

# NEW PHOTOGRAPHS OF THE QUMRAN EXCAVATIONS FROM 1954 AND INTERPRETATIONS OF L.77 AND L.86

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*Newly discovered photographs taken during the Qumran excavations in 1954, now available on the Palestine Exploration Fund website, can illuminate various problematic issues of the site's history. In this article aspects of Qumran are examined afresh with the aid of the data these photographs provide. The mud-brick, plastered 'blocks' of L.77 and L.86-L.87/L.89 have been interpreted in diverse ways by different Qumran researchers, but it is most likely that these features had different functions within each separate spatial context, since those of L.77 are much lower than those of L.86 and L.89. In a new photograph, the top of the central block in L.86 appears to have had a slight hollow. The blocks are not the bases for palm-log roof supports, since the fall of the burnt wood on the Period Ib floor in L.86 — now evidenced in a new photograph — indicates that the flat roofs at Qumran were constructed with beams running across the widths of rooms, with palm logs laid on top.*

*Keywords:* Qumran excavations, Qumran photographs; Roland de Vaux, palm wood, roofing, dining-rooms

## I. INTRODUCTION

Ever since the discovery of the Dead Sea Scrolls in 1947 in caves located close to the ruins of Khirbet Qumran, the function of the settlement and the identity of its inhabitants have been much discussed.<sup>1</sup> The site was excavated in the 1950s by Father Roland de Vaux, of the École Biblique et Archéologique Française de Jérusalem, and preliminary reports were published in editions of the *Revue Biblique*, as well as in a synthetic treatment after de Vaux presented his findings in the Schweich Lectures of the British Academy in 1959 (de Vaux 1953; 1954; 1956; 1973). On the basis of these excavations, the settlement has been identified as a residence of the Essenes,<sup>2</sup> a secular fortress (Golb 1995), or a site that began as a fort in its Hasmonean phase but which was turned into a villa (Hirschfeld 2004; Humbert 1994; cf. Donceel-Voûte 1992), and now — after renewed excavations begun in the 1990s — a military outpost turned into a pottery manufacturing centre (Magen and Peleg 2007). Not surprisingly, these theories have faced criticism. Despite the intense interest in the excavations of Qumran, all studies of the archaeology of Qumran are dependent on material made available thus far, since the final excavation reports are as yet not complete, though an invaluable volume was published by Jean-Baptiste Humbert and Alain Chambon (1994), which contained not only de Vaux's excavation notes but also many photographs taken during the process of digging the site. However, there are points where certain aspects of the site remain unclear on the basis of what has appeared in print, leading scholars to become confused and doubtful about de Vaux's conclusions, especially when he changed his mind or did not come to a final decision himself.

Recently discovered photographs, made by a former student of the École Biblique and taken during de Vaux's third campaign (13 February – 14 April 1954), can provide important

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information and clarifications. This article will give an overview of the discussion about two specific rooms of the settlement, L.77 and L.86 of Period Ib, and show how the photographs can enable insights that can provide a corrective to various misconceptions.<sup>3</sup>

## 2. L. 77: REFECTORY, RECEPTION ROOM OR HALL FOR SACRIFICIAL PURPOSES?

One continuing subject of controversy is the largest room of the complex (L.77), measuring  $22 \times 4.50$  m (Fig. 1) in its interior, with walls approximately 80 cm wide, and the adjoining room L.86. The smaller room L.86 also measures 4.5 m wide, but its interior length is 8 m. While L.86 was initially built as one large room (Fig. 2a), it was progressively reduced in size by blocking. The southern part was partitioned off into a smaller zone designated as L.87. The middle and southern parts (L.87 and 89 respectively) were then blocked off as a unit with a wall in Period II, so that L.86 in Period II became only the northernmost part of what once was a larger space (Fig. 2b). Then the entire region of L.86 was blocked off during Period III, when a channel ran over the top and the room had entirely collapsed (Fig. 2c). During the excavation of L.89 (the southern part of L.86 in the Period Ib level) in March 1954, more than one thousand items of neatly stacked and largely broken crockery were found (Humbert and Chambon 1994, 320). It was plausibly suggested that the crockery was smashed in the earthquake of 31 BCE. De Vaux writes:

This room suffered an unusual degree of damage in an earthquake, which put an end to Period Ib, and of which we shall have to speak again later on. The ceiling fell in and under the debris of this we found a stock of more than a thousand vessels. (de Vaux 1973, 11).

