Royal Architecture in the Iron Age Levant

MADELEINE MUMCUOGLU¹ AND YOSEF GARFINKEL²

Institute of Archaeology, Hebrew University of Jerusalem, Israel ¹ madeleine.mumcuoglu@gmail.com ² garfinkel@mail.huji.ac.il

לְבֵנִים נָפֶלוּ וְגָזִית נִבְנֶה

The bricks have fallen down, but we will build with hewn stones – Isaiah 9:10

Abstract

In the Iron Age II, during the 10th to 6th centuries BCE, the local rulers of the Levant developed an elite style of architecture. The aim of this study is to define this phenomenon, summarize the data, and evaluate the appearance and distribution in the Levant of this architectural style. The six prominent characteristics of the royal style are recessed openings of doors and windows, rectangular roof beams, ashlar stone masonry, volute (proto-Aeolic) capitals, window balustrades, and decorated bases.

KEYWORDS: Iron Age, royal architecture, recessed openings, rectangular roof beams, ashlar stone masonry, proto-Aeolic capitals, window balustrades, decorated bases

1. Introduction

In the Iron Age II, during the 10th to 6th centuries BCE, the local rulers of the Levant developed an elite style of architecture. Examples of such architecture have been found in the Northern Levant, the Southern Levant, and Cyprus. Monumental architecture was used as a symbol of the strength and authority of

Madeleine Mumcuoglu and Yosef Garfinkel: Royal Architecture in the Iron Age Levant, in A. Faust, Y. Garfinkel and M. Mumcuoglu (eds.) State Formation Processes in the 10th Century BCE Levant (*Jerusalem Journal of Archaeology* 1): 450–481.



ISSN: 2788-8819; https://doi.org/10.52486/01.00001.15; https://openscholar.huji.ac.il/jjar

the new kingdoms. The aim of this study is to define this phenomenon, summarize the data, and evaluate the appearance and distribution of this architectural style in the Levant. The most prominent characteristics of the royal architecture in the Iron Age Levant are recessed openings of doors and windows, rectangular roof beams (sometimes organized in groups of three as triglyphs), ashlar stone masonry, volute (proto-Aeolic) capitals, window balustrades, and decorated bases. These aspects have been discussed quite intensively in the literature, sometimes as isolated phenomena and sometimes in a more integrative approach (Betancourt 1977; Shiloh 1979; Prag 1987; Stern 1992; Walcher 2005; Lipschits 2011; Mumcuoglu and Garfinkel 2018). The recent discoveries at Khirbet Qeiyafa, however, have added revolutionary data that enable us to revaluate the chronology and geography of royal architecture in the Iron Age Levant.¹

Each of the six characteristics will be presented below, sometimes with additional examples from the subsequent Persian era (Fig. 1). Finally, conclusions will be drawn about these new developments in the architecture of this region, as well as the relevance of some biblical traditions to the construction of royal architecture in the Iron Age.

2. Recessed Openings of Doors and Windows

Recessed doorframes were commonly used in Mesopotamia in religious and royal buildings and depicted on various art objects from the 5th millennium BCE onward (Mumcuoglu and Garfinkel 2018). This architectural motif became widespread in the Levant in the Iron Age II and is represented here by numerous examples.

2.1. Khirbet Qeiyafa: Limestone Portable Shrine

Khirbet Qeiyafa is a small fortified city located some 30 km southwest of Jerusalem and reliably dated to the early 10th century BCE (Garfinkel and Ganor 2009; Garfinkel et al. 2015; Garfinkel et al. 2016). The limestone portable shrine presented here belongs to a well-known group of items commonly called "building

^{1.} Just as this article went to press, recent excavations at the Armon Hanatziv Promenade in Jerusalem uncovered the remains of an elaborate structure dated to the 8th or 7th century BCE (Yaacov Billig, oral communication at the City of David congress, September 2020). The items include part of a recessed window-frame, medium-sized proto-Aeolic capitals, and a balustrade with small proto-Aeolic capitals. These very recently discovered finds are mentioned briefly below (Billig 2021, just published at the time of press).

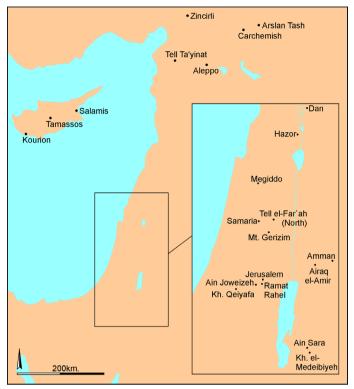


Fig. 1. Map of the major sites mentioned in the text.

models" and usually made from clay (Muller 2002; 2016). This object was found, with other cultic paraphernalia, in a cultic room near one of the city gates. It is carved in stone, is 21 cm wide, 26 cm long, and 35 cm high, and is painted in red. The portable shrine has a prominent recessed doorframe around its door (Fig. 2; Garfinkel and Mumcuoglu 2013; 2016; 2018a).

2.2. Khirbet Qeiyafa: Basalt Altar

Another cultic room was found at Khirbet Qeiyafa in Building C₃, located between regular dwellings on the eastern side of the site. Various cultic objects were found here, including a basalt altar. This artifact is decorated with a recessed doorframe on each of its narrow sides (Fig. 3; Freikman and Garfinkel 2014: 174–182; Garfinkel 2018).

2.3. Arslan Tash: Ivories Decorated with a "Woman at the Window"

Arslan Tash in the Northern Levant was the capital city of Hadatu. It was destroyed by the Assyrians around the end of the 9th century BCE. A large collection of carved ivories was uncovered here, including the well-known motif of a woman



Fig. 2. The Khirbet Qeiyafa limestone portable shrine, with a recessed doorframe and seven groups of rectangular roof beams (photograph: Gabi Laron).



Fig. 3. The Khirbet Qeiyafa basalt altar, with a recessed doorframe on each of its narrow sides.

with an Egyptian hairstyle looking through a window that has a triple-recessed frame (Fig. 4; Thureau-Dangin et al. 1931; Fontan and Affanni 2018).



Fig. 4. An ivory from Arslan Tash depicting a "woman at the window." The window is decorated with a triple-recessed frame and a balustrade (©RMN – Grand Palais, Musée du Louvre, Raphael Chipault).



Fig. 5. An ivory from Samaria depicting a "woman at the window." The window is decorated with a triple-recessed frame and a lotus balustrade (photograph: Courtesy of the Israel Antiquities Authority).

The motif of the "woman at the window" (Barnett 1975; Winter 2016) appears on over a hundred ivory plaques found in large palaces in five capital cities: Arslan Tash, Samaria, Nimrud, Khorsabad, and Susa (Mumcuoglu and Garfinkel 2018: 121–123). While these ivories were unearthed in large quantities in Assyrian sites and one is even known from Susa in Iran, they do not represent Mesopotamian art but are of Levantine origin, having arrived in Assyria as war spoils and tribute.

