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SAMUEL R. WOLFF

As always, excavations in Israel (fig. 1) are conducted by foreign institutions, local universities, and the Israel Antiquities Authority.¹ Projects sponsored by foreign institutions, such as at Ashkelon, Sepphoris, Yarmuth, and Caesarea, continue in the field. Local universities have been active as well, with highprofile excavations such as at Hazor, Megiddo, Dor, and Rehov (most with foreign sponsorship and participation), to name a few. While tourism is down in Israel due to security concerns, excavations seem to have little trouble finding foreign volunteers.

The IAA, on the other hand, has been less active than usual in the past two years. The reason for this decline is the lack of adequate financial resources. Two factors account for diminished budgets at the IAA: 1) governmental budget cuts resulting from a general downturn in the local economy and a lack of political support within the present coalition government due to the increase in political muscle of the ultrareligious parties; and 2) the advent of competition for salvage excavations. In Israel, private salvage companies such as those in the United States are illegal; excavation permit holders must be affiliated with a reputable sponsoring institution. In the past year, a change has occurred in policies concerning Israeli salvage archaeology. In the past, the IAA was both the permit-granting body and the excavating body. In order to avoid conflicts of interest, it has been decided that universities can bid for salvage archaeology contracts against the IAA (see, for example, the report below on the results of BGU's salvage projects in the vicinity of Ben Shemen). This decision has resulted in a drastic decrease in the number of new excavation projects-and therefore income - for the IAA. Together, these two factors have resulted in layoffs and cutbacks in projects at the IAA. The economic situation in Israel may improve, which would result in more projects and income for the IAA and the university salvage companies. But

¹ I am grateful to those excavators who kindly supplied me with reports and illustrations. I would especially like to thank Sorin Hermon (BGU) for his summary of prehistoric research and Haim Gitler (Israel Museum) for his survey of recent numismatic discoveries and research. The map (fig. 1) was prepared by Michael Miles. For my last report in *AJA*, see S.R. Wolff, *AJA* 100 (1996) 725–68. the political scene leaves little room for optimism. To quote archaeologist Gabriel Barkay, winner of the Jerusalem Prize for Archaeological Research in 1996, "the more the government depends on ultra-Orthodox votes, the more trouble we are going to have in archaeology."²

Recent honors bestowed on archaeologists include the prestigious Israel Prize awarded to Trude Dothan (HU) and the Percia Schimmel Award for Distinguished Contribution to Archaeology in Israel and the Lands of the Bible to Joseph Naveh (HU).

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Site reports. The following site reports appeared in the last two years: O. Bar-Yosef and A. Gopher eds., An Early Neolithic Village in the Jordan Valley 1: The Archaeology of Netiv Hagdud (Cambridge, Mass. 1997); Gopher ed., The Nahal Qanah Cave: Earliest Gold in the Southern Levant (Tel Aviv 1996); R. Amiran and O. Ilan eds., Early Arad: The Chalcolithic and Early Bronze IB Settlements and the Early Bronze II City: Architecture and Town Planning II: Sixth to Eighteenth Seasons of Excavations, 1971-1978, 1980-1984 (Jerusalem 1996); R. Gophna, Excavations at Tel Dalit, an Early Bronze Age Walled Town in Central Israel (Tel Aviv 1996); E. Braun, Yiftah'el: Salvage and Rescue Excavations at a Prehistoric Village in Lower Galilee, Israel (Jerusalem 1997); A. Biran, D. Ilan, and R. Greenberg, Dan I: A Chronicle of the Excavations, the Pottery Neolithic, the Early Bronze Age and the Middle Bronze Age Tombs (Jerusalem 1996); A. Ben-Tor and R. Bonfil eds., Hazor V: An Account of the Fifth Season of Excavation, 1968 (Jerusalem 1997); S. Givon ed., The Seventh Season of Excavation at Tel Harassim (Nahal Barkai) 1996 (Tel Aviv 1997); D.T. Ariel and A. de Groot eds., Excavations at the City of David 1978-85, Directed by Yigal Shiloh IV: Various Reports (Qedem 35, Jerusalem 1996); Givon, The Excavation at Tel Masos 1979 (Tel Aviv 1996); G. Avni and Z. Greenhut, The Akeldama Tombs: Three

Abbreviations used in this article are as follows: IAA:

Israel Antiquities Authority; HU: Hebrew University; HUC: Hebrew Union College; BGU: Ben-Gurion University of the Negev; TAU: Tel Aviv University; and UH: University of Haifa.

² G. Barkay, "Politics – Not Religious Law – Rules Ultra-Orthodox Demonstrators," *Biblical Archaeology Review* 23:6 (1997) 77.



Fig. 1. Map of sites mentioned in the text. (M. Miles)

Burial Caves in the Kidron Valley, Jerusalem (Jerusalem 1996); Y. Hirschfeld, The Roman Baths of Hammat Gader: Final Report (Jerusalem 1997); A. Negev, The Architecture of Oboda: Final Report (Qedem 36, Jerusalem 1997); A. Ben Tor et al., Yoqne'am I: The Late Periods (Jerusalem 1996); and R. Harper, Upper Zohar: An Early Byzantine Fort in Palaestina Tertia. Final Report of Excavations in 1985–1986 (Oxford 1995).

Artifactual studies. Recent publications on ceramics and other artifacts include the following: A. Gopher and E. Orrelle, *The Ground Stone Assemblages of Munhata* (Quetigny 1995); Y. Garfinkel, *Human and Animal Figurines of Munhata (Israël)* (Quetigny 1995); P. Amiet et al., *Tell el Far'ah: Histoire, glyptique et céramologie* (Fribourg 1996); M.J.W. Leith, *Wadi Daliyeh* I: *The Wadi Daliyeh Seal Impressions* (Oxford 1997); S.C. Herbert ed., *Tel Anafa* II.1: *The Hellenistic and Roman Pottery: The Plain Wares* (A. Berlin); *The Fine Wares* (K.W. Slane) (Ann Arbor 1997); and S. Loffreda, *La ceramica di Macheronte e dell'Herodion (90 a.C.-135 d.C.)* (Jerusalem 1996).

Several publications of inscriptions and small objects have recently appeared, including N. Avigad and B. Sass, Corpus of West Semitic Stamp Seals (Jerusalem 1997); O. Keel, Corpus der Stempelsiegel-Amulette aus Palästina/Israel. Von den Anfängen bis zur Perserzeit. Katalog I: Von Tell Abu Farağ bis 'Atlit (Freiburg 1997); and R. Kletter, The Judean Pillar-Figurines and the Archaeology of Asherah (Oxford 1996). Two volumes of ostraca originating from the same unknown provenance and at present housed in different museum and private collections have appeared: A. Lemaire, Nouvelles inscriptions araméennes d'Idumée au Musée d'Israël (Paris 1996); and I. Ephal and J. Naveh, Aramaic Ostraca of the Fourth Century BC from Idumaea (Jerusalem 1996).

Surveys. Survey reports that have appeared include A. Zertal, The Manasseh Hill Country Survey: The Eastern Valleys and the Fringes of the Desert (Tel Aviv 1996, in Hebrew); I. Finkelstein and Z. Lederman eds., Highlands of Many Cultures: The Southern Samaria Survey: The Sites (Tel Aviv 1997); and S.A. Kingsley and K. Raveh, The Ancient Harbour and Anchorage at Dor, Israel: Results of the Underwater Surveys 1976–1991 (Oxford 1996). Three volumes in the Archaeological Survey of Israel series have also recently appeared: D. Gazit, Map of Urim (125) (Jerusalem 1996); R. Frankel and N. Getzov, Map of Akhziv (1); Map of Hanita (2) (Jerusalem 1997); and R. Gophna and I. Beit-Arieh, Map of Lod (80) (Jerusalem 1997).

Edited volumes. Two major reference works appeared recently, E. Meyers ed., *The Oxford Encyclopedia of Archaeology in the Near East* (Oxford 1997); and J.M. Sasson ed., *Civilizations of the Ancient Near East* (New York 1995). See also *Eretz Israel* (Jerusalem 1996),

dedicated to Joseph Aviram; and E.D. Oren ed., The Hyksos: New Historical and Archaeological Perspectives (Philadelphia 1997). Papers presented at a symposium held at Hebrew University and sponsored by Philip and Muriel Berman were published in S. Gitin, A. Mazar, and E. Stern eds., Mediterranean Peoples in Transition: Thirteenth to Early Tenth Centuries BCE (Jerusalem 1998); this volume was published in honor of Trude Dothan. Other volumes include M. Coogan, J.C. Exum, and L.E. Stager eds., Scripture and Other Artifacts: Essays on the Bible and Archaeology in Honor of Philip J. King (Louisville 1994); N.A. Silberman and D. Small eds., The Archaeology of Israel: Constructing the Past, Interpreting the Present (Sheffield 1997); J.D. Seger ed., Retrieving the Past: Essays on Archaeological Research and Methodology in Honor of Gus Van Beek (Winona Lakes 1996); and Y. Friedman, Z. Safrai, and J. Schwartz eds., Hikrei Eretz: Studies in the History of the Land of Israel Dedicated to Prof. Yehuda Feliks (Ramat Gan 1997, in Hebrew).

Monographs. The following monographs were recently published: S.A. Rosen, Lithics after the Stone Age: A Handbook of Stone Tools from the Levant (Walnut Creek 1997); I. Finkelstein, Living on the Fringe: The Archaeology and History of the Negev, Sinai and Neighbouring Regions in the Bronze and Iron Ages (Sheffield 1995); Z. Herzog, Archaeology of the City: Urban Planning in Ancient Israel and Its Social Implications (Tel Aviv 1997); and O. Zimhoni, Studies in the Iron Age Pottery of Israel: Typological, Archaeological and Chronological Aspects (Tel Aviv 1997). The last presents Zimhoni's collected published works, including an English translation of her important M.A. thesis on the pottery of Lachish levels V and IV, in her memory. See also O. Borowski, Every Living Thing: Daily Use of Animals in Ancient Israel (Walnut Creek 1997); G. Avni, Nomads, Farmers, and Town-Dwellers: Pastoralist-Sedentist Interaction in the Negev Highlands, Sixth-Eighth Centuries CE (Jerusalem 1996); S. Gibson and D.M. Jacobson, Below the Temple Mount in Jerusalem: A Sourcebook on the Cisterns, Subterranean Chambers and Conduits of the Haram al-Sharif (Oxford 1996); M. Fischer, B. Isaac, and I. Roll, Roman Roads in Judaea II: The Jaffa-Jerusalem Roads (Oxford 1996); R.C. Gregg and D. Urman, Jews, Pagans and Christians in the Golan Heights (Atlanta 1996); and R. Schick, The Christian Communities of Palestine from Byzantine to Islamic Rule: A Historical and Archaeological Study (Princeton 1995).

EXHIBITIONS

The Israel Museum in Jerusalem presented a new exhibition in 1997–1998 entitled "New Antiquities." Curated by Osnat Misch-Brandl, this exhibition presented the most impressive objects excavated in Israel in the 1990s. The stunning finds ranged in date from the Neolithic to the Arabic periods. Even this successful exhibition, however, was not without accompanying controversy. The Israel Museum longed to include in the exhibition the exceptional textile and wooden objects from the Early Bronze Age "Cave of the Warrior," discovered during Operation Scroll near Jericho in 1993. The IAA, however, had received considerable funding for the preservation and mounting of the finds from a foreign donor in exchange for first exhibition rights to the material at the Museum of Natural History in New York, thus preventing its inclusion in the Israel Museum exhibition. A nationalistic backlash was unleashed against the IAA for not insisting on the inclusion of these finds in the exhibition. The IAA spokesman countered by stating that "without the donation, it's doubtful whether the bones [and associated objects] would ever be exhibited."

Publications of other exhibitions include Z. Weiss and E. Netzer, Promise and Redemption: A Synagogue Mosaic from Sepphoris (Israel Museum catalogue 378, Jerusalem 1996); D. Ben-Tor, The Immortals of Ancient Egypt: From the Abraham Guterman Collection of Ancient Egyptian Art (Israel Museum catalogue 393, Jerusalem 1997); and A. Roitman, A Day at Qumran: The Dead Sea Sect and Its Scrolls (Israel Museum catalogue 394, Jerusalem 1997). Other exhibitions that recently took place are "Empire of the Sultans: Ottoman Art from the Collection of Nasser D. Khalili: New Antiquities," which was curated by O. Misch-Brandl, at the Israel Museum in 1996 (booklet available); and another Sepphoris exhibit at the North Carolina Museum of Art, "Sepphoris in Galilee: Crosscurrents of Culture," with a catalogue edited by R.M. Nagy, C. Meyers, E. Meyers, and Z. Weiss (1996). Also presented was "Highlights of Ancient Cypriote Ceramic Art" at the Eretz Israel Museum, Tel Aviv, curated by Y. Olenik, and with two catalogues: V. Karageorghis and Y. Olenik, The Potters' Art of Ancient Cyprus in the Collection of the Eretz Israel Museum, Tel Aviv (Tel Aviv 1997); and G. Doron-Dolev ed., Highlights of Ancient Cypriote Ceramic Art from the Collections of the Cyprus Museum, Nicosia (Tel Aviv 1997). Two other exhibits were "Illness and Healing in Ancient Times," at the Hecht Museum, curated by O. Rimon (catalogue 13, Haifa 1996); and "Out of Noah's Ark: Animals in Ancient Art from the Leo Mildenberg Collection," at the Bible Lands Museum in 1997.

WORLD WIDE WEB SITES

Home pages for the following excavations are linked in ABZU (http://www-oi.uchicago.edu/OI/DEPT/ RA/ABZU/ABZU.HTML): Ashkelon, Combined Caesarea Expeditions, Dor, Ein Gedi, Halif, Hazor, Megiddo, Naḥal Tillah, Sepphoris (South Florida), and Yaqush. Dozens of other relevant sites, including the Israel Museum and Tel Aviv University, can also be accessed through ABZU.

EARLY PREHISTORY

In past installments of this newsletter, the work of prehistorians has been underrepresented in comparison to historical projects. The following survey, kindly prepared by Sorin Hermon (BGU) and arranged according to period, attempts to bring readers up to date. Reports on prehistoric sites submitted by excavators are integrated in the appropriate sections.

Lower Palaeolithic

The Lower Palaeolithic in Israel is represented by only a few sites, most of them discovered at the beginning of this century. The scarcity of sites from this period is probably a result of their state of preservation and the difficulties in their discovery. Sites of this period would be deeply buried beneath sedimentation of more than a half-million years, and therefore their discovery is usually accidental – the sites are often found during quarrying or as a result of tectonic movements, which change the natural horizontal sedimentation of the layers. The sites described below were discovered in this fashion.

Ubeidiya. The site of Ubeidiya is located in the northern part of the Jordan Valley. It was discovered in the first half of the century and excavated mainly during the 1960s and 1970s. These excavations demonstrated that the site is one of the best-documented and oldest sites in the world outside of Africa. The flint industry is similar to the Developed Oldowan, as found at African sites more than 1.5 million years old. The site is dated to ca. 1.4 million years B.P., mainly by faunal correlation and magnetism. Since 1987, new excavations have been directed by Eitan Tchernov (HU). The goals of the new project are to correlate stratigraphically the different areas of the site and to collect more data concerning the activity of early hominids at the site.

Gesher Benot Yaʿakov. The site of Gesher Benot Yaʿakov is located on the east bank of the Jordan River, north of the Sea of Galilee. It was discovered in the 1930s and excavated by several archaeologists, among them Dorothy Garrod, Moshe Stekelis, and David Gilead. In 1989, excavations were renewed at the site under the direction of Naama Goren-Inbar (HU). Several Acheulian layers were exposed, rich in stone artifacts and organic material (bones, wood, fruit, and seeds). The lithic assemblage consisted of typical Middle Acheulian assemblages (handaxes and cleavers made of basalt), indications of African affinities (see N. Goren-Inbar and I. Saragusti, *JFA* 23 [1996] 15–30).

Tabun Cave. Tabun Cave is one of the most important prehistoric sites in the southern Levant, comprising more than 18 m of archaeological sediments, with a sequence spreading over more than 200,000 years, from the Acheulian through the Middle Palaeolithic. The site was originally dug by Garrod. Based primarily on these excavations, the local Mousterian lithic sequence was defined, thus establishing the chronostratigraphic framework for the study of the Levantine Mousterian complex. During the 1970s, the site was reexcavated by Arthur Jelinek. These excavations raised questions concerning the appearance of Homo sapiens, their contemporaneity with the Levantine Neanderthals in the southern Levant, and the chronology of the local Middle Palaeolithic flint industries.

In 1988 a new series of excavations was initiated at the site under the direction of Avraham Ronen (UH). The main goal of the new excavations is to comprehend better the different units at the site as defined by previous excavations, mainly in the lower parts of the sequence. In the 1993-1994 season, layer G, the lowest part of the sequence as defined by Garrod, was excavated. Evidence for intentional fire, as well as burnt bones, was found within this layer, among the earliest indications for the human use of fire. Inverse palaeomagnetism suggests an age of more than 780,000 years for this layer. The flint industry, locally made, is attributed to the Acheulian horizon. During the cleaning of the section in layer F (Yabrudian), two fireplaces were found, estimated to be the earliest fireplaces in Israel (ca. 300,000 years B.P.) (see A. Ronen, Journal of the Israel Prehistoric Society 24 [1991] 149-51).

Revadim Quarry. Ofer Marder (IAA), Hamoudi Khalaily (IAA), R. Rabinovich (HU), and I. Saragusti (HU) report on a newly discovered Lower Palaeolithic site:

A salvage excavation was conducted at the site of Revadim Quarry, 1.5 km north of Kibbutz Revadim, on behalf of the IAA. In the course of recent quarrying activity, lithic and faunal remains were exposed at the contact between a level of grumusol and an underlying hamra. Two weeks of excavations recovered archaeological remains, including animal bones and stone tools, that indicate that the site covers an area of at least 3,500 m². Palaeomagnetic measurements show a normal polarity, suggesting an age younger than the Brunhes-Matuyama boundary at 780,000 years B.P. The faunal assemblage includes proboscides (two elephant tusk and pelvis fragments, assumed to belong to a male straight-tusked elephant, *Palaeoloxodon antiquus*), deer, and rodents, among other species. Preliminary results of the analysis of the flint assemblage indicate a high degree of technological and typological uniformity. The assemblage is characterized by a high frequency of flake tools dominated by notches, denticulates, awls, and multiple tools; a low frequency of sidescrapers, Levallois cores, and Levallois or radial flakes; and the presence of handaxes (1.7%). The lithic and faunal assemblages can be assigned to a broad time span – the Middle/Upper Acheulian period (ca. 300– 600,000 B.P.).

Middle Palaeolithic

During the last decade, several Middle Palaeolithic sites were excavated in Israel, all located in caves in the Galilee Mountains. The goal of these excavations was to collect more information about this period, using new methods of dating and new approaches for understanding the formation of sites within caves. These questions are crucial in the reconstruction of the southern Levantine prehistoric cultures and generally for the understanding of the evolution of modern humans.

