

INTRODUCTION

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Apollonia-Arsuf is located in the northwestern part of the modern city of Herzliyya on a *kurkar* (fossilized dune sandstone) ridge overlooking the Mediterranean. The site lies 17 km north of Joppa and 34 km south of Caesarea (Fig. 1.1). The ground of the eastern part of the site rises 35 m above sea level and from there gently slopes down to the west, to about 20 m above sea level.

The site's history of excavations until 1999 was thoroughly summarized by Roll in the first final report (Roll and Tal 1999). Below is an abridged history of the excavations until the last, 27th season, which took place in July and October-November 2018. The Preface above provides a more thorough history of excavations for the seasons whose finds are discussed in this report.

The first systematic excavations at Apollonia-Arsuf were carried out in 1950, north of the medieval town wall on behalf of the Israel Department of Antiquities, first by I. Ben-Dor and then by P. Kahane. These salvage excavations were carried out owing to the establishment of the Israel Military Industries Ltd. (hereafter IMI) plant that occupied the greater part of the site, leaving its western portion relatively unharmed. These excavations, whose exact locations remain largely unknown, unearthed architectural remains of Late Roman tombs, Early Byzantine oil presses and Late Byzantine/Early Islamic raw glass furnaces. In 1962 and 1976, following development works at the IMI plant area, a polychrome mosaic floor and several column bases located along an east-west axis were uncovered (Area K), all belonging to a Byzantine church. The first large-scale excavations at Apollonia-Arsuf were carried out in 1977 by I. Roll, who directed 17 seasons of excavations at the site until 2004. The 1977 season was a salvage excavation on behalf of the Israel Department of Antiquities and Museums (in areas within the IMI plant), and only in 1982 the project became an academic excavation on behalf of the Institute of Archaeology of Tel Aviv University (in localities outside the IMI plant area). The 1996 season was a contract excavation initiated by the legal owner of the site, The Israel Land Administration, and carried out on behalf of the Institute of Archaeology of TAU (see Preface, above). From 1996 through the present all excavation seasons were carried out in localities outside the IMI plant area. The 1998, 1999 and 2000 season excavations were organized in part as a joint venture of the Tel Aviv University Institute of Archaeology and the Universidade Federal do Rio Grande do Sul of Porto Alegre, Brazil with the financial backing of the Municipality of Herzliyya and the Israel Nature and Parks Authority (INPA). The 2001, 2002 and 2004 season excavations were organized as a sole venture of the Tel Aviv University Institute of Archaeology.

In 2001, the site of Apollonia-Arsuf became a national park. In 2004, the site was formally recognized as one of the 100 most endangered world monuments by the World Monuments Fund. In 2006, it was included in the tentative list of world heritage Crusader castles by UNESCO. In the same year (2006), the 18th season of excavations was carried out in conjunction with the Artemis and Martha Sharp Joukowsky Institute for Archaeology and the Ancient World of Brown University. This season was a transition during which the directorship and responsibility over future excavations at Apollonia-Arsuf were transferred from I. Roll to O. Tal.

The 19th and 20th seasons, carried out in 2009 and 2010 respectively, continued in conjunction with Brown University (for the 2009 season see Preface). Excavations in 2010 focused on areas within the national park (Areas F, R and S). In Area F (the Crusader castle), excavations that began in 2009 (after a hiatus from 2000) were confined to the castle's western façade. In Area R (located in the center of the medieval walled town), excavations that also began in 2009 continued to uncover a large Crusader dwelling (mid-13th century CE) and industrial installations of the Byzantine/Early Islamic periods used in medieval times. In Area S (located in the far western end of the walled site next to the western medieval town wall), the existence of a doorway in the western medieval town wall has been investigated because of the area topography.

From 2012 to 2016 (the 21st through 25th seasons), excavations on the premises of the Apollonia National Park formed part of the Deutsche Forschungsgemeinschaft funded project: Die kreuzfahrerzeitliche Stadt Apollonia/Arsur in Israel: Struktur - Kulturadaption - Stadt-Umland-Beziehungen (co-headed by B. Scholkmann of the University of Tübingen), and also concentrated on development works (accessibility for the disabled) in Areas P1, P2, and X (in 2012) or alternatively formed part of the ongoing Apollonia-Arsuf Excavation Project as a sole venture of Tel Aviv University Institute of Archaeology.