2.4. Samaria: Ivories Decorated with a "Woman at the Window"

Samaria was the capital city of the Kingdom of Israel in the 9th and 8th centuries BCE. In the excavations of the royal compound, an assemblage of ivories was unearthed. Some of them depict a woman looking through a window; the window is decorated with a recessed frame (Fig. 5; Crowfoot and Crowfoot 1938: Pl. XIII).

2.5. Tell Ta'yinat: Temple

Tell Ta'yinat is situated in the Orontes Valley in southeastern Turkey. In the 9th century BCE it was the capital of the Neo-Hittite kingdom of Patina. A ceremonial area of the site includes a royal palace and two nearby temples, the larger one

standing closer to the palace. Its entrance, of which only the right side is preserved, is decorated with a triple-recessed doorway (Fig. 6; Haines 1971: Pls. 81a, 100B; Harrison 2009).

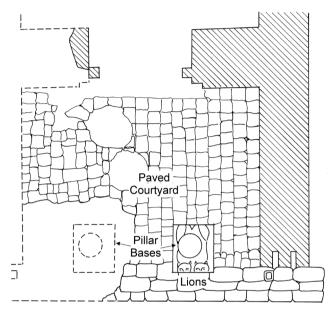


Fig. 6. Plan of a temple at Tell Ta'yinat. The entrance, of which only the right side was preserved, is decorated with a triple-recessed doorway (after Haines 1971: Pls. 81a, 100B).

2.6. Tell Ta'yinat: Elaborate Entrance

Another elaborate entrance was uncovered at the site, with recessed frames preserved on both sides of the doorway. The base of the recessed area was made from engraved limestone and the upper part was built from mudbrick (Fig. 7; Haines 1971: Pl. 86).

2.7. Aleppo: Temple

Aleppo, located in northwestern Syria, was an important city during the 2nd and 1st millennia BCE. The excavations uncovered an Iron Age temple built on top of an earlier Middle Bronze temple. The temple was decorated with impressive engraved basalt slabs depicting various scenes, including the standing storm god. Nearby is the figure of King Taita, "king and hero of the land of Palistin," who ruled at some time in the 10th century BCE. Close examination of the current arrangement of the slabs indicates that they are no longer in their original location. The



Fig. 7. An elaborate entrance at Tell Ta'yinat (Haines 1971: Pl. 86B, courtesy of the Oriental Institute of Chicago).



Fig. 8. Decorated slabs with recessed frames in a secondary arrangement at the temple in Aleppo. These slabs probably stood on either side of the door leading into the temple, with the current right-hand slab standing on the left and the current left-hand slab on the right (courtesy of Kay Kohlmeyer).

figures do not always fit well together, indicating that the panel is in a secondary arrangement. We suggest that this secondary arrangement is also reflected in the two slabs decorated with an emphasized recessed pattern. Such recesses usually face one another, but here they turn away from one another. It seems likely these slabs originally stood on either side of the doorway leading into the temple, with the current right-hand slab standing on the left and the current left-hand slab on the right (Fig. 8; Kohlmeyer 2000; Mumcuoglu and Garfinkel 2018: 116).

2.8. Tamassos: Royal Tombs

Tamassos was the capital city of an Iron Age kingdom in the central part of Cyprus. A very rich cemetery, dated to the 8th and 7th centuries BCE, was uncovered at the site. Of special interest are two underground tombs, Tombs 5 and 12, built in a highly elaborate royal style, including four of the six characteristics relevant to our presentation. The life-size façade of the entrance to these two tombs is emphasized by triple-recessed doorframes (Figs. 9–10; Buchholz and Untiedt 1996; Walcher 2005; Matthäus 2007).

2.9. Salamis: Royal Tombs

Salamis was the capital city of an Iron Age kingdom on the eastern coast of Cyprus. A very rich cemetery dated to the 8th and 7th centuries BCE was uncovered at the site. The recessed façade of Tomb 84 was cut in the local bedrock (Karageorghis 1969: 127, Pls. 70–71).

2.10. Kourion: Carved Stone Windows

A number of limestone false windows dated to the 8th and 7th centuries BCE were found at Kourion in Cyprus (Dikaios 1940: 122; Karageorghis 1970: Fig. 80a). The windows have a recessed frame, although the woman is missing (Fig. 11).

2.11. Airaq Al-Amir

This site, which is located in Jordan, includes an elaborate palace and a rock-cut tomb dated to the Persian era. The name "Tuvya" (Tobias) is engraved in Aramaic script near the tomb entrance. The entrance itself is emphasized by a recessed doorframe (Fig. 12; Rosenberg 2006: 107–113).



Fig. 9. The façade of Royal Tomb 5 at Tamassos. Four of the architectural characteristics discussed here are represented: recessed doorframe, rectangular roof beams, ashlar stone masonry, and volute capital (photograph: Daniel Vainstub).

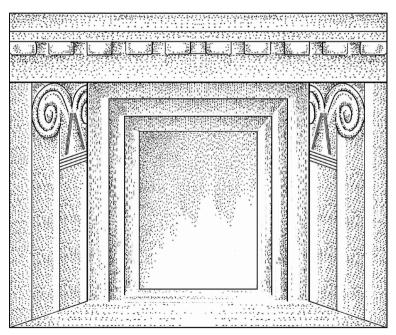


Fig. 10. Drawing of the façade of Royal Tomb 5 at Tamassos.

Mumcuoglu & Garfinkel 2021. Royal Architecture in the Iron Age Levant 459

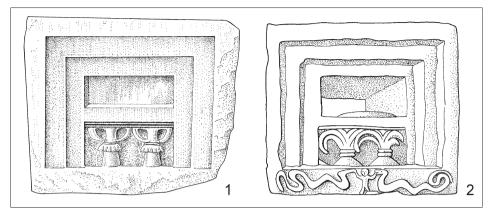


Fig. 11. Carved stone windows at Kourion in Cyprus (after Mumcuoglu and Garfinkel 2018: Figs. 172–173).



Fig. 12. The entrance to the elaborate tomb at Airaq Al-Amir (photograph: Steven Rosenberg).

2.12. Persepolis: Palaces and Royal Tombs

Persepolis, in southern Iran, was the capital city of the Persian kings during the 5th and 4th centuries BCE. The monumental palaces of Darius the Great (522–486 BCE) and Xerxes (486–465 BCE) had large gates decorated with recessed frames (Schmidt 1953: Figs. 93, 99, Pls. 78, 128A, 179).