Hayonim Cave. Hayonim Cave has been excavated several times since the 1960s, leading to the discovery of levels dating from the Middle Palaeolithic to the Natufian. In 1992, a new series of excavations was initiated by Ofer Bar-Yosef (Harvard University), Bernard Vandermeersh (Bordeaux University), and Anna Belfer-Cohen (HU), mainly on the Mousterian levels. The upper part of the Mousterian layer (E) contained an industry of the Tabun D type, while in its lower levels it contained a lithic industry characterized by elongated points (similar to those found at Abu Sif Cave in the Judaean Desert) and blade production from double platform cores. At a depth of 4 m into the Mousterian layer, several fireplaces were observed, and additional ones were defined by micromorphological studies of the sediments. TL and ESR dating showed that the earliest Mousterian occupations occurred 200,000 years ago. The faunal remains included bones of turtles, deer, and wild pigs.

Amud Cave. Amud Cave, excavated during the 1960s by a Japanese mission, yielded human remains in a Mousterian layer. New excavations were begun in 1991, directed by Erella Hovers and Yoel Rak, their goals being to expand the area of the Mousterian layers, to find more human remains, to obtain better dates for the layers, and to understand the formation of the site. The main discovery was an intentional burial of a 10-month-old human baby, between layers B1 and B2, in a niche in the wall. The baby is attributed to the Levantine Neanderthals hominid type (see E. Hovers, Y. Rak, and W.H. Kimbel, *Jour*nal of the Israel Prehistoric Society 24 [1991] 152-57).

Upper Palaeolithic

Very few sites of the Upper Palaeolithic have been excavated during the last decade in Israel; one of these is described below.

Nahal Ein Gev I. Nahal Ein Gev I was originally excavated in the 1970s by a team led by Ofer Bar-Yosef (then of HU). Their main discovery was a human burial, the first ever found in Israel in an Upper Palaeolithic context. Excavations in 1993, directed by Anna Belfer-Cohen (HU), were intended to clarify the stratigraphic position of the human remains. The excavations demonstrated that the human remains were indeed in a clear Upper Palaeolithic context, of the Levantine Aurignacian complex.

Epipalaeolithic

The Epipalaeolithic period has been intensively investigated in the past decade of prehistoric research in Israel. Sites from various parts of Israel were excavated using modern methods of excavation. Therefore, more data are now available for a better understanding of the cultural processes of this period.

Ohalo II. One of the most impressive sites excavated in Israel was discovered in 1989 when the shores of the Sea of Galilee receded several meters. Excavations were conducted at Ohalo II over three seasons by Dani Nadel (UH), ending when the waters of the Galilee once again submerged the site. During the excavation, the remains of three oval huts, installations, firepits, dumping zones, and the burial of a male adult were discovered. The site was radiocarbon-dated to 19,000 B.P. The flint industry was defined as Early Kebaran. The excavation of the site enabled the excavators to reconstruct the daily life of a community of fisher-hunter-gatherers that camped at the shores of the lake ca. 19,000 years ago. The unique preservation of the site allowed the collection of much data concerning the intrasite organization of the camp, types of structures, subsistence economy, and physical anthropological characteristics of the inhabitants of Ohalo II (see D. Nadel, Journal of the Israel Prehistoric Society 24 [1991] 158-63).

Urkan E-Rub IIA. Urkan E-Rub IIA is located in the lower Jordan Valley and was excavated in 1988 by Erella Hovers (HU) and Ofer Marder (IAA). The lithic assemblage was defined as Early Kebaran. A cluster of nine samples, however, yielded a radiocarbon date of ca. 15,000 B.P. This date contradicts the cultural sequence developed according to typochronological considerations. Therefore, this excavation prompted a reevaluation of the cultural sequence at the end of the Upper Palaeolithic in the southern Levant (see E. Hovers and O. Marder, *Journal of the Israel Prehistoric Society* 24 [1991] 34–58).

Givat Hayil. Givat Hayil, excavated by Steven Rosen (BGU), was found on a slope in the Negev Hills, covering an area of 25 m². The main concentration of flint artifacts was found near a built firepit. Two firepits were discovered. The tool assemblage is dominated by Ramonian points, a typical attribute of assemblages of the Early Ramonian industry in this region. The good preservation of the site enabled the conjoining of different flint artifacts at the site and thus the reconstruction of knapping processes.

Nahal Neqarot. Nahal Neqarot was discovered during a survey of the Negev, conducted by Steven Rosen on behalf of the Emergency Survey of the Negev. Excavations were directed by A.N. Goring-Morris (HU), A. Belfer-Cohen (HU), S. Rosen (BGU), and I. Gilead (BGU). Flint artifacts were noted on the surface below a rock shelter. The site was excavated according to a 1×1 m grid and all the sediments were sieved. The flint industry is dominated by Ramonian points and large thick scrapers. This is the first site in the area that was found in a rock shelter (see A. Belfer-Cohen et al., *Journal of the Israel Prehistoric Society* 24 [1991] 164–68).

Nahal Besor 6. Naḥal Besor 6 is located in the western Negev, on a slope facing southwest, toward the connection of two main wadis. In 1995 the site was excavated by Nigel Goring-Morris (HU). Flint artifacts were dispersed over an area of 3–4 dunams. The excavation focused on the main concentration of flint artifacts where a rounded structure was found (a windbreak). The flint artifacts were attributed to the Late Ramonian–Early Natufian, Late Natufian, and Harifian assemblages. The site was described as a basecamp for a Natufian group that settled there around 14,500 years ago.

Newe David. Newe David is located in the Carmel Mountains, near Haifa. Excavation was directed by Daniel Kaufman (UH) at the site in 1984, 1986, 1987, and 1990. The main layer was attributed to the Geometric Kebaran (13,000 B.P.). Several stone-built features were exposed (fireplaces). A unique find for this period was two burials, one of them marked with a stone pile, and with a flat stone over the feet of the interred.

Neolithic

The Neolithic is the best-represented period in the record of local prehistory. This period is associated with major shifts in human society—the beginning of animal domestication and systematic agriculture and an increase in social complexity. The number of excavated sites reflects the interest of researchers in solving questions concerning all aspects of these socioeconomic changes.

Atlit-Yam. Excavations directed by Ehud Galili (IAA) began in 1987 at the submerged Neolithic site of Atlit-Yam. The remains of several structures were uncovered. In the vicinity, the burial of a female in a fetal position was exposed. In different places at the site, caches of flint and pottery were noted, as well as a concentration of cereal grains. Several fireplaces were uncovered, some of them consisting of one course of stones. A well, built with stones and dug into the kurkar bedrock, was excavated. The well probably served as the site's water source, but with a rise in sea level and the subsequent salinization of the water, the well was turned into a refuse pit.

Kfar Hahoresh. Kfar Hahoresh is located in the Lower Galilee, near the city of Nazareth. Excavations began in 1991, directed by Nigel Goring-Morris (IAA, later HU). Several quadrilateral structures were found with fieldstone foundations and plastered floors. At least three distinct stages of occupation were observed. In addition to finds such as stone tools, a relatively large number of burials were found, suggesting that the site also played a ritual role in the area. One of the unique finds was a plastered skull, found in association with a skeleton of a gazelle, with its head missing. An additional human burial was found covered by the remains of Bos primigenius. The flint industry is typical for the Middle Pre-Pottery Neolithic B (PPNB) period, the tool assemblage being dominated by borers, retouched blades, arrowheads, and sickle blades. The faunal remains represent wild hunted species, especially gazelle, aurochs, and wild boar (see A.N. Goring-Morris et al., Journal of the Israel Prehistoric Society 24 [1991] 77-101; 26 [1994-1995] 74-121).

Kfar Samir. Kfar Samir was discovered during underwater surveys offshore of Haifa. Several features were revealed—wells built of wood, rounded structures, and wooden bowls. A unique feature was an oval pit paved with limestone pebbles and filled with crushed olive seeds. This find, dated to the Late Neolithic period, provides the earliest-known evidence for olive oil production (see E. Galili and J. Sharvit, *Journal of the Israel Prehistoric Society* 26 [1994–1995] 122–33).

Abu Ghosh. Abu Ghosh was first excavated in the 1950s and 1970s by Jean Perrot of the French Mission in Jerusalem. Recent salvage excavations were conducted by Ofer Marder and Hamoudi Khalaily on behalf of the IAA. Three occupational layers were exposed, two belonging to the PPN and one to the Pottery Neolithic. The earliest layer was exposed in only two squares, the finds being mostly flint artifacts and burnt bones. The second PPN layer was exposed in most of the excavation area (ca. 400 m²). The architectural remains included a long wall (almost 20 m in length), with adjacent perpendicular walls. A plastered floor was exposed at the edge of the wall. Several features were found nearby, including a burial pit with several individuals, all lacking skulls. On the west side of the excavation area a rectangular building was exposed. The estimated area of the PPN settlement is about 8 dunams.

The upper Pottery Neolithic layer was exposed only in this area. The inhabitants reused the architectural remains from the earlier phase. Several pits were dug into the earlier layers. The finds included flint tools, pottery, and a zoomorphic figurine; a human burial in a shallow pit was also excavated.

Sha'ar Hagolan. Yosef Garfinkel (HU) reports on the 1997 season at this important Neolithic site:

At Sha^{*}ar Hagolan the Yarmukian culture of the Pottery Neolithic period was first distinguished by M. Stekelis, who excavated the site in the years 1948– 1952. New excavations at this major Neolithic site were initiated by Yosef Garfinkel (HU). Three previous seasons took place in 1989, 1990, and 1996.

In the fourth season of excavation, the excavated area was doubled, from 350 to 750 m². Rich assemblages of pottery, flint, stone artifacts, art objects, and animal bones have been systematically collected by sieving the site sediment.

A monumental building, partly known from the previous seasons, has now been completely uncovered (fig. 2). This 400-m² complex is composed of one trianglelike courtyard with eight rooms surrounding it. One room is rounded (a silo?); the others are either rectangular or square in shape. Three of the rooms are paved with flat basalt river pebbles. This structure is the earliest example we have in Israel of a "courtyard building," which was very common in the ancient Near East and is still used today by traditional village communities. The building has one entrance from the street directly into an enclosed unroofed courtyard. The courtyard is the center of the building, and most of the activities took place in it. A series of roofed rooms are located around the courtyard. They are smaller in size and opened onto the courtyard. Some of them could have served as dwellings, and others for storage.

In the monumental building three outstanding finds have been discovered: 1) Mediterranean seashells, transported ca. 60 km; 2) artifacts of obsidian, the source of which is Anatolia, testifying to an exchange network of some 700 km; and 3) an unusu-



Fig. 2. Sha'ar Hagolan. Monumental building.

ally large clay statue of an anthropomorphic figure. These finds indicate that the building functioned as an important center of trade and cult.

East of the monumental building is a curved alley, and east of it the edge of a second monumental complex is beginning to appear. To the west of the excavated monumental building is a 3-m-wide straight street. At the other side of the street the edge of a third monumental complex is beginning to appear. This building is very promising, since the areas so far excavated in it are richer in finds than those of the first monumental building, including two basalt mortars (one with pestle in situ), 12 stone weights, a basalt pebble incised with 11 parallel straight lines on one side and a central groove (sometimes interpreted as a symbol of the female sex organ) on its other side, a clay cylinder pointed at its two edges (sometimes interpreted as a symbol of the male sex organ), a zoomorphic clay figurine, an anthropomorphic pebble figurine, and potsherds with elaborate decoration. The fact that so many items have been discovered still lying on the house floors probably indicates that the inhabitants left unexpectedly, hoping to return.

The concentration of three large structures indicates that we are currently excavating the heart of the ancient village of Sha^ear Hagolan. Over 150 prehistoric art objects had been collected over the years on the site's surface by local farmers. Thus, no information had been available concerning the context and function of these items within the Neolithic community. Now, thanks to the 1997 excavation season, it is clear that this rich symbolic expression is associated with a well-planned village and monumental architecture. The complex system of buildings and streets is the earliest to be discovered in Israel. With its discovery, a new chapter needs to be written on the development of architecture in our region.

Tel Dover. Samuel Wolff and Ianir Milevski (both IAA) report on the finds from the earliest stratum at Tel Dover (fig. 3) located on the northern bank of the Yarmuk River, the present-day border between Jordan and Israel. The salvage project was directed by Alexander Onn (IAA). Excavations were conducted on the lower terrace of the site, between the tell itself and the nearby riverbank.

A limited exposure dating to the Wadi Rabah period (Late Neolithic/Early Chalcolithic) was found under the predominantly Classical-period finds (see below) unearthed in the course of excavations. The only architectural remains consisted of a circular stone wall, 2.4 m in diameter. Several isolated probes, at least 60 m apart, yielded occupational debris con-



Fig. 3. Tel Dover. General view of site, to south-southwest. Tell in upper right corner, Yarmuk River on left. (Courtesy Israel Antiquities Authority)

taining pottery and flints typical of the period. These sparse finds provide evidence for a previously unknown sizable settlement from this period, a period not represented at nearby Sha[°]ar Hagolan; the closest settlement dating to this period is found at Munhata, ca. 12 km to the southeast.

Several unstratified finds attest to the presence of a Chalcolithic occupation at the site. These finds include two violin-shaped figurines, a basalt pillar statue of the Golan style, and pottery.

EARLY BRONZE AGE

Tel Yarmuth. Pierre de Miroschedji reports on the 11th and 12th seasons of excavations at Tel Yarmuth, which took place in July–August 1996 and 1997 under the joint auspices of the Centre national de la recherche scientifique and the Institute of Archaeology of the Hebrew University of Jerusalem.

Excavations were mainly concerned with the EB

IIIC palace (area B), a 6000-m² building complex under excavation since the eighth season (1990). Soundings were also conducted on three terraces to the southeast of Palace B (areas J, K, and M), while the stratigraphic sounding opened in 1987 on the acropolis was expanded and continued down to bedrock (fig. 4).

The Palatial Complex (area B). Palace B is a large subrectangular building complex measuring $84.50 \times$ 72.10 m and enclosed by a thick peripheral wall (fig. 5). Square inner buttresses placed at regular intervals along this wall indicate the presence of two major courtyards inside the enclosed area, the Northeastern Courtyard and the Main Courtyard, the latter occupying the southwestern half of the palace. Three main subareas (Bb, Bd, and Bh) were excavated in 1996–1997.

The goal of excavation near the eastern corner of the palace (subarea Bh) was to locate the main entrance to the building complex. A large Hypostyle Hall (1965) was discovered, its northeastern half destroyed by Byzantine terrace walls. Eight column bases were found inside, six in situ and two displaced when the terrace walls were built. These findings, coupled with metrological observations, allow the restoration of a $10.80 \times ca.9$ m hall with nine columns arranged in three rows of three columns each. The hall had a plastered floor and possible mudbrick side benches. The existence of an upper story is implied by the stratification of the fill, which includes roof debris mixed with ca. 20 pithoi, many of them having fallen upside down. Noteworthy among the finds are two disks of a basalt tournette. It is presumed that the Hypostyle Hall was preceded to the northeast by one or several antechamber rooms. As these have now entirely disappeared, it is not known whether they were approached from the northeast or the southeast; the latter possibility is more likely. The hall and its supposed antechamber(s) were built as a unit, a rectangle measuring 30×22.5 cubits. The lateral walls had paved sidewalks and the hall was crossed by what appears to be a water channel (?).

To the northwest of the Hypostyle Hall, excavators in subarea Bb continued to clear the rooms of the palace in an effort to understand the interior organization (fig. 6). Through a wide (2.6 m) and carefully built entranceway, the Hypostyle Hall opened to the southwest on an extension of the Main Courtyard. From there, an identical passageway gave access to hall 2011, a reception hall measuring 10.5×6 m, with two large column bases set in axial line and lateral mudbrick benches. It opened to the northeast on at least three interconnected rooms, one of which (2015) had a staircase leading to an upper story.



Fig. 4. Tel Yarmuth. Topographic plan with the location of the areas excavated in 1996–1997.



Fig. 5. Tel Yarmuth. Plan of Palace B (1997).



Fig. 6. Tel Yarmuth. Partial view of Palace B, view to the northwest. Hall 2011 in the foreground.

To the north of this complex of four rooms, two interconnected rooms were reached directly from the Northeastern Courtyard. In the last occupational phase of the palace, when all the doors opening from the Main Courtyard were sealed, circulation inside the built-up part was commanded from the Northeastern Courtyard. Its southern limit could be ascertained, suggesting a square plan, slightly more than 26 m (ca. 50 cubits) on each side. Several installations were located in the southwestern half of this courtyard. A paved way about a meter wide built with large stone slabs crossed the courtyard obliquely. A system of water channels started near the eastern corner of a small inner courtyard (1637) and went through a wall and the doorjamb of a passageway before exiting in the Northeastern Courtyard and crossing diagonally.

Further excavations in the Northeastern Courtyard and its surroundings have revealed architectural remains stratigraphically antecedent to Palace B (stratum B-1) but later than the domestic dwellings of stratum B-2. Extending both to the northwest and to the south, these protopalatial architectural remains belong to a single vast building, which covered at least 900 m², but whose limits remain unknown in any direction. As it is in many respects comparable to Palace B, well planned and carefully built, it was clearly a public building of palatial character, immediately preceding Palace B.

A sounding in subarea Bd begun in 1993 near the south corner of the palace was continued and expanded with the goal of establishing the stratigraphy of the EB III occupations in this area. The same sequence as elsewhere in area B was found, showing that the palace (stratum B-1) was erected on the leveled ruins of at least two strata of EB IIIB domestic dwellings (strata B-2 and B-3).

Survey and soundings to the southeast of Palace B. At the end of the 1993 season, it was suggested that Palace B was part of a larger building complex extending further to the southeast. To test this hypothesis, soundings and surface surveys were conducted on three terraces, J, K, and M, located to the southeast of the palace (see above, fig. 4).

On the first terrace (J), a sounding (Ja) has revealed the foundations of a very thick wall (stratum J-1), presumably contemporary with Palace B and Complex K, cutting through the remains of an EB IIIB domestic dwelling (stratum J-2). On the second terrace (K), walls up to 2.60 m thick and 30–40 m long were traced on the surface. They delineate a large building complex covering about 1,600 m². It is oriented in relationship to Palace B and overlies EB IIIB domestic dwellings of stratum K-2. Three interconnected rooms were cleared near the west corner, with wall foundations up to 2.15 m deep. On terrace M, to the southwest of the preceding one and ca. 2 m higher, the remains of a monumental building covering more than 3,000 m² were located. Walls are 2.10 m, 2.60 m, or 3.20 m thick and up to 50 m long. A small probe (Ma) has shown that their foundations are more than 4.15 m deep. A second probe (Mb) has revealed a plastered floor with late EB III pottery, comparable to that from Palace B.

Thus the probes on these three terraces strongly suggest that at the end of EB III, the area of public buildings included not only Palace B but also Complexes K and M, altogether a vast architectural complex of about 1.5 ha (nearly 4 acres), without known equivalent in the contemporary Levant.

A hoard of Egyptian bronze objects. A hoard of Egyptian bronze objects was discovered hidden in a heap of stones covering the leveled ruins of Palace B. The hoard contains 15 items: a fragmentary bronze plaque with a hieroglyphic inscription; a socketed hoe; an element of furniture (?); and 12 fragments of bronze sheets of sheathing. Most interesting is the fragmentary bronze plaque. To judge from the thickness of the fragment and the size and quality of the hieroglyphs, the complete plaque was large and its inscription rather long. It may have been part of a doorjamb of some royal monument or the plating of a large naos deposited in an Egyptian temple in southern Canaan. According to Orly Goldwasser (HU), the inscription may be dated to the 19th Dynasty (ca. 13th century). It consists of at least two vertical columns of signs; four signs are clearly legible on the second column: dd mdw in, "words said by."