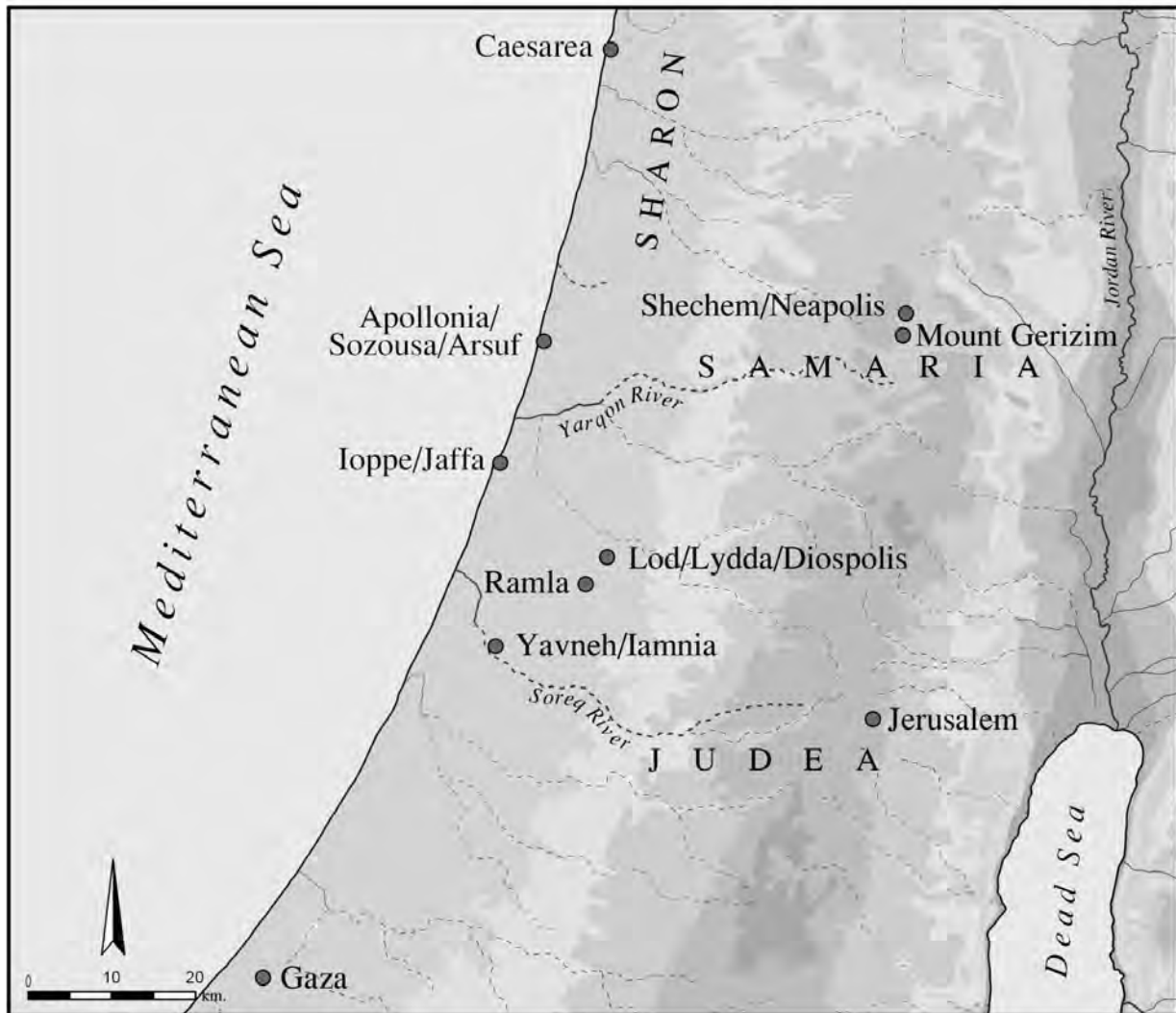


Fig. 1.1: General location map.