The royal cemetery was found at Naqš-i Rustam, a tall rock cliff near the city. Here were found the tombs of several sequential kings: Darius the Great, Xerxes,

Mumcuoglu & Garfinkel 2021. Royal Architecture in the Iron Age Levant 460

Artaxerxes, and Darius II. Each of the royal tombs was cut into the natural rock, with a monumental façade carved in a few registers. The tomb entrance is always emphasized with a triple-recessed doorframe, similar to the doorframes of the palaces (Fig. 13; Ghirshman 1964: 225, Fig. 279; Schmidt 1970: Pls. 42, 48–49, 58).

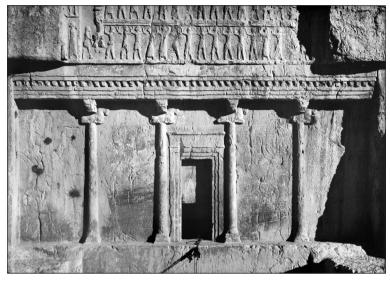


Fig. 13. The rock-cut tomb of Darius the Great at Naqš-i Rustam near Persepolis. The monumental façade is decorated with a triple-recessed doorframe and rectangular roof beams (courtesy of the Chicago Oriental Institute).

3. Rectangular Roof Beams

Rounded roof beams are depicted on a number of pottery altars dated to the Late Bronze Age and deriving from three sites in Upper Mesopotamia: Tell Fray (Muller 2002: Figs. 57, 60, 64, 73, 83, 88), Tell Mumbaqa (Muller 2002: Fig. 116), and Emar (Muller 2016: Figs. 22, 112a-b, 303e). Similar rounded beams are depicted on the clay portable shrine from Khirbet Qeiyafa dated to the early 10th century BCE, as well as on the clay portable shrine from Tell el-Farʿah North (Chambon 1984; Garfinkel and Mumcuoglu 2018b). In the Iron Age, we see a major change, and rectangular roof beams are represented for the first time. The following examples are known to us:

3.1. Khirbet Qeiyafa: Limestone Portable Shrine

The limestone portable shrine from Khirbet Qeiyafa (mentioned above) is decorated with seven groups of rectangular roof beams, three in each group (Fig. 14; Garfinkel and Mumcuoglu 2013; 2016; 2018a: Fig. 6.28).



Fig. 14. Close-up of the upper part of the Khirbet Qeiyafa limestone portable shrine showing seven groups of rectangular roof beams, three in each group (photograph: Gabi Laron).

3.2. Jerusalem: Seal Impression

Jerusalem was the capital city of the Kingdom of Judah. The excavations at the rock-cut pool near the Gihon Spring in the City of David uncovered an assemblage of nearly two hundred impressed clay bullae, dating from the 9th and perhaps the early 8th centuries BCE. One of the seal impressions depicts roof beams organized in groups of three, like triglyphs (Fig. 15; Keel 2012; 2017: Fig. 184; Reich, Shukron, and Lernau 2007; Singer-Avitz 2012).

3.3. Tamassos: Royal Tombs

In the royal tombs of Tamassos (mentioned above), roof beams were carved in the upper part of the elaborate façade (Figs. 9–10). Unlike the stone portable shrine from Khirbet Qeiyafa, where the beams are organized in groups of three (triglyphs), here the beams are simply evenly spaced.

3.4. Persepolis: Royal Tombs

The monumental façades of the royal tombs of the Persian kings at Naqš-i Rustam (mentioned above) are decorated with depictions of wooden beams. The beams are simply evenly spaced (Fig. 13; Ghirshman 1964: 225, Fig. 279; Schmidt 1970: Pls. 42, 48–49, 58).

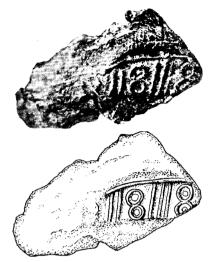


Fig. 15. A seal impression on a clay bulla from the rock-cut pool near the Gihon Spring, Jerusalem. The seal was decorated with roof beams organized in groups of three (Keel 2012; 2017: Fig. 184).

4. Ashlar Stone Masonry

Ashlar stone masonry is already a feature of elaborate construction in the Levant in the 2nd millennium BCE. Fine examples are known from Ugarit, Enkomi, and Kition (Schaeffer 1939: Pl. XVIII; Shiloh 1979: Pl. 36), although the style was not common in this era. In the Iron Age ashlar stone masonry becomes common and is now frequently used in elaborate buildings (Shiloh 1979; Sharon 1987). This masonry style consists of rectangular blocks of hard stone laid as alternating headers and stretchers. The dressing can be smooth or irregular and marginal, eventually leaving a protuberance in the center.

4.1. Khirbet Qeiyafa: Western Gate

At Khirbet Qeiyafa, mentioned above, the western gate was constructed from well-dressed stones in a quality that may be defined as ashlar masonry. Here rectangular stones are laid in the typical ashlar technique (Fig. 16; Garfinkel and Ganor 2009: Fig. 5:63).

4.2. The Kingdom of Judah

Ashlar construction can be seen at three Judean sites: Jerusalem, Tel 'Eton, and Ramat Rachel. In Jerusalem, large blocks of stones were used to construct the towers in the Ophel, dated to the 10th or 9th century BCE (Fig. 17; Mazar 2011). Blocks of ashlar construction, probably dating from the same time as the construction



Fig. 16. The western gate of Khirbet Qeiyafa with finely dressed ashlar masonry (photograph: Yosef Garfinkel).

in Jerusalem, were reported from Tel 'Eton (Faust and Sapir 2018: Fig. 5). The palace complex at Ramat Rachel was built with elaborate ashlar construction (Aharoni 1964), which also included volute capitals and window balustrades (for a discussion of the 8th-century BCE date of this activity, see below).



Fig. 17. Massive ashlar construction in the Ophel excavations in Jerusalem (courtesy of Eilat Mazar).

4.3. The Kingdom of Israel

In the Kingdom of Israel, large and splendid architectural complexes associated with especially fine buildings with ashlar masonry were uncovered at Samaria, Megiddo, Dan, and Hazor, royal centers dating from the 9th–8th centuries BCE (Betancourt 1977: 27; Shiloh 1979: 50–59).

4.4. Tamassos: Royal Tombs

The royal tombs of Tamassos (mentioned above) were built from superb ashlar masonry (Figs. 9–10).

