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The Byzantine City of Dor/Dora Discovered

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Since John Garstang's excavations at Tell Dor (el-Burj) in the early 1920s, the general view prevailing among scholars has been that by the end of the third century AD settlement at the site had either become very much reduced in area or had been almost totally abandoned (Garstang 1924a: 40). The discovery and excavation of a large basilical church of the Byzantine period near the foot of the tell by Joseph Leibovitch in 1952 and later by Claudine Dauphin in four seasons from 1979, appeared, however, to upset the theory that the site was deserted or had dwindled at that time. Ephraim Stern's renewed excavations at the tell since 1980 resulted in the question concerning the extent of the Byzantine settlement being raised once again. According to his published reports, no archaeological remains later than the mid-third century have been found on the summit of the tell itself (Stern and Sharon 1993: 128). However, some scattered remains and coins are known. Moreover, Stern has recently uncovered remains of Byzantine structures along the eastern slope of the tell in his area B1 (Stern and Sharon 1993: 128). This has led to the suggestion that the church was not built to serve an urban community but was the nucleus of an extremely limited settlement with a small number of structures clustering around the south-eastern foot of the tell. Stern has described this settlement as a small village (Stern and Sharon 1994: 54).

It is our contention that this view is incorrect and that, conversely, the archaeological evidence actually points to Dor having been a prosperous urban settlement during the Byzantine period with a range of public buildings, a network of streets and fortifications, and with a flourishing economy based on a combination of maritime and agricultural pursuits. It can also be demonstrated that the historical accounts relevant to this period, with references to Dor having had its own bishop, help to sustain further the notion that the site was an important settlement for the region and not just an obscure coastal village. The succinct description of the site in the fourth-century *Onomastikon* as having been 'deserted' (see below) was not intended by Jerome as a reference to the bustling Byzantine lower city of Dor but to the ruins of the old biblical tell which was largely uninhabited during this period. It is felt that archaeological interpretations based solely on this historical reference have been largely overstated leading to misleading inferences. Dor was clearly much more than just a hamlet and we believe it should now be considered as one of the more prominent small cities of the Byzantine period along the northern Mediterranean coast of Israel.

It is the intention of this article to present the reader with a clear picture of the available archaeological and historical data pertaining to the Byzantine city of Dor/Dora, with the hope that future excavations of a more substantial nature in the area of the lower city, along the lines of Dauphin's work on the church, might add some flesh and bones to the picture of the Byzantine city and bring it back to life.

Map of the Byzantine city

Our map of the Byzantine city (Fig. 1) was prepared on the basis of data gathered from different sources, notably nineteenth-century written accounts, site reports from the early part of the twentieth century, and sheet-maps and aerial photographs made at different times. Added to this are Dauphin's personal observations at the time of her excavations of the Byzantine church at Dor between 1979 and 1983. Unfortunately, the area of the lower city was excluded at Stern's insistence from the survey licence granted to Shimon Gibson by the Israel Antiquities Authority for his autumn 1994 project of landscape archaeology conducted in the region of Dor. It could therefore not be properly re-examined.

The reports published by early explorers and travellers, particularly from the nineteenth century, provide useful data regarding some of the ruins of the lower city. The value of this source of information is enhanced when one considers the subsequent damage to this area caused by stone robbing by the local population in order to provide building stone for the houses of the nearby village of Tanturah (Rogers 1862: 75; Guérin 1874: II, 306, 308; Oliphant 1887: 16; Schumacher 1887: 84; Wachsmann and Raveh 1984: 241). Large quantities of additional building stone were frequently dug out of the site and taken by boat to be sold in the markets of Jaffa further down the coast (Wilson 1866: 39). The pillaging of the site for its stone continued until well into the Mandate period and was one of the reasons why Garstang, as Director of the newly-created Department of Antiquities of Palestine, decided to initiate excavations at Dor in 1923. To these published nineteenth-century accounts should be added further details culled from the letters, sketches and photographs of C. R. Conder, C. F. T. Drake, G. Schumacher and others in the archives of the Palestine Exploration Fund (PEF) in London.

The site file for Dor prepared by Garstang and his successors at the Department of Antiquities during the period of the British Mandate constitutes another useful source of information. This file is now included in the archives of the Israel Antiquities Authority at the Rockefeller Museum in Jerusalem. It contains an array of documents, correspondence, maps and photographs, some of it connected with Garstang's excavations at Dor and the rest with visits made by the Government Inspectors to the site, J. Ory, N. Makhouly, P. L. O. Guy and D. C. Baramki, particularly during the 1930s and 1940s. Garstang's original maps and plans of the site which were used for his publications and a very large collection of mostly unpublished photographs are kept in the archives of the PEF. His field diary and other excavation records are missing and are thus presumed lost.

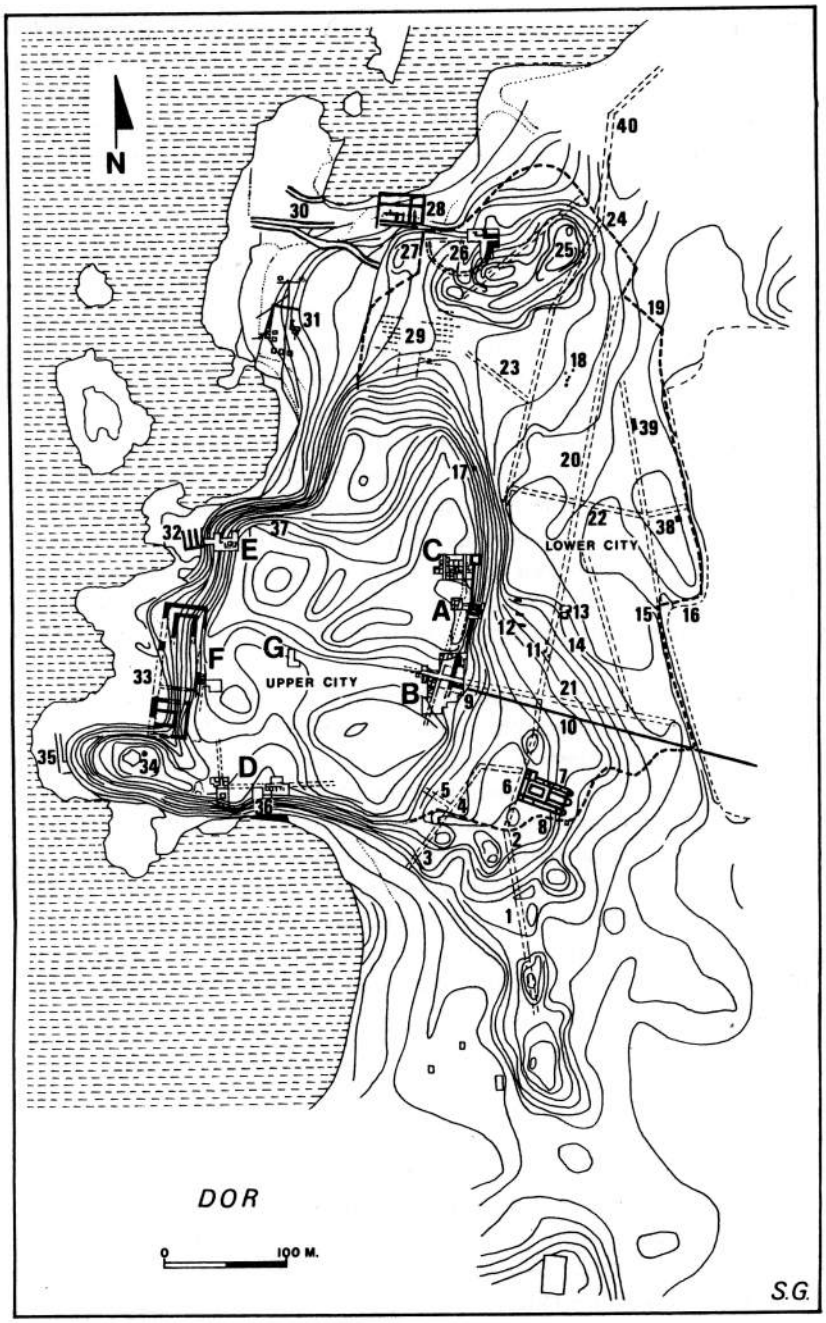

Figure 1. Map of Dora depicting the lower city in relation to the tell, incorporating features of Byzantine date and earlier (drawing S. Gibson).

Of paramount importance for determining the extent of the Byzantine city are the detailed maps and aerial photographs of the area obtained from archival sources. The topographical maps provide crucial information regarding changes to the ground level and help establish the conjectured line of the fortification wall running along the edges of the lower city.[1] However, by far the most important source of information for mapping the city are vertical black-and-white aerial photographs, some of which date back to the First World War and others are more recent.[2] An excellent colour aerial photograph taken in August 1994 (No. 8197/94A, scale 1:10,000) is also useful. The aerial photographs were all carefully scanned, some of them stereoscopically, and 'shadow' features representing buried archaeological remains, such as blocks of structures and lines of streets, were then added to the map of the Byzantine city. This was done only if the same features observed could be identified on more than one aerial photograph and on photographs taken at different times. That such 'shadow' features do actually represent buried structural remains is confirmed by comparing those visible on the tell in the 1970s with the archaeological remains subsequently uncovered there by Stern since 1980. During our analysis, the assumption was made that features which could be identified as ancient in the area of the lower city must be of Byzantine date or earlier. This coincided with a number of observations in the field which showed that the latest pottery scattered on the surface of the lower city was of Byzantine date.

