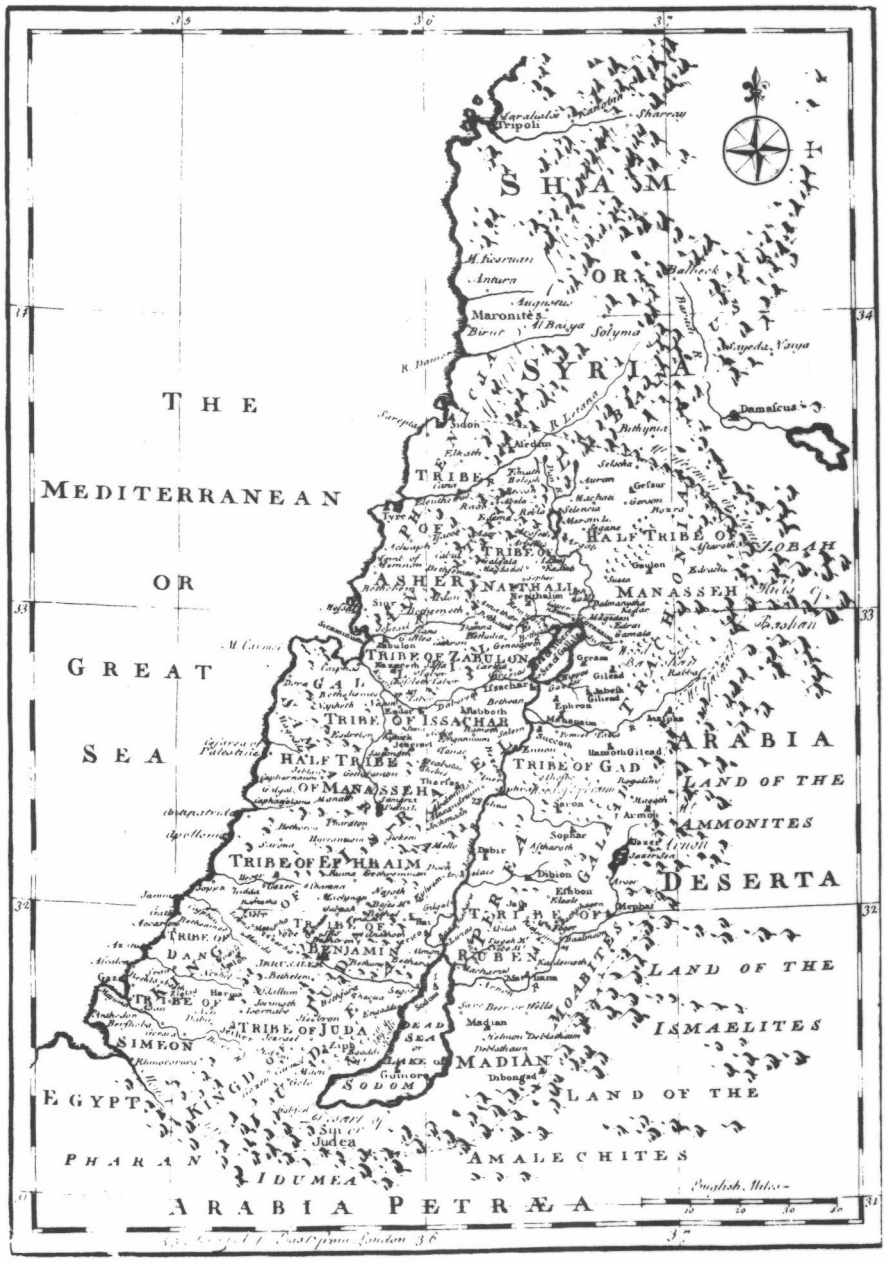
Bulletin of the Anglo-Israel Archaeological Society



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Editorial

The Anglo-Israel Archaeological Society has had another excellent year in terms of high-quality lectures, summarized here, and has continued to thrive.

This issue of the *Bulletin* contains the usual mix of scholarly articles and continues to include material that will excite debate and interest. David Stacey's exploration of the seasonal industries at Qumran will undoubtedly stimulate much future discussion, since Qumran remains one of the most studied archaeological sites in the region. Stacey knows the region well having excavated for many years with Ehud Netzer at the Hasmonaean and Herodian palaces of Jericho. The piece by Gideon Hadas, dealing with shipping on the Dead Sea, contributes to a better understanding of the context not only of Qumran but of all the sites around the northern end of the lake, and suggests some interesting possibilities concerning Herod the Great. Rodney Aist considers issues of location in terms of the traditional holy places of Byzantine Jerusalem, carefully assessing texts, archaeology and art to arrive at new insights and clarifications. Much is known about Byzantine monasteries in the Judaean Desert, with many books and articles having been written on the subject, but hardly anything is known about *coenobia*-type monasteries in other regions of the Holy Land. Itamar Taxel reviews the evidence for rural monasteries and provides a new picture of monastery sites in the foothills of the Shephelah and Judaea. In the final article, Sean Kingsley presents a provocative reconsideration of evidence for flooding close to the Carmel Mountains in the Neolithic period, asking bold questions about cultural memory enshrined in the Flood Myth of Noah.

In the Review Article section we provide a response by René Salm to an article printed in the last issue of the *Bulletin*, concerning excavations at the Nazareth Village Farm, with counter-responses by the authors, Stephen J. Pfann and Yehuda Rapuano, and by Nazareth expert Ken Dark. Salm's controversial book on Nazareth, which questions whether there is any evidence to suggest that the village existed in the Early Roman period, is also reviewed here. A new set of photographs and a catalogue of pottery from Nazareth, amending what was previously presented, are included here also.

Finally, we would like to acknowledge the kind contributions made to the Society by: Mr C. Boxer; Mr P. Brett; the Ruth and Charles Corman Charitable Trust; the Sidney and Elizabeth Corob Charitable Trust; Joe and Linda Dwek (for the Manchester lecture series); Mr and Mrs R. Grutz; the Polonsky Foundation, and the Sacerdoti Charitable Trust. Particular thanks are due to the John S. Cohen Foundation and to Dr David Jeselsohn for their generous donations in support of the production costs of the *Bulletin*.

We would also like to thank Adrian Curtis who does so much to keep the Society thriving in Manchester. Additionally, we thank also the Jewish Historical Society of England (Manchester Branch), and Frank Baigel who organizes their events and with whom several joint meetings have been held.

We would also like to thank Ashley Jones, for editing the Reviews section, and Diana Davis, the Executive Secretary of the Society, for her admirable work copy-editing this issue.

Shimon Gibson and Joan Taylor

Bulletin of the Anglo-Israel Archaeological Society 2008 Volume 26

Seasonal Industries at Qumran

DAVID STACEY

The discovery of the 'Dead Sea Scrolls' in caves near Qumran resulted in much scholastic excitement. Some preliminary readings quickly led to the suggestion that the scrolls were associated with a Jewish sectarian community, perhaps the Essenes who were known from classical sources. Attention soon turned to the ruins near to the caves and the excavator, Father Roland de Vaux, was influenced by this concept. As a Dominican priest himself, the reconstruction of the site as the home of an isolated, closed sectarian community dedicated to the copying of biblical texts and the writing of sectarian tracts was clearly fulfilling and satisfying. He interpreted certain rooms imaginatively, with such monastic terms as 'refectory' and '*scriptorium*'. Qumran, he claimed, 'is not a village or a group of houses; it is the establishment of a community.... for the carrying on of certain communal activities' (de Vaux 1973: 10) which he assumed, without question, were religiously inspired and conducted throughout the year.

Pottery, tannery, *miqva'ot*. The debate about the function of the 'industrial zone' at Qumran

Although he did recognize the existence of an industrial zone, de Vaux dismissed it as 'a less important building' which probably 'served as covered workshops' (de Vaux 1973: 8). Should it have been relegated to such a lowly position? And was the assumption of year-round habitation misleading? Was the concept of an esoteric, isolated sectarian community of poor scholars so satisfying to de Vaux, and to many later scholars and theologians sequestered in the ivory towers of academe, that any indication that the site might have existed solely to play a small part in the local regional economy was, and continues to be, banished to the back of the mind?

In an article primarily concerned with the dating of the aqueduct system at Qumran I pointed out that the 'main' aqueduct, and thus all the pools fed by it, was constructed no earlier than 31 BCE. I suggested that in the Hasmonaean period 'occupation of the site was confined mainly to the winter season' and that the exploitation of the run-off water gathered there was done 'to minimise the use of the "expensive" water supply in Jericho for other than agricultural and domestic purposes' (Stacey 2007).

Since that article was written, Magen and Peleg have published a preliminary report of excavations they carried out between 1993 and 2004. In it they claim that

'the main purpose of the entire complex water supply system, with its channels and large pools, was to provide potter's clay' (Magen and Peleg 2007: 13). Although pottery was indubitably produced at Qumran, it seems extremely unlikely that a pool, such as L71, would be dug to a depth of 5 m to collect a 1 m thick layer of silt which would have been inaccessible until the 4 m of water above it was removed. If the primary interest had been in the silt, a wide shallow pool no more than 1.5 m deep would have been dug. Layers of silt were found in the bottom of all the pools excavated in Hasmonaean/Herodian Jericho yet it is inconceivable that its collection was the primary purpose of those pools. Whilst silt, when it was exposed, may well have been put to use for pottery production in Qumran, it would seem that the collection of water was the 'main purpose'.

Moreover, throughout much of the Hasmonaean period, possibly for as long as three generations, the only water supply that existed, together with the two pottery kilns in L66, was in the refurbished Iron Age cistern, L100, and the pools, L117 and 118, and it is difficult to see how silt in these pools could have been accessed for pottery production without the loss or contamination of the only available water.

That pottery kilns existed in Qumran is certain. The source of their clay, however, still needs further investigation. Magen and Peleg have shown that vessels can be produced from the silt collected in the pools (Magen and Peleg 2007: Fig. 54) despite Zeuner's contention that 'analysis has now proved them to be unsuitable' (Zeuner 1960: 32). Zeuner also concluded that clay from the Lisan marls 'would make a very bad pottery clay' (Zeuner 1960: 31) although he only tested a small sample from a single location. Unfortunately this lone analysis is still accepted as a reliable indicator that all the marls 'would have been unsuitable for the manufacture of pottery' (Magness 2002: 75). Experimentation with marls from different locations around Qumran[1] mixed with different, locally available tempers may well find that vessels could have been made from them even though they may not have been of the highest quality. In Hasmonaean Jericho the commonest vessels were small bowls (JBL3) and shallow plates (JPL1) (Bar-Nathan 2002: 85–87, 95), both of which types were also found in Qumran and may well have been made there. They were poorly made. Bar-Nathan writes of the 'rather crude finish' of the bowls, and that 'the plates are poorly made, their finish coarse, the ware poorly levigated'. Unfortunately, although they had often been complete when deposited, I know from personal experience that many of these bowls and plates eluded any attempt to lift them, disintegrating into small cubes of clay only a few millimetres in dimension. They were clearly poorly fired and/or of poor quality clay. Nevertheless thousands were recovered.

Some scholars define all the stepped pools at Qumran as *miqva'ot* and then, in a circular argument, claim that 'the large number of miqvaoth, two of them of exceptionally big dimensions' (Patrich 2006: 247) are evidence that Qumran was a sectarian settlement. In her response to my article, which did not pretend to address all the problems of Qumran, Magness wrote, 'Stacey also disregards or fails to account for the ..... large number (and large sizes) of the miqva'ot relative to the size of the settlement' (Magness 2007: 253). Although I have no doubt that some

of the smaller stepped pools were used, some of the time, as *miqva'ot*, the larger pools were more probably reservoirs and we should consider to what use the water within them could have been put.

Besides the kilns, the only other structures in Hasmonaean Qumran were the watch-tower (Stacey 2007: 236–337) and the western industrial area, originally confined to the immediate vicinity of the pools (L100, 117, 118) but later spreading further west with the addition of Ls111, 120–123. There are no signs of dedicated living quarters. It is important to consider what other processes, beside the manufacture of ceramics, might have been carried out in the industrial area with its shallow pools, tanks, fireplaces and 'beating' surfaces, utilizing the water gathered at the site. They were clearly of primary importance. De Vaux did suggest that L34 was a dyehouse and that L52 (which actually dates to Herodian or even later times) was a laundry but he was early convinced that Qumran was a sectarian 'monastery' and does not seem to have initiated any analyses of sediment retrieved from anywhere except Ein Feshka (see below). Magness gives little thought to the industrial zone and the processes that might have been conducted there, merely reiterating de Vaux in saying that the rooms there 'included storerooms, industrial installations and workshops' and the plastered floor of L115–116 'seems to have been used for some industry requiring water'. Other functions 'are unknown' (Magness 2002: 53). Elsewhere she says that 'the types of vessels found at the site ... reflect the activities carried out there' (Magness 2004: 4) but makes no attempt to discern the activities that were specifically carried out in the industrial areas. Moreover she reconstructs a rather fanciful 'communal dining room' above what may well have been an unpleasantly malodorous area, in a second-storey level 'attested by a staircase in L113' (Magness 2002: 126), although in all probability the staircase only gave access to a flat roof, a valuable space in a Middle Eastern house. Hirschfeld realized that Qumran was 'a production centre for commodities of commercial value' but saw the industrial area as largely confined to processing 'the valuable perfumes and ointments produced from balsam' (Hirschfeld 2004: 138–142), a conclusion previously reached by the Donceels (Donceel and Donceel-Voute 1994: 26–27).

Seasonality and the character of industrial activity at Qumran

Would the processes undertaken in the industrial zone have been carried on all the year round or were they mainly seasonal? Was the expansion of the water system in the Herodian period an indication that there was an increase in demand and did new installations like L55–58 and L48–53 replace or augment the western industrial zone? And may it be relevant that the water was exclusively soft, rain water in contrast to the hard, calcareous spring water available in Jericho[2] and Ein Gedi? We should look at Qumran in its landscape context.

Winter temperatures near the Dead Sea are mild, so mild that, according to Josephus, 'the people are clothed in linen even when snow covers the rest of Judaea' (*War* 4: 473). The warmth encourages plants to grow after any significant fall of

winter rain (for pictures see Roitman 1997: frontispiece; Netzer 2001: Pl. XVI (top), 2004, Pl. XIV; Yadin 1966: 34). They grow rapidly to complete their life cycle before the searing heat of summer and provide welcome fresh grazing for flocks brought down from the hills. Evidence for such 'trans-humance' of both sheep and goats was still clearly visible around Jericho up to the 1980s, at least, particularly in a wet winter. In the early years of the last century Masterman noted that 'early in the year, in January and February, Bedawin descend into this part of the plain (near 'Ain el-Feshkah) and flocks of goats and sheep and also camels may be seen on all hands. The Bedawin at this time inhabit caves in the hills around. The 'Ain Feshkah oasis itself has been tenanted for some eight months now by two men (natives of Abu Dis) who are in charge of a large herd of cattle, belonging to the Sultan, which thrive in the reeds. The men collect and dry rushes, which are sold for basket work' (Masterman 1902: 166). In following years he noted, on his way down from the Buqe'ah, 'a large flock of sheep and goats which had apparently been washed in the Pool' at Ein Feshka (Masterman 1904b: 281) and Bedouin 'descending the rocks above 'Ain Feshkah to water their flocks' (Masterman 1905: 159).

The movement of animals down from the hill country to the winter grazing on the Dead Sea littoral was an essential part of the local economy and had been since time immemorial. 'This cycle assures the animals of a favourable climate and readily available grass, fodder, and water in each season of the year' (Har-El 2000: 13). After the construction of a water cistern in Qumran in the Iron Age, shepherds would have gravitated to it from the Buqe'ah[3] for fresh water for themselves and their flocks. Even after the abandonment of the Iron Age fort, there is no reason to suppose that the cistern ceased to collect water or that the shepherds would not have occasionally cleaned it of erosive dirt. The shepherds would have traded dairy products and meat with the villagers of Jericho and Ein Gedi who would have been well aware of the existence of the cistern at Qumran at the foot of a path up to the Buqe'ah.

When the Hasmonaeans began to expand the agricultural potential of Jericho they, too, would have been aware of the cistern and would have wanted its water within their control. Although normally the flocks 'returned to the mountains in summer for the birthing and shearing seasons' (Har-El 2000: 446) the expansion of labour- intensive agriculture in both Jericho and Ein Gedi would have necessitated a considerable influx of labour which, in turn, would have greatly added to the market for whatever the shepherds could produce. Sheep, in particular, would not flourish in the heat of a Qumran summer. They thrive best in temperatures between 5° C and 25° C and suffer from heat stress in higher temperatures (Finocchiaro *et al.* 2005). As Qumran summer night-time temperatures hover around 25° C, sheep would get no respite. It would have been in the interest of the Royal Palace at Jericho and its dependent workforce to ensure that some lambing, kidding and shearing took place nearby rather than in the hills because, 'the fleece provided the only fabric for winter clothing... the animals' wool was used to weave rugs, tents... and sacks for the transportation of grain; the hides were used to make harnesses and shoes,

while the skins of lambs and kids provided vessels for water... oil and wine... as well as the parchment on which the Holy Scriptures were written... ' (Har-El 2000: 14). The extensive irrigated date plantations of Jericho and the smaller ones at Ein Feshka, Ein Ghazal and Ein Tannur would have supplied late grazing and shade for a limited number of flocks before they returned to the hills. Moreover the available grazing could have been extended locally by selective burning of the reeds around Ein Feshka. Masterman noted that 'places.... are cleared by burning the reeds, the young sprouting shoots that spring up affording excellent fodder for cattle' (Masterman 1902: 165). He noted the reeds being burnt at the end of August and showing 'young green sprouts over a foot high' which are 'brilliantly green and fresh' by late October (Masterman 1904a: 95 and 1905: 159). In 1903 he noted that the reeds and succulent shrubs were in bloom by late October, in full bloom by the end of December and 'yellow and dry' by early February, which contrasted with the year before, which had been wetter, when 'the plains of Jericho (were) still covered with flowers', even if 'a good deal withered', on 21 March (Masterman 1904a: 91).

The time and quantity of the winter rains cannot be anticipated but generally there is no grazing available between the end of March and October at the earliest. Away from the reed beds of Ein Feshka the grazing period would be considerably shorter and it should be stressed that when the men from Abu Dis were there gathering reeds for basketry over an extended period, this was only sustained by the presence of the Sultan's animals. At other times they came 'to cut the young rushes and dry them for mats and baskets. I have seen long lines of these grasses drying but have only once come across the people themselves' (Masterman 1904a: 91). Clearly it was more usual for the men to come down from the hills for short periods, seasonally, to cut and later to collect, the reeds. The concept that the inhabitants of Qumran 'undoubtedly raised herds of sheep, goats and cattle' (Magness 2002: 21) is misleading. Rather, any inhabitants of Qumran would have benefited by the arrival of flocks in the area.

Building history and seasonality at Qumran

The archaeological evidence gives no indication that building activity began much earlier than *c.* 100 BCE and it was most probably instigated by Alexander Jannaeus. When attempting aggressive territorial expansion, he encountered serious opposition from the Nabataeans and was defeated by both Obodas I in *c.* 94 BCE (*Antiquities* 13: 375) and, a few years later, by Aretas III, who briefly invaded Judaea (*Antiquities* 13: 392). In Jericho, Jannaeus felt so insecure that he buried the existing palace building with the spoil from a 7 m deep moat with which he surrounded it (Netzer 2002: 3–4). For safety, he and the estate officials were reduced to a small building, the 'Fortified Palace', erected on top of this artificially created hill. In Qumran the emergency political situation demanded the hurried erection of a watch-tower from which warnings could be given of attempted incursions into Judaea and the Buqe'ah, and it seems likely that a number of architectural elements found out of context in

Qumran, some associated with debris from the 31 BCE earthquake and others rebuilt into later walls, were brought from Jericho as general building material for this tower.[4]

Also in the time of Jannaeus the pressure on the limited available water supplies in both oases, both for domestic use but especially for the irrigation of crops, the processing of which was so lucrative (Stacey 2006: 191–202 and 2007: 237; Porath 2005), would have encouraged the exploitation of the alternative water resources in Qumran. The presence of flocks around Qumran in the winter would have helped sustain seasonal workers utilizing these resources. The watch-tower, which would have gone 'out of active service' with the reversal in Jannaeus' fortunes after he established himself east of the Jordan and constructed Machaerus in *c.* 90 BCE (*War* 7: 171–177). would have given the shepherds a convenient vantage point from which to look out for predatory animals such as leopards, hyenas, jackals and lynx. In the Hasmonaean period flocks could have been penned at night to the south of the tower in the area later occupied by the 'main' building (Stacey 2007: Fig. 1) and, in the Herodian period, in the large open area, L135, to the north.

The potters would have timed their arrival in Qumran to coincide with that of the flocks; the water was fresh, the available dairy products supplemented any dry food they brought with them, the temperatures were bearable, driftwood on the Dead Sea brought down during winter floods was at its most plentiful for fuel for the kilns and could be supplemented by the dung from the flocks.[5] The potters could have made a year's supply of domestic pots for the local market in a month or so[6] and would then have left Qumran. They may have been itinerant potters based in the hill country or, perhaps, people who spent the rest of the year labouring on the Royal Estate.[7]

A review of potential uses for the 'industrial' area and the water resources

A number of industries would have been able to source necessary raw materials at, or near to, Qumran in the winter season. That some of these processes took place at Qumran has been considered by various scholars, beginning as early as de Vaux, but, generally, they have been viewed within the assumption that the site was a permanent 'sectarian' settlement. Consequently they have been regarded as a minor activity and their unpleasant impact on the supposed 'monastic' environment underplayed or ignored. Zangenberg, in a perceptive article, realized the likely importance of various industries at Qumran but does not stress their seasonality (Zangenberg 2004).

Leather production

When the flocks first arrived in the winter, superannuated animals would have been slaughtered to conserve the limited grazing. The meat would have been consumed (mainly, no doubt, in the Royal Palaces at Jericho) and the hides processed. After lambing, at the end of the season, surplus male lambs and kids would also have been slaughtered and finer leather made from their hides.[8]

The production of leather from the hides of animals that had been slaughtered and butchered on site was a malodorous process because urine and dung were often used to help remove the hair. The mid-second century CE author Artemidorus, a native of Ephesus, wrote: 'The tannery is an irritant to everyone. Since the tanner has to handle animal corpses, he has to live far out of town, and the vile odour points him out even when hiding... The vultures are companion to the potters and the tanners since they live far from towns and the latter handle dead bodies' (*Interpretation of Dreams* 1: 54; 2: 20). In the Mishnah it was written that a tannery should be at least 50 cubits from a town (*Baba Bathra* 2:9) and a similar distance was proscribed for pottery kilns (*Baba Bathra* 1:10).[9] Qumran was considerably further than that from the Palaces of Jericho. Although the tanner was viewed negatively because his handling of dead animals, and the use of urine and dung in the preparation of hides, would cause him to be ritually unclean, nevertheless his products, from water skins to phylacteries, were in demand and the specialist preparation of parchment on which sacred texts could be written was regarded as an honourable profession.

Although de Vaux did suggest that a tannery, perhaps for the preparation of parchment, may have existed at Ein Feshka (de Vaux 1959: 230–237; 1973: 70–82) scientific analyses threw doubt on this (Zeuner 1960: 33–36; Poole and Read 1961: 114–123). As the installations at Ein Feshka are far more likely to have been a date wine press (Netzer 2005: 97–100) this is not surprising, although some scholars still promote them as a tannery (Stegemann 1995; Roitman 1997: 34). Analysis of some fragments of scroll material from Cave 4 indicated that 'it may well be that the scroll materials were processed at quite different places and that later they were brought together at Qumran' (Poole and Read 1961: 120). As Qumran in the Hasmonaean period – the period to which many of the scrolls appear to be dated (Stoekl Ben-Ezra 2007: 313–333) – could only have been occupied seasonally (and the atmosphere would have been physically unpleasant as well as ritually impure) it is unlikely that any of those scrolls were actually written in Qumran so the main production of parchment may well have taken place nearer to the location(s) where they were to be written on. The exact tanning processes performed in antiquity are not certain but later writings give some indications (Poole and Reed 1972; Reed 1972: 92–107; Forbes 1957: 36–39). Initially the hair and flesh had to be removed from the hide. It was first soaked in cold water, usually with an admixture of urine or fermenting plant material, which both cleaned and hydrated it. The hair was then removed 'manually using a very sharp, two-handled knife with the skin thrown over a wooden beam' (Reed 1972: 53). The skins were then often beaten to increase malleability. The final softness and flexibility of the leather was improved by 'puering', i.e. immersing the hide in a warm infusion of dung in which bacterial enzymes would loosen the hair roots. Dung was generally sourced from dogs, pigeons or hens (Reed 1972: 55). Mayhew, in 1851, estimated that there were between 200 and 300 'pure' finders regularly collecting dog excrement from the streets of London for use in tanneries, particularly for the processing of goat skins (Mayhew 1851: 142–145). The accumulation of sufficient excrement around

Qumran might have been more problematic. Pigeon dung could have been brought from the *columbarium* in Jericho (Netzer 2004: 32–34) and bat dung from the caves may have been utilized, together, possibly, even with human excrement (was the toilet in L51 a source of 'raw material'?). An alternative process would have been 'drenching' in which the hides were immersed in a warm, aqueous infusion of barley, flour, or cereal husks (Reed 1972: 60) although such commodities would have needed to be brought to the site. Either process could have taken place in the shallow pools in L121 or, later, in the enigmatic pools L55 and L57. The reinforced floor of L115–116 would have withstood beating. It is possible that an 'iron sickle' (Roitman 1997: 33 (Hebrew); Hirschfeld 2004: 141, Fig. 78) found in L126 (object 2173) was, in fact, a de-hairing knife. Another 'sickle', also possibly a de-hairing knife, was found, together with several other unidentified bronze and iron tools, in L52 (object 963 & 964).

After puering or drenching, the hides were tanned. Many plants containing tannins were available locally; palm, acacia, sumac and tamarisk (Poole and Reed 1966: 181), to which could be added henna, the biblical 'camphire' growing in the vineyards of Ein Gedi (Song of Solomon 1: 14).

Although Poole and Reed contended that 'in neither of the two "industrial" quarters has a tannery been recognised' they accepted that 'many of the constituent rooms have pits, vats or cobbled floors (suggesting that wet work was carried out there)'. They recognized that water was a 'valuable commodity' but concluded that it could not 'have been spared for tanning purposes' and that 'the community would have been too strict to permit' (Poole and Reed 1972: 151–152) tanning, a conclusion clearly influenced by the prevailing theory of a permanent sectarian community. Perhaps they should have stuck to their scientific guns and concluded that the limited water supply and the nature of the tanning process meant that it was unlikely that any 'sectarian community' ever lived at the site. There is no reason to believe that any strict rules written in the scrolls actually applied to the occupants of Qumran, most of whom would have only been there seasonally precisely to utilize the water that was gathered there. That some of those seasonal workers were involved with the production of leather goods and, apparently, parchment is shown by the fact that in Cave 8, on the marl terrace[10] 'beaucoup de fines lanières et des languettes de cuir' (Baillet *et al.* 1962: 31; Roitman 1997: 13, 34; Broshi and Eshel 1999: 334) were found; and in three caves near to the site 'leather in various stages of being worked' was recovered. In one, named by the excavators 'the Cave of Leather', was found 'a large quantity of tanned skins... The skins were in various stages of being worked and some were even being prepared as products such as thick pieces to be used as sandal parts and thin pieces to be used as parchment' (Itah, Kam and Ben-Haim 2002: 172–173). In the IAA's exhaustive investigation of caves from north of Jericho to south of Ein Feshka such leather was only found near Qumran.

In an urban environment, such as Pompeii or Rome, with permanent occupation and plentiful running water, one would expect more substantial pools and tanks in a tannery (Leguilloux 2004).[11] In a very rural setting like Qumran they would have been less prominent. At Masada there was evidence for leather working in the Zealot

period. Tower L1206 'must have been used for leather working judging by the quantity of unworked leather found there' (Sheffer and Granger-Taylor 1995: 239) and Yadin assumed 'this tower housed a sandalmaker's family' because of the 'great quantity of leather sandals, scissors (and) awls' found there (Yadin 1965: 87). On the western side of Masada, Tower L1276 is often referred to as Tanner's Tower and, indeed, it is the only candidate for the source of the leather found in Zealot Masada.[12] Netzer, with suitable caution, says that in the Zealot period it 'was converted into a workshop, apparently a tannery with installations in all its parts' (Netzer 1991: 440). Included in the installations are four pools or tanks, although there are no indications as to how they were filled or drained. These pools are somewhat larger and deeper than the pools in L121 (and, possibly, L120) in Hasmonaean Qumran but no larger than pools that may have been used for the production of leather in the Herodian period (L48, 49, 50, 55, 57). Moreover it is possible that in Qumran, where the tanning season was limited, portable, 'disposable' containers were employed. Tubs made from wood or baskets woven from the reeds and/or palm fronds of Ein Feshka, could have been rendered waterproof by lining them with leather or with bitumen.[13] As de Vaux noted 'reeds grow abundantly and must have been turned to good account for basket making, as they still are to this day' (de Vaux 1973: 73). He went on to conjecture that (in Ein Feshka) 'the depilation pits and the tanning pits are small and numerous. This makes it possible to treat simultaneously several lots of hides at different stages of preparation. Moreover, since the workers can put the hides in and take them out without going down into the pits it has the further effect of reducing danger from the corrosive fluids in the baths' (de Vaux 1973: 80–81). How much more would this be true if the 'pits' were portable baskets.

Glue manufacture

Most of the meat from slaughtered animals probably finished up in the dining rooms of the Jericho Royal Palaces but some of the offal and poorer cuts may have reached the plates of the labouring men, even of the seasonal workers of Qumran. The bones and odd pieces of the hides (ears, off-cuts etc.) appear to have been boiled up for the production of glue (Hodges 1989: 163). The residue of the glue-making process, sometimes still in the pots in which it had been boiled, was buried around the site to minimize attracting flies and vermin. De Vaux wanted these buried bones to be the remains of sacrificial meals (de Vaux 1973: 12–14) but more recently a number of people have recognized that the burial of animal bones was a matter of hygiene (Cansdale 1997: 160; Doudna 1999: 43–45; Magen and Peleg 2007: 42–44) although none of them considered the strong probability that they were remnants not of meals but of glue making, a smelly process which turned the, otherwise wasted, by-products of animal slaughter into a valuable commodity. In the Medieval pPeriod a thin application of glue was made to the surface of parchment to produce a better writing surface although there is, as yet, no evidence that it was so used in the Second Temple period.

Wool preparation

Shearing took place soon after lambing. A pair of shears was found at Qumran (Roitman 1997: 34; Hirschfeld 2004: Fig. 78) and the initial processing of wool could have taken place in the western industrial area. The raw fleece had to be scoured to remove the natural oils (lanolin). 'Urine is the only material that ought to be used for scouring wool... Urine that is fresh voided will not scour well... it should be kept in close vessels until it has completely undergone those changes by which its ammonia is developed....for scouring fine wool, use one bucket of urine to two of water... The urine should be old and the water the softest that can be procured' (Patridge 1823: 32).[14]

In the Scottish Hebrides, home of Harris Tweed, 'urine was a valuable commodity to be collected carefully and not squandered lightly' (Storrier 2006: 300–301)[15] until well into the last century. Every weaver's croft had a 'large tub in the byre or some sheltered place where the rain would not dilute the collection too much and interrupt its maturing, Every household contributed to its own tub as did friendly visitors who were doubly welcome if they happened to be breaking their journey on the long road home after a night on the beer' (MacDonald 1982: 20–21).

In Yorkshire, centre of the English woollen industry in the nineteenth century, urine was routinely saved and collected. An account, written in the 1850s, says that hand-loom weavers were 'compelled... to take care of their urine to scour pieces, and there used to be a large tub at the top of the stairs in every chamber, and both men and women used these tubs' (Stead 1981: 17).[16]

In the Twin Palaces in Jericho a wide-mouthed jar was found standing in the corner of a small room just off an entrance corridor (Netzer 2001: 153, AE16. Plan 26; Bar-Nathan 2004: 24, J-SJ2A1, Ill 8).[17] No dipper was found with it so it is unlikely that it contained drinking water. In Qumran several similar jars were found around the site. 'The most distinctive feature of these jars... is their short neck and wide mouth' which would have been ideal for the collection of urine, and their 'ring or disc bases enabled the cylindrical and ovoid jars to stand on their own' at convenient locations. They had 'bowl-shaped lids ... designed to be placed over the wide mouths' which 'could not be easily sealed' (Magness 2002: 82). Such lids would have deterred insects, been easily removable to allow for another urine contribution, and would aid the breakdown of urea. Clearly those jars that were buried below floor level would not have been used for the collection of urine but it is noticeable that several that were free-standing were located in secluded corners near industrial areas, either Hasmonaean (L114, L133) or Herodian (L44, L45, L84). A similar form of lant jar was used in the nineteenth and early twentieth centuries in England (see Fig. 1).

Fleeces could have been scoured in the shallow basins in L121 and the water at Qumran would have been the softest in the region. After scouring, the wool needed beating to detach the fibres and remove any lingering dirt. As noted by de Vaux, the floor of L115/116 (all one room in the Hasmonaean period) was laid on a very solid foundation of large cobbles and would have withstood much beating.

Fig. 1. Lant jar from Hugh Kershaw's mill, Mosley, c. 1900, 19 inches high, drawn by Marie Hartley and Joan Ingilby (from Stead 1982: 17).

According to Patridge it was normal in northern climes for wool to be scoured in wicker baskets so that it was simple to move the wool from scouring tank to scouring tank and then for rinsing in a nearby stream (Patridge 1823: 30). Qumran did not, of course, have the luxury of a stream of running water. Similar wicker baskets were used to suspend wool in a boiling dye vat so that the wool was not scorched by being in direct contact with the heated base of the vat. As with leather production, it is possible that portable vats were employed at Qumran, particularly for the scouring of wool. An advantage of portable containers would be that the residues rich in organic nutrients, which remained after tanning, scouring wool, or cold dyeing, could readily be carried to irrigate and manure plants growing nearby. A number of 'overflow' channels or drains carried water to the north (from L117), to the east (from below L60–61) and to the south (from L91 and L71). Although the areas that could have been irrigated using these channels was small, an enterprising gardener could have encouraged limited crops of quick-growing plants such as herbs, onions, pulses, gourds, or mallow with which to vary the diet, or of woad for dyeing. The addition of nutrient-rich lees from vats[18] may have encouraged a few palms to grow, more for shade than for fruit; even two or three would have been welcome to anyone who had to survive a summer at Qumran.

Dyeing

In antiquity it was normal to dye wool before it was spun (Forbes 1956: 21). Urine was needed as a mordant to fix some dyes. For a white wool, urine and strong sunlight would have acted together as a bleaching agent.

Dyeing usually required the wool to be boiled together with the dyestuff and, where required, a mordant. The dye pot had to be kept continuously on the boil. If the installation in L125 had indeed had a large bronze vessel over the furnace (Hirschfeld 2004: 129, Fig. 69) it would have been ideal for dyeing. Periodically, to ensure even dyeing, 'it was usual to pummel the material thoroughly, either by hand or by treading underfoot' (Hodges 1989: 150). The reinforced floor in L115/6 was nearby in the Hasmonaean period.

A number of vegetable dyes could have been extracted from plants likely to have been growing near to Qumran. Red dyes from madder, henna, or sumach; blue dyes from woad. The necessary parts of the plants (leaves, roots, berries etc.) could have been gathered by shepherds out grazing their flocks. Analysis of the dyes used on textiles found at Masada revealed that madder was the most widely used dye, followed by indigotin probably extracted from woad. A yellow dye from an unidentified source was used occasionally (Koren 1995: 262–263). Most dyeing processes produced strong, offensive smells.[19]

A black dye could have been extracted from the bitumen found floating on the Dead Sea and it is possible that 'royal purple' was extracted from murex shells brought from the Mediterranean coast. A number of shells were found near Herod's Third Palace in Jericho, together with 'shallow bowls bearing traces of different dyes' (Netzer 2001: 276, room B116). As the prolonged boiling of the shellfish necessary for extracting the dye was particularly noxious, it is unlikely that the process took place near to Herod's Palace. Strabo, when referring to the production of 'Tyrian purple' in Tyre says that 'the great number of dye-works make the city unpleasant to live in' (*Geography* 16: 2: 23). None of the Masada textiles showed use of murex but the discovery of the shells in Jericho hints that some extraction was carried out nearby.

Dyeing can have variable results. When using vegetable sources it is best to use fresh picked leaves or flowers and to use fresh, soft (i.e. rain) water (Vogler 2002: 20).[20] Thus the rain water collected in Qumran would have been better for dyeing purposes than the calcareous spring waters of Jericho and Ein Gedi. The plants used would also have had to grow nearby. Woad 'was extracted from the plant *Isatis*, mentioned in the Mishnah, which grew in the vicinity of Jericho, Zoar and Beth-Shean' (Har-El 2000: 14). It is a biennial plant that readily seeds itself at the end of its second year. The plant germinates quite rapidly and the leaves would probably have been ready for harvesting two months after the first rain. As it is easy to grow from seed it would have been possible to 'cultivate' limited quantities near to the site. In England, according to Patridge, the leaves could be harvested up to five times a year; but around Qumran perhaps two or three cuttings would have been possible before the heat of summer desiccated the plant.

It was possible to concentrate some vegetable dyes, particularly woad, into powder form which could be added to paints which could have been used, *inter alia,* for adding tempura details to wall frescos so prominent in Herod's palaces. As the fermentation process to produce powdered woad is best carried out below 52° C it would have had to be carried out in the winter months because summer temperatures in Qumran can reach 40+° C without any additional heat caused by fermentation.[21]

Locally available plants and minerals would have been utilized for the extraction of tannins, perfumes and medicines. Henna, for example, could be used for both tanning and dyeing but also had anti-fungal properties; date palms are an important food source but also have tannic and many traditional medicinal properties, while ropes can be made from palm-frond fibres; sumac has both tannic and dyeing properties and could be added as a spice to food. The acacia tree could produce tannins, perfumes, an astringent medicine, and gum-arabic (which was used as a paint or ink base). Honey from bees that have fed on its flowers is considered a delicacy and, moreover, it is thought to be the source of '*shittim*' wood used for the construction of the Ark of the Covenant (Exodus 25: 10; 30: 1). A black dye could be produced from bitumen but it was also, according to Josephus, an ingredient in many medicines (*War* 4: 481).

Spinning and weaving is unlikely to have taken place in Hasmonaean Qumran ['although some few spindle whorls were found at Qumran it is not known to what period they should be assigned' (Donceel 1994: 14). An alabaster whorl is from Period III (Taylor 1999: 318–321; 2006: 141). A limestone spindle whorl from L18 in Ein Feshka can be no earlier than Period II]. However woven cloth may have returned to Qumran for fulling, a process which involved a soaking in urine followed by treading. The area identified as a laundry (L52) by de Vaux may have been used for fulling[22] in the Herodian period, as may the two circular installations associated with the Herodian floor in L115 -116.[23]

Medicines and perfumes

Mallow certainly grows around Jericho following winter rain. It added seasonal variety to our breakfasts when we were excavating there in the 1970/80s. In the nineteenth century mallow was regarded as an important food for the poor (Drake 1881: 312, 314) and for those who lived through the siege of Jerusalem in 1947 it was a fall-back food when little else was available. Traditionally the leaves and flowers were used for fomentations and poultices.[24]

The balsam plant, from which perfumed oil and medicines were extracted, would not have grown near to Qumran as it needs irrigation during the summer and there is no evidence for extensive irrigated agriculture at Qumran. However it is possible that second-grade balsam, extracted by soaking leaves, twigs and trimmings and boiling the resulting liquid, could well have been produced at Qumran (Patrich and Arubas 1989; Patrich 2006; Netzer 2004: 135–138; Hepper and Taylor 2004) using trimmings brought from Ein Gedi either by boat or by pack animals via the

coastal road (Porat 2006).[25] The final processing and sale almost certainly took place in Jericho as balsam was a royal monopoly (Broshi 2007: 27 and see Strabo *Geography* 17: 1:15).

Rope making

Rope was made from the fibrous sheath at the base of palm fronds. As with flax, hemp or coir, the fibre would have been prepared by retting, i.e. soaking in water to loosen and cleanse the fibres. A piece of rope 4.5 m long made of date-palm fibres was found in the Cave of the Balsam Jar (Itah, Kam and Ben-Haim 2002: 172), and its length may indicate that it was of local manufacture (although it is not entirely certain that it dates to the Early Roman Period[26]). Palm fibre rope has been found attached to 'Roman' anchors near to Ein Gedi (Hadas *et al.* 2005) and considerable quantities of rope would have been essential for shipping on the Dead Sea.

Flax retting

Good-quality flax was grown as an irrigated crop around Jericho (Har-El 2000: 14). It is quick growing being ready for harvesting about three months after sowing. It needs cool nights so, in Jericho, could only have been grown in the winter. Once harvested the flax had to be threshed or trampled on to remove the seed bole. Separation of the fibrous core of the plant from the outer layer was done by retting; i.e. soaking in a shallow pool for several days (the warmer the water the quicker the process; the water may need changing once or twice). 'Pure soft water, free from iron and other materials which might colour the fibre, is essential. Any water much impregnated with lime is also specially objectionable'.[27] So again, as with scouring wool and dyeing, the rain water of Qumran would be better than the calcareous water of Jericho. Following retting, the fibres were more completely separated by beating. The retting process is a malodorous activity (Heinrich 1992: 19–32) but the unwanted residue could be dried and used as a fuel, a useful benefit if carried out at Qumran.[28] The linen 'scroll wrappers' found in Cave 1 were noted as being, in all probability, a local product (Crowfoot in Barthélemy and Milik 1955: 18, 22).

Other seasonal activities

Further seasonal activities at Qumran could have included the following: the collection of bitumen and salt[29] from the Dead Sea; the burning of indigenous plants to produce lye (Amar 1998), a substance noted for its ability to counteract oil stains and thus, potentially, of use in the preparation of wool; the manufacture of date wine. The presence of a grinding mill in L100 suggests that grain was brought down from the Buqe'ah or elsewhere. Some grain may have been used to produce beer which, in a site where the cultivation of grapes was unfeasible, could have extended by a few weeks the period that occupation was possible at the end of the season when the remaining water grew ever more unpalatable (for cereal beer, from Jewish sources, in the Roman Period see Amar, Lev and Yanir 2005: 3–5).

Conclusion: seasonal activities and the character of habitation at Qumran

Of all these activities there is positive evidence for the ceramic industry, tanning and, less certainly, rope making. However all of the industries considered required an ample supply of water, some (dyeing, the preparation of wool, flax and perfumes/medicines) would have greatly benefited from the use of the soft rain water collected at Qumran. A number (tanning, the preparation of wool and flax) would have required the sort of reinforced surfaces found in the 'industrial zone' on which beating could have taken place. All were malodorous, varying from the pungency of a corral of sheep and goats to the downright stench of tanning and the boiling up of glue. Besides the smell a number (pottery making, hot dyeing, glue manufacture) would have added smoke and smuts to the generally unpleasant atmosphere.

Most of these processes would have taken place in the winter months following rain. There would be fresh water in the cisterns and plants growing to supply grazing, and from which could be extracted tannins, dyes, aromatics and medicines. In the summer it is unendurably hot in Qumran,[30] and the site could not even have benefited from the shade of date plantations; any water would have evaporated fast, become rapidly stagnant and infested with bacteria and mosquito larvae. Flocks, and with them the dairy products which could help support habitation, would have returned to upland grazing. Because the work was seasonal there would have been little incentive to build permanent dwellings and indeed there are no signs of any built living quarters in Hasmonaean Qumran.

Magness, *en passant,* suggests that 'some of this habitation could have been seasonal — that is, perhaps, some of the members lived at Qumran on a temporary basis' (Magness 2002: 70) but does not explore the implications of this suggestion.

Patrich asks, 'why should a community with a well-built centre and a sophisticated water supply system have most of its members live for more than a century in humble huts and fragile tents fit for nomadic and semi-nomadic societies, rather than in solid, well-constructed dwellings built of local stone or sun-dried brick?' (Patrich 2000). It would, perhaps, have been better if he had considered whether, if most people lived in caves and humble huts for more than a century, that was not a strong indication that there was no large permanent community but rather that the sophisticated water system was exploited by a population of seasonal workers most of whom spent no more than a couple of months at the site each year. Elsewhere he talks of a cave that is 'large and habitable, but it is doubtful whether it ever served other than for temporary dwelling for shepherds or refugees' (Patrich 1994: 90). Other caves he identifies as places of refuge at the time of the First Jewish Revolt and suggests one cave (Cave FQ37) as a place in which someone 'got permission to live in seclusion' (Patrich 1994: 92). It is far more likely that they were occupied by shepherds and other seasonal workers. As Ariel observes 'considering the paucity of coins from the caves.... We may conclude that the areas surveyed were not utilized as places of refuge during or shortly after the war' (Ariel 2002: 296).

The industrial processes were malodorous and it is unlikely that any scrolls were composed or copied in this impure, polluted atmosphere during the few weeks when occupation was supportable.

It is, however, possible that some of the seasonal workforce were Essenes. Pliny associates them with the area northwest of the Dead Sea (Pliny *Natural History* 5:15, 4/73.), although not specifically with Qumran, and also with shepherding (for classical references see Vermes and Goodman 1989; Taylor 2007). Thus it may well have been (proto-) Essene shepherds who made use of the cistern after the Iron Age, cleaned it out, maintained the tracks linking the area with the Buqe'ah, and established some territorial control just as, in more recent times, did the Ta'amereh tribe of the Bedouin.

Moreover, Essenes, many of whom were, according to Philo and Josephus, farmers and rural craftsmen, would have possessed the very skills the Hasmonaeans wanted to attract to their agricultural enterprises in Jericho.[31] Some may have been happy to spend some of the winter months working in Qumran, where they could live, as far as the industrial conditions allowed, according to their own philosophy and meet up with their shepherding fellow Essenes. Josephus says that the Essenes were interested in 'searching out roots' and remedies for treatment of diseases (*War* 2: 136) and several plants and minerals with medicinal properties were available around Qumran (Taylor, pers. comm.).