The aim of the joint University of Tübingen and Tel Aviv University expedition was to explore the structure, cultural adaptations and urban-rural relations of the Crusader town of Apollonia/Arsur. The project sought to better understand the European and local cultural influences that dictated the structure and organization of the town and its hinterland. The town's abandonment, which followed its destruction by the Mamluks, provides a unique archaeological setting in which the Crusader layers were left largely undisturbed by later settlement activities and thus are suitable for intense research. These layers were the object of extensive light detection and ranging (LIDAR) analysis as well as geo-magnetic surveys, which detected the layout of structures still hidden below the ground, allowing the reconstruction of the original topography and the design of the entire medieval town. The expedition chose to open three excavation areas (Areas T, U and W) where the results of the geo-magnetic surveys showed walls forming small structures and units. Areas T and U were opened in the southwestern part of the site, and Area W was opened in the western part of the site—the center of the walled medieval town. The finds from these areas complete the research by allowing insight into the material culture and daily activities of the town's inhabitants. Other excavation areas (and collaborations) which were opened in 2012 and 2013 are mentioned in the Preface. The 23rd and 24th seasons carried out in 2014 and 2015, respectively, were confined to the medieval period dwellings of Area T (of the joint University of Tübingen and Tel Aviv University expedition) and the Byzantine-Medieval period remains of Area P1 (an extension of Area P whose excavations ended in 2006). The 2016 excavations focused on the completion of the work in Area T (Zeischka-Kenzler *et al.* 2018).

While excavations in 2017 (see Preface) form part of this report, the 27th (July and October–November) season carried out in 2018, which was concentrated in Area F (Crusader castle), was carried out in the framework of an Israel Science Foundation (ISF) Personal Research Grant, entitled “Contextualizing the Architectural Language of the Military Orders: Reconstructing the Frankish Castle of Arsur in Light of its Recently Discovered Chapel.” The project aims at identifying and locating, for the first time, the two religious institutions of Arsur: the castle chapel and the town church. In order to reinforce the archaeological evidence of the assumption regarding the location of the Hospitaller chapel, an excavation has been launched along the full length of the castle's western façade halls, which are located below the castle courtyard level. The goal is to uncover the architectural and sculptural elements buried close to the floor level and to expedite the preservation and conservation of the castle's western façade, which will likewise include means to slow down the erosion of the sea cliff. Retrieving these elements will significantly contribute to the reconstruction of the original layout of the donjon in its later stage under the Hospitallers. It will also facilitate the distinction between the different phases of construction. Most importantly, it will enable, for the first time, the proposal of a reconstruction of the castle chapel based on the analysis of the architectural decorative items of Crusader date found thus far.

Over the years, and especially during the last 26 seasons of excavations, numerous areas have been excavated throughout the site (Fig. 1.2): Area O revealed dismantled raw glass furnaces on top of a winepress, both from the Byzantine period; Area F revealed a castle from the Crusader period; Area R revealed Early Islamic and Byzantine remains below a residential building from the Crusader period; Area X revealed a water cistern from the Byzantine period; Area S revealed Early Islamic fortifications and casemates from the Crusader period; Areas P, P1 and P2 revealed a Samaritan synagogue from the Byzantine period, fortifications from the Early Islamic and Crusader periods and Early Islamic industrial facilities; Area M revealed a refuse pit from the Byzantine period; Area L revealed a town wall from the Early Islamic period and a corner tower of the Crusader fortifications; and Areas N and N1 revealed raw glass furnaces from the Byzantine period. Additional areas excavated in the 1970s–1990s (A–E, G, H, J and K) yielded remains from the Persian through the Crusader periods. These included a Roman *villa littorale* (Area E south), a Byzantine Church (Area K) and the Crusader town gate (Area J). Areas Q and Q1 were excavated in 2012, revealing no significant remains, while Areas AA–DD (and their derivatives), excavated in 2012–2103, revealed tombs, industrial installations and refuse as discussed at some length in the following chapters.