The character of the bronze objects and the context of their discovery suggest that they were found together quite late in antiquity, either in Yarmuth or at a neighboring site, then cut in pieces, carried away in a bag, and finally hidden until they were to be recast.

Stratigraphic sounding on the acropolis. On the upper terrace of the acropolis, the only part of the site reoccupied after the EB period, the excavation of the stratigraphic sounding was continued, expanded, and finally completed. Seven strata were distinguished, numbered Acr-1 to Acr-VII from top (Roman-Byzantine period) to bottom (EB II-III). Bedrock was reached at a depth of up to 7 m below the surface. With the entire stratigraphic sequence being exposed for the first time, it can be definitely stated that after the abandonment of the site at the end of EB III, Yarmuth remained deserted for about one millennium and was not reoccupied before LB II. A continuous stratigraphic sequence was found from LB II (stratum Acr-VI) through Late Iron I (strata Acr-V to Acr-3). No Iron II stratum was discovered. Stratum Acr-2 is marked by several terrace walls and a room from the Roman period associated with a cistern. Stratum Acr-1 is represented only by superimposed terrace walls of a late date.

Lod (Newe Yeraq). Edwin C.M. van den Brink (IAA) reports on his excavation at Tel Lod:

Three occupational strata (strata II–IV) were distinguished below topsoil (stratum V), two of which (strata III and IV) contained substantial building remains. Below these strata were preoccupational sand dunes (stratum I).

Stratum II. Directly overlying the sand dunes were a number of successive layers dating to the Late Neolithic period. No architecture was found in stratum II, but two pits and several superimposed fills over 1 m thick were excavated. Among the finds collected from this stratum are flint tools; plain, painted, and burnished potsherds; animal bones; and organic materials. A violin-shaped figurine of green stone found in the upper level of this stratum is probably intrusive.

Stratum IIIa-b. Stratum III, 1.8 m thick and directly overlying stratum II, dates to the later part of EB IB and contains the remains of two dissimilar, superimposed settlements. In stratum IIIa, parts of stone wall foundations with a mudbrick superstructure, belonging to three successive buildings, and associated with remains of plastered floors, were exposed. The earliest building is subrectangular in plan with at least one rounded corner. Finds include sherds typical of the late EB I horizon, including two small, loop-handled cups belonging to the Line-Painted ware group, rarely—if at all—encountered outside funerary contexts (e.g., Ophel, Jericho tombs), and flint tools.

Walls from stratum IIIb were built with mudbricks only; that is, they lacked the stone foundations that characterized the preceding substratum. At least two successive plastered floors are associated with these wall remains. Fragments of two small clay crucibles used for copper smelting and a lump of bitumen were found on the floors. The local pottery uncovered, including a completely preserved storage jar set into the ground, its neck just above the plastered floor, indicates a date late in EB I. Somewhat surprisingly, notable quantities of Egyptian and Egyptianized pottery were found within this substratum (and not in the preceding substratum). The imported Egyptian pottery, represented by fragments

of cylindrical jars (with impressed rope decoration), a few drop-shaped juglets, and two types of so-called wine jars, can be dated to the time of King Narmer, i.e., to the very end of Dynasty 0/very beginning of the First Dynasty. The locally produced Egyptianizing pottery consists of coarse bread molds, "lotus bowls," and other vessel types, the fabrics of which all contain organic material. Organic tempering of the clay matrix is considered atypical for EB I Canaan, but was commonplace in contemporary Egypt. Other finds from these levels include a pear-shaped stone mace head and a fragment of a ceramic statuette representing a seated human figure in typical Egyptian fashion. These finds seem to indicate a clear Egyptian presence at Lod at the very end of the fourth millennium and warrant a reappraisal of the Egyptian-Canaanite interconnections at this time.

Stratum IV. Stratum IV revealed stone foundations (partially cutting into the underlying late EB I layers) of parts of two Late Byzantine buildings, found in association with various stone-built installations. Finds associated with these building remains include restorable ribbed storage jars, a number of intact oil lamps, and 12 coins.

MIDDLE BRONZE AGE

Tel Dan. HUC continued the excavation at the southern slope of Tel Dan in 1996 and 1997 under the direction of Avraham Biran.

The vertical stone core of the Middle Bronze Age sloping ramparts uncovered in previous seasons has now been traced 220 m westward from the Triple Arch Gate. It is 5 m thick and no evidence for a wall above it was found. A 2.5-m portion of the core's width abuts the face of the gate's southwestern tower and extends along its southern face for about 3 m. At this point a mudbrick construction running south was built.

LATE BRONZE AGE

Tel Hazor. Amnon BenTor (HU) provides an update on the seventh and eighth seasons (1996–1997) of the Selz Foundation Hazor Excavations in Memory of Yigael Yadin:

Work focused on two areas, area A in the center of the site, and area M, on its northern slope. The large exposure of the excavated area resulted in a much clearer understanding of the main architectural complexes than that arrived at during the previous seasons.

Area A. The main effort in area A focused on the expansion of the excavation of the Canaanite palace westward, and of the palace courtyard to the east and north. By the end of the 1997 season, the ex-

cavation of the large $(14 \times 12 \text{ m})$ hall (dubbed the "throne room") was completed (fig. 7). The lower part of its mudbrick walls, preserved in some instances to a height of more than 2.5 m, is lined by well-cut orthostats. There are clear indications that the orthostats that lined the inner face of the room's eastern wall were robbed in antiquity, before the huge fire that destroyed the palace. Several of these orthostats are still to be seen scattered in the room. Two sets of door sockets, on both sides of the main (so far the only known) eastern entrance, one higher than the other, indicate two architectural phases of the palace, evidence for which has been encountered elsewhere in the palace.

One of the most striking features of the throne room is that nowhere can a floor be clearly identified; most of the artifacts (pottery and others) were found below the level of the base of the orthostats lining the walls. The thick ash layer encountered everywhere, and a few charred wooden planks scattered here and there, may perhaps indicate that the floor of the throne room was made of wood. A pebble pavement served as the foundation of the wooden floor. The ceiling must have been supported by wooden pillars that perished in the final conflagration; the location of at least one of these pillars, in the center of the hall, is clearly visible. Three inscribed clay tablets, a seated bronze figurine, and four bronze figurines depicting bulls were among the finds discovered in the throne room.

A door located in the northwestern corner of the throne room gives access to a rectangular, elongated room, which in turn leads into another room, almost identical in dimensions and proportions. No clear floor was encountered in these two rooms either, and the thick ash layer may indicate a wooden floor here as well. These two rooms were exceptionally rich in finds: most of the floor of the eastern room was already excavated in 1991, yielding a decorated ivory box, a large number of beads, and 10 cylinder seals. Finds in 1996 in the western room included two bronze statues approximately 30 cm high each, a sickle sword, an Egyptian battle ax, more than a hundred pieces belonging to a coat of mail, several knives, and a portion of an inscribed clay tablet.

A very large assemblage of pottery was recovered, coming mostly from the northern end of the throne room and from the two rooms to the north of it. Various Late Bronze Age ceramic types are represented, the vast majority belonging to bowls and pithoi. Dozens of complete bowls were found in the two northern rooms, as well as fragments of thousands of bowls, the latter probably being used as fill material (below



Fig. 7. Hazor. Late Bronze Age palace. Throne room.

the wooden floor?). The entire range of types of LB bowls is represented. A dozen pithoi of the wellknown "Hazor type" were also recovered. Similar pithoi were found by Yadin in the 1950s, and by the renewed excavations during previous seasons. Within the group, however, three of the pithoi deserve special notice: these carry bands in relief, in one case undulating, and belong to a type not previously found at Hazor, probably of Aegean or Tyrian origin. Similar pithoi are known from other sites in Israel that were exposed to northern influence, such as Tel Dan and Dor.

Two doorways, located in the southern wall of the throne room, lead to two rooms that are to be excavated during the 1998 season. A small and narrow room located immediately behind the throne room contained an installation, probably a bathtub, and a rich ceramic assemblage.

The western part of the palace was severely damaged by later Iron Age building activities, leaving only the foundations of the western wall of the palace. These are lined by well-cut orthostats, identical to those lining the northern wall of the palace. The northern, eastern, and western walls of the palace have thus been determined; the southern portion of the palace is to be excavated in the 1998 season. Ground-penetrating radar tests conducted during the 1997 season showed clearly the presence of massive walls, probably also lined with orthostats, located immediately to the north of the palace. These may prove to be a northern annex to the palace, the excavation of which is also planned for the 1998 season.

The uncovering of the huge courtyard extending east of the palace has been continued; an area of 30×30 m, paved by pebbles and plaster, has been cleared. In the center of the courtyard, a rectangular raised podium, located exactly opposite the entrance to the palace, was encountered. Its function must have been either civic or cultic. Thus far only the western and northern boundaries of this palace courtyard are known. The courtyard and palace are built on a rather steep slope. The construction of solid walls supporting fills was therefore necessary in order to create a platform on which the entire palace complex was to be constructed. The massive corner of walls exposed by the Yadin expedition in the 1950s is the northeastern corner of this platform.

Evidence for the violent destruction of the palace was found, as in previous years, everywhere in the palace and the courtyard. Among the fallen stones, bricks, and ashes, an impressive variety of finds was seen. These include pottery, cylinder seals, metal ar-



Fig. 8. Hazor. Lion orthostat.

tifacts, and ivories. Remnants of yet another stone statue of an Egyptian king was also found. Like similar statues found previously, this statue was intentionally mutilated in antiquity.

In spite of the rich LB ceramic assemblage recovered thus far, a more precise date within that period will have to await further study. The scarcity of imported wares, Cypriot as well as Mycenaean, in the Hazor assemblage is noteworthy.

A life-size lion carved on a smoothed basalt slab was found while dismantling an eighth-century building, in the foundations of which it was incorporated (fig. 8). It probably formed the left member of a pair that decorated the entrance to a temple or palace of the Canaanite period. An identical lion orthostat, the right member of such a pair, was discovered by the Yadin expedition in the 1950s, buried next to the entrance of a temple located ca. 1 km to the north, in the lower city. Is this the missing partner of the temple pair? An additional, almost complete lion orthostat, in secondary use as a doorjamb of an Israelite building, was also uncovered during the 1997 season. The head of this lion was discovered by the Yadin expedition in the 1950s, a few meters away. It may thus be the second member of a pair that was originally positioned somewhere in the Canaanite palace.

Area M. Excavations continued both inside, to the south (area M-South), as well as outside of the Israelite city wall (area M-North), which was dismantled in the excavated area in order to enable the study of the underlying LBA strata (fig. 9). A large mudbrick surface, two brick courses high, covers most of the excavated area here. A white-plastered sloping surface abuts – glacis like – the northern edge of this mudbrick surface, the nature of which is not yet understood. It should be noted, however, that this surface covers the LBA remains, including the huge staircase and massive walls that might be part of a fortification system uncovered during the previous seasons. Similar massive walls were uncovered in area M-South.

In the eastern part of area M-North, work continued in an effort to disentangle and thereby understand the stratigraphic sequence of several superimposed massive walls, all connected with a large architectural unit of an apparently defensive nature. Several drainage systems belonging to different stratigraphic phases were encountered here.

The main objective in area M-North was to expand westward the excavation of the paved area surrounding the podium. A flight of five basalt stairs, ascending westward, connects the basalt paved area to a large space of which only the northern and eastern walls are so far known. This space is paved by a pebble floor. Meager remains of an additional staircase were encountered in 1997. This staircase is somewhat later than the one partially cleared during previous seasons. These staircases probably connected the upper and lower parts of the town during the Canaanite period. Of major importance is the monumental gate leading into the paved area surrounding the podium. From here, the upper city might have been accessed via the huge staircase. The presence of such a gate in this location has been suspected since the beginning of excavations in area M in the early 1990s.

Tell Ein Sippori. J.P. Dessel, field director, and Eric



Fig. 9. Hazor. Area M, north slope of tell, with remains from the Late Bronze and Iron Ages.

Meyers and Carol Meyers (both of Duke University), directors of the Sepphoris Regional Project, report on the 1997 season at Tell Ein Sippori:

The site is located in the Nazareth Basin, along the Naḥal Ṣippori. Eight strata have been excavated representing a sequence of occupation from EB IV through Iron Age II. The 1997 excavations concentrated on field I, on the upper part of the tell, and field II, on a lower terrace on the northern slope of the site.

Early Bronze IV. EB IV pottery, belonging to stratum VIII, was found in a deep probe excavated in area 1 of field II, some 1.5 m below the current level of the valley floor. This material pushes the earliest occupation of the site into the end of the second millennium.

Middle Bronze Age. Stratum VII is represented by a narrow exposure in area 1 of field II. A very poorly preserved jar burial was excavated along with quantities of MB II/III pottery. Some associated architecture is also provisionally dated to the MB II/III period.

Late Bronze I–II. The LB I period is well represented throughout field II. Stratum VI includes four LB I living surfaces associated with substantial domestic architecture. A large internally divided building with at least six rooms was excavated. The range of imported pottery is impressive with examples of LB I Bichrome ware, Chocolate-on-White ware, Cypriot White Slip I, and Cypriot Gray-Burnished bottles. Of note is an excellent example of a bichrome krater found crushed on an LB I surface, below an LB II wall (fig. 10). While the form itself is that of a typical LBA krater, the iconography is quite unusual: a large fish with an animated sneer. The con-



Fig. 10. Ein Şippori. Palestinian bichrome krater depicting a large fish, perhaps a barracuda, from the LB II stratum, field II.



Fig. 11. Ein Sippori. LB I installation with adjacent stepped platform. View to west.

figuration of the fins and the rendering of the teeth suggest a barracuda as a possible model.

A possible cult or cult/processing installation (fig. 11) was discovered in area 2 of field II. This installation is comprised of a low semicircular stone wall with a large, flat stone base and a short stepped platform to the north. A large undecorated krater was found buried to the east of the installation. A hematite weight, weighing 10 g, was found next to the krater, which was empty except for the fragmentary remains of an immature sheep or goat skull along with a few toe bones from an adult sheep or goat, which may be linked to ritual animal offerings. Tabun fragments were found at various levels both inside and outside the stone wall. Also, the stone base appears to have been modified and used in conjunction with a hole cut in the back of the stone wall that may have served originally as a drainage conduit. This installation was reused in the LB II period; and two complete basalt bowls were found on the LB II surface. Otherwise, it appears that the last LB I settlement was destroyed. Other than the reused cult installation, the only other LB II material found in 1997 came from field I, the first time that LB II pottery was found in this area.

See also Tel Miqne and Tel Dover, below.

IRON AGE

Tel Dan. Sections of the Iron Age city wall at the foot of the earthen slope of the ramparts were cleared and the wall has now been traced 82 m west and 59 m east of the gate.

The excavation of the hussot, or bazaars, outside the gate reported in the last newsletter (AJA 100 [1996] 740-41) was continued and revealed three stages of construction in the ninth-eighth century. No evidence of a violent destruction between them was found. The earliest stage, of which one complete room and adjacent walls were uncovered, is dated to the first half of the ninth century. The second stage consists of a large area with two rooms to the east and one to the north. The third stage, dated to the end of the ninth century/beginning of the eighth century, is a large structure with a 7.50×4.50 m section paved with stone. To its east are two rooms and to the west a large area with a floor of plaster, column bases on the north, and ambiguous installations in the south. An additional room was found north of the plastered area, which also had a plastered floor. A 15-m-long wall forms the border of the structure on the west.

Remains uncovered on top of the third stage indicate that at least parts of the structure ceased to be in use by the middle of the eighth century. The debris of the Assyrian conquest of Tiglath-Pileser III covered the structures as well as the paved area to the west and east of the structures. Investigation of the construction of the flagstone pavement suggests that the pavement west of the *hussot* was already in use during the period of the second stage of construction of the *hussot* while the eastern pavement was built following the construction of the third stage of the *hussot*.

A scaraboid and fragments of a unique bronze disc

depicting a Neo-Hittite ceremonial scene with table, standing figure, and winged sun disc were found in the debris of the second stage of construction.

Hazor. The majority of the Israelite remains uncovered during the 1996 and 1997 seasons date to the 11th–9th centuries. Most noteworthy among these are several solid, well-built walls, and a pebble-paved floor, all belonging to a large architectural complex, the limits of which have not yet been reached. The ceramic assemblage associated with this building dates to the 10th century. In the northwestern section of area A, a well-stratified sequence of rooms belonging to buildings of the Israelite period, all cutting into the debris of the Canaanite palace, was encountered. These were associated with a rich ceramic assemblage, dating the buildings to the ninth–eighth centuries.

Yadin's excavations in the 1950s uncovered a sixchambered gate and a casemate wall, dated by him to the 10th century (the "Solomonic fortifications"), a date verified by the renewed excavations. Beside these fortifications, Yadin's excavations encountered only very meager remains of buildings of a private nature (i.e., dwellings) dated to the 10th century, giving the impression that Hazor may perhaps have been fortified in the 10th century but was barely occupied. The architectural remains dated to the 10th century, encountered by the renewed excavations almost everywhere in area A, below the strata dated to the ninth century, seem to change this picture.

A large number of circular pits, large and small, similar to those encountered by the Yadin expedition in the 1950s, as well as by us during previous seasons, were encountered also during the 1996 and 1997 seasons in area A. These pits, dating to Iron I, are concentrated mainly in the large courtyard extending to the east of the palace. Their exact date and function have yet to be determined.

In area M-South, a huge Late Iron Age pit in the southeastern section caused much damage to the LBA remains. In the northern section, a large building of the eighth century was exposed, indicating what has already been noted during previous seasons, that Iron Age occupation outside of the city walls, which at the time may have stood in ruins, was rather extensive. These later buildings of the Israelite period, and in particular the one just noted, caused severe damage to the remnants of the Canaanite period, immediately underneath.

Conservation and restoration. The work on conservation and restoration of various architectural elements unearthed at Hazor, was continued in 1996–1997 under the direction of O. Cohen. The basalt slabs, whether orthostats, stairs, or other features

(such as the walls and cover stone of the podium in area M-North), crack as a result of changes in temperature and moisture conditions as soon as they are exposed. These cracks were dealt with swiftly in order to prevent further damage. Such work centered this year on the orthostats lining the walls of the throne room, the steps leading into the palace, and the podium in area M-North. In addition, new mudbricks were made, employing the original materials from the old mudbricks, and using as far as possible the same techniques of manufacture. These bricks were incorporated into several of the gaps in the palace walls. After being exposed for an entire year to the weather conditions at Hazor, the stability and state of preservation of these new bricks will be checked. This information will become crucial once large-scale conservation work at the site is begun.

The Early Iron Age Israelite (?) "high-place," uncovered by the Yadin expedition in the 1950s in area B, suffered extensive damage due to exposure to the elements over the past 40 years. This damage was also repaired. Most of the work focused on the conservation of the orthostats and mudbricks from which the palace is built. An olive-oil press that originally stood in an eighth-century dwelling was also restored.