Herod built a new, more sophisticated, water system, and several new buildings including a large storeroom L77 with a smaller adjoining subsidiary, L86 (Stacey 2007: 234) and for the first time, there are some signs of limited living quarters (e.g,. the kitchen area, L38). Buildings were also erected, for the first time, at Ein Feshka. The seasonal industrial activities would have continued but the site probably had a new importance as a distribution depot for Herod's many building projects in the region (*inter alia* Herodium, Masada, Callirrhoe, Machaerus, Hyrcania). A small staff of quartermasters to oversee the royal stores would have had to live permanently at Qumran. Increased storage space was essential; not only for building material, and foodstuffs for onward distribution, but also for supplies of food for the permanent staff to last them through the summer. Any surplus pots (e.g. those in L86) and hides etc. produced at the site could also be stored until there was a market for them. As Essenes were especially favoured by Herod (Taylor 2007: 17), he may well have trusted them in this important supervisory capacity, particularly if the site already had a long association with Essenes. They would need to have been literate and able to keep records, and pragmatic about their religious practices. In the winter months Qumran would have continued to be a busy, smelly, impure site. Summer, with its gruelling heat and dwindling supply of increasingly stagnant water, would have been taxing. Although nominally under state control, the inhabitants of Qumran were probably encouraged to use their own initiative to find ways to supplement their frugal existence.

The cemetery

The cemetery has been estimated to contain up to 1200 graves, surely far too many for the total number of deaths likely to have occurred at the site, particularly as the (admittedly few) chronological indicators which came from the cemetery, point to activity mainly from the time of Herod onwards. As some graves contained the remains of secondary burials, it would appear that some, perhaps many, of the corpses arrived from outside Qumran. Whilst many factors concerning the graves, such as their orientation, have been frequently discussed it has never been emphasized that, because they were dug into the Lisan marl, not hammered out of the bedrock, they would have been cheap. Two men with picks could have dug a grave in a day, at most, two, unlike the weeks required to chisel out even the simplest of rock-cut tombs. Thus these graves would have been particularly attractive to the poor or for people who espoused simplicity. Essenes, according to Josephus, lived an abstemious and simple life (*War* 2: 120) and new members handed over their property to their superiors. Thus, when they died, their burial would have been the responsibility of their community, for whom Qumran could have offered not only simplicity but also the advantage of cheapness and, possibly, the employment of fellow Essenes. As Essenes also cared for the sick and elderly (Philo, *Apologia pro Iudaeis* 12–13; *Quod omnis probus liber sit* 86–87) of their own community, it is possible that they would have taken it upon themselves to bury paupers, a *mitzvah,* making use of the cheap graves offered by Qumran, either for primary or secondary burial.

Graves dug into the marl are known in Jericho. In very limited excavations a substantial grave dated to the late second century BCE was found (Stacey 2004) together with a number of skeletons in extremely poor, shallow graves, apparently also dateable to the late Hellenistic period. This cemetery was later buried beneath debris from the levelling activities carried out for the construction of Herod's hippodrome. Although in the very small area investigated no 'Qumran'-type graves were found, it is clear that the easily dug marl was exploited for burial by, in particular, the poor and that Herod's extensive building activities, and the spread of hugely profitable, irrigated, agriculture, encroached onto this land. The cemetery at Qumran may have offered an alternative for the poor of Jericho and a profitable sideline for the few permanent inhabitants of Herodian Qumran.

For Jews who happened to die in Nabataea, (and the Babatha correspondence indicates that Jews owned property there at least in the time of Bar-Kochba[32]), or who failed to be cured by the healing waters of Callirrhoe, Qumran would have represented a burial site on Jewish soil readily accessible by boat across the Dead Sea.

The scrolls

The deposit of scrolls in caves around Qumran may represent a 'burial' of sorts. Rabbinic and later practices imply a degree of impurity in the disposal of damaged or outmoded documents which, in modern times, are likely to be buried in a Jewish

cemetery following a 'burial' service. Most of the pottery found in caves together with scrolls, dates to the time of Herod or later yet some of the scrolls are dated to the second or early first centuries BCE. Thus it seems very likely that some were *'geniza'* deposits, originating from communities in Jerusalem or elsewhere,[33] deposited at various times throughout the occupation of Qumran. Others may have been hidden in times of emergency, particularly at the time of the First Revolt.

Post-Herodian occupation

Following the death of Herod the desert fortresses and with them Qumran would have gone into decline. Those who had established a home there at Herod's instigation would have been left to their own devices and become increasingly dependent on any income from burials and disposing of scrolls to maintain a permanent existence.

When the Royal Estate at Jericho was largely abandoned after an earthquake in 48 CE the market for many of the goods produced at Qumran for the previous 150 years would have declined further and production reduced. However some of the processing of balsam and date wines, formerly performed in Jericho, may have been transferred to Qumran together with some of the specialist workers and their wives. The archaeological evidence does seem to indicate an improvement in the quality of some of the material culture, increased trade with Nabataea, and the presence of some 'feminine' objects. Unfortunately due to the rather primitive archaeological techniques he employed, de Vaux must have failed to notice and/or record some of the later, less distinct, floors. An obvious case is in the area occupied by the deep pool L48/9 and the nearby shallow pool L52. Pool L48/9 was destroyed, possibly by the earthquake of 48 CE (Stacey 2007: 233–234), and would have been backfilled with debris soon afterwards and a floor surface, not recorded, created over the filled-in pool. From the photographic record (Humbert and Chambon 1994: Pls. 168, 172, 173) one can see that pool L48 was excavated before the removal of the Period III floor and drain which was laid over L52. Thus we will never be able to know whether the L52, existed together with L48/9 or whether it was created only after it had been filled in. A decorated, 'luxury', oil lamp recovered from L52 (de Vaux 1954: Fig. 3:17; Donceel and Donceel-Voute 1994: Fig. 1) must be dated to the mid-first century CE (cf. a lamp, clearly from the same *atelier*, found in a First Revolt destruction context in Ein Gedi [34]) yet no floors dateable to this period were recorded above L48/9.

Qumran was attacked and partially destroyed by the Romans at the time of the First Jewish Revolt and may have been occupied for some time by a garrison put in place by the Romans particularly as they were aware of the high returns from the production of balsam, and continued to exploit it. Processing may have continued at Qumran (Pliny, *Natural History* 12: 54, 111–113, 118; Cotton and Geiger 1989: 68–70; Taylor 2006). A constant, long after such a garrison departed, would have been the regular seasonal visit of shepherds and their flocks to the Dead Sea region (and it should not be forgotten that the scrolls were discovered in 1946 by a shepherd

exploiting the seasonal grazing). Qumran would have continued to be a magnet as long as fresh water still collected in any of the pools. Occasional burials certainly continued into the Islamic period as a Muslim burial was found by de Vaux in the upper levels of pool L118 (Humbert and Chambon 2003: 51).

Notes

1 References have been made to an 'excellent layer of clay....not too far from Khirbet Qumran' (de Vaux 1973: 16). 'Clay strata around the site and upstream from the Wadi Qumran' have been 'researched by a special mission' (Donceel and Donceel-Voute 1994: 10), although I am not aware that that research has been published.

2 Birket Musa, to the south of Wadi Qelt, was almost certainly fed by winter floods but the water would have been a mixture of run-off rain and hard water from the several springs in the *wadi*.

3 Stager, who did research on Iron Age farms in the Buqe'ah above Qumran (Stager 1976) writes, 'We certainly had evidence that the Buqeah inhabitants had flocks of sheep and goats. In fact there was a plant that gets dispersed by lodging in the wool of sheep. According to Kislev we had evidence of this plant in the burnt off layers of dung found in the northern-most fort Kh. Abu Tabaq. There is no doubt that one can follow a path, certainly wide enough for sheep and goats as well as donkeys, from Tabaq east to Qumran and its water supply.' Sheep and goat bones were the commonest find (Stager, personal email, 10/6/2008).

4 For a possible source of these stones in Jericho see Stacey 2006: 199.

5 Other fuels include date stones, palm fronds, dried reeds, bitumen, and trees growing locally (many more than survive today). De Vaux noted: 'To bake their bread the workers used brushwood and roots torn up from the area round the settlement, and bushes growing in the area watered by the springs actually provided wood for the refugees in the camps at Jericho' (de Vaux 1973: 85) .

6 'A case-study from fifteenth-century Malta may elucidate more on the matter: Malta is an island which also lacked abundant fuel resources (as it still does). At Ghajn Klieb, in the outskirts of the main city, Mdina, there was a kiln which was used for the baking of roofing tiles, which were used in large quantities on both domestic and ecclesiastical buildings within the city. Apparently, this kiln was only lit during the week following the feast of the Assumption (on 15 August), and thus it seems that enough tiles were produced for the duration of a whole year' (Mizzi, forthcoming). I thank Dennis Mizzi for sharing this observation from his Ph.D. thesis which, at the time of writing, is nearing completion though, as yet, unpaginated.

7 It is possible that the earliest Iron Age occupation at Ein Gedi was also seasonal. Only a small area of Iron II buildings has ever been found in the oasis and these 'are unusual in that they do not reflect a residential area but rather an industrial settlement' (Stern 2007: 361). Despite extensive surveys no Iron Age graves have been found which suggests that permanent occupation did not occur before the Persian Period.

8 Two *ostraca* found at Ein Gedi, and dated to the early fourth century BCE, refer to the preparation of lamb hides (Cross 2007). As sheep would not flourish in the intense heat of an Ein Gedi summer it is probable that these lambs had been born to sheep coming down from the hill country. It is even conceivable that because, as noted by Cross, 'the manufacture of leather was odorous and despised so that isolation was desirable' the actual preparation had been carried out at Qumran.

9 See also Magen and Peleg 2007, n. 141.

10 Some man-made caves carved into the marl terrace, showed signs of temporary occupation. They may have been adaptations of 'quarries' from which marl was extracted either for the manufacture of pottery or mud-bricks. When excavating tombs carved out of

the marl near Tell es-Sammarat (Stacey 2004) local villagers told us that, in the recent past when they were still building their huts from mud-brick, the marl was the preferred raw material.

11 The recent discovery of a second-third century CE tannery in Rome has been widely reported , *inter alia,* at *http://www.iht.com/articles/ap/2007/07/31/europe/EU-GEN-Italy-Ancient-Tannery.php*

12 As far as I am aware no analyses were made of sediments in these tanks.

13 Some 'objects made of wood and other vegetable substances, such as palm-leaf-work or wickerwork' were found at Qumran though 'many have disappeared' (Donceel and Donceel-Voute 1994: 14).

14 And see Pliny, *Natural History* 28: 66; 28: 91. For Vespasian's imposition of a tax on the collection of urine see Suetonius, *Vespasian* 23.

15 I thank John Shaw of the School of Scottish Studies, Edinburgh for this reference.

16 For a drawing of a jar, c. 47.5 cm high, that was used in a mill for the collection of urine, *c.* 1900; see Fig. I, and cf. de Vaux 1954, Fig. 5:4 c. 46.5 cm high.

17 I would like to take the opportunity to correct Bar-Nathan: this jar was not found 'sunken in a wall' but, as stated by Netzer, 50 cm above the floor where it had presumably stood on a shelf or wickerwork 'support'.

18 Sedimentary waste from tanning was commonly used horticulturally in nineteenth-century England particularly for hotbeds (Cresswell 2006: 116).

19 A modern British extractor of woad utilizing urine states, 'The urine vat has a strong smell and is best used outside during the summer' *http://www.woad.org.uk/html/fermenting.html* and see *http://invention.smithsonian.org/centrepieces/whole_cloth/u3tc/u3materials/natDye.html* .

20 *http://www.woad.org.uk/html/extraction.html#Top1*

21 See *http://www.newcomen.com/excerpts/woad.htm*

22 It is unlikely that a rural area used for fulling, and, perhaps, other things, only seasonally, would be as well defined as that in an urban location where fulling would have taken place year round (cf. Flohr 2005: 59–63).

23 Sheffer and Granger-Taylor suggest that the two circular 'installations' in the Masada 'Tanners' Tower could have been used for fulling (Sheffer and Granger-Taylor 1995: 234).

24 *http://www.vitacost.com/Healthnotes/Herb/Mallow.aspx* and *http://www.botanical.com/botanical/mgmh/m/mallow07.html*

25 I thank Orna Meir-Stacey for translating this article for me.

26 Although three lamps found there are said to belong to the second century CE, the parallels that are given place them firmly at the time of the First Revolt, as does the coin found with them.

27 *www.1911encyclopedia.org/Flax*

28 For the identification of many cisterns, pools and beating surfaces in early Islamic Ramle, as an area for the preparation of flax see Tal and Taxel, 2008: 123–124.

29 In shallow pools near Ein Gedi Masterman describes salt smugglers 'having to stand in the water and plunge hand and arms into the saturated brine to seize the crystallised masses from the bottom' (Masterman 1904a: 91–92).

30 Inhabitants of the plains of, for example, Mesopotamia or central India, have to endure even higher temperatures but they have little choice. From Qumran one has only to climb up into the Buqe'ah to escape the worst of the summer heat

31 Whether the labourers were free, slaves or foreign mercenaries, or a combination of all three, does not affect the seasonal nature of the work.

32 *http://www.uni-koeln.de/phil-fak/ifa/zpe/downloads/1995/107pdf/107126.pdf*

33 The idea that the scrolls represented a '*geniza*' deposit was made very soon after their discovery (Sukenik 1955).

34 *http://www.planetnana.co.il/ghadas/season5.mht*

Bibliography

Amar, Z., (1998). 'The Ash and the Red Material from Qumran', *DSD* 5: 1–15.

Amar, Z., Lev, E., and Yanir, Z., (2005). 'Cereal Beer (*Sheikhar*) in Jewish Sources', *Viennese Ethnomedicine Newsletter,* 8: 3–7.

Ariel, D. T., (2002). 'The Coins from the Surveys and Excavations of Caves in the Northern Judean Desert'. Pp. 281–304 in 'Surveys and excavations of Caves in the North Judean Desert (CNJD) 1993,', *Atiqot* 41/2.

Baillet, M., Milik, J. T., and de Vaux, R., (1962). *Les 'petites grottes' de Qumran,* Discoveries in the Judaean Desert III (Oxford).

Bar-Nathan, R., (2002). *Hasmonean and Herodian Palaces at Jericho. Vol III: The Pottery* (Jerusalem).

Barthélemy, D., and Milik, J. T., (eds.) (1955). *Qumran Cave 1,* Discoveries in the Judaean Desert I (Oxford).

Broshi, M., (2007). 'Essenes at Qumran? A Rejoinder to Albert Baumgarten', *DSD* 14: 25–33.

Broshi, M., and Eshel, H., (1999). 'Residential Caves at Qumran', *DSD* 6: 328–347.

Cansdale, L., (1997). *Qumran and the Essenes. A Re-Evaluation of the Evidence* (Tübingen).

Cotton, H., and Geiger, J., (1989). *Masada: The Yigael Yadin Excavations 1963–1965: the Final Reports, Vol II, The Latin and Greek Documents* (Jerusalem).

Cresswell, William, (2006). *Diary of a Victorian Gardener, William Cresswell and Audley End (*London).

Cross, F. M., (2007). 'Two Aramaic Ostraca from En-Gedi'. Pp. 377–380 in E. Stern, *En-Gedi Excavations I* (Jerusalem).

De Vaux, R., (1954). 'Fouilles au Khirbet Qumran', *RB* 61: 206–236.

De Vaux, R., (1959). 'Fouilles de Feshka', *RB* 66: 225–255.

De Vaux, R., (1973). *Archaeology and the Dead Sea Scrolls* (Oxford).

Donceel, R., and Donceel-Voute, P., (1994). 'The Archaeology of Khirbet Qumran'. Pp. 1–38 in M. Wise, N. Golb, J. J. Collins and D. Pardee (eds.), *Methods of Investigation of the Dead Sea Scrolls and the Khirbet Qumran Site* (New York).

Doudna, G., (1999). 'Redating the Dead Sea Scrolls found at Qumran',*The Qumran Chronicle* 8/4 (special issue).

Drake, C. F. T., (1881). *The Survey of Western Palestine: Special Papers* (London).

Finocchiaro, R., Vanderkam, J., Portolano, B. and Misztal, I., (2005). 'Effect of Heat Stress on Production of Mediterranean Dairy Sheep', *Journal of Dairy Science* 88: 1855–1864 (and at *http://jds.fass.org/cgi/reprint/88/5/1855.pdf*).

Forbes, R. J., (1956). *Studies in Ancient Technology* Vol IV (Leiden).

Forbes, R. J., (1957). *Studies in Ancient Technology* Vol V (Leiden).

Flohr, M., (2005). 'Ars Fullonia. Interpreting and Contextualising Roman Fulling'. Pp. 59–63 in C. Briault, J. Green, A. Kaldelis and A. Stellatou (eds.) *Symposium on Mediterranean Archaeology,* BAR International Series 1391 (Oxford).

Hadas, G., Liphshitz, N., and Bonani, G., (2005). 'Two Ancient Wooden Anchors from Ein Gedi, on the Dead Sea, Israel', *IJNA* 34: 307–315.

Har-El, M., (2000). 'Agriculture'. and 'Judaea: Geography'. Pp. 13–16 and. 444–446 in L. Schiffman and J. Vanderkam (eds.) *Encyclopaedia of the Dead Sea Scrolls* (Oxford).

Heinrich, L., (1992). *The Magic of Linen; Flax Seed to Woven Cloth (*Victoria B. C.).

Hepper, F. N., and Taylor, J., (2004). 'Date Palms and Opobalsam in the Madaba Mosaic Map', *PEQ* 136: 35–44.

Hirschfeld, Y., (2004). *Qumran in Context* (Peabody, Massachusetts).

Hodges. H., (1989). *Artifacts. An Introduction to Early Materials and Technology,* 3rd ed. (London).

Humbert, J-B., and Chambon, A., (1994). *Fouilles de Khirbet Qumran et de 'Ain Feshka,* Vol 1 (Göttingen).

Humbert, J-B., and Chambon, A., (eds.) (2003). *The Excavations of Khirbet Qumran and Ain Feshka,* Vol IB, English edition by S. J. Pfann (Fribourg and Göttingen).
Itah, M., Kam, Y., and Beh-Haim, R., (2002). 'Region X: Survey and Excavation of Caves along the Fault Escarpment South of Almog Junction and West of Qalya'. Pp. 169–76 in 'Surveys and Excavations of Caves in the North Judean Desert (CNJD) 1993.' *Atiqot* 41/2.
Koren, Z., (1995). 'Analysis of the Masada Textile Dyes'. Pp. 257–264 in *Masada, The Yigael Yadin Excavations 1963–1965: the Final Reports,* Vol IV (Jerusalem).
Leguilloux, M., (2004). 'L'identification des tanneries antiques par l'archéologie et l'archéozoologie'. Pp. 38–48 in E. De Sena and H. Dessales (eds.), *Archaeological Methods and Approaches: Industry and Commerce in Ancient Italy*, BAR International Series Vol. 1262 (Oxford).
MacDonald, F. J., (1982). *Crowdie and Cream* (London).
Magen, Y., and Peleg Y., (2007). *The Qumran Excavations 1993–2004,* Judea and Samaria Publications 6, (Jerusalem) (also at *http://www.antiquities.org.il/shop_eng.asp?cat_id=14*).
Magness, J., (2002). *The Archaeology of Qumran and the Dead Sea Scrolls* (Grand Rapids).
Magness, J., (2004). *Debating Qumran* (Leuven/Dudley).
Magness, J., (2007). 'A Response to D. Stacey, "Some Archaeological Observations on the Aqueducts of Qumran"', *DSD* 14: 244–253.
Masterman, E. W. G., (1902). 'Ain El-Feshkhah, El-Hajar, El-Asbah and Khurbet Kumran', *PEFQS:* 160–167.
Masterman, E. W. G., (1904a). 'Observations on the Dead Sea Level, Second Report; 1902–3', *PEFQS*: 83–95.
Masterman, E. W. G., (1904b). 'Dead Sea Observations', *PEFQS*: 280–281.
Masterman, E. W. G., (1905). 'Dead Sea Observations', *PEFQS*: 158–159.
Mayhew, H., (1851). *London Labour and the London Poor*, Vol II (London repr. 1967).
Mizzi, D., (forthcoming). *The Archaeology of Khirbet Qumran: Studies in a Contextual Approach.* Oxford Ph.D. thesis.
Netzer, E., (1991). *Masada, The Yigael Yadin Excavations 1963–1965: The Final Reports,* Vol III (Jerusalem).
Netzer, E., (2001). *Hasmonean and Herodian Palaces at Jericho,* Vol. I (Jerusalem).
Netzer, E., (2004). *Hasmonean and Herodian Palaces at Jericho,* Vol. II (Jerusalem).
Netzer, E., (2005). 'Did any Perfume Industry Exist at Ein Feshka?' *IEJ* 55: 97–100.
Patridge, W., (1823). *A Practical Treatise on Dying of Woolen, Cotton and Skein Silk (*New York, reprinted Pasold Research Fund, Wiltshire, 1973).
Patrich, J., (1994). 'Khirbet Qumran in Light of New Archaeological Exploration in the Qumran Caves'. Pp.73–95 in M. Wise, N. Golb, J. J. Collins and D. Pardee (eds.), *Methods of Investigation of the Dead Sea Scrolls and the Khirbet Qumran Site; present realities and future prospects,* Annals of the New York Academy of Science 722 (New York).
Patrich, J., (2000). 'Did Extra-Mural Dwelling Quarters Exist at Qumran?' Pp. 720–727 in L. Schiffman, E. Tov and J. Vander-Kam (eds.), *The Dead Sea Scrolls Fifty Years after their Discovery* (Jerusalem).
Patrich, J., (2006). 'Agricultural Development in Antiquity: Improvements in the Cultivations and Production of Balsam'. Pp. 241–247 in K. Galor, J.-B. Humbert and J. Zangenberg (eds.), *Qumran: The Site of the Dead Sea Scrolls.* STDJ 57 (Leiden).
Patrich, J., and Arubas, B., (1989). 'A Juglet Containing Balsam Oil(?) from a Cave near Qumran', *IEJ* 39: 43–59.
Poole, J. B., and Reed, R., (1961). 'The "Tannery" at 'Ain Feshka', *PEQ* 93: 114–123.
Poole, J. B., and Reed, R., (1966). 'A Study of Some Dead Sea Scrolls and Leather Fragments from Cave 4 at Qumran, Part II – Chemical Examination', in *Proceedings of the Leeds Philosophical and Literary Society. Scientific Section,* 9: 171–182.

Poole, J. B., and Reed, R., (1972). 'The Preparation of Leather and Parchment by the Dead Sea Scrolls Community'. Pp. 143–168 in M. Kranzberg and W. H. Davenport (eds.), *Technology and Culture*: *An Anthology* (New York).
Porat, R., (2006). 'The Road along the Dead Sea Shore between Qumran and Ein-Gedi in the Second Temple Period', *Cathedra* 121: 5–22 (Hebrew).
Porath, Y., (2005). 'Survey of the Agricultural Systems at the 'En Gedi Oasis', *Atiqot* 50: 1–20 (Hebrew), English summary 237–239.
Reed, R., (1972). *Ancient Skins, Parchments and Leathers* (New York).
Roitman, A., (1997). *A Day at* Qumran (Israel Museum).
Sheffer, A., and Granger-Taylor, H., (1995). 'Textiles from Masada'. Pp.153-250 in *Masada, The Yigael Yadin Excavations 1963–1965: The Final Reports,* Vol IV (Jerusalem).
Stacey, D., (2004). 'Tombs in the Vicinity of the Hippodrome at Jericho'. Pp. 226–228 in E. Netzer, *Hasmonean and Herodian Palaces at Jericho,* Vol. II (Jerusalem).
Stacey, D., (2006). 'Hedonists or Pragmatic Agriculturalists? Reassessing Hasmonean Jericho', *Levant* 38: 191–202.
Stacey, D., (2007). 'Some archaeological observations on the Aqueducts of Qumran', *DSD* 14: 222–243.
Stager, L. E., (1976). 'Farming in the Judean Desert during the Iron Age', *BASOR* 221: 145–158.
Stead, J., (1981). 'Uses of Urine', *Old West Riding,* Vol 1.2: 12–18.
Stegemann, H., (1995). *The Library of Qumran: On the Essenes, Qumran, John the Baptist and Jesus* (Leiden).
Stern, E., (2007). 'The History of En-Gedi in the Light of the Excavations: Summary and Conclusions'. Pp. 361–365 in E. Stern *et al*, *En-Gedi Excavations I. Final Report (1961–1965)* (Jerusalem).
Stoekl, Ben-Ezra, (2007). 'Old Caves and Young Caves. A Statistical Re-evaluation of a Qumran Consensus', *DSD* 14: 313–333.
Storrier, S., (ed.) (2006). *Scottish Life and Society. A Compendium of Scottish Ethnography* (Edinburgh).
Sukenik, E., (1955). *The Dead Sea Scrolls of the Hebrew University* (English translation) (Jerusalem).
Tal, O., and Taxel, I., (2008) *Ramla (South): An Early Islamic Industrial Site and Remains from Previous Periods* (Salvage Excavation Reports No. 5, Tel Aviv).
Taylor, J., (1999). 'The Cemetery of Khirbet Qumran and Woman's Presence at the Site', *DSD* 6: 285–323.
Taylor, J., (2006). 'Khirbet Qumran in Period III'. Pp. 133–146 in K. Galor, J.-B. Humbert and J. Zangenberg (eds.), *Qumran: The Site of the Dead Sea Scrolls* (Leiden).
Taylor, J., (2007). 'Philo of Alexandria on the Essenes: A Case Study on the Use of Classical Sources in Discussions of the Qumran-Essene Hypothesis', *The Studia Philonica Annual* 19: 1–29.
Vermes, G., and Goodman, M., (1989). *The Essenes: According to the Classical Sources* (Sheffield).
Vogler, G., (2002). *A Harris Way of Life* (Isle of Harris).
Yadin, Y., (1965). 'The Excavation of Masada – 1963/64. Preliminary Report', *IEJ* 15: 1–2.
Yadin, Y., (1966). *Masada: Herod's Fortress and the Zealots' Last Stand* (London).
Zangenberg, J., (2004). 'Opening up our View'. Pp. 170–187 in D. Edwards (ed.), *Religion and Society in Roman Palestine: Old Questions, New Approaches* (London).
Zeuner, F. E., (1960). 'Notes on Qumran', *PEQ* 92: 27–36.

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Dead Sea Sailing Routes during the Herodian Period

GIDEON HADAS

On the western shore of Dead Sea, along the beaches of Ein Gedi, the author found two wooden anchors in December 2003 and in January 2004. One anchor is dated to the Early Roman period and is the reason for the writing of this paper (Fig. 1). This Roman anchor is a composite type made of wood and lead. Its height is 1.4 m and with a weight of about 100 kg (Hadas *et al.* 2005). Although many Roman iron anchors have been found in the Mediterranean Sea, this type is common and many lead parts from this type have been found (Galili *et al.* 1993).

Sailing on the Dead Sea is mentioned by Josephus, in the first century CE, when he describes gathering lumps of asphalt into boats (*War* 4: 475–481). The Romans put soldiers on board ships to chase after the rebels who fled to the Dead Sea (*War* 4: 7; 439). Until now anchors have been the only archaeological evidence of sailing on the lake. Three stone anchors dating to the second-third centuries BCE were

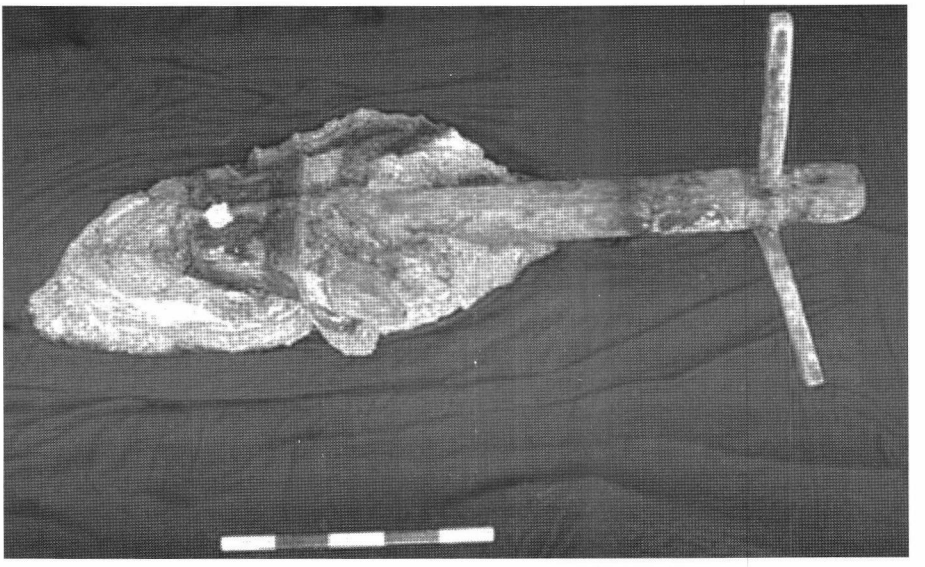

Fig. 1. Wooden anchor from the Early Roman period, found near Ein Gedi. Scale stick 50 cm.

found by the author at Ein Gedi Beach (Hadas 1992; 1993a, 1993b). Roman period seashore sites and a stone anchor were found in Ma'aganit Ha-Melach/Rujm el-Bahr (Schult 1966, 141; Tafel 27: A). An anchorage was found in Callirrhoe and a ship storehouse was identified at Qasr el-Yahud/Kh. Mazin.

In order to understand the archaeological context of the wooden anchor from the Early Roman period, it is important to consider the purposes of Herod the Great in connection to maritime matters. Immediately after the Battle of Actium in 31 BCE, when Augustus defeated the fleet of Mark Antony and Cleopatra (Plutarch, *Vita Antonii*, 62), Herod expressed his loyalty to the new regime. In return, Herod retrieved the coastal towns and some other towns from Augustus, which had been taken from him by Anthony who had in turn bestowed them on Cleopatra. Among them was the Jericho region (*War* 1: 361; 396–397).

Herod was aware of the importance of maritime commerce. Therefore, during 22–10 BCE, he built one of the greatest harbours of the Mediterranean Sea. The harbour and the new city were named in honour of Caesar, *Caesarea Maritima*, the city of the Caesar by the sea. Herod, at the beginning of his reign, minted an anchor on his coins, as the former Hasmonaean kings had done. But, on a small series of coins that have an anchor on the obverse, he also minted a galley on the reverse. As Meshorer (1982: 2: 28; 238: no. 22) notes: 'The emblem of the galley symbolized the construction of the harbour of Caesarea'. In 13 BCE Herod sailed with his ships via the Aegean Sea to Sinope on the Black Sea, a distance of about 1000 km, in order to help his old friend, Marcus Vispanius Agrippa (Josephus, *Ant.* 16: 21).

It seems that the Dead Sea region was formerly part of the territory of the Hasmonaean kings (Schalit 1978: 514). Herod inherited their kingdom, including the Dead Sea, with its anchorages and desert castles. Three anchorages are known today, all at the northern end of the sea: 1. Ma'aganit Ha-Melach, or Rujm el-Bahr, located at the northern tip of the Dead Sea (Bar Adon 1989a); 2. Callirrhoe, today called Ein ez-Zara, on the eastern shore (Schult 1966: 142); and 3. Qasr el-Yahud, or Kh. Mazin on the western coast, by the estuary of the Kidron stream (Bar Adon 1989b).

A port (*mehoz* in Aramaic) is mentioned in a Bar Kokhba letter, when he rebukes his subordinates in Ein Gedi, asking them to hurry to load fruits on a ship (*s^{e}fina* in Hebrew) anchored there (Letter 49,Yadin *et al.*, 2002: 282). Remains of this port have not been revealed in Ein Gedi, but another wooden anchor dated to the First Temple period was found where it might be (Hadas *et al.* 2005; 1993a; 1993b). Therefore it is suggested that the *mehoz* could be also an anchorage in an inlet or cove, where boats anchored or landed.

King Herod, the great builder, rebuilt the desert castles near the Dead Sea, Masada and Machaerus. Masada was built as a refuge from his subjects, while Machaerus was built as an observation tower looking out towards Arabia, Nabataea (*War* 7: 172; 260–303). The communication for these castles was by land and sea. The sea route was easy, fast and safe, avoiding a long ride on horseback during which there could be attempts to kill the unpopular king. The land road to Masada from Jerusalem is 65 km via Hebron, while the sea route is via Jericho, 50 km away by sea, followed by only a 20 km journey to Jerusalem by land.

It is very likely that the king used to frequent the palace fortress of Masada (Netzer 2005: 111). Some imported storage jars with inscriptions identifying their content were revealed here. They contained luxury products such as wine, fish sauce and Italian apples; Herod was known to like apples (see below). One inscription identifies the jar owner: 'Herod king of Judea' (Cotton *et al.* 1996: 234).

The road route from Jerusalem to Machaerus is 80 km: 20 km to Jericho, 35 km up to Madaba, and 25 km to Machaerus. The sea route is only 50 km from Jerusalem: 20 km to Ma'aganit Ha-Melach, 20 km by sea to Callirrhoe, and 10 km by land, up the ascent to the castle, which is 1000 m above Callirrhoe.

Callirrhoe is depicted in the Madaba Map as [*Therma*] *Callirrhoe* (Avi-Yonah 1954: 13) and is situated on the eastern shore of the Dead Sea, only 13 km east of Kh. Mazin (Fig. 2). The sea route was the shortest way until a modern road was built (Strobel and Clamer 1986: 381). Herod built a royal villa there, similar to his palace in Jericho, a spa surrounded by gardens, and also an anchorage as the communication base for Machaerus (Clamer 1999: 223).

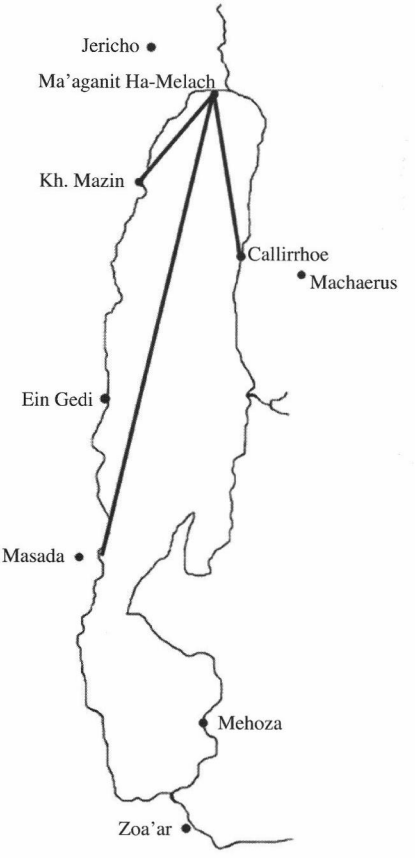

Fig. 2. Shipping routes on the Dead Sea.

Herod spent his last winter in the year 4 BCE, living in his palace in Jericho. He was 70 years old and suffered from many diseases that embittered his life, such as intestinal cancer and cirrhosis of the liver. He was possibly diabetic (Schalit 1978: 319) with chronic kidney disease complicated by Fournier's gangrene. He also had notoriously difficult relations with his family (*War* 1: 647).

According to Josephus, in March of his last year Herod crossed the Jordan River to take hot, healing baths at the Callirrhoe springs (*War* 1: 656), as was recommended by his doctors (cf. Pliny, *Hist. Nat.* 5: 72). Bathing did not help the king; on the contrary, he got an attack of convulsions that almost killed him, so he returned to Jericho. He was so sick that a rumour spread that the king tried to kill himself with the knife that he used to slice the apples that he was so fond of (*War* 1: 662). As a result of this rumour, his eldest son, Antipater, prepared himself to take the crown. The angry king executed him and five days later Herod himself died (Schalit 1978: 319).

Which way did Herod choose to go to the Callirrhoe thermal springs? Did he ride on horseback, or was he carried in a litter 60 km on land to Machaerus, plus 10 km more in the ascent to Callirrhoe, a total of 70 km from Jericho? Surely the old, suffering king used the easy and short distance of 20 km by sea. For this journey he needed only a sailing vessel, one of his Dead Sea flotilla: a merchant ship, a galley, or even a royal galley.

Fig. 3. The slipway in the anchorage of Khirbet Mazin, looking eastwards to the Dead Sea (photo: Shimon Gibson).

The only place for storing ships on the Dead Sea shore was in a big building, a ship shade area as in Qasr el-Yahud/Kh. Mazin (Fig. 3). Today this is a large ruin that once was built near the water line, most of it being a large courtyard, 11 x 31 m. There is only one entrance, which is on the east side, measuring 5 m wide, from which a ramp of 6 m leads to the sea. Inside the covered courtyard it was possible to store a few vessels (Bar Adon 1989b: 19; Netzer 2001: 77).

Eastward of the ruin, towards the sea, thousands of bronze coins were found that probably belonged to a shipload that was sunk there.[1] All coins are the *p^{e}ruta* of Alexander Jannaeus and almost all are the same type (Hirschfeld and Ariel 2006: 72). Among the coins were found also a few pieces of bronze vessels. Considering the courtyard measurements, it was possible to store only sailing vessels 3–4 m wide, and probably not more than 12–15 m long. It may be that vessels of these dimensions were part of Herod's government, and were also used on the king's visits to Masada and Machaerus.

But what kind of vessel was used there that may have lost its Roman anchor? It could be a galley with a ram as on Caesarean coins (Meshorer 1982: 2: 238: no. 22) or perhaps a *liburna*, which was a light and fast warship adopted by Augustus (Plutarch, *Vita Antonius* 67) and served in a Roman navy unit, *classis*, in Britannia and on European rivers.

Roman galleys are depicted in colour on house walls in Pompey (63–79 CE). Graffiti of three ships were depicted inside Jason's Tomb, Jerusalem (first century BCE to first century CE), where two galleys are shown attacking a merchant ship. One galley is light, fast, with a ram and one row of fourteen oarsmen. On its foredeck is a small war turret upon which two soldiers stand, one with a loaded bow aiming towards the merchant ship (Rahmani 1954: 7). This galley is like those on Herodian coins. Merchant ships were inscribed also on Masada's walls (first century CE). One was found above the guard bench in the entrance of the Northern Palace (Netzer 1991: 116; Court 90), and three more nearby (Netzer 1991: 120; Court 120). These very probably represent the vessels that sailed on the Dead Sea in that time.

Losing anchors was common during sailing, usually in emergencies (Acts 27: 40), or when an anchor fouled (stuck). Anchors, anchorages, combined with illustrations and historical texts, are the only extant sources on ancient shipping in the Dead Sea for the time being. It is a reasonable assumption that King Herod visited his desert castles by means of shipping vessels that were also used for fast communication and transport (Netzer 2005: 111). Probably the ships' operative base was at Ma'aganit Ha-Melach, close to the main roads in the north of the Dead Sea, but another maintenance and storing base was at Qasr el-Yahud / Kh. Mazin.

The Roman anchor from Ein Gedi is dated to the first century BCE based on typology and radiocarbon dating. It is proof of the presence of a ship's carpenter acquainted with Roman technology. Local materials were used for building the anchor; acacia tree for its wood and palm tree fibres for its rope (Hadas *et al.* 2005).

In order to know what kind of ship lost its anchor we will have to find remains of the actual sea-going vessels through a continuous archaeological survey of the shores of the Dead Sea.[2]

Notes

1. A child, Dafna Yinon, of Kibbutz Kalia, found the first coins of this cargo in the late 1980s. She found a few bronze coins while she was with her class visiting the new beach there, which was exposed by the continuous lowering of the Dead Sea level. Editor's note: Professor Trude Dothan informs us that she too visited the site twenty years or so ago with a friend, Naomi Kaplanski, and they too found scattered coins of Jannaeus there.]

2. Farther eastward, when the waterline was at the depth of -419.5 m, Asaf Oron and Gideon Hadas, of the Dead Sea Coast Survey team, found two anchors of a new type of composite anchor dating from the Fatimid-Crusader period. The anchor weights were dressed stones taken from the Herodian buildings of Kh. Mazin (Oron et al. 2008).

Bibliography

Avi-Yonah, M., (1954). *The Madaba Mosaic Map* (Jerusalem).

Bar Adon, P., (1989a). 'Rujm el-Bahar', *'Atiqot* 9: 4–14 (Hebrew Series), 4–5* (English summary).

Bar Adon, P., (1989b). 'Qasr el-Yahud', *'Atiqot* 9: 18–27 (Hebrew Series), 5* (English summary).

Clamer, C., (1999). 'The Hot Springs of Kallirrhoe and Baarou'. Pp. 221–225 in: M. Piccirillo, E. Alliata (eds.), *The Madaba Map* (Jerusalem).

Cotton H. M., Lernau O., and Goren Y., (1996). 'Fish Sauces from Herodian Masada', *JRA* 9: 222–238.

Galili, E., Dahari, U., and Sharvit, J., (1993). 'Underwater Survey and Rescue Excavation along the Israeli Coast', *IJNA* 22.1: 61–77.

Hadas, G., (1992). 'Stone Anchors from the Dead Sea', *'Atiqot* 21: 55–57.

Hadas, G., (1993a). 'A Stone Anchor from the Dead Sea' *IJNA* 22: 89–90.

Hadas, G., (1993b). 'Where was the Harbour of En Gedi Situated?', *IEJ* 43: 45–49.

Hadas, G., Liphschitz, N., and Bonani, G., (2005). 'Two Ancient Wooden Anchors from Ein Gedi, on the Dead Sea, Israel', *IJNA* 34.2: 307–315.

Hirschfeld, Y., and Ariel, D. T., (2005). 'A Coin Assemblage from the Reign of Alexander Jannaeus found on the Shore of the Dead Sea', *IEJ* 55: 66–89.

Meshorer, Y., (1982). *Ancient Jewish Coinage* (New York).

Netzer, E., (1991) *Masada III: The Buildings, Stratigraphy and Architecture* (Jerusalem).

Netzer, E., (2001). *The Palaces of the Hasmoneans and Herod the Great* (Jerusalem).

Netzer, E., (2005). 'A Rebel Archive from Masada.' Pp.111–124 in M. Mor, J. Pastor, I. Ronen, and Y. Ashkenazi (eds.), *For Uriel, Studies in the History of Israel in Antiquity Presented to Professor Uriel Rappaport* (Jerusalem) (Hebrew).

Oron, A., Hadas, G., Liphschitz, N. and Bonani, G., (2008). 'A New Type of Composite Anchor Dated to the Fatimid-Crusader Period from the Dead Sea, Israel', IJNA 37: 295–301.

Rahmani, L.Y., (1964). 'The Tomb of Jason', *'Atiqot* 4: 1–31 (Hebrew).

Schalit, A., (1978). *King Herod, Portrait of a Ruler*. Jerusalem (Hebrew).

Schult, H., (1966). 'Zwei Hafen aus römischer Zeit am Toten Meer, *rugm el-bahr* und *el-beled (ez-zara)*', *ZDPV* 82: 139–148.

Strobel A. and Clamer C., (1986). 'Excavations at 'Ain ez-Zara', *ADAJ* 30, 381–384.

Yadin Y., Greenfield J. C., Yardeni A., and Levine B. A., (2002). *The Documents from the Bar Kokhba Period in the Cave of Letters* (Jerusalem).

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The Monument of the Miraculous Healing in Post-Byzantine Jerusalem: A Reassessment of the North Gate Column of the Madaba Map

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While the three-fold focus of the Holy Sepulchre[1] – housing the places of the Resurrection, Crucifixion and the Finding of the Holy Cross – is well-known, the extent to which the Holy Cross legend was commemorated during the post-Byzantine period has not been fully appreciated.[2] According to the legend, Helena (d. *c.* 330), mother of the emperor Constantine (d. 337), went to Jerusalem to discover the holy places of the life of Christ and learned that the place of the Passion and Resurrection was covered by a pagan sanctuary (see Borgehammar 1991). When she pulled down the Temple, she found the three wooden crosses of Jesus and the two thieves, an event known as the Finding (or the Invention) of the Holy Cross. During the Byzantine period, the commemoration was located in the ornately decorated apse of the Basilica of Constantine (*Breviarius* A, 1). Although the area was, no doubt, targeted in the Persian looting of 614, the post-Byzantine texts continue to associate the basilica with the Finding of the Holy Cross, still presumably located in the western apse.

Since three crosses were found, it took a second event, the Miraculous Healing, to discern which one was the True Cross of Christ – i.e., unable to determine which one was the cross of Christ, Helena applied the three objects to either a dead or mortally sick person, who was miraculously restored to health when touched by the True Cross. In the western version of the legend, the recipient of the healing is a young man, whereas in the east, it is a woman. The setting of the Miraculous Healing also varies, occurring at the site of Helena's discovery, in the context of a passing funeral procession or in a near-by house. In every case, the event is set within the general, if not immediate, vicinity of the place where the crosses were originally discovered. During the Byzantine period, the Miraculous Healing was commemorated by an *exedra* near the place of the Crucifixion (*Breviarius* B, 2). By the seventh century, a free-standing, open-air monument dedicated to the Miraculous Healing – the subject of the present article – stood in the eastern end of the Holy Sepulchre. Four sources, Adomnán (*c.* 680), Epiphanius (before 692), Willibald (724–26) and Daniel the Abbot (1106–08), provide a remarkably coherent description of the post-Byzantine site, which will be examined using four criteria: 1) commemoration, 2) location, 3) appearance and 4) context.[3] In doing so, the

article will reject the previous assumption that Adomnán's account of the Miraculous Healing is a reference to the North Gate column which appears on the Madaba Map.[4]

Extra-biblical narratives

Three extra-biblical narratives figure prominently in the commemorative descriptions of the four pilgrim sources. According to the second-century *Protoevangelium of James* (7–10), Mary was placed under the custody of the Temple priests at the age of three. When she was 12, the priests summoned the widowers of Jerusalem to the Temple, and Joseph, a resident of the city, was chosen as her bridegroom. Joseph took Mary to his house, where she resided while Joseph worked outside the city. The *Protoevangelium* (11) follows with the Annunciation – the angelic message to Mary that she was pregnant with Jesus – which occurs in the house during Joseph's absence, thereby establishing an alternative Jerusalemite tradition to Luke's version (1:26–38), which is set in Nazareth.[5]

The second extra-biblical narrative is the Jephonias legend. According to the Dormition traditions, Mary died on Holy Sion. As the Apostles were carrying her body from Holy Sion to her tomb in Gethsemane, the funeral procession was interrupted by a group of Jews who attempted to seize her corpse. Their hands, which became glued to the funeral bier, were severed from their arms by a sword-bearing angel until they repented of their deeds. Some accounts describe a group of Jews; others refer to a single individual, traditionally known by the name of Jephonias. The funeral party eventually arrived in Gethsemane, where Mary was entombed, until her body was taken by angels to paradise (see Shoemaker 2002).

In the third story, the *Life of Mary the Egyptian*, set during the late fourth and early fifth centuries, Mary, a harlot from Egypt, arrives in Jerusalem with a group of pilgrims for the Feast of the Holy Cross (14 September). Prevented from entering the Basilica of Constantine by the Holy Spirit, Mary retreats to one of the front corners of the atrium and begins to weep. Seeing the icon of Mary the Mother of God, or the Theotokos, hanging above her, she vows to follow the icon's instructions if she is allowed to enter the basilica to venerate the Holy Cross. Her desire is granted, and upon returning to the icon, Mary is sent to the desert, where she lives the rest of her life.