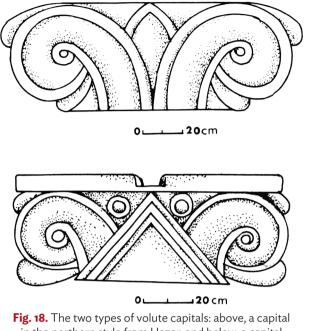
5. Volute (Proto-Aeolic) Capitals

Volute capitals, also known as Proto-Aeolic capitals, have been found at a number of sites, mainly in the Southern Levant and Cyprus. The origin, distribution, and function of the motif has been widely discussed (Betancourt 1977; Shiloh 1979; Franklin 2011; Lipschits 2011; Gaber in press). Briefly, the decorative volute may have originated from the Tree of Life motif in Mesopotamia and Syria, where the palm tree was used to decorate cult objects from as early as the 3rd millennium BCE (Cogan 2001: 245–247). Alternatively, it could have developed in the Levant under Egyptian influence; slabs at Medinet Habu (18th Dynasty) provide the earliest examples of Aeolic-like designs with floral patterns (Betancourt 1977: 19–23).

Most of the known volute capitals in the Levant were found in the Kingdoms of Israel and Judah. Here a regional difference can be pointed out. In the Kingdom of Judah, and in Khirbet el-Medeibiyeh in Jordan, the decoration specially includes, in the center of the capital, a triangle formed by recessed-like parallel lines and a small round incision on either side of the apex (Fig. 18).

Beside the life-size capitals, the volute motif also appears on small decorative items like seals, carved ivory objects, and portable shrines. The Hebrew term *Timora*, usually translated as "palmette" or "palm tree," is used sixteen times in the biblical description of Solomon's temple (Shiloh 1979: 90), in the context not of capitals but of carvings on the walls and the doors of the temple (1 Kgs 6:29, 32, 35).

It has been suggested that the volute capitals were in fact used as bases for wooden pillars or cult objects or incorporated as orthostats and balustrades into monumental architecture (Franklin 2011: 138–139). Indeed, orthostats with volute capitals dated to the Hellenistic period were found at Umm el-Amed (Kahwagi-Jambo 2014: Fig. 2). Despite this, the depiction of volute capitals on top of columns



•19. 18. The two types of volute capitals: above, a capital in the northern style from Hazor, and below, a capital in the southern style from Ramat Rachel (Shiloh 1979: Fig. 11:D-E; courtesy of the Qedem monograph series).

in the clay portable shrine from Tell el-Far'ah North, as well as another portable shrine in the collections of the Israel Antiquities Authority, indicates that they were indeed used as structural column capitals. All in all, we summarize here volute capitals or depictions of the volute motif from 13 sites:

5.1. Samaria

A large number of capitals was found here in secondary use in Late Roman buildings, three near the Hellenistic tower at the entrance to the site and six in the acropolis of the city (Crowfoot 1942: Fig. 6, Pl. XXIX; Betancourt 1977; Shiloh 1979). Miniature depictions of the volute capital motif appear on a number of carved ivories found at Samaria (Fig. 19a; Crowfoot and Crowfoot 1938: Pl. XXI, Fig. 1).

5.2. Megiddo

This was a central site in the Kingdom of Israel, with large palaces and large complexes of stables and storehouses. The excavators reported 13 capitals, some of them in a good state of preservation (Fischer 1929: 68; Guy 1931; May 1935; Betancourt 1977; Shiloh 1979).

Mumcuoglu & Garfinkel 2021. Royal Architecture in the Iron Age Levant 466





Fig. 19. Examples of the volute capital motif carved on ivories: a. Samaria (Crowfoot 1938: Pl. XXI), b. Arslan Tash (©RMN – Grand Palais, Musée du Louvre, Raphael Chipault, droits reservés).

5.3. Dan

This site is located in northern Israel. One complete capital, and fragments of two others, were found south of the city gate. They are dated to the 9th and 8th centuries BCE (Biran 1994).

5.4. Hazor

This site is located in northern Israel. Two identical capitals were found in secondary use in Area B in Stratum VII, dated to the late 9th or early 8th century BCE (Yadin et al. 1989: 99; Betancourt 1977; Shiloh 1979: Pl. 1).

5.5. Tell El-Farah North

On a clay portable shrine, volute capitals appear on top of columns on either side of the opening. The artifact was found in a pit inside a cultic room in the gate piazza. It probably dates from the 9th or 8th century BCE (Fig. 20; Chambon 1984: 118; Mumcuoglu and Garfinkel 2020). Similar capitals are known on another portable shrine that originated in the antiquities market in the 1940s and is now in the collection of the Israel Antiquities Authority (Iliffe 1945; Garfinkel and Mumcuoglu 2016: 124). The depiction of volute capitals on top of columns in the portable shrines is an indication that they were indeed used as structural capitals.

5.6. Jerusalem

Life-size capitals were found by various expeditions working at the site. In the early 1960s a nearly complete capital was found near the Stepped Stone Structure in the City of David (Kenyon 1963; Prag 1987). Two more small fragments have been found in recent years in excavations in the Giv'ati Parking Lot and the Ophel (Ben-Ami and Tchekhanovets 2015; Karlin and Mazar 2015). The recent excavation at the Armon Hanatziv Promenade in Jerusalem uncovered several medium-sized capitals (Yaacov Billig, personal communication 2020).

Jerusalem has also produced evidence for volute capitals in the form of the use of this motif on early seals. Seal impressions on clay bullae from the rock-cut pool near the Gihon Spring, dated to the late 9th or early 8th century BCE, are decorated with volute capitals (Fig. 21:3–5; Keel 2012: 336, Figs. 109, 113–115). These seal impressions clearly indicate that volute capitals were known in Judah as early as the 9th century BCE.

In general, seals underwent three phases of development in the Iron Age II (Sass 1993). The earliest seals bear an image but no writing. Later, from around the mid-8th century BCE, the seals bear both an image and the name of the seal



Fig. 20. A clay portable shrine from Tell el-Far'ah North. Volute capitals appear on top of pillars on either side of the entrance (©RMN – Grand Palais, Musée du Louvre, Christophe Chavan).

owner. The latest seals bear only writing, and the pictorial element has disappeared. Among the intermediate group, a few seals are decorated with volute capitals and the inscription includes the royal title "Son of the King" (Fig. 21:2–3; Avigad 1997: Figs. 17, 19; Keel 2012: 110, 111). In this case a royal title is connected to a royal architectural motif. Since these seals surfaced in the antiquities market, one might question their authenticity. But the seals appeared before the excavation of the impressed clay bullae from the rock-cut pool near the Gihon Spring, and it is unlikely that the motif would have been forged before genuine examples were found.