Tell Ein Şippori. Very well preserved remains of stratum IV have been found for the first time in field I. A series of stone walls with mudbrick superstructures, preserved over 1.5 m in height, have been excavated. Stratum IV should be dated to the 12th century, and its appearance on the upper terrace (field I) significantly increases the dimensions and intensity of the Early Iron I occupation at the site. Its buildings were apparently destroyed before the construction of a large structure (building A) in the late 11th/early 10th century.

Much of the attention in field I focused on the continued excavation of building A, first excavated in 1993. A large, well-constructed multiroom building complex, building A measures at least 16.5 \times 14 m and consists of at least three units; a northern bench room, a southern enclosed area, and a west wing, which was uncovered in 1997. The west wing (west of the bench room) is comprised of an enclosed room with a well-constructed circular stone bin and a cobbled floor. Wall stubs in the northern balk and northwest corner of the area indicate another room adjacent to the bench room and north of the bin room. Fragments of charred beams found in this northwestern room suggest that it was roofed.

The corners of two other buildings, to the east and south of building A, have also been found in field I. In the destruction debris of one of them, above a stratum IIIB (late 11th/early 10th century) surface, a small lead figurine, similar to one found in 1996, was discovered. This second example has a Hathorstyle wig and fits roughly into Negbi's type II, the Byblo-Palestinian group, with links to the Byblo-Egyptian group.

Tell Ein Şippori was probably first settled in EB IV. Additionally, we now know that the LB II settlement is as substantial as the Iron Age settlement. The richness of architectural traditions, small finds, and imported pottery points to a level of rural complexity previously unknown.

Tel Dover. Samuel Wolff and Amir Golani (IAA) report on the Late Bronze Age and Iron Age levels at Tel Dover:

LBA levels were exposed only in the southwestern end of the excavated area, the portion closest to the foot of the tell itself (see above, fig. 3, top). From the LB I, part of a massive building was revealed. Its walls consisted of cyclopean uncut boulders measuring over 1 m in length. The building continued in use in LB IIA. Two special finds were found in this phase, a faience cylinder seal and a terracotta figurine of a female holding a disklike object (tambourine?).

In the same area, tombs, wall fragments, and stonelined silos represented the Iron Age phase at the site. One of the silos was later reused as a tomb for at least four human skeletons. The two tombs were both individual burials with grave goods: storage jars with dipper juglet inside, bowls, and lamps. One tomb had a well-preserved bronze bowl found near the skeleton's head. These finds are tentatively dated to the 11th–10th centuries.

More than 100 m to the northeast, an isolated Iron Age masonry tomb was excavated (fig. 3, middle). It contained two burials and grave goods similar to the tombs mentioned above. This tomb yielded two bronze bowls and one scarab. In the far northeastern end of the site (fig. 3, bottom), more than 170 m from the southwestern area, one Iron Age room was found with a complete storage jar sitting on its floor. Nearby were fill layers with Iron Age material. These finds are tentatively dated to the 10th century.

The site of Tel Dover has been suggested by Diane Edelman as a possible candidate for the location of biblical Lo-Debar/Lidebir (2 Sam. 9:4–5, 17:27; Amos 6:13; Josh. 13:26).

Tel Rehov. Amihai Mazar (HU) reports on the initial season of excavation at Tel Rehov, which is part of the Beth Shean Valley Archaeological Project. Tel Rehov is located in an almost flat alluvial plain, about 6 km west of the Jordan River, 3 km east of the Gilboa ridge, and 5 km south of Tel Beth Shean, dominating the north-south road along the Jordan Val-

ley. It is one of the largest tells in Israel, measuring 12 ha, divided into two parts: the upper and lower mounds. The upper mound comprises ca. 4 ha. To the north of the mound is a brook leading east. A spring, close to the northeastern corner of the mound, probably was the main water source of the ancient city.

Rehov ("street") was the name of several cities mentioned in the Old Testament and in other ancient sources. We know of two cities of that name in the Western Galilee and another city in Syria. Rehov in the Beth Shean Valley is not mentioned in the Old Testament, yet is mentioned in several Egyptian New Kingdom sources as an important city in Canaan: the topographic list of Tuthmosis III, name no. 87 (identification not secure; the name can refer to Rehov in the valley of Akko); Akkadian letter from Taanach no. 2 line 22; basalt stele of the Pharaoh Seti I from Beth Shean (ca. 1300); Papyrus Anastasi I (ca. 1200); Papyrus Anastasi IV-not clear which Rehov is mentioned here; Papyrus Torino (20th Dynastyagain, not clear which Rehov is mentioned here; Pharaoh Shishak's list of conquered cities (ca. 925) no. 17: Rehov appears after "the Valley" and before Beth Shean.

Five excavation areas were opened in the 1997 season: area A, located near the top of the upper mound, intended to explore the occupational layers on the top of the upper mound; area B, located at the top of the northern slope of the upper mound, intended to study the fortification systems of the upper mound; area C, located on the eastern upper part of the lower mound, close to the northeastern corner of that mound, and intended to explore the latest occupational levels of the lower mound; area D, a step-trench on the western slope of the lower mound, intended to explore the occupational history of the lower mound; and area E, located near the eastern end of the lower town, with research goals similar to those of area C.

Area A. A week of excavation revealed at least 2 m of Islamic debris layers lacking architectural remains. Work in this part of area A was stopped but continued in the lower eastern part of the upper mound where evidence for five phases was revealed. The earliest Iron Age II level, assigned to phase A5, was excavated in only arbitrary small areas. A mudbrick wall, brick debris, and living surfaces were uncovered, containing pottery of the Iron Age II period. Phase A4 included remains of an Iron Age II dwelling and an open courtyard with an oven. After destruction, the building of phase A4 was rebuilt in phase A3. The building had been destroyed in a heavy conflagration, which can tentatively be attributed to the Assyrian conquest of 732. Human skeletons were found in two of the rooms, one in a contracted position without its skull. Next to it were several pottery vessels typical of the eighth century as well as many unfired clay loom weights. In a nearby room, a skeleton of a young woman was found in the corner of the room with her hands holding the knees of her contracted legs, clear evidence for a violent and dramatic end of the Iron Age II city. In the western squares the floor of the open courtyard was raised and a new large oven was constructed. A pit grave from phase A2 postdates the destruction of phase A3. In the pit, a badly preserved human skeleton was found in a contracted position. Near the edge of the pit was an intact Assyrian bottle. It appears that this burial represents a short phase of Assyrian occupation. The top layer, phase A1, contained Islamic debris with no architectural remains.

Area B. Five phases were defined in this area: Iron Age IIA (10th century) debris (phase B5) was found in a small probe excavated at the bottom of the area. Iron Age II occupational layers (phase B4) were found in a small probe below the foundations of the phase B3 city wall. Among the finds was a fragment of a clay figurine of a woman playing the tambourine, and fragments of Phoenician red-slipped "Achziv" ware jugs. A wide and massive city wall (phase B3) was found in most of the excavated area. The wall is ca. 8 m wide, and was exposed along the entire area (10 m), close to the crest of the slope. It was constructed of square mudbricks of poor quality, and appears to lack a stone foundation. The impression is that the wall was constructed hastily above earlier occupational debris, which may be as late as the eighth century. Thus the wall may have been erected as an emergency fortification, protecting the city against the expected Assyrian siege. The huge width of the wall was probably intended to stand against the danger of the Assyrian battering rams. At this stage of research it cannot be guessed whether the 8-m wall surrounded the entire upper mound, or whether this was a local feature. Few scattered remains of Iron Age II activity (phase B2) postdate the destruction of the city wall. These include poorly preserved surfaces with some pottery vessels and loom weights. The small amount of pottery appears to belong to the last phases of Iron Age II and hints at the existence of some settlement on the mound after the Assyrian conquest of 732. Several Islamic graves (phase B1) were found in the area, mostly cut as rectangular pits into the mudbrick structure of the Iron Age II city. In each grave there was one skeleton lying with its face toward the south. There were no gifts, and the date of the graves could not be more precisely established.

Area C. Two architectural phases were detected, the later continuing and utilizing the earlier. A large building is assigned to phase C2. The mudbrick walls are 0.9–1.5 m wide and were preserved to a height of over 16 courses (without our having reached the floor level). A 1.2-m-thick layer of mudbrick collapse was found containing an assemblage of pottery vessels, including two jars of the so called "hippo" type, one krater, two jugs, a painted globular jug of Phoenician or Cypriot workmanship, and a red slip amphoriskos with painted geometric designs and a depleted tree. The assemblage appears to belong to the early 10th century.

After the destruction, the building in area C was renovated (phase C1). Some of the major walls of the earlier building continued in use, while others were replaced by new, thinner brick walls. An unusual feature is a round plastered mudbrick platform, 1 m in diameter. A basalt vat with a central large depression and cupmarks along the rim was found near the platform and apparently once stood on it. Phase C1 came to an end in a violent destruction. Many broken vessels preliminarily dated to the late 10th century were found in situ on the floors.

Area D. A step trench along the western steep slope of the mound was excavated. No fortification line of any kind was detected. Almost no LBA or earlier pottery was found. The complicated stratigraphy in this section enables the counting of eight or nine occupational phases, though this may change when the excavation of the trench continues. The following are the main phases, from bottom up: phase D9, represented by a thick layer of white huwwar in the two bottom squares; the nature of this layer is as yet undetermined. It is either natural earth or could belong to an earth glacis. In phase D8, a stone feature was revealed that may have once functioned as a channel. Phase D7 includes a floor, a segment of a wall, and a cooking pit with a complete cooking pot found next to it. Two "foundation deposits," each containing two pottery bowls with a lamp between them, were found in this phase. The pottery is similar to that found at Beth Shean in the 12th century. Phase D6 consists of only one fragmentary wall and a floor related to it. A mudbrick wall and a floor are attributed to phase D5. Phase D4 is a particularly thick occupational level, destroyed in a conflagration. Five wall segments and a nicely constructed cobble floor with accumulation and additional floor surfaces above it were revealed. The last floor was covered by more than 1 m of fallen bricks and debris. Phase D3 consists of several pits cutting into the debris of phase D4. A small sherd of a Mycenaean IIIC (local) bowl was found in the debris related to these pits. In phase D2, two walls were cut into the brick debris

of phase D4. A small sherd of a typical Philistine vessel was found in this layer. Finally, phase D1 consists of the uppermost layer of soft gray earth.

Area E. In the southern part of the area remains of a well-preserved building were exposed, while the northwestern part of the area was an open space: a courtyard or piazza. Two major architectural phases were identified (E2 and E1), probably corresponding to the two phases in area C. The pottery in both phases can tentatively be dated to the 10th century. It appears that most of the building exposed in the southern part of the area was in use in both phases. In the debris of phase E1, fragments of a large square ceramic cult stand were found. The facade of the stand has two rows of triangular windows. The general shape of the cult stand recalls two stands found at Pella, also dated to the 10th century. Two clay female figurines and an animal figurine were also found.

Conclusions. The survey and first season at Tel Rehov clearly indicate that this was one of the largest Iron Age I-IIA sites in Israel. Though the extent of the settlement in previous periods is not yet known, it appears to be of no less importance in the Middle and Late Bronze Ages as well. The section in area D indicates condensed and vivid settlement activity during the 12th-11th centuries, while the results of the work in areas C and E show that during the 10th century the entire mound was heavily settled. The thriving city came to an end in a conflagration. This destruction can tentatively be ascribed to the raid of Shishak, five years after the death of Solomon. Following this destruction, the lower mound was abandoned and the city was reduced to the upper mound. It survived with various alterations until the Assyrian conquest of 732. The huge defense wall found in area B was perhaps constructed shortly before the Assyrian attack. The Assyrian conquest is dramatically documented by the destruction debris and skeletal evidence found in the Israelite houses. Following the Assyrian conquest there was a short phase of occupation, followed by a long gap in occupation. During the Early Islamic era the crest of the upper mound was settled again, and this settlement continued until the Mameluke or Early Ottoman period.

The results of the first season at Tel Rehov promise that this will become a key site for Iron Age archaeology in Israel in the coming years.

Tel Dor. Ephraim Stern, John Berg, Ayelet Gilboa, Ilan Sharon, and Jeffrey Zorn report on the 1994– 1997 seasons conducted on behalf of HU and the Israel Exploration Society, where excavations were conducted in five areas (fig. 12). Remains of the following periods were investigated: Iron Age (areas D2 and G); Persian period (areas D1 and D2); Hellenistic period (areas D1 and D2); and the Roman period (areas B2, D1, D2, F, and H).

The recently published final reports of areas A and C (E. Stern et al., *Excavations at Dor, Final Report* Ia: *Areas A and C: Introduction and Stratigraphy*; Ib: *The Finds* [*Qedem Reports* I–II, Jerusalem 1995]) focused on the Hellenistic and Persian periods at Dor. In the 1990s we concentrated our efforts on the Iron Age and Roman periods, the results of which are presented below, with passing reference to the excavations of the Hellenistic and Persian period.

Area G (Iron Age IA). The center of the mound was a residential area throughout the Iron Age. Since 1989 we have cleared here a complete sequence of occupational levels dating from the Iron Age IIA (local phase 6; 10th century) down to the first half of the Iron I period (local phase 9; late 12th–early 11th century. The goals set out for the 1994–1997 seasons were to expand the area of the fiery destruction of phase 9 first found here in 1991, to probe beneath it to determine if there were earlier Iron I phases below this floor, and to obtain a complete stratigraphic and typological sequence of the Bronze Age– Iron Age transition.

The destruction deposit of phase 9, consisting of burnt bricks, partly calcified stones, and collapsed roof material over dozens of in situ vessels, appears to slope from southeast to northwest and extend only over about half of the area before dwindling into normal mudbrick debris. Most of the large jars were recovered from the southernmost room excavated. In and around them were the thickest destruction deposits, containing most of the evidence for high temperature (e.g., baked mudbrick, calcified limestone). Apparently this was a storeroom that held some highly combustible materials. In the center of the main room an enigmatic installation was found (fig. 13). It is a troughlike feature ca. 3.5 m long, 1.0 m high, and 0.8 m wide; on its east side was a low half-oval bin. The installation and bin were constructed of mudbricks covered with mud plaster, which had been baked by the conflagration into a ceramiclike texture. A possible interpretation of this installation is that it was a trough for kneading bread dough. In one of the two rooms to the north, the skeletons of at least 30 small fish were found, and in the other a large plastered basin and a small settling basin adjacent to it, perhaps a grape treading basin and a settling tank.

The vessels buried within the destruction deposits allow a preliminary dating of it to the second half of the 12th century, or the very beginning of the 11th. Most of these were containers – several "collared rim" pithoi, at least one "wavy band" pithos, and quite



Fig. 12. Dor. Plan of excavated areas.

a few Egyptian jars, as well as jars of local Canaanite tradition. One remarkable piece, probably from the destruction deposit, is a strainer spouted jug, with monochrome painted decoration, highly reminiscent of the Philistine style, but markedly different from all known examples in both ware and details of the motif (fig. 14). V. Karageorghis (personal communication) has tentatively identified it as a Cypriot "White Painted wheelmade" pot, dating to late LC IIIA or (more likely) LC IIIB. If so, this may be the earliest Cypriot import of this type to the mainland, and would be of crucial significance to any correlation of the two chronologies.

Probes below the phase 9 destruction floor revealed several lower phases, all of which appear to belong to the Iron Age. Exposure is as yet too lim-



Fig. 13. Dor. Installation in area G.

ited for detailed architectural or functional analyses, but there seems to be no break, in either the nature of the occupation or of the assemblage, between these and phase 9.

The above discussion, based on just a few rooms in one house in area G, illustrates the variety of economic activities that the inhabitants of Dor carried out in the Early Iron Age as well as the extent of their foreign connections in a period otherwise marked for *lack* of international trade. The affinities between this picture and the Egyptian "Story of Wen Amun" are worth noting. How all this reflects on the question of the identity of the elusive "SKL" Sea Peoples who, according to this document, ruled Dor at the time is a moot point.

Area D2 (Iron Age IB–IIA). Situated along the southern perimeter of the tell, overlooking the southern bay, in which the Late Bronze and Early Iron Age harbor installation was located, is a monumental building dated to the Iron Age I (see below). The southern section of this building was exposed and eroded by the sea, so its width is indeterminable. The extant width of the structure is 16 m. The length of the section so far excavated is 9 m, but there are indications that originally it may have been 40 m long. The western wall of the monumental building is preserved to almost 5 m high. The dimensions of this structure, even in its reduced state of preservation, certainly place it within the group of the largest Iron Age public buildings in Israel.



Fig. 14. Dor. Wheelmade strainer-spouted jug.

Several superimposed floors were excavated within the building, and there is evidence for some internal changes in its plans during its obviously long period of use. Outside the building several architecturally different strata, each with several occupational horizons, were identified (local phases 9a-b, 8a-c, and possibly also 7). The building is abutted on the west by a thick east-west wall, running along the present edge of the tell, possibly a fortification of sorts. At the western edge of the area, this wall abuts another massive building, which remains unexcavated. In phase 9 the area between these two stone buildings was taken up by a large mudbrick building, with walls ca. 1.75 m thick, forming long, narrow hallways, possibly storerooms. In phase 8 the mudbrick building went out of use. Above its northern part a house was built, while the southern rooms were filled in and plastered over with pisé, making a retaining system for the monumental building. In phase 7 the whole area outside the monumental building was plastered over with a thick white plaster floor, to make a wide courtyard.

The phase 8 house in the north of the area collapsed twice within a fairly short period, probably within the early 10th century, both times burying a rich assemblage of household vessels, most conspicuous among which are some of the finest "Phoenician Bichrome" vessels found in this area (fig. 15). To the west, dug into the debris of the phase 9 mudbrick building, a jug was discovered, carefully covered



Fig. 15. Dor. Phoenician Bichrome jugs from area D2, phase 8.

by a bowl and containing a hoard of 8.5 kg of silver packed in 17 linen bags of ca. 490 g each and sealed by bullae (fig. 16). Other significant finds, also dating to phase 8, are several Cypriot White Painted I sherds, of types by now well known at Dor, as well as three Euboean Protogeometric sherds. These may serve to resolve the thorny issue of the correlation of Levantine, Cypriot, and Greek chronologies in the Dark Ages. The pottery of phase 9 is typical of the 11th century, containing the earliest types of "Phoenician Bichrome," as well as the earlier monochrome Phoenician ware.

These phase 9 vessels provide a terminus ad quem for the construction of the monumental building in the mid-11th century, although it may well have been built even earlier. It continued in use at least until the ninth century, and possibly into the eighth century.

Area D2 (Iron IIC). A vast concentration of industrial slag and pottery (mainly seventh-century Phoenician commercial jars and jugs but also some Assyrian-type vessels) was found in the northern part of D2. It does not relate to any known architecture. In addition to the large amounts of iron slag, a few crucible fragments were uncovered. A clay tuyère and a complete crucible were found in secondary deposition above this concentration, and most prob-



Fig. 16. Dor. The silver hoard from area D2, phase 8.



Fig. 17. Tel Hamid. General view of building, area A. (Courtesy Israel Antiquities Authority)

ably originated in it. These remains unequivocally indicate an iron industry at Dor at the time conducted under Assyrian rule. It remains to be determined whether these are in situ installations or trash pits for industrial activities carried on elsewhere at the site.