Our understanding of the layout of the lower city is based on the scanning and analysis of aerial photographs. This has enabled us to delineate the street network, the different quarters of the city and the line of its fortifications. However, our map of the city remains schematic and a more detailed ground survey could still be undertaken, although it should be taken into account that some parts of the original ground surface are now being obscured by modern dumps.[3] The use of remote sensing equipment would not be of much use in tracing further details of the city since present technology does not allow for readings to differentiate between stone walls and large or dense masses of rubble below ground surface. Thus, our map of the lower city could only be adequately tested by excavation.

Tell Dor

The main tell is located on the edge of a *kurkar* sandstone ridge which protrudes into the sea, north of Kibbutz Nahsholim. Natural bays exist to the south and north of the tell and harbour installations have been found connected with both. The *kurkar* sandstone is visible running along the lower edges of the tell to the north-west and west, with rock-cut de-silting channels, stone quarries and installations of one kind or another (Fig. 1: 30–32, and 35). Many of these remains have been investigated by Avner Raban and others (Raban 1981). The tell itself is largely artificial with archaeological deposits over 14 metres high covering an area of about 60 dunams (about 15 acres). Remains have been found during the excava-

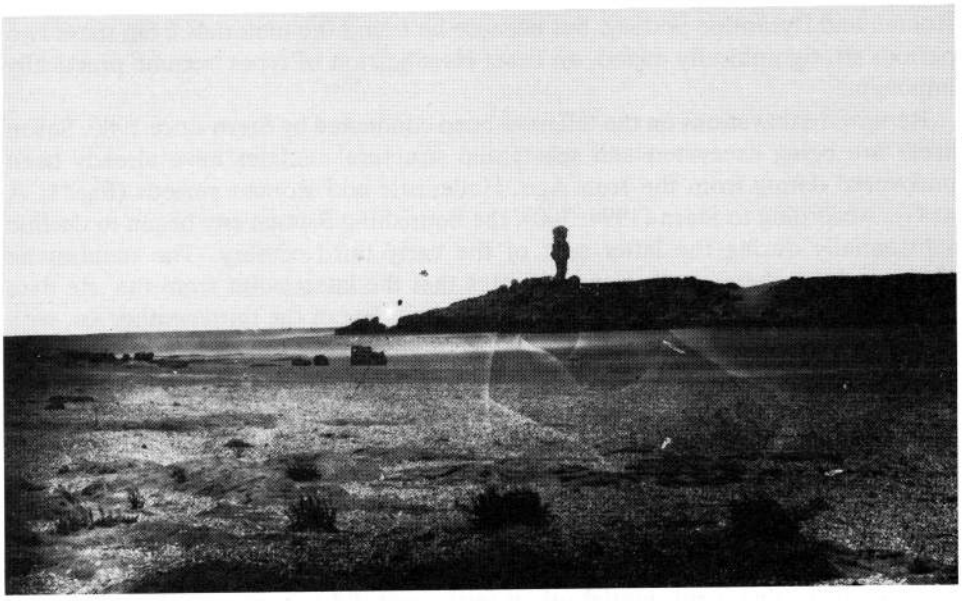

Figure 2. General view of Tell Dor from the south in a photograph by Corporal Henry Phillips taken in 1866 (Photograph P494, courtesy of the Palestine Exploration Fund).

tions dating chiefly from the Middle Bronze Age IIA, Late Bronze Age, Iron Age, Hellenistic and Roman periods. At the south-western corner of the tell a small promontory (Fig. 1:34) juts out into the sea. It has medieval fortifications (probably those of Crusader Merle: Pringle, forthcoming) and the remains of an Ottoman tower, 9 metres high, which was a conspicuous monument until it collapsed on 15 January 1895 (Conder 1873: 83; Conder and Kitchener 1882: 8; Schumacher 1895: 113–114) (Fig. 2).[4]

Excavations were first undertaken at the tell in 1923 and 1924 by Garstang on behalf of the British School of Archaeology in Jerusalem. Two test trenches were sunk on the northern and southern slopes (Fig. 1:36, 37) and a substantial area along the western slope in the area of the monumental temples with their impressive *podia* was cleared (Fig. 1:33). Recent work has shown that these temples are undeniably Roman and apparently do not date back to the Hellenistic period as was once believed (Stewart 1995: 306; Stern and Sharon 1995: 33–35). Garstang reported that in the 1923 season Byzantine pottery was well represented in the surface deposits but that structural remains from that period had not been detected (Garstang 1924: 45). During the 1924 season, a hoard of bronze coins dating from the mid-third century AD was found within the fills which postdated the gate at W2 leading to the area of the northern temple (Garstang 1924: 73). FitzGerald's notes on the pottery from Garstang's excavations make it clear that distinctions between Roman and Byzantine wares were not always possible within the upper stratum of the tell (FitzGerald 1925: 80, 96). Garstang knew how to differentiate between

Roman and Byzantine pottery, but because he found the materials from these two periods stratigraphically mixed, an exact classification of types became practically impossible.

Renewed excavations on the tell have been conducted by Stern since 1980. Seven areas are being excavated and substantial structural remains have already been uncovered dating from the Iron Age, Hellenistic and Roman periods (Fig. 1: A to G). According to Stern (1994: 300), the flourishing Roman city began to decline substantially during the latter part of the early third century. The numismatic evidence from these excavations indicates that the latest coins from the site date mainly from the period extending up to the beginning of the third century AD, with far fewer coin finds for the rest of that century and especially for its second half. Meshorer (1986–87: 62) has proven that the last coin series was minted at Dor during the reign of Julia Domnia (AD 211/212). However, a few coins of even later date are known at the site, notably a coin of Valentinian II (AD 375–392) and one of Justinian I of AD 538–550 (Stern 1994, Fig. 227). In addition, according to Stern (1994: 319), some of the Roman structures in Areas A and E continued to be used during the Byzantine period (Fig. 1: A, E), whilst installations constructed in the Byzantine period itself are also known from the tell. While Stern is surely right in his assessment that a substantial urban settlement did not exist on the tell during the Byzantine period, such archaeological remains which have been found in his excavations as well as in those of Garstang, do confirm the existence of a sparse settlement on the tell after all. One should also note that a rock-cut cave was excavated on the western slope of the tell by Kurt Raveh and was found to contain pottery from the Byzantine period, as well as finds from the Roman and medieval periods (Raveh 1989–1990: 118). This cave probably belongs to the group of caves referred to by Conder and Kitchener (1882: 8).

The lower city

The lower city of Dor is located to the north and east of the main tell and covers an area of about 68 dunams (approximately 17 acres). Conder and Kitchener (1882: 9) referred to the central strip of the lower city as 'the causeway'. Very little of it has been excavated and Garstang does not appear to have considered working there. The first to do so was Leibovitch in 1950 and 1952 for the newly-founded Israel Department of Antiquities, uncovering parts of a Roman theatre (Fig. 1:26) and a Byzantine church (Fig. 1:7) at the northern and southern ends of the city respectively (Leibovitch 1951; 1957). The excavation of the Byzantine church was resumed by Dauphin in 1979; the most recent season of work at the site took place in 1994. Recently, Stern's work in Area B1 (Fig. 1:B) has been extended from the main tell eastwards, this resulted in the uncovering of Byzantine structures which belonged to the lower city (Stern and Ilan 1993:128). Limited excavations have also been conducted along the eastern edges of the lower city (Fig. 1:38–39) by Kingsley and Raveh (1994a).

Figure 3. The top of a buried wall north of Tell Dor (cf. Fig. 1:27), towards the north-east (photo C. Dauphin).

The city-walls

The proposed line of the fortifications which protected the lower city to the north, south and east, has been delineated on our map on the basis of tell-tale signs visible in aerial photographs. Topographical considerations were also taken into account. Nothing is known about the methods of construction of the circuit wall and whether or not it had towers; it was possibly built in a similar fashion to the Byzantine city wall at Caesarea (Lehmann 1995).

The southern stretch of the fortification wall appears to have run eastwards from the south-eastern edge of the main tell, passing immediately to the south of the church and continuing eastwards, for another 100 metres or so, before turning

sharply towards the north. A section of a thick wall which may have been part of this fortification was observed by Kurt Raveh (personal communication) during building works conducted next to the houses of Kibbutz Nahsholim located immediately south of the church (Fig. 1:8). A large part of a Gaza amphora (5th–6th centuries) was found there (Kingsley: personal communication).

There were at least two gates in the southern wall. The one on the west (Fig. 1:4) was approached by a path (Fig. 1:3) which led up from the beach of the southern bay. The paved street extending from this gate within the city has been observed beneath the sand dunes to the west of the church (see below). The second of the two gates (Fig. 1:2) was probably the principal one. It was approached by a road running along the *kurkar* ridge from the south which was an extension of the *Via Maris* (Fig. 1:1). A path existed here before this area was levelled during the preparation of the grounds for Kibbutz Nahsholim. This gate, we believe, led to the *cardo* (Fig. 1:20) which crossed the city from south to north.