Mumcuoglu & Garfinkel 2021. Royal Architecture in the Iron Age Levant 469

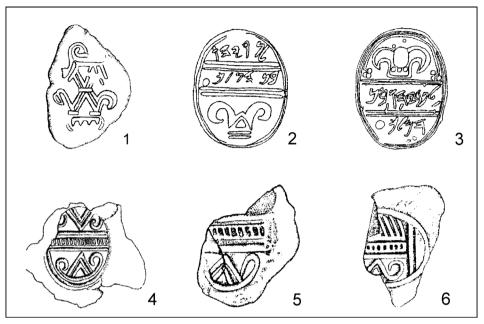


Fig. 21. Seal impressions from the rock-cut pool near the Gihon Spring, Jerusalem, and seals of unknown provenance decorated with volute capitals (Keel 2012: Figs. 109–111, 113–115).

5.7. Ramat Rachel

The palace complex at Ramat Rachel (mentioned above) was constructed with elaborate ashlar masonry that included three capitals (Aharoni 1964; Shiloh 1979: Pls. 11–13).

5.8. Ain Joweizeh Spring

The Ain Joweizeh Spring is located in Nahal Rephaim, some 9 km southwest of the City of David in Jerusalem. This area is characterized by a fertile valley with an abundant spring. An exceptionally well-cut underground water tunnel was recently found here. In a survey of the site an engraved capital was observed inside the water tunnel (Ein-Mor and Ron 2013).

5.9. Medeibiyeh

This site is located in the Moabite territory in Jordan. Other capitals were found in Jordan at 'Ain Sara and Amman (Glueck 1933; Betancourt 1977).

5.10. Arslan Tash

The rich collection of carved ivories (mentioned above) includes ivories decorated with depictions of volute capitals (Fig. 19b; Thureau-Dangin et al. 1931: Pl. XVI; Fontan 2018: Fig. 205). A common motif is the Tree of Life, depicted with three inverted volutes and three volute capitals with a triangle delimited by two lines. Such ivories, or similar ones, were also found in large quantities at Nimrud, probably sent as gifts or taken as war booty by the Assyrian kings (Barnett 1975).

5.11. Tamassos Royal Tombs

In the royal tombs of Tamassos (mentioned above), a volute capital appears on top of a pillar on each side of the entrance to Tomb 5 (Figs. 9-10). Here, as in the portable shrines, the capitals are depicted as functional architectural elements.

5.12. Salamis

At the site of Salamis (mentioned above), several volute capitals were found (Shiloh 1979: 36–38, Pl. 17). As noted by Shiloh, additional stylized volute capitals have been found at various sites in Cyprus.

5.13. Mount Gerizim

The excavations of the temple, dated to the Persian-Hellenistic era, yielded three capitals, two of them almost intact (Stern and Magen 2002). Is it possible that these capitals are remnants of an earlier cult building from the time of the Kingdom of Israel? In any case, we see here the usage of an Iron Age architectural motif in the Persian era, as at Airaq Al-Amir and Persepolis (mentioned above).

6. Window Balustrades

Window balustrades decorated with colonnettes and small volute capitals are common in Iron Age royal architecture. Each small colonnette consists of three parts: the base, the short intermediate part decorated with petals, and the volute capital. Both actual items and depictions on ivories are found.

6.1. Ramat Rachel

The best known example of an actual window was excavated at this site (mentioned above). The preserved parts included a large part of a window balustrade with small columns and capitals (Fig. 22; Aharoni 1964: Pls. 44–48). It probably dates from the 8th–7th centuries BCE.



Fig. 22. Large parts of a window balustrade carved in stone from Ramat Rachel (photograph by the authors).

6.2. Jerusalem

Fragments of two window balustrades, including the colonnettes, were reported from excavations in Jerusalem, in the City of David (Shiloh 1985: 133–137; Prag 1987: Fig.1) and possibly in the Jewish Quarter (Geva 2009: 72). It has been suggested that four stone objects found in the House of the Bullae in the City of David's Area G could in fact have been the bases of four colonnettes (Hurvitz 1999: 41). Recently, colonnettes and the corresponding small volute capitals were unearthed at the Armon Hanatziv promenade (Yaacov Billig, personal communication 2020).

6.3. Arslan Tash

We have already mentioned the large collection of carved ivories from this site, dated to the last part of the 9th century BCE. Here many ivories decorated with the well-known motif of the "woman at the window" were found. The window is depicted with a balustrade decorated by colonnettes and small volute capitals (Fig. 4; Thureau-Dangin et al. 1931: Pls. XXXIV–XXXV; Fontan 2018: Figs. 3, 205).

6.4. Samaria

We have already mentioned the ivories decorated with the "woman at the window" motif that were found at this site. One reconstituted piece shows a balustrade

decorated with colonnettes and small volute capitals (Crowfoot and Crowfoot 1938, Fig. 4). The full and only example of the woman at the window is depicted with a balustrade decorated by lotus flowers (Fig. 5; Crowfoot and Crowfoot 1938: Pl. XIII, Fig. 2).

6.5. Kourion

A number of limestone false windows were found at Kourion in Cyprus (mentioned above) (Dikaios 1940: 122; Karageorghis 1970: Fig. 80a). The windows are depicted with a balustrade decorated by colonnettes and small volute capitals (Fig. 11).

7. Decorated Bases

The final architectural motif to be discussed here is the elaborately decorated rounded base. While in the Bronze Age and the Iron Age I bases were merely simple rounded stones, in the Iron Age II we see the introduction of elaborately decorated bases. This probably goes hand in hand with the appearance of decorated capitals. Only a few examples are known so far.

7.1. Carchemish

This site is located on the eastern border of the Levant, on the west bank of the Euphrates River on the current frontier between Turkey and Syria. The site flourished in the Iron Age, and remains of monumental architecture, including elaborately decorated rounded bases, have been discovered there (Woolley 1921; Shiloh 1979: Fig. 71:1).

7.2. Zincirli

This site is located in the Amuq Plain in southeastern Turkey. In the Iron Age it was the capital of the Kingdom of Sam'al, a large, well-planned city with impressive fortifications. Monumental royal architecture, including elaborately decorated rounded bases, has been uncovered at the site (Shiloh 1979: Fig. 71:4)

7.3. Tell Ta'yinat

Two large and exceptionally well decorated stone bases were found at Tell Ta'yinat in southern Turkey. The decoration includes volutes (Fig. 23; Haines 1971: Pls. 116–117; Shiloh 1979: Figs. 30, 71:3). Another example of a well-decorated base is depicted on a basalt throne (Fig. 24; Haines 1971: Pl. 118; Shiloh 1979: Fig. 31).

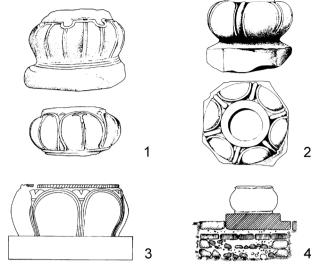


Fig. 23. Exceptionally well-decorated stone bases from Carchemish, Tel Dan, Tell Ta'yinat, and Zincirli (Shiloh 1979: Fig. 71; courtesy of the Qedem monograph series).