Epiphanius

We begin our discussion of the post-Byzantine commemoration of the Miraculous Healing with the *Hagiopolita* of Epiphanius the Monk. The original source of the text, which contains the relevant description, is dated to the seventh century (Schneider 1940 and 1941). Having described the tomb of Christ, the place of the Crucifixion and the Finding of the Holy Cross, Epiphanius concludes his description of the Holy Sepulchre, which moves from west to east, as follows:

> On the left side of [the Basilica of] Saint Constantine is the icon of the very holy Theotokos, who forbade Saint Mary [the Egyptian] to enter the church on the day of the Exaltation [of the Holy Cross]. There also she made her promise. And on the left side is the house of Joseph. And below (*katōthen*) the house there is a structure with four columns (*tetrakoinin*) in which Saint Helena met the funeral procession of the maiden. The maiden was placed against the three crosses, and spoke when it was the Cross of the Lord (Wilkinson 2002: 208).

Epiphanius locates the monument of the Miraculous Healing in relation to the icon of the Theotokos and a certain house of Joseph, both on the left, or north, side of the basilica. One can assume that the icon was still associated with the front façade of the church and can be located either in the northwest corner of the outer atrium, or, if it was inside the basilica, in its northeast corner (Vincent and Abel 1914: 227–228).

Since Epiphanius refers to the house of Joseph after the icon, the structure appears to have been further east of the image, although it is possible that the icon was inside the area of the house (Wilkinson 2002: 365). In any case, it was located near or to the east of the basilica's front façade. Additional features of the house of Joseph can also be established. First of all, the Joseph in question is not Joseph of Arimathea (as per Vincent and Abel 1914: 226), who is associated with the burial of Jesus (Matthew 27:57; Mark 15:43; Luke 23:51; John 19:38), but rather Joseph, the husband of the Virgin Mary and the foster-father of Jesus. The identification is based upon the *Protoevangelium* and is supported by Epiphanius' descriptions of other commemorations derivative of the text. Second, the house of Joseph almost certainly commemorated the Annunciation of Jesus. Again, as mentioned, the *Protoevangelium* sets the Annunciation in the house of Joseph, while an eighth-century sermon by John of Damascus (*Homilia I*: 709–10), verifies that the Jerusalemite tradition was recognized by Christians during the Early Islamic period. Third, the 'house' was a consecrated liturgical space. Its ecclesiastical nature is indicated by its presumed link with the commemoration of the Annunciation and further supported by Epiphanius' tendency to refer to places of worship as houses. While the house of Joseph had a liturgical function, its size is more difficult to determine. Fourth, the house is almost certainly the same structure described by Adomnán, which I will refer to as the Church of Mary's Weaving (see below).

Epiphanius ultimately locates the Miraculous Healing below (*katōthen*) the house of Joseph. While scholars have assumed that the commemorative structure was inside the basilica (e.g., Vincent and Abel 1914: 226; Wilkinson 2002: 365), it was almost certainly located outdoors. First of all, the word, *katōthen*, is an ambiguous term that does not specify that the structure was 'immediately underneath' the house of Joseph; it may also mean 'lower than', referring to the relative heights of the two structures. Second, while Epiphanius' account has already taken the reader to at least the front façade of the basilica, the twelfth-century description of Daniel the Abbot clearly implies that the commemoration was beyond (or to the west) of the east door of the ruined basilica (see below). Third, Epiphanius describes the

monument in the context of a passing funeral procession. While a monument associated with a funeral procession could be inside, an outdoor location – particularly near a city thoroughfare, such as the *cardo maximus* at the eastern end of the complex – is more likely. Fourth, Epiphanius describes two different monuments as a *tetrakoinin*, or a four-columned structure – the Miraculous Healing and the Jephonias monument located outside the East Gate of the city (see below). Again, it is possible for a *tetrakoinin* to be indoors. However, the general parallels between the two monuments suggest that the Miraculous Healing was likewise located outdoors. A fifth argument could be added: the statement by Adomnán that the place of the Miraculous Healing was exposed to the noonday sun. However, since scholars associate Adomnán's monument with the North Gate column, the argument will be withheld until the texts are further examined.

In short, given its proximity to the icon of Mary and the house of Joseph, Epiphanius' monument appears to have been near, though likely to the east of, the eastern façade of the church. The monument presumably stood outdoors on ground that was lower than but not directly underneath the house of Joseph, which was on the north side of the basilica. Consequently, the monument may be tentatively placed either within the northern half of the outer atrium or, more likely, somewhere north of its northern wall. Epiphanius' reference to the funeral procession may indicate that the site communicated with the *cardo maximus*, running directly in front of the complex, some 20 m east of the basilica's front façade.

Daniel the Abbot

The Russian pilgrim, Daniel the Abbot (1106–08), visited Jerusalem nearly a century after the destruction of the basilica in 1009. His description of the Holy Sepulchre includes commemorations associated with the ruined basilica and its great eastern door:

> Here is the place where St Helena found the True Cross near the place of the Lord's Crucifixion . . . And on that spot a very large square church (dedicated to the Exaltation of the True Cross) was built, but now there is only a small church. Here to the East is the great door to which came St Mary the Egyptian desiring to enter and kiss [the cross], but the power of the Holy Spirit would not admit her to the church. And then she prayed to the Holy Mother of God whose icon was in the porch near the door . . . and near this door is the place where St Helena discovered the True Cross of the Lord, instantly restoring a dead virgin to life! (Wilkinson 1988: 131).

The above description contains two distinct references to 'the place where St. Helena discovered the True Cross'. Since he has previously identified the Finding of the True Cross with the small church near the place of the Crucifixion, a location consistent with the event's commemorative history, Daniel's second allusion to the legend – qualified by the remark, 'instantly restoring a dead virgin to life' – denotes the Miraculous Healing, providing a significant precedent for referring to the event in terms of the Finding of the Holy Cross. Like Epiphanius, Daniel's account moves

from west to east and refers to the story of Mary the Egyptian before describing the Miraculous Healing. Therefore, his description of the Miraculous Healing as 'near the door' implies that the site was located beyond – or farther to the east of – the front entrance of the church and not within the area of the former basilica. While Daniel does not describe the appearance of the site, there is significant agreement with Epiphanius regarding commemoration, location and context.

Willibald

Willibald (d. 787, see Fig. 1) begins his description of Jerusalem with a reference to the Holy Cross: 'He came to Jerusalem, to the place where the Lord's Holy Cross was found. There is now a church on the place called the place of Calvary.'[6] The place of the Holy Cross is also the setting for the restoration of Willibald's sight after a two-month blindness: 'He came again to Jerusalem, and as he entered the church where the Holy Cross was discovered, his eyes were opened and he received his sight' (Wilkinson 2002: 241, 245). Willibald's allusions to the Holy Cross raise two main questions. Why, in the first instance, does he introduce the site before mentioning the church? Second, why does he attribute his healing to the entrance

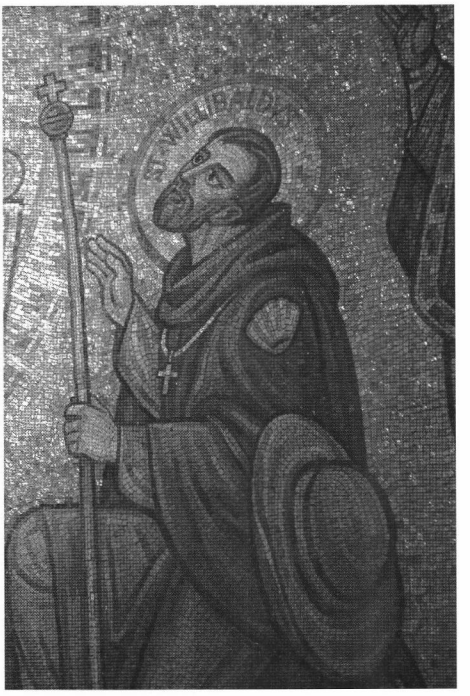

Fig. 1. An image of Willibald of Eichstätt (d. 787) from the Dormition Abbey, Jerusalem.

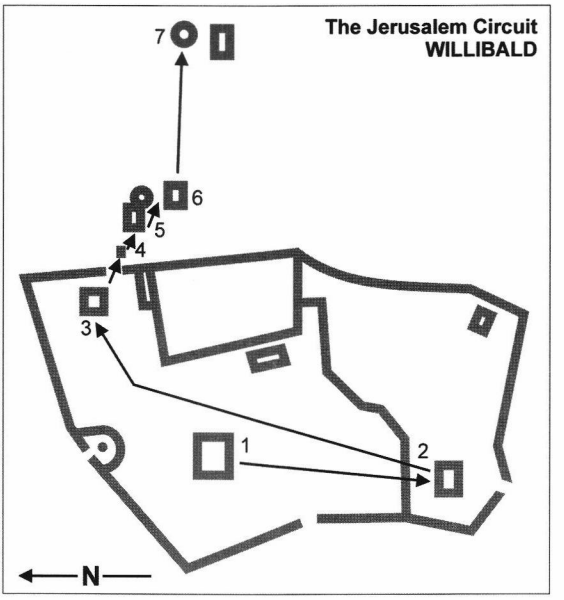

Fig. 2. Willibald's Circuit of Jerusalem.

of the church? The questions anticipate the commemorative landscape collectively described by Epiphanius and Daniel the Abbot. Prior to entering the Basilica of Constantine, Willibald encountered the monument of the Miraculous Healing and, with it, a landscape of physical healing to which he attributed the restoration of his eyesight (see Fig. 2). Although Willibald does not explicitly mention the Miraculous Healing, Daniel provides a precedent for referring to the site as the place 'where the Holy Cross was found'. The implicit testimony of Willibald significantly indicates that the site was recognized by Latin pilgrims.

Adomnán

The final source is Adomnán's *De locis sanctis*, a seventh-century text that records the eyewitness account of a certain Arculf, whose travels are dated to around 680.[7] Regarding the Miraculous Healing, Adomnán (d. 704) writes (1.11): 'Something must be said of a very tall column which stands in the middle of the city, to the north of the holy places, where it is seen by every passer-by. This column was set up at the place where the Lord's Cross was placed on a dead young man, and he came to life'. Adomnán's main interest, however, was in the column's secondary association with the centre of the world: 'At the summer solstice when it is noon

an amazing thing happens. When the sun reaches mid-heaven it casts no shadow . . . which demonstrates that Jerusalem is placed at the centre of the earth. This explains why the psalmist used these words to sing his prophecy of the holy places of the Passion and Resurrection, "Yet God, our King, of old worked salvation in the midst of the earth" (Psalm 73:12; Psalm 74:12 in the Vulgate). This means "in Jerusalem", which is called the "Mediterranean" and "Navel of the Earth"' (Wilkinson 2002: 177).

Adomnán's column is depicted in two other sources. The first is Bede's eighth-century abridgement of Adomnán: 'Furthermore in the middle of Jerusalem, where a dead man, when the Lord's Cross touched him came to life, stands a tall column, which casts no shadow at the summer solstice. Hence they think that the middle of the earth is there'. Thus, Bede omits Adomnán's phrase, 'north of the holy places', merely describing the column as 'in the middle of Jerusalem'. After including Psalm 73:12, Bede ends his account with a quotation from Victorinus of Poitiers (d. 303) explicitly associating the column with the place of the Crucifixion, 'There is a place, which we believe to be the centre of the whole world. The Jews call it in their own language, Golgotha' (Wilkinson 2002: 219–220).

The second source is a twelfth-century drawing of Jerusalem in a manuscript from Prüfening, now in Munich (Clm 13002, fol. 4v). The drawing (c. 1165, Fig. 3) is accompanied by Bede's description of the Holy City, and there is no evidence that the artist had any firsthand knowledge of Jerusalem. Rather, the drawing, which is consistently mislabelled in the Jerusalem literature, is a twelfth-century visual interpretation of Bede's eighth-century redaction of Adomnán's seventh-century account of the holy places. The illustration depicts the walled city of Jerusalem with its towers and six gates as designated by Bede. The only structure inside the city is a prominent column positioned along the vertical east-west axis of the map with its base hidden behind the city's western wall. The top of the column, which is surmounted by a cross supporting the nimbed head of Christus Helios, is located in the centre of the drawing. The artist's placement of the object follows Bede's reference to the 'middle of Jerusalem'. While some scholars have commented that the Prüfening column represents the area of the Holy Sepulchre (e.g., Verdier 1974: 26; Pullan 1998: 171, n. 70; Bahat 1990: 83), no one has considered the possibility that Adomnán's column was located within the complex.

Instead, scholars have unanimously identified Adomnán's column with the Roman period column of the North Gate plaza which appears on the Madaba Map (e.g., Vincent and Abel 1914: 922; Avi-Yonah 1940: 52; Meehan 1958: 21; Verdier 1974: 24; Donner 1979: 352, n. 38; Wightman 1993: 221; Wilkinson 2002: 177, n. 26; Packowski 2005: 194).[8] By extension, scholars take it for granted that Adomnán's column was not a purpose-built monument; rather, they accept that the North Gate column was Christianized during the Byzantine period. The scholarly position is nicely summarized by Pullan:

> The Jerusalem column had been set up earlier by pagan emperors; yet, as the Madaba Map and Arculf suggest, it seems to have become a Christian landmark as well

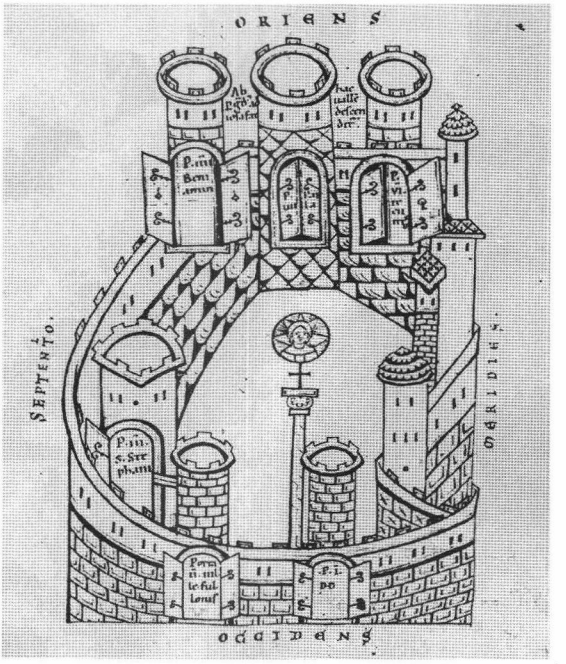

Fig. 3. The Prüfening Map (*c.* 1165), now in the Bayerischen Staatsbibliothek in Munich (Clm 13002, fol. 4v), is accompanied by Bede's description of the Holy City (the text is above the drawing and is not shown here). The illustration depicts the walled city of Jerusalem with its towers and six gates as designated by Bede. The only structure inside the city is a prominent column positioned along the vertical east-west axis of the map with its base hidden behind the city's western wall. The top of the column, which is surmounted by a cross supporting the nimbed head of Christus Helios, is located in the centre of the drawing. The drawing as shown here appears in Simek 1992: 152.

> . . . . eventually the column became associated with Christian content, accruing legends, often to do with miracles concerning the cross, which rendered it part of the Christian topography of the city (Pullan 1998: 168).

The arguments for identifying Adomnán's column with the North Gate column are admittedly appealing.[9] First of all, Adomnán indicates that the column was 'north of the holy places'. The North Gate is approximately 350 m due north of the Holy Sepulchre. Second, the column was positioned where 'every passer-by' could see it. The North Gate plaza was a main node of Jerusalem, and its column was in full view of the pedestrian traffic passing in and out of the city. Third, Adomnán's column was exposed to the midday sun on the summer solstice. The diameter of the half-circular plaza was between 60 and 80 m (Wightman 1993: 221). Fourth, although Adomnán does not mention a funeral procession, the setting could easily accommodate such an event, although the junction of the Holy Sepulchre and the

cardo maximus is more persuasive. Fifth, there is an intuitive tendency to identify Adomnán's reference to a 'very tall column' with the most prominent column on the Madaba Map. However, identifying columns in a columnated city is a precarious task at best.

Finally, while Adomnán's description of the column as 'in the middle of the city' is problematic, it does not necessarily disqualify the North Gate setting. The phrase may simply mean that the column was inside the city walls, although it likely has a more nuanced meaning. For example, it appears that the North Gate column was one of the city's civic centres. Calculations have shown that the true centre of the Madaba Map is the base of the column, presumably since road distances were measured from the column. A corresponding road map, with Jerusalem as its starting point, would have been the template of the mosaic (Avi-Yonah 1940: 30). Is it possible then that the column's witness to Jerusalem's status as the centre of the world was derived from its function as the city's civic centre? If so, Christians appropriated not only the column but its significance as well.

The argument is considerably weakened, however, since Adomnán describes the centre of the world as the column's secondary commemoration, while it seems unlikely that the column would be recognized by Christians as the centre of the world at the expense of the Holy Sepulchre, which had long been associated with the tradition (see below). Moreover, while the column is located at the geometric axis of the map, the disproportionately large image of the Holy Sepulchre is the centre of the vignette of Jerusalem. In other words, the map still expresses the fundamental Christian perception that the Holy Sepulchre was 'in the middle of Jerusalem', a phrase routinely used by Christians to describe the site (e.g., *Breviarius*, 1; Epiphanius, 2).

Thus, despite the compelling arguments, there are a number of problems with the North Gate location. First of all, while 'in the middle of the city' could conceivably apply to the North Gate plaza, the phrase is distinctly associated with the Holy Sepulchre. Second, Adomnán fails to mention the North Gate, previously identified as the gate of St. Stephen (Wilkinson 2002: 168), even though the column all but stood in its shadow.

Third, other references in the pilgrim sources have been mistakenly identified with the North Gate column. According to the Piacenza Pilgrim (*c.* 570):

> On this highway [going north from Jerusalem to Diospolis], not very far from the city, stands a marble column in the middle of the road. In former times the Lord was being taken towards it to be scourged, it was lifted up by a cloud and escaped, and was set down in this place. You can see this is true, since it has no base to stand on, but rests directly in the earth, and can be moved to and fro. On top of it stands a cross made of iron. You can climb it by steps (Wilkinson 2002: 141–142).

The description resembles neither the location nor the appearance of the Madaba Map column (as per Lecoffre 1902: 320, Avi-Yonah 1940: 52 and considered by Pullan 1998: 170, n. 52; by contrast, see Wilkinson 2002: 142, n. 35).

A second column misidentified with the North Gate column is the Jephonias monument described by Willibald. The internal evidence of Willibald, supported by two seventh-century sources – the *Armenian Guide* and Epiphanius – clearly places the monument outside the East Gate of the city (see below), while the North Gate location is commemoratively incoherent since a funeral procession from Holy Sion to Gethsemane would pass nowhere near it. The location was correctly identified by Vincent and Abel (1914: 811, n. 2), and while the question should have been settled, subsequent scholars have advocated other sites, namely the South and North gates.[10] Scholars who do so are either 1) unaware of the East Gate tradition described in the other texts or 2) advocate the existence of two separate Jephonias monuments during the Early Islamic period. Finally, scholars have wrongly associated the column on the Prüfening map with the North Gate column (see below).

The point underscores the tendency of scholars to associate references to columns in the pilgrim literature with the column on the Madaba Map, while the accumulative effect is that the North Gate column has become a lightning rod of Christian commemorations. It is certainly dubious, in my opinion, that three commemorations – the centre of the world, the Miraculous Healing and the Jephonias legend – were associated with the same Roman column, when, in each case, the location begs the commemorative credibility of the respective legend.

Fourth, leaving aside Adomnán, once the columns of Willibald and the Piacenza Pilgrim are correctly discounted, the North Gate column does not appear in a single pilgrim text. Of particular significance are three texts – Jerome's *Letter* 108, Eucherius' *Letter to Faustus* and John Rufus' *Life of Peter the Iberian* – that describe their pilgrim subjects as entering the city from the north (Wilkinson 2002: 83, 94, 100); the North Gate column is never mentioned.

Fifth, although the North Gate column was an important geographical landmark of the city, there is no evidence that it was adorned with any Christian imagery. While the possibility cannot be ruled out, scholars have previously cited the evidence of Willibald and the Piacenza Pilgrim, whose respective columns were both surmounted by a cross, and the Prüfening manuscript in their descriptions of the column (e.g., Avi-Yonah 1940: 52; Paczkowski 2005: 194, n. 174; Bahat 1990: 83). While the iconography of the Prüfening map reflects the column's commemorative significance, the appearance of the monument (regardless of its location) is not informed by the twelfth-century manuscript. The point is also conveyed by the Madaba Map. Despite the column's prominence in the vignette of Jerusalem, the column is distinctly unadorned, and there is nothing to suggest that it was a Christianized feature of the city. In the end, whether or not the North Gate column was adorned with Christian imagery is secondary to the primary argument that it was not commemoratively significant. Yet, to be sure, evidence is lacking, sources have been misapplied and assumptions regarding the Christianization of the North Gate column need to be fully reassessed.

We now turn to the arguments for identifying Adomnán's column with the tradition collectively described by Epiphanius, Willibald and Daniel the Abbot. To

do so, we shall use four criteria: 1) commemoration, 2) location, 3) appearance and 4) context. First of all, it is not insignificant that the two commemorations associated with Adomnán's column – the Miraculous Healing and the centre of the world – were intimately connected with the Holy Sepulchre (see Fig. 4). While the Miraculous Healing has been discussed, Christianity appropriated the idea of Jerusalem's centrality, shifting the Temple tradition to the place of Calvary, and by the Byzantine period, the idea that Calvary was the centre of the world was commonplace. Two generations prior to Arculf's visit to Jerusalem, Sophronius describes the Rock of Calvary as the navel of the earth (Wilkinson 2002: 158), suggesting that the centre of the world was physically marked on or near the place of the Crucifixion. In the ninth century, Bernard locates the centre of the world in the adjacent courtyard, roughly equidistant from the places of the Crucifixion and Resurrection (Wilkinson 2002: 266). While the commemoration shifted from the Rock of Calvary to the nearby courtyard, it remained firmly attached to the Holy Sepulchre.

The link between the summer solstice and the centrality of Jerusalem is also made by the twelfth-century pilgrim, Nikulás of Thverá (fl. 1140), who explicitly associates the phenomenon with the Holy Sepulchre: 'There is the church [which] . . . is called the Church of the Holy Sepulchre, and it is open above over the sepulchre. The centre of the earth is there, where the sun shrines directly down from the sky on the feast of John [the Baptist on 24 June, or the then summer solstice]' (Wilkinson 1988: 217). The evidence of Sophronius, Bernard and Nikulás collectively suggests that Adomnán's column was likewise located within the complex of the Holy Sepulchre. Given the documented histories of the centre of the world and the Miraculous Healing, it would be somewhat remarkable to find either commemoration outside the immediate complex of the Holy Sepulchre, while the possibility that both traditions were associated with a single Roman column located a considerable distance from the site is remote indeed.

The second argument for identifying Adomnán's column with the tradition of Epiphanius, Willibald and Daniel the Abbot is location. While Adomnán's description, 'north of the holy places', has presumably led scholars away from the Holy Sepulchre, it is not insignificant that the column's location is explicitly described in terms of the holy places. Although the phrase indicates a degree of separation, it does not necessarily imply a distance of any great measure. Like Epiphanius and Daniel the Abbot, Adomnán's source, Arculf, is making a west-to-east walk-through of the Holy Sepulchre. In other words, from Arculf's perspective anything on his left side was 'north of the holy places'. Bearing in mind that Adomnán's primary designation of the column was its location 'in the middle of the city', the idea that Arculf is describing a place on his left as he moved through the eastern end of the Holy Sepulchre is far more credible than a column 350 m away on the edge of the city. There is also a precedent in the pilgrim literature for using directional references to describe the relationship between places within the Holy Sepulchre. Epiphanius, for example, locates the so-called prison of Christ to the north of the garden, or inner courtyard (Wilkinson 2002: 208), while the

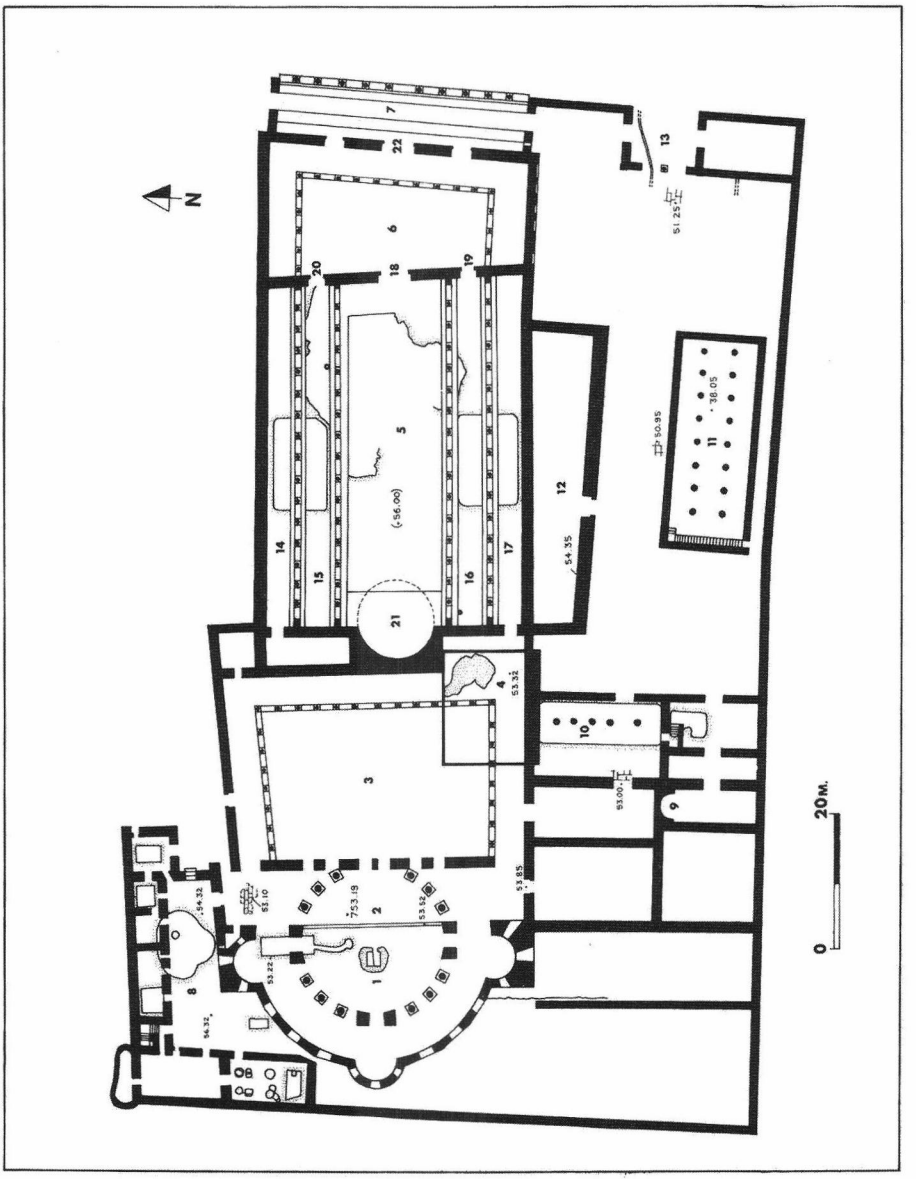

Fig. 4. Plan of the Church of the Holy Sepulchre, (drawing by S. Gibson).

Crusader source, the *Ottobonian Guide*, states that the prison was north of the tomb (Wilkinson 1988: 92). In each case, the places were only a few metres apart.

In short, Adomnán's description of the column's location is in full agreement with Epiphanius, Willibald and Daniel the Abbot. While Adomnán places the column 'in the middle of the city', Epiphanius states that the Holy Sepulchre was 'in the middle of the Holy City' (Wilkinson 2002: 208). Since both texts are describing the monument from the perspective of a west-to-east walk-through of the Holy Sepulchre, Adomnán's phrase, 'north of the holy places', compliments Epiphanius' reference to the left side of the basilica. Adomnán indicates that the monument was outdoors, where it was exposed to the noonday sun on the summer solstice, while the arguments for locating Epiphanius' monument outdoors have been previously detailed. Finally, Adomnán's statement that the column was seen 'by every passer-by' describes the heavily trafficked entrance to the Holy Sepulchre and its nearby junction with the *cardo maximus*, a most appropriate setting for the passing funeral procession mentioned by Epiphanius. On the argument of location alone, there is a much stronger case for associating Adomnán's column with the established tradition of the Holy Sepulchre than with the area of the North Gate.

The third argument is the appearance of the monument, which is only described by Adomnán and Epiphanius. Adomnán describes the monument as a *ualde summa columna*, or 'very tall column', while Epiphanius refers to it as *tetrakoinin*, or 'a structure with four columns'. Although the two descriptions appear to be irreconcilable, the disparity of number is misleading. The presumed task is not to reconcile four columns with one but rather to reconcile a single structure with a large column. However, rather than reconciling the details, the argument that the two writers are describing the same monument can be sustained if a similar precedent in the textual sources can be found – that is, a second example of a Latin writer using the singular word, *columna*, to refer to an object described by a Greek writer as a *tetrakoinin*.

Such a parallel occurs in the pilgrim descriptions of the Jephonias monument outside the East Gate. According to the *Armenian Guide*, 'outside the city, at the place where the Jew snatched at the bier of the Holy Virgin . . . there is a dome resting on four marble columns and surmounted by a bronze cross. Two hundred and fifty steps lead down from this to the holy Tomb of the Virgin in the Valley of Gethsemane' (Wilkinson 2002: 166). Epiphanius describes the monument in similar terms: 'outside the gate to the east of the Holy City stands a structure with four columns (*tetrakoinin*), in which Jephonias snatched at the bier of the most Holy Theotokos. . . . near that to the east is holy Gethsemane, the Tomb of the most Holy Theotokos' (Wilkinson 2002: 212), while Daniel the Abbot also places the commemoration between the East Gate and the tomb of Mary (Wilkinson 1988: 133–134). According to Willibald, the monument was: 1) 'in front of the gate of the city', 2) between the pool of Bethesda (just inside the East Gate) and the tomb of Mary and 3) on ground overlooking the tomb, since he describes his descent from the monument to the tomb (Wilkinson 2002: 243). Willibald indicates that the monument was surmounted by a cross, while the *Armenian Guide* specifies that it

was made of bronze. In short, Willibald's description of the monument is in full agreement with Epiphanius, the *Armenian Guide* and Daniel the Abbot.

While Willibald refers to the monument as a *magna columna*, or large column, Epiphanius once again uses the word, *tetrakoinin*, to describe the structure. The Jephonias monument provides a clear example of a Latin and Greek writer respectively describing the same structure as a *columna* and *tetrakoinin*, indicating that the texts are collectively describing two sites rather than three or four (Table 1).

Table 1: Pilgrim descriptions of the Miraculous Healing and the Jephonias Monument

	Miraculous Healing	Jephonias Monument
tetrakoinin	Epiphanius	Epiphanius
columna	Adomnán	Willibald

Having discussed commemoration, location and appearance, the context of the respective texts also indicates that Adomnán's column was located within the complex of the Holy Sepulchre. Regarding the internal context of Adomnán, the column appears at the end of his intramural description of Jerusalem (1.11). The ensuing chapters describe the extramural areas of the city, while the preceding two chapters – the *sudarium*, or face cloth, of Jesus' burial (1.9) and a cloth relic woven by St. Mary, which was preserved in a church (1.10) – separate the column from material that is clearly associated with the Holy Sepulchre (Table 2).

Table 2: Adomnán's description of Jerusalem

Chapter	Contents
1.1	Site of Former Temple
1.2–8	Holy Sepulchre Material
1.9	Relic of the *Sudarium*
1.10	Church of Mary's Weaving
1.11	Column of the Miraculous Healing
1.12 ff	Extramural Material (Tomb of Mary, etc.)

In short, the argument for locating Adomnán's column within the Holy Sepulchre will be further strengthened if the respective cloth relics can be located within the complex. Arculf almost certainly saw the *sudarium* in the Holy Sepulchre, where, according to the *Commemoratorium* (1), it was kept in the early ninth century (Wilkinson 2002: 253). The Church of Mary's Weaving likewise appears to have been located within the complex. As previously discussed, the house of Joseph is described in the *Protoevangelium* as the living quarters of Mary and the setting of the Annunciation. The text also associates the house with the weaving of Mary (11–12). Moreover, according to the Piacenza Pilgrim (*c.* 570), the girdle and

headband of the Virgin were housed in the basilica near the icon of the Theotokos (Wilkinson 2002: 140). In the light of what appears to be a Marian focus on the north side of the basilica, Adomnán's unnamed church was almost certainly the same structure as Epiphanius' house of Joseph. If so, there are considerable parallels between Adomnán and Epiphanius – i.e. both texts describe the monument of the Miraculous Healing immediately after the house of Joseph. In any case, Adomnán, Epiphanius and Daniel the Abbot each describe the Miraculous Healing immediately after a Marian relic and before sites near the East Gate of the city (Table 3).

Table 3: The Miraculous Healing: the sequence of Epiphanius, Adomnán and Daniel the Abbot

	Marian Commemorations	Miraculous Healing	East Gate Sites
Epiphanius	Icon of the Theotokos and the house of Joseph	Monument	Sheep Pool
Adomnán	The Church/Relic of Mary's Weaving	Monument	Tomb of Mary
Daniel the Abbot	Icon of the Theotokos	Locus	Sheep Pool *inter alia*

The argument that Adomnán's description of the Miraculous Healing belongs to his account of the Holy Sepulchre is supported by additional internal evidence. Having mentioned the site of the former Temple in chapter 1.1, chapter 1.2 begins with a quote by Arculf: 'I remember how often I used to see and visit the many buildings in the city, and look at numerous large stone houses filling the space enclosed by the city wall. But for the present let us say nothing of any of them, except the amazing buildings in the holy places of the Cross and Resurrection' (Wilkinson 2002: 171). The statement accurately summarizes the ensuing material: Adomnán's description of the intramural city is limited to the 'amazing buildings' of the Holy Sepulchre (1.2–11).

The historical context

The historical context of the purpose-built monument may also be proposed. Cyril Mango has previously advanced the idea that a monument was either planned or built in the wake of Heraclius' restoration of the True Cross (Mango 1992: 6–7, 15). While Mango admits that his argument is speculative, it is not unlikely that the event inspired the construction of a monument in front of the Holy Sepulchre that

was dedicated to the Miraculous Healing. The monument's destruction is less certain, although Daniel implies that it had been destroyed by the early twelfth century, if not much earlier. The Miraculous Healing also shares numerous similarities with the Jephonias monument. The monuments first appear in the seventh-century sources, commemorated funeral processions and were similar in appearance. They were likely erected around the same time – probably in the aftermath of the Persian conquest.

Willibald's three crosses

In addition to the monument of the Miraculous Healing, a final reference to the commemorative landscape of the Holy Cross should be briefly mentioned. According to Willibald, 'there were three wooden crosses standing outside the church, on the east of it near the wall, to commemorate the Holy Cross of the Lord, and those of the others who were crucified with him. Nowadays they are not indoors but stand out of doors under a roof outside the church' (Wilkinson 2002: 241).[11] Adomnán's drawing of the Holy Sepulchre appears to depict the crosses when they were still inside the basilica (Wilkinson 2002: 380–381).

Conclusion

In conclusion, evidence for the Christianization of the North Gate column has been found wanting, and the implicit argument for two seventh-century monuments to the Miraculous Healing must be dismissed. Rather, Epiphanius, Daniel the Abbot, Willibald and Adomnán provide a remarkably coherent description of the commemoration's association with the Holy Sepulchre. The purpose-built monument dedicated to the Miraculous Healing was located 1) near the so-called house of Joseph, 2) north of the east end of the Basilica of Constantine and 3) in an exposed area that most likely communicated with the *cardo maximus*. Willibald encountered the monument upon entering the complex of the Holy Sepulchre and attributed it with the restoration of his sight, while in the early twelfth century Daniel the Abbot recalled the legend as he surveyed the commemorative landscape of the ruined basilica. The places of the Miraculous Healing and the Finding of the Cross, as well as the three wooden crosses, established a sacred landscape dedicated to the Holy Cross that provided pilgrims of the Early Islamic period– with their first impression of the Holy Sepulchre.[12]

Notes

1 All references to the Holy Sepulchre denote the entire ecclesiastical complex.

2 The article uses the following chronology: Byzantine (325–614), Post-Byzantine (614–1099) and Crusader periods (1099–1187). The Post-Byzantine era is further divided into the Inter-Conquest (614–638) and Early Islamic periods (638–1099). All dates are CE.

3 While the sources are listed here in chronological order – with the first three essentially providing a contemporary witness to the monument – they will be discussed in the order that best establishes the argument (i.e., Epiphanius, Daniel the Abbot, Willibald and Adomnán).

4 Directional rather than historical names will be used for the gates of the city. For a more detailed presentation of the following arguments, see R. Aist, *The Christian Topography of Early Islamic Jerusalem: The Evidence of Willibald of Eichstätt (700 – 787 CE)* (Turnhout, forthcoming).

5 The *Protoevangelium* (11) describes the Annunciation as a two-fold event that took place while Mary was gathering water and continued once she returned to the house.

6 Willibald's dictations were turned into the third person by Hugeburc, the composer of the *Vita Willibaldi*.

7 The text also integrates written sources from Adomnán's library in Iona (Scotland), mostly dating from the fourth and fifth centuries. Parallels between Adomnán and Epiphanius indicate that the description of the column is derivative of Arculf.

8 Although there is no evidence for the date of the column, I accept that it was erected during the Roman period.

9 The argument for associating Adomnán's column with the North Gate has never been articulated in the secondary literature.

10 Bauch 1962: 103, n. 124 considers both the East and the South Gate; Bahat 1996: 46, n. 52 argues for either the South or the North Gate, while Verdier 1974: 24, Pullan 1998: 170, n. 52 and 171, n. 68 and Wilkinson 2002: 242, map 43 identify Willibald's column with the North Gate column.

11 It has been incorrectly assumed that Willibald's three crosses were associated with the commemoration of the Crucifixion. This assumption, along with a contextual argument regarding the sequence of Willibald's account, has led some scholars to place the crosses in the inner courtyard of the Holy Sepulchre (see Bauch 1962: 102, nts. 115–117; Wilkinson 1977: 117; Wilkinson 2002: 362–363). Willibald's literal description, the motif of the three crosses and the association of the legend with the basilica and its front entrance suggest that the crosses were located at the eastern front entrance of the church (see Gibson and Taylor 1994: 84–85).

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Bibliography

Byzantine and Medieval sources

Adomnán, (1965). *De locis sanctis*, ed. L. Bieler (*CCSL* 175): 183–234. Pp. 167–206 in J. Wilkinson (2002).

Breviarius de Hierosolyma (1965). ed. R. Weber (*CCSL* 175): 105–112. Pp. 92–93 and 117–121 in J. Wilkinson (2002).

Commemoratorium de casis Dei (1874). ed. T. Tobler, *Descriptiones Terrae Sanctae ex saeculo VIII, IX, XII, et* XV (Leipzig): 77–84. Pp. 253–257 in J. Wilkinson (2002).

Daniel the Abbot, (1970). *The Life and Journey of Daniel, Abbot of the Russian Land*, ed. K. D. Seeman, *Wallfahrtsbericht* (Munich). Pp. 120–171 in J. Wilkinson (1988).

Epiphanius the Monk, (1971). *Hagiopolita*, ed. H. Donner, '*Die Palästinabeschreibung des Epiphanius Monachus Hagiopolita*', *ZDPV* 87: 66–82. Pp. 207–215 in J. Wilkinson (2002).

Eucherius, (1965). *Epistula ad Faustum Presbyterum*, ed. I. Fraipont (*CCSL* 175): 235–243. Pp. 94–98 in J. Wilkinson (2002).

Hugeburc, (1887). *Vita Willibaldi*, ed. O. Holder-Egger, *MGH, Scriptores*, vol. 15.1 (Hannover), 86–106. Pp. 233–251 in J. Wilkinson (2002).

Jerome, (1910). *Epistula* 108, ed. I. Hilberg (*CSEL* 55): 306–351. Pp. 79–91 in J. Wilkinson (2002).

John of Damascus, (1891). *Homilia I in Dormitionem B.V. Mariae*, ed. J.-P. Migne (*PG* 96): 697–722.

John Rufus, (1895). *Vita Petri Iberi*, ed. R. Raabe, *Petrus der Iberer* (Leipzig). Pp. 99–102 in J. Wilkinson (2002).
Piacenza Pilgrim, (1965). *Itinerarium*, ed. P. Geyer (*CCSL* 175): 127–153. Pp. 129–151 in J. Wilkinson (2002).
Protoevangelium of James (1993). Pp. 57–67 in J. K. Elliot (ed.), *The Apocryphal New Testament* (Oxford).
Sophronius of Jerusalem, (1879). *Vita Sanctae Mariae Aegyptiacae*, ed. J.-P. Migne (*PL* 73): 671–690.
Victorinus of Poitiers (Ps. Cyprianus), (1968). *de Pascha*, ed. W. Hartel (*CSEL* 3): 305–308.

Modern sources

Avi-Yonah, M., (1940). *The Madaba Mosaic Map* (Jerusalem).
Bahat, D., (1990). *The Illustrated Atlas of Jerusalem* (Jerusalem).
Bahat, D., (1996). 'The Physical Infrastructure'. Pp. 38–100 in J. Prawer and H. Ben-Shammai (eds.), *The History of Jerusalem: The Early Muslim Period (638–1099)*. (New York).
Bauch, A., (1962). *Quellen zur Geschichte der Diözese Eichstätt, I, Biographien der Grundungszeit* (Eichstätt).
Borgehammar, S., (1991). *How the Holy Cross was Found* (Stockholm).
Corbo, V., (1981–82). *Il Santo Sepolcro di Gerusalemme. Aspetti archaeologici dalle origini al periode crociato*, 3 vols. (Jerusalem).
Donner, H., (1971). '*Die Palästinabeschreibung des Epiphanius Monachus Hagiopolita*', *ZDPV* 87: 42–91.
Gibson, S., and Taylor, J. E., (1994). *Beneath the Church of the Holy Sepulchre, Jerusalem: The Archaeology and Early History of Traditional Golgotha* (London).
Lecoffre, V., (1902). 'Bulletin', *Revue Biblique*: 297–320.
Mango, C., (1992). 'The Temple Mount A.D. 614–638'. Pp. 1–16 in J. Raby and J. Johns (eds.), *Bayt al-Maqdis: 'Abd al-Malik's Jerusalem* (Oxford).
Meehan, D., (1958). *Adamnan's 'De Locis Sanctis'* (Dublin).
Paczkowski, M. C., (2005). '*Gerusalemme: "Ombelico de Mondo" nella Tradizione Christiana Antica*', *Liber Annuus* 38: 165–202.
Pullan, W., (1998). 'The Representation of the Late Antique City in the Madaba Map: the Meaning of the Cardo in the Jerusalem Vignette'. Pp. 165–171 in M. Piccirillo and E. Alliata (eds.), *The Madaba Map Centenary, 1897–1997* (Jerusalem).
Schneider, A. M., (1940). '*Das Itinerarium des Epiphanius Hagiopolita*', *ZDPV* 63: 143–154.
Schneider, A. M., (1941). '*Zur Datierung der Vita Constantini et Helenae*', *ZNTW* 40: 245–249.
Shoemaker, S. J., (2002). *Ancient Traditions of the Virgin Mary's Dormition and Assumption* (Oxford).
Simek, R., (1992). 'Hierusalem civitas famosissima: Die erhaltenen Fassungen des hochmittelalterlichen *Situs Jerusalem* (mit Abbildungen zur gesamten handschriftlichen Überlieferung)', *Jahrgang* 16, vol. 12: 121–153.
Verdier, P., (1974). '*La Colonne de Colonia Aelia Capitolina et L'Image Clipeata du Christ Helios*', *Cahiers Archéologiques* 23: 17–40.
Vincent, L.-H., and Abel, F. M., (1914). *Jérusalem nouvelle (Jérusalem: Recherches de topographie, d'archéologie et d'histoire* II) (Paris).
Wightman, G. J., (1993). *The Walls of Jerusalem: From the Canaanites to the Mamluks* (Sydney).
Wilkinson, J., (1977). *Jerusalem Pilgrims Before the Crusades* (Jerusalem).
Wilkinson, J., (1988). *Jerusalem Pilgrimage, 1099–1185*, with J. Hill and W.F. Ryan (London).
Wilkinson, J., (2002). *Jerusalem Pilgrims Before the Crusades*, 2nd edn. (Warminster).

Abbreviations

CCSL	*Corpus Christianorum, Series Latina*
CSEL	*Corpus Scriptorum Ecclesiasticorum Latinorum*
MGH	*Monumenta Germanicae Historia*
PG	*Patrologia Graeca*
PL	*Patrologia Latina*
ZDPV	*Zeitschrift des Deutschen Palästina-Vereins*
ZNTW	*Zeitschrift für die Neutestmentliche Wissenschaft und die Kunde des Urchristentums*

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Rural Monasticism at the Foothills of Southern Samaria and Judaea in the Byzantine Period: Asceticism, Agriculture and Pilgrimage

ITAMAR TAXEL

This paper deals with the various expressions of monasticism in parts of the rural hinterland of three of the major inland cities in central Palestine – Diospolis (Lod/Lydda), Nicopolis (Emmaus) and Eleutheropolis (Beth Guvrin) – and with the role of local monastic sites in the broader context of pilgrimage and rural monasticism in Byzantine Palestine. At the basis of the study are the archaeological data retrieved through surveys and excavations conducted in the area since the nineteenth century, and some relevant literary sources which supplement the mute physical remains.

The area

The area discussed here includes parts of two main linked geographical regions: the southwestern foothills of the Samaria Hills, and the central and northern sections of the high (eastern) Judaean Shephelah, at the foot of the Judaean Hills (some of the sites discussed below are actually situated at the very western fringes of the Judaean Hills themselves). This area is characterized mostly by low, round hills (composed of Eocene chalk layers with a hard *nari* crust) with moderate slopes that rise to a height of 150–600 m above sea level (Dagan 2006: 9*-10*; Nir 1970: 187–189 [according to Nir, the whole area discussed here belongs to the Judaean Shephelah]). This hilly landscape is crossed from east to west by some major streams (such as Nahal Ayalon, Nahal Soreq, Nahal Ha-Elah and Nahal Guvrin) and their numerous tributaries, some of which have been used as comfortable transportation routes (Dagan 2006: 9*; Nir 1970: 181; Roll and Ayalon 1986: 113).