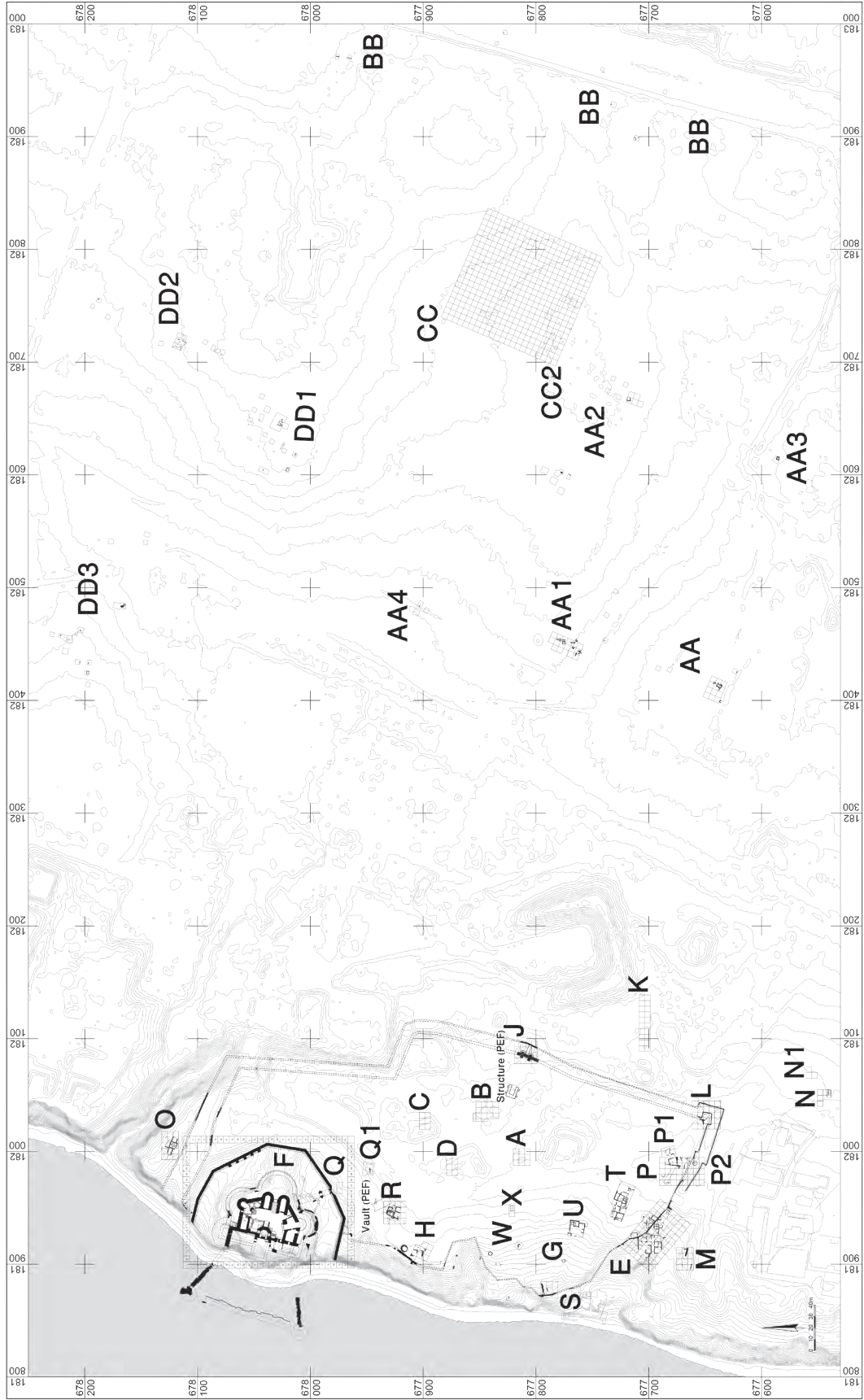


Fig. 1.2: Apollonia-Arsuf, general site plan, marking excavation areas.