The south-eastern corner of the city fortifications corresponds to the point of entry of the built aqueduct (Fig. 1:10) which reached the city from the south-east (see below). The eastern fortification wall ran from this corner northwards for about 100 metres where it then turned sharply eastwards for about 50 metres, before eventually resuming a line running towards the north. A gate may have existed at the point where the line is indented (Fig. 1:16), but this is uncertain. The indented line of wall follows natural topographical features and is clearly visible on early maps and on aerial photographs dating from June 1918.[5] The area east of this line was originally a swampy stretch of ground known as El Bassa es Safra and is depicted as such on a topocadastral map from April 1932. Interestingly, this eastern line is still preserved by the western berm of the modern fishpond which is located immediately to the east of the area. Scattered near the line of the berm (Fig. 1:15) are large squared *kurkar* blocks, some of them 80 × 40 cm in size.

The north-eastern corner of the city fortifications has an identation (Fig. 1:19) which may correspond to a gate situated at the northern end of the *cardo*. Scattered squared blocks of *kurkar*, all roughly 1.00 m × 40 cm, are visible within a small fish pond just south of this conjectured line. Another gate was probably located about 50 metres further along the line of the northern wall (Fig. 1:24). This gate was approached by a road which ran parallel to the shore and was an extension of the *Via Maris* running to the north of the city (Fig. 1:40). A well-preserved section of Roman road was uncovered recently close to Kefr Lam (Habonim), not far north of Dor (Roll 1995: 31*). The northern fortification wall clearly encircled a series of mound-like features which incorporate the remains of a theatre (Fig. 1:26), before turning southwards and running as far as the northern edge of the main tell. The fortification probably played a part in retaining the substructures of the theatre to the north and west. An artificial ditch has been cut during modern times in front of the line of the northern fortifications. A section of wall which may have been part of the north-western fortifications is visible not far to the west of the theatre and is buried by sand dunes (Fig. 1:27). Only the upper edge of this

wall can be traced; it was built of squared blocks of *kurkar* and column drums (45 cm in diameter) in secondary use of which at least eight drums were seen (Fig. 3). This may suggest that the fortifications of the lower city were partly built out of building stones and architectural fragments taken from the ruins of earlier Hellenistic or Early Roman structures on the main tell.

Immediately to the north of the suggested fortification line are the remains of a large rectangular structure (Fig. 1:28) dated to the second-third century AD. It is believed to have been a storage building connected to the northern harbour (Raban and Galili 1985: 339, Fig. 20; Raveh 1989; Raveh 1988–89: 50). Mooring stones have been found in its immediate vicinity (Kingsley and Raveh 1994 a). Further west are the remains of three partly rock-cut and partly built de-silting channels (Fig. 1:30) and a structure with a series of rock-cut tanks (Fig. 1:31) which has been identified as an installation for producing purple dye belonging to two phases, the first dating from the second-third century AD and the second to the sixth century AD (Raban 1981: 20–21; Raban and Galili 1985: 343, Figs 23 A–B and 24).

The street network

The principal street which bisected the lower city on a more or less straight line from south to north is very clearly visible in aerial photographs (Fig. 1:20). This was the *cardo maximus*. Approximate measurements based on enlarged aerial photographs suggest that this street had an approximate width of at least 10 metres. There must have been gates in the fortification wall at the corresponding ends of the street (see above). The southern extension of this street ran from the gate northwards past the western facade of the Byzantine church (Figs. 1:6 and 7:6). In the northern part of the city another north-south street ran parallel to the *cardo* and about 50 metres further to the west.

It is interesting to note that a path extending across this entire area from south to north was known until the period of the British Mandate. It more or less corresponds to the line of the ancient street buried beneath, except that the street, judging by aerial photographs, was substantially wider. The modern path which linked the village of Tanturah with Kefr Lam (Habonim) to the north, is clearly depicted on a map of the site published by Garstang (1924, Pl. I). Garstang also mentions the existence of several ancient columns next to this path (1924: 65), but these are not shown on his map of the site. However, the exact position of these upright columns (Fig. 1:11) can be established from a more detailed map, similar to Garstang's published version, which is in the site file in the archives of the Israel Antiquities Authority.[6] It would appear that the columns seen by Garstang are the same as those seen by Conder during his survey of the area on 8 March 1873: 'On one side, just south of el Hannaneh [Fig. 1:13], are nine granite columns: these are placed touching each other; south of these are three more, also touching; the remaining three are fallen and scattered. They are 1 foot 6 inches [46 cm] in diameter, without base or capital, having only a simple fillet at the upper end of the shaft; they are sunk in rubbish to some considerable depth.' (Conder and

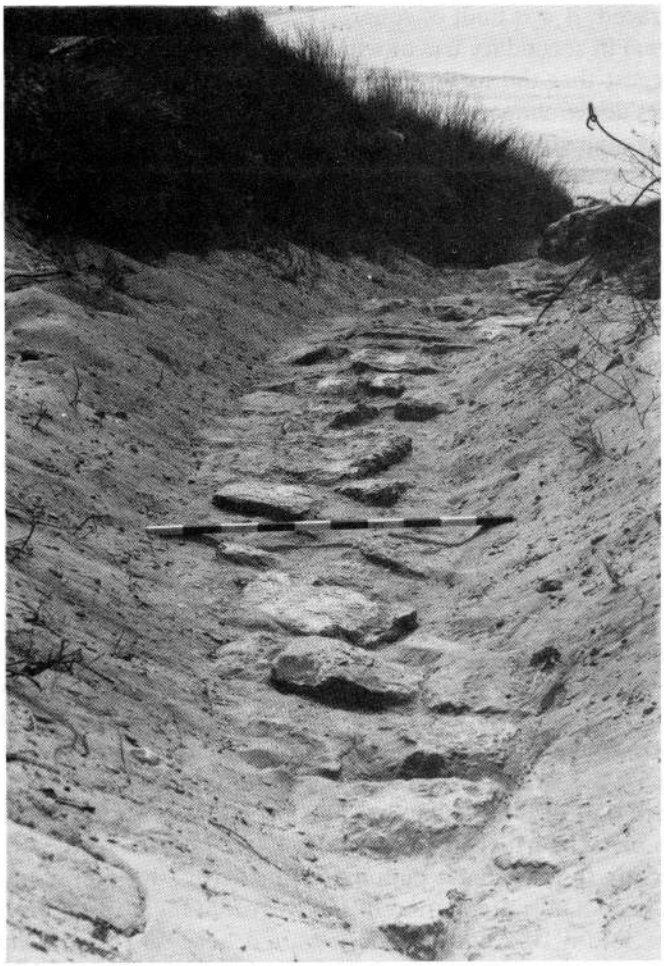

Figure 4. Photograph of paved street west of the church. Scale: 1 metre long (photo C. Dauphin).

Kitchener 1882: 9; cf. Drake 1873: 100). Elsewhere, Conder (1874: 12) described these grey granite columns as 'shafts planted perpendicularly in a line beside one another'. These upright columns may indicate that the *cardo* was a colonnaded street. In 1987, a grey column capital was transferred from this location to the Museum of Kibbutz Nahsholim (Kingsley: personal communication).

Another street in the southern part of the city extended from the western of the two conjectured gates in the southern wall. Part of this paved street was observed beneath the sand dunes to the west of the church (Figs 1:5 and 4). It had a visible width of at least three metres at one point but the kerb stones were not visible, so that its total width could not be ascertained. The paving stones consist of roughly squared *kurkar* blocks, all approximately 40 × 30 cm in size, laid in no specific

order. One part of this street extended towards the main tell, the other ran directly from the conjectured gate towards the north-east where we believe it turned eastwards and joined the main street of the city, the *cardo*.

A street which crossed the lower city from east to west from the south-eastern corner of the fortifications to the area of the Roman gate 'piazza' at the edge of the main tell in Stern's Area B, has been identified by us as the principal east-west *decumanus* (Fig.1:21). The built aqueduct (Fig. 1:10) ran almost parallel to this street to the south. Another east-west street runs across the city about 150 metres further to the north (Fig. 1:22).

Additional streets are visible on aerial photographs and these have also been depicted on our map.

Houses and other buildings

'Shadow' features visible on aerial photographs suggest the existence of houses and buildings throughout the area of the lower city. This is confirmed by the few excavations which have been undertaken as well as by field observations.

Excavations by Stern at the edge of the main tell in his Area B1 have revealed a sequence of structures of Roman and Byzantine date (Fig. 1:9). The remains of structures and fills with Byzantine pottery were observed by Raveh (personal communication) during construction works which preceded the construction of the tennis courts for the kibbutz (Fig. 1:14). Nearby, the lines of ancient walls are evident in the ground surface in the area of a modern track (Fig. 1:12). Excavations just inside the line of the eastern fortification wall revealed a wine press complex (Fig. 1:38) which apparently went out of use in the third century AD (Kingsley and Raveh 1994b). About a hundred metres further north additional excavations brought to light the remains of a large structure of dressed ashlars (Fig. 1:39) dated to the Roman period. It is oriented generally in the direction of one of the streets visible in aerial photographs. The remains were much disturbed by the earth-moving activities connected with the building of fishponds in this area.