The southwestern foothills of the Samaria Hills were included within the eastern part of the territory of Diospolis. The transition area between the Samaria and the Judaean Hills, including the northern fringes of the Judaean Shephelah, was included within the southeastern part of the territory of Diospolis and the small territory of Nicopolis. The greatest part of the Judaean Shephelah was included within the territory of Eleutheropolis. The latter had the largest territory ever granted to a city in Palestine, and the part of the Judaean Shephelah under discussion lies

along the northeastern fringes of this territory (Avi-Yonah 1966: 156–162, Maps 9, 15, 16; Beyer 1931; 1933; Kloner 1993b: 195; Schwartz 1991: 32–34; Shallev 1994: 138–148).

During the Byzantine period the area was traversed by a network of roads (which originated in the Roman period and even earlier) connecting the Coastal Plain and the hill country (usually latitudinal, roughly west-east roads) on the one hand and different parts within the Judaean Shephelah (longitudinal, roughly north-south roads) on the other hand. The principal among these roads are: the Jaffa-Diospolis-Beth Horon-Jerusalem road (the most important road connected the Coastal Plain and Jerusalem), the Jaffa-Diospolis-Nicopolis-Jerusalem road, the Nicopolis-Lower Beth Horon road (which connected the two latter roads), the Diospolis-Eleutheropolis road, the Emmaus-Eleutheropolis road (joined at its southern end to the previous road), the Ascalon-Eleutheropolis-Jerusalem road (which partially passed through the Elah valley), the Gaza-Eleutheropolis road and the 'Emeq Ha-Telem (Valley of Furrows) road (connected the Elah valley and the northeastern Judaean Shephelah) (Dorsey 1991: 151–154, 189, 196, Maps 9, 13, 14; Fischer, Isaac and Roll 1996: 67–98, Frontispiece Map; Roll 1995; Roll and Ayalon 1986: 122–123, Fig. 1; Roll and Dagan 1988; Schwartz 1991: 24–25, Ill. 9; Shallev 1994: 24–35; Weiss, Zissu and Solimany 2004: 11*-12*). These roads, as will be shown below, had a major role in the phenomena of rural monasticism and Christian pilgrimage in the discussed area during the Byzantine period.

Choosing in this area as the focus of the present paper might look somewhat artificial. One could wonder why I am not including in the discussion more northern and southern parts of the Samaria and the Judaean foothills, or even the higher hill country to the east or the Coastal Plain to the west. However, two main reasons form the basis of the area I have chosen to discuss. First, rural Christianity, including rural monasticism, has never been seriously dealt with in relation to this area. Recent – and older – studies of rural Christianity/monasticism focused on neighbouring regions, such as the southwestern Samaria Hills (Hirschfeld 2002), the southern Judaean Hills in general (Mader 1918) and the southern Hebron Hills in particular (e.g. Baruch 1999; Sar-Avi 1999), the Gaza region (i.e. the southern Coastal Plain and the northern Negev; Hirschfeld 2004), and of course the vicinity of Jerusalem and the Judaean desert (e.g. Corbo 1955; Hirschfeld 1992).[1] Other studies presented the history and physical expressions of Christianity in the cities of Diospolis (Bagatti 2002b: 194–198; Schwartz 1991: 123–128); Nicopolis (Bagatti 2002b: 180–183; Shallev 1994: 77–88, 112–116) and Eleutheropolis (Bagatti 1972; 2002a: 127–129; Urman 1988: 155–158). Second, the foothills of Samaria and Judaea had, as will be shown below, a relatively important role in the phenomenon of Christian pilgrimage to the Holy Land, being themselves, thanks to certain traditions and the transportation routes which traversed them, a focus of pilgrimage and a transition region between the Coastal Plain and the hill country.

The sites

The present paper presents only sites which reflect the most secure evidence for a monastic presence in the discussed area (Fig. 1).[2] These sites can be divided into three types: the isolated rural *coenobium*,[3] the cave hermitage and the road station.

Horvat Hani

Location: 10 km northeast of the city of Diospolis and 20 km north of the city of Nicopolis. The site has been excavated and identified as an isolated *coenobium* which consists of two buildings connected by enclosure walls (total area *c.* 1.13 dunams). The main, large building composed of a chapel, living quarters, a tower and cisterns, and the second, smaller building composed of a kitchen, a refectory and maybe a hostel. A large courtyard divided between the two buildings. Two oil presses and a wine press were found outside the complex. According to the excavator, the monastery was founded in the fifth century and continued to exist until the early ninth century CE. Based on a Greek inscription found in the chapel's mosaic floor, which blessed the monastery's abbess, the excavator identified Horvat Hani as a women's monastery. During the centuries following its abandonment, the monastery was used as a source for building materials and as a Muslim cemetery (Dahari 2003).

Dahari (2003: 106) suggests that the Arabic name of the site (Khirbet Burj el-Haniya) derives from the name Hannah/Anna, who was either one the women by that name venerated in ancient Christianity (Hannah mother of Mary or the prophetess Hannah daughter of Phanuel) or a local holy woman. According to this hypothesis, the tomb found below the monastery's church (ibid: 102) was identified in antiquity as Hannah's tomb, and attracted pilgrims to the monastery.

El-Habis

Location: 6 km southeast of the city of Diospolis and 10 km north of the city of Nicopolis. This site, which has been surveyed by several scholars since the late nineteenth century, consists of a large, narrow rock-cut cave with a wide opening at its east end and several windows cut in its upper northern wall. Originally, the cave was probably an *arcosolia* burial cave, which was modified to use for dwelling purposes. Inside the cave were identified rock-cut benches (apparently former burial *arcosolia*) and hewn niches, in addition to some engraved crosses. The latter have led scholars to identify the cave as a hermitage (Bagatti 2002b: 204; Baram 1993: 85, Figs. 5–7; Conder and Kitchener 1882: 321; Schwartz 1991: 129). Near the cave was found a rock-cut tomb of the *arcosolium* type, with a central trough and two burial *arcosolia*. The *arcosolia* are decorated on their side walls with two engraved crosses, and one *arcosolium* has on its back wall another engraved cross and Greek inscription, which reads: 'Tomb of George' (Bagatti 2002b: 205; Clermont-Ganneau 1896: 355–356; Conder and Kitchener 1882: 322). Though the supposedly

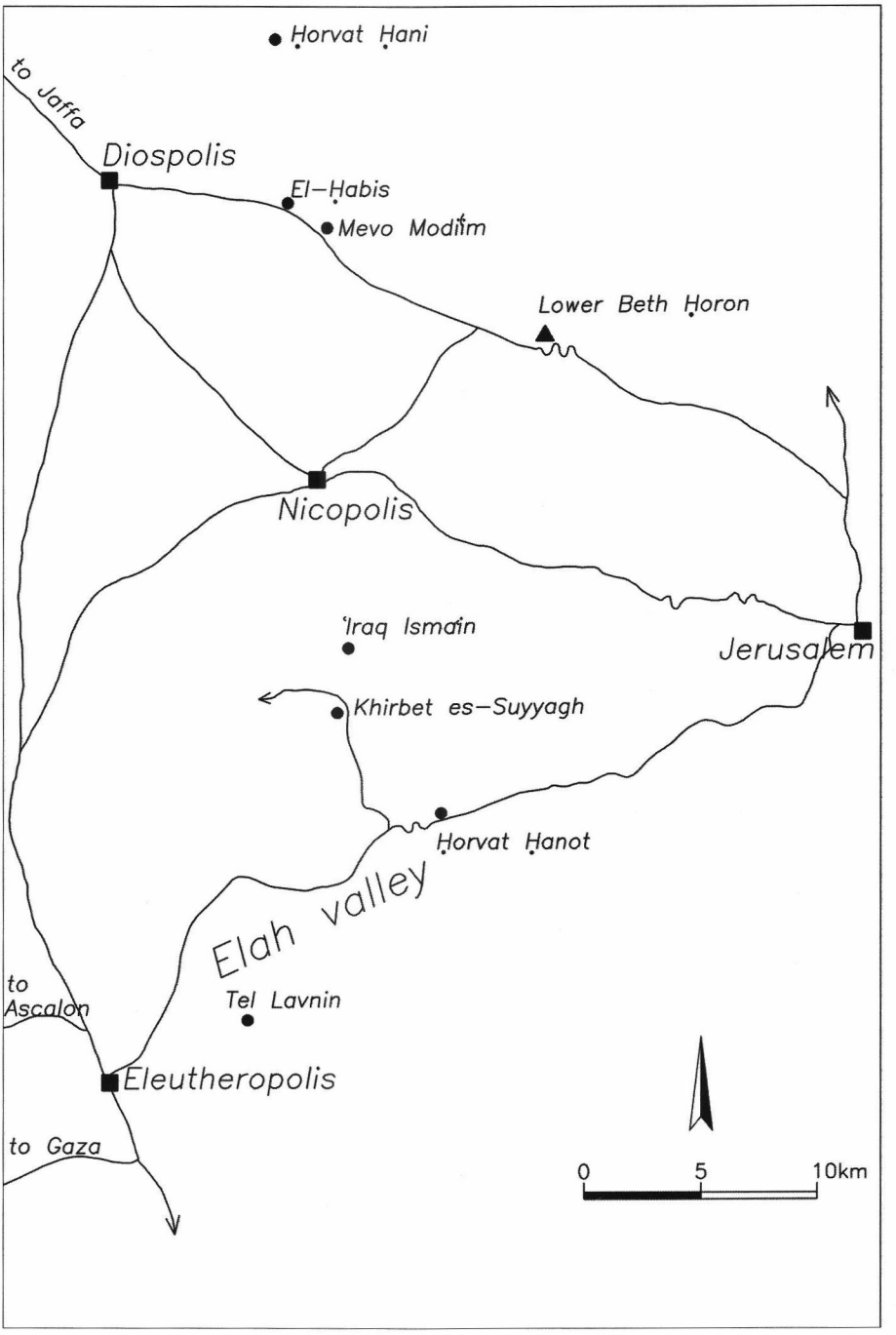

Fig. 1. Map of the discussed region showing cities, monastic sites and roads.

hermitage cave cannot be accurately dated, its resemblance to similar hermitages in other sites and its proximity to the most probably Byzantine period *arcosolia* tomb may indicate that the two features represent a contemporaneous, homogeneous complex.

Mevo Modiʿim

Location: 9 km southeast of the city of Diospolis and 10 km north of the city of Nicopolis. The site has been excavated and identified as an isolated *coenobium*. It consists of a main building (0.5 dunams; composed of a chapel, a kitchen, a refectory, a courtyard, an oil press and a cistern in the ground floor, and of living quarters in a second floor which was not preserved), and of an external wine press and cisterns. The excavator dated the monastery's foundation to the fifth or sixth century CE, and its abandonment to the end of the Byzantine period. It was reoccupied by a non-Christian population, who converted it into domestic and agricultural spaces. This phase is dated to the eighth-tenth centuries (Eisenberg and Ovadiah 1998).

ʿIraq Ismaʿin

Location: 8 km southeast of the city of Nicopolis and 20 km northeast of the city of Eleutheropolis. This site, situated on a cliff at the northern bank of Nahal Soreq, has been recently surveyed by several scholars. It consists of a large natural cave with a long, narrow terrace at its front (Fig. 2). On parts of the terrace and at its edges rock-cut and stone-built remains have been found, including paths, two cisterns and rooms. Near the entrance into the cave, remains identified as a chapel, which was partly built and partly rock-cut, were found. Inside the cave, some other built remains were found, some of which are later walls built of re-used ashlars (Gass and Zissu 2005: 176–180).

Gass and Zissu (2005) identify the site with the 'rock of Etham', Samson's hiding cave (Judges 15: 8), mentioned also by Eusebius in the early fourth century (*Onomasticon* 96: 5). The monastic remains in the site are identified by them with 'the monastery of Samson (Sampso)', mentioned by the monk Johannes Moschos in the late sixth-early seventh century (*Pratum Spirituale* 170). Their identification is based also on the fact that the Latin translator of Johannes Moschos' account notes that the monastery of Samson is located 20 miles from Jerusalem (such as the distance of ʿIraq Ismaʿin from Jerusalem), but without giving the direction from the city. Gass and Zissu suggested that this was either a monastery built next to a memorial church (for the veneration of Samson) or a monastery of the 'cliff *coenobium* type', according to Hirschfeld's typology of the Judaean desert monasteries (1992: 34–42, 55–58).

In my opinion, which is based also on a personal observation of the remains, it is hard to accept Gass and Zissu's interpretations of the site's nature. First, this modest site lacks any features which can be identified with a typical memorial, pilgrimage-centred monastery, such as a basilical church and a hostel. Furthermore,

Fig. 2. 'Iraq Isma'in: general view, looking northwest.

the site is situated – as Gass and Zissu themselves noted (2005: 173) – far away from any major route. Second, the few known monasteries of the cliff *coenobium* type in Palestine are all located in the Judaean desert (Hirschfeld 1992: 33–42), and seem to be an endemic phenomenon of that region. Alternatively, I suggest we regard 'Iraq Isma'in as a hermitage of a small group of monks, which were most probably related to a nearby mother monastery (for similar complexes in other regions, see e.g. Aviam 2004: 201; Hirschfeld 1992: 213–222).

Khirbet es-Suyyagh

Location: 10 km southeast of the city of Nicopolis and 17 km northeast of the city of Eleutheropolis. The site has been excavated and identified as an isolated *coenobium* (Fig. 3). It consists of a main building (1.9 dunams; composed of a basilical church, a refectory, a kitchen, a tower, a hostel [?], living quarters, storerooms, courtyards, cisterns and an oil press) and of two external wine presses, agricultural terraces and a cistern. The monastery's foundation was dated to the second half of the sixth century CE. It continued to exist until the late seventh or

Fig. 3. Khirbet es-Suyyagh: general view, looking north.

early eighth century. During the eighth century the building was reoccupied by a non-Christian population, which converted its various units into domestic spaces. This phase in the site's history continued until the ninth or tenth century (Taxel 2006; forthcoming).

If indeed the above-mentioned monastery of Samson, identified by Gass and Zissu (2005) with the site of 'Iraq Isma'in, is located in the northern Judaean Shephelah, there is no reason not to identify it with Khirbet es-Suyyagh, also located 20 miles from Jerusalem. This site, unlike 'Iraq Isma'in, is a typical *coenobium* situated beside the local 'Emek Ha-Telem road, with clear evidence of being engaged in offering hospitality to pilgrims, including a basilical church, a probable hostel and certain small finds (see below).

Horvat Hanot

Location: 18 km northeast of the city of Eleutheropolis, along the Eleutheropolis-Jerusalem road. This small site (up to 5 dunams) has been surveyed and partially excavated. Most of its area is covered by Medieval and Ottoman period building

remains. The excavation of one of these buildings revealed that it was founded over the remains of a Byzantine period church, apparently of the basilical type. The unearthed remains of the church include mainly part of the nave and a smaller part of the northern aisle; both were paved with coloured mosaics. At the eastern edge of the nave's mosaic (in front of the unexcavated *bema*) a long Greek inscription was found. The inscription is dated to the late sixth or early seventh century, and it mentions a certain priest and hegumen who supervised the renovation of the church (Di Segni 2003; Shenhav 2003). Additional remains surveyed in the site, some of which may date to the Byzantine period, are rock-cut cisterns, a pool and wine press (Weiss, Zissu and Solimany 2004: 53*, Fig. 129.1).

Shenhav (2003: 269–270, 272) identifies the site with the place mentioned in some Byzantine period itineraries as the battle site between David and Goliath and as Goliath's tomb, and suggests that the church served Christian pilgrims who visited the place on their way to or from Jerusalem (see below). According to Di Segni (2003: 275), despite the mentioning of a hegumen – head of a monastery – in the above-mentioned inscription, there was not necessarily a monastery at the site. She tends to identify Horvat Hanot as a road station, in which a hostel and a church were founded by the bishop of Eleutheropolis. This complex had been manned by monks (led by a hegumen), who served the pilgrims who visited.

Tel Lavnin

Location: 5 km northeast of the city of Eleutheropolis. The site, which has been recently surveyed, is situated on a slope of a hill overlooking Tel Lavnin. It consists of two rock-cut, bell-shaped caves and nearby remains of the foundations of buildings and an oil press. The northern cave among the two was used (re-used?) during the Byzantine period as a cistern, as indicated by the pottery sherds embedded in the plaster coating of the cave's walls. On the cistern's western wall some engravings were discovered. They include a Greek inscription which mentions the name Daniel and a priest names Ioannes; three crosses; and a lion or a lioness facing the inscription. The inscription was dated to the mid-fifth to sixth century CE, and according to the surveyor, the person who engraved it and the accompanying motifs intended to depict the biblical story of Daniel in the lions' den. In the western, southern and eastern walls of the southern cave three elongated chambers were hewn. Engraved crosses are depicted on either side of the opening of the western and southern chambers, and two engraved crosses are depicted also on the walls of the southern chamber. The chambers were identified as the living cells of monks, one of which was the priest Ioannes mentioned in the inscription (Zissu 1999: 564–569).

Discussion

Three main factors may have led monks to settle in the discussed area during the Byzantine period: the Christianization process of the rural settlement; Christian

pilgrimage to the area; and the many sites and settlements which commemorate traditions related to the Old and New Testament and to some early Christian martyrs; the latter factor combined, of course, between pilgrimage and monasticism (see below).

The history of Christianity in the discussed area was not much different from that of other neighbouring and more remote regions in Palestine. Christian presence at the cities of Diospolis, Nicopolis and Eleutheropolis is known at least since the early fourth century, in some cases even before the formal Christianization of the Roman Empire; *inter alia*, bishops of these cities participated already in the ecclesiastical council of Nicaea in 325. By the beginning of the Byzantine period Diospolis and Eleutheropolis had a predominantly pagan population (with a Samaritan minority at Diospolis and a Jewish minority at Diospolis and Eleutheropolis), which was the basis for the gradually growing Christian population. Nicopolis's mixed population seems to have included a large Samaritan community, though it cannot be said whether the latter represented the predominant component in the city's population (Bagatti 1972; 2002a: 127–128; 2002b: 180–181, 194–196; Schwartz 1986: 76–77, 90–91, 122–124; 1991: 121–128; Shallev 1994: 74–79; Urman 1988: 155–158).

The spread of Christianity into the rural hinterland of Diospolis, Nicopolis and Eleutheropolis was probably a somewhat slower process, which was not significantly felt until the fifth century (see in general Bar 2003, esp. 419–421). However, by the end of the Byzantine period this area was dotted with numerous Christian settlements, (villages, farmhouses and various monastic sites) as indicated by the literary sources and mainly by the archaeological evidence. The monastic movement seems to have played an important role in the Christianization process of the area's countryside (see in general Bar 2005, esp. 61–65), by the settlement of ascetic monks in built cells or rock-cut caves and by the foundation of larger agricultural *coenobia*. Both inhabitation forms existed not far from (and sometimes even very close to) the area's urban and rural settlements (for a similar phenomenon in the southern Hebron Hills, see Baruch 1999: 181; Sar-Avi 1999: 190).

One expression of the rise in Christian pilgrimage to the Holy Land during the Byzantine period (mainly in the fifth and sixth centuries) was the heavy use of the local roads system, as indicated by the contemporaneous itineraries (Limor 2006: 331–332; Roll 1995: 1166, 1169). Some of these pilgrims, on their way to or from the vicinity of Jerusalem on the one hand and the coastal cities on the other hand, visited various places of Christian interest located in the cities of Diospolis, Nicopolis and Eleutheropolis and their rural vicinity.

Among the traditions related to Diospolis, the most famous one, known to us from sources of the sixth century on, connects the city with the cult of St. George, who was believed to be martyred and buried in Diospolis (Bagatti 2002b: 197; Schwartz 1991: 126–127). One of the most well-known ancient traditions related to the eastern hinterland of Diospolis is that about the Maccabees' home town and burial place in Modi'in (Modi'im). However, the relations to this tradition in the sources relevant to the present study are scanty (e.g. Eusebius, *Onomasticon* 132: 16;

Madaba Map: Alliata 1997: 72; see also Zissu and Perry 2007: 7), and, according to Bagatti (2002b: 207), the Maccabees were not venerated by the Christians. Nevertheless, Clermont-Ganneau, who excavated a large Byzantine period building of a Christian nature at el-Gharbawy, near the site of ancient Modi'in, believed it was a Christian mausoleum which may have been identified by pilgrims as the Maccabees' tombs (1896: 358–377). This opinion has been accepted also by Zissu and Perry (2007: 20).

As to Nicopolis, from the beginning of the Byzantine period it was identified with Emmaus of the New Testament, and various traditions related to Jesus and the apostles have been connected to the city and its close vicinity (Bagatti 2002b: 180–181). Among the places of Christian importance at Eleutheropolis, one can mention the monastery of St. Thomas and the women's monastery of St. Susanna the Martyr (Bagatti 2002a: 128).

The rural hinterland of Eleutheropolis included some sites which commemorated traditions about figures of the Old Testament. The name of Samson was connected in the Byzantine period to one site in the area which seemed to attract pilgrims – the 'well of Samson', north of Eleutheropolis, which was identified as the place where Samson killed a thousand men with the jawbone of an ass (Antoninus Placentinus, *Itinerarium* 32; Hieronymus, *Epistula* 14; Madaba Map: Alliata 1997: 79; see also Sagiv, Zissu and Amit 2002: 185–186). The site of the 'rock of Etham', believed to be Samson's hiding cave (see above), is mentioned only by Eusebius (*Onomasticon* 96: 5) and not in later pilgrim itineraries or monk accounts, and thus does not seem to be a typical sacred or pilgrimage site (as suggested by Gass and Zissu [2005]).

The battle between David and Goliath is another story which attracted pilgrims to the area. The battle site itself is identified in the itinerary of Theodosius the Archdeacon (early sixth century) in a place called Mount Buzana, situated exactly halfway along the road between Jerusalem and Eleutheropolis (*Itinera Hierosolymitana* 3; Tsafrir 1986: 130, 138). This 'mountain' is mentioned also by the pilgrim Antoninus Placentinus (*c.* 570), who erroneously identified it with Mount Gilbo'a. According to him, this was also Goliath's burial place, marked by a huge mound of stones (*Itinerarium* 31). As mentioned, Shenhav (2003: 169) identifies this place with Horvat Hanot, due to the latter's location beside the Eleutheropolis-Jerusalem road and the existence of an extremely large heap of fieldstones there.

The discussed part of the Judaean Shephelah was also the region in which sites relating to some of the biblical prophets were located: the tomb and church of Zachariah near the village of Beth Zachariah (e.g. Antoninus Placentinus, *Itinerarium* 32; Sozomenus, *Historia Ecclesiastica* 9: 17; Theodosius, *Itinera Hierosolymitana* 3; Madaba Map: Alliata 1997: 78); the tomb and church of Micah near the village of Morasthi (Moreshet-Gath) (e.g. Hieronymus, *Epistula* 14; Sozomenus, *Historia Ecclesiastica* 7: 29; Madaba Map: Alliata 1997: 79); and the tomb of Habakkuk at the village of Kela (Ke'ila) (e.g. Antoninus Placentinus, *Itinerarium* 32; Eusebius, *Onomasticon* 114: 15; Sozomenus, *Historia Ecclesiastica* 7: 29).

The earliest monastic presence in the discussed area known to us from the literary sources is related to the Church Father Epiphanius, who in the early fourth century founded a monastery near his village, Besandouk (Beth Zedek), *c.* 4 km south of Eleutheropolis (Sozomenus, *Historia Ecclesiastica* 6: 32; Bagatti 2002a: 148–149). Later, in 456/7, Romanus (a former hegumen of a monastery near Teqoʿa) founded a monophysite monastery near the village of Kefar Torban (Beththerabis), *c.* 10 km north of Eleutheropolis (Johannes Rufus, *Plerophoriae* 39, 87; Zacharias Rhetor, *Historia Ecclesiastica* 262; 23–124; Vailhé 1899–1900: 272–273). A monophysite monastic presence in the vicinity of Eleutheropolis is attested also in the sixth century, by the mention of Mamas, an archimandrite of the monophysite monks in that area (Cyril of Scythopolis, *Life of Sabas* 147: 14; Vailhé 1899–1900: 25). The sources tell us about monasticism in the rural hinterland of Eleutheropolis also in the sixth and seventh centuries, such as the old ascetic monk who lived in a cave near the village of Socho, *c.* 11 km northeast of the city (Johannes Moschos, *Pratum Spirituale* 180–181; Bagatti 2002a: 142; Vailhé 1899–1900: 283). Finally, another monastery which may have existed in the northern Judaean Shephelah is the monastery of Samson, mentioned by Johannes Moschos (*Pratum Spirituale* 170; and see above).

The literary sources tell us also about at least two rural monasteries in the vicinity of Nicopolis. In the fifth century, an old ascetic monk who lived in a cell on his land in the vicinity of Nicopolis bequeathed the land to Gelasios, who founded there a *coenobium*. This was probably a typical rural monastery, which owned olive groves, cattle and beasts of burden (*Apophthegmata Patrum* 177, 180; Vailhé 1899–1900: 357). In *c.* 508, St. Sabas settled in a cell in the rural hinterland of Nicopolis, and shortly afterwards founded there a *coenobium* out of donations made by a local bailiff (Cyril of Scythopolis, *Life of Sabas* 120: 25; Vailhé 1899–1900: 38).

The 'sacred landscape' of the discussed area thus, became an attraction both for pilgrims and monks, and brought about a symbiotic relationship between the two groups. On the one hand, the pilgrims enjoyed the various services supplied by the monasteries and monk-owned road stations situated beside the main and secondary roads which traversed the area. The pilgrims (some of whom were themselves monks) were given food, shelter and a place to pray by these monastic communities, which in addition took them to the local sacred sites and religious attractions (see also Di Segni 2001: 36; Limor 2006: 332–333). On the other hand, the monasteries enjoyed the donations made by the pilgrims and local Christian visitors (Limor 2006: 352–353). The monk-owned road station at Horvat Hanot,[4] as well as the probable hostels found at the monasteries of Horvat Hani and Khirbet es-Suyyagh, are archaeological reflections of this phenomenon. As mentioned, Horvat Hani may have had its own tradition about a holy woman by the name of Hannah, which was by itself a sufficient reason for pilgrims to visit the monastery. The basilical church built at Khirbet es-Suyyagh (an uncommon feature in rural monasteries) was most probably designated not only for the small local monastic community but also for pilgrims and passers-by (who used the 'Emeq Ha-Telem road which passed east of the site), as indicated also by the location of the church outside the main monastery

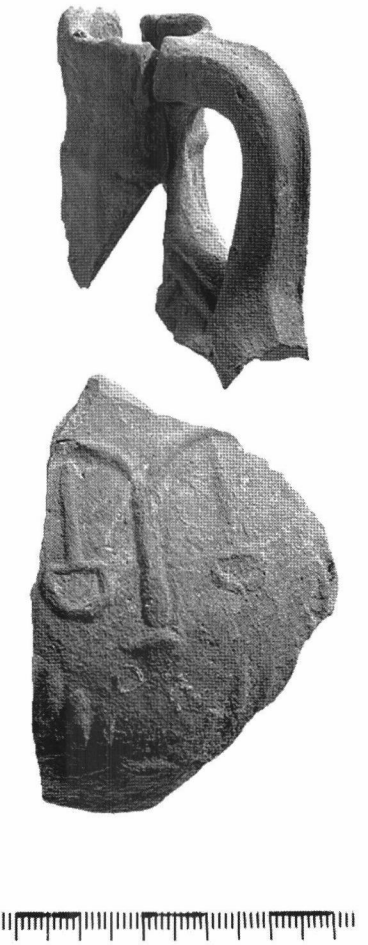

Fig. 4. Khirbet es-Suyyagh: ceramic pilgrims' ampoule.

complex. A ceramic pilgrims' ampoule dated to the sixth-seventh century found at the site (Fig. 4) is another clear indication of the presence of pilgrims in this monastery (Taxel 2006: 177; forthcoming).

Nevertheless, we must remember that isolated rural *coenobia*, including those described above, were first and foremost agricultural monasteries. Agriculture was their main (and at times their only) source of livelihood and it seems that the donations some of them received cannot be compared to their income from selling agricultural surpluses, mainly wine and oil. The wine and oil presses discovered at Horvat Hani, Mevo Modi'im and Khirbet es-Suyyagh and the olive groves mentioned in relation to the monastery of Gelasios near Nicopolis are clear proof of the centrality of agriculture in the life of the area's rural monasteries, despite the involvement of some of them in the hospitality of pilgrims.

In addition to the communal monastic establishments in the form of agricultural *coenobia* and road stations, there were also monks – apparently not many – who choose a life of asceticism in cells and caves, as indicated by the literary sources telling about the ascetics from the vicinity of Nicopolis (including St. Sabas himself) and Socho, and by the archaeological evidence for such habitations at el-Habis, Tel Lavnin and maybe 'Iraq Isma'in. However, despite their abstention from communal life, these monks, by living in a densely populated area and in the immediate vicinity of cities and villages, did not sever themselves from the neighbouring society, as did some of the ascetic monks in the Judaean desert (Hirschfeld 1992: 213–214). The financial help Sabas received from a local bailiff for founding his *coenobium* near Nicopolis is an example. It would not be unrealistic to assume that these monks were sometimes even considered by the local rural (and urban?) society as holy men, from whom one could ask for help as healers and apotropaics (Bar 2005: 60; Di Segni 2001). The icon of Mary mother of Jesus kept in the cave of the ascetic monk who lived near Socho (Johannes Moschos, *Pratum Spirituale* 180) most probably increased the latter's 'holiness' in the eyes of the local villagers.

Summary

The information retrieved from the literary sources and archaeological remains described above illuminates both the uniqueness and similarity of the discussed area in the general background of rural monasticism and pilgrimage in Byzantine Palestine. It seems that the first monks who settled in the area in the fourth and fifth centuries were attracted by a desire to increase the Christianization process in the countryside and by the relatively large number of sites commemorating traditions about Old and New Testament figures and Christian martyrs; some of these sites have been 'discovered', of course, only after the Christian portion in the area's population became more dominant.

Gradually, alongside the increasing Christian pilgrimage to Palestine, the number of monastic establishments in the area became larger, reaching its peak apparently not before the sixth century. The location of the discussed area in between the central hill country with its highly important holy sites (Jerusalem and Bethlehem are only two examples) and the Coastal Plain with its harbour cities and its own Christian centres (such as Gaza), made the Samaria and Judaean foothills an essential transition area for pilgrims and locals who moved in both directions. The tight relationships between pilgrims and monks in the area brought mutual benefit to both groups. Such were also the relationships between the local monasteries – especially the agricultural *coenobia* – and the nearby (mostly Christian) rural settlements. Although in this case the monk-layman relationship can be seen not only in a religious perspective but also in an economic one, since monasteries most probably employed local peasants in various agricultural works, and mainly during the grape and olive harvest seasons and in the production of wine and oil.

The picture presented in this paper outlines the phenomenon of rural monasticism in a given area, which has previously hardly been studied in relation to this issue.

Hopefully it will provide the basis for future studies dealing with rural Christianity/monasticism at the foothills of Samaria and Judeaa, as well as in other regions in Byzantine Palestine which suffer similar research 'neglect'.

Notes

1 Some of B. Bagatti's studies on Christian Palestine also include Byzantine sites of a Christian nature situated at the Samaria and the Judaean foothills (Bagatti 2002a; 2002b), though these sites are presented as part of a larger catalogue and not discussed within any specific cultural or historical context.

2 The following sites were identified by their excavators/surveyors as monasteries, though the evidence for that is at best insecure and ambiguous: Horvat Beth Loya (Patrich and Tsafrir 1993), Horvat Sher (Farhi and Gadot 2006), Horvat Sokho (Gudovitch 1996), Khirbet Deir er-Ruhban (Hirschfeld 1989/1990), Maresha (Kloner 1993a; the excavator has recently changed his mind about the initial interpretation: A. Kloner, pers. comm. 2008), Shoham Bypass Road (Dahari and 'Ad 2000; one of the excavators has recently changed his mind about the initial interpretation: U. Dahari, pers. comm. 2007) and the Byzantine building at Tel Beth Shemesh (Mackenzie 1911: 75–84; for a criticism of Mackenzie's interpretation see Gass and Zissu 2005: 173–175).

3 According to my suggested terminology, isolated rural monasteries are agricultural *coenobia* built at a certain distance (at least some hundred metres) from villages. These isolated monasteries thus functioned as 'independent' farmsteads to all intents and purposes, though maintained close social and economic ties with their neighbouring villages. In addition, there were also monasteries which were built within the area of villages (usually at their fringes) and were an integral part of their physical-architectural layout, and thus can be named village-annexed monasteries. These monasteries, though they sometimes include agricultural installations, reflect some architectural differences from the majority of isolated rural monasteries, such as in the type of church. Whereas the isolated rural monasteries usually had a chapel, the village-annexed monasteries had a basilica. In addition, the village-annexed monasteries do not always reflect the typical characteristics of an agricultural complex (for the functional and archaeological characteristics of Palestinian rural monasteries see Brenk 2004; Hirschfeld 2006: 407–410; Taxel, forthcoming).

4 In this context it is worth noting that at least one more road station with a hostel existed in the discussed area during the Byzantine period (at least in the fifth century). According to the *Life of Peter the Iberian* (54–55), that hostel was located near the village of Socho, where Peter spent a night on his way from Maiumas to Jerusalem. However, there is no indication as to whether this hostel was under monastic ownership or not.

Sources

Antoninus Placentinus, (1977). *Itinerarium Antonini Placentini. Un viaggio in Terra Santa del 560–570 d.c.*, ed. C. Milani (Milan).

Apophthegmata Patrum, auch Gerontikon oder Alphabeticum genannt (1965), ed. B. Miller (Freiburg im Breisgau).

Cyril of Scythopolis, (1991). *The Lives of the Monks of Palestine*, ed. R. M. Price (Kalamazoo, Mich.).

Eusebius, (1904). *Das Onomasticon der Biblischen Ortsnamen*, ed. E. Klostermann (Leipzig).

Hieronymus (1955). *Saint Jérôme Lettres, Tome 5*, ed. I. Hildberg (Paris).

Johannes Moschos, (1857). *Pratum Spirituale*, ed. J.-P. Migne (*Patrologia Graeca* 87.3).

Johannes Rufus, (1912) *Plerophoriae*, ed. F. Nau (*Patrologia Orientalis* 8).

Life of Peter the Iberian, (1895). *Petrus der Iberer. Ein Charakterbild zur Kirchen – und Sittengeschichte des fünften Jahrhunderts. Syrische Übersetzung einer um das Jahr 500 verfassten griechischen Biographie*, ed. R. Raabe (Leipzig).
Sozomenus, (1960). *Kirchengeschichte [Historia Ecclesiastica]*, eds. J. Bidez and G. C. Hausen (Berlin).
Theodosius, (1965). *Itinera Hierosolymitana*, ed. P. Geyer (*CCSL* 175: 113–125).
Zacharias Rhetor, (1899). *Die sogenannte Kirchengeschichte des Zacharias Rhetor* [*Historia Ecclesiastica*], eds. K. Ahrens and G. Krüger (Leipzig).

Bibliography

Alliata, E., (1997). 'The Legends of the Madaba Map'. Pp. 47–101 in M. Piccirillo and E. Alliata (eds.), *The Madaba Map Centenary, 1897–1997: Traveling through the Byzantine Umayyad Period* (Jerusalem).
Aviam, M., (2004). *Jews, Pagans and Christians in the Galilee. 25 Years of Archaeological Excavations and Surveys: Hellenistic to Byzantine Periods* (Land of Galilee 1). (Rochester).
Avi-Yonah, M., (1966). *The Holy Land from the Persian to the Arab Conquests (536 B.C. to A.D. 640): A Historical Geography* (Grand Rapids, Mich.).
Bagatti, B., (1972). 'Il Cristianesimo ad Eleuterpoli (Beit Gebrin)', *Liber Annuus* 22: 108–129.
Bagatti, B., (2002a). *Ancient Christian Villages of Judaea and the Negev* (Jerusalem).
Bagatti, B., (2002b). *Ancient Christian Villages of Samaria* (Jerusalem).
Bar, D., (2003). 'The Christianization of Rural Palestine during Late Antiquity'. *Journal of Ecclesiastical History* 54: 401–421.
Bar, D., (2005). 'Rural Monasticism as a Key Element in the Christianization of Byzantine Palestine', *Harvard Theological Review* 98: 49–65.
Baram, Z., (1993). '"Mearata d-Lod" in the "Monks' Valley" in Shefelat Lod', *Niqrot Zurim* 19: 83–89. (Hebrew).
Baruch, Y., (1999). 'Tell Zif and the Establishment of Christianity in the South of Hebron Mountain'. *Judea and Samaria Research Studies* 8: 171–184 (Hebrew).
Beyer, G., (1931). 'Die Stadtgebiete von Eleutheropolis im 4. Jahr h. n. Chr. und seine Grenznachbarn'. *Zeitschrift des Deutschen Palästina-Vereins* 54: 209–277.
Beyer, G., (1933). 'Die Stadtgebeite von Diospolis und Nikopolis im 4. Jahr h. n. Chr. und ihre Grenznachbarn', *Zeitschrift des Deutschen Palästina-Vereins* 56: 218–253.
Brenk, B., (2004). 'Monasteries as Rural Settlements: Patron-Dependence or Self-Sufficiency?' Pp. 447–475 in W. Bowden, L. Lavan and C. Machado (eds.), *Late Antique Archaeology, Vol. 2: Recent Research on the Late Antique Countryside* (Leiden).
Clermont-Ganneau, C., (1896). *Archaeological Researches in Palestine during the Years 1873–1874, Vol. II* (London).
Conder, C. R., and Kitchener, H. H., (1882). *Survey of Western Palestine, Vol. 2: Samaria* (London).
Corbo, V., (1955). *Gli scavi di Kh. Siyar el-Ghanam (Campo dei Pastori) e i Monasteri dei Dintorni* (Jerusalem).
Dagan, Y., (2006). *Archaeological Survey of Israel: Map of Amazya (109), Vol. 1: The Northern Sector* (Jerusalem).
Dahari, U., (2003). 'The Excavations at Horvat Hani', *Qadmoniot* 126: 102–106. (Hebrew).
Dahari, U., and 'Ad, U., (2000). 'Shoham Bypass Road', *Excavations and Surveys in Israel* 20: 56*-59*.
Di Segni, L., (2001). 'Monk and Society: The Case of Palestine'. Pp. 31–36 in J. Patrich (ed.), *The Sabaite Heritage in the Orthodox Church from the Fifth Century to the Present* (Leuven).

Di Segni, L., (2003). 'A Greek Inscription in the Church at Horvat Hanot'. Pp. 273–276 in: G.C. Bottini, L. Di Segni, and D. Chrupcala (eds.), *One Land, Many Cultures: Archaeological Studies in Honor of Stanislao Loffreda OFM* (Jerusalem).

Dorsey, D. A., (1991). *The Roads and Highways of Ancient Israel.* (Baltimore and London).

Eisenberg, E., and Ovadiah, R., (1998). 'A Byzantine Monastery at Mevo Modi'im'. *Atiqot* 36: 1*-19*. (Hebrew).

Farhi, Y., and Gadot, Y., (2006). 'Horbat Sher'. *Hadashot Arkheologiyot–Excavations and Surveys in Israel* 117 (*http://www.hadashot-esi.org.il*).

Fischer, M., Isaac, B., and Roll, I., (1996). *Roman Roads in Judaea II: The Jaffa-Jerusalem Roads* (BAR International Series 628). (Oxford).

Gass, E., and Zissu, B., (2005). 'The Monastery of Samson up the Rock of Etham in the Byzantine Period'. *Zeitschrift des Deutschen Palästina-Vereins* 121: 168–183.

Gudovitch, S., (1996). 'A Byzantine Building at the Foot of Horbat Sokho'. *Atiqot* 28: 17*-23*. (Hebrew).

Hirschfeld, Y., (1989/1990). Khirbet Deir er-Ruhban. *Excavations and Surveys in Israel* 9: 59–61.

Hirschfeld, Y., (1992). *The Judaean Desert Monasteries in the Byzantine Period.* (New Haven and London).

Hirschfeld, Y., (2002) 'Deir Qal'a and the Monasteries of Western Samaria', Pp. 155–189 in J. H. Humphrey (ed.), *The Roman and Byzantine Near East*, vol. 3 (*Journal of Roman Archaeology Supplementary Series* 49) (Ann Arbor).

Hirschfeld, Y., (2004). 'The Monasteries of Gaza: An Archaeological Review'. Pp. 61–88 in B. Bitton-Ashkeloni and A. Kofsky (eds.), *Christian Gaza in Late Antiquity* (Leiden).

Hirschfeld, Y., (2006). 'The Monasteries of Palestine in the Byzantine Period'. Pp. 401–419, in O. Limor and G. G. Stroumsa (eds.), *Christians and Christianity in the Holy Land: From the Origins to the Latin Kingdom* (Turnhout).

Kloner, A., (1993a). 'A Byzantine Church at Maresha (Beit Govrin)'. Pp. 261–264 in Y. Tsafrir (ed.), *Ancient Churches Revealed* (Jerusalem).

Kloner, A., (1993b). 'Beth Guvrin'. Pp. 195–201, in E. Stern (ed.), *The New Encyclopedia of Archaeological Excavations in the Holy Land, Vol. 1* (Jerusalem).

Limor, O., (2006). ' "Holy Journey": Pilgrimage and Christian Sacred Landscape'. Pp. 321–353, in O. Limor and G. G. Stroumsa (eds.), *Christians and Christianity in the Holy Land: From the Origins to the Latin Kingdom* (Turnhout).

Mackenzie, D., (1911). 'The Excavations at Ain Shems, 1911'. *Annual of the Palestine Exploration Fund* 1911: 41–94.

Mader, A. E., (1918). *Altchristliche Basiliken und Lokaltraditionen in Südjudäa: archäologische und topographische Untersuchungen* (Paderborn).

Nir, D., (1970). *Geomorphology of Israel* (Jerusalem). (Hebrew).

Patrich, J., and Tsafrir, Y., (1993). 'Beth Loya, Horvat'. Pp. 210–213, in E. Stern (ed.), *The New Encyclopedia of Archaeological Excavations in the Holy Land, Vol. 1* (Jerusalem).

Roll, I., (1995). 'Roads and Transportation in the Holy Land in the Early Christian and Byzantine Times'. Pp. 1165–1170, in E. Dassmann and J. Engemann (eds.), *Akten des XII. Internationalen Kongresses für Christliche Archäologie, Bonn 22.-28. September 1991* (Münster).

Roll, I., and Ayalon, E., (1986). 'Roman Roads in Western Samaria'. *Palestine Exploration Quarterly* 118: 113–124.

Roll, I., and Dagan, Y., (1988). 'Roman Roads around Beth Govrin'. Pp. 175–179, in E. Stern and D. Urman (eds.), *Man and Environment in the Southern Shefelah: Studies in Regional Geography and History* (Giv'atayim). (Hebrew).

Sagiv, N., Zissu, B., and Amit, D., (2002). 'The Northern System of Eleutheropolis (Beth Govrin)'. Pp. 177–186 in D. Amit, Y. Patrich, and Y. Hirschfeld (eds.), *The*

Aqueducts of Israel (*Journal of Roman Archaeology Supplementary Series* 46) (Portsmouth).
Sar-Avi, D., (1999). 'Ein el-Sachaniah and the Monasteries in the Wilderness of Ziph', *Judea and Samaria Research Studies* 8: 185–192 (Hebrew).
Schwartz, J. J., (1986). *Jewish Settlement in Judaea after the Bar-Kokhba War until the Arab Conquest, 135 CE-640 CE* (Jerusalem). (Hebrew).
Schwartz, J. J., (1991). *Lod (Lydda), Israel, from its Origins through the Byzantine Period, 5600 BCE.-640 CE* (BAR International Series 571). (Oxford).
Shallev, R., (1994). *The Emmaus Region during the Roman-Byzantine Period* (MA Thesis, Bar-Ilan University). (Ramat-Gan). (Hebrew).
Shenhav, E., (2003). 'Horvat Hanot. A Byzantine Tradition of Goliath's Burial Place'. Pp. 269–272 in: G. C. Bottini, L. Di Segni, and D. Chrupcala (eds.), *One Land, Many Cultures: Archaeological Studies in Honor of Stanislao Loffreda OFM* (Jerusalem).
Taxel, I., (2006). 'Hurvat es-Suyyagh – a Byzantine Monastery in the Northeastern Judaean Shephelah'. *Judea and Samaria Research Studies* 15: 169–183. (Hebrew).
Taxel, I., (forthcoming). *Khirbet es-Suyyagh: A Byzantine Monastery in the Judaean Shephelah* (*Salvage Excavation Reports*). (Tel Aviv).
Tsafrir, Y., (1986). 'The Maps Used by Theodosius: On the Pilgrim Maps of the Holy Land and Jerusalem in the Sixth Century C.E'. *Dumbarton Oaks Papers* 40: 129–145.
Urman, D., (1988). 'Beth Govrin: A History of a Mixed Population during the Mishnah and Talmud Period'. Pp. 151–162, in E. Stern and D. Urman (eds.), *Man and Environment in the Southern Shefelah: Studies in Regional Geography and History* (Giv'atayim). (Hebrew).
Vailhé, S., (1899–1900). 'Répertoire Alphabétique des Monastères de Palestine'. *Revue de l'Orient Chrétien* 4: 512–542; 5: 19–48, 272–292.
Weiss, D., Zissu, B., and Solimany, G., (2004). *Archaeological Survey of Israel: Map of Nes Harim (104)*. (Jerusalem).
Zissu, B., (1999). 'Daniel in the Lion's Den (?) at Tel Lavnin, Judaean Shephelah'. *Revue Biblique* 106: 563–573.
Zissu, B., and Perry, L., (2007). 'Identification of Ancient Modi'in and Byzantine Moditha – Towards a Solution of a Geographical-Historical Issue,' *Cathedra* 125: 5–20. (Hebrew).

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From Carmel to Genesis: A Neolithic Flood for the Holy Land?

SEAN KINGSLEY

Scientific initiatives to locate archaeological evidence for the cataclysmic global flood described in the book of Genesis almost unanimously fall within the realm of what Cline (2007) has recently termed 'junk science'. Centre stage in this perception is the dense mythology surrounding Mount Ararat, from eyewitness accounts of the ark (Bryce 1877: 264–265; Allen 1949; LaHaye and Morris 1976) to the preservation of fragments of its planking in Armenia's Cathedral of Echmiadzin (Parrot 1846: 113; Wells 1933: 249) and the 164 m-long, ship-shaped depression at Durupinar, Turkey, which Creationists herald as the fossilized remains of Noah's ship (Berlitz 1988: 51–59).