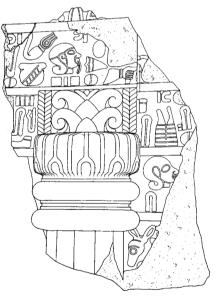


Fig. 24. Depiction of a well-decorated base on a basalt throne (Haines 1971: Pl. 118).

7.4. Tel Dan

Four round stone bases dated to the late 9th or 8th century BCE were placed at the four corners of the ashlar-built installation at the gate at Tel Dan. They probably served as bases for wooden columns supporting a canopy (Fig. 23; Biran 1994; Shiloh 1979: 52, Fig. 71:2).

8. Discussion

Our brief survey includes six different architectural features used in royal architecture in the Iron Age Levant and about twenty sites, most of them in the Southern Levant. This distribution is undoubtedly the result of the more intensive research conducted in this area, while less research has taken place in Jordan, Lebanon, and Syria (Table 1).

Characteristics	10th century	9th century	8th century
1. Recessed openings	Kh. Qeiyafa Aleppo	Tell Taʻyinat Arslan Tash Samaria	Tamassos Kourion Salamis
2. Rectangular roof beams	Kh. Qeiyafa	Jerusalem	Tamassos
3. Ashlar stone masonry	Kh. Qeiyafa Jerusalem	Samaria Megiddo Dan Hazor	Ramat Rachel Tamassos
4. Volute capitals		Jerusalem Samaria Megiddo Dan Hazor Medeibiyeh	Jerusalem Ramat Rachel Tell el-Farʿah (N) Tamassos
5. Window balustrades		Arslan Tash Samaria	Ramat Rachel Jerusalem Kourion
6. Decorated bases		Carchemish, Zincirli Tell Taʻyinat Dan	

Table 1. The distribution of the six royal architecture characteristics in the Iron AgeLevant.

The survey indicates that half of the elements (recessed openings, rectangular roof beams, and ashlar stone masonry) were known in Judah in the early 10th century BCE. The recessed opening motif also appeared at Aleppo during the

reign of King Taita, and hence in the 10th century BCE. Securely dated examples of these architectural components in the Kingdom of Israel occur only about 150 years later, in the mid-9th and 8th centuries BCE.

Volute capitals, window balustrades, and decorated bases made their appearance in the Levant only later, in the 9th century BCE, and in accordance they probably appeared in the Kingdom of Judah in the late 9th or 8th century BCE.

According to Lipschits, volute capitals first appeared in the Kingdom of Israel during the Omride dynasty, toward the mid-9th century BCE (Lipschits 2011: 204). He dated the capitals from Jerusalem and Ramat Rachel in the Kingdom of Judah to the 7th century BCE (Lipschits 2011: 213). There are several flaws, however, in his argument:

- 1. There are no clear stratigraphic contexts in either Israel or Judah that securely date the life-size capitals to the 9th centuries BCE. Consequently, Lipschits uses historical considerations to date the capitals in Israel to the 9th century BCE and those in Judah to the 7th century BCE. Using different historical considerations, one might date the capitals in Judah to the 9th century BCE and those in Israel to the 8th century BCE.
- 2. The dating of the earlier Iron Age levels at Ramat Rachel is problematic, since the massive later constructions removed large parts of the earlier remains. Nevertheless, the hundreds of royal (lmlk) and private seal impressions clearly show that the site functioned as an important administrative center as early as the 8th century BCE.
- 3. The suggested connection between volute capitals and Assyrian/Assyrianized architecture is not supported by the data. All buildings of the Neo-Assyrian era in the ancient Near East do not use volute capitals, since Mesopotamian architecture of brick and adobe walls was unsuitable for heavy stone capitals. Volute capitals are totally foreign to Assyria (Kletter 2015).
- 4. Lipschits completely overlooked the appearance of the volute capital motif on Judean seals, already documented in the late 9th century BCE assemblage from the Spring Pool (Fig. 21).

The beginning of royal architecture took place very early in Judah, much earlier than any of the other political units known in the Levant. This early appearance in the Kingdom of Judah may surprise some scholars, but such royal architecture is mentioned in the biblical tradition in relation to David's palace, Solomon's palace, and Solomon's temple. This aspect is beyond the scope of the current presentation, but we have discussed some of these traditions elsewhere (Garfinkel and Mumcuoglu 2013; 2016).

The use of architecture to emphasize political power, ideology, and social practice has been discussed by various scholars (Trigger 1990; Parker Pearson and Richards 1994; Maran et al. 2006). In the same way, the Iron Age kingdoms in the Levant developed a new style for their monumental architecture. Political power and economic prosperity united to erect impressive structures such as palaces, temples, and royal tombs.

References

- Aharoni, Y. 1964. *Excavations at Ramat Rachel, 1961–1962*. Rome: Università di Roma, Centro di studi semitici.
- Avigad, N. 1997. *Corpus of West Semitic Stamp Seals*. Jerusalem: Israel Academy of Science, Israel Exploration Society, and Institute of Archaeology, Hebrew University of Jerusalem.
- Barnett, R.D. 1975. A Catalogue of the Ivories. London: British Museum.
- Ben-Ami, D., and Tchekhanovets, Y. 2015. A New Fragment of Proto-Aeolic Capital from Jerusalem. *Tel Aviv* 42: 67–71.
- Betancourt, P.P. 1977. The Aeolic Style in Architecture: A Survey of its Development in Palestine, the Halikarnassos Peninsula, and Greece, 1000–500 B.C. Princeton: Princeton University Press.
- Billig, Y. 2021. Late First Temple Period Decorated Capitals from Armon Hanatziv in Southern Jerusalem (Hebrew). *Qadmoniot* 54:161, Pp. 26–30.
- Biran, A. 1994. Biblical Dan. Jerusalem: Israel Exploration Society.
- Buchholz, H.-G., and Untiedt, K. 1996. *Tamassos. Ein antikes Königreich auf Zypern*. Jonsered: Paul Åströms.
- Chambon, A. 1984. *Tell El-Farʿah 1. L'âge du Fer*. Paris: Editions Recherche sur les Civilisations.
- Cogan, M. 2001. 1 Kings. A New Translation with Introduction and Commentary. The Anchor Bible. New York: Doubleday.
- Crowfoot, J. W, Kenyon, K.M., and Sukenik, E.L. 1942. *The Buildings at Samaria*. London: Palestine Exploration Fund.
- Crowfoot, J.W., and Crowfoot, G.M. 1938. *Early Ivories from Samaria*. London: Palestine Exploration Fund.
- Dikaios, P. 1940. The Excavations at Vounous-Bellapais in Cyprus 1931–1932. *Archaeologia* 83: 1–174.