A group of five upright columns in the northern part of the city (Fig. 1:18) were drawn on a map at the time of Garstang's work at the site, now in the site file for Dor in the archives of the Israel Antiquities Authority.[7] On this map they are referred to as 'visible tops of burried (*sic*) stone columns'. A sondage made by Leibovitch in 1950 on the western slope of a mound at the northern end of the city, to the east of the theatre, revealed two superimposed strata, the upper (80 cm thick) containing pottery dating from the Roman and Byzantine periods and the lower with pottery from the Persian and Hellenistic periods (Leibovitch 1951: 38) (Fig. 1:25).

An area immediately north of the main tell may have included public buildings (Fig. 1:29). A series of parallel lines are discernible in aerial photographs, these representing robbers' trenches cut by the inhabitants of the nearby village of Tantura along the lines of walls in order to pillage their stones. In a letter to the Director of Antiquities of July 1939, the Inspector of Antiquities N. Makhouly,

wrote: 'It seems that stone quarrying from ancient remains at el-Burj was carried out, on a very huge scale, by skilful (*sic*) stone cutters during the last three months, causing a serious damage to the remains . . . On the northern slope and base of the mound: an extensive area measuring about 150 m. × 60 m. is heavily furrowed by deep trenches which undoubtedly followed the direction of ancient walls from which stone was extracted. In many places the depth of the trenches excavated (was) 3 metres and the walls in them were totally destroyed. Most of the stone quarried from this area were removed, but still (a) few hundreds of them remain scattered on the spot. Column shafts and drums, marble fragments and jar pieces were turned over during the illicit operation of excavations, (Letter ATQ/754, quoted here courtesy of the IAA.). These robbers' trenches are clearly evident in photographs in the site file of Dor in the archives of the Israel Antiquities Authority.[8]

The theatre

The theatre stands at the northern end of the city and is still largely unexcavated (Fig. 1:26). A small portion of it was cleared by Leibovitch in August 1950. The trench which he dug is still visible (Leibovitch 1951: 38–39, Fig. 5).

Leibovitch published only a very short report in Hebrew which we have translated as follows: 'Not long after the examination began, an area with large ashlar paving was discovered, partly rounded on its western side; it would appear that this was the *diazoma* of a Roman theatre, the passage which separated the upper and lower range of seats (I on the plan [our Fig. 5]). One face of the *diazoma* (II) was also found and it served also as one of the site walls (the southern) of the *vomitorium*, the entrance passageway to the threatre; its width was 3.20 m (III). In the fills of sand above the ruins were fragments of a sculptured cornice which apparently belonged to the vaulted ceiling of the *vomitorium*. The façade of the theatre was positioned towards the north; clearly the theatre was built so that it could overlook the sea to the north. The second wall (the northern) of the *vomitorium* was connected to the eastern edge of the stage (*scena*) (IV). The upper courses of the stage and of the *vomitorium* are preserved roughly to the same height, but nothing is preserved of the ceiling which connected them. On the stage were found two columns made of grey granite, as well as a few smaller columns; their bases which were made out of concrete are marked on the plan. A sculpted entablature was apparently placed above these columns as one can learn from the sculpted fragments found in the sandy layer above the ruins. The stage was paved with pieces of grey and white marble, as well as with coloured pieces. A capital and a base of a column were found in the area of the theatre, both of marble. The central part of the stage (V) was lower than the parts on each side; the fills in this part of the stage contained decorated architectural fragments. Having established that the diameter of the theatre was approximately 60 metres, a trench was excavated outside the stage in the direction of the central seating. It was here that the *orchestra* was uncovered, paved with limestone flagstones; above this paving was

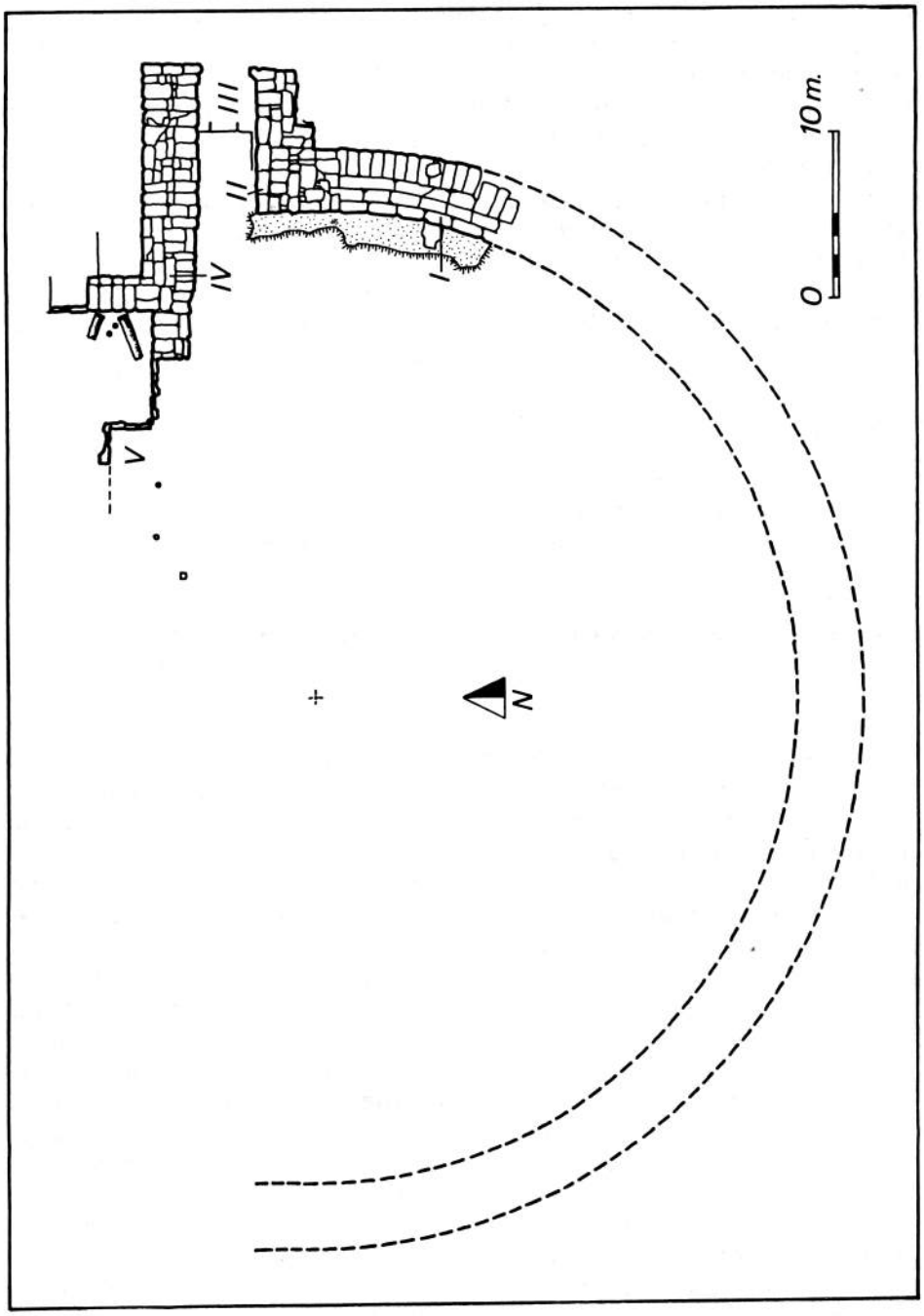

Figure 5. Plan of the theatre (after Leibovitch 1951, Fig. 5).

found an additional floor of unknown function made of concrete. In this trench two stone seats were found, fallen on their sides, and a part of a stone column. Among the finds one should mention, apart from the pottery and glass objects, a fragment of a Greek inscripton which was found in the *diazoma*. Only a few coins were found in the excavations dating from the late Roman period, and three Arabic ones of the Ayyubid rulers . . ., (Leibovitch 1951: 38–39).[9]

The theatre was built out of limestone and not out of the local *kurkar* sandstone. It was probably built up from level ground with massive substructures which have yet to be excavated. It appears that the passage excavated by Leibovitch represents part of the eastern *aditus maximum* and was barrel-vaulted (Segal 1995: 51). The columns formed part of the decoration of the stage wall (*scaenae frons*); a section of the *praecinctio* was also uncovered. Further excavations are necessary in order to clarify the details regarding the construction and dating of this theatre, as well as to investigate the relationship between the theatre and the adjacent city wall.[10] Stern (1994: 295) has suggested that the theatre was initially built in the Hellenistic period. Judging by its construction, this seems unlikely. It was probably built like many other theatres in the Near East during the second century AD. Segal (1995: 51) has suggested a more general second-to-third century AD date. It is quite possible that this theatre served not only a cultural but also an administrative function within the city (Bowsher 1992: 275). Hence, it may have continued in use with the latter purpose during the Byzantine period. Similarly, the theatre at Caesarea continued to function for a while during the Byzantine period (Levine 1986: 182).