All the above seasons of excavations, together with the analysis of the available historical sources, suggest that the site of Apollonia-Arsuf was inhabited continuously from the late 6th century BCE until the Crusader period. Several wall segments, refuse pits and a few tombs were revealed from the Persian and Hellenistic periods (Roll and Tal 1999). The foremost architectural structure from Roman Apollonia is a villa-type structure facing the sea; it includes a peristyle courtyard bounded by a peripheral corridor with rooms arranged along it (Roll and Tal 2008). Recently it was identified as a *mansio* (Tal and Roll 2018). During the Byzantine period, the town, called Sozousa, extended over an unfortified area of ca. 280 dunams. It included a church (Birnbaum and Ovadiah 1990), a Samaritan synagogue (Tal 2015) and industrial quarters with wine and oil presses (Tal 2009b), and plastered pools and furnaces used to produce raw glass (Tal, Jackson-Tal and Freestone 2004; Freestone, Jackson-Tal and Tal 2008). During the reign of the Umayyad caliph ʿAbd al-Malik (685–705 CE), the town, called Arsuf, contracted to an area of ca. 77 dunams and was enclosed within a wall. It was during the Early Islamic period that a *ribat* (stronghold) was constructed in the town (Khalilieh 2008; see also Roll and Ayalon 1987), becoming the home of Muslim religious scholars. In 1101 CE, the site fell to the Crusaders, and its name was changed to Arsur. Toward the middle of the 12th century CE, the site was given to one of the noble families of the Crusader state and became the center of a feudal estate (*seignior*y). After the Ayyubid overtook the site in 1187 CE (Ayalon, Tal and Yehuda 2013), it remained largely deserted for several decades. In 1241 CE, work began on the construction of a castle in the northern part of the town. In 1261 CE, the control of the castle, town and *seignior*y of Arsur were turned over to the Knights Hospitaller. In 1265 CE, following a Mamluk siege, the fortified town and castle were destroyed (Amitai 2005; Tal 2011), and the site has remained uninhabited since then.

The Apollonia-Arsuf Excavation Project focuses on the analysis and publication of all finds and periods recovered during excavations undertaken at the site since 1977, which include the inhabited town, the Crusader castle, the hinterland and the sea coast (cf. Mirkin, Cvikel and Tal 2016).

REFERENCES¹

- Amitai, R. 2005. The Conquest of Arsuf by Baybars: Political and Military Aspects. *Mamluk Studies Review* 9: 61–83.
- Amitai-Preiss, N. and Tal, O. 2015. A Lead Bulla from Apollonia-Arsuf with the Place Name Arsuf Ashkenazi, D. and Tal, O. Appendix: Archaeometallurgical Characteristics of the Bulla. Appendix by Dana Ashkenazi and Oren Tal: Archaeometallurgical Characteristics of the Bulla. *Israel Numismatic Research* 10: 191–206.
- Ashkenazi, D., Golan, O. and Tal, O. 2013. An Archaeometallurgical Study of 13th-Century Arrowheads and Bolts from the Crusader Castle of Arsuf/Arsur. *Archaeometry* 55: 235–257.
- Ayalon, E., Tal, O. and Yehuda, E. 2013. A Twelfth Century Oil Press Complex at the Crusader Town of Arsur (Apollonia) and the Olive Oil Industry in the Latin Kingdom of Jerusalem. *Journal of Eastern Mediterranean Archaeology and Heritage Studies* 1: 259–291.
- Birnbaum, R. and Ovadiah, A. 1990. A Greek Inscription from the Early Byzantine Church at Apollonia. *Israel Exploration Journal* 40: 182–191.
- Fischer, M. and Tal, O. 2003. A Fourth-Century BCE Attic Marble *Totenmahlrelief* at Apollonia-Arsuf. *Israel Exploration Journal* 53: 49–60.
- Freestone, I.C., Jackson-Tal, R.E. and Tal, O. 2008. Raw Glass and the Production of Glass Vessels at Late Byzantine Apollonia-Arsuf, Israel. *Journal of Glass Studies* 50: 67–80.
- Galili, E., Dahari, U. and Sharvit, J. 1991. Underwater Survey along the Coast of Israel. *Excavations and Surveys in Israel* 10: 160–166.

¹ Cited- and site-oriented works.