Tel Ḥamid. Samuel Wolff (IAA) and Alon Shavit report on salvage excavations conducted in 1996 at this important Iron Age tell:

Tel Hamid (Ras Abu Hamid) is located on the southern outskirts of Ramla, ca. 5 km northwest of Tel Gezer. The site, approximately 60 dunams in size, has been surveyed several times but has never been excavated until now. Various scholars have identified the site with Gat/Gittaim and Gibbethon of the Old Testament.

Excavations were begun in three areas (A–C, from north to south), all located on the western slope of the mound. Area A was the largest area opened, measuring ca. 300 m^2 . Four strata were revealed, three dating to the Iron Age II and one from the Byzantine period. The Iron Age strata date to three distinct phases: ninth, late ninth/first third of the eighth, and late eighth/early seventh centuries. Only a limited portion of the earliest stratum was revealed, consisting of two superimposed surfaces. Pottery from this stratum was very worn, having been exposed to the elements in antiquity. One calibrated ¹⁴C assay dates this stratum to 895-809. The most impressive architectural remains are assigned to the following stratum, consisting of a building (fig. 17) whose original measurements were ca. 20×10 m. Its outer walls were 1 m thick and interior walls 60-70 cm, preserved to a maximum height of 1.60 m. The ceramic assemblage from the middle phase of the Iron Age stratum consisted almost entirely of thousands of holemouth storage jar sherds. Two calibrated ¹⁴C samples provide the following dates: 813-763 and 815-764. Only a limited portion of the late eighth/early seventh century stratum was preserved, almost immediately below the present surface level. It consisted of two walls and associated surfaces with restorable pottery.

Byzantine or Early Islamic period levels cut the Iron Age occupation in several squares. Remains consisted of an olive-oil installation (weight stone and receiving vat preserved) and massive pottery dumps, consisting mainly of sherds from baggy storage jars.

A long trench was excavated in area B in order to section the site along its western edge. Few architectural remains were found, indicating that this area was more or less located beyond the main settlement. Most of the wall fragments and pits in the easternmost squares date to the Persian and Iron Age II periods. Farther to the west, a clean deposit of Early Roman pottery was discovered. At the far western end, a drop-off in the bedrock was revealed. The 4-m-deep fill from surface to the lower bedrock floor was loaded with Byzantine pottery, including one restorable tall Gaza storage jar. At the bottom of this scarp a cave was discovered measuring ca. 5×4 m. For safety considerations we were unable to excavate inside this cave, whose purpose and date remain unknown.

Occupation in area C consisted of Iron Age II outdoor surfaces associated with terrace walls built upon a marshy layer predating the settlement. Pottery from these features dates mainly to the ninth century, while calibrated ¹⁴C assays yielded the following dates: 895–805 and 797–758. A portion of the Iron Age occupation was cut by a Roman-period ceramic kiln.

Small finds from the Iron Age strata include one scarab, a terracotta figurine of a helmeted bearded male, another of the Ashdoda type (fig. 18), dozens of unbaked clay balls that may represent stoppers or loom weights, and a miniature stone altar.

Wolff conducted an additional season at Tel Hamid in 1998. Area D is located ca. 30 m east of area A. The same periods revealed in area A were excavated in area D. The latter, however, included a fourthcentury Roman phase that did not appear in area A. The main discovery was a massive terrace wall with fill layers found behind it (upslope) and a fine stone pavement in front of it (downslope). A meterthick layer of mudbrick detritus covered the pavement. The complex dates to the eighth century. This terrace wall is tentatively identified as the outer retaining wall of a double-wall fortification system, similar to contemporary fortification systems from Tel Batash and Lachish.

Tel Miqne (Ekron). Trude Dothan (HU) and Seymour Gitin (Albright Institute) report on the results of the 1996 season. Dothan and Gitin are taking a six-year break from excavations to work on the publication of the project's final reports.

Late Bronze and Iron I Ages. In work on the Iron Age I settlement, there were two primary goals. The first was to clarify the founding of the city wall and its relationship to the earliest phase of Philistine occupation in stratum VII on the Northeast Acropolis, in the upper city, where the city's fortifications had been first identified. The second was to establish the character and date of the founding of this phase of the city in two main areas of the tell in the lower city in which Early Iron Age levels had not been reached in previous seasons of excavation.



Fig. 18. Tel Hamid. Iron Age figurine. (Courtesy Israel Antiquities Authority)

On the slope of the Northeast Acropolis, of the upper city, in field I, the sondage was again expanded to the north and east. The results showed that stratum VII, dated to the first third of the 12th century, and representing the earliest Iron Age occupation, was built immediately over the last phase of the LB II period. The stratum VII city wall's foundation trench cut the last LB II floors. The trench, in which the latest pottery was LB II, was sealed by a welldefined series of mudbrick layers that contained a few examples of Mycenaean IIIC1b sherds. Immediately above were the first floors of the earliest architectural units of stratum VII, in which large amounts of Mycenaean IIIC1b sherds began to appear. Architectural and ceramic evidence for strata VI and V, dated from the last two-thirds of the 12th century through the first half of the 11th century, based on the appearance of Philistine Bichrome ware, further clarified the plan and extent of the development of the stratum VI industrial area and the domestic occupation of stratum V.

As for the areas of the tell in which the earliest



Fig. 19. Tel Miqne. Stratum VII, vessel in form of a hedgehog.

levels of the Iron Age had not been reached in previous seasons, in field X, on the northwest slope of the lower city, where the Wadi Timnah cuts the tell, the small probes of the 1995 season were greatly expanded. The results show that this part of the tell was occupied in the very first phase of the stratum VII city, in the first third of the 12th century. The evidence includes monumental fortifications constructed directly over the MBA II glacis, indicating that there was a gap in occupation in the LBA. This stratigraphic profile is consistent with the evidence from all other areas of excavation in the lower city. Stratum VII, Building Complex 200, constructed up against the city wall, included a series of rooms, one of which had plastered walls, floor, and bamah. The earliest pottery from this stratum included a Mycenaean IIIC1b kalathos, several patterned bowls, and a vessel in the form of a hedgehog (fig. 19). The building continued in use with some modifications in strata VI and V.

In field III, in the lower city, i.e., in the Iron Age gate area, disparate architectural elements of stratum VII, dated by its Mycenaean IIIClb pottery to the first third of the 12th century, were built directly on the MB II glacis-platform. In stratum VI, a new plan with major structures appeared, dated by its Philistine Bichrome pottery to the second two-thirds of the 12th century. This evidence supports the conclusion that in the southern part of the lower city, settlement developed gradually after the founding and fortification of the city in stratum VII in field I on the Northeast Acropolis. The character of the field III plan in stratum VI is distinctly domestic, as opposed to the public buildings of the elite zone in the center of the lower city, in field IV, excavated in this stratum in previous seasons. In stratum V, while the basic plan of monumental architecture remained unchanged, the modifications that occurred and the contents of the buildings indicate a more public function.

Iron Age II. The research design on the Iron Age II settlement focused on two problems. The first was the extent of the 10th–8th century occupation on the Northeast Acropolis, in the upper city, which in previous seasons produced the only evidence for its existence ever found at Ekron. The second was to determine the plan and function of the monumental building in the elite zone of the lower city, which had been partially excavated in two previous seasons.

On the top of the Northeast Acropolis, in field I, excavations continued in several areas that had produced in stratum IB monumental architecture including large magazines and a plastered entranceway, both filled with hundreds of restorable ceramic vessels. This phase was sealed by a thick layer of destruction debris, dated to the 603 campaign of the Neo-Babylonian king Nebuchadnezzar. Only the rooms of this building complex that had floors composed of layers of thick plaster or heavily compacted earth, and which securely sealed the material below, were selected for further excavation. The best data, which came from two of these rooms, established that segments of the stratum I monumental architecture had developed from the stratum II plan. It also produced a well-stratified sequence of occupation from stratum III through stratum IIA, that is, from the second half of the 10th century through the last half of the eighth. Composed of floors that



Fig. 20. Tel Miqne. Plan of Temple Complex 650, stratum IB.

sealed a number of construction fills, this sequence contained assemblages of restorable pottery that demonstrate the development of a number of forms and styles of decoration that had originated in stratum IV, i.e., the end of Iron Age I. It also demonstrates the typological development from stratum III through stratum IIA of the majority of ceramic forms of the Philistine Coastal Plain tradition, which appear fully developed in stratum IB at the end of the seventh century. These data represent the first comprehensive and thoroughly defined ceramic corpus for these periods yet encountered in Philistia.

The monumental building in field IV in the elite zone, Temple Complex 650 (57 \times 38 m), which for the most part had been covered by debris from the 603 destruction, is one of the largest buildings of its kind ever to have been excavated in Israel (fig. 20). Its architectural plan is based on a Neo-Assyrian design concept that has, as one of its primary features, a throne room or reception hall that served as a buffer separating a large courtyard from the sanctuary. Surrounding the sanctuary was a series of auxiliary rooms, one of which contained an olive-oil installation with a crushing basin, a press, a perforated stone weight, and the remains of a burnt wooden beam/lever. This is the only example of an olive-oil installation in situ outside the industrial zone at Ekron. Other rooms produced several hundred restorable ceramic vessels and significant assemblages of ivory objects, including a carved ivory statuette head, the largest object of its kind found to date in Israel.

As for the pillared sanctuary itself, immediately inside its entranceway were two large stone vats, possibly used for ritual ablutions. At the western end of the sanctuary, opposite the entrance, was a raised stone threshold and a partially stone-paved cella in which the rectangular limestone block (ca. 100 kg; $60 \times 39 \times 26$ cm) with the Ekron royal dedicatory inscription was found (fig. 21).

The inscription is complete and is composed of five lines, containing 72 letters:

- 1. The temple [that] he built, 'kyš son of Padi, son of
- 2. Ysd, son of Ada, son of Ya'ir, ruler of Ekron,
- 3. for Ptgyh his lady. May she bless him, and
- 4. prote[ct] him, and prolong his days, and bless
- 5. his [l]and.

Ikausu, that is, Achish, and Padi are known from the Assyrian records as kings of Ekron. The assumption that Padi king of Ekron called his son Ikausu, meaning the Greek, "Achaean" (or that Ikausu himself adopted the name), may be of great importance in the discussion of the origin of the Philistines.

Ptgyh was surely the name of a goddess of non-Semitic origin, perhaps some unknown Philistine or Indo-European female deity. The formula of the inscription is reminiscent of that of the 10th-century Phoenician inscriptions from Byblos. The Ekron inscription, which proves the identification of Tel Miqne as Ekron of the Philistines, is unique in that it contains the name of a biblical city and its rulers, two of whom are documented as kings of Ekron in nonbiblical texts. Moreover, it is the only such inscrip-



Fig. 21. Tel Miqne. Ekron inscription.

tion found in situ in a securely defined archaeological context within a datable destruction level. Chronologically, the list of its rulers suggests a dynastic period from the eighth through most of the first half of the seventh century. This provides the historical context for the stratum II–stratum IC occupation on the Northeast Acropolis. Finally, the inscription, found in the last city of Ekron, not only helps to define the final chapter of the city's history, but also provides the identification of its first city founded by the Sea Peoples in the 12th century.

Tell e-Safi. Aren M. Maeir (Bar Ilan University) and Adrian J. Boas (HU), directors, report on the 1996 and 1997 seasons of survey and excavation:

Tell e-Safi is a large archaeological mound (ca. 40 ha) situated in the northern Judaean foothills (Shephelah), approximately halfway between Jerusalem and Ashkelon. The site is often identified as Gath, known from Egyptian and Assyrian historical sources as well as biblical accounts. As such it was the site of one of the most important Philistine cities, "Gath of the Philistines." During the medieval period a Crusader fort was built on the site as part of the Crusader blockade of Fatimid Ashkelon during the first half of the 12th century. In the later medieval and modern periods an Arabic village occupied the site, abandoned since 1948.

A short excavation was conducted at the site in the late 19th century by Bliss and Macalister, though inadequate field methods preclude substantial utilization of these results. Since then, several surveys have been conducted on the site, from which it is apparent that it was occupied from the Chalcolithic period until 1948, with few if any gaps.

In 1996, an archaeological project was commenced at the site. This project is planned to be a long-term, large-scale investigation of this key site. Several key objectives have been set for the project: 1) Study of both the early (Bronze, Iron) and late (medieval, modern) remains at the site. All too often, excavations at such multiperiod sites overlook one at the expense of the other. The earlier investigations have raised several questions related to the respective periods represented at the site, entailing further investigation. 2) Study and definition of the material remains of the Iron Age city (apparently Gath), in particular reference to the other major Philistine cities that have been excavated in the past, with special emphasis placed on the relationship to the recently excavated Philistine site of Tel Miqne/Ekron, situated only 8 km to the north. 3) In light of its position on the border between the Shephelah and the coastal plain, as well as the historical (biblical and Assyrian) description for it being a key point in the confrontations between the Philistines and the Judaeans, important emphasis will be put on studying the Late Iron Age remains (eighth–seventh centuries). 4) Study and definition of the Crusader fort. Since the fort is known from contemporary historical sources and was short-lived, archaeological excavation could provide important information on Crusader architecture, settlement planning, etc.

The first stage of the fieldwork was conducted during the summer of 1996 (during this season T. Schneider [Claremont Graduate School] participated as codirector). In this stage, an intensive surface survey was carried out with the aim of rechecking the periods represented at the site and to define the size of the site as well as the differential utilization of different portions of the site during the respective periods. In addition, aerial photography, photogrammetric mapping, and airborne radar (courtesy of the GPR project, Brigham Young University) were utilized to collect additional information about the site.

The results of the 1996 season are as follows: 1) the overall size of the site is substantially larger than previously reported, possibly reaching as much as 40 ha; 2) though large portions of the site are covered with medieval and modern remains, substantial portions reveal only early remains; 3) there was a substantial EB II-III occupation; 4) all stages of the Iron Age are represented, though relatively few seventhcentury remains were identified; 5) based on the aerial photography and 1997 survey, a man-made trench was discovered surrounding the east, south, and western sides of the site. Though this feature was not actually surveyed during the 1996 season, it was surmised that it was part of a siege system surrounding the site. Though an accurate date could not be ascertained, a Roman road that crosses it provided a pre-Roman dating. We suggest that it be identified as a Late Iron Age defensive feature relating to the Assyrian siege of the site; future excavations will test this theory.

In the summer of 1997, a pilot excavation season was conducted, concentrating on the eastern side of the site where survey results indicated that Bronze and Iron Age remains were close to the surface. In fact, impressive architectural units and pottery assemblages were discovered immediately below the surface, preliminarily dated to the eighth century.

In addition to these excavations, a plan of the Crusader castle was drawn. It appears that it is a unique type of castle requiring further investigation.

The results of the first two seasons indicate the enormous potential of the site, which we plan to explore in the coming years.

Tell el-Hesi. Jeffrey Blakely (University of Wisconsin) provides an update on the Joint Archaeological

Expedition to Tell el-Hesi, which excavated at the site in southwestern Israel from 1970 to 1983:

Five final volumes that describe the project, its methods, the site's modern military trenching (stratum I), the Bedouin cemeteries (stratum II), and the Persian period (stratum V) have already appeared. Summary articles and preliminary reports (e.g., R.W. Doermann and V. Fargo, PEQ 117 [1985] 1-24) present the basic stratigraphic chart describing the project's interpretive framework as it was understood during excavation. Recent analyses by Blakely suggest that what has been called stratum VI in areas 41 and 51 on the acropolis (field I) actually dates to the late eighth or early seventh century rather than the late seventh or early sixth century as previously reported. Consequently, what has been called stratum VII probably dates to the ninth and eighth centuries. Other ongoing work by James L. Phillips and Blakely has identified residual lithics and ceramics that date back, continuously, from the EB/Chalcolithic transition to, probably, the Epipalaeolithic period. No stratigraphy was defined that goes with these artifacts. Publication plans call for two additional final volumes. It is hoped that the first of these volumes, Tell el-Hesi: Fields I and III, will appear by late 1999. The second volume will deal with the EBA material from fields V, VI, and IX.

PERSIAN

Dor. The main objective in area D1 in 1995–1997 was to extend the exposure of the large Persianperiod building in the northeastern part of the area. This building is remarkable for its size, width of walls, state of preservation, and unique construction method, which is in some ways reminiscent of Punic construction in the western Mediterranean. A deep trench excavated in previous seasons to the foundations of one of the rooms of this building indicated that it spanned much of the Persian era, and probably continued in use until the Early Hellenistic period.

In 1995–1997 the exposure of this building was much enlarged. As it appears thus far (fig. 22), the building has three large parallel halls, measuring approximately 9×4 m each, with an additional passage or hall to the north of all three. It definitely continues to the east, and possibly to the north, of the present limits of area D1.

Yavneh-Yam. Moshe Fischer (TAU) reports on the Yavneh-Yam Archaeological Project, carried out by the Department of Classical Studies (TAU) since 1992:

The coastal site of Yavneh-Yam is located approximately equidistant between Jaffa and Ashdod. Historical sources including Pliny (first century) and Ptolemaios (second century), the Madaba Map (sixth



Fig. 22. Dor. Plan of the Persian-period building in area D1, phase 3.

century), Idrissi (12th century), and various maps refer to the site as Iamnea/Jamnia, Mahuz Yibna, and, most recently, Minet Rubin. The site should not be confused with its nearby inland sister-city, Yavneh, one of the main centers and symbols of Late Antique Judaism and its survival. Previous archaeological excavations and surveys at the site, carried out in the early 1950s and 1960s, revealed a large Middle and Late Bronze Age fortified site that encircles the area of the harbor (fig. 23). Four seasons of excavations in the 1990s by the Yavneh-Yam Archaeological Project were carried out in areas A, B, and C. The earliest ceramic and small finds, including scarabs, uncovered so far by the Yavneh-Yam Project date to the Late Iron Age (seventh century). The main archaeological finds belong to the Persian, Hellenistic, Early Roman, Byzantine, and Early Islamic periods.

The remains of the Persian period seem to reflect the revival of the coast during that time (sixth-fourth centuries). The site is not mentioned in the main sources of that period, but Jamnia is mentioned in the Book of Judith as translated in the Septuagint, referring to the complicated political situation in the mid-fourth century. Remains of buildings with stone socles and mudbrick superstructures have been unearthed both in areas A and B. Walls of a larger building revealed in 1997 in area A were built in the Phoenician technique with kurkar ashlars arranged by combining stretchers for the outer face and smaller stones between them. The finds of this layer include bag-shaped jars with carinated shoulder, basket-handled amphoras, and two types of oil lamps-open pinched lamps of local fabric and imported closed lamps of Attic style. In addition to these

artifacts, a large amount of Attic red-figure ware, some of which was decorated with mythological figures, was revealed (fig. 24). Some terracotta figurines of Greek-Persian style were also found. Phoenician coins, mainly of the fourth century, date the end of the complex's occupation. These finds reflect the encounter between local culture and foreign influences, primarily Greek. They reveal again the issue of the Hellenic presence and its character before the official Hellenization of the Near East by Alexander the Great.

HELLENISTIC

Sepphoris. Eric Meyers and Carol Meyers (both Duke University) provide the following update on the 1996–1997 seasons:

The Sepphoris Regional Project conducted its third and fourth seasons of excavations in the Residential Quarter of the upper city of Sepphoris, near Nazareth, in 1996 and 1997. Except for some scanty Iron Age (ninth century) remains found beneath the earliest Hellenistic levels, the materials recovered from these two excavation seasons date to the Hellenistic, Roman, and Byzantine periods.