The church

The episcopal basilica of Byzantine Dora rose at the southern end of the city (Fig. 1:7). Partial rescue excavations were undertaken at the site by Leibovitch in February 1952 on behalf of the Israel Department of Antiquities and Museums. The semi-circular eastward-oriented apse of the central nave of a large basilica was cleared, as was part of the mosaic pavement of a northern aisle (Leibovitch 1953; 1957). Besides the impressive size of the building, one discovery in particular supported Leibovitch's assertions that this was the episcopal basilica of Byzantine Dora, namely an episcopal ivory sceptre lacking its handle. It was shaped like a hand, the three middle fingers extended in a characteristic episcopal blessing symbolizing the Holy Trinity. One of the fingers bore an ivory ring (Leibovitch 1957: 35). The excavations were discontinued after the illness and death of Leibovitch, and the site was abandoned. The site was sufficiently important for the Israel Department of Antiquities and Museums to request Dauphin to resume excavations at the Church of Dor in June 1979. Three further seasons followed, in June–July 1980, October 1983 and October–November 1994.

The Byzantine church complex is huge (Fig. 6), covering at least 1,000 m^2. It is thus one of the largest ecclesiastical complexes outside of Jerusalem. The core of the structure consists of a three-aisled basilica, 18.50 metres long and 14 metres wide (Fig. 7: Nos. 10–13). The central nave, which terminates in the east in a

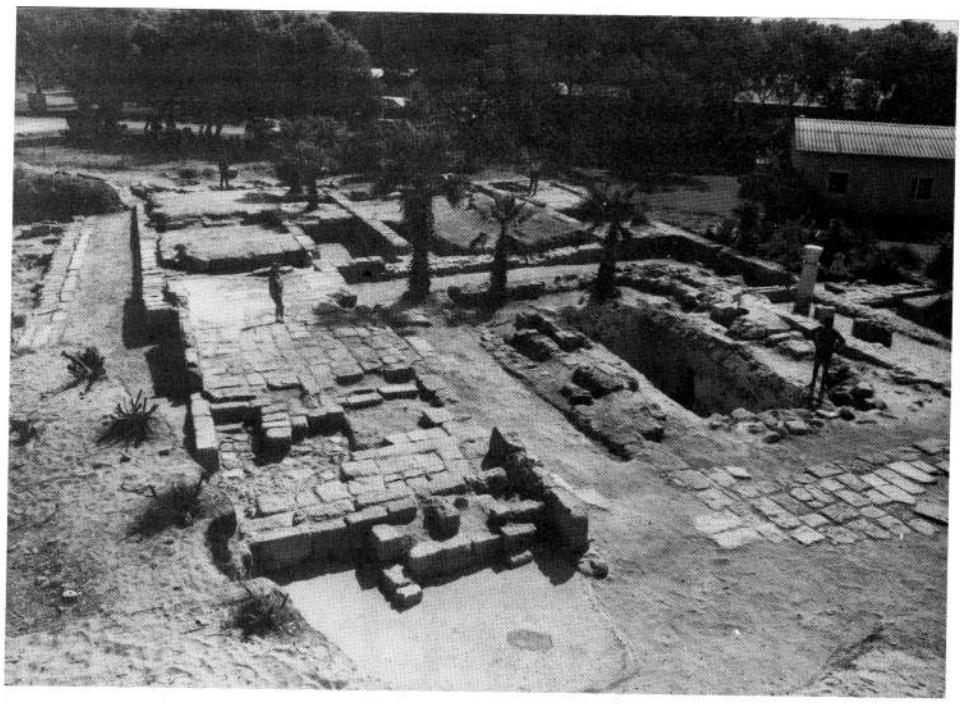

Figure 6. The church of Dor: general view from the north-west (photo Z. Radovan).

semi-circular apse, is flanked by side-aisles. The walls are built of ashlars occasionally laid as headers and stretchers and internally plastered. Both the nave and the side-aisles were paved with mosaics of which only small patches have so far been found.

Beyond each side-aisle, there is an 'external aisle' extending along the entire length of the building. The external northern aisle is laterally partitioned into a number of spaces. At its western end is a room (No. 3 on Fig. 7) paved with crude white mosaics. In its south-eastern corner the base of a staircase (No. 4) was uncovered. This staircase, supported also by two additional walls in the northern half of the room, probably enabled access to an upper storey, a terrace or a gallery. This room may have been the ground floor of a small tower from which the sexton called the faithful to prayer by banging on the *simandron* which is a wooden board still in use in Greek Orthodox monasteries. From the west, the other partitioned spaces of the external northern aisle include: an atrium (No. 5) paved with stone slabs which led into an antechamber (No. 6) whose plaster floor was originally paved with marble slabs. This gave access to a shallow, plaster-lined, rectangular basin or baptismal *piscina* (No. 7). Steps exist along the eastern and western edges, each 12 cm high. These areas are followed by two mosaic-paved rooms. The mosaic of Room 8 was decorated with 60 red-ochre buds—each enclosed in a dark grey

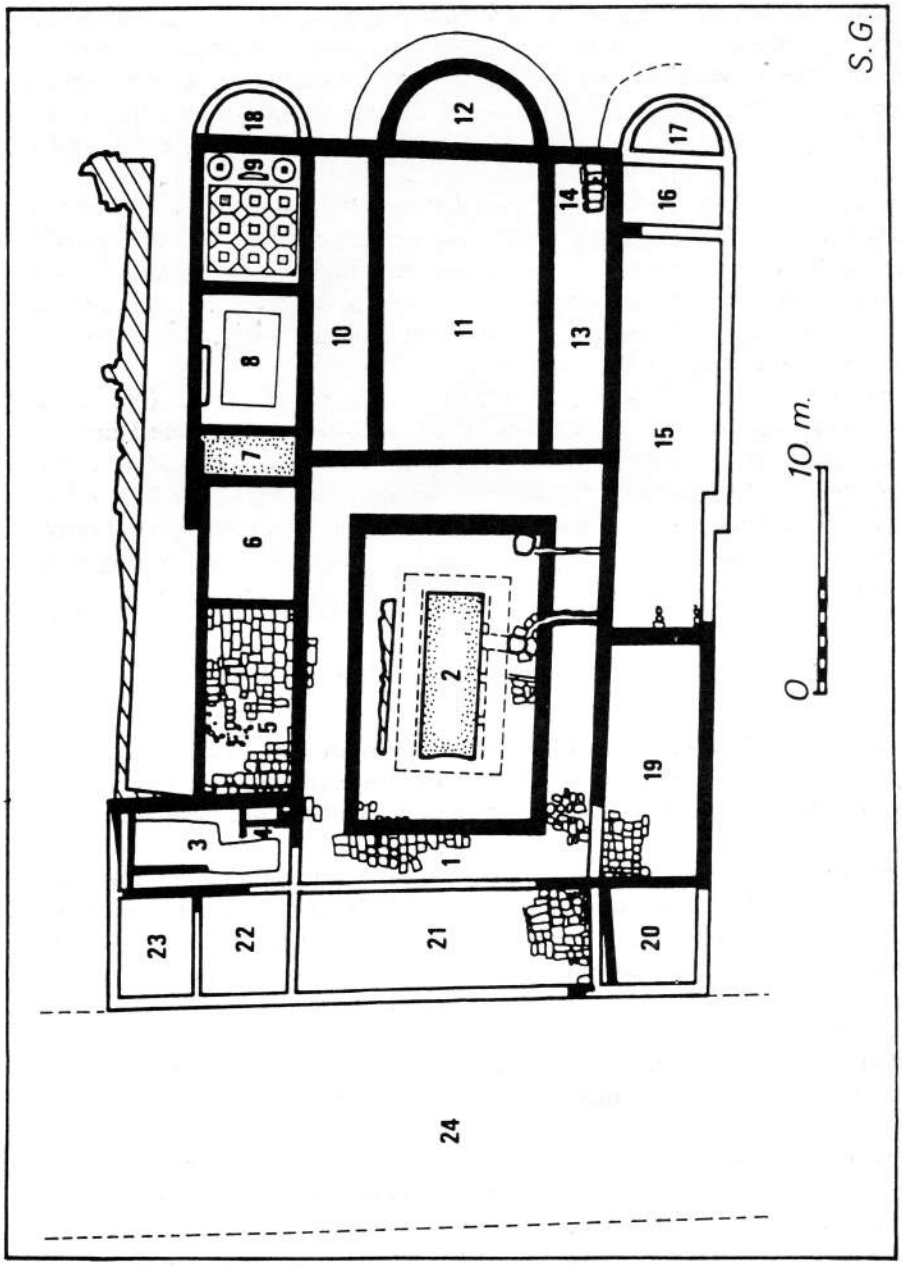

Figure 7. Plan of Dor Church: 1: Peristyle Court; 2: Cistern; 3: Tower; 4: Staircase; 5: Northern Vestibule; 6: Antechamber; 7: baptismal *Piscina*; 8: Anointing Room; 9: Room for celebration of the Eucharist; 10: Northern Aisle; 11: Nave; 12: Central Apse; 13: Southern Aisle; 14: Saints' Tomb; 15: External Southern Aisle; 16: Room where Reliquary Column may have stood; 17: Southern Apse; 18: Northern Apse; 19: Southern Vestibule; 20–23: portico; 24: Street. The remains of the podium of the Hellenistic-Roman temple and of a wall belonging to it are hatched

calyx—spread out in six north-south rows of ten buds each, on a white ground. At the eastern end of the floor a fragmentary *tabula ansata* marked the central axis of the field. The pavement of Room 9 combined octagons, squares and stepped lozenges. To the east of this, a stone step probably gave access to a raised area—chancel or altar—now destroyed. Marble screens encased it on its northern and southern edges. The mosaic floor of Room 9 extends eastwards on either side of the stone step. Its decorative motif repeated itself symetrically on either side of the step.