- Ein-Mor, D., and Ron, Z. 2013. An Iron Age Royal Tunnel Spring in the Region of Nahal Rephaim. *New Studies in the Archaeology of Jerusalem and its Region* 7: 85–109.
- Faust, A., and Sapir, Y. 2018. The "Governor's Residency" at Tel 'Eton, the United Monarchy, and the Impact of the Old-House Effect on Large-Scale Archaeological Reconstructions. *Radiocarbon* 60: 801–820.
- Fischer, C.S. 1929. *The Excavations at Armageddon*. Chicago: Chicago University Press.
- Fontan, E., and Affanni, G. 2018. *Les Ivoires d'Arslan Tash*. Paris: Editions Picard, Musée du Louvre.
- Franklin, N. 2011. From Megiddo to Tamassos and Back: Putting the "Proto-Ionic Capital" in its place. Pp. 129–140 in *The Fire Signals of Lachish, Studies in the Archaeology and History of Israel in the Late Bronze Age, Iron Age, and Persian Period in Honor of David Ussishkin,* ed. I. Finkelstein and N. Na'aman. Winona Lake: Eisenbrauns.
- Freikman, M., and Garfinkel, Y. 2014. Area C. Pp. 93–226 in *Khirbet Qeiyafa*, Vol. 2: *the 2009–2013 Excavation Seasons. Stratigraphy and Architecture (Areas B, C, D, E)*, ed. Y. Garfinkel, S. Ganor, and M.G. Hasel. Jerusalem: Israel Exploration Society.
- Gaber, P. in press. Proto-Aeolic Capitals and the Queen of Heaven. In *Biblical and Ancient Near Eastern Studies in Honor of P. Kyle Mccarter, Jr.*, ed. C. Rollston.
- Garfinkel, Y. 2018. The Basalt Altars. Pp. 127–134 in *Khirbet Qeiyafa*, Vol. 4: *Excavation Report 2009–2013: Art, Cult and Epigraphy*, by Y. Garfinkel, S. Ganor, and M.G. Hasel. Jerusalem: Israel Exploration Society.
- Garfinkel, Y., and Ganor, S. 2009. *Khirbet Qeiyafa*, Vol. 1: *Excavation Report* 2007–2008. Jerusalem: Israel Exploration Society.
- Garfinkel, Y., and Mumcuoglu, M. 2013. Triglyphs and Recessed Doorframes on a Building Model from Khirbet Qeiyafa: New Light on Two Technical Terms in the Biblical Descriptions of Solomon's Palace and Temple. *Israel Exploration Journal* 63: 135–163.
- Garfinkel, Y., and Mumcuoglu, M. 2016. Solomon's Temple and Palace: New Archaeological Discoveries. Jerusalem: Bible Lands Museum Jerusalem and Biblical Archaeology Society.
- Garfinkel, Y., and Mumcuoglu, M. 2018a. A Limestone Portable Shrine. Pp. 101–126 in *Khirbet Qeiyafa*, Vol. 4: *Excavation Report 2009–2013: Art, Cult and Epigraphy*, ed. Y. Garfinkel, S. Ganor, and M.G. Hasel. Jerusalem: Israel Exploration Society.

- Garfinkel Y. and Mumcuoglu, M. 2018b. An Elaborate Clay Portable Shrine. Pp. 83–100 in *Khirbet Qeiyafa*, Vol. 4: *Excavation Report 2009–2013: Art, Cult and Epigraphy*, ed. Y. Garfinkel, S. Ganor, and M.G. Hasel. Jerusalem: Israel Exploration Society.
- Garfinkel, Y., Kreimerman, I., and Zilberg, P. 2016. *Debating Khirbet Qeiyafa: A Fortified City in Judah from the Time of King David*. Jerusalem: Israel Exploration Society.
- Garfinkel, Y., Streit, K., Ganor, S., and Reimer, P.J. 2015. King David's City at Khirbet Qeiyafa: Results of the Second Radiocarbon Dating Project. *Radiocarbon* 57/5: 881–890.
- Geva, H. 2009. An Iron Age Decorated Stand from the Excavations in the Jewish Quarter in Jerusalem. *Eretz Israel* 29: 71–79 (Hebrew).
- Ghirshman, R. 1964. *The Arts of Ancient Iran from its Origins to the Time of Alexander the Great*. New York: Golden Press.
- Glueck, N. 1933. Further Explorations in Eastern Palestine. *Bulletin of the American Schools of Oriental Research* 51: 9–18.
- Guy, P.L.O. 1931. *New Light from Armageddon*. Oriental Institute Publications 9. Chicago: Oriental Institute of the University of Chicago.
- Haines, R.C. 1971. *Excavations in the Plain of Antioch II. The Structural Remains of The Later Phases.* Oriental Institute Publications 95. Chicago: Oriental Institute.
- Harrison, T.P. 2009. Neo-Hittites in the Land of Palistin. Renewed Investigations at Tell Ta'yinat on the Plain of Antioch. *Near Eastern Archaeology* 72: 174–189.
- Hurvitz, G. 1999. *The City of David: Discoveries from the Excavations*. Exhibition catalog. Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem.
- Iliffe, J.H. 1945. A Model Shrine of Phoenician Style. *Quarterly of the Department of Antiquities of Palestine* 11: 91–92.
- Kahwagi-Janho, H. 2014. Les chapiteaux à volutes verticales du Liban. *Chronos* 29: 95–125.
- Karageorghis, V. 1969. Salamis in Cyprus. London: Thames and Hudson.
- Karageorghis, V. 1970. Chronique des fouilles et découvertes archéologiques à Chypre en 1969. *Bulletin de Correspondance Hellénique* 94: 191–300.
- Karlin, M., and Mazar, E. 2015. A Proto-aeolic Capital from the Ophel. Pp. 549–552 in *The Ophel Excavations to the South of the Temple Mount 2009–2013, Final Reports Vol. 1*, ed. E. Mazar. Jerusalem: Shoham Academic Research and Publication.
- Keel, O. 2012. Paraphernalia of Jerusalem Sanctuaries and their Relation to Deities Worshiped Therein during the Iron Age IIA–C. Pp. 317–342 in *Temple Building*

and Temple Cult. Architecture and Cultic Paraphernalia of Temples in the Levant (2–1, *Mill. BCE*), ed. J. Kamlah. Wiesbaden: Harrassowiz Verlag.