Exceptions include Woolley's identification of 'biblical' deluge deposits at Ur of the Chaldees from 1922–34 (1982: 32–34), although these were subsequently rejected as nothing more sinister than traces of localized, perennial flooding of the Euphrates. Fieldwork focussed on the date and nature of the sixth-millennium BCE inundation of the Black Sea has so far received the widest and most serious consideration within the scientific community as the inspiration behind the Noah narrative (Dimitrov and Dimitrov 2004; Ryan *et al.* 1997), even though no single artefact or structure has been detected archaeologically to confirm the theory.

In recent decades Israeli marine archaeologists have surveyed and excavated six Neolithic villages clustered along the Carmel coast at depths of 0.5–12 m. Of these, Ehud Galili's pioneering research at PPNC Atlit, the largest and best-preserved submerged Neolithic site in the Mediterranean (Galili *et al.* 2004), is by far the most informative. Although the underlying chronology of inundation remains complex and arguably unresolved, the village's destruction and abandonment clearly correlate with a global rise in sea level associated with the melting of the Laurentide glacier at the conclusion of the last Ice Age. An analysis of these villages in the regional context of the Carmel Mountains, its history of ancestral occupation and Neolithic religion provides a framework for a robust flood theory, which transports the oldest story in the world back to an Israeli homeland.

Simultaneously, this Israel flood hypothesis contributes to an evolving archaeological revision of the Old Testament (Finkelstein and Silberman 2006) and a reassessment of the historical foundations of biblical myth. The subject holds immediate relevance in the modern day as an independent means of questioning

mounting mainstream perception of the Old Testament as entirely fictional and delusional (Dawkins 2006). Framed by current threats of global warming and associated large-scale flooding, there has arguably never been a more appropriate time to revisit the enigma of the historical realities behind the myth of Noah's flood.

The Black Sea flood

The Black Sea flood theory represents a major milestone in the recognition that the sixth millennium BCE experienced severe sea-level rise. In the mid-1980s Petko Dimitrov (2003: 54) discovered submerged river valleys, deltas and beaches at depths of 90–120 m and dated the flooding of this 423,000 km-square freshwater lake through radiocarbon analysis of vast volumes of dead plankton and organic deposits on the seabed to between 7,500 and 8000 years ago. During the flood 1 km of coastline was lost every 24 hours and the lake's shore was entirely drowned within a month (Dimitrov and Dimitrov 2004: 50). Dimitrov's Bulgarian team was convinced that this indisputable oceanographic apocalypse was the real-life inspiration behind the flood of Genesis, a catastrophic event of unimaginable scale and horror:

> The sea surface w1pas really an apocalyptical scene – thundering brown-red waters and the stench of hydrogen sulfide with dead bodies and the remains of animal washed ashore. Earthquakes, thunder, lightning and rain completed the view of a burning hell (Dimitrov and Dimitrov 2004: 29).

Spectacular confirmation of the theory accompanied Ryan and Pitman's *Noah's Flood. The New Scientific Discoveries about the Event that Changed History* (1998: 149), where Accelerator Mass Spectrometry dated the Black Sea flood to between 5580 and 5470 BCE. More recently, the inundation has been fine-tuned once more to *c.* 5150 BCE, using intact specimens of *C. edule* and *M. caspia* bivalve shells and *M. galloprovincialis* mussel shells drilled from depths of up to 123 m. Ryan, Pitman and their colleagues remain convinced that the flood instantaneously submerged a vast land surface of 100,000 square km, striking with the force of 200 Niagara Falls. More than 50 cubic km of seawater entered the Black Sea through the Bosphorus every day (Ryan *et al.* 1997).

For advocates of the Black Sea flood theory, the catastrophe impacted spectacularly on Neolithic farming. Turney and Brown (2007) have suggested that as the end of the last Ice Age witnessed the largest single North Atlantic freshwater pulse of the past 100,000 years, a 30 m high wall of water accumulated against a ridge near modern Istanbul until the Bosphorus was breached. Up to 72,700 km-square of land was flooded around the former freshwater Black Sea, forcing 145,000 people into a mass migration.

The obvious flaw in this theory is the absence of primary archaeological data for an environmental catastrophe: not one Neolithic skeleton, house or artefact has been recorded despite research projects specifically searching for cultural remains

along submerged shorelines of *c.* 5500 BCE at depths of 155 m (Ballard *et al.* 2000; 2001).

Convincing contrary scientific data has recently weakened the mainstream acceptance that the Black Sea inundation inspired the story of Noah's flood. Instead of a flood path originating in the Bosphorus, the melting of Scandinavia's ice sheet between 17,000 and 10,000 years ago increased the water level of the Caspian Sea by 50 m, and it was this overflow that discharged into the Black Sea. A detailed study of non-indigenous benthic foraminifera has recorded deposition in six major waves of immigration over a prolonged period of time spanning *c.* 7500 and 5000 BCE, not in a single episode. Overall, the mean sea-level rise averaged about 3 cm every 100 years. This change would have been imperceptible to local Neolithic farmers. The image of mass tribal emigration into the heart of Europe is an intellectual mirage (Yanko-Hombach 2007: 9–10, 14).

Despite the interpretative weaknesses of the Black Sea flood hypothesis, it represents an important dawn in the recognition that global warming at the end of the last Ice Age may lie at the core of Genesis' biblical narrative. Crucially, it highlights the pivotal sixth millennium BCE as a time of profound environmental change.

A Holy Land flood

Some 10 km south of Haifa and 400 m north of the Knights Templar castle and Phoenician harbour of Atlit, Pre-pottery Neolithic C Atlit-Yam is a 60,000 m-square village submerged at a depth of 8–12 m, 400 m offshore. It is the largest and most deeply submerged Neolithic site in the Mediterranean (Fig. 1). Over 9000 hours of underwater surveys and keyhole excavations directed by Ehud Galili have produced a remarkable image of everyday life between 8180 and 7300 BP (Galili *et al.* 1993; 2004).

Rectangular houses with paved interiors, a 5.5 m-deep water well with four stone courses preserved (Fig. 2), a flint workshop with a 2.5 m-square deposit of waste, 50–140 cm-wide cooking hearths and 1–2 m-wide storage silos were sheltered from the outer sea by a natural sandstone ridge. The discharge of the River Oren running westward from the Carmel was diverted away from the nucleus of the settlement by a stone-lined dyke wall over 20 m long (Structure 15). To the south a peninsula juts out into the sea, sheltering the village from the prevailing southwesterly wave regime (Galili *et al.* 1993).

The tool assemblage includes flint spearheads, 165 bifacial axes, arrowheads, sickle blades, bone blade handles and needles with drilled eyes, a basalt bowl with a pedestal base and grinding stones. Ornamental objects range from decorated bone with engraved heads of unidentified animals to stone pebbles with incised grids of scratches, figurines/pendants, a limestone phallus and a pebble decorated with a possible vulva. The focus of religion at Atlit was a 2.5 m-wide circular megalithic monument with seven standing stones up to 2.1 m tall. Close by, hollowed out shallow cup-marks and three oval stones are incised with schematic human figures.

Atlit flourished in an ecologically diverse zone at a time when floral and entomological remains suggest that the climate was slightly colder than today by 3°C.

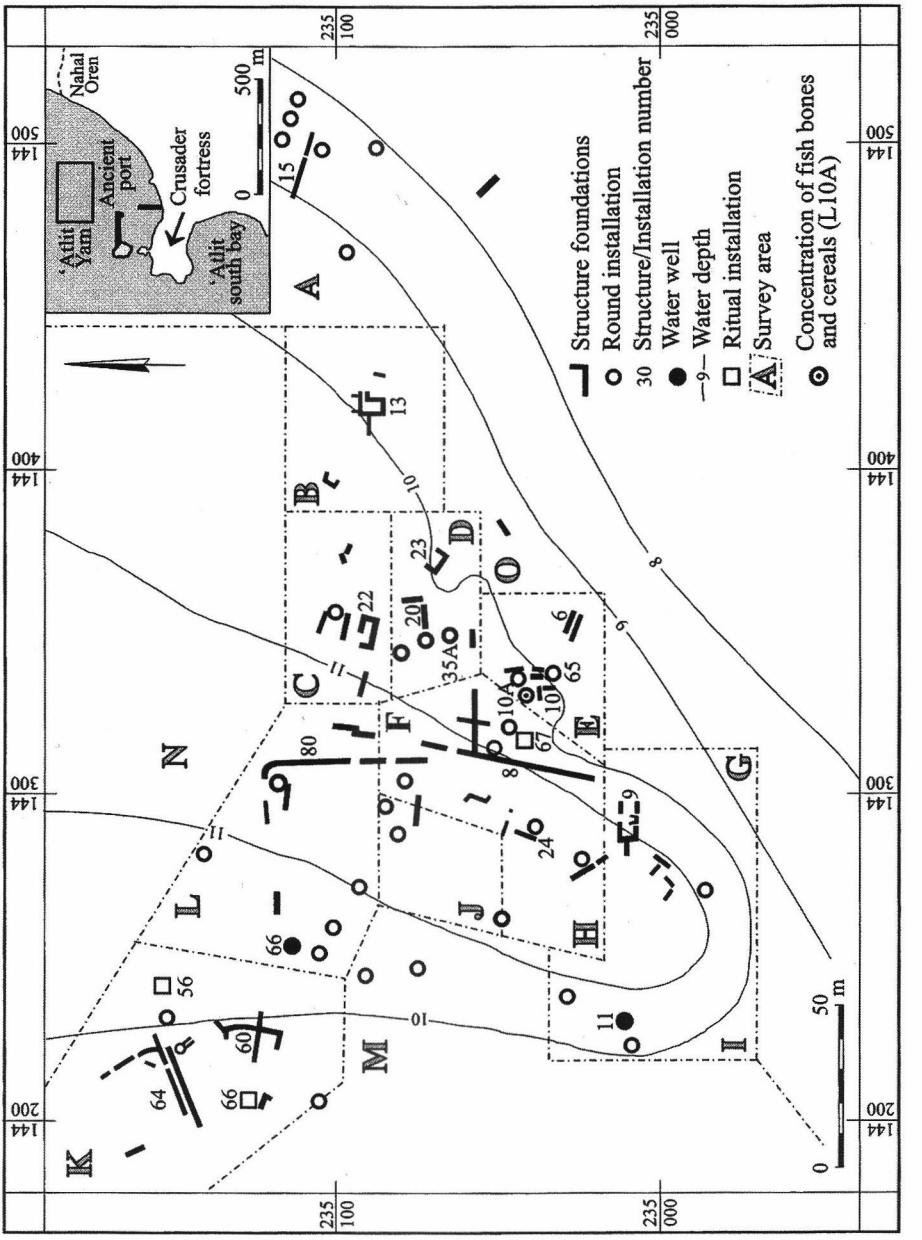

Fig. 1. Plan of Atlit's Pre-Pottery Neolithic C submerged village (from Galili *et al.* 2004: 5, fig. 3).

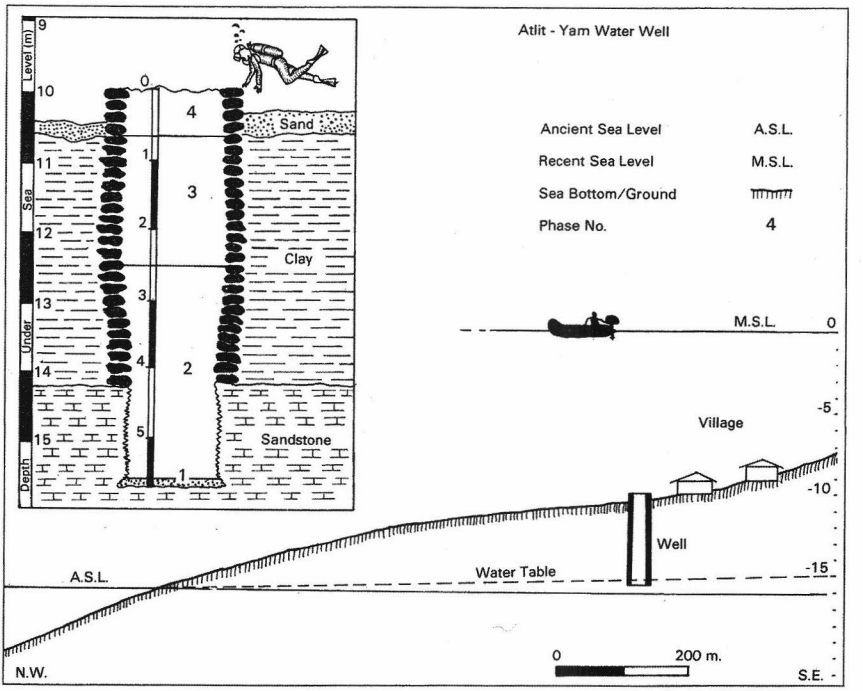

Fig. 2. Cross-section through the PPNC Neolithic well at Atlit (from Galili *et al.* 1993: 141, fig. 10).

The villagers exploited a complex subsistence strategy, combining plant cultivation (hulled emmer wheat, *Triticum dicoccon*, and naked wheat, *T. parvicoccum*), livestock husbandry (wild goat 45%, cattle 43%, pigs 9%, mountain gazelle 3%, deer 0.3%), hunting, gathering, and fishing to maximize the economic potential of a geographically diverse landscape blessed with forests, fields and the sea's bountiful fish, crabs and molluscs (Galili *et al.* 1993).

The unique local ecology was perfectly appointed to minimize risks of famine. Despite its reputation as an agricultural revolution, the economic mainstay of Atlit's Neolithic community was fishing. Some 97% of the site's fish bones (with 6,500 bones alone in Locus 10A: Zohar *et al.* 2001: 1044) are 10–45 cm-long grey triggerfish, *Balistes carolinensis*, a species whose natural habitat lies in depths of 4–15 m. Other species include *Sciaenidae* (drums or Croakers), *Sparidae* (sea bream) and *Mugilidae* (mullet). The villagers' exotic, protein-rich diet also extended to shark or rays (Galili, Lernau and Zohar 2004).

The fish bones were largely contextualized in six structures and installations in association with flints, animal bones and hearths, including a single deposit of 26,000 cereal seeds, the largest concentration from a Pre-Pottery Neolithic site in the Near East (Galili *et al.* 1993). Of greatest interest is feature L10A, which contained the skeletons of whole fish tightly stored in a small space alongside

parcels of cereal grains wrapped in organic material (Zohar *et al.* 2001). Following comparative models from Ghana and the Sinai, the triggerfish may have been gutted, salted and spread out to dry in the sun in this area before being stored in round mud ovens (Galili *et al.* 2004).

The 90 human skeletons recorded at Atlit include crouched inhumations beneath houses (signs of a religious ancestor cult) featuring auditory exostosis pathology from dangerously prolonged immersion free-diving in cold water (Hershkovitz and Galili 1990). The skeletons' worn teeth may also be a side effect of extensive friction caused by ropes and thin leather straps being pulled through mouths to make fishing nets. Elbow abrasion typical of repetitive strain disorder during rowing points towards an expected pattern of fishermen navigating in the open sea (Galili *et al.* 1993).

The tribe used perforated stones, 5–15 cm long and weighing up to 3 kg, to sink fishing nets, and worked bone into hooks and barbed points for spear fishing and harpooning. A pointed spatula perforated at one end may have been used for net making, while flax fibres point to on-site net and rope production (Galili *et al.* 1993). While these relatively short 1.65 m-tall ancestors worked the seas for fish, crabs and molluscs, wolf-like domesticated dogs accompanied them (Dayan and Galili 2000). The excavators term Atlit's mixed subsistence economy a 'Traditional Mediterranean Village model' (MFV; Galili *et al.* 2004).

When Neolithic Atlit was inundated, village life continued along the Carmel coast in five new settlements established at Kfar Samir, Kfar Galim, Tel Hreiz, Megadim and Neve Yam. Although these have received far less attention than Atlit, with fieldwork focusing on seasonal surveys within a Cultural Resource Management framework, they all cluster chronologically between 7100 and 6300 BP and were founded on the edge of the shifting shoreline, adhering to the geostrategic structure of Atlit. Today they are submerged in depths of 0.5–5.0 m, up to 100 m offshore (Galili and Weinstein-Evron 1985).

The most conspicuous features of these pottery Neolithic villages are a series of 25 storage pits, while cup-marks, rock-hewn mortars, flints, pottery and basalt mortar have been recovered at Tell Hreiss. Rectangular houses, silos, hearths, flints, obsidian blades, pottery, basalt grinding stones and fish bones characterize Neve Yam. This settlement's stone-built graves constitute one of earliest examples of organized cemeteries in the Near East. The discovery of thousands of crushed olive stones alongside olive pulp in pits of *c.* 6500 BP at Kfar Samir have pushed back the chronological emergence of olive oil production in Israel by 500 years (Galili *et al.* 1997). The same site contains hearths, pits filled with wooden beams, bird bones, potsherds, flint tools, hammerstones and straw.

The nature of the flood

The causes underlying the abandonment of Atlit are currently the subject of fierce debate. The National Institute of Geology and Volcanology in Italy has ignited controversy by arguing that Atlit was abruptly abandoned due to a massive tsunami

triggered by the collapse of the upper slopes of Mount Etna in Sicily *c.* 5600 BCE, which blanketed the seabed of Calabria with 250 km-square of debris. Offshore seismic surveys have plotted its flow between Sicily and Libya's Sidra Gulf by pursuing and radiocarbon dating a trail of nannofossils, silt ooze, cobblestones and megaturbidite deposits left behind in hundreds of kilometre-long drainage paths (Pareschi *et al.* 2006).

Pareschi's team is convinced that at Atlit a tsunami funnelled into the village from the northeast and cut through a trough sandwiched between the shore and offshore sandstone kurkar ridges. A lens-shaped zone of wheat seeds next to the fish storage area, allegedly associated with human bones, and an absence of the typical kind of trampled house floors found in Neolithic villages, which must have been washed away by the incoming killer wave, are considered indicative of sudden abandonment. Mudbrick, flints, plant matter, pebbles and stones mixed together within liquefied mud are the consequences of Etna's killer wave. Some human bone break patterns also seem to reveal hard impact, which occurred immediately post-mortem or just before death (Pareschi *et al.* 2007: 3–4).

Galili *et al.*'s rebuttal (2008) is largely definitive and reinforces the view that the tsunami theory is an over-imaginative reading of the primary data. So, what did cause the decline and fall of the Neolithic fishing villages of the Carmel? Submergence through tectonic movement can be strongly discounted. Although seismic surveys have encountered two series of faults off Atlit, trending north-south and northwest-southeast, they have remained stable between the Neolithic period and the modern day (Mart 1996). The Carmel coast experienced little tectonic movement, averaging a rate of less than 0.2 mm of movement per year (Sivan *et al.* 2001: 115).

In which precise century Atlit was inundated remains unresolved pending a final report. Certainly radiocarbon samples from secure contexts have produced a scattered range from 7600 BP to 7300 BP and 7250 BCE. If the former date is accurate, then the abandonment may dovetail with Etna's tsunami. If the latter holds true, life carried on for three centuries afterwards.

Atlit certainly leaves the impression that at least part of the settlement may have been abandoned in a hurry. In reality, however, Etna's possible wall of water was just one of four tipping points that wiped out the Carmel coast's Neolithic fishing communities. In almost every way – physically, technologically, religiously, culturally and materialistically – the Neolithic people of Atlit could not have been more different to us. In one respect, they were identical: the mutual threat of catastrophic global warming.

On the other side of the world the Laurentide Ice Sheet, at 35 million km-square the largest glacier complex in the northern hemisphere, was melting. This massive sheet of ice covered most of Canada and a large section of the northern United States between 95,000 and 20,000 years ago. Its 3.2 km-thick southern margins sat directly over what would one day become New York and Chicago, and followed the present course of the Missouri River up to the northern slopes of the Cypress Hills, beyond which it merged with the Cordilleran Ice Sheet (Hill *et al.* 2005: 5).

Around 19,000 years ago this mass of ice cracked open irregularly, discharging an unimaginable volume of meltwater into the world's oceans and forcing sea levels to rise by a minimum of 10–15 m (Carlson 2003). The rate and phasing of this deglaciation remains unclear. Even though the water rise related to the northern ice sheets had reduced significantly by 8000 BP, the seas continued to rise as the West Antarctic ice melt carried on. Rates of global sea-level change varied locally (van Andel 1989: 736).

Archaeological evidence from the Carmel demonstrates that the coast witnessed rapid sea-level rise by 12–16 m between the sixth and fifth millennium BCE, reclaiming a 1 km-wide stretch of seashore (Gopher 1993). Around 8000 BP the water line lay at between -16.5+1 m and -13.5+2 m and at -7+1 m by 7000 BP (Sivan *et al.* 2001: 108, 113). Two major episodes of wet climatic conditions *c.* 8400 BP and 7600 BP (Rosen 2007: 73), when rainfall is estimated to have ranged between 675–950 mm (almost twice present-day rainfall averages), compounded the environmental misery.

If the tsunami theory has any validity at all, it must be seen within a context in which the sea level of the Mediterranean was already rising fast. A tsunami may have crossed the Mediterranean Sea *c.* 5600 BCE and possibly pushed the already elevated sea level over the walls of Atlit's house walls. The tsunami may have flooded part of the village, forcing a temporary abandonment, but life certainly resumed in other parts of the settlement, perhaps closer to shore. Some time within the next 350 years, however, a second surge in sea level rise condemned Atlit to the waves definitively.

As noted above, archaeology proves that the Neolithic tribes of the Carmel battled the elements during acute tipping points within a thousand-year timeframe between *c.* 7300 and 6300 BP. Curiously, they did not learn from the past. Instead, new villages sprouted up on the newly formed shoreline at Kfar Shamir, Kfar Gallim, Tel Hreiz, Megadim and Neve Yam. These new villages flourished between 7100 and 6300 BP, when disaster struck once more as the waters of the eastern Mediterranean rose again.

From the Carmel to Genesis

In comparison to the unsatisfactory existing models for the origins of the flood myth described in the book of Genesis, the archaeological evidence for a deluge off the Carmel provides a compelling and robust possible inspiration. In addition to relocating the legend of the flood back within the Bible Lands, the landscape of the Carmel may also fit into the traditional image of the deluge in both the Epic of Gilgamesh and Genesis.

The Carmel is literally a place of beginnings, with a remarkable uninterrupted sequence of human evolution. Excavations within the Tabun, Jamal, Skhul and El-Wad caves along the Wadi Mearot, 20 km south of Haifa (Figs. 3–5), have identified strata dating between 500,000 years ago at Tabun and *c.* 10,000–8000 BCE, when a Natufian settlement and cemetery were established on a terrace outside the 90 m-

Fig. 3. The Wadi Mearot prehistoric Carmel caves, with occupation spanning 500,000 years. (Photo: S. Kingsley).

long El-Wad cave (Garrod and Bate 1937; Bar-Yosef 1996: 426; Fig. 6). Around 35,000 BP the shoreline lay 87–90 m below the modern sea level (Vita-Finzi and Higgs 1970: 8).

Atlit village is situated 4 km west and opposite another cluster of prehistoric caves along the Carmel. The 50 m-long Abu Usba cave contains Upper Natufian and Mousterian levels of *c.* 30,000 to 10,000 BP (Stekelis and Haas 1952). On the opposite side of the *wadi*, the Nahal Oren cave (Fig. 7) is one of the few caves in the region with an almost complete cultural sequence spanning the Kebaran culture and Pre-Pottery Neolithic B period (*c.* 16,000–6800 BCE). Around 8000 BCE the terrace in front of the cave was levelled to accommodate a small settlement and cemetery. Single-row barbed bone harpoons, fishing rods and hooks suggest that these Natufian settlers were already exploiting the fruits of the sea; an economic relationship with the Mediterranean Sea had already evolved. The PPNA remains include 20 structures and roundhouses in four terraces, cup-marks, elongated sickle blades, arrowheads, ten Anatolian obsidian blades, anthropomorphic figurines and decapitated skeletons beneath house floors (Noy 1993: 1166–70).

All six submerged Neolithic villages lie opposite the prehistoric caves of the Carmel. Despite over 50 years of underwater exploration, not one submerged settlement has been identified to the north or south. What was so special about this

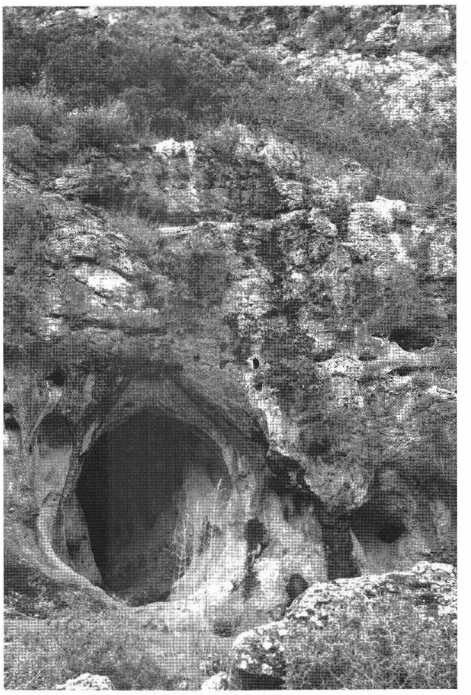

Fig. 4. Es-Skhul Cave, Nahal Mearot, a probable burial ground of *c.* 117,000 to 80,000 BP. (Photo: S. Kingsley).

region and why did the tribe stubbornly refuse to learn the lessons of *c.* 7300 BP and relocate to safer territory? Tradition holds that the Carmel Mountains were highly sacred, while the archaeology has revealed how the hunter-gatherer lifestyle was jettisoned here in favour of village life. In every sense it is a landscape of creation and beginnings, a physical genesis.

An additional remarkable pattern links this landscape to the Epic of Gilgamesh, King of Uruk in modern Iraq some time between 2800 and 2500 BCE (Dalley 1989: 40). This 2,900-line poem contains the earliest reference to a great flood in the Near East and the construction of a boat to survive its destructive powers. One of its major themes is how nurture and civilization subdued wild nature. While the figure of Gilgamesh symbolizes culture, his nemesis-turned-friend, Enkidu, represents the cave man, 'he who does not know how to live'. Born in the wilderness, he is called a primitive savage (Kovacs 1989: 6):

> His whole body was shaggy with hair,
> he had a full head of hair like a woman...
> He knew neither people nor settled living...
> He ate grasses with the gazelles,
> and jostled at the watering hole with the animals.

The Neolithic farmer-fishermen of the Carmel coast also seem to have been tied to this landscape because of the proximity of the mountain. Long before Solomon established monotheism in tenth-century BCE Jerusalem, the gods lived on mountaintops. Canaanite Baal dwelt on Mount Saphon in Syria in the second millennium BCE. The Temple of Jerusalem graced Mount Moriah for the same reason. From this tribal concept emerged the biblical high place, *bamah*. Perhaps it is no coincidence that just over the summit of the Nahal Oren and Abu Usba prehistoric caves is the biblical spot where Elijah and Yahweh vanquished the 450 prophets of Baal, the 400 prophets of Asherah and ended paganism's dominance in Canaan (1 Kings 18: 20–40).

These two spaces, Atlit and Carmel, are also physically linked. At the northern edge of the submerged settlement a circular shrine is composed of seven standing stones. This temple was deliberately situated so that the waters of the River Oren descending from the Carmel Mountains washed its entrance, evident in a travertine coating (Galili *et al.* 2004). Why would a temple be consciously planned so that a freshwater river ran into a house of god? For one purpose only: so the Neolithic inhabitants could inter-communicate with the supernatural character of the Carmel.


THE ILLUSTRATED LONDON NEWS

SATURDAY, JULY 9, 1932.

A NEW ANCESTOR OF MAN: PALÆANTHROPUS OF PALESTINE, REPRESENTING "A DISTINCTIVE PEOPLE UNLIKE ANY OTHER EACH OF PREHISTORIC MEN"—A RECONSTRUCTED DRAWING.

Fig. 5. 'Palaeanthropus of Palestine', a reconstruction of a Mousterian skull excavated by Dorothy Garrod from the Es-Skhul Cave, Wadi Mearot (*London Illustrated News*, 9 July 1932).

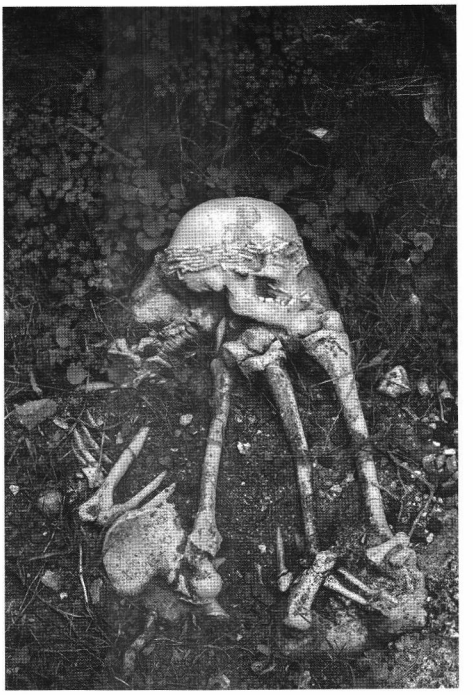

Fig. 6. A Natufian skeleton with dentalia necklace excavated from a cemetery established on a terrace outside El-Wad cave, the Carmel. (Replica in cave. Photo: S. Kingsley).

Mountains are notable sacred places in Gilgamesh's odyssey. In search of enlightenment the king journeyed into the Cedar Forest and climbed a mountain peak for divine guidance. There, Gilgamesh asked the mountain for a dream and favourable message on five occasions. Utnapishtim's first act after surviving the flood was to offer incense to the mountain on which he landed and to set up seven cult vessels. This story echoes the Carmel's spiritual importance as a cosmic mountain, as well as Atlit's seven-stone megalithic temple.

The providence of the number seven has always been central to Middle Eastern religion. In Mesopotamian myth, it was the Seven Sages who taught civilization to humanity (Reiner 1961). In Judaism it is the number of days of the week and branches on the sacred lampstand – Israel's eternal light – that stood in the Temple of Jerusalem until 70 CE. What is so special about this number and what did it mean to the people of the Carmel?

In tribal societies like the Neolithic, religion was primitive and purely tribal. The closest parallel to its religious character is the world of the seer or shaman. Shamans are multi-tasking doctors, priests, poets and mystics rolled into one, who protect communities from disease, famine, war and evil spirits. Appointed through their psychic powers, the shaman – male, female, adult or child – bridges the upper and

lower world of the cosmos. To tribal communities like the Neolithic it was the shaman who, locked in a trance triggered by eating plants or listening to drumbeat, hallucinated through the release of endorphins to reach altered states of consciousness, entering the spirit world and bringing back solutions to mortal problems (Vitebsky 1995).

Standing stones and the number seven are central to tribal shamanism. Amongst the Samoyed tribe of Siberia, in their trance-induced dreams shamans visit seven standing stones at an endless sea, which speak to reveal their functions, including holding down the earth to stop the fields being blown away (Lewis-Williams and Pearce 2005: 161). Amongst the northern Asiatic Ostyak tribe, shamans acknowledge a goddess seated on a seven-storey celestial mountain, who writes a man's fate on a tree with seven branches as soon as he is born (Eliade 1964: 273). The mountainous stream running through Atlit's seven-stone megalithic temple may have served as the tribe's *axis mundi*, the central spine between earth and the spirit world (Lewis-Williams and Pearce 2005: 144). From here Neolithic seers started spiritual journeys through the waters, onto the Carmel and potentially through the caves of the ancestors. This image is entirely irrational to the modern mind, but dovetails precisely with well-documented shamanistic practices. As Price has emphasized (2001: 13), comprehension of shamanism is central to the emerging understanding of the archaeology of the prehistoric mind.

Fig. 7. The Nahal Oren Cave dates between the Kebaran culture and the Pre-Pottery Neolithic B period, *c.* 16,000-6800 BCE. (Photo: S. Kingsley).

The combination of dreams with revelatory messages, surreal journeys, and mountains representing spiritual homelands in the world's earliest flood story, the Epic of Gilgamesh, all make no sense in a biblical context but are entirely logical in the Neolithic world of the shaman (Lewis-Williams and Pearce 2005: 157). Where the book of Genesis has been sanitized for a contemporary eighth-century BCE biblical audience, for whom a logical narrative thread was essential, 2,000 years earlier the Epic of Gilgamesh retained its original Neolithic character, saturated with shamanistic surrealism. This is why the epic calls Gilgamesh 'he who saw the secrets of the deep'.

Not only does the world's earliest flood myth take place amongst a geographical backdrop of civilization subduing primitive prehistory, but the characterization of Enkidu the wild man would have fitted perfectly into the prehistoric world of the Carmel caves. The submerged Neolithic villages of the Carmel, the evidence of catastrophic flooding, and the adjacent caves are the closest parallel to the world of Gilgamesh and Genesis identified to date.

Neolithic revolutions

Renowned as an agricultural revolution, the Neolithic was equally innovative in other spheres, echoes of which seem to have resonated down the millennia into the Near East's flood myths. The Neolithic witnessed the emergence of a complex religious landscape, ranging from the ritual cult centre of Gobekli Tepe in Turkey, adorned with sculpted boar, gazelles, wild cattle, foxes, snakes and birds, to complex cosmological wall paintings at Çatalhoyük and a widespread ancestor cult distinguished by skull decapitation and plaster moulding (Lewis-Williams and Pearce 2005: 21, 102–106). Given the emphasis on cowrie shells in skulls from Jericho (Bienert 1991: 10–11), symbolizing 'seeing', and the preponderance of decapitation narratives in oral shamanistic tradition (Vitebsky 1995: 60), at least some of these ancestors may have served communities as 'seers'. The discovery of a headless gazelle skeleton alongside a plastered skull of 8650 ± 50 BP at Kfar Hahoresh, Israel (Goring-Morris *et al.* 2001: 215–216), points towards shamanistic interment in association with the deceased's spirit animal. The emergence of a potent mythic oral tradition in these times of profound change, characterized by an explosion of religious symbolism, makes much sense.

A central theme of Genesis' account of the flood credits Noah as the father of viticulture, planting vines on Mount Ararat and becoming drunk (Genesis 9: 20–21). This mythology endured in the region into the nineteenth century, when pilgrims could visit the Patriarch's Vineyard (Bryce 1877: 239). Recent research reveals a core of archaeological veracity behind this tradition. McGovern (2003: 23, 64) has demonstrated that the earliest archaeological contexts for viticulture are Neolithic. Grape pips have been recorded at Shulaveris-Gora, a village of circular and oval domed structures of *c.* 6000 BCE in the hills south of Tblisi, while traces of tartaric acid and calcium tartrate (trace elements of wine) have been detected on a sherd of *c.* 5400–5000 BCE at Hajji Firuz Tepe in the northern Zagros Mountains.

The emergence of long-distance maritime trade in the Neolithic is an equally revealing archaeological pattern that converges with the Near East's flood legends. Excavations at As-Sabiyah in Kuwait have exposed over 50 pieces of solidified bituminous concretions dating between 5500 and 5000 BCE, covered with barnacles inter-cut with reed and rope impressions (Carter 2006). Reliant on bundles of reeds sewn together with rope, such craft are technologically comparable to the description of Noah's Ark, which was smeared 'inside and out with pitch' (Genesis 6:14) and to the earlier description of the construction of Utanapishtim's boat in Gilgamesh (Tablet 11), where 'the reed worker carried his (flattening) stone... The child carried the pitch'. This project utilized 'Three times 3600 (units of) of raw bitumen' (Kovacs 1989: 99).

When hardened, this pitch would have been physically identical to the Neolithic concretions excavated at As-Sabiyah, the world's earliest remains of sea-going vessels. Similar fragments of ships' hull coating identified in other Neolithic villages, scattered across Kuwait, originate in Mesopotamia and Iran. Over 60 Arabian sites of the sixth and fifth millennia BCE studded along the shores of the Gulf contain objects traded with Mesopotamia, the homeland of Gilgamesh (Carter 2006: 58).

Conclusion: the myth of a global flood

The proposition that core elements of the Epic of Gilgamesh and the book of Genesis contain memories of real-life flooding that afflicted Neolithic villages along the Carmel coast of Israel between 8180 and 7300 BP assumes that cultural memory can persist orally across millennia. Whereas the debate over the Exodus from Egypt suggests that the retention of core oral tradition can be retained for some 400 years, the flood theory demands a leap of 3000 years until Gilgamesh was written and a further two millennia until Genesis was recorded in the Israelite court of Jerusalem. Is such cultural memory remotely plausible?

Beyond the confines of the Bible, comparative studies emphasize the power and undistorted durability of oral tradition. The local community living on Saaremaa Island in Estonia had long insisted that a field at Linnamae was once an ancient hill fort, although no traces were physically visible. When archaeologists started excavating the site, a fort existing for about 1000 years from early first millennium BCE was uncovered. A similar period of recall has been verified in Denmark, where the people of the Bøllinge township tell traditional stories about a gold-filled wagon lost at the bottom of a bog. In the 1980s archaeologists found the remains of two Iron Age wagons at this location. Similar legends from across Scandinavia recall real-life events that transpired up to 4000 years ago (Haas *et al.* 2003: 71). Whereas modern society and its precious written archives are programmed to dismiss the relevance of oral tradition, ancient intellectuals deeply respected the oral word. As Socrates complained to Phaedrus, 'Written words seem to talk to you as though they were intelligent, but... once a thing is put in writing, the composition, whatever it may be, drifts all over the place' (*Phaedrus* 275d; Schniedewind 2004: 14).

The logistical pitfalls of documenting exactly how stories of flooding were preserved and disseminated down the centuries is beyond the scope of this paper. However, to what extent does the description of a global flood in Genesis and the evidence for a localized inundation along the Carmel clash?

As a narrative, the legend of Noah's flood is a freak of preservation whose major contribution is as an expression of the outstanding literary talents of the Israelite court of Jerusalem around the eighth century BCE. It is a uniquely preserved document that describes an event that afflicted the entire globe. The single difference between these far-flung lands and Israel is Genesis' disproportionate visibility in mainstream culture through knowledge of the Old Testament, diffused through Judaism and Jewish historians such as Josephus, Christianity and its chroniclers like Faustus of Byzantium, and finally widespread dissemination in Islam.

Archaeological evidence for equally traumatic contemporary catastrophes has been documented in detail across western Europe and the Far East. In Italy a Neolithic village built *c.* 5700 BCE of some of 3000 oak posts lies under 3 m of clay beneath Lake Bracciano. The village and its canoes were abandoned *c.* 5230 BCE (Robb 2007). A forest and settlement of 8565–8345 BP, containing hundreds of flints and a hearth, is submerged off Bouldnor Cliff on the Isle of Wight (Momber 2000). Bouldnor is one small manifestation of a vast network of prehistoric villages strewn across the ocean floor of the English Channel and North Sea. From Tynemouth in Scotland to Denmark's Wismar Bay, Neolithic wattle house fencing, skeletons, arrowheads, carved antlers, trade goods, pine forests and fish traps are submerged at depths of up to 60 m (Flemming 2002).

A conspicuous gap in the radiocarbon record of the Iron Gates Mesolithic of the Danube Valley similarly suggests that many riverbank sites were abandoned through global climatic oscillations in the late Mesolithic and early Neolithic. Based on distributions of radiocarbon dates from Lepenski Vir, Padina, Schela Cladovei and Vlasac, intensive use of the principal riverside settlements of the Iron Gates came to an end between *c.* 8250 and 7900 cal BP (Bonsall *et al.* 2002/3: 1, 2, 4, 9). Further afield at Kuahuqiao, along the Lower Yangzi River in China's Zhejiang Province, a workshop for crafting canoes, wooden houses on posts, and remains of rice, pigs and dogs have come to light within a 1080 m-square village beneath the river. Once again, it drowned during the cataclysmic sixth millennium BC (Jiang and Liu 2005).

According to the current model, the flooding that inundated such settlements in the Late Mesolithic and Neolithic periods were all a consequence of global warming at the conclusion of the last Ice Age. In this regard, the flood was all-encompassing. Its appearance in the Epic of Gilgamesh and Genesis was a result of providential preservation amongst the epic traditions of literature and current levels of literacy. However, its crystallization into a partly factual mythic universe was rooted in the emergence of a new religious order in the Neolithic period.

The current model is strongly influenced by theory accentuating the archaeology of the mind. As Lewis-Williams and Pearce convincingly argue (2005: 166), 'Although Neolithic narratives may be beyond our grasp, the crucial building-blocks are not, and it is they that afford the most acute insights into past religious experiences and the beliefs that were built on them.'

Bibliography

Ballard, R.D., Coleman, D.F., and Rosenberg, G.D., (2000). 'Further Evidence of Abrupt Holocene Drowning of the Black Sea Shelf', *Marine Geology* 170: 253–261.

Ballard, R.D., Hiebert, F.T., Coleman, D.F., Ward, C., Smith, J., Willis, K., Foley, B., Croff, K., Major, C., and Torre, F., (2001). 'Deepwater Archaeology of the Black Sea: the 2000 Season at Sinop, Turkey', *AJA* 105: 607–613.

Bar-Yosef, O., (1996). 'Carmel Caves'. Pp. 424–428 in E.M. Meyers (ed.), *The Oxford Encyclopedia of Archaeology in the Near East* (Oxford).

Berlitz, C., (1988). *The Lost Ship of Noah* (London).

Bienert, H. D., (1991). 'Skull Cult in the Prehistoric Near East', *Journal of Prehistoric Religion* 5: 9–23.

Bonsall, C., Macklin, M.G., Payton, R.W., and Boroneant, A., (2002/3). 'Climate, Floods and River Gods: Environmental Change and the Meso–Neolithic Transition in Southeast Europe', *Before Farming* 4: 1–15.

Bryce, J., (1877). *Transcaucasia and Ararat. Being Notes of a Vacation Tour in the Autumn of 1876* (London).

Carlson, A. E., (2003). 'Retreat of the Laurentide Ice Sheet and Global Sea Level Rise'. In *Geological Society of America 2003 Seattle Annual Meeting* (Seattle).

Carter, R., (2006). 'Boat Remains and Maritime Trade in the Persian Gulf during the Sixth and Fifth Millennia BC', *Antiquity* 80: 52–63.

Cline, E., (2007). *From Eden to Exile. Unraveling Mysteries of the Bible* (Washington).

Dalley, S., (1989). *Myths from Mesopotamia. Creation, the Flood, Gilgamesh and Others* (Oxford University Press).

Dawkins, R., (2006). *The God Delusion* (London).

Dayan, T., and Galili, E., (2000). 'A Preliminary Look at some New Domesticated Dogs from Submerged Neolithic Sites off the Carmel Coast'. Pp. 29–33 in S.J. Crockford (ed.): *Dogs Through Time: An Archaeological Perspective, Proceedings of the 1st ICAZ Symposium on the History of the Domestic Dog* (BAR International Series 889, Oxford).

Dimitrov, P., (2003). 'The Black Sea – a Clue to the Secret of the World Flood', *Institute of Oceanology* 4: 52–56.

Dimitrov, P., and Dimitrov, D., (2004). *The Black Sea, the Flood and the Ancient Myths* (Slavena, Varna).

Eliade, M., (1964). *Shamanism. Archaic Techniques of Ecstasy* (London).

Fairbanks, R. G., (1989). 'A 17,000-year Glacio-eustatic Sea Level Record: Influence of Glacial Melting Rates on the Younger Dryas Event and Deep-ocean Circulation', *Nature* 342: 637–642.

Finkelstein, I., and Silberman, N. A., (2006). *David and Solomon. In Search of the Bible's Sacred Kings and the Roots of the Western Tradition* (New York).

Flemming, N. C., (2002). *The Scope of Strategic Environmental Assessment of North Sea Areas SEA3 and SEA2 in Regard to Prehistoric Archaeological Remains* (DTI, London).

Galili, E., Gopher, A., Rosen, B., and Horvitz, L., (2004). 'The Emergence of the Mediterranean Fishing Village in the Levant and the Neolithic Anomaly of Cyprus', in E. Peltenburg and A. Wasse, (eds.), *Neolithic Revolution, New Perspectives On Southwest Asia in Light of Recent Discoveries On Cyprus* (Levant Supplementary Series, Volume 1, Oxford).

Galili, E., Kolska Horvitz, L., Hershkovitz, I., Eshed, V., Salamon, A., Zviely, D., Weinstein-Evron, M., and Greenfield, H., (2008). 'Comment on "Holocene Tsunamis from Mount Etna and the Fate of Israeli Neolithic Communities"', *Geophysical Research Letters* 35: 1–3.

Galili, E., Lernau, O., and Zohar, I., (2004). 'Fishing and Marine Adaptations at Atlit-Yam, a Submerged Neolithic Village off the Carmel Coast, Israel', *'Atiqot* 48: 1–34.

Galili, E., Rosen, B., Gopher, A., and Horwitz, L. K., (2002). 'The Emergence and Dispersion of the Eastern Mediterranean Fishing Village: Evidence from Submerged Neolithic Settlements off the Carmel Coast, Israel', *Journal of Mediterranean Archaeology* 15.2: 167–198.

Galili, E., Stanley, D. J., Sharvit, J., and Weinstein-Evron, M., (1997). 'Evidence for Earliest Olive-Oil Production in Submerged Settlements off the Carmel Coast, Israel', *Journal of Archaeological Science* 24: 1141–1150.

Galili, E., and Weinstein-Evron, M., (1985). 'Prehistory and Paleoenvironments of Submerged Sites along the Carmel Coast of Israel', *Paléorient* 11: 37–52.

Galili, E., Weinstein-Evron, M., Hershkovitz, I., Gopher, A., Kislev, M., Lernau, O., Kolska-Horwitz, L., and Lernau, H., (1993). 'Atlit-Yam: A Prehistoric Site on the Sea Floor off the Israeli Coast', *JFA*, 20.2: 133–157.

Garrod, D.A.E., and Bate, D.M.A., (1937). *The Stone Age of the Carmel. Excavations at the Wady El Mughara. Volume I (*Oxford).

Gopher, A., (1993). 'Sixth-Fifth Millennia BC Settlements in the Coastal Plain, Israel', *Paléorient* 19: 55–63.

Goring-Morris, N., Boaretta, E., and Weiner, S., (2001). 'Radiometric Dating of the PPNB Mortuary Site of Kfar HaHoresh, Lower Galilee, Israel: Problems and Preliminary Results', *Journal of the Israel Prehistoric Society* 31: 213–218.

Haas, A., Peekna, A., and Walker, R.E., (2003). 'Echoes of Ancient Cataclysms in the Baltic Sea', *Folklore* 23: 49–81.

Hershkovitz, I., and Galili, E., (1990). '8000 Year-old Human Remains on the Sea Floor near Atlit, Israel', *Human Evolution* 5: 319–358.