- Galili, E., Dahari, U. and Sharvit, J. 1993. Underwater Surveys and Rescue Excavations along the Israeli Coast. *International Journal of Nautical Archaeology* 22: 61–77.
- Galor, K., Roll, I. and Tal, O. 2009. Apollonia-Arsuf: Between Past and Future. *Near Eastern Archaeology* 72: 4–27.
- Gophna, R. and Ayalon, E. 1998. *Archaeological Survey of Israel: Map of Herzliyya (69)*. Jerusalem.
- Grossmann, E. 2001. *Maritime Tel Michal and Apollonia: Results of the Underwater Survey 1989–1996* (BAR International Series 915). Oxford.
- Haddad, E., Tal, O., Ajami, M. and Harpak, T. 2015. Apollonia (East). *Hadashot Arkheologiyot—Excavations and Surveys in Israel* 127. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=15728&mag_id=122
- Heidemann, S., Zeischka-Kenzler, A. and Tal, O. 2018. A Magical Rock Crystal Gem from Apollonia-Arsuf, Israel; Ashkenazi, D., Dvir, O. and Tal, O. Appendix: Mineralogical Characterization of the Magical Rock Crystal Gem from Apollonia-Arsuf. *Journal of Islamic Archaeology* 5/2: 225–239.
- Jackson-Tal, R.E. and Tal, O. 2013. Crusader Glass in Context: The Destruction of Arsur (Apollonia-Arsuf, Israel), April 1265. *Journal of Glass Studies* 55: 85–100.
- Kahane, P. 1951. Rishpon (Apollonia); B. *Bulletin of the Department of Antiquities of the State of Israel* 3: 42–43 (Hebrew, with English summary in Perkins 1951).
- Kaplan, E.H. and Kaplan, B. 1975. The Diversity of Late-Byzantine Oil Lamps at Apollonia (=Arsuf). *Levant* 7: 150–156.
- Kenzler, H. 2016. Medieval Town Structure of Arsur on the Basis of Non-Invasive Methods: Results of German-Israeli Project Collaboration. *Zeitschrift des Deutschen Palästina-Vereins* 132: 151–174.
- Kenzler, H. Scholkmann, B. and Zeischka-Kenzler, A. 2014. Arsur – Stadt der Kreuzfahrer. *Archäologie in Deutschland* 4: 12–17.
- Kenzler, H. and Zeischka-Kenzler, A. 2015. Reports: German-Israeli Research on the Crusader Town of Arsur and Its Former Lordship. *The European Archaeologist* 43: 72–79.
- Khalilieh, S.H. 1999. The *Ribât* System and its Role in Coastal Navigation. *Journal of the Economic and Social History of the Orient* 42: 212–225.
- Khalilieh, S.H. 2008. The *Ribât* of Arsuf and the Coastal Defence System in Early Islamic Palestine. *Journal of Islamic Studies* 19: 159–177.
- Kool, R. and Tal, O. 2015. ‘Underground’ Money in an *Outremer* Estate: Token Molds and Lead Tokens from Crusader Arsur. *Israel Numismatic Research* 10: 215–228.
- Mirkin, D. 2018. *Sailing to the Holy Land: Crusader Ships, Seamanship, Logistics and Landing Operations* (BAR International Series 2904). Oxford.
- Mirkin, D., Cvikel, D. and Tal, O. 2016. Arsur Castle Maritime Installation (1241–1265 CE). *Palestine Exploration Quarterly* 148: 294–312.
- Perkins, A. 1951. Archaeological News: The Near East. *American Journal of Archaeology* 55: 81–100.
- Pines, M., Sapir-Hen, L. and Tal, O. 2017. Crusader Diet in Times of War and Peace: Arsur (Israel) as a Case Study. *Oxford Journal of Archaeology* 36: 307–328.
- Pines, M., Sapir-Hen, L. and Tal, O. 2017. Consumption and Disposal Practices in the Southern Levant in Late Antiquity: Animal Bones from Ἐπολλωνία/Σώζουσα’s Hinterland as a Case Study. *Zeitschrift des Deutschen Palästina-Vereins* 133: 186–204.
- Raphael, K. and Tepper, Y. 2005. The Archaeological Evidence from the Mamluk Siege of Arsur. *Mamluk Studies Review* 9: 85–100.
- Roll, I. 1996. Medieval Apollonia-Arsuf: A Fortified Coastal Town in the Levant of the Early Muslim and Crusader Periods. In: Balard, M., ed. *Autour de la première Croisade. Actes du Colloque de la Society for the Study of the Crusades and the Latin East (Clermont-Ferrand, 22–25 juin 1995)*. Paris: 595–606.
- Roll, I. 2006. Apollonia-Arsuf: A Coastal Town of the Eastern Mediterranean Shore in Early Christian and Byzantine Times. In: Harreither, R. et al. *Akten des XIV Internationalen Kongresses für Christliche Archäologie*. Vienna: 681–685.
- Roll, I. 2008. Der frühislamische Basar und die Kreuzfahrerburg in Apollonia-Arsuf. In: Piana, M., ed. *Burgen und Städte der Kreuzzugszeit*. Petersberg: 252–262.