The external southern aisle was almost entirely destroyed by the construction of kibbutz houses. Part of the foundations of its eastern apse were uncovered in October 1994, as well as a rectangular room (No. 19) at its western end, paved with stone slabs and corresponding to the atrium in the external northern aisle. The mosaic pavement of the external southern aisle has survived only as small patches south of the wall of the southern aisle.

To the west, the church was preceded by a stone-paved portico (No. 20–23) fronting the *cardo* (No. 24), the main north-south street of Byzantine Dora (Fig. 1:6). This is strikingly reminiscent of the propylea of the Holy Sepulchre basilica opening onto the Jerusalem *cardo maximus* (Gibson and Taylor 1994: 74–75 and Fig. 45). The portico of the Dor basilica gave access to a rectangular peristyle court paved with stone slabs (No. 1). Along the east-west axis of the apse and occupying most of the width of the atrium, the paving stones covered the vault of a large cistern, now collapsed (Fig. 6). Its plaster lining covers a pavement of crude white tesserae. Three pairs of corbels or projections protrude from the internal northern and southern walls of the cistern. Water entered through three plaster-lined channels which extend from the wall south of the cistern; water must have been directed down vertical gutters from the roof. A shaft was cut in the solid rock beside the cistern, plaster-lined and with seven footholds cut in its eastern and western sides. It is linked to the cistern by a doorway cut into the southern wall of the cistern.

At the end of the first season of excavation, it was suggested that the church had been erected in the fourth century, on the basis of third-and-fourth-century coins found in the sandy fills supporting the church. This hypothesis was verified in the 1980 season by the discovery, when the eastern half of the pavement of Room 8 was lifted, of a mosaic pavement with a geometric design, 38 cm below the upper pavement. A bronze *tremessis* coin of emperor Constantius II (337–61) minted at Cyzicus in Asia Minor was found on the pavement. The construction of the first stage of the church must therefore be assigned at the earliest to the first half of the fourth century.

To the Christian fourth-century basilica of Dor belong the lower mosaic pavements of Rooms 8 and 9, the lower floor of slabs and pebbles of antechamber 5, the lower plaster floors of the *piscina*, of the peristyle court, of the aisles, of the nave, of the apse and of the external southern aisle. The lower pavement of Room 8 was burnt at its northern end. Similarly, a fire destroyed the slab-and-pebble

floor of the antechamber. The church was rebuilt on the same plan in the fifth century.

In date and plan, the original basilica of Dor is comparable to the Constantinian foundations of Jerusalem and Bethlehem: the Holy Sepulchre and the Church of the Nativity. One aspect of the Dor basilica, however, appears to be unique. The location of the *piscina* is next to the atrium but inside, not outside the ecclesiastical complex. This illustrates the recommendation by the *Testamentum Domini Nostri Jesus Christi*, a canonical law text of the second half of the fifth century which lay down the rules concerning the plans of churches, that the baptistery should be connected with the atrium (Cooper and Maclean 1902: 63). The rhetor Choricius of Gaza describes in the *Laudatio Marciani* how, at the western end of the sixth-century Church of St Sergius at Gaza, now destroyed, there was a long portico in the north which included the baptistery (Abel 1931:16). The tripartite division of the external northern aisle of the basilica at Dor corresponds to the first three stages of the baptismal liturgy as described in the mid-fourth century *Mystagogical Cathecheses* of St Cyril, Bishop of Jerusalem (Piédagnel and Paris 1966). Candidates for baptism stood in the vestibule (Fig. 7: Room 5) called 'the external room' at the western end of the church complex—the region of Darkness—and renounced Satan. They then proceeded eastward, towards the divine Light, into 'the internal room' (Room 6). There they undressed, were anointed by the bishop, and stepped one by one into the *piscina*. They recited the Act of Faith and were either immersed three times or holy water was poured onto their foreheads. Immediately after the baptism they were again anointed by the bishop and put on white robes. The third *Cathechesis* does not mention a room specially connected with the anointing ceremony, but it is probable that this took place in Room 8 at the eastern end of the northern portico where the newly-baptised attended for the first time the celebration of the Eucharist and took communion. The steps leading up to an elevated apse or chancel in Room 9 indicate that this room was used for the enactment of the Holy Mysteries (Fig. 8).

The external southern aisle of the basilica would have served a different purpose: there, as well as in the peristyle court, sheltered the sick who came to be healed by undergoing a period of *incubatio*—a time of prayer, fasting and often deprivation of sleep. The practice of incubation held a prominent place in the rites of divine healing in ancient Greece as in the Temple of Asclepius, the God of Medicine, in his sanctuaries at Epidaurus and Pergamon (Simon 1972: 335–6). It was adopted by Christianity and is well attested by Saints' *Lives*. The saint appeared to the sick as they slept in the porticoes of his church and either healed them on the spot or prescribed them a treatment. At Dor, the sick gathered round the remains of two saints, whose names are not known, but whose tomb was found in the eastern end of the southern aisle. The tomb was closed by five slabs placed crosswise in a row oriented east-west. A small hole, 16-18 cm in diameter, had been cut in the centre of the western edge of the easternmost slab. The hole was lined with an earthenware pipe. We suspected that oil would have been poured into the tomb through this pipe in order to be sanctified by contact with the remains

Figure 8. The external northern aisle of the church at Dor viewed from the east. Room 9 is in the foreground. To the right, part of the *temenos* of the Hellenistic-Roman temple used to support the northern retaining wall erected in November 1994 (photo S. Mendea).

of the saint. The oil would then have drained into a plaster-lined basin 2 metres long and 1.40 metres wide, between the tomb and the northern wall of the southern aisle, then to be used for healing the sick. This interpretation was confirmed by the discovery of oily organic deposits around the lower portions of the eastern wall of the southern aisle. The reliquary-tomb of Dor is the first of its kind to have been found in Palestine.[11]

Besides possessing the tomb of two healing saints, Dor could pride itself on owning a memorial of Christ's death. In the 1952 excavations, about 100 metres east of the basilica, a grey marble column was found lying on the surface. A three-line Greek inscription ('A stone of the Holy Golgotha') had been carved 92 cm above its base. Beneath the inscription there was a hollow cross. A small cross had been carved at each of the four ends of the central cross. The hollow probably contained a fragment of the Golgotha, the rock of Calvary, enclosed in a cross-shaped metal reliquary, rivetted into the column—for there were holes at the end of each branch of the central cross (Leibovitch 1953). Such a prized relic must have exercised tremendous magnetism over pilgrims travelling from the north along the *Via Maris*, or disembarking at the port of Dora, whence they could ascend directly to the church. Dor's role as a major port and road junction on the trade and

pilgrim routes linking Egypt and North Africa to the Syro-Cilician hinterland, is underlined by the quantity and variety of imported pottery found in the course of the excavation of the basilica. There were Egyptian white storage jars, 'Late Roman C' and 'North African Red Slip' bowls and plates, as well as storage jars from Asia Minor.

The water supply

An aqueduct which conveyed water to Dor from a distant spring at Khirbet Tata in the mountains above Nahal Dalia, located some 3.5 kilometres to the south-east of the city, has been investigated by Yehuda Peleg (1994). Sections of this aqueduct (Fig. 9) were also recently examined during a survey conducted by Gibson in 1994 to the east of the city (Features Nos. 289–291, 296–298, 299). The exact line of this aqueduct near the city can clearly be traced in an aerial photograph taken in 1918.[12] It was incorrectly labelled as an 'old road' on the map of the *Survey of Western Palestine* (Sheet VII, 1879). The aqueduct entered the lower city of its south-eastern corner (Fig. 1:10) and extended westwards on a series of arches towards the 'piazza' area at the east gate of the main tell (Fig. 1:9). Stern's excavations there (Area B2) revealed the remains of four masonry piers and the edge of a large water reservoir (Stern 1994: 297–299, Figs. 185, 205). The date of this aqueduct is still uncertain but since it originally conveyed water to the main tell it may be assumed to date from at least the Roman period. Water cisterns are known from the tell and one plastered tank on the north-eastern slope (Fig. 1:17) may even be of Byzantine date. Stern noted the discovery of a double ceramic pipe encased in cement which appears to have conveyed water during the Byzantine period from the extreme end of the aqueduct to the buildings of the lower city (Stern 1994: 299).