- Keel, O. 2017. *Corpus der Stempelsiegel-Amulette aus Palästina/Israel: Catalog Band V.* OBO 35. Fribourg: Academic Press.
- Kenyon, K.M. 1963. Excavations in Jerusalem 1962. *Palestine Exploration Quarterly* 95: 7–21.
- Kletter, R. 2015. A Clay Shrine Model. Pp. 28–84 in *Yavneh II. The "Temple Hill" Repository Pit,* by R. Kletter, I. Ziffer, and W. Zwickel. Fribourg: Academic Press.
- Kohlmeyer, K. 2000. Der Tempel des Wettergottes von Aleppo. Münster: Rhema.
- Lipschits, O. 2011. The Origin and Date of the Volute Capitals from the Levant. Pp. 203–226 in *The Fire Signals of Lachish, Studies in the Archaeology and History of Israel in the Late Bronze Age, Iron Age, and Persian Period in Honor of David Ussishkin,* ed. I. Finkelstein and N. Na'aman. Winona Lake: Eisenbrauns.
- Maran, J., Juwig, C., Schwengel, H., and Thaler, U. 2006. *Constructing Power: Architecture, Ideology and Social Practice*. Hamburg: LIT Verlag.
- Matthäus, H. 2007. The Royal Tombs of Tamassos: Burial Gifts, Funeral Architecture and Ideology. *Cahiers du Centre d'Études Chypriotes* 37: 211–230.
- May, H.G. 1935. *Material Remains of the Megiddo Cult*. Oriental Institute Publications 26. Chicago: University of Chicago Press.
- Mazar, E. 2011. Discovering the Solomonic Wall in Jerusalem: A Remarkable Archaeological Adventure. Jerusalem: Shoham Academic Research and Publication.
- Muller, B. 2002. *Les "Maquettes Architecturales" du Proche-Orient Ancien*. Bibliothèque archéologique et historique 160. Beirut: Institut français d'archéologie du Proche-Orient.
- Muller, B. 2016. *Maquettes antiques d'Orient de l'image d'architecture au symbole*. Paris: Editions Picard.
- Mumcuoglu, M., and Garfinkel, Y. 2018. *Crossing the Threshold: Architecture, Iconography and the Sacred Entrance*. Oxford: Oxbow.
- Mumcuoglu, M., and Garfinkel, Y. 2020. Gate Piazza and Cult at Iron Age IIA Tell el-Far'ah North. *Revue Biblique* 127: 105–129.
- Parker Pearson, M., and Richards, C. 1994. *Architecture and Order: Approaches to Social Space*. London: Routledge.
- Prag, K. 1987. Decorative Architecture in Ammon, Moab and Judah. *Levant* 19: 121–127.
- Reich, R., Shukron, E., and Lernau, O. 2007. Recent Discoveries in the City of

Mumcuoglu & Garfinkel 2021. Royal Architecture in the Iron Age Levant 480

David. Findings from the Iron Age II in the Rock Cut "Pool" near the Spring. *Israel Exploration Journal* 57: 153–161.

- Rosenberg, S.G. 2006. *Airaq Al-Amir, the Architecture of the Tobiads*. BAR International Series 1544. Oxford: BAR.
- Sass, B. 1993. The Pre-Exilic Hebrew Seals: Iconism vs. Aniconism. Pp. 194–256 in *Studies in the Iconography of North Semitic Inscribed Seals*, ed. B. Sass and C. Uehlinger. Orbis Biblicus et Orientalis 125. Fribourg: Fribourg University Press.
- Schaeffer, C.F.A.1939. *Ugaritica 1, Etudes relatives aux découvertes de Ras Shamra*. Paris: Paul Geuthner.
- Schmidt, E.F. 1953. *Persepolis I: Structures, Reliefs, Inscriptions*. Oriental Institute Publications 68. Chicago: University of Chicago Press.
- Schmidt, E.F. 1970. *Persepolis III the Royal Tombs and Other Monuments*. Oriental Institute Publications 70. Chicago: University of Chicago Press.
- Sharon, I. 1987. Phoenician and Greek Ashlar Construction Techniques at Tel Dor, Israel. *Bulletin of the American Schools of Oriental Research* 267: 21–42.
- Shiloh, Y. 1979. *The Proto-Aeolic Capital and Israelite Ashlar Masonry*. Qedem 11. Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem.
- Shiloh, Y. 1985. The Material Culture of Judah and Jerusalem in Iron Age II: Origins and Influences. In the Land of Israel: Cross-roads of Civilizations. *Orientalia Lovaniensia Analecta* 19, 113–146. Leuven: Peters.
- Singer-Avitz, L. 2012. The Date of the Pottery from the Rock-Cut Pool near the Gihon Spring in the City of David Jerusalem. *Zeitschrift des Deutschen Palästina-Vereins* 128: 10–14.
- Stern, E. 1992. The Phoenician Architectural Elements in Palestine during the Late Iron Age and the Persian Period. Pp. 302–310 in *The Architecture of Ancient Israel from the Prehistoric to the Persian Periods*, ed. A. Kempinski and R. Reich. Jerusalem: Israel Exploration Society (Hebrew).
- Stern, E., and Magen, Y. 2002. Archaeological Evidence for the First Stage of the Samaritan Temple in Mount Gerizim. *Israel Exploration Journal* 52: 49–57.
- Thureau-Dangin, F., Barrois, A., Dossin, G., and Dunand, M. 1931. *Arslan-Tash*. Paris: P. Geuthner.
- Trigger, B.G. 1990. Monumental Architecture: A Thermodynamic Explanation of Symbolic Behaviour. *World Archaeology* 22/2: 119–132.
- Walcher, K. 2005. Royal Tomb 5 of Tamassos: An Analysis of Its Decoration with Regard to Religious or Representative Prototypes. Pp. 77–89 in Cyprus: Religion and Society from the Late Bronze Age to the End of the Archaic Period. Proceedings of an International Symposium on Cypriote Archeology, Erlangen,

23–24 July 2004, ed. V. Karageorghis, H. Matthaus, and S. Rogge. Möhnesee-Wamel: Bibliopolis.

- Winter, I.J. 2016. The "Woman at the Window": Iconography and Inferences of a Motif in First-Millennium B.C. Levantine Ivory Carving. Pp. 180–193 in *Assyria to Iberia. Art and Culture in the Iron Age*, ed. J. Aruz and M. Seymour. New York: Metropolitan Museum of Art.
- Woolley, C.L. 1921. *Carchemish, Report on the Excavations at Jerablus on Behalf of the British Museum, Part II.* London: The British Museum.
- Yadin, Y., Aharoni, Y., Amiran, R., Ben-Tor, A., Dothan, M., Dothan, T., Dunayevsky,
 I., Geva, S., and Stern, R. 1989. *Hazor. The Third and Fourth Seasons* 1957–1958.
 Jerusalem: Israel Exploration Society.