronze Fortress at Jaffa. *Tel Aviv* 30(1):54–65.

Vinson, Steven

1994 *Egyptian Boats and Ships*. Shire Egyptology 20. Shire, Princes Risborough.

Wachsmann, Shelley

1998 Seagoing Ships & Seamanship in the Bronze Age Levant.
Texas A&M University, College Station.