In the lower city, Inspector of Antiquity N. Makhouly, noted in 1946 'built and rock-cut wells with tanks'.[13] A large structure with solid walls built of well dressed blocks of *kurkar* reinforced with concrete and internally plastered, exists to the north of the line of the aqueduct within the lower city (Fig. 1:13). This structure is a reservoir for water storage and was probably originally constructed in the Byzantine period, although it may have been restored by the inhabitants of Tantura during the Ottoman period or perhaps earlier during medieval times. This reservoir was named El Hannaneh and is shown on the *Survey of Western Palestine* map (Sheet VII, 1879; cf. Dahl 1915: 12, n. 5). Guérin (1874, II: 309) briefly mentioned this structure during his visit to Dor in 1870. According to him it was nine paces square with walls built of ashlars. He noted that within the structure he saw fallen column shafts of marble and granite. It was later examined by Conder in March 1873 who described it as follows: 'El Hannaneh is a ruined cistern just east of the causeway; it is about 10 paces square, and built of stones 2 feet to 3 feet 6 inches [60 cm to 1 metre] in length. The interior is lined with rubble coated with hard white cement, containing fragments of pottery pounded small, and dark red in colour, together with ashes. The mortar behind the cement is thickly bedded,

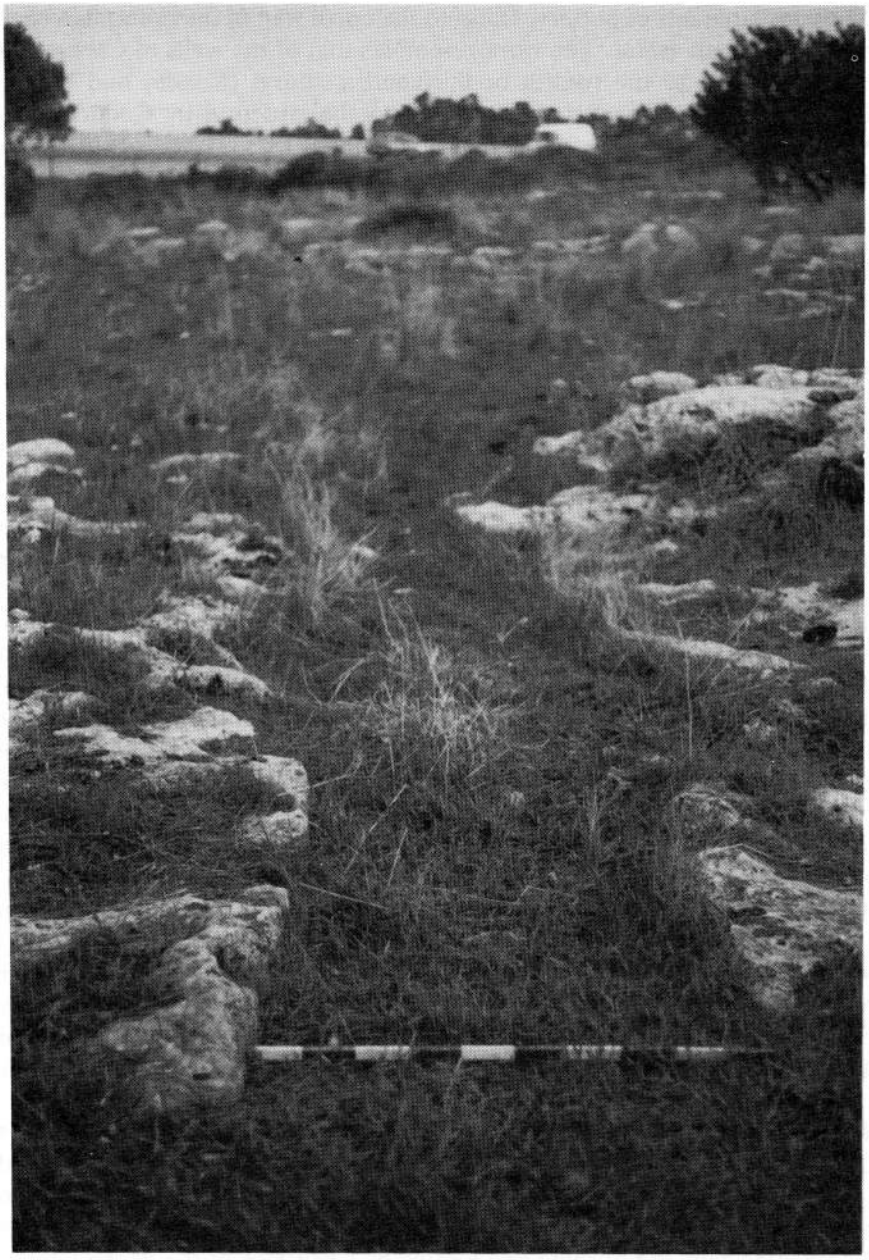

Figure 9. A section of the rock-hewn aqueduct which brought water to the city of Dor (photo S. Kingsley).

and contains large bits of pottery. Close to the north wall of the cistern is a shallow round well of small ashlar. The work resembles that of the walls of Caesarea, and may be attributed to the twelfth or thirteenth century, (Conder and Kitchener 1882: 9–10). The medieval date attributed to the structure by Conder was not accepted by Drake who also visited the site in March 1873. Drake wrote in a letter to the PEF: 'To the east of the mound is a Roman tank for irrigation, differing from those I formerly described near Jaffa, as being built of rather large blocks of stone.' (Drake 1873: 100). It is interesting to note that Conder at the time of his survey also dated this structure to the Roman period (see his notebook in PEF Archives, WS/266). A plan of this structure, labelled 'ancient ruined building (cistern under)', appears on a map of Dor from 1924.[14] The partial remains of this structure are still visible next to the tennis courts of the kibbutz.

Conclusions

The area of the lower city of Dor was first settled in the Persian period, probably during the fifth to the fourth centuries BC. This need not have been a particularly large settlement and was perhaps only a northern suburb of the main tell. Additional suburbs were built around the tell in the Hellenistic period. Persian and Hellenistic pottery was found by Leibovitch in a sondage at the northern end of the lower city (Leibovitch 1951: 38). About two metres to the north of the church, Dauphin uncovered the remains of a monumental edifice of late Hellenistic or Early Roman date, judging from its masonry, pottery, coins and the leg fragments of a white marble statue. Further traces of this building were located immediately north of the cistern in the peristyle court. The exciting find made in November 1994 that the church rested directly on that building (Fig. 10) confirmed the excavator's hypothesis that the basilica of Dor had been erected over a pagan temple whose *stoa* had been ultimately replaced by the external aisles and by the atrium to the west of the cistern, whose *cella* had become the nave and side-aisles of the church and whose *adyton*—the subterranean 'holy of holies'—had been remodelled into a cistern. The plan of the Dor Temple would have resembled that of the Temple of Nemesis at Rhamnous dating to the sixth century BC, of the fifth-century BC Heraion at Argos in mainland Greece, as well as that of the Temple of Rhoikos in the sixth-century BC Heraion on the island of Samos (Melas 1973: 39–47, 125–31, 179–89; Schoder 1974; 180–81, 190–91). Characteristically for Greek cult centres, the temple had been erected on the edge of the lower city and at the foot of the acropolis (Schoder 1974: 404–5). The temple was burnt, as evidenced by the great quantity of ash overlying the remains of its podium, and its paving stones removed and reused to build the northern wall of the basilica, this vividly illustrating archaeologically the burning and looting by Christians of the pagan temples of Byzantine Palestine.[15]

It is interesting to note that the earliest pottery found during Gibson's 1994 survey scattered in the agricultural fields within a radius of about two kilometres around the city also dates from the Persian and Hellenistic periods. It would appear

Figure 10. The church of Dor: the eastern wall of the Byzantine tower (left) rests directly upon the remains of the *temenos* of the Hellenistic-Roman temple. The storage jar protruding from the section marks the destruction level of the church in the late eighth or ninth century (photo C. Dauphin).

that the lower city was properly established as a large planned settlement in its own right during the Early Roman period as a major extension of the settlement on the main tell. Thus, during this period there existed an upper and lower city. During the Byzantine period, the main tell largely ceased to be inhabited and the area covered by the lower city expanded considerably to 6.8 hectares (cf. the figure of 8 hectares proposed by M. Prausnitz in Broshi 1979: Table 2). Eventually, it covered an area slightly larger than the area of the original city on the main tell. On the basis of a coefficient of 400 persons per hectare put forward by Broshi (1979:5) the population of the lower city probably consisted of no more than 2,500 individuals.[16] The date at which the fortification wall was established around the lower city is uncertain. We believe this took place no earlier than the Roman or Byzantine periods. The occasional discovery of structural remains of Roman and Byzantine date in areas beyond the area of the lower city and especially to the east and south-east in the grounds of Kibbutz Nahsholim (Kurt Raveh: personal communication), are a clear indication that extra-mural suburbs existed at Dor during these periods. Gibson's survey of the environs of Dor has shown that the number of farms and villages dating to the Roman and Byzantine periods in the surrounding countryside was considerable. Clearly, Dor was a thriving regional

centre for the agricultural hinterland during these periods. Judging by underwater finds, Dor also continued to function as a port throughout the Byzantine period and the remains of a number of Byzantine shipwrecks have been detected in the southern harbour of Dor (Wachsmann and Raveh 1984: 229; Raveh and Kingsley 1991; Kingsley and Raveh 1994; Wachsmann 1995).