However, it is unlikely that the earthquake put an end to Period Ib, since the small wall dividing up the southern area into two parts (L.89 and L.87) in Period Ib was actually built on the same Period Ib floor directly on top of some of the broken pottery of this store, as de Vaux notes (Humbert and Chambon 1994, 320, 30-3-1954, *contra* Humbert 2006, 32). This in itself argues strongly against de Vaux's own final thesis in regard to the destruction date of Period Ib coinciding with the time of the earthquake, and thus the suggestion by Jodi Magness that Period Ib continued until at least 9/8 BCE seems persuasive. Magness has suggested that the coin hoard found in L.120 provides a *terminus post quem* for this period (Magness 1995; 1998; 2002: 47-69).<sup>4</sup> The progressive reduction in size and coinciding stabilisation of L.86 as a totality is indicated by the fact that during the latter part of Period Ib and/or early in Period II here the exterior walls of this room were buttressed by stone retaining walls in an attempt to bolster them against collapse. In the northern part of L.86, a large mass of carbonised palm logs were uncovered (see below). The rooms today are stripped of most features and the walls are preserved in their basic state as they were built at the beginning of Period Ib (see Figs. 3 and 4).

In terms of the usage of this area, given that the crockery of the store in L.86 is all suitable for dining purposes (bowls, plates, terrines, jars and jugs, see Pfann 2006), it is therefore understood to have been a pottery store within a pantry, designed for an adjacent dining room, namely L.77 (de Vaux 1956, 542-43; 1973, 11-12, 86, 111; Pfann 2006, 164-67; Magness 2002, 57, 122; Stegemann 1998, 45). It has been determined that L.77 could contain more than one hundred individuals at a time (Stegemann 1998, 45). However, despite the fact that this hypothesis is supported by many Qumran experts, it has not been undisputed.

Yitzhak Magen and Yuval Peleg, for example, suggest that L.77 is a reception room. They argue that there is no connection between the Dead Sea Scrolls found in the caves and the settlement of Khirbet Qumran. In their opinion the complex did not serve as a residence for a religious community, but was used by the Hasmoneans as part of the line