A large structure was erected on the eastern edge of the western acropolis, also known as the Residential Quarter, in the Late Hellenistic period. The full extent of the building has not yet been established, and only its foundations are extant. Because none of its superstructure has survived, the organization of internal space is difficult to determine, and virtually no artifactual materials that might indicate the use of the structure were discovered in the foundation levels. However, the thickness of the walls and the placement of the building on what probably would have been the highest part of the site lead to the hypothesis that the structure was a fortification. In the northern part of the building, two wellplastered stepped pools (miquabt?) appear to have been constructed around the first century.

Yavneh-Yam. The bulk of archaeological evidence revealed so far at Yavneh-Yam may be attributed to the Hellenistic period, mainly the second century. Already during a preliminary survey at the promontory of the southern edge of the site in 1986, a fragmentary Greek inscription (fig. 25) representing the correspondence between the Seleucid king and a citizen of Yavneh-Yam was discovered. The fragment is 33×23 cm and consists of a letter and a *hypomnema* (petition). The letter is dated to the month *loos* of year 149 of the Seleucid calendar, which corresponds to June–July 163, a date that is further corroborated by the occurrence of the name of King Antiochus (V) Eupator, who ruled from 164–162.



Fig. 23. Yavneh-Yam. Plan of the site and the excavated areas.

The buildings belonging to this stratum were apparently built on earlier foundations, preserving their Phoenician style. From the collapsed stones we may conclude that they were covered with red, yellow, and white plaster. During this period, a well was dug from the courtyard level. The walls of the well consist of finely cut ashlars. A considerable amount and variety of pottery (e.g., fig. 26), including fine moldmade bowls ("Megarian" vessels), painted lagynoi, and stamped amphora handles, reflect the prosperity and the advanced Hellenization of the population. Fishing instruments and a large number of murex shells, used for the product

tion of purple dye, reflect a portion of the activities carried out at the site. Among the more impressive artistic finds are terracotta figurines representing Greek figures and mythological heroes including Hetaira playing the harp (fig. 27) and the god Harpokrates. The latter even occurs twice, once as a figured juglet and once as a glass statuette, 30 mm high (fig. 28).

The Hellenistic remains in area A were sealed by a destruction layer attributed to the days of the Maccabean Wars, as related in the Book of Maccabees (2 Maccabees 12:9, 39–46). On the other hand, the finds seem to date the destruction of the site to



Fig. 24. Yavneh-Yam. Selection of Attic red-figure sherds.

the last years of the second century, either to the last days of John Hyrcanus's reign or the first ones of Alexander Jannaeus's reign.

ROMAN

Tel Dan. To the Roman period is ascribed the water channel uncovered about 50 m south of the city wall. Running east-west, a stretch over 120 m long has now been traced. The width of the channel is 0.80 m and its depth 0.45 m. The flanks of the channel are of gray plaster, which also covered the flat stones of the floor of the channel. About 10 cm below the floor, an earlier floor and a clay pipe running southward in the wall were found. It appears that originally, in addition to the westward flow of the water in the channel, the clay pipe carried water also to the south. The pipe was blocked when the second floor was built. Four coins from the first and fourth century were found.

Sepphoris. In the Early Roman period, the large Hellenistic "fortification" was intentionally filled in

with a massive earthen deposit sometime after 53, the date of the latest coin in the fill. This activity can perhaps be associated with Sepphoris's pro-Roman policy on the eve of the Great Revolt, in which Sepphoris did not participate; as a result, the city was named "City of Peace" by Nero in 67. The area covered by this great fill remained empty in the Early Roman period and may have served as a large plaza or garden. The Early Roman fill yielded considerable amounts of intact or restorable pottery and also a large cache (70-80 pieces) of worked cow bones that would have been used as weaving tools. A firstcentury building on the southern edge of the Residential Quarter showed signs of extensive renovation, as have other Early Roman structures excavated in previous seasons.

The construction and renovation of domestic units may have continued in the Middle Roman period, but it is not always possible to identify such activity, perhaps because the extensive Late Roman domestic architecture severely disrupted earlier buildings.



Fig. 25. Yavneh-Yam. Greek inscription.

Large quantities of Middle Roman sherds leave no doubt as to the continued occupation of the domestic area at that time. The prosperity of the city in the Late Roman period especially is marked not only by well-built domiciles but also by the quantities of tesserae and of elaborately molded polychrome plaster that were recovered in the debris of a house on the eastern edge of the Residential Quarter.

Other aspects of Roman Sepphoris uncovered in the 1996 and 1997 seasons include further evidence of the road system and its associated drains. A thoroughfare discovered along the southern edge of the upper city probably would have been connected with a road leading to the cardo of the lower city. In addition, fragments of connecting streets and alleyways suggest that the domestic area was divided into two large blocks, each containing four domestic units. Another significant discovery, near the southern roadway, was an enormous plastered pool that would have had a capacity of over 5,000 gallons.

Tel Dover. Alexander Onn and Yehuda Rapuano (IAA) report on the later finds from Tel Dover:

The site was continuously occupied from Early Roman times to the Early Arabic period. Isolated finds from the Early Roman period as well as the preceding Late Hellenistic period were revealed, but it was only in the second-fourth centuries that the site became a thriving town with public and private buildings, shops, and evidence for urban planning consisting of insulae divided by paved streets (see above, fig. 3, middle). Preservation was exceptional, with walls often up to 2 m high, and lintels still preserved in place. One complex consisted of a very large building with long halls that may have surrounded a courtyard. Another public building featured basalt pillars, probably part of a portico. Private dwellings were found throughout the excavated area. These structures had their entrances facing the river and



Fig. 26. Yavneh-Yam. Hellenistic vessel.

often had flagstone pavements and "window-walls," so typical of the architecture of the Golan Heights. Basalt pillars, capitals, and lintels attest to the relative wealth of the community. Dozens of hourglass, hopper-rubber, and flat rotary basalt millstones were interspersed throughout the town, but especially near its far northeastern end, testifying to the importance that flour preparation played in the local economy.

This stratum terminated in a destruction, perhaps to be related to the earthquake of 363, which evidently caused the destruction of the nearby towns of Umm Qais (Gadara) and Hammat Gader. The settlement from the late fourth–early fifth century was rebuilt on a limited scale, with new structures built on the foundations of earlier ones.

Dor. At least three phases of Hellenistic to Early Roman structures were uncovered in newly opened squares in area D2, probably parts of residential insulae like those excavated in areas A and C. Other parts of these structures had been excavated here in previous seasons. They are built of kurkar stones in typical ashlar-pier and ashlar-only techniques. Investigation of earlier occupational phases in area F (phase 3, Late Hellenistic-Early Roman) was very limited, restricted to a small portion of the area inside the northern portion of the phase 1 podium. This investigation had two purposes-to obtain a terminus post quem for the temple from the latest remains buried inside the podium and to explore the possibility that this podium covers earlier cultic installations. Previous seasons' work had reexposed a wall containing three niches (one of which had originally been uncovered by Garstang). The area east



Fig. 27. Yavneh-Yam. Figurine of Hetaira.

of this wall was dug down to floor level, and it was discovered that this wall is part of an elaborate oliveoil factory. It had two beam presses, each weighed down by three cuboid weight-stones, with inverted T-shaped perforations, apparently for inserting ropes from a hoist. Inside the weight-wells and on the operating platform between them was scattered restorable pottery.

Previous excavations conducted in area B2 had revealed that in the latter part of the Roman period (local phase 1, second-third centuries), a structure had been built to the west of the main entry into the city, resulting in a modification of the original phase 2 Roman street plan in this vicinity. Wide-scale excavations in 1995 revealed that this structure was probably an addition to a large, heavily robbed phase 2 building (the use of which presumably continued into phase 1) to the south. It consists of a rectangular space, 17.5×16 m, with an inner colonnaded space measuring 12.5×10 m. We presume that the structure was an open peristyle.

Previous investigations in the northern Roman Temple precinct (phase 1, second-third centuries) indicate that this area is the location of the temple precinct of the Late Roman period at Dor. Two primary complexes or temples are apparent from the remains found at the site today. Excavations in the northern of the two, temple F, were begun in 1985 and concluded in 1997; the southern temple, H, was excavated in 1996–1997. Earlier hypotheses conjectured that this northern temple was a rectangular prostyle temple facing south, set upon a high, freestanding podium, accessed from an open courtyard by a staircase, and surrounded by a high te-



Fig. 28. Yavneh-Yam. Glass amulet of Harpokrates.

menos wall. Doorways allowing access through the temenos wall exist at the northern and southern ends of the eastern temenos wall. Stairways leading down from the city's street level to the doorways have also been uncovered.

Recent investigations conducted in area F have revealed several interesting features that have resulted in a reevaluation of the likely configuration of the complex. It appears that the temple was not built on a freestanding podium, but rather on a threesided terrace, connected to the existing tell on the east. Furthermore, there are indications for a gatecomplex in the center of the eastern side of the temenos wall. This gate (probably the main one, since both Garstang and the current excavators found that the north and south doorways had been intentionally blocked very shortly after completion of the complex) was at the level of the temple, and hence no stairway was needed. This raises the conjecture that the entire complex was a broad-room building facing east, rather than a long-room one facing south.

It has long been our conjecture that the temple postdates the phase 2 (second century) street system,


Fig. 29. Dor. Dolphin mosaic, area H.

based on the different orientation of the streets and the temple complex. Only in 1994, however, was the actual point of conjunction of the street and the temple complex excavated. Indeed, the ashlar-lined drain channel beneath the street is clearly cut by the temenos wall. The difference in orientation had been observed between a phase 2 exposure of the street to the north excavated in 1991 and the original section exposed in 1986. For some reason, strict orthogonality of plan was not maintained at this point.

As work in area F was winding down, a new area (H) was opened in 1996 adjacent to the southern temple, temple H. As was the case in area F and elsewhere on the site, we found evidence of two different architectural phases within the Roman period. The temple belongs to the later of these (phase 1, second-third centuries), and its foundations cut the houses of the earlier Roman stratum. In the case of temple H, nothing whatsoever remains of the superstructure or the podium. Only foundations and constructional fills of the approach to the temple platform remain. The material in the constructional fills dates to the second century, providing a terminus post quem for the construction of the temple.

In order to construct the temple H podium, and to fill the slope of the tell to the level of the podium floor, the builders demolished an Early Roman house, the "House of the Dolphins" (first–second centuries), but only after building a set of retaining walls across its remains. These actions account for its extraordinary state of preservation. As the house was built on the existing slope, its western facade was one story lower than its eastern one. The walls on this side remain standing two stories high. The first story (on the western side) comprised cellars and staircases. In the second story (the first on the eastern side) were living quarters, including some elegant rooms. One had a mosaic floor, of which only the western fringe remains (fig. 29). Its border was decorated by a heraldic composition of dolphins and a trident (Doros, Dor's legendary founder, was Poseidon's son). This room and adjacent ones were also adorned by frescoes. The bottoms of some panels were found in situ, but most were found in fragments, where they had fallen into the rooms of the first story below, and into the street. The finer pieces show fragments of a garden scene. These frescoes and mosaic are perhaps the earliest examples of figurative architectural decoration in Israel.

Caesarea. Kenneth G. Holum (University of Maryland) reports on the 1997 season of the Combined Caesarea Expeditions (CCE), directed by Holum and Avner Raban and Joseph Patrich (both UH):

The large-scale, year-round excavations that began at Caesarea in 1992 have now ended but CCE continues its work, concentrating on area TP, the Temple Platform, area LL, the waterfront quarter of the ancient city north of the Inner Harbor, and, of course, on the harbor itself. Preliminary reports on recent work are to appear in *Caesarea Papers* II, recently submitted for publication as a supplementary volume of the *Journal of Roman Archaeology*.

In the harbor, the 1997 team successfully excavated caisson probes that for the first time yielded intact stratigraphic profiles in three parts of the harbor basin. These profiles present (for example) a consistent picture of early (first and second century) deterioration of the western harbor breakwater, then recovery in the third and fourth centuries, when there was again a protected, lagoon environment in the Inner Harbor.

On land, the second season of excavations in area LL, north of the Inner Harbor, uncovered additional fragments of an Early Islamic dwelling quarter and more of a corridor-type warehouse of the Byzantine period (sixth century). Beneath the warehouse were foundations of an earlier building that may have served the same function in the Early Roman period, when Herod the Great founded Caesarea and built its harbor. The team also studied and removed a 10 \times 10 m portion of an extremely dense pottery deposit adjacent on the east to the sixth-century warehouse. The deposit reached a maximum thickness of nearly 3 m and contained only minute quantities of cookware and tableware but was rich in storage jars and transport amphoras of the fourth through early seventh centuries. Because it overlay an Umayyad well, however, this was not likely to have been a primary deposit associated with storage and transshipment activity in the adjacent warehouse but was apparently brought in from somewhere nearby to elevate the surrounding terrain to a level suitable for the Early Islamic domestic units. The issue remains controversial. A rapid probe at the end of the season revealed further soil layers beneath this deposit, and below these layers another dense ceramic deposit of vessels from the first and second centuries lying just above the ancient sea level.

Excavations in area TP made the most dramatic progress. Here the team has been exploring remains of an Early Christian church, octagonal in plan, built in the sixth century. Beneath the church foundations, the excavations in 1997 exposed much more of the foundations of King Herod's temple to Roma and Augustus (fig. 30), mentioned by Josephus (*BJ* 1.414, *AJ* 15.339). It is clear that the foundations uncovered date to King Herod's time, and that the building on them survived until at least the fourth century, and probably until the church was built in the early sixth. The temple's overall dimensions were 28.6 m north– south and 46.4 m east–west. The building had a western pronaos and a 3-m-wide foundation on the west that presumably supported a colonnade. The cella, with its images of Augustus "not inferior to the Zeus at Olympia" and Roma "equal to the Hera at Argos" (Josephus), was apparently undivided, so the divine images occupied a single large chamber. The cella stood on broad foundations nearly 8 m wide on the north, east, and south sides, and 5 m wide on the west side, which could have accommodated both the cella walls, perhaps with internal galleries and staircases, and perhaps an engaged or freestanding colonnade that surrounded the cella on the north, east, and south. Besides studying the temple foundations, the 1997 team continued graphic and photographic recording of a large and growing collection of architectural fragments in the local kurkar sandstone representing the temple's superstructure.

The temple is the most important monument of Herodian architecture to have come to light in recent years. Significantly, its architectural affinities appear to be with contemporary temples of the Late Hellenistic East, such as the Zeus temple at Gerasa in Jordan and (not surprisingly) the Temple of Augustus at Samaria-Sebaste, Caesarea's sibling city. The new building tends to confirm recent scholarship that locates the inspiration for King Herod's building program less in the buildings of Italy and Rome itself and more in Alexandria and other urban centers of the Hellenized Middle East.

Yavneh-Yam. Architectural remains of the Early Roman period are rather scanty. Written sources (Pliny the Elder and Ptolemaios the Geographer) and certain artifacts (pottery, including "Herodian" and Roman "discus" lamps; "Jewish" stone vessels and coins of Herod Agrippa I and Roman city-coins; and four limestone ossuaries found in the area of the Bronze Age rampart some 30 years ago) may point to a Jewish population at the site.

Ein Gedi. Yizhar Hirschfeld (HU) reports on the third season of excavations at Ein Gedi, conducted under the auspices of HU and sponsored by the Rothschild Foundation in Israel:

The site, which runs along the natural terrace on the slope north of Nahal 'Arugot, 200 m above the Dead Sea (i.e., 200 m below sea level), was discovered by Yohanan Aharoni during a survey of the oasis in the late 1950s. He identified it as a settlement containing about 30 cells (or "rooms," as he called them) built in a very simple, irregular fashion, using large boulders found scattered on the surface. Aharoni also discovered near the cells the remains of a pool, and nearby a spring hidden by vegetation and cane. The few potsherds collected by Aharoni were insufficient for dating the site, and he consequently dated it to the Roman–Byzantine period, mentioning that he was unable to date the beginning of the



Fig. 30. Caesarea. Plan of temple. (A. Iamim)

settlement and its phases of occupation. No other comparable site has been found within the confines of the oasis.

During our five-week excavation, we found and cleared 20 cells and two pools (fig. 31). The remains at the site spread over the natural shelf, covering an area of about 200×10 m. Each cell was measured and the ancient terraces and footpath were surveyed. Most of the cells were built in close proximity to one another, on the western side of the main trail; some of them share the same walls. Each cell, the average size of which is 2×3 m, was built for one individual only. The preservation of the walls differs from one cell to the next. Some still stand 1.6 m above the floor, while others are preserved to a height of only one course. According to Aharoni, the cells are irregular in shape and built with fieldstones, using only the local boulders for construction. The floors in all cells were made of beaten earth. We may assume that the roofs were made of a perishable material such as palm fronds. A stone-made stove, probably used for cooking and heating the cells in the cold desert nights, was found in the corner of several cells. Layers of ash have been identified in most of the cells.

Three buildings at the site may have been public structures. They are larger than the cells (averaging



Fig. 31. Ein Gedi. Excavated cells and ancient path. View to south.

 5×4 m), have a regular shape, and are built close to one another (5 m apart) on the eastern side of the trail. One of them was probably a kitchen, since three stoves and a thick layer of ash were found on its floor.

Two pools were built next to each other but at different heights. The lower pool is the one mentioned by Aharoni. It is rectangular (interior dimensions 7×6 m), built of hewn stones and white cement, and lined with a thick layer of hydraulic plaster. At the southeastern corner of the pool, close to the floor, a round opening was found leading into a channel, through which water was conveyed to the fields.

The upper pool, measuring 5×3 m, has an irregular shape and was cut in the bedrock (fig. 32). The stonecutters who built the pool constructed a staircase-like structure (3×1 m), but without the stairs, as a means of easy access to the pool. This arrangement is well known in the ritual baths (*miqvabt*) that were constructed in Judaea in the Late Hellenistic and Early Roman periods. The upper pool is built just below the spring mentioned by Aharoni. (In fact, while uncovering this pool the seemingly dormant natural water emerged from the earth, creating an active spring.) We may assume that the spring



Fig. 32. Ein Gedi. Upper pool (miqueh). View to west.

itself was the source for drinking water, that the upper pool was a *miqueh* for ritual immersion, and that the lower pool was part of the estate's irrigation system.

Small finds include a relatively rich collection of pottery vessels, glass sherds, and seven coins from the Early Roman and Byzantine periods. No animal bones whatsoever were found. The stratigraphy recurrent in several cells exhibits two phases of occupation: 1) the Early Roman period (first-early second centuries), and 2) the Late Roman-Byzantine period (fourth-sixth centuries). Between these two periods there was a gap of about 100–150 years, which is reflected by the absence of artifacts from the late second-early third centuries.

Who lived at this unique site and what can we learn about their way of life? We may assume that the inhabitants of these cells were Jews, since the site was part of the Ein Gedi oasis, according to Josephus (first century) and Eusebius (early fourth century). The installations and small artifacts found inside the cells indicate that the inhabitants lived in these as permanent dwellings for a relatively long period. They were not seasonal workers, for if they were we would most probably find similar sites in other parts



Fig. 33. Yavneh-Yam. General view of area B.

of the oasis. All features of the site — its location above Ein Gedi, simplicity, and unique nature — conform to Pliny the Elder's famous passage on the Essenes, whom he describes as a celibate group of men living on the western shore of the Dead Sea who have no money, and only palm trees for company. He concludes by saying that below them lies Ein Gedi, which in his times was "a heap of ashes" (HN 5.15.73).