Hill, H.W., Flower, B.P., Quinn, T.M., Hollander, D.J., and Guilderson, T. P., (2006). 'Laurentide Ice Sheet Meltwater and Abrupt Climate Change during the Last Glaciation', *Paleoceanography* 21: 5–33

Jiang, L., and Liu, L., (2005). 'The Discovery of an 8000-year-old Dugout Canoe at Kuahuqiao in the Lower Yangzi River, China', *Antiquity* 79. http://antiquity.ac.uk/projgall/liu/index.html.

Kovacs, M.G., (1989). *The Epic of Gilgamesh* (Stanford).

LaHaye, T., and Morris, J., (1976). *The Ark on Ararat* (Nashville).

Lewis-Williams, D., and Pearce, D., (2005). *Inside the Neolithic Mind. Consciousness, Cosmos and the Realm of the Gods* (London).

McGovern, P., (2003). *Ancient Wine. The Search for the Origins of Viniculture* (Princeton).

Mart, Y., (1996). 'Faults at the Proximal Continental Shelf off Atlit, Central Israel, and their Neotectonic Significance', *Geo-Marine Letters* 16: 41–48.

Momber, M., (2000). 'Drowned and Deserted: a Submerged prehistoric Landscape in the Solent, England', *IJNA* 29: 86–99.

Noy, T., (1993). 'Oren, Nahal', in E. Stern (ed.), *The New Encyclopedia of Archaeological Excavations in the Holy Land, Volume 3* (Jerusalem), 1166–1170.

Pareschi, M. T., Boschi, E., and Favalli, M., (2006). 'Lost Tsunami', *Geophysical Research Letters* 33: 1–6.

Pareschi, M. T., Boschi, E., and Favalli, M., (2007). 'Holocene Tsunamis from Mount Etna and the Fate of Israeli Neolithic Communities', *Geophysical Research Letters* 34: 1–6.

Pleins, J. D., (2003). *When the Great Abyss Opened* (Oxford University Press).

Price, N. S., (2001). 'An Archaeology of Altered States: Shamanism and Material Culture studies'. Pp. 3–16 in N. S. Price (ed.), *The Archaeology of Shamanism* (London).

Reiner, E., (1961). 'The Etiological Myth of the "Seven Sages"', *Orientalia*, N.S. 30: 1–11.

Robb, J., (2007). *The Early Mediterranean Village: Agency, Material Culture, and Social Change in Neolithic Italy* (Cambridge University Press).

Ryan, W., and Pitman, W., (1998). *Noah's Flood. The New Scientific Discoveries about the Event that Changed History* (New York).

Ryan, W. B. F., Pitman, W. C., Major, C. O., Shimkus, K., Moskalenko, V., Jones, G. A., Dimitrov, P., Gorür, N., Sakinç, M., and Yüce, H., (1997). 'An Abrupt Drowning of the Black Sea Shelf', *Marine Geology* 138: 119–126.

Schniedewind, W. M., (2004). *How the Bible Became a Book. The Textualization of Ancient Israel* (Cambridge).

Sivan, D., Wdowinski, S., Lambeck, K., Galili, E., and Raban, A., (2001). 'Holocene Sea-level Changes along the Mediterranean Coast of Israel, Based on Archaeological Observations and Numerical Model', *Palaeogeography, Palaeoclimatology, Palaeoecology* 167: 101–117.

Stekelis, M., and Haas, G., (1952). 'The Abu Usba Cave (Mount Carmel)', *IEJ* 2: 15–47.

Turney, C. S. M., and Brown, H., (2007). 'Catastrophic Early Holocene Sea Level Rise, Human Migration and the Neolithic Transition in Europe', *Quaternary Science Reviews* 26: 2036–2041.

van Andel, T. H., (1989). 'Late Quaternary Sea Level Changes and Archaeology', *Antiquity* 63: 733–745.

Vitebsky, P., (1995). *The Shaman. Voyages of the Soul. Trance, Ecstasy and Healing from Siberia to the Amazon* (London).

Wells, C., (1933). *Kapoot. The Narrative of a Journey from Leningrad to Mount Ararat in Search of Noah's Ark* (London).

Woolley, L., (1982). *Ur 'of the Chaldees'* (London).

Yanko-Hombach, V., (2007). 'Late Quaternary History of the Black Sea: an Overview with Respect to the Noah's Flood Hypothesis'. Pp. 5–20 in G. Erkut and S. Mitchell (eds.): *The Black Sea: Past, Present and Future* (British Institute at Ankara Monograph 42).

Zohar, I., Dayan, T., Galili, E., and Spanier, E., (2001). 'Fish Processing during the Early Holocene: A Taphonomic Case Study from Coastal Israel', *Journal of Archaeological Science* 28: 1041–1053.

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A Response to 'Surveys and Excavations at the Nazareth Village Farm (1997–2002): Final Report'

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A 61-page report on Nazareth archaeology was published in the 2007 issue of the *Bulletin of the Anglo-Israel Archaeological Society* (25; 16–79), too late for consideration in the recent book, *The Myth of Nazareth* (American Atheist Press, March 2008. The report, entitled 'Surveys and Excavations at the Nazareth Village Farm (1997–2002): Final Report', is authored by Stephen Pfann, Ross Voss, and Yehudah Rapuano. Arguably, this extended article constitutes the most significant contribution to the archaeology of the basin since Fr. Bellarmino Bagatti's two-volume *Excavations in Nazareth* (English edition 1969). It is referred to below as the NVFR (Nazareth Village Farm Report).

The Nazareth Village Farm (NVF) lies on approximately 15 acres to the south and west of the present Nazareth Hospital. The NVFR's authors locate the area 'about 500 m from the site of ancient Nazareth', evidently measuring from the Latin Church of the Annunciation (in the so-called 'Venerated Area') to the nearest point of the NVF. *Contra* Luke 4:29 and longstanding Church tradition, however, the inhabited portion of the ancient village was not located on the hillside, as I have attempted to demonstrate in *The Myth of Nazareth*. The southern flank of the Nebi Sa'in, where the Franciscan Venerated Area is located, is honeycombed with tombs and agricultural installations (some immediately under the Church of the Annunciation itself), and is quite steep (averaging a 14% grade).[1] The Jewish village (of later Roman and early Byzantine times) surely existed on the relatively flat valley floor, between tombs to the east and the west.[2] Thus, the settlement was about 1 km from the NVF, still close enough for daily agricultural work by the ancient villagers.[3]

NVFR: 19–68 amply demonstrates that the terraced area under examination was a locus of ancient agricultural activity. The steepness of the NVF (the average slope is 20%) and the discovery of a tomb[4] reveal that this area also was not the site of ancient habitations, despite the ambitious plan (known as 'Nazareth Village') presently underway in the NVF to create an impression of Jesus' home town.[5]

The University of the Holy Land (UHL), as well as its subsidiary, the Center for the Study of Early Christianity (CSEC), seek to provide an 'academic foundation' for the Nazareth Village Farm endeavour, as the opening sentence of the NVFR reveals:

> For nearly two decades, the University of the Holy Land (UHL) and its subsidiary, the Center for the Study of Early Christianity (CSEC), has laboured to lay the academic foundation for the construction of a first-century Galilean village or town based upon archaeology and early Jewish and Christian sources. (NVFR: 19)

Stephen Pfann, one of the NVFR authors, is President of the UHL, while Ross Voss chairs the institution's Department of Archaeology. Of the three NVFR authors, however, it is with Rapuano's work that we shall be most concerned, for he is responsible for the critical concluding section on pottery (NVFR: 68–77). As regards dating, the pottery is the most diagnostic element in the report for—with one brief exception (NVFR: 39–40, see below)—the remainder of the report concerns only very generally dateable structural remains such as terraces, watchtowers, and presses (if they are dateable at all). The extended discussion of those structural features is illuminating and well written. It has apparently met the NVFR's own stated goal:

> It was concluded that excavation would be necessary in order to further define the nature of the ancient farm with the hope that the excavations would illuminate previously unknown aspects of terrace farming in the Galilee. Hitherto, little research had been undertaken on terracing and ancient methods of cultivation practised in the Galilee (Golomb and Kedar 1971). The remains of the farm were considered to be the most important, since they could potentially provide a key witness to the life and livelihood of the ancient villagers. (NVFR: 20)

The NVFR expands our knowledge of the character of the ancient Jewish settlement, and shows that the village of later Roman and Byzantine times tended both a 'dry' and a 'wet' farm (with a cistern and water channels, and possibly a spring house), producing a variety of crops on this hillside, principally vines, but also olive trees and possibly figs, almonds, wheat, barley, legumes, and leafy vegetables (NVFR: 23).

Two surveys

Until the NVFR, the only published report dealing with the Nazareth Village Farm area was a brief two-paragraph précis in *Hadashot Arkheologiyot* (1999; English p. 90, Hebrew p. 113) entitled 'Nazerat (Nazareth) Area, Survey', authored by Mordechai Haiman.[6] The survey was conducted in April 1997, 'on behalf of the [Israel] Antiquities Authority'. At that time Haiman was director of the IAA's survey department, a post he held from 1994 to 2003. It is surprising that Haiman's Nazareth report is not mentioned in the NVFR bibliography. In the text of the NVFR, his survey work is delimited in the following ways: in duration (two days, NVFR: 25); in extent (only areas A and B were surveyed and, furthermore, features within them were only selectively plotted, NVFR: 25); and in scope (a 'GPS survey', NVFR: 25, 77).

Another survey, conducted by UHL/CSEC in February of 1997, receives the following notice on the first page of the NVFR:

> [After the initial identification of an ancient winepress and agricultural terraces in 1996...] A survey of the area, which covered approximately 15 acres, was subsequently commissioned by UHL/CSEC and was conducted in February 1997 by the institution's archaeological staff, under the direction of Ross Voss.

This survey was 'on behalf of UHL/CSEC', as a remark in the concluding 'Acknowledgements' (*sic*) section makes clear:

> The survey of the site at Nazareth was conducted on behalf of the University of the Holy Land (UHL) and its subsidiary, the Center for the Study of Early Christianity (CSEC), in February 1997, under the direction of Ross Voss with Stephen Pfann, Yehudah Rapuano, and Jan Karnis. The GPS survey was undertaken by Mordechai Haiman. (NVFR: 77)

My principal purpose regarding these two surveys is to note that they make substantially different claims. The Haiman/IAA survey concludes that '[s]herds, mostly dating to the Late Roman period (second–fourth centuries CE), were scattered on the surface'. It makes no mention of evidence from Hellenistic times or from Early Roman times. On the other hand, the UHL/CSEC survey (and subsequent excavations carried out under the auspices of UHL/CSEC)[7] claims that a substantial amount of pottery found at the NVF dates both to Hellenistic and to Early Roman times. These latter claims will be carefully examined below.

The NVF pottery

The NVFR repeatedly summarizes the dateable pottery evidence with a phrase whose meaning is quite equivocal:

> Potsherds were found on the surface of the terraces dating from various periods beginning with the early to late Roman period.

The phrase 'beginning with the early to late Roman period' occurs at NVFR: 19, 24, 28, 32, and 56. We shall determine the force of this phrase through a close consideration of the pottery itemizations at the end of the NVFR. In any case, the phrase is curiously at variance with the NVFR's own conclusions, which claim that a number of sherds date to Hellenistic times (see below). It also goes considerably beyond the Haiman survey report, as we noted above. Over 700 fragments were recovered at the NVF, and sometimes they are 'tiny' or 'very fragmentary' (NVFR: 74). In fact, the opening sentence of Rapuano's pottery report (under the rubric 'Appendix 2', NVFR: 68–77) begins with a caveat:

> The ceramic finds from the Nazareth Village Farm excavations were for the most part quite fragmentary, as might be expected of pottery recovered from agricultural installations and terraces.

The accompanying NVFR pottery diagrams confirm the modest size of most of the sherds. We must keep this in mind when considering any emphatic claims regarding dating. As is well known, though observations can sometimes be made from small sherds regarding form and type, composition, colour, and even method of manufacture of the artefact, such modest sherds commonly offer a precarious basis indeed for determining those elements, as well as the artefact's date. It is no surprise that Rapuano's 75 itemizations are fairly peppered with tentative words such as *possibly, probably, evidently, appeared to be*, etc. Interestingly, the archaeologist also appears to become increasingly tentative as his report proceeds, so that his final 15 itemizations (from 42: 5 onwards, NVFR: 76) have scarcely an entry without one of the above-noted equivocal words or phrases.

In my book, *The Myth of Nazareth* (*MON*), I concluded that none of the post-Iron Age oil lamps dates before *c.* 25 CE, that none of the post-Iron Age tombs dates before *c.* 50 CE, and that 'not a single post-Iron Age artefact, tomb or structure at Nazareth dates with certainty before 100 CE' (*MON*: 205). My overall conclusion was that the settlement came into existence between the two Jewish revolts (cf. *MON*: 206, 288ff.). A post-70 CE emergence for Nazareth should be borne in mind when we note that in *every* case where Rapuano dates a sherd before *c.* 70 CE (i.e., to the Hellenistic period, or to 'Early Roman' times), he supplies a tentative word. The archaeologist is, by his own admission, not certain of pre-70 CE evidence.

Problems of double-attribution

Additional problems confront the person who patiently itemizes all of Rapuano's findings. Readers of *MON* (pp. 176 ff.) will recall that, in an embarrassing but revealing lapse, Fr. Bagatti assigned the same sherd on one page to the Iron Age and on another page to Roman times. No printing error ('typo') could have been involved, due to the accompanying discussion by the Italian archaeologist. Rapuano is capable of not one, but three similar contradictions. Again, no mere printing errors obtain, for Rapuano's double datings are accompanied by incompatible descriptions as well as findspots. Though there is certainly an explanation (and I will not speculate how in these cases two apparently different sherds were assigned the same number), such internal contradictions must have a deleterious effect on our confidence in the entire NVF pottery report. The three double attributions require explanation as well as correction. They are as follows:

(1) On page 74 of the NVFR Rapuano assigns Fig. 41:32 to the Ottoman period, and on the next page dates it from 'the third century to early fifth century AD'. (The Ottoman period began in the fourteenth century, and hence the difference between the two attributions is a millennium or more.)
(2) On page 73 of the NVFR (6th line), Rapuano itemizes artefact 41:4. He describes it as the 'plain rim' of a bowl of Adan-Bayewitz Type 1E ('mid-third to early fifth century AD'), and notes that the findspot was locus 31 of Area B2. On p. 75, however, the archaeologist again itemizes artefact 41:4. The findspot

is now Locus 7 of Area B2, and it is 'evidently the rim of an everted-rim bowl, possibly Adan-Bayewitz Form 3B, dated from [the] early second century to the later fourth century AD'.

(3) On page 77 of the NVFR (top line), Rapuano itemizes artefact 43:3. He describes it as 'a small bowl with a cupped rim', and states that the findspot was Locus 2 of Area C3. No dating is offered for this shard, which from the diagram appears to be part of a rim. Later, on the same page, the archaeologist again itemizes artefact 43:3. The findspot is now Locus 5 of Area C3, and Rapuano describes it as a 'krater' dating 'from the end of the first century to the mid-third century AD'.

Incidentally, these anomalies do not impact a post-70 CE emergence for the settlement. In each case, at least one of the two furnished datings renders these artefacts compatible with the conclusions arrived at in *The Myth of Nazareth*, namely, that the village was initially settled after the First Jewish War.

Non-Roman evidence

Before proceeding to a discussion of the Roman-Byzantine pottery from the NVF, we shall review the brief discussion at NVFR: 39–40, which presents extra-Roman evidence unearthed at the NVF, and which also offers a problematic review of coin evidence from the remainder of the basin.

An interesting shard from 'Early Bronze III' is pictured at NVFR: 40. It measures about 3 x 4 inches and was found on the surface in an unstratified context. The photo is too small to make out much detail, but the discussion notes 'indentation on the underside of the vessel, below the rim, [which] is typical of platters relatively late in the Early Bronze III'. This description recalls a vessel found in nearby Tomb 7 with 'incisions below the neck'.[8] That bowl was among the earliest evidence from the basin, dating to 2200–2000 BCE. Those centuries are variously known as the Intermediate period, Middle Bronze I (Amiran), or Early Bronze III. The latter nomenclature is adopted by the authors of the NVFR, who note that the incision pattern 'is typical of platters relatively late in the Early Bronze III'. This shard can thus be added to the artefacts used by the very first settlers of the basin, those who established the Canaanite village which I have argued was known in the Bronze and Iron Ages as Japhia.[9]

For completeness, mention can be made of a Gaza Ware bowl (Ottoman period) pictured at NVFR: 40. On the previous page we also see the photo and description of a coin dating 578–582 CE. It was discovered in Area A and 'represents the latest Byzantine coin that has been found in the Nazareth area'.

After discussing the preceding artefacts found at the NVF, the report launches into a review of coin evidence from the rest of the Nazareth basin, including a discussion of coins at Mary's Well (at the northern end of the basin) and of Bagatti's numismatic finds in the Venerated Area, from the latter's *Excavations in Nazareth* (*Exc.*). The appositeness of that discussion is not entirely clear, for the NVFR found

only a single, and late, coin. The discussion is also problematic, for precisely in the review of these remote loci are several quite unsubstantiated claims made – claims which emphatically support the existence of a village at the turn of the era.

In chronological order, the data furnished by the NVFR résumé of Bagatti's coin finds is as follows:

—One coin of Gordian III (238–244 CE), found at the 'Fright'. This is the earliest coin from the general vicinity. [*Exc.* 251; *MON*: 196, n.152]
—One coin of Constantius (337–351 CE) found in the plaster of L. 29.[10] [*Exc.* 209]
—Three unidentifiable Byzantine coins (probably late fourth–early fifth century CE), from L. 25. [*Exc.* 46]
—One coin of Anastasius (491–518 CE). [*Exc.* 234]
—More than 60 coins of the Islamic to Mamluk period. [*Exc.* II: 194–201]

The NVFR (40) then offers the following remarkable statement:

> In addition, 165 coins were uncovered by Yardenna Alexandre in the 1997–1998 excavations at Mary's Well, Nazareth. The coins were overwhelmingly Mamluk, but also included a few Hellenistic, Hasmonaean, Early Roman, Byzantine, Umayyad and Crusader coins (Alexandre, forthcoming).

The above statement is remarkable to me, because in 2006 Ms. Alexandre graciously shared with me a pre-publication copy of her official IAA report on the excavation at Mary's Well.[11] As I write these lines that short report is before me, and it contains no mention of '165 coins' nor of coins from Hellenistic or Hasmonaean times. What the Alexandre report states regarding coins is limited to the following brief statement:

> A clean-up including the dredging of many 14–15th century small denomination coins, may date [to] the Franciscan efforts in the early 17th century (known from the written records. . .)

It may well be that the 'many 14–15th century small denomination coins' cited above total 165, a fact perhaps subsequently shared by Ms. Alexandre with the authors of the NVFR. But, once again, her report makes no mention of coins belonging to eras other than the '14–15th century'. Certainly, it is difficult to believe that such significant evidence as coins from the Hellenistic, Hasmonaean, and Early Roman periods (incidentally, not otherwise attested in the Nazareth basin) was subsequently divulged to the authors of the NVFR, but escaped the official IAA report.

Non-diagnostic artefacts

I have divided the pottery at the NVF, itemized by Yehudah Rapuano, into two categories: non-diagnostic and diagnostic. In this case, the difference between categories depends on the presence or absence of a cited parallel. The rationale behind such a categorization is that the NVFR's pottery drawings in section, and the short accompanying descriptions, are almost unanimously based on small sherds,

not on complete (or virtually complete) vessels. It must be accepted that, given the modest pieces involved, the drawings and descriptions are largely reconstructions based upon the best supposition of the archaeologist. Often, as we have seen, Rapuano's conclusions are qualified by a tentative word conveying uncertainty.

Though the presence of parallels to catalogued objects in the literature does not entirely validate Rapuano's reconstruction, it at least permits the reader to align the archaeologist's reconstruction with standard typologies. On the other hand, the lack of typological parallels means that the reader is entirely reliant upon the opinion of the archaeologist, both as regards the object's reconstructed form *and* its dating.

In sum, those itemizations not accompanied by a parallel (60 out of 75, or approximately 80% of Rapuano's report) are considered 'non-diagnostic', for they amount to no more than the unverifiable opinion of the archaeologist himself.

It must be noted that the totality of the NVFR evidence for a pre-70 CE Nazareth rests on eleven small pottery sherds for which Rapuano provides no typological parallels.[12] Put more bluntly, the entire NVFR evidence for Nazareth in the time of Jesus rests upon this archaeologist's unsupported (and perhaps unsupportable) opinion, both as regards the reconstruction of the vessels in question and as regards their dating. In other words, Rapuano can offer no substantiation to standard references for *any* of his pre-70 CE claims. It can, of course, also be noted that these early datings conflict with the panoply of evidence from the rest of the Nazareth basin, as determined in *The Myth of Nazareth*.

Diagnostic artefacts

We can repose more confidence in Rapuano's conclusions in those fifteen cases (20% of the itemized artefacts) where the archaeologist offers a typological reference, almost always to the same source: D. Adan-Bayewitz, *Common Pottery in Roman Galilee* (1993, Bar Ilan—referred to henceforth as 'AB').[13] It can be immediately affirmed that the information of AB relative to *all* these critical and diagnostic artefacts is commensurate with a post-70 CE beginning for the settlement. The dating range furnished by Adan-Bayewitz *in every case* extends well beyond 70 CE, sometimes to the second, third or even fifth century CE. In other words, all of these diagnostic artefacts fall comfortably into the scenario where Nazareth was settled between the two Jewish Wars.

The inescapable result of the above discussion is the realization that, despite many claims to the contrary made in the text,[14] NVFR support for a pre-70 CE Nazareth does not extend beyond the unsupported opinion of one of its authors. When the parallels furnished are examined, then it becomes plain that no conflict exists between the NVFR data and the emergence of the settlement after the First Jewish War. Conversely, there is no evidence in the NVFR attesting to a settlement before 70 CE.

In two cases Rapuano struggles with his chosen reference. Adan-Bayewitz dates two sherds (37:3, 4) 'mid-first century BC to mid-second century AD'. Perhaps unsatisfied with this broad dating range, Rapuano writes '*evidently* both of the

earlier type' (empahsis added). We aver that this additional step of the archaeologist is *non-diagnostic*. It is Rapuano's opinion, entirely consistent with his early datings of the eleven non-diagnostic sherds discussed above. We demur, and the affirmation holds that in *every* case where Rapuano suggests a pre-70 CE dating, he offers no support.

Conclusions

We are now able to appreciate that the following over-arching conclusion (NVFR: 69) has no evidentiary basis:

> The earliest occupation seems to have occurred in the late Hellenistic period of the first and second centuries BC. Examples dating to this period were primarily the jar and jug sherds discovered in Area B-1. A single jug base of this period was also found in Area A-2 (Fig. 38:5). The horizontal handle of the krater (Fig. 38:6) may derive from this period as well. A small amount of material dated to the Early Roman period of the first century BC to first century AD was found in Areas A-1, A-2, and C-1.

We read above that the evidence 'from the late Hellenistic period of the first and second centuries BC' comes primarily from Area B-1. But *not a single shard* found in area B-1 (NVFR: 72) is accompanied by a diagnostic parallel. We see, then, that the NVFR's major claim to early evidence rests purely on Rapuano's opinion—an opinion which is, furthermore, often tentative (the word 'probably' occurs with the datings of five artefacts from Area B-1). As for the other sherds cited above (38:5 and 6) they, too, are not accompanied by a typological parallel, and hence are also non-diagnostic.

There is no substantiation in the NVF pottery report for either Hellenistic or Early Roman evidence. The support which Rapuano offers (Adan-Bayewitz) is fully compatible with a Middle Roman emergence for Nazareth. As noted above, the panoply of evidence examined in *The Myth of Nazareth* leads to a post-50 CE dating for all the *kokhim* tombs in the basin, a post-25 CE dating for all the Roman oil lamps, and the summation that 'not a single post-Iron Age artefact, tomb or structure at Nazareth dates with certainty before 100 CE' (*MON*: 205). These conclusions are unaffected by the NVFR, whose pre-70 CE claims must be considered unsupported.

Notes

1 According to Torah, corpses were a source of impurity (Lev. 5: 3; Num. 5: 1–3). The Mishnah (m. Baba Bathra 2:9) mandates that tombs be outside village bounds.

2 For an older map of the tombs of the Roman era, see Kopp 1938–1948: 193. An updated map is in MON: 224 (Illus. 5.2, p. 103).

3 The location of the ancient settlement is discussed in MON, Chapter 5.

4 The tomb, presumably Roman (as are 22 other tombs in the Nazareth basin), is mentioned only in passing at NVFR: 24. It is still unexcavated and lies in Area B (exact location unspecified).

5 See Biblical Archaeology Review 25 [May–June 1999]: 16.

6 Haiman received a Ph.D. in archaeology from the Hebrew University in 1993.

7 'In all, four successive seasons of excavation were carried out at the site between 1997 and 2000. The discoveries from this excavation and from the cleaning of the more eroded terrace areas in preparation for the construction of the Nazareth Village are the subject of the present report'. NVFR: 25.

8 Bagatti 1969: Fig. 211:18 and p. 263. Cf. MON: 34 and Illus. 1:4. Tomb 7 is located under the Church of the Annunciation (Bagatti 1969; 35, Pl. XI).

9 MON: 53–55.

10 Following an error at Bagatti 1969: 210 the NVFR attributes the coin to Constans, who ruled 337–350. See Taylor 1993: 255, and MON: 147.

11 See MON: 132 ff.

12 The eleven pottery sherds at the NVF attributed by Rapuano to pre-70 CE are as follows: 37:5; 38:4–6; 40:2, 4, 5, 6, 7; 42:6, 8. 'Uncertain' are also 38:3 and 40:3.

13 The fifteen sherds furnished with a parallel are: 37:3–4; 38:1–2; 39:1–2; 41:2, 4 (double attribution), 5, 7, 8; 42:1–2; 43:1–2.

14 Cf. the 'Early-to-Late Roman' claim noted above; 'Hellenistic to Early Roman' pottery (NVFR: 52); 'first to third centuries' (NVFR: 24, 52, 56); 'first century BC to first century AD' (NVFR: 69); 'Early Roman' period (NVFR: 27, 34, 50); 'Late Hellenistic to Islamic pottery' (NVFR: 28).

Bibliography for review article

Adan-Bayewitz, D., (1993). *Common Pottery in Roman Galilee: A Study of Local Trade* (Jerusalem).

Adan-Bayewitz, D., (2003). 'On the Chronology of the Common Pottery of Northern Roman Judaea/Palestine'. Pp. 5–23 in G. C. Bottini, L. Di Segni, and L. D. Chrupcala (eds.), *One Land – Many Cultures: Archaeological Studies in Honour of Stanislao Loffreda OFM* (Jerusalem).

Amiran, R., (1970). *Ancient Pottery of the Holy Land: From its Beginnings in the Neolithic Period to the End of the Iron Age* (Chapel Hill, NC).

Aviam, M., (2004). *Jews, Pagans and Christians in the Galilee: 25 Years of Archaeological Excavations and Surveys—Hellenistic to Byzantine Periods* (Institute for Galilean Archaeology; Rochester).

Bagatti, B., (1969). *Excavations in Nazareth. Vol I: From the Beginning till the XII Century* (Publications of the Studium Biblicum Franciscanum 17; Jerusalem).

Diez-Fernandez, F., (1983). *Ceramica Comun Romana de la Galilea* (Madrid).

Haiman, M., (1999). 'Nazerat (Nazareth) Area, Survey', *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 110: 90.

Hamidovic, D., (2004). '*Nazareth avant Jésus: Un nouvel examen historique*', *Ancient Near Eastern Studies* 41: 95–197.

Kopp, C., (1938–48). '*Beiträge zur Geschichte Nazareths*', *Journal of the Palestine Oriental Society* volumes 18–21.

Kuhnen, H.–P., (1990). *Palästina in Griechisch-Römischer Zeit* (Munich).

Pfann, S., Voss, R., and Rapuano, Y., (2007). 'Surveys and Excavations at the Nazareth Village Farm (1997–2002): Final Report', *Bulletin of the Anglo-Israel Archaeological Society* 25: 19–79.

Salm, R., (2008). *The Myth of Nazareth: The Invented Town of Jesus* (Cranford, NJ).

Strange, J., (1992). 'Nazareth', in D. Freedman (ed.), *The Anchor Bible Dictionary* (New York).

Taylor, J., (1993). *Christians and the Holy Places: The Myth of Jewish-Christian Origins* (Oxford).

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On the Nazareth Village Farm Report: A Reply to Salm

STEPHEN J. PFANN AND
YEHUDAH RAPUANO

Occasionally a layperson with little or no background in a field decides to evaluate a technical report. Such evaluations sometimes contribute some common-sense suggestions that are useful and valuable. In other cases, they reveal a need for further education in the field. In the course of his review, Mr. Salm has made some courteous comments on the Nazareth Village Farm Excavation Report in general, but gradually raises a series of criticisms, which deserve explanation and correction.

One issue raised concerns a proposed lack of congruence between our report of the first surface survey of January 1997 and the GPS mapping survey report conducted by Mordechai Haiman of the IAA in April of that year. The GPS survey was intended to provide overall mapping and levels of the area based upon satellite survey equipment prior to the excavations that were carried out over the succeeding years. This work was paid for by the University of the Holy Land and the data from Haiman's GPS survey was made available to the UHL and was entered into the IAA's database. Ross Voss actually accompanied Dr. Haiman and pointed out the features that were identified from our earlier survey that needed to be mapped. Details about the surface finds, including pottery sherds, was shared with Haiman on the spot.

I would have been surprised if Dr. Haiman would have provided a conflicting report over against our own, especially since he was relying upon the findings from our own survey, both from personal communication from Ross Voss and from the preliminary report which was submitted to the IAA archives during the year of the survey. Haiman also submitted the report of his own GPS survey of the area to the IAA archives during the same year and it has been available to consult since then. His published report was a summary of what he had submitted earlier.

Haiman was correct to note the predominance of 'Late Roman' second- to fourth century pottery scattered on the surface. He was careful to use the word 'mostly' and did not say that the surface finds were limited to that period. To mention this in his report was peripheral to the GPS survey itself. To have provided any more detail than that would have been out of keeping with the parameters of a GPS survey report.

Nearly every archaeological site provides evidence for variations in size and population throughout its history. Nazareth is no exception. The predominance of Late Roman pottery at Nazareth, in fact, comes as no surprise since rabbinic literature and a limestone plaque from Caesarea provide testimony that the entire priestly family of Hapizzez immigrated to Nazareth during the second century CE. It is to be expected that activity in and around Nazareth increased at that time. In fact, the discovery of late Roman architectural fragments, including substantially large column bases, bears witness to an expanded population at that time.

Contrary to Salm's assertion, there were actually no 'substantial different claims' between Haiman's report and our own. Ours is simply more detailed concerning the pottery finds, adding to it the data from the several seasons of actual controlled excavations.

Earlier pottery from the Hellenistic and Early Roman periods, which was found during our survey, no matter how meagre the fragments and numbers might be, bears witness to a time in which complete vessels of these types were once in use in the somewhat smaller town with a commensurately smaller population.

A surface survey rarely provides sufficient data to unravel a site's history. This is why controlled excavations are necessary to provide stratigraphic evidence drawn from undisturbed layers. As it turns out, the excavations did confirm the surface survey's initial finds but this time by controlled excavations and from definable archaeological contexts. No claim was made to state that the pottery finds from the Hellenistic and Early Roman periods were 'substantial' with respect to the Late Roman period finds, as Salm contends. However, the finds, connected with the agricultural terraces, were certainly sufficient to substantiate the presence of an agrarian-based population at Nazareth during those periods.

A number of earlier reports supply corroborative ceramic evidence from the area of the basilica and its environs. Also, the results of the recent excavations of Yardenna Alexandre at Mary's Well nearer to the basilica provide corroborative coin evidence of this population from the late Hellenistic and Early Roman periods as mentioned in our report (already pointed out in the report). Pace Salm, Dr. Alexandre herself provided the following text to quote in our report: 'In addition, 165 coins were uncovered by Yardenna Alexandre in the 1997–1998 excavations at Mary's Well, Nazareth. The coins were overwhelmingly Mamluk, but also included a few Hellenistic, Hasmonaean, Early Roman, Byzantine, Umayyad and Crusader coins.' A more detailed analysis by Ariel Berman will be included in the forthcoming report. (Alexandre, forthcoming).

Salm claims and challenges: 'The phrase "beginning with the early to late Roman period" occurs at NVFR: 19, 24, 28, 32, and 56. We shall determine the force of this phrase through a close consideration of the pottery itemizations at the end of the NVFR.' It is mystifying that Salm wants to take the report to task on an actual quote that was never made. The five pages to which he attributes the quote do not contain this wording. At no place in the article is it said that pottery at Nazareth Village was 'beginning' in the Hellenistic period, let alone the Early to Late Roman period. In fact, as pointed out in the report, the earliest potsherd that

derives from the excavations comes from a platter from the Early Bronze Age III (late third millennium BCE). Wherever the NVFR uses the phrase 'predominantly Early to Late Roman' or simply 'Early Roman', they are applied to describing limited contexts at various locales that were dug among the three areas (A, B and C) described at the site.

After the publication of the report, members of our staff and friends, now also Salm, noticed a number of printing errors. Some such errors seem inevitable for such technical publications. We, as the authors, are grateful whenever these are bought to our attention.

The Pottery (Y. Rapuano)

The errors pointed out by Salm in the pottery report of the Nazareth Village Farm excavations were not the result of 'double dating' as he supposed, but rather of misnumbering. Originally, the part of the article dealing with the pottery was prepared in a different layout. At some point before the article was sent to the editors, it underwent a change in the format, presumably for reasons of spacing and for the reader's greater convenience. The plates were reorganized and the drawings were given new numbers. In the process, some of the connections between the drawings and the text were lost or changed. In a few cases the same figure number was erroneously repeated. It is to these occurrences that Salm referred.

The original numbering scheme was admittedly somewhat complex. In each case, the area where the sherd had been recovered was indicated as part of the figure number. An example of this original numbering scheme was left unchanged: on page 70, line 14 of the article: 'A-1–10:1' (A-1 designating the spot where the sherd was found), according to the new scheme, should read 'Fig. 37:3'. Salm specifically pointed out three incidents of what he assumed was 'double dating': (1) On page 74, line 31, 'Fig. 41:32' is correct. On page 75, line 17, 'Fig. 41:32' should rather read 'Fig. 41:33'. (2) On page 73, line 7, 'Fig. 41:4' is correct. On page 75, line 24, 'Fig. 41:4' should read 'Fig. 41:6'. (3) On page 77, line 1, 'Fig. 43:3' is correct. On page 77, line 26, 'Fig. 43:3', should read 'Fig. 43:4'.

It was also evidently at the time when the numbering system in the article was altered, that it was decided to leave out the catalogue intended to accompany the text. This vital catalogue, in the form of a table, gives a detailed description of the ware of each sherd and lists parallels for many of the examples, offering support for their assigned dating.

The numbering errors in the article do not, however, change the date of the pottery. There are examples that belong to the Hellenistic period (e.g., Fig. 40:5–8) and to the subsequent early Roman period (e.g., Fig. 37:5 and 7). The dates for parallels of the pottery of Roman period Galilee are usually expressed according to a range reflecting the time period that the forms were in production and use. The early Roman period is usually considered to date from the mid-first century BCE to the first half of the second century CE.

While early Roman sherds were found in different parts of the site, we noted that the pottery forms in Area 1, Locus/Layer 2, as a group fit comfortably within the first century CE.

Previous excavations at Nazareth and the surrounding vicinity also turned up pottery from the Hellenistic and early Roman periods. In B. Bagatti's excavations (1969), for example, the jar of Fig. 217:6 is a late first century BCE-first century CE storage jar form. Other examples recovered from the tombs included cooking pots, (Figs. 192:18 and 26), and lamps, (Figs. 192:6 and 15). Lamp 192:15 is of a type that was recovered from the excavations of an ancient boat in the Sea of Galilee (the famous so-called 'Jesus' boat). Varda Sussman (1990), the pre-eminent expert on lamps of the land of Israel, observed that comparable lamps were found in large numbers in Nazareth and its vicinity. She noted that, regardless of its having been found in tomb contexts as late as the first half of the second century, on the basis of several considerations, mainly the morphological developments of its various elements, the lamp from the boat should be dated to 50 BCE – 50 CE. Also in N. Feig's excavations of a burial cave in the vicinity of Nazareth vessels were found that she dated to the early Roman period (Feig 1990: 73–74), including other examples of the type of lamp found in the Sea of Galilee boat (Fig. 9:10 and 11). It is significant that when dealing with an occupational level, it is usually the latest pottery that dates a locus. Pottery found within a tomb, however, has a different value. All of the ceramic finds are usually taken into consideration and are understood to represent the duration of time that the tomb was used. Thus, the pottery of the Hellenistic and early Roman period in the tombs of Nazareth, though found together with later objects, surely confirms a presence during these periods in the area.

Conclusions

Salm's personal evaluation of the pottery, which he rehearses from his book The Nazareth Myth, reveals his lack of expertise in the area as well as his lack of serious research in the sources. By ignoring or dismissing solid ceramic, numismatic and literary evidence for Nazareth's existence during the Late Hellenistic and Early Roman period, it would appear that the analysis which René Salm includes in his review, and his recent book must, in itself, be relegated to the realm of 'myth'. By upholding the idea of a myth, Salm has created a myth himself.

We are presently planning a book that will include an expanded version of the report, with pottery parallels, additional colour photos, the methodology and building of the first-century village, and reflections on first-century farming in the light of the excavations. These details were deleted from the report due to space limitations. The text will be updated and corrected in the course of this publication.

In the meantime, an addendum has been added to our web page that includes much of the material deleted from the report.

Nazareth Village Farm: A Reply to Salm

KEN DARK

As Director of the Nazareth Archaeological Project, the editors of this journal have invited me to offer an independent archaeological view of René Salm's criticisms of the Nazareth Village Farm report. This response, like my review of his book below, in fairness to the fact that Mr Salm is an amateur, will not criticize his use of archaeological terminology, but instead focus on the substantive points that he raises.

Salm is correct is noting the importance of Pfann's *et al.*'s work at 'Nazareth Village Farm' and that it achieved its stated aims. I agree that Nazareth Village Farm was the most important archaeological work by a non-Israeli team in Nazareth in the 1990s, although I would also give more credit than does Salm to work by the Israel Antiquities Authority in and around Nazareth during that decade, such as the excavation at the present St. Mary's Well in 1997–1998 Y. Alexandre 2006 'Excavations at Mary's Well, Nazareth' (http://www.israntique.org.il/eng/zafon/marys_well.html) as retrieved on 30th May 2006).

In my review of his newly published book (pp. 140–146), I have discussed Salm's contention that: 'The Jewish village (of later Roman and early Byzantine times) surely existed on the relatively flat valley floor, between tombs to the east and the west', which is based on a serious topographical misunderstanding of Nazareth. Salm's claim that Nazareth has, at St. Mary's Well, only one important water source is undermined when he admits that evidence at Nazareth Village Farm could imply a 'spring house', because this admits the possibility of other, as yet undiscovered, springs – perhaps long inactive – in the present urban area. Salm also ignores recent evidence for domestic structures terraced into hill-slopes at other Second Temple period settlements in the Galilee, refuting his argument that '[t]he steepness of the NVF (the average slope is 20%) and the discovery of a tomb reveal that this area also was not the site of ancient habitations' (see Richardson 2004: 77 and 103, plate 12).

As I have also observed in my review of his book, Salm is incorrect when he says that: 'the discovery of a tomb reveals that this area also was not the site of ancient habitations' because Jewish tombs could be sited on formerly inhabited areas. (Pfann, Voss and Rapuano 2007: 24, referring to possible 'foundations of a farmhouse… and a tomb').

Salm compares Haiman's survey and the later, more wide-ranging, survey at the site, as if to imply that the former casts doubt upon the latter. But, as archaeologists know very well, many studies around the world have demonstrated that surveying the same area twice can produce different, but equally valid, results (each representing a partial view of what is present), and there is a lengthy

methodological debate in archaeology concerning 'representivity' in fieldwork data. This is one of the reasons why re-survey – if properly conducted – is a valid archaeological activity.

Salm is on firmer ground when criticizing the pottery report. He is correct that the pottery illustrations are occasionally reproduced too small for further study (as on page 40) and has noted a few apparent contradictions. These may be reporting errors, but they do not require re-dating of the site.

It is also the case that the report does not give the reasons (fabric, form, decoration or technique of manufacture) for the dating and identification of most of the pottery. However, Salm is wrong to assert that 'the lack of typological parallels means that the reader is entirely reliant upon the opinion of the archaeologist, both regarding the object's reconstructed form and its dating'. Some of this pottery is related to Adan-Bayewitz's well-known typology (Adan-Bayewitz 1993, and on the chronology, see Adan-Bayewitz 2003).

Salm's statement that '[a]s is well known, though observations can sometimes be made from small sherds regarding form and type, composition, colour, and even method of manufacture of the artefact, such modest shards commonly offer a precarious basis indeed for determining those elements, as well as the artefact's date' represents a very old-fashioned view of the use of pottery evidence in archaeology. Of course, not every sherd can be dated or even assigned to a type or ware, and sometimes size will be a factor in this, but the dating of similar-sized pottery sherds is commonplace in Roman archaeology across Europe and generally accepted as, in principle, valid by archaeologists of the Roman period.

I see no evidence to suppose that: 'It must be accepted that, given the modest pieces involved, the drawings and descriptions are largely reconstructions based upon the best supposition of the archaeologist.' The drawings are done according to standards widely used for reporting pottery and are not what are generally understood as 'reconstruction drawings'.

Salm is also unfair to Rapuano when he says, 'Rapuano's 75 itemizations are fairly peppered with tentative words such as possibly, probably, evidently, appeared to be, etc.' This is not suspicious, only a pottery analyst's usual scholarly caution. If Rapuano becomes more cautious relating to Second Temple period material, perhaps the most obvious reason is because he is sensitive to the interpretations that may be placed by others on pottery from Nazareth dating to this period.

Confidence in Salm's knowledge of Roman period pottery in the Galilee is shaken by his criticism that 'where the archaeologist offers a typological reference' it is 'almost always to the same source: D. Adan-Bayewitz, *Common Pottery in Roman Galilee* (1993), Bar Ilan.' This is unsurprising: Adan-Bayewitz's excellent study is the standard work of reference on the Roman period pottery produced in the Galilee.

Salm betrays a lack of understanding of the conventional process of archaeological publication when he remarks, in relation to an interim report on St. Mary's Well, '[c]ertainly, it is difficult to believe that such significant evidence as coins from the Hellenistic, Hasmonaean, and Early Roman periods … was subsequently

divulged to the authors of the NVFR, but escaped the official IAA report'. One would not usually expect an interim report, such as this, to contain information about all the artefacts found. This is especially true of finds from 'residual' contexts or that were unstratified. So the 'discrepancy' noted between Pfann *et al.*'s report of the coins and the interim report seen by Salm only implies that Pfann *et al.* asked the site director (Yardenna Alexandre) for information about the coins from her site, which she provided and allowed to be included ahead of her own publication. There is no evidence here of an irregularity, only of Ms. Alexandre's academic generosity.

In conclusion: it may be that the ceramic evidence for Second Temple period activity at the site of Nazareth Village Farm is, as published, ambiguous. However, field systems are notoriously hard to date using archaeological evidence and this does not make Salm's argument for a post-Second Temple date for the settlement at Nazareth any more credible. The available archaeological evidence from the centre of contemporary Nazareth, by contrast, suggests that the settlement of Nazareth existed in the Second Temple period and included the area around the existing Church of the Annunciation. The terraces at Nazareth Village Farm might well have been farmed by people from, or having some relationship with, that settlement.

Bibliography for responses

Adan-Bayewitz, D., (1993). *Common Pottery in Roman Galilee: A Study of Local Trade* (Jerusalem).

Bagatti, B., (1969). *Excavations in Nazareth. Vol I: From the Beginning till the XII Century* (Publications of the Studium Biblicum Franciscanum 17; Jerusalem).

Feig N., (1990). 'A Burial Cave in Nazareth'. *'Atiqot* [Hebrew series] 10: 67–79.

Richardson, P., (2004). *Building Jewish in the Roman East* (= Supplements to the Journal for the Study of Judaism 92) (Leiden).

Sussman, V., (1982). *Ornamented Jewish Oil-Lamps* (Warminster).

Sussman, V., (1990). 'The Lamp' in S. Wachsman (ed.), *The Excavations of an Ancient Boat in the Sea of Galilee (Lake Kinneret). 'Atiqot* [English series] 18: 97–98.

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The Nazareth Village Farm Project Pottery (1997–2002): Amendment

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The ceramic finds from the Nazareth Village Farm excavations were for the most part quite fragmentary, as might be expected of pottery recovered from agricultural installations and terraces.

Several periods are represented, illustrating the extensive duration of time from the earliest to the latest settlement and use of the farm (nos. 1–77; Table 1). It is apparent that the farm was not occupied continuously. It seems that each area may have been in use during some of the periods represented, and was abandoned or at least left dormant in other periods. In no single area of the site was pottery of all the periods represented found.

The surface finds include examples at either extreme of the chronological range of our site. A single sherd of an Early Bronze Age II platter (no. 1), with a thickened, incurved rim, represents the earliest find at the Nazareth Farm. It is finished with a typical burnished net pattern on its interior surface. To date, no Early Bronze occupation has been recognized and this is the only artefact recovered from this period at the site. At the other end of the chronological spectrum, an entirely intact bowl made of black 'Gaza ware' with an externally thickened incurved rim dates to the Ottoman period.

Description of the pottery by area

Area A1 (Fig. 1)

A1 – Locus/ Layer 1

No pottery was drawn from Locus/ Layer 1. Among the potsherds recovered was a single body sherd which was possibly modern.

A1 – Locus/ Layer 2

No. 2 is a vertical loop handle, evidently of a krater. This form of vessel is common in the Hellenistic and Roman periods.