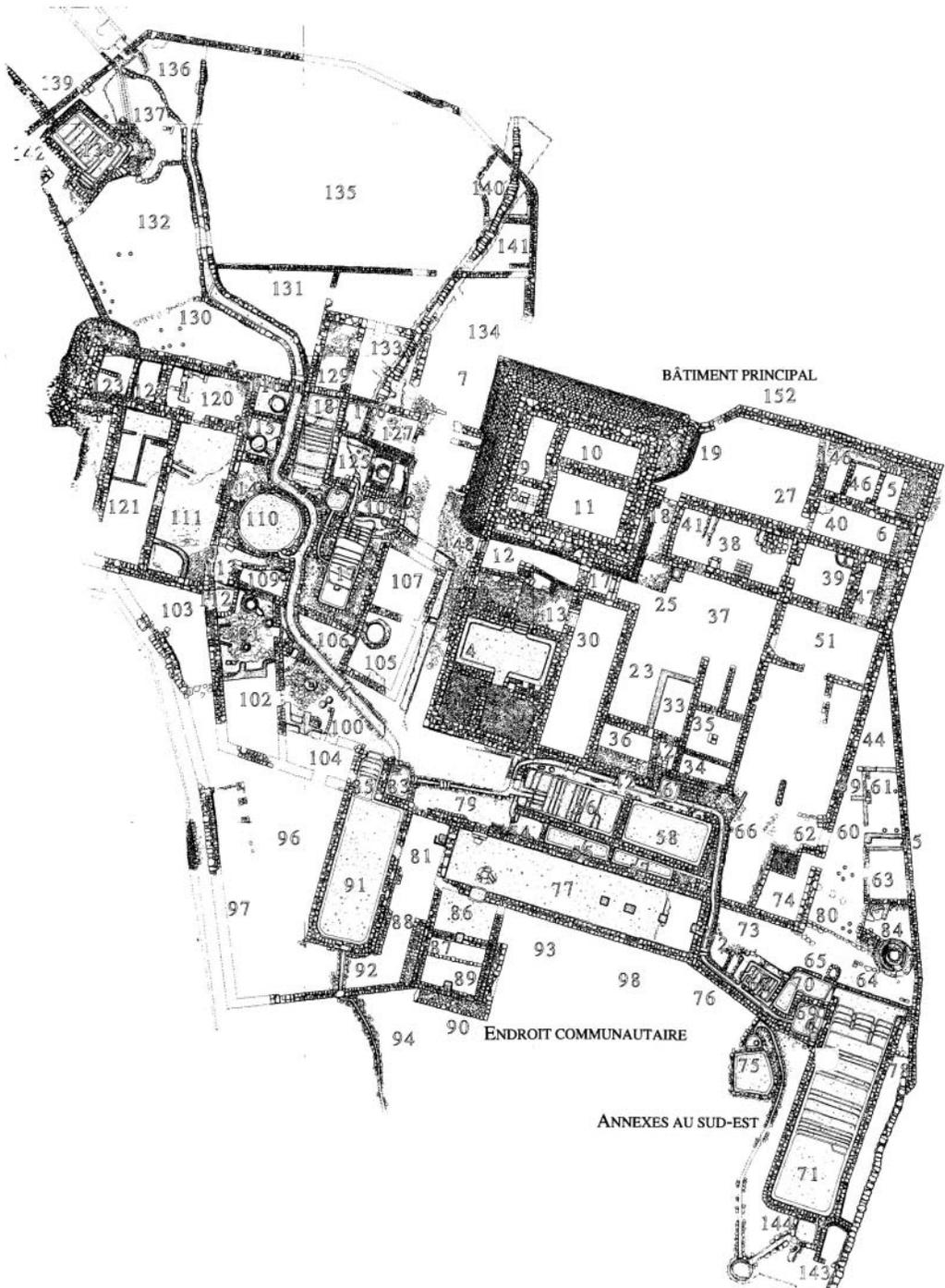


Fig. 1. Qumran in Period II, from Humbert and Chambon (1994); courtesy of Jean-Baptiste Humbert, EBAF, Jerusalem.

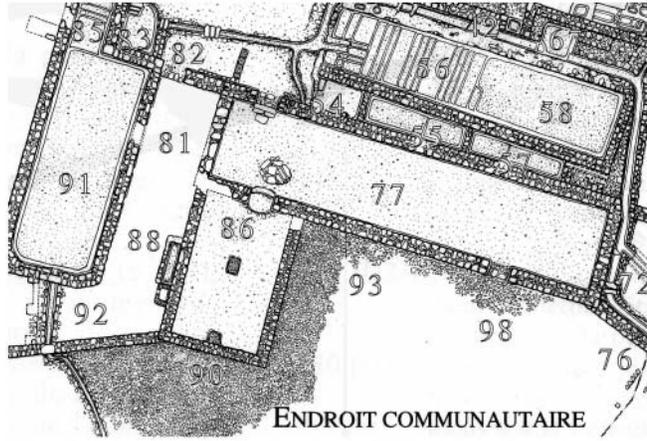


Fig. 2A. L.77 and L.86 in Period Ib.

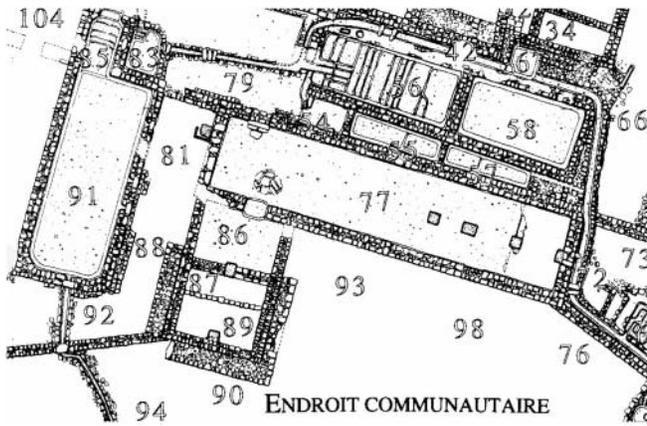


Fig. 2B. L.77 and L.86, 87 and 89 in Period II.