Each cell found at the site was used by a single individual and reflects the simplicity of the Essenes' ascetic approach to life. The terraces and irrigation system indicate that these people were engaged in agriculture and that they lived among palm trees. The cell structures indicate a homogeneous society having some sort of organization. The fact that no animal bones were found indicates that the inhabitants may have been vegetarians. We do not know who resettled the site in the second phase (i.e., the fourth century). Nevertheless, no matter who they were, their way of life appears to have been similar to that of the inhabitants of the site's first phase.

Excavations at the "Essene Village" will be resumed in January 1999.

BYZANTINE

Sepphoris. The 1996 and 1997 excavations at Sepphoris uncovered additional evidence for the destruction of the Late Roman city and its subsequent extensive rebuilding in the Byzantine period, especially in the western and southern areas of the upper city. Many of the Byzantine structures excavated in these two seasons had plaster-lined or mortared basins and installations, the functions of which are unclear. One

Byzantine building, its extant walls several courses high, was built entirely of reused blocks, some of them with drafted margins, of the Early Roman (Herodian) period.

Tel Dover. Two main phases were discerned at Tel Dover, one dating to the sixth century, the following to the late sixth/early seventh century. In the earlier phase, a large public complex was added at the southwestern end of the area of excavations; it may represent a monastery. Later, the building was destroyed and a new structure, measuring some 2,000 m², with rooms arranged around a central courtyard, was constructed over it. At the northeastern end of the building were three long parallel rooms that possibly functioned as stables or storerooms. On the southern side stood a square tower, ca. 10×10 m in size. Some of the flagstone pavers bore inscribed crosses. This new structure may have been a fortress or station that guarded the pass from the Jordan Valley to Damascus.

Yavneh-Yam. A revival of activity at the site can be dated to the Byzantine period, mainly the fifth and sixth centuries. Written sources (such as Petrus the Iberian) mention Jamnia as a place where Samaritans and Christians coexisted and where the empress Eudokia sponsored the erection of a *hospitium* for Christian pilgrims. F. Vitto and Y. Levi have excavated parts of monumental buildings including fine mosaic pavements south of area B during the early 1980s; we have excavated segments of those complexes extending to the north, in area B (fig. 33). Several water installations have been unearthed, one consisting of a water tower with a central round pool and four adjacent square pools. Water filled the central pool and was then pumped into the lateral pools by lead pipes built into the separating walls. From the pools, water was apparently divided between the different components of the architectural complex of the area. In area A, a winepress and the western part of a building containing an elaborate mosaic pavement were unearthed. Pottery, glass, coins, metal artifacts, and stone objects have been found in abundance throughout the site, including Gaza storage jars and pear-shaped inscribed lamps. Among the coins, some gold coins of Justinian I (527-565) are especially noteworthy. An oil lamp with a sevenbranch menorah depicted on its rear handle (fig. 34) is also worth mentioning. Along the coast, several installations from the Byzantine period, some including huge pithoi, reflect economic activity at the site. The large amount of lead weights found during the excavations, many of which were decorated and inscribed, also speaks of an intensive economic activity and urban organization of the site.

In the eastern outskirts of the site, below the Bronze Age ramparts, a funerary cave was excavated in 1995. It was cut into bedrock and consisted of a central room with smaller rooms linked by smaller openings or a rock-cut distylos in antis. The walls of one of the larger rooms were covered with plaster and frescoes depicting crosses surrounded by medallions. Although heavy iconoclasm destroyed a great part of this decoration, it is obvious that the cave belonged to the flourishing Christian community of Yavneh-Yam during the Byzantine period.

Khirbet Yattir. Hanan Eshel (Bar Ilan University), Eli Shenhav (Keren Kayemeth LeYisrael), and Jodi Magness (Tufts University) report on the 1995–1997 seasons:

The site of Khirbet Yattir (biblical Yattir) is located on a hill in the southern Judaean mountains, about 12 km northwest of Arad. So far, four areas have been investigated: area A, on the top of the hill; area B, on the eastern side of the hill; area C, on a spur to the south of the site; and area D, close to the top of the northern side of the site, to the north of area A.

Area A. The corner of a massive building was exposed in area A, whose fieldstone walls are about 1.30 m thick. The packed dirt floors within it were devoid of pottery. The ceramic material from one of the foundation trenches provides a Hellenistic terminus post quem for the building's construction, though it is not clear when it went out of use.

Area B. The excavations in area B focused on a square building whose walls still stand to the height of one story. So far, our excavations do not support the late Z. Ilan's identification of this building as an



Fig. 34. Yavneh-Yam. Lamp with menorah motif.

ancient synagogue. It appears to have been constructed during the Byzantine period and reused during the Mameluke period, at which time the eastern wall was rebuilt. The original Byzantine western wall of the building incorporates earlier architectural elements. Soundings were made inside the building and outside its eastern, western, and southern walls. The latest remains uncovered in the eastern sounding include a cistern whose walls incorporate reused Byzantine columns.

Layers of fill about 1.50 m deep were excavated on the outside of the building's eastern wall, which contained a large quantity of Hellenistic and Early Roman pottery. The latest finds include coins of the First Jewish Revolt against the Romans and coins of Agrippa I, as well as Roman moldmade discus lamps. This fill covers a series of fieldstone walls that probably date to the Late Iron Age. Two caves were discovered in the bedrock exposed at the bottom of this sounding. The first, located beneath the northwest corner of the building, contained dumps with a large quantity of Late Iron Age pottery, including cooking pots with a high, straight neck and geometric stamps on the handles. The excavation of the second cave, which is located on the northern side of the sounding, has not yet been completed. So far,



Fig. 35. Khirbet Yattir. View of the church.

the ceramic material recovered from this cave includes Late Iron Age and Early Bronze Age sherds.

Outside the southern wall of the building a road paved with flagstones was exposed, across which a column had been laid to create a step. The excavations inside the building, which have not yet been completed, exposed the remains of a Mameluke vault built up against the original Byzantine wall on the western side. In the western sounding outside the building, another paved road was uncovered, on the other side of which was a private dwelling of the Byzantine period that was also reoccupied during the Mameluke period. A small olive-press installation was found in the space between these two buildings, above the paved road.

Area C. Prior to the excavations, four columns and an apse were visible here above the ground. The excavations revealed the remains of a church paved with a mosaic floor (fig. 35). All of the church except for the southern part of the southern aisle and the atrium was cleared down to the mosaic floor, which lay 1.80 m below the present ground level. The hall contained two rows of six columns each, which stood on pedestals. No two of the pedestals are alike. Some of the capitals are conical in shape and are embossed with crosses, while others are reused Nabataean capitals of the first century. The aisles are paved with a simple white mosaic carpet decorated with stylized

flowers consisting of a black crowstep pattern representing the stalk, and red tesserae arranged in the form of a W for the petals. The mosaic in the apse, only part of which is preserved, is decorated with a geometric pattern.

Two phases can be distinguished in the mosaic floor of the nave. Four birds (fig. 36) and medallions of vines can still be discerned in the earlier floor, most of which has disappeared. The later floor is divided into 23 horizontal strips, which contain magical symbols and the abbreviations of holy names (nomina sacra). A large circle containing a cross is located in the center of the floor. Below it (to the west) lies a large cross, and below that, a panel containing a 12-line Greek inscription (fig. 37) translated as follows: "This work was completed in the month of March in the sixth Indiction, year 526 of the era of the city, for the benefit of the salvation and the aid of Thomas the most holy, abbot of the monastery. [The work was done] by my hands, Zachariah, son of Yeshi, the builder, servant of god." Since the inscription is dated according to the calendar of Provincia Arabia, the city mentioned in connection with its date is Halusa. The inscription therefore dates to 631/2, and its contents indicate that this was a monastic church. During the Mameluke period, the church was cleared for reoccupation down to the level of the mosaic floor, and three rooms were



Fig. 36. Khirbet Yattir. Detail, mosaic floor.



Fig. 37. Khirbet Yattir. Greek inscription.

built along its northern side. Therefore, very little Byzantine pottery was discovered on the floor, though hundreds of terracotta roof tile fragments and dozens of nails indicate that it had a pitched roof. The excavations in the atrium of the church have not been completed. What may be the remains of a chapel appear to lie along its northern side.

Area D. Excavations revealed the remains of a large public building of the Byzantine period whose function is not yet clear. The ashlar walls of the building are oriented northeast-southwest. All of the floors exposed to date are paved with simple white mosaics, except in one room where there are remains of a mosaic of smaller white tesserae with a black frame. A stylized Corinthian pilaster capital was found in fills above the building. During the Mameluke period, the building was cleared and reoccupied, and vaults whose remains are still visible were built up against the earlier walls.

See also "Sepphoris Regional Project," above.

EARLY ISLAMIC

Tel Dover. Byzantine occupation continued into the Umayyad period, with alterations and additions to the earlier architecture. Two phases of Abbasid occupation (mid-8th to mid-9th, mid-9th to mid-10th century) were discerned. Again, remains were built upon earlier foundations, and new complexes were added. This was the last gasp of settlement at the site. In the Mameluke period (13th–15th centuries) sporadic occupation was discerned just below the surface.

Yavneh-Yam. The site of Yavneh-Yam was intensively reoccupied sometime during the Early Islamic period. Artifacts from the Umayyad period have been found in areas A and B, but architectural remains, pottery, and coins indicate a resettlement mainly in the 9th-10th centuries. Area C represents the main core of the Early Islamic activity. A strong wall of a fortress, built of partly reused kurkar ashlars, pebbles, and a huge amount of plaster, encircled the promontory. The site is mentioned by several Islamic sources either as Mahuz e-Tanieh -- "the Second Harbor," according to Idrissi, of the 12th century, the first one being that of Ashdod-or as Minet Rubin. Several marble columns that had been robbed from the Byzantine monuments were found reused in the fortifications, one of them bearing seven Arabic graffiti inscriptions. Since the Arabic term shahada (martyrdom, death of a martyr) occurs in one of them, it sheds light on the role played by the harbor of Yavneh-Yam in the sacred war of the Muslims against the Christians. In the saddle between the promontory and the site itself the remains of a building were unearthed containing an elaborate staircase leading from the sea up to the fortress. Pottery, coins, and glass objects point to the 9th-10th centuries for its date.

CRUSADER PERIOD

Akko. Eliezer Stern (IAA) reports on the excavation and restoration project at the Complex of the Order of St. John:

Large-scale excavations have been conducted at the center of the Knights of the Order of St. Johnthe Hospitaller complex-on behalf of the IAA and the Old Acre Development Company from 1992 to 1996. The Knights of the Order of St. John are mentioned for the first time as permanent residents of Akko in documents dating from 1131. Later, in 1168, the Traveler from Würzburg described Akko, mentioning that of the two large and impressive buildings in the city, the two citadels of the military orders, one belonged to the Templars, in the south of the city, and the other belonged to the Hospitallers in the northern part. In 1187, after the Crusader defeat at the hands of the Moslems in the battle at the Horns of Hittin, Akko was taken without force and a Moslem garrison was stationed there. In 1191, the Crusaders, led by Richard the Lionhearted, occupied Akko which became the capital of the Second Latin Kingdom of Jerusalem.

Along the 11th century Fatimid wall of Akko, between the two towers of the Fatimid period, the Hospitallers constructed their citadel (fig. 38). The northern part of the complex consisted of nine halls (halls A–I). These halls are built of well-dressed stones and have a barrel-vaulted roof. Two or three passages connect the halls to one another, creating one huge space that was used for storage and as a sleeping hall for soldiers. The halls are well preserved, including their original ceilings. Beneath hall B, a huge underground water reservoir was discovered.

South of these halls the Hospitallers built a pillared hall, measuring 40×30 m. Its ceiling leans on 15 central pillars standing in fixed distances throughout the hall, supporting a series of cross vaults. Between this hall and the Northern Building was a narrow alley that functioned as the eastern entrance to the courtyard. West of the courtyard was the residential wing and probably the palace of the head of the Order (both unexcavated). Vaulted passages connected this wing to the courtyard. A very impressive hall was exposed to the south of the courtyard. It was probably used as the dining room (refectory) of the Order. The building, measuring 30×15 m and decorated in the Early Gothic style, has a ceiling built of cross vaults leaning on three massive columns, ca. 3 m in diameter. The main building is surrounded by three additional halls. This entire complex was finished by the time of the Traveler of Würzburg's visit in 1168.

After the establishment of the Second Latin Kingdom of Jerusalem and the increase in the number of residents, an additional story was added, presumably as living quarters. For that purpose a series of pillars were added around the courtyard to support a gallery to the upper story and a monumental stairway, 3.5 m wide, that led from the courtyard to the second story. Only one wall (4 m high) is preserved from the second story. This wall and additional architectural elements found in the collapse of the second story indicate that it was constructed in the 13th century in the Gothic style.

Beneath the main courtyard an underground tunnel (fig. 39), 1.5 m wide, was discovered. It was built of dressed stones and was occasionally hewn directly from bedrock. It had a gabled roof built of flat stones. At the point where the tunnel crosses under the northwest tower, it was built in a more massive style, now 3 m wide with a higher vaulted ceiling. The tunnel is part of the structure of the tower and was built to support it. West of the tunnel and directly under the tower was an underground room, interpreted as a sewage chamber, into which dozens of drain chutes conducted water and/or human waste from above.

As the tunnel passes the Hospitaller's complex it splits into a T-shaped junction, leading to the east and west. To the east, it apparently continues dozens of meters. To the west, it ends after ca. 20 m with an exit opening toward the north moat of the city. This opening is at a lower level than the living surface of the Crusader city, and it seems that it was used as a hidden postern. Various excavations in re-



Fig. 38. Akko. The citadel, view to southeast. (Courtesy Israel Antiquities Authority)



Fig. 39. Akko. Underground tunnel. (Courtesy Israel Antiquities Authority)

cent years have discovered sections of similar underground tunnels in many portions of the Crusader city. They were used for escape but primarily functioned as the municipal drainage system.

The site is at present open to visitors while reconstruction and preservation efforts continue. The entire issue of '*Atiqot* 31 (1997) is devoted to additional Crusader-period excavations and historical studies concerning Akko. See also the entry on Tell e-Safi, above.

SALVAGE EXCAVATIONS IN THE VICINITY OF BEN SHEMEN

The first phase of construction of the Trans-Israel Highway has provided archaeologists with an opportunity to excavate all the sites of a particular region (from south of Rosh Ha'Ayin to Tel Hamid) in advance of their impending destruction. This was terra incognita before these excavations occurred. Now we are able to characterize the settlement pattern for *la longue durée* (see below). Readers of this newsletter are already familiar with the results of the excavations at Shoham and Mazor, and the Iron Age remains from Tel Hamid are discussed above. Yuval Yekutieli (BGU) reports here on the results of BGU's salvage excavations in the vicinity of Ben Shemen:

Excavations were concentrated along the planned route of the Trans-Israel Highway, in the region of Ben Shemen-Beth Neḥemia, both north and south of Tel Ḥadid (excavated by TAU). The excavations focused on a 5-km-long and 100-m-wide transect (with the exception of an 800-m section in the middle – Tel Ḥadid), and an additional 1 km × 100 m perpendicular transect east of the modern cemetery of Moshav Ḥadid.

BGU's work involved the excavation of A. Shavit, M. Haiman, and Y. Dagan's survey sites 77 north, 77, 81, 82, 83, 84, 85, 86, and 88, as well as an intensive check of the areas between them. The method included complete excavation of the observed archaeological remains and the digging of test trenches, 10 m apart, in the area where no remains were observed on the surface. It is important to note that this method revealed sites and features unidentified by surface survey.

The earliest site in our sampled area was a small MB I site, unrecognized by the surface survey, east of Moshav Beth Nehemia. Up until now this period has been reported only from dwelling caves and a burial at Shoham and from sherds collected at Tel Hadid and Tel Lod. No remains from the MB II, LBA, or Iron Age I were recorded in our research area. Remains dating to the following period, Iron Age II, were minimal, limited to a small pit at site 81–82, a low rocky ridge facing the prominent Iron Age settlement at Tel Ḥadid.

Both Iron Age III and Persian-period remains in the research area consisted of cisterns, built in the open landscape, away from the large settlements. These cisterns probably belonged to agricultural farms scattered in the rural area, and not located within the limited transect.

In the Roman, Byzantine, and Early Islamic periods, the area became densely populated. A large village, with strata representing all of those periods, was excavated east of Moshav Beth Nehemia. The village, site 77 (fig. 40), was an orthogonally planned settlement in the Roman period. The discovery of ritual baths suggests that the inhabitants of the Roman-period settlement were Jewish. The village was enlarged, along its basic plan, in the Byzantine period, and a church was built at its highest point. Several olive presses and one winepress testify to the agricultural character of the settlement. In the Early Islamic period the site grew even larger, though a major change was noted in its structures. Many of the earlier structures were destroyed, including the church, and new flimsy ones were built on earlier foundations.

Additional remains of the Roman period were found a few kilometers south, near the Ben Shemen junction. A large cemetery included various types of tombs, some of which were quite elaborate, having hewn courtyards, inner chambers, and niches with ossuaries. Some tombs of this cemetery were excavated in previous years. It is unknown whether the cemetery belonged to Lod or to an unknown closer settlement. The cemetery covered a time span of ca. 200 years – the Roman to Late Roman period.

Also belonging to the Roman period are the remains of a cave system used for hiding during the Bar Kokhba Revolt, located in the Ben Shemen junction area. A second large settlement was excavated adjacent to the area of the caves, at site 84. This settlement was established only in the Early Islamic period. It included large public structures built at the highest spot of the settlement, and smaller dwellings arranged around large and partly paved courtyards in its lower areas. Many underground installations were found within this settlement, including cisterns, silos, and storage installations. A large olive press and a remarkably large lime kiln were also excavated.

In the open agricultural areas between the settlements, many installations were found, belonging to the following types: 1) water storage systems, usually consisting of small dams diverting water into large cisterns; 2) agricultural installations – mainly olive-



Fig. 40. Ben Shemen region. Site 77, general view.

oil presses and winepresses; 3) industrial installations, especially lime kilns; 4) tombs—most commonly arcosolia-type quarried tombs dating from the Roman to Byzantine periods; and 5) quarries that varied in shape and size.

In summary, the sample from the Ben Shemen-Beth Neḥemia region revealed a settlement pattern indicating a relatively dense agriculturally based occupation in the Roman, Byzantine, and especially Early Islamic periods.

NUMISMATIC RESEARCH

Haim Gitler, Curator of Numismatics, the Israel Museum, Jerusalem, provided the following report³ on recent developments in numismatic research:

Persian period. The two centuries (538–331) of Achaemenid Persian domination in the Near East are marked by a profound transformation of the political, economic, and cultural organization of life. The middle of the fifth century witnessed a transition in the means of payment from pieces of metal to foreign coinage and later to the local issues in the Phoenician cities of Byblos, Tyre, Sidon, and Arados. Similar local coinages were issued at a later stage, ca. 420, by various places in Palestine: Gaza, Ascalon, Ashdod, Judah (Jerusalem), and Samaria.