A1 – L10

The pottery recovered from L10 included two everted-rim bowls (no. 3 and no. 4) evidently both of the earlier type, without the distinguishing characteristic of a

Fig. 1–4	Form	Registration	Description	Selected Parallels
No. 1	Platter	Area A Surface find	light yellowish brown (10YR 6/4) ware; light brownish grey (10YR 6/2) core; weak red (10R 4/3); int. burnished slip; few large to tiny sand inclusions	similar to Amiran 1969: Pl. 15:4 dated to Early Bronze Age II, 2900–2650 BCE
No. 2	Krater(?)	Area A-1 L.2 B.3/1	reddish yellow (5YR 6/6) ware; few large to tiny sand and white inclusions	
No.3	Jug	Area A1 L10 B1	red (2.5YR 5/8) ware; faint, weak red (2.5YR 4/2) core; only in handle; light reddish brown (5YR 6/4) int. and ext. surfaces;some large to tiny black (basaltic), sand and white inclusions	possibly Adan-Bayewitz 1993: 111–119, Form 3A, dated mid-1st cent. BCE to mid 2nd cent. CE
No. 4	Bowl	Area A1 L10 B1	reddish brown (5YR 4/3) to very dark grey (5YR 3/1) ware; no core; reddish brown (2.5YR 5/4) int. and ext. surfaces; few tiny pink and sand inclusions	possibly Adan-Bayewitz 1993: 111–119, Form 3A, dated mid-1st cent. BCE to mid -2nd cent. CE
No. 5	Cooking pot	Area A1 L10 B1	red (2.5YR 5/6) ware; weak red (10R 4/2) core; many small to tiny white and sand inclusions	
No. 6	Storage jar or Jug	Area A1 L.10 B1	dark grey (10YR 4/1) ware; no core red (2.5YR 5/6) int. and ext. surfaces; few medium to tiny black, white, brown and sand inclusions	Diez-Fernandez T 1.3 dated 45 BCE – 48 CE; Stepanski Romana 2002: 112, Fig. 7:11, dated mid 1st cent. BCE to mid 1st cent. CE
No. 7	Juglet	Area A1 L.10 B1	(red 10R 5/6) ware; no core; some small to tiny white, black and sand inclusions	Abu-Uksa 2002, Kfar Canna. Fig. 6:9, dated from 1st to the beginning of 2nd cent. CE; Elgavish 1977: 97, dated 1st to 2nd cent. CE

No. 8	Bowl	Area A-2 L1 B4/3	red (10YR 5/6) ware; few large, red and black inclusions	Adan-Bayewitz 1993: Form 1A, dated later 1st to 3rd cent. CE
No. 9	Bowl	Area A-2 L1 B4/1	dark reddish grey (10R 3/1) ware; few large to tiny black , sand and white inclusions	Adan-Bayewitz 1993: 91–98, Form 1B, dated 1st cent. or 2nd cent. to mid 4th cent. CE
No. 10	Jar	Area A-2 L1 B4/3	red (10YR 4/6) ware; few tiny black and sand inclusions	Bar-Nathan 1987: Pl 19:1, dated Herodian period
No. 11	Jar	Area A-2 L1 B9/1	red (10YR 5/6) ware; some large to tiny sand and white inclusions	Gitin 1990: Pl.48:1, dated late Hellenistic
No. 12	Jug	Area A-2 L1 B4/2	pale red (10R 7/3) ware; few large to tiny pink and red inclusions	Gittin 1990: Pl.48:1, dated late Hellenistic
No. 13	Krater	Area A-2 L2 B1A/1	light reddish brown (5YR 6/3) ware; light red (10R 6/6) ext. slip; few small to tiny sand inclusions	
No. 14	Bowl	Area A-3 L1 B1/1	red (10R 4/6) ware; few medium to tiny black white and sand inclusions	Adan-Bayewitz 1993: 103–109, Form 1E, dated mid-3rd cent. to earlier 5th cent. CE
No. 15	Jar	Area A-3 L1 B1/2	red (10R 4/6) ware; few small to tiny white and sand inclusions	Meyers, Kraabel and Strange 1976: Pl. 7.20:5–16, 33–51 Jar type 1, dated 3rd cent. - 5th cent. CE
No. 16	Juglet	Area A-3 L1 B2/1	pale red (7.5R 5/2) section red (10R 6/4) int. and ext. surfaces; few small to tiny black and sand inclusions	Elgavish 1977: Pl.12:107, *c.*2nd cent.- 3rd cent.

No. 17	Lid	Area B-1 F-8 B3/10	weak red (10R 5/4) ware; few small to tiny black and white inclusions.	Meyers, Kraabel and Strange 1976: Pl. 7.17:6, dated mid to late Byzantine
No. 18	Jar/ Jug	Area B-1 F-8 B3/8	light reddish brown (5YR 6/4) ware: few large to tiny white and sand inclusions	Berlin 1992; Fig. 59:1; Gitin 1990: Pl.41:1, dated 1st cent. BCE.
No. 19	Jar/ Jug	Area B-1 F-8 B4/1	light red (2.5YR 6/8) ware; few medium to tiny sand inclusions.	
No. 20	Jar/ Jug	Area B-1 F-8 B3/11	reddish yellow (7.5YR 7/6) ware; light red (10R 6/8) int. and ext. surfaces; few medium to tiny sand and white inclusions.	
No. 21	Jar	Area B-1 F-8 B4/6	light red (10R 6/6) ware; few tiny white inclusions	Gitin 1990: Pl.39:12, dated later 2nd cent. BCE
No. 22	Jar/ Jug	Area B-1 F-8 B4/2	light red (10R 6/6) ware; pale red (10R 7/2) int. and ext. slip; some, small to tiny sand inclusions.	Similar to Gitin 1990: Pl.33:8. dated later 3rd - early 2nd cent. BCE
No. 23	Jar	Area B-1 F-8 B3/9	light reddish brown (5YR 6/4) ware; few large to tiny white and sand inclusions.	McNicoll 1992: Pl.78:5, dated late Hellenistic
No. 24	Jar	Area B-1 F-8 B4/5	light red (10R 6/6) ware; pink (7.5YR 8/3) int. and ext. slip; few large to tiny white and sand inclusions	
No. 25	Jar	Area B2 L.30 B2	dark grey (2.5Y N4) ware; no core; red (2.5YR 5/8) int. and ext. surfaces; few small to tiny sand, black, brown and white inclusions	Diez-Fernandez 1985: Jar T1.6 date 50–260; Meyers, Kraabel and Strange 1976, jar T1 7:20:5–16, 33–51; 7.21:1–4, dated 3rd to early 5th cent. CE

No. 26	Jar	Area B2 L30 B2	red (2.5YR 5/6) ware; no core; many medium to tiny white and dark reddish brown (iron?) inclusions	Kh. el-Shubeika Avshalom-Gorni and Tacher 2002: Fig. 31:10 (p.244) dated Early Islamic
No. 27	Jar	Area B2 L30 B6	reddish brown (2.5YR 5/4) ware; thick, light brown (7.5YR 6/3) core; pink (7.5YR 7/4) surfaces; few sand and white inclusions	
No. 28	Bowl	Area B2 L.31 B7	light brown (7.5YR 6/3) ware; no core; rouletting on ext. weak red (2.5YR 4/2); int. and ext. slip; few tiny dark grey inclusions	possibly Magness 1993: 189–190 rouletted bowl form 3A, suggested date early 7th cent.
No. 29	Bowl	Area B2 L31 B11(?)	yellowish red (5YR 5/6) ware; thick dark grey (2.5YR N4) core; some tiny white and sand inclusions	possibly Adan-Bayewitz 1993: 103–109 Form 1E. dated mid-3rd cent. to earlier 5th cent. CE
No. 30	Bowl	Area B2 L.31 B10	red (2.5YR 5/8) ware; no core; few small to tiny sand and white inclusions	Adan-Bayewitz 1993: 91–98. Form 1B, no.2, dated late 1st cent. or early 2nd cent. to mid 4th cent. CE
No. 31	Cooking Pot	Area B2 L.31 B87	yellowish red (5YR 5/8) ware; thick dark reddish brown (5YR 2.5/2) core; some medium to tiny sand, orange, and black inclusions	Meyers, Kraabel and Strange 1976: Globular CP T3
No. 32	Casserole or casserole lid	Area B2 L31 B4	yellowish red (5YR 5/6) - brown (7.5YR 5/4) ware, no core; few tiny sand inclusions	

No. 33	Jar	Area B2 L.31 B7	grey (7.5YR N5) ware; no core; yellowish red (5YR 5/8) int. and ext. surfaces; few tiny pink and sand inclusions	Meyers, Kraabel and Strange 1976: 220–222, jars Form T1 Pl. 7.20:15, dated 3rd cent. to early 5th cent. CE; Diez-Fernandez 1985, T 1.7: 77 dated 212–240 CE
No. 34	Jar (handle)	Area B2 L31 B11	reddish brown (5YR 5/3) ware; dark grey (2.5YR N4) core visible in handle section; some tiny white and sand inclusions	
No. 35	Jar	Area B2 L.31 B11	very dark greyish brown (10YR 3/2) ware; thick, faint very dark grey (10YR 3/1) core; red (2.5YR 5/6) int. and ext. surfaces; few small to tiny black and sand inclusions	
No. 36	Cooking jug	Area B2 L.31 B7	red (10R 4/8) ware; reddish brown (2.5YR 4/4) core; few tiny sand inclusions	Diez–Fernandez 1985, jug T5.1 (date 87–295)
No. 37	Bowl	Area B2 L.34 B10	red (2.5YR 5/6) ware; no core; many, tiny white and light brown inclusions	
No. 38	Storage jar (handle)	Area B2 L.34 B10	dark grey (5YR 4/1) ware; brown (7.5YR 5/4) int. and ext. surfaces; small to tiny pink and sand in	
No. 39	Jar/ Jug	Area B2 L.34 B12	dark grey (2.5YR N4) ware; no core; few tiny white and sand inclusions (Azza ware?)	Meyers, Kraabel and Strange 1976: 220–222, jars Form T1 Pl. 7.20:11, dated 3rd cent. to early 5th cent. CE
No. 40	Jar/ Jug	Area B2 L.34 B9	dark grey (10YR 4/1) ware; no core; c36 int. and ext. surfaces; some small to tiny black, sand and white inclusions	similar to No.25

No. 41	Jar	Area B2 L.34 B10	dark reddish grey (5YR 4/2) ware; no core; few small, sand and white inclusions	
No. 42	Bowl or Casserole	Area B2 L36 B7	yellowish red (5YR 4/6) ware; no core; few tiny pink and sand inclusions	
No. 43	Cooking pot	Area B2 L.42 B16	pinkish grey (5YR 6/2) ware; thick, black (7.5YR N2) core; many, large, sand and shell inclusions	
No. 44	Jar/ Jug (handle)	Area B2 L42 B16	dark grey (7.5YR N4) ware; no core; few large to tiny sand and white inclusions	
No. 45	Bowl	AreaB2 L.43 B18	red (2.5YR 5/8) ware; no core; few small to tiny black, sand and white inclusions	possibly Adan-Bayewitz 1993: 103–109. Form 1E., dated mid-3rd cent. to early 5th cent. CE
No. 46	Jar (handle)	Area B2 L.43 B18	grey (5YR 5/1) ware; no core; light brown (7.5YR 6/4) int. and ext. surfaces; few tiny black, sand and white inclusions	
No. 47	Jar (handle)	Area B2 L.43 B18	grey (10YR 5/1) ware; no core; strong brown (7.5YR 4/6) int. and ext. surfaces; few small to tiny black, sand and white inclusions	
No. 48	Jar (handle)	Area B2 L.44 B20	grey (2.5YR N5) ware; no core; red (2.5YR 5/6)surfaces; few tiny white, sand and black inclusions	
No. 49	Jar (handle)	Area B2 F2 B4	brown (7.5YR 5/4) ware; thick dark grey (7.5YR N4) core; yellowish red (5YR 5/6) int. and ext. surfaces; few tiny white and sand inclusions	

No. 50	Jar/ Jug	Area B2 F5 B33	reddish brown (2.5YR 5/4) ware; thick, weak red (2.5YR 4/2) core; reddish brown (2.5YR 5/3) int. and ext. surfaces; large to tiny off-white sand, red and black inclusions	Meyers, Kraabel and Strange 1976: 220–222, jars Form T1 Pl. 7.20:43, dated 3rd cent. to early 5th cent. CE
No. 51	Bowl	Area B2 F6 B1	red 2.5YR 4/8 ware; no core; some, tiny sand, black and white inclusions	Adan-Bayewitz 1993: 91–98, Form 1B, no.2, dated late 2nd cent. or early 2nd cent. to mid 4th cent. CE
No. 52	Bowl	Area B2 F7 B13	dark reddish brown (5YR 2.5/2) ware; thick brown 7.5YR 5/4 core; red (10R 4/6) int. and ext. surfaces; few tiny sand inclusions	possibly Adan-Bayewitz 1993: 119–124, Form 3B Plate 38:9, dated early 2nd cent. to latter 4th cent.
No. 53	Cooking pot	Area B2 F7 B13	brown (7.5YR 5/2) ware; black (7.5YR N2) core; many, medium to tiny shell and sand inclusions; charring on ext.	
No. 54	Jar/ Jug	Area B2 F7 B13	very dark grey (10YR 3/1) ware; light grey/ grey (10YR 6/1) core; few medium to tiny sand and white inclusions	
No. 55	Jar/ Jug (handle)	Area B2 F7 B13	dark grey (10YR 4/1) ware; no core; some large to tiny sand and white inclusions	
No. 56	Bowl	Area C1 L1 B1B/3	Dark red (2.5YR 4/6) ware; few tiny white and sand inclusions	Adan-Bayewitz 1993:100–103, Form 1D, dated late 1st cent. or early 2nd cent. to mid 4th cent. CE
No. 57	Jar	Area C1 L1 B1-B/2	Pale red (10R 6/4) ware; thick grey core; small to tiny white and black inclusions.	Diez-Fernandez 1985: T.1.4, dated *c.* 50 BCE - 70 CE

No. 58	Jar (handle)	Area C1 L1 B4/3	Dark reddish grey (7.5R 4/1) ware; light red 10R 6/6 int. and ext. surfaces; few medium to tiny black and white inclusions.	
No. 59	Unguentarium	Area C1 F1 B4/1	Pale red (10R 6/4) ware; many small to tiny sand inclusions.	Diez-Fernandez 1985: T.22.2, dated 45 BCE - 42 CE
No. 60	Bowl	Area C1 L1(+2) B1C/1	Light red (7.5R 6/6) ware; thick grey core; few tiny white inclusions	possibly Johnson 1988: Fig. 7–35: 533, dated 351–383; Gitin 1990 Pl. 44:3, dated mid 1st cent. BCE; Bar Nathan 1987: Pl.23:7, dated Herodian period
No. 61	Bowl	Area C1 L1(+2) B1C/2	Red (10R 4/6) ware; few large to tiny black and white inclusions	Adan-Bayewitz 1993: 91–98, Form 1B
No. 62	Bowl	Area C1 L2 B3/2	Light red (10R 6/6) ware; some larege to tiny red, pink and white inclusions.	
No. 63	Bowl	Area C3 L2 B2/1	Red (10R 4/6) ware; few small to tiny black and sand inclusions.	
No. 64	Bowl	Area C3 2 1/4	Red (10YR 5/6) ware; few medium to tiny black inclusions	
No. 65	Jar	Area C3 L2 B1/6	Dark reddish grey (10 4/1) ware light red 10R 6/6 int. and ext. slip; few medium to tiny white and red inclusions.	possibly Meyer, Kraabel and Strange 1976: Pl. 7.20: 5–16, 33–51, jar Type 1, dated 3rd to early 5th CE; Berlin 1992: Fig. 54:8–31

No. 66	Bowl	Area C3 L2 B1/2	Red (10R 5/8) ware dark red (2.5YR 3/6) int. glaze; few medium to tiny sand inclusions.	
No. 67	Bowl	Area C-3 L2 B1/3	Red (2.5YR 4/8) ware; dusky red (10R 3/4) int. glaze; few tiny sand inclusions.	
No. 68	Jar/ Jug?	Area C3 L2 B1/1	Red (10YR 5/6) ware; few small to tiny white and black inclusions.	Johnson 1988: Fig. 7–51.765. parallels dated 2nd cent. to 5th cent. CE; Bagatti 1969 /Fig. 217, L4–34
No.69	Juglet	Area C3 L2 B5/1	Red (10YR 5/6) ware; few large to tiny white and sand inclusions.	probably Diez–Fernandez 1985: T9.2 (2a, dated *c.* 53–210 CE)
No. 70	Bowl	Area C3 L.04 B1	light red (10R 6/8) ware; red (10R 5/6) ext. slip; dark red 10R 3/6 lead glaze on int. and over rim; few tiny sand inclusions	
No. 71	Bowl	Area C3 L.04 B1	light red (2.5YR 6/8) ware; no core; red (10R 4/8) ext. slip; mottled (10R 4/8) slip with yellow flecks; few small to tiny sand and black inclusions	
No. 72	Jar	Area C3 L.04 B2	red (2.5YR 5/6) ware; no core; some, small to tiny white, sand and dark grey sand inclusions	Similar to Johnson Fig. 7:41: 607, Form 15
No. 73	Jar	Area C3 L.05 B7	light red (2.5YR 6/6) ware; thin pinkish grey (5YR 7/2) core; some, medium to tiny black, white, reddish brown and sand inclusions	Diez-Fernandez 1985, T 1.7, dated 212–290 CE; Meyers, Kraabel and Strange 1976: 78:19, dated 4th to 8th cents.
No. 74	Jug/ juglet	Area C3 L.05 B7	yellowish red (5YR 5/8) ware; no core; few small to tiny dark grey and sand inclusions	Diez-Fernandez 1985, T8.5 175–310 CE

No. 75	Juglet	Area C3 L.05 B7	red (2.5YR 5/6) ware; no core; few tiny white and sand inclusions	possibly Abu-Uksa (2002), Kfar Canna. Fig. 6:9, dated from 1st to the beginning of 2nd cent. CE.
No. 76	Bowl/ Krater	Area	red (2.5YR 5/8) ware; very dark grey (2.5YR N3) core; few tiny black and sand inclusions	possibly Stepanski Romana 2002:111, Fig. 6:16, dated end of 1st cent. to mid first 3rd. cent. CE, possibly Meyers, Kraabel and Strange 1976: 205–207, Fig. 18, 4th – early 5th; Diez-Fernandez 1985, T.21.3 (175–300 CE)
No. 77	Bowl	Area C3 F01 B6	red (2.5YR 5/8) ware; no core; some small to tiny black (basaltic) and sand inclusions	Adan-Bayewitz 1993: 103–109. Form 1E, no.12, dated mid 3rd cent. to earlier 5th cent. CE

carinated upper body, dating from the mid-first century BCE to mid-second century CE (Adan-Bayewitz 1994: 111–119). These bowls were actually small casseroles. No. 3 has a vertical strap handle springing from its rim.

No. 5 is the vertical strap handle of a cooking pot that evidently dates to the Roman period.

No. 6 is the slightly everted rim and cup-shaped neck of a storage jar dating to the mid-first century BCE to mid-first century CE.

No. 7 is a juglet with a thickened, everted rim and carinated neck, dating to the first to second centuries CE.

The pottery forms from this locus/ layer range in date from the mid-first century BCE to the second century CE. As a group they all fit comfortably within the first century CE.

Area A2 (Fig. 1)

A2 – L1

This locus/ layer featured two Galilean bowls: no. 8 (Adan-Bayewitz 1993: Form 1A) with a single groove on the rim (dated later first century to third century CE), and no. 9 (Adan-Bayewitz 1993: Form 1B) with a double groove on the rim (dated late first century or second century to mid-fourth century CE).

No. 10 is the folded, everted rim and short, cylindrical neck of a storage jar that may date to the Herodian period and no. 11 is the rim of a storage jar of the Late Hellenistic period. The base of a jug, no. 12, could date either to the Late Hellenistic or Early Roman period.

The drawn pottery gives the impression that this locus / layer dates mainly to the Hellenistic to Early Roman period. Among the pottery sherds that were not drawn, however, there was a bowl evidently dating to the fourth to fifth centuries; an Islamic period bowl with a green glaze; and an example of what appears to be early porcelain, probably dating to the Ottoman period.

A2 – L2

The single drawn example from this locus/layer, is a vessel, no. 13, probably a krater or a casserole, with a horizontal handle, possibly dating to the Late Hellenistic or Early Roman period.

Area A3 (Fig. 1)

A3 – L1

No. 14 is a Galilean bowl (Adan-Bayewitz Form 1E) with a simple rim, that dates to mid-third century to earlier fifth century CE

No. 15 is a storage jar with an inverted – everted rim (Meyers, Meyers and Strange 1976: 220–222) dating to the third century to fifth century CE.

No. 16 is evidently the base of a juglet of the second century to third century CE.

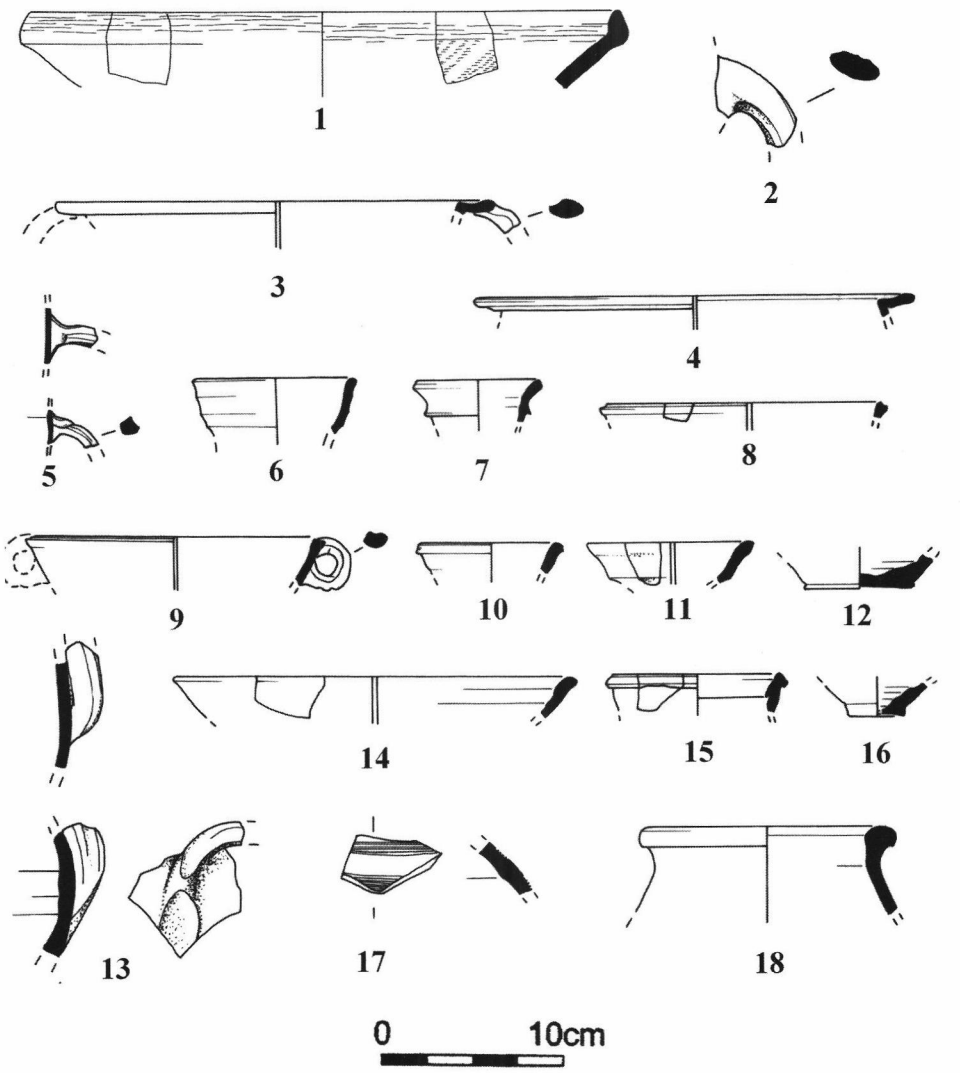

Fig. 1. Areas A2, A3 and B1.

The pottery that was not drawn included a Galilean bowl body sherd; another body sherd which may date to the Abbasid period; and Gaza-ware fragments dating to the Ottoman period.

Area B1 (Figs. 1 and 2)

B1 – F8

No. 17 is a cooking pot lid decorated with bands of straight combing. It likely dates from the mid to Late Byzantine period.

No. 18, no. 19, no. 20, and no. 21 are jars or jugs with thickened, rounded rims dating to the Hellenistic period, probably the second century BCE. No. 19 and no. 20 have rims that are concave on top. No. 22 also belongs to this group. It is clear that it is a jug because of the loop handle springing from its rim. No. 23 is a storage jar with a relatively short square folded rim, probably also dating to the second century BCE.

No. 24 is the incurved rim and cup-shaped neck of a storage jar of the Hellenistic period or Early Roman period.

The undrawn pottery consisted of what appeared to be Roman period body sherds; some possibly Islamic period body sherds; and a Gaza-ware water jar of the Ottoman period. This locus/layer, predominantly dates to the mid to Late Hellenistic period with a few, possibly intrusive, sherds from the Islamic and Ottoman period.

Area B2 (Figs. 2 and 3)

B2 – L5

There was no pottery drawn from this locus. It consisted predominantly of Roman body sherds.

B2 – L7

No pottery was chosen to be drawn from this locus. It included a rim, handle and body sherds evidently dating to the Roman period.

B2 – L30

Three potsherds, all of storage jars, were drawn from this locus/layer.

No. 25 with a very short, cup-shaped rim, dates from the second century to the fifth century CE, and no. 26 with a short fold on the inside of its rim belongs to the Byzantine to Early Islamic period.

The loop handle, no. 27, evidently belongs to an Early or Middle Roman period storage jar dating from the first to the third century.

The undrawn pottery dated to the Early Roman; Byzantine; and Early Islamic periods.

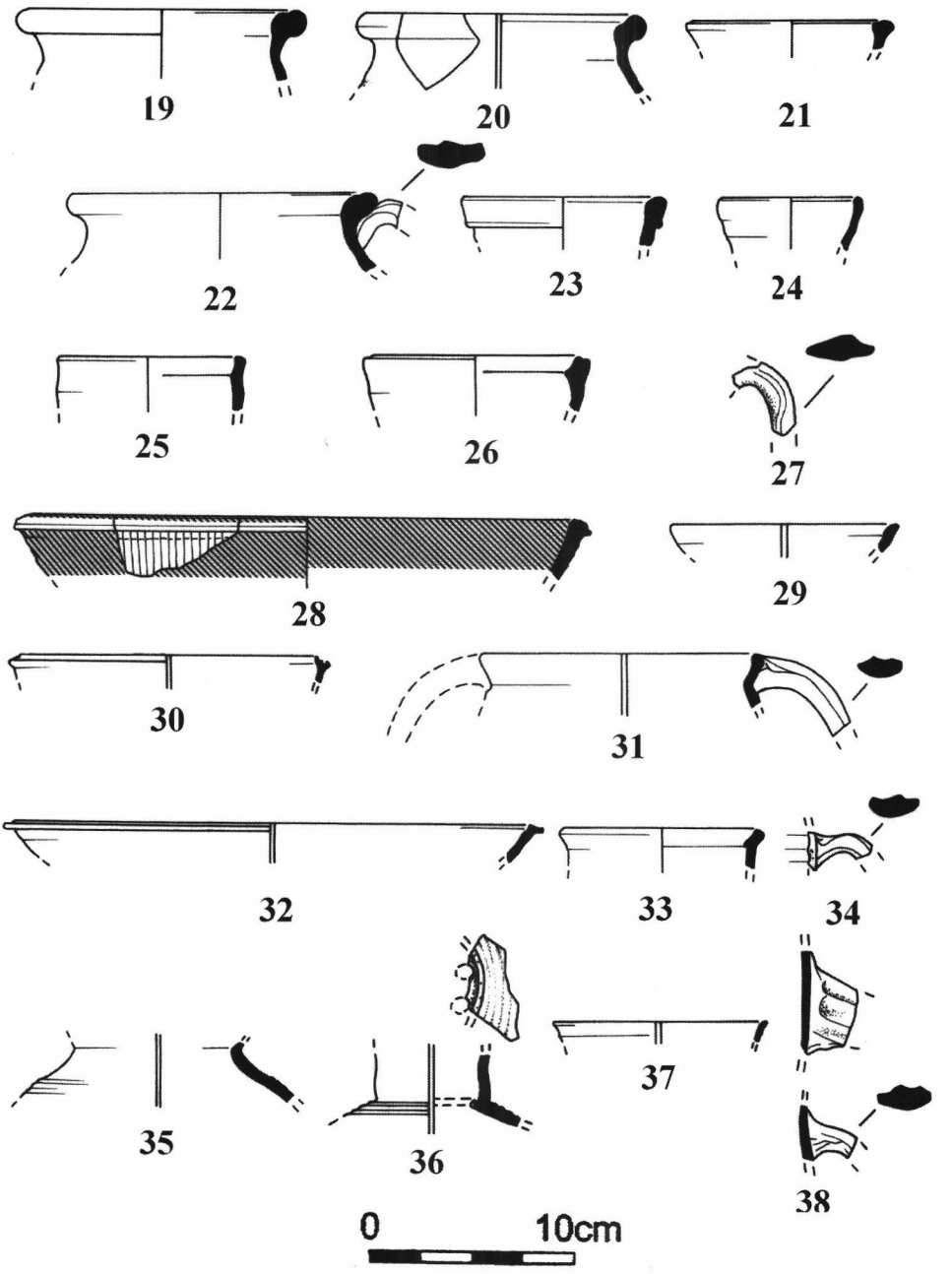

Fig. 2. Areas B1 and B2.

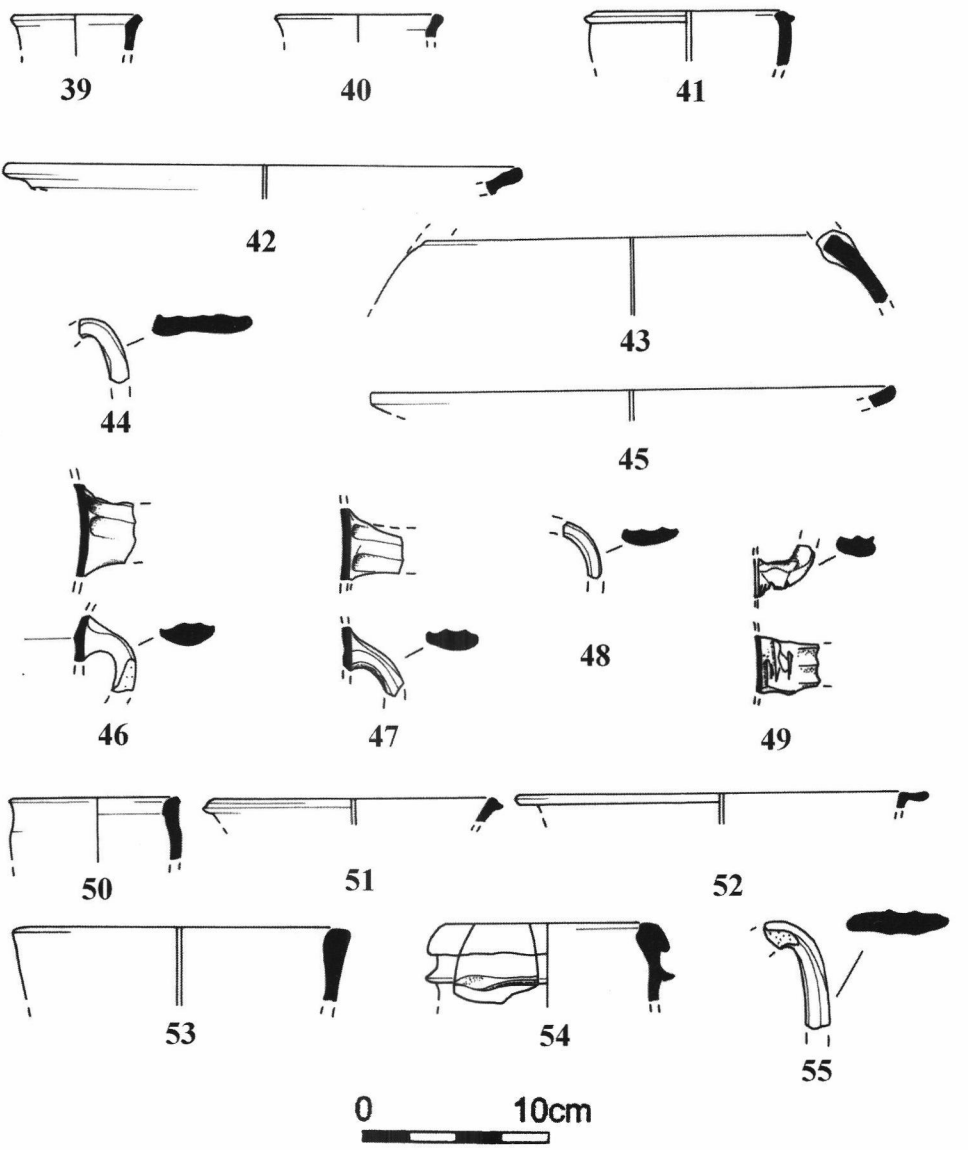

Fig. 3. Area B2.

B2 – L31

No. 28 is a deep bowl decorated with a double groove on top of its rim and a ridge on the exterior edge of the rim. It is decorated with rouletting on its exterior wall and covered with a dark reddish-brown wash. It dates to the Byzantine period, probably the fourth century to the fifth century, but may date as late as the sixth to early seventh century CE.

Two Galilean bowls were drawn. No. 29 has a plain rim (Adan-Bayewitz 1E) and dates to the mid-third to early fifth century CE. No. 30 is a very small fragment that is evidently Adan-Bayewitz Form 1B Galilean bowl, with two grooves on top of its rim, dating to the late first or early second century to the mid-fourth century CE.

No. 31 is a globular cooking pot with long loop handles springing from its rim. It is dated from the fourth century to the sixth century CE. No. 32 is a casserole or casserole lid with a bevelled rim. Such vessels appear from the Middle Roman throughout the Byzantine period and into the Early Islamic period.

No. 33 is a storage jar dating from the third century to the early fifth century CE. The storage jar handle, no. 34, appears to belong to a vessel of the Early to Late Roman period of the first to third centuries CE.

No. 35 is probably the neck and shoulder of a storage jar dating to the first to third centuries CE.

No. 36 is a fragment of a cooking jug with a perforated strainer suspended between its neck and its shoulder. It likely belongs to the Middle to Late Roman period (late first to third centuries CE).

The undrawn pottery seemed to belong to more or less the same periods as that of the drawn pottery. Some of the sherds may date to the Late Hellenistic period but the rest evidently belongs to the Late Roman to Byzantine periods. It included what may have been 'Beth Shean storage jar' fragments and a fourth to sixth century cooking pot.

B2 – L34

No. 37 is a tiny fragment of a rim, probably of a small bowl of the Roman period

No. 38 is the handle of a storage jar handle of the Early Roman period to the Early Byzantine period

No. 39 is a storage jar rim (or possibly a jug) evidently dating to the third century to early fifth century.

No. 40 is the incurving rim of a jug (or possibly jar or pot) of the Roman period.

No. 41 is the rim of a Gaza-ware jar belonging to the Ottoman period.

The undrawn pottery was similar in date to that of the drawn pottery. There was an Early Byzantine (third to fifth century) jug and a fragment of an Ottoman cooking pot whose ware contained many shell inclusions.

B2 – L36

The single example drawn from this locus/layer, no. 42, is evidently the rim of a bowl or casserole. It is likely an everted-rim bowl (Adan Bayewitz Form 3). The

key to determining the precise dating of this type is whether it had a rounded or carinated shoulder. Since its shoulder did not survive, it must be dated generally from the first century to the latter fourth century CE

B2 – L42
The two examples were drawn from this locus/ layer. No. 43 is a cooking pot with many shell inclusions within its fabric. No. 44 is the strap handle of a jar or jug made of Gaza-ware. Both examples date to the Ottoman period.

B2 – L43
Three very fragmentary sherds were drawn from this locus/ layer.

No. 45 is the edge of the rim of what was evidently a Galilean bowl with a plain rim (Adan-Bayewitz Form 1E) dating from mid-third century to earlier fifth century CE. No. 46 and no. 47 are both handles of storage jars tentatively dated to the first to third centuries.

The undrawn pottery appeared to be of the same date as the drawn pottery: the first to third centuries CE.

B2 – L44
The single example represented from this locus/layer, no. 48, is a storage jar handle evidently dating from the first century to the third century CE.

B2-L.45
None of the pottery of this locus/ layer was chosen for drawing. It included Roman body sherds and a single Gaza-ware sherd (R. Voss pers. comm.).

B2 – F2
The single example drawn from this feature, no. 49, is a storage jar handle evidently dating from the first century to the third century CE.

The undrawn pottery included evidently Early Roman period sherds as well as fragments of a 'Beth Shean storage jar' dating to the Byzantine period and Gaza-ware dating to the Ottoman period.

B2 – F3
None of the pottery of this feature was drawn. It consisted of Late Roman period to Byzantine period sherds and Gaza-ware fragments of the Ottoman period.

B2 – F5
A single example was illustrated from this feature. No. 50 is a storage jar (or possibly a jug), perhaps dating to the third century to early fifth century CE.

B2 – F6

A single example was drawn from this feature. No. 51 is a Galilean bowl (Adan-Bayewitz Form 1B) with two grooves on its rim, late first century or early second century to mid-fourth century CE.

B2 – F7

No. 52 is evidently the rim of an everted-rim bowl (possibly Adan-Bayewitz Form 3B) dated from early second century to the later fourth century CE.

No. 53 is the rim of an Ottoman period cooking pot. There are many shell inclusions within the fabric of the vessel.

No. 54 is the rim and neck of a Gaza-ware jar or jug and no. 55 is the handle of a Gaza-ware jar or jug, both dating to the Ottoman period.

In addition to the drawn pottery there were many more Gaza-ware sherds. This feature clearly dates to the Ottoman period.

Area C1 (Fig. 4)

C1 – L1

No. 56 is a Galilean bowl (Adan-Bayewitz Form 1D) bearing two grooves on top of its rim. It dates to the late first or early second to the mid-fourth century CE.

No. 57 is a storage jar dating to *c.* 50 BCE – 70 CE.

The deep grooves on handle no. 58, suggest that it may date from the third century to fifth century CE.

No. 59 is evidently the body and base of a piriform *unguentarium*. This form first appeared towards the end of the first century BCE and continued to be produced throughout the first century CE. The undrawn pottery from this locus/layer is predominantly of the Roman period.

C1 – L1(+2)

No. 60 is a beaker with an incurved rim. Considering its context and likely parallels, it probably dates to the first to the fourth centuries.

No. 61 is a Galilean bowl (Adan-Bayewitz Form 1B). No. 62 is a deep bowl.

The undrawn pottery included what appears to be a third to fourth century jar handle. All the pottery from this locus / layer evidently fits well in the third to fourth century.

Area C3 (Fig. 4)

C3 – L2

No. 63 is a Galilean bowl (Adan-Bayewitz Form 1D) with two grooves on top of its rim. It dates to the late first or early second to the mid-fourth century CE. No. 64 is a small bowl with a cupped rim.

No. 65 is the rim and neck of a typical northern Israel storage jar possibly dating from the third to early fifth century CE.

No. 66 is the upper part of a hemispherical bowl with a shallow channel rim and dusky red glaze on its interior. No parallel was found for this bowl. It may date to the Ottoman period. Probably it is the same vessel as bowl base no. 67 that is also glazed on its interior.

Parallels for storage jar no. 68 date from the second century to the fifth century CE.

No. 69 is a juglet which probably dates from about the middle of the first century to the beginning of the third century CE.

The pottery that was not drawn from this locus/layer included what was evidently a second to third century CE storage jar shoulder with a handle springing from it and a Hellenistic to Early Roman body sherd.

C3 – L4

From this locus/layer two bowls were recovered with glaze on their interiors and over the rim: no. 70 and no. 71 join with no. 66 of L2.

No. 72 is a storage jar with a short upright rim and a collar – ridge at the base of it neck. It may date to the first to third centuries CE.

The undrawn pottery evidently dated to the Early Roman and possibly Late Roman period but also included more remnants of a glazed bowl.

C3 – L5

No. 73 is the shoulder of a storage jar that probably dates to some time in the Byzantine period.

No. 74 is the rim and neck of a jug or juglet, probably dating from the late first through third century CE. No. 75 is the rim and neck of a juglet that dates possibly from the first to the beginning of the second century CE.

C3 – L8

No. 76 is a krater bowl dated possibly from the end of the first century to the mid-third century CE.

C3 – F1

No. 77 is a Galilean bowl (Adan-Bayewitz Form 1E) dated to the mid-third century to the earlier fifth century CE.

Conclusions

The ceramic evidence suggests that the earliest occupation of the site occurred in the Late Hellenistic period of the second and first centuries BCE. Examples dating to this period were primarily the jar and jug sherds discovered in Area B-1. A single jug base of this period was also found in Area A-2 (no. 12). The horizontal handle of the krater (no. 13) may derive from this period as well.

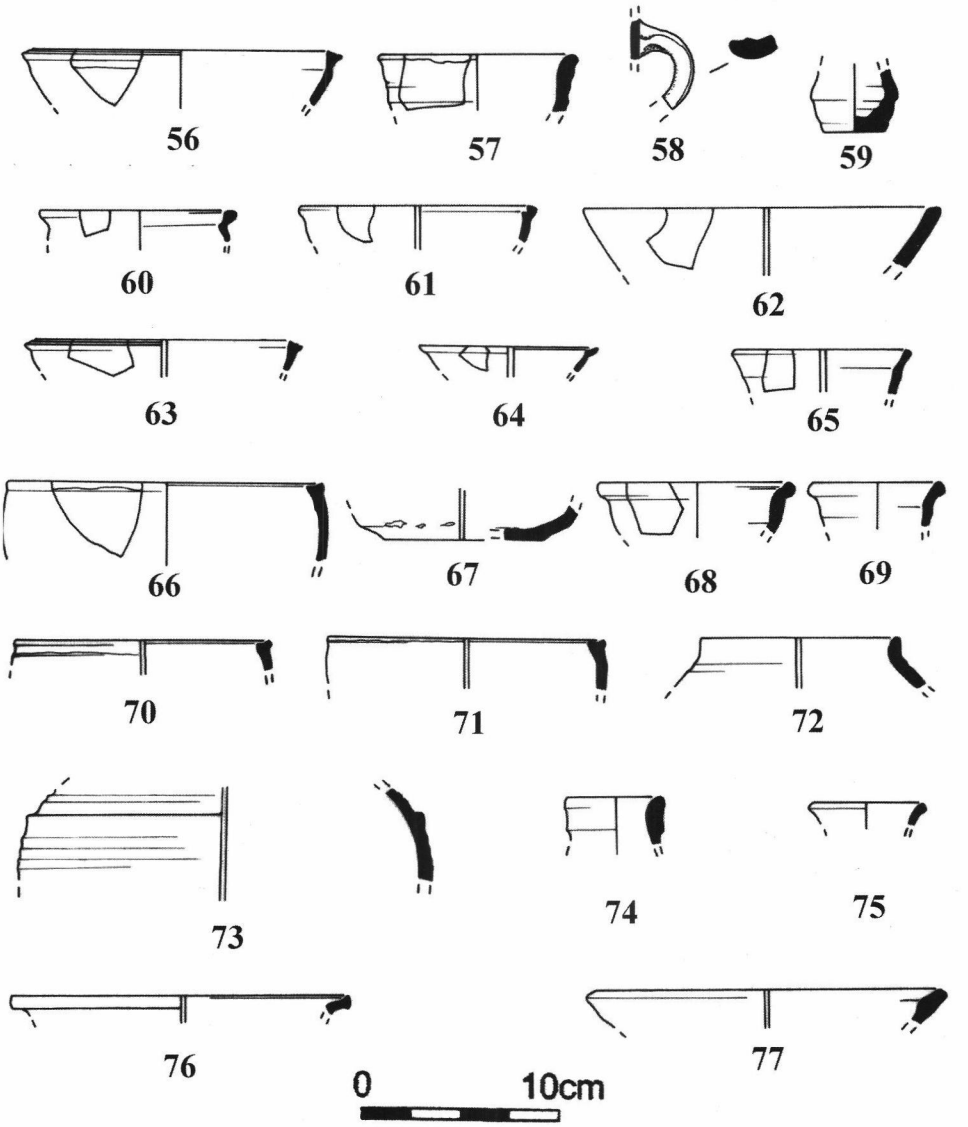

Fig. 4. Areas C1 and C3.

A small amount of material dated to the Early Roman period of the first century BCE to first century CE was found in Areas A-1; A-2; and C-1.

The best represented pottery at the site was dated to the Late Roman to the Early Byzantine period of the third to fourth or fifth centuries CE. The only area in which pottery from this period was not found was Area B-1.

The pottery generally exhibits characteristics typical of the Galilee region. This is especially observed in examples of the Early and Late Roman periods: in the Galilean bowls (e.g. no. 8, no. 9, no. 14, no. 29, no. 56, no. 61, no. 63 and no. 77) as well as in jars (e.g. no. 6, no. 11, no. 15, no. 26, no. 33, no. 39, no. 57 and no. 65). The Byzantine period lid no. 17, decorated with bands of combing on its exterior, recovered from Area B-1, is also typically Galilean.

Nothing in the way of fine or imported ware was found in the excavations (with the possible exception of the Byzantine period rouletted bowl no. 28 and the glazed bowls no. 66, no. 67, no. 70 and no. 71). All the forms were of a utilitarian nature, emphasizing the rural character of the site.

The sparse, fragmentary nature of the pottery did not permit us to determine the ethnic identity of the occupants of the farm in any of the periods. Nevertheless, it may be observed that in the Early and Late Roman periods, the ceramic forms are largely familiar from the Kfar Hanania pottery repertoire, noteworthy for its having been manufactured largely (but not exclusively) for the consumption of those observing Jewish *halakha* (Adan-Bayewitz 1993: 220).

Acknowledgments: My thanks to Luba Polyakov who drew the ceramics, except one item that was drawn by Irena Lidsky-Reznikov.

Bibliography

Abu-Uksa, H., (2002). 'Three Burial Caves at Kfar Kanna'. Pp. 153–164, in Zvi Gal (ed.), *Eretz Zafon: Studies in Galilean Archaeology* (Jerusalem).

Adan-Bayewitz D., (1993). *Common Pottery in Roman Galilee* (Ramat Gan).

Amiran, R., (1969). *Ancient Pottery of the Holy Land : From Its Beginnings in the Neolithic Period to the End of the Iron Age* (Jerusalem).

Avshalom-Gorni, D. and Tacher A., 'Excavations at Khirbet el-Shubeika 1991–1993: The Settlement'. Pp. 220–254 in Zvi Gal (ed.), *Eretz Zafon: Studies in Galilean Archaeology* (Jerusalem).

Bar-Nathan R., (1988). *The Pottery of Jericho from the Hasmonean Period and the Herodian Period and the Problem of Transition Between Hasmonean Vessel Types and Vessel Types of the Days of Herod* (M.A. Hebrew University of Jerusalem). (Hebrew).