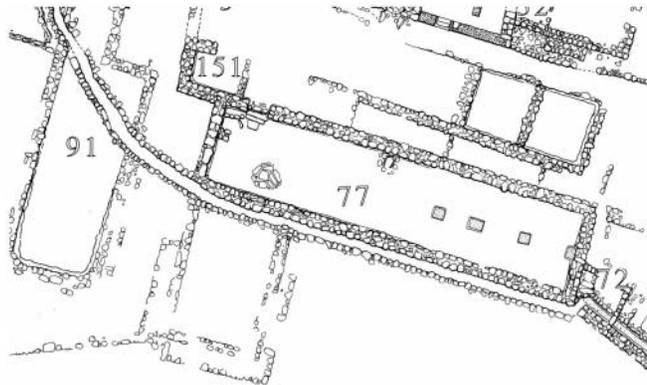


Fig. 2C. L.77 and surroundings in Period III.



Fig. 3. L.77 as it is today (photograph: Bart Wagemakers).



Fig. 4. L.86 as it is today (photograph: Bart Wagemakers).

of fortifications along the Dead Sea. Khirbet Qumran, as a headquarters, connected the fortifications of Hyrcania, Machaerus, En Gedi, and Masada. As it was not the abode of a sectarian community, the site did not need a refectory: a communal dining room. According to Magen and Peleg, L.77 was built in the middle of the first century BCE to replace a former reception room, since the previous one (L.56/58), had been transformed into a bathing facility. L.86 was the storeroom of this new reception room (Magen and Peleg 2007, 56, 58), accessible from the southern esplanade.

Jean-Baptiste Humbert, de Vaux's successor at the École Biblique in Jerusalem, argued in 1994 that the Qumran complex served as a centre of a cult in one of the phases of habitation: he suggested that the place was inhabited by a small group of Essenes in the middle of the 1st century BCE and they turned the complex into a cultic centre on behalf of other Essene communities in the region. Humbert interpreted L.86 as a room used for first-fruits offerings; L.77 would have then been associated with this (Humbert 1994, 196–214; cf. 2006, 19–39).

Recently, Dennis Mizzi (2009, 65–66) has argued that L.77 was simply a store-room, with the area L.86–87/L.89 used as a pottery store-room, given the presence of three jars and twelve jar-stands for round-bottomed vessels in Period II. However, jars containing various foodstuffs regularly used with each meal (olives, oils, etc.) and for water may well also have been a fixed feature of dining rooms, so the presence of jars does not necessarily indicate a store-room only.

### 3. L.77: PILLAR BASES, TABLE-LEGS, ROOM DIVIDERS OR ALTARS?

In the debate on the employment of L.77 and L.86, the remains of what de Vaux identified as 'pillar'<sup>5</sup> bases, discovered during the campaign of 1954, have been of a great importance (de Vaux 1973, 26–27). On the east side of L.77, de Vaux uncovered remnants of three free-standing plastered blocks made of unbaked mud-bricks, the blocks being less than half a meter high (Humbert and Chambon 1994, Figs. 319, 329). A similar block — what Humbert calls a 'cube' (Humbert 2006, 32) — was also found on the eastern wall. These were built on top of the renovated Period II floor and therefore dated to Period II. At the time of their construction, a southern doorway to the courtyard was blocked, and the floor — which had sloped slightly towards a doorway in the southern wall — was levelled. A channel from the northern doorway was diverted, so that water was no longer brought in to the floor of the room and slopped out through the southern door. The adjoining room L.86 contains two similar blocks, but from Period Ib, and these are higher, in fact double the height of the blocks in L.77. One is a free standing plastered block in what became a separated space in Period II (L.86 in the north and L.87/89, stopped up behind a partition wall), and there is another one in the southern wall (Fig. 5). As with the blocks in L.77, it was thought that these blocks were designed for support of the roof, and this remains a common assumption. For example, Hanan Eshel writes regarding L.86 (Period Ib):