- Roll, I. and Arubas, B. 2006. Le château d'Arsur: Forteresse côtière pentagonale du type concentrique du milieu du XIII^e siècle. *Bulletin Monumental* 164: 67–81.
- Roll, I. and Ayalon, E. 1987. The Market Street at Apollonia-Arsuf. *Bulletin of the American Schools of Oriental Research* 267: 61–76.
- Roll, I. and Ayalon, E. 1989. *Apollonia and Southern Sharon: Model of a Coastal City and its Hinterland*. Tel Aviv (Hebrew).
- Roll, I., Yohanan, H., Tepper, Y. and Harpak, T. 2000. Apollonia-Arsuf during the Crusader Period in Light of New Discoveries. *Qadmoniot* 119: 18–31 (Hebrew).
- Roll, I. and Tal, O. 1999. *Apollonia-Arsuf: Final Report of the Excavations, Volume I: The Persian and Hellenistic Periods (with Appendices on the Chalcolithic and Iron Age II Remains)* (Monograph Series of the Institute of Archaeology of Tel Aviv University 16). Tel Aviv.
- Roll, I. and Tal, O. 2008. A Villa of the Early Roman Period at Apollonia-Arsuf. *Israel Exploration Journal* 58: 132–149.
- Roll, I. and Tal, O. 2009. A New Greek Inscription from Byzantine Apollonia-Arsuf/Sozousa: A Reassessment of the “Eis Theos Monos” Inscriptions of Palestine. *Scripta Classica Israelica* 28: 139–148.
- Roll, I., Tal, O. and Winter, M., eds. 2007. *The Encounter of Crusaders and Muslims in Palestine: as Reflected in Arsuf, Sayyiduna 'Ali and Other Coastal Sites*. Tel Aviv (Hebrew).
- Sapir-Hen, L., Pines, M. and Tal, O. 2014. Animal Economy and Social Diversity in Byzantine Apollonia/Sozousa. *Levant* 46: 371–381.
- Shachar, I. 2000. Greek Colonization and the Eponymous Apollo. *Mediterranean Historical Review* 15: 1–26.
- Sussman, V. 1983. The Samaritan Oil Lamps from Apollonia-Arsuf. *Tel Aviv* 10: 71–96.
- Tal, O. 1995. Roman–Byzantine Cemeteries and Tombs around Apollonia. *Tel Aviv* 22: 107–120.
- Tal, O. 2000. Some Notes on the Settlement Patterns of the Persian Period Southern Sharon Plain in Light of Recent Excavations at Apollonia-Arsuf. *Transeuphratène* 19: 115–125.
- Tal, O. 2009a. A Portable Sundial from Byzantine Apollonia-Arsuf/Sozousa? *Semitica et Classica* 2: 91–96.
- Tal, O. 2009b. A Winepress at Apollonia-Arsuf: More Evidence on the Samaritan Presence in Roman–Byzantine Southern Sharon. *Liber Annuus* 59: 319–342.
- Tal, O. 2010. Apollonia-Arsuf 2006, 2009. *Israel Exploration Journal* 60: 107–114.
- Tal, O., ed. 2011. *The Last Supper at Apollonia: The Final Days of the Crusader Castle in Herzliya*. Tel Aviv (Bilingual Hebrew/English).
- Tal, O. 2012. A Portable Sundial from Apollonia-Arsuf Revisited. *Semitica et Classica* 5: 245–248.
- Tal, O. 2015. A Bilingual Greek-Samaritan Inscription from Apollonia-Arsuf/Sozousa: Yet More Evidence of the Use of εἰς θεὸς μόνος Formula Inscriptions among the Samaritans. *Zeitschrift für Papyrologie und Epigraphik* 194: 169–175.
- Tal, O. and Baidoun, I. 2010. A Hoard of Mamlūk, Ottoman and Venetian Coins (Fifteenth to Sixteenth Centuries) from Apollonia-Arsuf, Israel. *The Numismatic Chronicle* 170: 484–493.
- Tal, O. and Bijovsky, G. 2017. A Hoard of Fourth–Fifth Century CE Copper Coins from Sozousa. *Israel Numismatic Research* 12: 147–158.
- Tal, O., Jackson-Tal, R.E. and Freestone, I.C. 2004. New Evidence of the Production of Raw Glass at Late Byzantine Apollonia-Arsuf, Israel. *Journal of Glass Studies* 46: 51–66.
- Tal, O., Kool, R. and Baidoun, I. 2013. A Hoard Twice Buried? Fatimid Gold from Thirteenth Century Crusader Arsuf (Apollonia-Arsuf). *The Numismatic Chronicle* 173: 261–292.
- Tal, O. and Roll, I. 2018. The Roman Villa at Apollonia (Israel). In: Marzano, A. and Métraux, G.P.R., eds. *The Roman Villa in the Mediterranean Basin: Late Republic to Late Antiquity*. Cambridge: 308–315.
- Tal, O. and Taxel, I. 2012. Socio-Political and Economic Aspects of Refuse Disposal in Late Byzantine and Early Islamic Palestine. In: Matthews, R. and Curtis, J., eds. *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East, 12–16 April 2010, the British Museum and UCL, London 1: Mega-cities and Mega-sites: The Archaeology of Consumption and Disposal, Landscape, Transport and Communication*. Wiesbaden: 497–518.