Stern (1994: 319) has stated that in the light of his excavations, settlement at Tel Dor ceased to exist or was largely diminished by the beginning of the second quarter of the third century AD, with only a small cluster of buildings surviving during the Byzantine period around the church.[17] This view can no longer be sustained by the archaeological evidence which we have presented above. Furthermore, the historical evidence does not negate the existence of a settlement at Dor in the Byzantine period, as Stern would like to believe. Although not mentioned by the Bordeaux Pilgrim in his fragmentary list of port stations (Geyer and Cuntz 1965), Dor was depicted nevertheless on the Peutinger Table which shows the main lines of communication in the Roman road system of the fourth century AD (Roll 1995: 30*). Moreover, Jerome's description of fourth-century Dora as 'a city now deserted' (*Onom* 250:56) is clarified by his account in *Epistle* 108 of the pilgrim Paula's amazement at 'the ruins of Dor, a city once very powerful' (Wilkinson 1977: 47) in the course of her first journey around the biblical sites of Palestine in 385. Judged in the light of Jerome's interest in sites as fossilized embodiments of biblical events, both comments appear as direct references to the ancient ruins on the biblical tell which by then had been largely abandoned. They thus have no bearing on the state of the Byzantine settlement in the lower city.

Even more important for understanding the history of the site during this period are the historical sources which name the bishops of Dora. The first bishop of Dora to be mentioned—late in 483 or early in 484—was Fidus who, according to Cyril of Scythopolis in his *Life of St Euthymius* (66: 15–17; Festugière 1962: 120), had formerly been a deacon at the laura of Euthymius (modern Khan al-Akhmar) in the Judaean Desert. This does not mean that Dora lacked a bishop prior to the late fifth century. The archaeological evidence for the foundation of the episcopal basilica in the first half of the fourth century is undeniable. Moreover, Abel (1967: 197–98) rightly points out that the list of bishops who attended the Council of Nicaea in 325 never claimed to have been exhaustive: it is certain that all the bishops of the Later Roman Empire did not take part in that council. Besides the nineteen episcopal sees cited in the *Actae* of the Council of Nicaea, 'il est possible qu'il en existât alors d'autres comme Joppé, Apollonia, Antipatris, Dora. Les signatures des conciles ultérieurs nous les feront connaître en même temps que les nouveaux sièges créés au IVe et au Ve siècle au fur et à mesure de l'expansion de la religion chrétienne'.

By the sixth century Dora was well-established as first suffragant of adjacent Caesarea, metropolis of the archiepiscopal see of *Palaestina Prima*. It is mentioned both in the *Synekdemos* (Honigmann 1939: 718:2)—a treatise originally composed under Emperor Theodosius II (408–50) and re-edited by Hierocles between August 527 and the Autumn of 528 as an official manual for the use of civil servants in

their local administrative duties—and in Georgius Cyprius' *Geographical Treatise* (Honigmann 1939: 1000) dated to the beginning of Justinian's reign. Bishop Barochius attended the First Council of Jerusalem in 518, and Bishop John the Second Council of Jerusalem in 536 (Dahl 1915: 102–08; Abel 1967: 200; Bagatti 1984: 92–93). Further proof of the preëminence of Dora in the ecclesiastical administration of Byzantine Palestine is provided by the following fact. In 638, Patriarch Sophronius of Jerusalem was prevented by the Arab occupation of the Holy City from travelling to Rome to promote Orthodoxy against the rising tide of Monothelitism.[19] He entrusted this difficult task to Bishop Stephen of Dora (Le Quien 1740, 111: 274). On behalf of the diocese of Jerusalem, 'of nearly all the bishops of the East and of the Christian communities', Stephen of Dora defended the cause of Orthodoxy before Pope Honorius I (625–38). On Sophronius's death in 645, the patriarchal see of Jerusalem fell vacant and Pope Theodorus (641–49) appointed Stephen of Dora both as 'first of the church council of Jerusalem' and as Papal Legate. The all-encompassing role of 'Vicar of Jerusalem' which included the instituting of bishops, presbyters and deacons in *Palaestina Prima, Secunda* and *Tertia*, should have been allotted to the bishop of Caesarea, metropolis of *Palaestina Prima*. However, since Caesarea had fallen to the Persians in 614, it lacked a *metropolitos*. The bishop of Dora being first suffragant of the archbishop of Caesarea, it was natural that Stephen of Dora should have deputized by default both for Caesarea and Jerusalem. He was instructed by Pope Theodorus to reëstablish Orthodoxy in Palestine by deposing some bishops (presumably those who had adopted Monothelitism) and maintaining others in their sees. Stephen faced violent opposition in Palestine from his fellow bishops who agitated so well at the Papal court that in 649 at the Council of the Lateran Pope Martin (Theodorus' successor) transferred his delegation of authority from Stephen of Dora to John of Philadelphia (Amman in modern Jordan).

Although nothing further is known historically of Byzantine Dora, it appears that Stephen's episcopal church survived the Arab occupation of Palestine until Abbassid times. However, the rest of the city may have gone into decline and it is interesting to note that Gibson's survey has shown that Dora's agricultural hinterland had already become depopulated, with the abandonment of farmhouses and fields, during the second half of the sixth century, at the latest. The final fate of the basilica of Dor is clearly imprinted on the remains. Dor was destroyed by fire as evidenced by an ashy layer and collapsed material: chunks of wall plaster, marble fragments, broken storage jars, glass window panes, glass chandeliers or *polycandela* hanging from bronze chains and hooks, all mixed with iron nails, door-latches and a fragmentary lead *polycandelon* molten by fire. The pottery in this destruction level indicates a late eighth-century or ninth-century date. The episcopal basilica of Dor would thus have been one of the many victims in Palestine of Islamic fanaticism promoted by the Abbassids.

The existence of Byzantine episcopal sees was grounded both in ecclesiastical and in civil administration. Since 381, according to Canon 12 of the Oecumenical Council of Constantinople, ecclesiastical dioceses were compelled to model them-

selves on civil constituencies (Héfélé and Leclercq 1908: 21–24). Episcopal sees were therefore *de facto* associated with cities. Thus the bishops of Dora would on no account have held ecclesiastical jurisdiction over a small and obscure coastal village, but solely over a true Late Roman and Byzantine *polis*, a city protected by fortification walls resembling the *poleis* depicted on the Madaba mosaic map (Avi-Yonah 1954). Such precisely was the Byzantine city of Dora which we have discovered.

Notes

1 These include Sheet VII of the *Survey of Western Palestine*, scale one inch to a mile, 1879, Ordnance Survey, Southampton; *Tantura: Antiquity Site*, scale 1:1,000, dated January 1924, Land Survey Department, Jerusalem; *Ijzim Map Provisional, Topocadastral Sheet 14–22*, scale 1:20,000, April 1932, Survey of Palestine, Jaffa; *Registration Block 10931 (El Burj)*, scale 1:2,500, 1942, Survey of Palestine, Jaffa; *Topographical Map of Nahsholim (Tantura)*, scale 1:2,500, dated July 1949.

2 Aerial photographs Nos AINN 1631 to 1633, taken at 8,000 feet in June 1918, and Nos 9053/1 and 9058/1, taken in November 1967, scale 1:12,500.

3 Ironically, these dumps which represent the spoil-heaps of Stern's excavations of the upper biblical tell, are rapidly obliterating the traces of the lower Hellenistic, Roman and Byzantine city.

4 The tower is depicted in a number of nineteenth-century engravings (Conder and Kitchener 1882: 7; Porter 1889: 234). A rare photograph of the tower—reproduced here as Figure 2—was taken by Corporal Henry Phillips in April or May 1866 during a visit to the site in the company of C. W. Wilson and S. Anderson (P494 in the photographic archives of the Palestine Exploration Fund).

5 Aerial photograph No. AINN 1631: Israel Antiquities Authority Photograph No. 118349.

6 *Tanturah: Antiquity Site*, scale 1:1,000, 1924.

7 See note 6, above.

8 Photographs Nos 20.251–20.253 in the Dor file in the archives of the Israel Antiquity Authority.

9 For additional information based on Leibovitch's excavation file in the archives of the Israel Antiquities Authority, see Segal 1995: 50–51, Figs. 32–33. According to our calculations the estimated diameter of the orchestra should be 58, not 60 metres.

10 On the location of theatres within Near Eastern Roman cities, see Frézouls 1961.

11 Kloner (1988–89: 125) has recently uncovered a similar kind of arrangement beneath the floor of an early Byzantine church south-west of Tel Maresha. Beneath a square stone with a hole set in the mosaic floor of the church and blackened by burnt organic material, presumably oil, was a long narrow jar without a base used like a pipe extending down to the top of a cist grave containing human remains.

12 Aerial Photograph No. AINN 1631: Israel Antiquities Authority Photograph No. 118349.

13 Report No. N/3794 of 24.5.46; Israel Antiquities Authority Archives.

14 *Tantura: Antiquity Site*, scale 1:1,000.

15 See the description by Mark the Deacon of the destruction in May 402 of the Marneion of Gaza at the instigation of Porphyry, first bishop of Gaza (Grégoire and Kugener 1930: 55–56).

16 See the recent review of methods of estimating population numbers in Zorn 1994: 32.

17 For additional views suggesting that Dor had ceased to exist by the fourth century, see Meshorer 1986–87: 60; Barag 1994: 180; Safrai 1994: 24 (cf. Di Segni 1994).

18 On the Monothelite heresy which was heavily subscribed to by the episcopate of seventh-century Palestine, see Musset 1948, I: 185–87.

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