Berlin, A., (1992). 'Hellenistic and Roman Pottery, Preliminary Report, 1990'. Pp. 112–128 in R. L. Vann (ed.), *Caesarea Papers- Straton's Tower, Herod's Harbour and Roman Byzantine Caesarea* (*JRA* Supplemntary Series 5; Ann Arbor).

Diez-Fernandez F., (1983). *Ceramica comun romana de la Galilea. Aproximaciones y diferencias con la ceramica del resto de Palestina y regiones circundantes* (Madrid).

Elgavish J., (1977). *Archaeological Excavations at Shikmona: The Pottery of the Roman Period* (Haifa).

Gitin, S. (1990). *A Ceramic Typology of the Late Iron II, Persian and Hellenistic Periods at Tell Gezer 2 – The Corpus* (Cincinnati).

Johnson B. L., (1988). 'The Pottery'. Pp. 137–226 in G. D. Weinberg (ed.), *Excavations at Jalame*. Columbia.

Magness J., (1993). *Jerusalem Ceramic Chronology circa 200–800 CE* (Sheffield).

McNicoll A. W., Edwards P. C., Hanbury-Tenison J., Hennessy J. B., Potts T. F., Smith R.H., Walmsley A. and Watsons P., (1992). *Pella in Jordan 2. The Second Interim Report of the Joint University of Sydney and College of Wooster Excavations at Pella 1982–1985* (Mediterranean Archaeology Supplement 2; Sydney).

Meyers E. M., Kraabel A.T. and Strange J. F., (1976). *Ancient Synagogue Excavations at Khirbet Shema'* ; *Upper Galilee, Israel 1970–72 (*Annual of the American Schools of Oriental Research 42. Durham. NC).

Stepanski, Y., (2002). 'Excavations at Rumana'. Pp.107–118 in Zvi Gal (ed.), *Eretz Zafon: Studies in Galilean Archaeology* (Jerusalem). (Hebrew).

Book Reviews

Thomas O'Loughlin, *Adomnán and the Holy Places: The Perceptions of an Insular Monk on the Locations of the Biblical Drama*, 2007. Pp. 348, including 6 figures and 9 appendices. T. & T. Clark: Edinburgh. Price £70.00. ISBN 978–0-567–03183–9.

De locis sanctis (DLS), composed by Adomnán of Iona (d. 704 CE), is the most descriptive Holy Land pilgrim source of the post-Byzantine period (614–1099). The text records the seventh-century account of Arculf (*c.* 680), while integrating written sources from the library of Iona, mostly dating to the fourth and fifth centuries. A pendulum shift has taken place among scholars of early Irish history concerning the relationship between Adomnán and Arculf. The shift, largely driven by the work of Thomas O'Loughlin, has resulted in the long-overdue rehabilitation of Adomnán from the role of Arculf's scribe to the author of an intricate exegetical treatise on the Holy Land. O'Loughlin's numerous articles on the text have been recently rewritten as a full-length study, *Adomnán and the Holy Places: The Perceptions of an Insular Monk on the Locations of the Biblical Drama*. O'Loughlin effectively establishes the theological sophistication of Adomnán, his interest in the exegetical conundrums of the biblical text, his skilful integration of the patristic sources and the overall fascination that Jerusalem and the holy places held in the imagination of the Irish monks. The legacy of *DLS* – a medieval 'bestseller' – is also discussed, enabling the reader to fully appreciate the text's importance in the pre-modern world. In short, *Adomnán and the Holy Places* provides a unique opportunity for those interested in the topographical contents of *DLS* to become familiar with the text from its insular perspective, while reminding scholars of the potential landmines regarding the text's distinct sets of sources: for example, confusing the earlier written material for the seventh-century testimony of Arculf.

The pendulum, though, has swung decidedly too far. In rehabilitating Adomnán, O'Loughlin rejects what he calls the 'Arculf Hypothesis', arguing that the pilgrim is little more than a 'literary fiction' of Adomnán and dismissing the text's value as a seventh-century source for Jerusalem. Citing 'Arculf's problematic observations' (p. 44) and his 'alarming inconsistencies' (p. 42), O'Loughlin concludes that Arculf 'is confused on many issues, mistaken or ill informed on other matters, and here and there, downright wrong. . . the whole thing just does not add up!' (p. 62). For O'Loughlin, Arculf offers little of original value, while the primary dialogue is between Adomnán and his literary sources.

There is, however, a significant omission in O'Loughlin's analysis of Arculf. The seventh-century material can be easily assessed: if a reference in *DLS* appears in another contemporary text, then one must assume that the material was dictated by

Arculf (i.e., both sources are independently describing the same commemorative landscape). The task is particularly suited for *DLS* as there are, *inter alia*, three texts within two generations of Arculf's visit to Jerusalem – the *Armenian Guide* (*c.* 625), Epiphanius (original source *c.* 638–692) and Willibald (724–726). Yet, O'Loughlin overlooks the entire corpus of post-Byzantine texts, discussing the Jerusalem content of *DLS* without referring to a single pilgrim source (pp. 57–61). While O'Loughlin claims that 'the naïve reading of the *DLS* as "Arculf's memories" is wholly wide of the mark', virtually all of the Jerusalem topography described in *DLS* is mentioned in other post-Byzantine sources (e.g., Sophronius, the *Armenian Guide*, Epiphanius, Willibald, the *Commemoratorium*, Bernard and Photius), establishing both the breadth and reliability of Arculf's report (see Table).

Though ultimately related in the reviewer's opinion to the same oversight, three additional points are worth mentioning. First of all, O'Loughlin does not recognize the essential nature of the so-called pilgrim texts. In a word, pilgrims were primarily interested in the commemorative topography of the holy places, and both formal guides and personal accounts focus upon the raw details of the biblical landscape, including its contemporary ecclesiastical context. By contrast, the texts are only secondarily concerned with ritual practices and the *experimenta* of the pilgrim travellers, while personal anecdotes and exotic traveller tales are incidental to their more prosaic interest in the commemorative topography. O'Loughlin rightly questions previous descriptions of *DLS* as a travelogue, and his observations of *DLS* are largely accurate – e.g. (1) the text offers few insights into the actual experiences of pilgrimage and 2) provides little information on the conditions of contemporary Palestine, including the factionalism of Christian groups. The description could hardly be truer, for instance, of the eighth-century account of Willibald. The very criteria which O'Loughlin uses to discredit the Arculf material are, in fact, indicative of the larger corpus of pilgrim texts.

Secondly, there is a tendency to fault the source, Arculf, for being manipulated by Adomnán. In other words, O'Loughlin correctly argues that the Arculf material has been reshaped by Adomnán only to discredit the source by noting its 'alarming inconsistencies'. Yet, if the material has been redacted, then we should not be surprised that the source itself has been compromised (though the inconsistencies are far less than O'Loughlin claims). At the same time, O'Loughlin is not equally critical of Adomnán's written sources, such as Eucherius, who fails, for instance, to include the Tyropoeon Valley in his description of Jerusalem. As a result, Adomnán wrongly states that the annual deluge on 12 September exits the city by the East Gate (1.1).

Thirdly, while O'Loughlin highlights the theological dialogue between Adomnán and his Latin sources, he discounts the contemporary discourse taking place in Jerusalem between, for example, the custodians of the *sancti loci* and pilgrims, like Arculf, who returned to the West with a Jerusalemite interpretation of the holy sites. To give Adomnán his proper due, he was adept at integrating the robust details of his eyewitness source with the authoritative writings of the church fathers. His image of Jerusalem was shaped by both sources.

While O'Loughlin's dismissal of *DLS* as a seventh-century source may come as a surprise to Jerusalem scholars familiar with the material, the idea that Arculf is a literary fiction should be laid to rest once and for all. Yet, in underscoring the complexity of *DLS*, providing an important caveat against the uncritical pillaging of the text and describing the imaginative appeal of Jerusalem for Christians living on the northwest fringes of the Latin world, *Adomnán and the Holy Places* makes a valuable contribution to the field of Jerusalem studies.

Rodney Aist
(The Albright Institute, Jerusalem)

The following table has *DLS* references to Jerusalem's topography and to post-Byzantine sources [Sophronius (*c.* 614); the *Armenian Guide* (*c.* 625); Epiphanius (bef. 692); Willibald (724–6); the *Commemoratorium* (*c.* 808); Bernard (*c.* 870); and Photius (bef. 895)]:

***DLS* (c. 680) Contents**		**Post-Byzantine Sources (7th–9th centuries)**
1.1	Saracen House of Prayer	Epiphanius, Bernard
1.2	Martyrium: Twelve columns	*Armenian Guide*
1.2	Tomb of Christ: Cross on top of Tomb	Willibald
1.2	Tomb of Christ: Oil lamps	Willibald
1.2	Tomb of Christ: Measurements	Photius
1.3	Stone in front of the Tomb	Sophronius, Willibald, Photius
1.3	Tomb of Christ: Interior of Tomb	Photius
1.4	Church of St. Mary	Bernard
1.5	The Chapel under Calvary	*Armenian Guide*, Epiphanius
1.6	Finding of the Holy Cross	*Armenian Guide,* Epiphanius, Bernard
1.6	Altar of Abraham	Piacenza Pilgrim
1.7	Cup and Sponge	Sophronius, *AG*, Epiphanius, *Commemoratorium*
1.8	Lance	Sophronius, *Armenian Guide*, Epiphanius
1.9	Sudarium	*Commemoratorium*
1.10	Church of St. Mary's Weaving	Epiphanius (House of Joseph)
1.11	Monument of the Miraculous Healing	Epiphanius, Willibald
1.11	Centre of the World	Sophronius, Bernard
1.12	Tomb of St. Mary	Sophronius, *Armenian Guide*, Epiphanius, Willibald
1.15	Grotto of Gethsemane with four tables	Bernard
1.17	Place where Judas Iscariot hanged himself	Epiphanius
1.18	Holy Sion: Last Supper	Epiphanius

1.18	Holy Sion: Dormition of Mary	Sophronius, Willibald, Bernard, Epiphanius,
1.18	Holy Sion: Pentecost	Sophronius
1.18	Holy Sion: Stoning of Stephen	Bernard
1.18	Holy Sion: Stone of Scouring	Epiphanius
1.19	Aceldama	Epiphanius
1.23	Church of the Ascension: Round Shape	Epiphanius, Bernard
1.23	Church of the Ascension: Open Roof	Willibald, Bernard
1.23	Church of the Ascension: Bronze Railing	Willibald
1.23	Ascension: Footprints of Jesus	Epiphanius
1.24	Tomb of Lazarus	Epiphanius, Bernard, *Commemoratorium*
1.25	Church of the Apocalyptic Teachings	Epiphanius, *Commemoratorium*

René Salm, *The Myth of Nazareth. The Invented Town of Jesus. Scholar's Edition*, 2008. Pp. 375, with 13 monochrome figures, 4 monochrome photographs, 14 tables, 7 appendices. American Atheist Press: Cranford, New Jersey. Price US $20.00. ISBN 978–1-57884–003–8 (paperback).

The core of René Salm's position is that there is no archaeological evidence for significant occupation at Nazareth in the Galilee before the destruction of the Second Temple in Jerusalem. This argument is based on a reinterpretation of published secondary sources for tombs, structures, coins, lamps and pottery from Nazareth, all of which he dates either to before the Hellenistic period or after the 'Second Temple period', as Israeli archaeologists often term it. Salm then argues that this, in turn, discredits the New Testament account of the childhood of Jesus Christ, an argument that must have made the book attractive to its publishers, the 'American Atheist Press'.

After a brief introduction (pp. xi-xvi), Chapters 1 and 2 re-examine published evidence for pre-Hellenistic settlement in the area of the twenty-first-century city (pp. 19–94). Chapters 3–5 contain the archaeological discussion of Hellenistic and Roman period Nazareth that necessarily underlies the whole of Salm's argument (pp. 97–308), and the remainder of the book comprises seven appendices. Appendices 1 (pp. 311–314) and 2 (pp. 315–318) list some (but not all) of the published Bronze Age and Iron Age material from Nazareth. Appendix 3 (pp. 319–321) summarizes one of several contending chronologies for Megiddo, and Appendix 7 presents a 'timeline' (i.e. chronological sequence) for Nazareth derived from Salm's reading of textual sources, accompanied by brief glosses based on the author's opinions (pp. 331–338). Appendices 4–6, presenting evidence central to Salm's arguments, will be discussed below.

The text is supported by diagrams, maps, plans, finds-drawings and photographs, and although not all of these are of a standard that one would expect from an archaeological work, that may be the failing of the publisher (unused to archaeological criteria) rather than the author, so will not be discussed further here. This review will not draw attention to mistakes of referencing, measurement, language or citation, although it is worth noting that Salm affords no equivalent courtesy to other scholars (for example, criticizing Bagatti's English grammar on p. 113). Likewise, although he is sceptical of Strange's published work on Nazareth on the grounds that Strange has 'received no academic degree in the field of archaeology' nor 'dug at Nazareth' (p. 137) and so 'is not in a position to offer us any new material evidence' (p. 138), I shall not judge Salm's work on the same basis, except to note that there is no hint that Salm has qualifications – nor any fieldwork experience – in archaeology.

Perhaps, at this point, I should explain for Mr. Salm's benefit that I am a professional archaeologist, with both undergraduate and postgraduate degrees in that subject from well-known British universities, specializing in the Roman Empire, Late Antiquity and the Byzantine world, and the study of archaeological theory and method. Five years ago I began fieldwork on Nazareth and its hinterland to study the consequences of Byzantine period patronage and pilgrimage, and as a consequence worked also on the preceding and following periods.

Salm sees most previous archaeological interpretations of material from Nazareth as the outcome of 'cavalier' reasoning (for example, p. 126) based on religious preconceptions, deliberate distortion and concealment – especially by the Franciscans – who, it seems to me, he almost accuses of a 'cover-up' to support their favoured interpretation. For example, writing of Franciscan archaeology in Nazareth, Salm says: 'Sloppiness, too, can be useful, as when the desire exists that certain facts *not* see the light of day. In this case confusion and disorder are a tool' (p.126). Both earlier and active scholars are discussed in an intemperate, and usually not especially complimentary, manner (for example, Bagatti is twice accused of 'pure invention' in a single paragraph on p. 236), and frequently referred to by their nationality or ethnicity rather than their name, for example, 'the German' (Kopp – p. 249), 'the Frenchman' (Viaud – p. 254), 'the Arab' (Mansur – p. 225) 'the Spaniard' (Fernandez – pp. 116, 271, 328), 'the American' (Strange – p.142) and most often 'the Italian' (Bagatti, whose work Salm especially dislikes – pp. 112, 174, 177, 204, 228, 239, 245, 250, 256, 275, 328).

So let us see what merit there is in the argument that Salm presents, seen solely as a piece of archaeological reasoning and working only from material evidence, standard archaeological techniques and scientific logic. It is a long and wide-ranging book, apparently full of detail, so I shall take five themes as indicative of the whole: the basic archaeological research question underlying the study, the representation of the natural environment, the Roman period tombs, the Church of the Annunciation site, and the use of pottery as evidence.

(1) The initial question must be whether the stated aims of the book are archaeologically achievable. It would, hypothetically, be archaeologically possible

to show that there was no Second Temple period settlement evidence on any of the sites so far excavated in Nazareth. But it is not possible to show archaeologically on the basis of available data that Nazareth did not exist in the Second Temple period (or at any other period), because the focus of activity at any period may be outside the – still few – excavated and surveyed areas. Hypothetically, it is possible that Late Roman pilgrims and church-builders were incorrect when they took the present site of Nazareth as its New Testament counterpart, and that New Testament period Nazareth was elsewhere. The latter is not a new hypothesis, nor is it one that I support, but it is theoretically possible. It is logical, therefore, that even if Salm could refute the existence of Second Temple period settlement on all of the excavated sites (and he does not discuss them all in sufficient detail to achieve this objective), then he would still not be able to refute the existence of a Second Temple period village at Nazareth. The underlying premise of the book – that by reinterpreting archaeological data one could show that Nazareth as described in the New Testament did not exist – is, therefore, flawed, and its central research question is scientifically invalid.

(2) Salm's depiction of the hydrology and topography (pp. 21–22, 193, 215–19) is hard to reconcile with what is known about the area of the present city of Nazareth in the relevant periods. He seems to believe that the only significant natural water source is St. Mary's Well (p. 21) and has apparently not seen any of the evidence – the relevant publications are absent from the discussion and the bibliography – showing this to be incorrect. In fact, at least three natural springs are known in Nazareth. Another plentiful water source in the centre of the Byzantine settlement (i.e. near the Church of the Annunciation) could be surmised from Adomnán of Iona's *De Locis Sanctis*, supported by archaeological evidence published in 2006, so probably too late for inclusion in Salm's book. Others, no longer active, may have existed in the pre-medieval period.[1]

Salm is also mistaken in saying that hill-slope locations preclude Roman period Jewish settlement (pp.193, 217–219). Structures on terraces and rock-cut hill-slope structures – recently discussed as a type of construction by Richardson – have been published from excavated Roman period Jewish settlements elsewhere in the Galilee, including Khirbet Kana immediately north of Sepphoris (Zippori). Richardson's book is not in the bibliography, although it might also have appeared too late for inclusion (Richardson, 2004: 77 and 103, plate 12).

Incomprehensibly, there is no mention of the well-documented *wadi* – known from written, artistic and archaeological evidence – that ran through the centre of Nazareth, although this must have been one of the striking features of the locality until its nineteenth-century infilling. Although the sides of this *wadi* may have been steeply sloping enough to throw someone from, the stone at the Mensa Christi church is far from being a 'sheer cliff' and 'great rock outcropping near the Maronite church' (p.202).[2]

(3) Salm – like most previous writers on the archaeology of Nazareth – realizes that the only way to locate the Roman period settlement is to plot and date the distribution of archaeological material. Previous scholars highlighted the importance

of the many Roman period tombs and Salm also emphasizes these (pp. 109–111, 158–164, 243–261). Appendix 4 provides a list of most of those from the Nazareth area that have been published (p. 323). The chronology of *kokhim* tombs is central to his thesis, but his dating of these would be more credible if he employed the dated typology in the now-standard work on Second Temple burial, Rachel Hachlili's excellent 2005 book *Jewish Funerary Customs, Practices and Rites in the Second Temple Period.* This renders his chronology for tomb construction invalid, as it is based on interim, popular or outdated works, and leads him to ignore typological evidence for Hachlili's Type 1 Second Temple period tombs in Nazareth.[3]

Salm does not take into account that while domestic occupation on a cemetery is, of course, unthinkable in Jewish religious law, the placing of tombs in a disused area of domestic activity is not. The distribution of Roman period tombs is, therefore, not of assistance to Salm's case that no Second Temple period settlement existed at Nazareth, because even if he could date all the known tombs to later centuries (and this is not possible), there could have been earlier occupation.[4]

(4) The suggestion that there were Roman period tombs (illustration 5.4 on p. 240 and pp. 243–259) on the site of the present Church of the Annunciation is interesting, but the evidence is inconclusive. Most archaeologists would hesitate to postulate an otherwise unattested tomb from 'an elbow twist to the west' in an underground hollow of unknown function, let alone because a feature is 'roughly the size of' a *kokhim* tomb (p. 247). If there were tombs at the site, Salm gives no convincing argument as to why they must be earlier than all of the agricultural features previously identified – as he recognizes – by Bagatti and Taylor. The presence of a small basin and evidence for drainage is not convincing evidence that Tomb 29 (pp. 251–258) was a wine-collecting vat (p. 253). Dating by absolute depth, 'showing that this is the oldest stratum of the site' (on p.259 in relation to 'Graves o/p'), has been recognized for over half a century as a stratigraphical fallacy. While Salm says, '[t]he implication is that the tombs preceded the agricultural installations, which are sometimes intrusive' (p.259), no convincing evidence of an agricultural feature cutting a Roman period tomb is described and none is shown on Salm's plan of the site (illustration 5.4 on p. 240).[5]

To put it another way, no credible evidence is produced by Salm that would show that burial – if it took place – preceded all of the agricultural activity on the site of the Church of the Annunciation. In fact he notes that what he considers to be 'arguably the earliest oil lamp found at Nazareth' was, in his opinion, associated with 'an extensive agricultural installation'. It is not archaeologically 'evident that the cistern was not made by the very first settlers' (p. 247), as one could construct various hypotheses (for example, that Nazareth functioned as a 'local centre' – to use Hingley's well-known term for Roman period villages or 'small-towns'– processing oil and/or wine for surrounding rural communities) wherein large-scale processing facilities were a component of the settlement from the outset.[6]

In discussing burial at the Church of the Annunciation, it is also worth noting that neither Byzantine nor Crusader period Christians are likely to have been prevented from burial by believing that it was too holy a spot (p. 250), nor are tombs

'the last thing pilgrims would expect to find' at major *foci* of pilgrimage in these periods (p. 252). Burial on or near 'holy places' is widely attested both archaeologically and historically in the Christian world from the Late Roman Period onward, and pilgrim accounts describing the Holy Land (not least *De Locis Sanctis*) mention tombs.

(5) Salm rightly places much importance on pottery as a means of dating and is duly sceptical of material, such as that from the excavations at the Franciscan church of St. Joseph (p. 126), found disassociated from its stratification and with no documentation as to its find-spot. However, the fact that most pottery from Nazareth (as at the vast majority of excavated sites anywhere in the Roman world) consists of small sherds is presented by Salm as if this devalues their chronological significance. Few twenty-first-century archaeologists would credit Salm's assertion that: 'two- and three-inch fragments of pottery vessels are a precarious basis indeed for fixing the type and date of an artefact' (p. 125).

Salm points to what he considers a lack of certain Late Hellenistic pottery from Nazareth (pp. 111–18, 120, 122–3,127–9, 133–4). Before one can establish its absence from the record (and that is not, of course, the same as absence from the settlement) then one must set out what would, identifiably, constitute the presence of Late Hellenistic ceramics there. Adan-Bayewitz, Aviam, Frankel and others have shown that at least some Late Hellenistic and Roman period Jewish communities chose not to use ceramics made by non-Jews. These communities, therefore, eschewed the very wares, for example Eastern *Terra Sigillata* ('ETS'), that may be most precisely dated or are most widely distributed elsewhere, such as Galilean Coarse Ware. Moreover, if Bagatti excavated an area used for agricultural storage and/or processing at the Church of the Annunciation, the lack of whole Late Hellenistic or Early Roman lamps at that site is unsurprising. The rise in numbers of complete lamps, if one followed Salm's chronology, could then be explained by the re-use of the area for tombs, suggested by Salm (Adan-Bayewitz, 1993: 231–232, 237; Aviam, 2004a: 49; Aviam, 2004b: 8, Fig. 2.2 on 9, 18–19; Frankel *et al.*, 2001: 108).[7]

To support his reinterpretation of the pottery, Salm provides a list of 'Independent Datings of Nazareth Lamps and Pottery' (Appendix 5, pp. 325–327) and 'Pottery and Movable Artefacts from Nazareth' (Appendix 6, pp. 328–329). Despite its title, Appendix 6 is in fact a very partial list of evidence available in 2006 derived from a selection of the published works. Appendix 5 compares dates for pottery in works ranging from 1969 to 1982 – that is, before the present standard published ceramic chronology of the area during the Roman period was formulated. The bibliography omits several important works on pottery dating including Adan-Bayewitz's fundamental 1993 work on Galilean pottery in the Roman period, Magness' 1993 book on Roman and Byzantine pottery in Jerusalem, and Frankel *et al*'s 2001 monograph on survey in the Upper Galilee. These are not obscure works, nor are they journal articles that would be hard for an amateur to obtain, and their absence illustrates the basic flaw in Salm's use of the available source material and points of archaeological reference (see works cited in Note 7 and Magness, 1993).[8]

On all five themes Salm's arguments, while sometimes noting interesting points, are seriously flawed in logic and data. Although he says that it is 'possible that one or two brief reports may have eluded my gaze' (p. xv), the supporting bibliography (pp. 341–355) omits many relevant works, including some published reports on archaeological data from Nazareth and other sites in the vicinity.

To conclude: despite initial appearances, this is not a well-informed study and ignores much evidence and important published work of direct relevance. The basic premise is faulty, and Salm's reasoning is often weak and shaped by his preconceptions. Overall, his central argument is archaeologically unsupportable.

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Notes

1 For other known and suspected springs in Nazareth, apart from St. Mary's Well, the most accessible works are: Bagatti 2001: 30–32; Range 1923: 12. A spring in the centre of Nazareth in the seventh century is implied by *De Locis Sanctis*: Meehan 1958: 94–5, although Meehan – contrary to a direct statement in Adomnán's text – located this outside the Byzantine settlement. New archaeological evidence and argumentation that the locality referred to by Adomnán was in the centre of Nazareth are presented in interim form in Dark 2007. Egeria also seems to mention two springs at Nazareth – one inside, another outside the village – already venerated by Christians in the fourth century (Wilkinson 1999: 96).

2 The *wadi* is discussed by: Bagatti 1969: 236; Alliata 1997: Fig. 3 and Fig. 7.

3 For example, the well-known tomb at the Sisters of Nazareth Convent is an excellent example of Hachlili's Type 1 group: Hachlili 2005: 450–452.

4 For an example at Nazareth: Dark 2007.

5 For example, dating by depth is refuted in: Wheeler 1954.

6 The term 'local centre' was first used in: Hingley 1989, but the term is applicable to 'small-towns' and many 'villages' throughout the former Roman Empire.

7 For recent discussion of the ethnic implications of ETS: Aviam 2004a: 315–316; Shaked and Avshalom-Gorni 2004.

8 Although Magness's book focuses on the Late Roman and Byzantine periods, its discussion covers a wider chronological range than is implied in the title.

Bibliography

Adan-Bayewitz, D., (1993). *Common Pottery in Roman Galilee: A Study of Local Trade* (Ramat Gan).

Alliata, E., *et al* (1997). *Nazareth*, ed. and trans. S. Musholt, 2nd edn. (Jerusalem).

Aviam, M., (2004a). *Jews, Pagans and Christians in the Galilee. 25 years of Archaeological Excavations and Surveys. Hellenistic to Byzantine Periods* (Rochester, New York and Woodbridge).

Aviam, M., (2004b). 'First Century Jewish Galilee: An Archaeological Perspective'. Pp. 7–27 in D. R. Edwards (ed.), *Religion and Society in Roman Palestine* (New York and London).

Bagatti, B., (2001). *Ancient Christian Villages of the Galilee,* trans. P. Rotondi, (Jerusalem).

Bagatti, B., with Alliata, E., (1969). *Excavations in Nazareth. From the Beginning Until the Twelfth Century*, trans. E. Hoade (Jerusalem).

Dark, K. R., (2007). *Archaeological Recording at the Sisters of Nazareth Convent in Nazareth, 2006* (London).
Frankel, R., Getzov, N., Aviam, M., and Degani, A., (2001). *Settlement Dynamics and Regional Diversity in Ancient Upper Galilee: Archaeological Survey of Upper Galilee* (*Israel Antiquities Authority Reports* 14) (Jerusalem).
Hachlili, R., (2005). *Jewish Funerary Customs, Practices and Rites in the Second Temple Period* (Leiden and Boston).
Hingley, R., (1989). *Rural settlement in Roman Britain* (London).
Magness, J., (1993). *Jerusalem Ceramic Chronology circa 200–800 CE* (Sheffield).
Meehan, D., (ed. and trans.) (1958). *Adamnan's* De Locis Sanctis Scriptores Latini Hiberniae (Dublin).
Range, P., (1923). *Nazareth, Das Land der Bibel* (Leipzig).
Richardson, P., (2004). *Building Jewish in the Roman East* (= *Supplements to the Journal for the Study of Judaism* 92) (Leiden).
Shaked, I. and Avshalom-Gorni, D., (2004). 'Jewish Settlement in the Southeastern Hula Valley in the First Century CE'. Pp. 28–36 in D. R. Edwards (ed.), *Religion and Society in Roman Palestine. Old Questions, New Approaches* (New York and London).
Wheeler, R. M., (1954). *Archaeology from the Earth* (Oxford).
Wilkinson, J., (ed. and trans.) (1999). *Egeria's Travels,* 3rd edn. (Warminster).

Summaries of Lectures

Qumran Connected: The Roads and Passes of the Northwestern Dead Sea Coast and Buqeiʿa

JOAN E. TAYLOR

A key question in studies of the archaeology of Qumran is the connection of this site to Jerusalem and elsewhere by road systems and passes. In September 2006, Dr Shimon Gibson and I were able to determine and record an additional northern arm of the pass leading up to the *wadi* and follow it towards the crest of the hill. In October 2007, thanks to a research grant from the Palestine Exploration Fund, we determined the continuation of the route from Qumran into the Buqeiʿa and noted cross-tracks, archaeological features and surface finds. We re-examined the links between Qumran and Ein Feshkha, further south, and Jericho in the north, noting in particular a large number of Bedouin graves in the region to the south of the wadi, towards Ain Feshkha, and also the remains of a large rectangular building – already noted and partly excavated (though not published) by de Vaux – which we tentatively identified as an Iron Age anchorage akin to Kh. Mazin. Various Iron Age finds along the route between Qumran and Kh. Abu Tabaq and through the Buqeiʿa indicate the origins of the track systems in the seventh to sixth century BCE. There was nothing that suggested the use of the tracks during the Early Roman period for trade, but rather these were connecting pathways for sites in the Buqeiʿa that were at their peak of activity in the Iron Age, when there was flood farming in this area. There was also nothing to suggest that either the pass of Qumran – which is narrow in places, difficult to scale and partially subsided – was ever a major trade route between the Dead Sea and Jerusalem. The route leads westwards only to Kh. Abu Tabaq, and then meets the main north-south road through the Buqeiʿa, leading to Jericho in the north and ultimately Hebron in the south. Goods from the Dead Sea would more likely have gone by ship to Rujm el-Bahr and then to the main road leading from Philadelphia to Jerusalem.

Warfare and Laws of War in Ancient Judaism

CHRISTOPHE BATSCH

Warfare in antiquity was a common social activity and, as such, was part of the ritual and religious world vision of each society. The laws and rites of war are therefore an expression of that vision. As far as ancient Judaism is concerned, we must dismiss the idea of a 'holy war', a historiographical anachronism arising from nineteenth-century European scholarship. The laws and rites of Jewish war are expressed in the Hebrew Bible, mainly in Deuteronomy 20. What are they and what do they mean? By whom, when, where and how were these laws and rites applied? Textual evidence can be found in the account of the Maccabean uprising and the subsequent evolution of what can now be called a warfare *halachot* or rules of warfare as expressed in the Mishnah and Talmud. These deal with such questions as the purity status of the war camp as well as that of the Jewish warriors and the priests, princes and officers at the head of the Jewish army; the issue of warfare on the Sabbath; the involvement or not of women

in war, the question of war *cherem* or anathema, and *qenah* or zeal.

The Extent of Sennacherib's Campaign to Judah in 701 BCE: A New Examination

AVRAHAM FAUST

A detailed examination of data from dozens of excavated sites, urban and rural alike, reveals that most parts of Judah prospered in the seventh century BCE and that in many regions this, and not the eighth century BCE, represents the peak of Iron Age settlement. Systematic investigation of the data conducted not only on a regional basis but also at the site level allows us to identify regional and local patterns of continuity, prosperity and decline during the transition from the eighth to the seventh century BCE. The Shephelah, for example, was almost totally devastated, but the other sub-regions of Judah, i.e., the highlands (the region of Benjamin, Jerusalem's environment and most of the Judean hill country), the desert and the Negev prospered at this time.

In this lecture the identified patterns were presented, and possible explanations for the differences suggested. The observed patterns were compared and contrasted with both direct and indirect information from the various textual sources (both the biblical and the Assyrian sources) on Sennacherib's campaign to Judah in 701 BCE, in order to gain a better understanding of the campaign, its extent, and its impact on the kingdom of Judah.

Re-interpreting Roman Period and Byzantine Nazareth

KEN DARK

The lecture reported on work by the Nazareth Archaeological Project between 2004 and 2007. This project, supported by the Palestine Exploration Fund, aimed to re-examine Nazareth and its hinterland in the Roman and Byzantine periods, through an intensive fieldwalking survey of the countryside between Nazareth and Sepphoris (Zippori) and new work on the Sisters of Nazareth convent site in the centre of the present city.

Survey in the countryside located a densely settled Roman period and Byzantine landscape of previously unrecognized small farms and hamlets. Roman period material from these settlements shows a cultural boundary between more 'romanized' sites nearer Sepphoris and those closer to Nazareth, perhaps reflecting a more rigorous adherence to Jewish purity law closer to Nazareth and, if so, providing new evidence for the role of religion in Jewish resistance to Roman imperialism.

By contrast, the Sisters of Nazareth site has been known since the 1880s and subject to a series of unscientific excavations in the nineteenth and twentieth centuries. However, the archaeological value of the site has remained unrealized, perhaps because it has never been published nor studied in detail by a professional archaeologist. Work in 2006-07 has shown that the convent cellars contain well-preserved Roman period, Byzantine and Crusader structures, including what may be a first-century domestic structure, Early Roman period Jewish burials and, perhaps, a Byzantine cave church. Above these – and adjacent to the Basilica of the Annunciation – once stood a large, but previously unrecognized, Byzantine and Crusader church, the identity of which was discussed in the lecture.

The Biblical Tree of Knowledge: Reflections from the Ancient Near East

DIANA L. STEIN

Described as a source of beauty, food and knowledge, the biblical Tree of Knowledge

is commonly portrayed as an apple tree in both literature and art. The Hebrew Bible was first compiled in Babylon in the sixth century BCE. Like many of the narratives it contains, the story of Adam and Eve draws upon existing Near Eastern visual and literary conventions to address the overriding issues and concerns of the time. This lecture focused on two of these conventions, the so-called Winged Disk and Sacred Tree, both widely disseminated in the first millennium BCE as imperial symbols of the Assyrian Empire. Tracing the background of these two symbols leads us to the highland cultures beyond Mesopotamia and back to the Stone Age. A new interpretation of their original contexts, based in part on palaeobotany and recent neuro-psychological research, suggests that the Tree of Knowledge was a fruit tree of a very different kind and that behind the story of Man's Fall from Grace lies a controversy that is as alive today as it was in ancient times.

Cyprus and the Levant in the Neolithic: New Theories, New Insights, New Data

JOANNE CLARKE

It is generally accepted that by the end of the Pre-Pottery Neolithic B (PPNB), interaction between the Levant and Cyprus had ceased, leaving behind a culturally fragmented mainland and an isolated island populated by insular, early agricultural communities. This view has contributed to the exclusion of Cyprus from studies of later Levantine prehistory and in turn, has perpetuated a perception of regional fragmentation from the beginning of the seventh millennium BCE onwards. Recently, new data and new approaches to old data have begun to deconstruct misconceptions about the relationship between the Levant and Cyprus in the later Neolithic period. Research and analyses on chipped and ground stone, on pottery, on settlement organization and on economies and environment, have illustrated that connections between the Levant and Cyprus continued, albeit on a different footing from that of the PPNB. This lecture was the first time that these results have been presented publicly and included new research not yet published.

Acre at the time of the Crusader Kingdom

DENYS PRINGLE

From the time of its capture by the Franks in May 1103 until it fell to Saladin in July 1187, Acre was the second city of the Kingdom of Jerusalem in terms of its size and economic importance (though its bishop remained a suffragan of the archbishop of Tyre). After its recapture by the Crusaders in 1191, however, Acre effectively replaced Jerusalem as the kingdom's capital, even during the brief period from 1229 to 1244 when Jerusalem itself was in Christian hands. It was the seat of the king and government, and in 1262 the patriarch of Jerusalem, already resident there, combined his office with that of bishop of Acre. The city finally fell to the Mamluk Sultan al-Ashraf Khalil in May 1291 after a lengthy siege and was utterly destroyed to prevent its future use by any planned Crusading expedition. This lecture charted the development of the city during those two centuries, making use of documentary, cartographic and archaeological evidence.

The Hebrew Bible and its Critics – a Verdict from the Ancient Near East

KENNETH A. KITCHEN

Disputes over the veracity of the Hebrew Bible go back at least 2000 years, when Josephus answered critiques issued by Apion and others in the first century of our current era, and by the Egyptian historian Manetho from earlier still. However, from

the eighteenth century to the present, such disputations over the origins and veracity of the writings in the Hebrew Bible have reached their apogee. Theoretical literary analyses of the Torah in the eighteenth and nineteenth centuries were followed by the attempted 'rewriting' of the histories of biblical Hebrew literature and religion and the history itself, in practice abolishing from reality almost anything from before the monarchy; this culminating in Wellhausen's works, whose seemingly smooth logic became dominant, such that his basic theories became virtually canonized as official 'truth' during the past 120 years.

All this speculation occurred in stark isolation from any ancient cultural context. But the epoch of the nineteenth century to the present has also witnessed the dramatic rediscovery of the civilizations of the Ancient Near East, giving us the *real* context of the biblical writings. For 3000 years before imperial Rome, we now have entire archaeologies of those regions, and many thousands of written documents (often well dated) in over a dozen languages. These give us invaluable external, tangible standards against which to re-examine the old, dogmatic theories, and the actual structure and contents of the Hebrew Bible, through its entire range, from the 'primeval times', the patriarchs, the exodus, lawgiving, and the entry into Canaan amongst other peoples, as well as considerable background throughout the monarchy period from David to the fall of Jerusalem, the Babylonian exile and the restoration thereafter. It is now time for change.

Rome and Jerusalem

MARTIN GOODMAN

In 70 CE, after a war which had flared sporadically for four years, three Roman legions under the command of the newly self-appointed emperor Vespasian and his son Titus, surrounded, laid siege to, and eventually devastated the city of Jerusalem, destroying completely the magnificent Temple which had been rebuilt by Herod less than a century before. The lecture investigated what brought about this conflict and why, contrary to normal Roman practice and against the reasonable expectations of the Jews, the Roman state would not allow the Jerusalem Temple to be rebuilt, with momentous consequences for the future of Judaism.

Bulletin of the Anglo-Israel Archaeological Society 2008 Volume 26

Grants Given by the Society

LUCY WADESON

Thanks to a generous grant from the Anglo-Israel Archaeological Society I was able to spend one month (23 March – 19 April 2008) in Jerusalem examining the late Hellenistic and early Roman period rock-cut tombs for the comparative part of my doctoral research at Oxford University. My D.Phil. thesis focuses on the renowned façade tombs of Petra, carved by the Nabataeans between the first century BCE and the second century CE. In order to shed light on the debated chronology of the Petra tombs and the little-known burial customs associated with them, I have made the first detailed study of the burial chambers and their funerary installations that lie behind the façades. Since the tomb interiors are largely unpublished, a large fieldwork project was required for their documentation. Study of this material alone has generated significant findings concerning the chronology of the tombs, how they were carved and the social function of the funerary space. However, my methodology also takes a comparative approach whereby the Petra tombs are compared with the well-published, rock-cut tombs in contemporary-period Alexandria and Jerusalem, so as to assess the extent of cultural interaction between key societies of the Greco-Roman Near East.

The tombs of Hasmonaean and Herodian period Jerusalem share similar forms of funerary architecture with the Petra tombs, but unlike the Petra tombs they have been excavated with ample remains of burial evidence. Therefore, they are most useful for reconstructing how the Petra tombs functioned in the Nabataean funerary tradition and for assessing the extent of cultural interaction between Nabataean and Jewish societies during this period.

The tombs of the Hellenistic and Roman period were carved in the rocky hills and *wadi* slopes surrounding Jerusalem, and are approximately 800 in number. However, due to the expansion of the city and its continual occupation, many of these were destroyed or built upon subsequent to salvage excavation. Thus, during my four-week stay I was only able to visit tombs that remain accessible, such as those in the Kidron Valley (Tomb of Absalom, Tomb of Zechariah), the Mount of Olives (Dominus Flevit), Akeldama, the district of Sanhedria, Mount Scopus, Rehavia (Jason's Tomb) and East Jerusalem (Tomb of Queen Helene, see Fig. 1). Firsthand investigation of these tombs has significantly furthered my research, since the impression I gained from the published literature was notably different from that gained on site. Through experiencing the funerary space of the Jewish tombs, it was possible to draw significant conclusions regarding their relation to the tombs

Fig. 1. Lucy Wadeson in the Tomb of Queen Helene, Jerusalem.

in Petra, of which I already had an intimate knowledge. For example, it has been argued in the past that the Nabataeans and Jews shared certain burial customs, such as that of secondary burial. However, the evidence collected during my research suggests otherwise, that is: the Nabataeans did not practise bone collection and retained a strong and unique cultural identity.

I was fortunate enough to be aided in my work by many eminent Israeli archaeologists and scholars, including: Amos Kloner, Ehud Netzer, Gideon Avni, Zeev Weiss, Shimon Gibson, Orit Peleg-Barkat, Eyal Ben-Eliyahu and Yoav Farhi. I am most grateful for their hospitality, help and kindness while I was in Jerusalem and also for sharing their immense knowledge of the tombs. During my stay I was based at the British School of Archaeology (Kenyon Institute), which forms part of the Council for British Research in the Levant. This proved to be an excellent base for research, with a respectable library and an advantageous location for reaching the Old City by foot and the Mt. Scopus campus with its most useful library for archaeological resources.

In my spare time I was able to visit many sites of interest in Jerusalem, including the City of David, the Church of the Holy Sepulchre, the Temple Mount excavations, the Rockefeller Museum and Solomon's quarries. Outside of Jerusalem, I visited the tombs of Marissa (Beth Govrin), the Herodian palaces at Jericho and the newly discovered Tomb of Herod at Herodium. Being able to visit such sites has been hugely beneficial to my archaeological education. Overall, I am most grateful to the AIAS for the financial support which allowed me to undertake this trip. It has both enhanced the quality of my research and provided valuable experiences to my academic career.

NAOMI FARRINGTON

The excavations at Megiddo in northern Israel's Jezreel Valley are being carried out by the Megiddo Expedition of Tel Aviv University under the directorship of Israel Finkelstein and David Ussishkin of Tel Aviv University, and Eric Cline of the George Washington University, USA. During the 2008 season at Megiddo, four areas are being excavated: J, an Early Bronze Age cultic area; K, a Middle Bronze Age domestic area; H, a Late Bronze-Early Iron Age palace area; and Q, a new area which aims to investigate the Late Iron Age. The main reason to excavate in Area Q was to investigate different problems and different levels than those encountered elsewhere on the mound. The Late Iron Age has been somewhat neglected by the recent excavations, and the excavation of Area Q helps to rectify this. This area had been partially and superficially excavated by the Oriental Institute of Chicago team in 1926, but it was felt that there were many unanswered questions, for example concerning the positioning of the Iron Age city walls. The uppermost levels excavated in the first session of the 2008 season were those from the 1948 war,

including gun emplacements. A number of cartridges were found littering the area, both live and spent. During this conflict, there were two battles at Megiddo itself. In the first battle, the Israelis took over the mound that had previously been held by the Arab armies. In the second battle, the Iraqi army attacked, but the Israelis held the position. The level beneath this would appear to be the OIC stratum 4 level. This had been exposed by the OIC, so that there were hardly any floors to be found in the current excavations, and nothing sitting on the floors. A number of buildings were found, some of which had later been partly modified. Beneath this lay stratum 5, which included pottery and some floors. It had been hoped that the last Iron Age city wall would be found, as seen in Areas K and H, but it appears that the wall has been destroyed completely. Future work in the area will concentrate on investigating the upper layers (OIC layers 4 and 5), and possibly OIC level 6. When this level is reached in all squares, the excavation will spread out sideways rather than going deeper, in order to investigate this level more intensively.

I began excavating under the supervision of Norma Franklin and Eric Cline in Square G6 in Area Q. We encountered a number of interesting finds in the 1948 level, including ammunition and an Ottoman coin. Most exciting, however, was the find of part of a Late Bronze Age anthropomorphic figurine (although the presence of this in what was otherwise an Iron Age level can probably be attributed to the digging activities of the square's resident gopher!). During my three weeks at Megiddo I learnt a great deal about the current excavations at the site, as well as the history of excavations, and these subjects form a prominent part of my Ph.D. research. I am very grateful to the Anglo-Israel Archaeological Society and to the Megiddo Expedition of Tel Aviv University for giving me the opportunity to excavate at Megiddo.

MARY OWNBY

My trip to Israel in June 2008 had the goal of furthering my Ph.D. research on storage jars imported to Egypt from Canaan between 1750 and 1550 BCE. Specifically, I am studying jars known as Canaanite jars in order to better understand the trade and political relationships between Egypt and Canaan during the Middle Bronze Age (2000–1550 BCE) and Late Bronze Age (1550–1200 BCE). Canaanite jars have been found throughout the eastern Mediterranean, including Crete, suggesting their importance in international trade. The study of the jars is accomplished through making thin sections of the ceramics and examining them under a microscope, called ceramic petrography. Through this analysis the minerals in the pottery can be identified that will assist in suggesting possible localities for production. By utilizing detailed geological maps of Canaan, areas that contain the correct outcrops for all of the inclusions in the pottery can be identified.

The visit to Israel was undertaken in order that I might work with Prof. Yuval Goren of Tel Aviv University. Prof. Goren is widely known for his work examining the ancient ceramics of eastern Mediterranean cultures. His previous work on the Late Bronze Age Canaanite jars and the Amarna tablets produced in Canaan meant his expertise was invaluable for understanding the possible areas of manufacture for the material I am studying. Additionally, Prof. Goren has a large collection of comparative material from all over Canaan that I utilized to locate any ceramics made of similar material to the MBA Canaanite jars. The results of our collaboration suggest the jars were being produced mostly along the coast of Lebanon and northern Israel where there are several important MBA sites that must have had political connections to Egypt.

Prof. Goren ensured my first trip to Israel was a wonderful and unique experience. Not only did I spend much time in his laboratory learning more about methods for conducting ceramic petrography and having fruitful discussions with his students, but he also planned trips for me to see more of Israel. Our first adventure was to visit the underwater excavations being carried out in Haifa Bay. We snorkeled over a shipwreck that is being excavated to determine if it was a part of Napoleon's fleet. Although little could be seen due to the turbulent water, we did examine some of the artefacts and pieces of wood brought to the surface. As we returned to Tel Aviv, Prof. Goren and I collected sand at several beaches to help us in studying pottery that was manufactured from coastal sands. Shortly before I left, I had the chance to spend a day in the Old City of Jerusalem to see the Western Wall, the Temple Mount, and the Church of the Holy Sepulchre. I also spent time in the archaeological park and, of course, the bazaar. Thus, my research trip to Israel was an educational experience all round in that I learned a great deal that has contributed to my dissertation and have had the opportunity to experience the culture and history of Israel.

Notes for Contributors

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Chapter in book:
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CONTENTS

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