Our knowledge of the coinage minted in Palestine during the Persian period has increased notably in the last several years due to a number of new publications. These publications give us a clearer picture of the minting trends at the outset of the monetary activity in Palestine.

In Palestine, neither Persian imperial money nor satrapal coins circulated between ca. 420 and 332. The daily cash for the provinces of Judaea and Samaria was secured by their governors in the form of small silver coins. Some imported Greek silver coins, mostly Athenian, were still in circulation at that time, in addition to substantial quantities of local imitations of Athenian currency. The bulk of the money supply, however, came from local mints that produced silver drachms and fractions for the coastal cities and for the minting authorities issuing the "Philisto-Arabian" coins. The problem with these

³ This contribution was extracted from H. Gitler, "The Levant," in *A Survey of Numismatic Research 1990–1995* (Berlin 1997) 101–13, for which see additional discussion and bibliography. Gitler and I are grateful to the Publication

Committee of the International Association of Professional Numismatists for permission to incorporate portions of the original text.

so-called Philisto-Arabian coins is that they lack inscriptions to identify them clearly. Initially, scholars assigned these silver coins to the mint of Gaza. Evidence gathered over the last few years, however, has led to a broader view according to which the "Philisto-Arabian" issues were struck in Ashdod and Ascalon as well. L. Mildenberg (Transeuphratène 9 [1995] 63-66) stresses that since the Bes issues form an organic part of the entire series of local Palestinian coinage in the Persian period, they cannot be classified under the separate heading "Egypto-Arabian" coins. A detailed survey of the numismatic research of Palestinian coins in the Persian period published between 1989 and 1995 is found in two articles by J. Elayi and A. Lemaire (Transeuphratène 4 [1991] 127-32; 10 [1995] 177-87), the latter with a list of the most important hoards that include "Philisto-Arabian" coins and imitations of Athenian types.

Gaza. Several important aspects concerning the most notable Palestinian mint in the Persian period are briefly discussed by L. Mildenberg (*Transeuphratène* 2 [1990] 137–46).

Ascalon. A paper by H. Gitler (NC156 [1996] 1–8) reveals eight new types from the mint of Ascalon, including a didrachm that is the first known "Philisto-Arabian" coin of this denomination.

Ashdod. A. Lemaire's (RN32 [1990] 257–63) identification of the name 'sdd (Ashdod) on one of the coins from the Abu Shushen hoard has made it possible to attribute 11 other coins in this hoard to the same mint. If Lemaire is correct in reading the legends b and by, on the coins he attributes to Ashdod, as abbreviations of the name b(gwh)y–i.e., Bagoas, the general of Artaxerxes III– then these coins may be contemporaneous with the Yehud coins of Yohanan the High Priest. Based on the die link of obverses, A. Kindler (Anotazioni numismatiche 19 [1995] 411–15) proposes to attribute three "Philisto-Arabian" drachms to this mint.

Judaea (Jerusalem). D. Barag (Proceedings of the X1th International Numismatic Congress, Brussels, September 8th-13th 1991 I [Louvain-la-Neuve 1993] 53-64) reverts to the much-discussed drachm inscribed YHD in the British Museum, and argues that the head on the obverse is that of Bagoas, the general of Artaxerxes III who was in charge of the Persian conquest of Egypt and Palestine. The god on the reverse is, in the author's view, the God of Israel. He suggests that the coin was issued around 345-343 in Jerusalem, Gaza, or some other mint on the coast. Deutsch (*INJ* 11 [1990-1991] 7-8) published a unique drachm of the Athena/Owl type, which is the second known drachm in the repertory of the Yehud coins. This publication also includes five new types of hemiobols from this mint. A general survey of the coinage of Judaea can be found in P. Machinist (Achaemenid History VIII [Leiden 1994] 365-80).

Samaria. A pioneer presentation of important new material on the mint of Samaria was published by Y. Meshorer and S. Qedar (The Coinage of Samaria in the Fourth Century BCE, Jerusalem 1991). This book describes the 334 coins that were part of the "Samaria hoard," and integrates them into a general conspectus of the coinage of Samaria, including some of the coins from the unpublished Nablus hoard (IGCH 1504). This material supplies new evidence about the history of the area in the years preceding Alexander the Great. Of the 334 small denominations of the Samaria hoard, 182 can be attributed to Samaria itself. In addition, there are 11 coins of Aradus, 66 imitations of Athenian prototypes, 43 coins of Sidon - some bearing dates in a sequence of years from 1 to 14-and 32 obols of Tyre with dates up to year 10. Meshorer and Qedar suggest that the hoard was buried ca. 346/5 by interpreting the number 14 on the Sidonian coins as referring to the 14th year of the reign of Artaxerxes III. J. Elayi and A.G. Elayi (Trésors de monnaies phéniciennes et circulation monétaire (Ve-IVe s. av. J.-C.), Paris 1993) have proposed an alternative burial date, pointing out that at least the smaller fractions in the Samaria hoard must belong to the regnal era of Abdashtart I, and that the absence of coins in the name of Mazaeus and of Azemilkos's era in this hoard strongly supports a deposit date of ca. 355. Since the publication of the "Samaria hoard" in 1991, which mentioned 108 types, the authors have gathered an additional 120 new types, which will appear soon in a new corpus of the Samaria coinage.

The Samarian coins bear mainly Aramaic inscriptions, but some are in Greek, Phoenician, or a combination of both. A novelty in numismatics is the use of cuneiform writing of the type appearing on cylinder seals of the Neo-Assyrian and Neo-Babylonian periods. These appear in two Samarian issues republished by A. Lemaire and F. Joannès (*Nouvelles assyriologiques brèves et utilitaires* 4 [1994] 84–86).

Dor. Y. Meshorer (Excavations at Dor, Final Report Ib: Areas A and C: The Finds [Qedem Reports II, Jerusalem 1995] 461-72) attributes coin no. 10, published in the report of the excavations at Tel Dor, to the mint of Dora in the Persian period. Three further specimens of this type from Tel Dor will be published in the future. If these coins were indeed minted at Dor, they reflect the prosperity and importance of one of the main Phoenician cities in the Persian period (Transeuphratène 2 [1990] 147-55).

Moab. A drachm with the three letters B'M, pre-

viously published by Meshorer, was reattributed by Qedar to the mint of Moab. The legend appears in retroverse, and should be read as *M'B* (Moab) (*Transeuphratène* 4 [1991] 127–32).

Imitation of Athenian coins. The most common coins in Palestine during the fourth century were the Athena/Owl obols, which imitate an Athenian prototype (L. Mildenberg, AMIran 26 [1993] 55-79). This type was attributed to the mint of Gaza. Two recent hoards, however, enable us to attribute these pieces, which lack an inscription or mark assigning them to a specific mint, to Samaria (Meshorer and Qedar [supra]) and Ascalon (H. Gitler, NC 156 [1996] 1-9) as well. Gitler based the attribution to Ascalon on evidence provided by a cache of 31 obols found in the excavations at Ashkelon in 1989. The fact that only five different reverse dies were used for minting the 31 obols, and that 21 coins struck with the same reverse die were found in such a small cache, suggests that these Athenian-type obols may have been minted at Ascalon. Five Athenian-type drachms with the Aramaic legend LBLT are mentioned by F. Bron and A. Lemaire (Transeuphratène 10 [1995] 45-56). Their palaeographical and numismatic dating is ca. the mid-fourth century, but their precise minting place in the southern Levant is uncertain.

Coinage of the Hellenized cities. M.J. Price's extensive catalogue of the coinage in the name of Alexander the Great and Philip Arrhidaeus (The Coinage in the Name of Alexander the Great and Philip Arrhidaeus, London 1991) constitutes an outstanding achievement. The attribution of issues inscribed with the Phoenician letters ayin and kaph to the mint of Ake is still problematic. In a challenging article, A. Lemaire (Atti del II Congresso internazionale di studi fenici e punici I [Rome 1991] 131-50) suggests that these series must be attributed to Azemilkos, who was king of Tyre at the time of Alexander's siege of the city. His case seems to be supported by the existence of bronzes on which the Greek letters TY (apparently standing for Tyre) are added to the Phoenician letters and numerals. In reply, Price argues that this is a coincidence, since the fate of Azemilkos and his son is unknown.

A comprehensive work by A. Burnett, M. Amandry, and P. Ripolles (*Roman Provincial Coinage: From the Death of Caesar to the Death of Vitellius (44 B.C.-A.D.* 69), London 1992) inaugurates what is probably the most ambitious and potentially influential undertaking in ancient numismatics to this date: the publication, according to historical periods, of all the local coinages of the Roman empire in a continuous, detailed corpus.

Roman provincial coins. S. Qedar (INJ 12 [1992-

1993] 27–33) identifies a group of coins as issued by the town of Marisa, destroyed in about 112/11 and rebuilt by the Roman governor of Syria, Gabinius, in 57–55. They are dated year 3 of an era beginning in 60. The largest denomination of this series bears the full name of Marisa. The two smaller denominations were previously published, but erroneously attributed to the mints of Gaza and Ascalon.

A lead weight and a number of coins bearing the letters Δ H testify to the existence of a south Phoenician coastal city called Demetrias in the second-first centuries. No exact location for the city has yet been proposed. A. Kushnir-Stein (*JRA* Suppl. 14 [1995] 9–14) tentatively identifies Demetrias with the Hellenistic city of Strato's Tower, the site of Herod's Caesarea. As attested by its dated coins, the era of Demetrias would have corresponded very closely to that of Dora, i.e., ca. 63–61.

The close link between history and numismatics is emphasized by H. Gitler (*INJ* 11 [1990–1991] 36–51) in an article on the visit of Marcus Aurelius to the East in the aftermath of the revolt of Avidius Casius in 175. The almost complete lull in the coin production of the eastern provinces during the years 166/7-174/5, possibly due to the spread of a plague in the region, ended with the resumption of minting activities in 175/6-177/8. This was apparently caused by the imperial visit. The coinage portrayed the four members of the imperial family: Marcus Aurelius, Faustina the Younger, Commodus, and Lucilla. The author dates the stages of the visit and records its route according to the Roman provincial issues it occasioned, and offers a new dating for an inscription of Nysa-Scythopolis.

New aspects of the Dionysiac cult in Nysa-Scythopolis are discussed by Gitler (*SNR* 70 [1991] 23–29). The author suggests that the detailed representations on the medallions of Commodus and Septimius Severus, as well as those on coins struck under Elagabalus and Gordian III, illustrate a Dionysiac procession at the Anthesteria, the Blossom festival, which was celebrated in early spring in Athens and other Ionian cities. G. Barkay's paper (*Proceedings of the XIth International Numismatic Congress* [supra] 371–76) on the Dionysiac mythology on coins of Nysa-Scythopolis adds one new type, issued under Marcus Aurelius and depicting a tailed satyr or Pan.

The dating of three rare coin types of Gaza is reconsidered by A. Kushnir-Stein (*SNR* 74 [1995] 49–55). The earliest type bears the date year 13. Since the coin seems to belong to the Late Hellenistic period, the era is most probably that of autonomous Gaza. Two other types are reassigned to the Early Roman period. This is the first time that coins from Gaza have been ascribed to this period.

K. Lönnqvist published two articles on the coinage of the Roman procurators of Judaea. The first (INJ 12 [1992-1993] 56-70) describes 20 copper pieces, all bearing a countermark that depicts a branch and the Greek letters CN, which the author explains as a reference to a Roman cohort that moved to Judaea in about 36/37. The second publication (Berliner Beiträge zur Archäometrie 11 [1992] 13-34) presents a study of 12 coins spanning the years 6/9 to 59. The work consists of atomic absorption analyses of bulk samples and metallography. The idea of "debasement," usually reserved for precious-metal coinages, is introduced and tentatively examined. While limited in its sample size and in the interpretation of the trace elements (only major alloying components-tin and lead-are discussed), this is a valuable contribution to the scientific study of coinage. Considerably larger numbers of coins have since been analyzed, confirming some of the trends pointed out in this paper.

Jewish coins in Hellenistic and Roman times. "Ancient Jewish Coinage – Addendum I," was published by Y. Meshorer in *INJ* 11 (1990–1991) 104–32. Including corrections and many new types and variants, this work is an invaluable addition to Meshorer's *Ancient Jewish Coinage*, the classic textbook for the study of ancient Jewish numismatics. Meshorer also recently published a comprehensive and updated book, *Treasury of Jewish Coinage* (Jerusalem 1997, in Hebrew).

The Hasmonean period. By analyzing the coins found in excavations at Marisa, Tel Beer-Sheva, Mt. Gerizim, Shechem, and Samaria, D. Barag (*INJ* 12 [1992–1993] 1–12) shows that the destruction and conquest of the sites by John Hyrcanus I took place between 112 and 110, rather than in, or immediately after, the second reign of Demetrius II (129–125).

The Herodian period. New amendments to the chronological framework of the settlement at Qumran are suggested by J. Magness (*Dead Sea Discoveries* 2 [1995] 58–65). Based on the numismatic evidence, and primarily on a hoard of 561 Tyrian shekels found at this site, she argues that the settlement was not abandoned after the earthquake of 31, as previously thought.

The Jewish War. Until now, only copper coins dating from the second year of the Jewish War and onward were known. A coin dated year 1 of a type similar to the Prutoth of year 2 and year 3 has now been discovered and is described by R. Deutsch (*INJ* 12 [1992–1993] 71–72).

Nabataean coinage. A significant addition to the study of Nabataean coinage is found in a study by

K. Schmitt-Körte (NC 150 [1990] 105-33). According to him, no Nabataean coin can be dated prior to the reign of Aretas III in Damascus (84). New evidence from excavations, however, suggests an alternative dating for the inauguration of the Nabataean coinage. J. Bowsher (ARAM 2 [1990] 221-28) bases his arguments on stratigraphic data from the excavations at Petra. The first Nabataean issues were found at this site in layers with late second-century pottery. A. Kushnir-Stein and H. Gitler (INJ 12 [1992–1993] 13–20) demonstrate that numismatic evidence from the excavations at Tel Beer-Sheva indicates that the coins excavated at this site end with issues dating from 112/11, after which a gap of about a century occurs. A substantial part of the coins dating from before 112/11 are Nabataean copper coins of the head of Athena/Nike type. The authors suggest a date of 129/8-104 for this issue, i.e., about the same time as has been suggested for the first Hasmonean issues under Hyrcanus I. This assumption is further strengthened by the fact that an unpublished hoard of about 900 Hasmonean coins from the area of Samaria, which was acquired by the Institute of Archaeology at the Hebrew University of Jerusalem, included one Nabataean bronze coin of the type discussed above.

The hoard also includes a wide variety of Yehohanan's issues and a few Seleucid bronze coins of the second century. Obodas III is represented with 13 new issues in Schmitt-Korte (supra), among them a silver coin reading "Benedictions by Dushara," the first reference to a deity on Nabataean coins. All coins of Syllaeus are now shown to be joint issues with Aretas IV. The confusing groups of small bronzes of both rulers are presented in a rearranged, tabulated form. The occurrence of a sign X dates the marriage of Aretas IV and Shaqilat to his 25th year (16/17) and closes one of the gaps in the chronology of the kings of Nabataea. The combination of Nabataean and eastern Trajanic drachms in a hoard from Dahariya (A. Spaer, NC 154 [1994] 268) provides further evidence that the latter were indeed struck in Bostra.

Numismatic evidence from excavations. Evidence from excavations in northern Israel, an area about which little was known from the numismatic point of view until recently, has been illuminated by a publication by Y. Meshorer, "Coins 1968–1986," in S.C. Herbert, *Tel Anafa* I.1: *Final Report on Ten Years of Excavation at a Hellenistic and Roman Settlement in Northern Israel (JRA Suppl.* 10 [1994] 241–60), concerning the material found at Tel Anafa, and by an article by D. Syon (*INJ* 12 [1992–1993] 34–55), concerning the material found at Gamala. These reports give a clear picture of the pattern of small-change circulation in northern Palestine in the Hellenistic and Early Roman periods.

Tel Anafa. The beginning of the third century is represented by 16 coins of Ptolemy I and II. There is a total break between these and the subsequent Seleucid coinages. The latter are relatively numerous (102 coins) and are common issues from the second half of the second century. They derive almost exclusively from the Seleucid mints of Sidon and Tyre, but even after both cities had begun their own civic issues, Seleucid coins from other mints still reached Tel Anafa in relatively large numbers. The 120 civic issues of Tyre and Sidon form the largest part of the finds. A similar picture emerges from the excavations at Gamala and from the unpublished material found at Tel Dor. This evidence shows that the two cities, which were the main suppliers of small silver coins in the fourth century, continued to supply most of the coins circulating in the cities of northern Palestine and the Phoenician coastal cities until the Late Empire (mid-third century).

Gamala. Excavations at Gamala on the Golan Heights yielded over 6,200 coins, including 3,883 Hasmonean issues, 584 Seleucid coins, 941 autonomous issues – of Tyre (721) and Sidon (128) for the most, and 270 coins of the Herodians and the Roman procurators. This material includes the latest dated Tyrian shekel ($P\Pi\Theta = 63/4$) discovered in an excavation; some rare Herodian types; and two copper issues of the First Jewish Revolt struck at Gamala and featuring the legends "For the Redemption" and "Jerusalem Hol(y)." Only 82 coins are fully described in this preliminary report.

Carmel coast. E. Galili et al. (Excavations and Surveys in Israel 10 [1992] 162–63) mention a hoard from a Late Roman shipwreck of 230 that contains 89 silver and bronze coins issuing mainly from numerous mints in port cities.

Tel Dor. The numismatic evidence from two of the areas excavated at this important site has been published by Y. Meshorer (*Excavations at Dor* Ib [supra] 461–72).

Jerusalem, City of David. A total of 230 identifiable coins were excavated in the City of David in Jerusalem (D.T. Ariel, *Excavations at the City of David 1978– 1985* II [*Qedem 30*, Jerusalem 1990] 99–118). The most remarkable find is a Lycian stater that dates to ca. 500–440. Coins from the sixth and fifth century are a rare find in Palestine, and the few specimens found tend to confirm the hypothesis that, during that period, a coined-money economy was not yet developed in this part of the world. Additional material from this site includes three coin flans and two fragmentary flan molds.

Varia. The legal documents of the Babatha archive, hidden at the outbreak of the Bar Kokhba Revolt in one of the caves on the west side of the Dead Sea, contain a wealth of information about daily financial transactions: N. Lewis et al., Judean Desert Studies: The Documents from the Bar Kokhba Period in the Cave of Letters (Jerusalem 1989); G. Bowersock (JRA 4 [1991] 335-44); and Y. Yadin et al. (IEJ 44 [1994] 75-101). One of the expressions used in those documents in connection with property matters is that of "black silver." Contrary to the previous view that this expression referred to Nabataean coins of low silver content, Y. Meshorer (IMJ 10 [1992] 67-74) argues that it refers to Roman Imperial denarii of the first century containing 2.90 gr of silver, as distinct from later denarii containing only 1.90 gr of silver.

NECROLOGY

Philip Berman, supporter of the Institute of Archaeology, Hebrew University (1997); Shmaryahu Gutman, excavator of Gamala (1996); Tamar Noy, Curator Emeritus of Prehistory, Israel Museum, excavator of Beit Oren and Gilgal (1997); and James Pritchard, Professor Emeritus, University of Pennsylvania, excavator of Gibeon, Tell es-Saidiyeh, and Sarepta (1997).

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