- Tal, O. and Taxel, I. 2017. More Than Trash – Cultic Use of Pottery Lamps Found in Late Antique Dumps: Apollonia (Sozousa) as a Test Case. In: Tal, O. and Weiss, Z., eds. *Expressions of Cult in the Southern Levant in the Greco-Roman Period: Manifestations in Text and Material Culture* (Contextualizing the Sacred 6). Turnhout: 181–193.
- Tal, O., Taxel, I. and Zeischka-Kenzler, A. 2018. A *Basmala*-Inscribed Jug from Arsuf's Mamluk Destruction of AD 1265: The Religious Manifestation of a Christian-Used Table Vessel? *Journal of Near Eastern Studies* 77: 91–98.
- Tal, O. and Teixeira Bastos, M. 2013. Intentionally Broken Discus Lamps from Roman Apollonia: A New Interpretation. *Tel Aviv* 39: 104–114.
- Tal, O. and Teixeira Bastos, M. 2015. More on the Intentionally Broken Discus Lamps from Roman Palestine: Mutilation and Its Symbolic Meaning. In: Blömer, M., Lichtenberger, A. and Raja, R., eds. *Religious Identities in the Levant from Alexander to Muhammed: Continuity and Change* (Contextualizing the Sacred 4). Turnhout: 345–368.
- Tal, O., Yohanan, H., Ajami, M. and Jackson-Tal, R.E. Apollonia. 2017. *Ḥadashot Arkheologiyot—Excavations and Surveys in Israel* 129. http://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=25296&mag_id=125
- Taragan, H. 2004. The Tomb of Sayyidnā 'Alī in Arsūf: The Story of a Holy Place. *Journal of the Royal Asiatic Society* 14: 83–102.
- Wexler, L. and Gilboa, G. 1994. A Signet Ring from the Apollonia-Arsuf Excavations. *Tel Aviv* 21: 288–291.
- Wexler, L. and Gilboa, G. 1996. Oil Lamps of the Roman Period from Apollonia-Arsuf. *Tel Aviv* 23: 115–131.
- Zeischka-Kenzler, A., Yohanan, H., Kenzler, H., Harpak, T., Scholkmann, B. and Tal, O. Apollonia. 2018. *Ḥadashot Arkheologiyot—Excavations and Surveys in Israel* 130. http://www.hadashot-esi.org.il/Report_Detail_Eng.aspx?id=25454&mag_id=126