In the center of the room, a base of a square column, which supported the ceiling, may be seen. The danger of hundreds of clay vessels being shattered by a collapsing ceiling seems to have been the reason for constructing this support column. However, this support did not save the many clay vessels kept in this room during the earthquake of 31 BCE. (Eshel 2009, 118)

However, this assertion that the central blocks in L.77 and L.86 served as pillar bases, as the foundation of palm-trunk roof supports (de Vaux 1973, 26–27), has not convinced all opponents. First of all, in view of the relatively narrow interior width of L.77 (4.5 m), supporting pillars would not have been necessary unless there were an upper storey here (so Magness 2002, 122). Also, if such blocks really did all function only as ceiling roof supports,

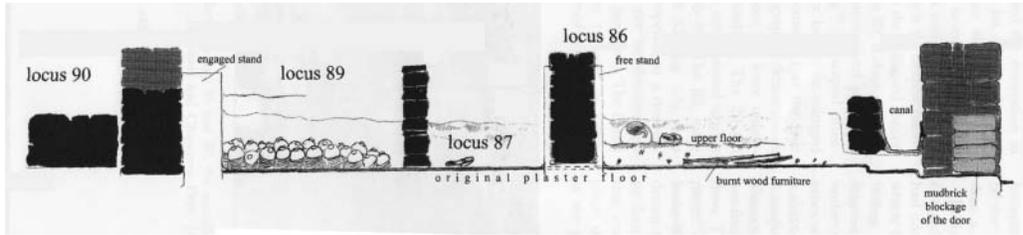


Fig. 5. Schematic rendering of the strata in loci 86, 87, and 89; courtesy of Jean-Baptiste Humbert, EBAF, Jerusalem.

the location of the two pillars abutting the walls (one in L.77 and the other in L.86) are illogical, since the stone wall itself would have provided support for a flat roof in which the beams went across the narrowest width, constructed out of wooden beams running over the width (rafters) covered by shorter cross beams or reeds, with a mud and straw roof. This was a very standard type of roof used not only throughout the ancient Mediterranean but into modern times (see Fig. 6). Moreover, the series of pillars in L.77 stops unexpectedly in the middle of the room. According to de Vaux, it follows that the western part of this locus was uncovered, but this notion does not provide a satisfactory explanation.

The conjectural upper storey in L.77 is difficult to imagine in terms of its connectivity, and it has been suggested that, to support it, one would expect central pillars made of



Fig. 6. Modern restored roof in Andalusia, Spain, on the pattern of ancient roof techniques used in the area (photograph: Joan Taylor).

stone as opposed to pillars made of plaster-coated mud-brick, which are not very strong; in Qumran only interior and partition walls are made of mud-brick while exterior, or load-bearing, walls are consistently made of stone (Humbert 1994, 199; 2006, 31–32; Pfann 2006, 166).<sup>6</sup> In addition, there is actually no evidence of a staircase rising above L.48–49, coming from L.35 (*contra* Magness 2002: 122–23), which would lead to an upper storey.

Stephen Pfann's suggestion that the plastered blocks in both rooms bore table-tops and functioned as table-legs also meets with objections. According to Pfann, the dining room L.77 must have included one or more tables. He describes four possible scenarios. Firstly, when each block had a plastered top, it could have served as a table on its own. Here, he adds that the top is proportionally too small to serve a large number of individuals. Secondly, another possibility is that each 'pillar' bore a separate wooden tabletop of its own. According to Pfann, the shape of the charred remains found next to the central block at L.86 would indicate the presence of a round, wooden tabletop surmounting the central block. Yet a third option is a single extended tabletop supported by each set of blocks. Finally, Pfann suggests the combination of options two and three. In that case, L.86 would follow option two and L.77 option three (Pfann 2006, 166–67).

Humbert opposes this hypothesis, because it would ignore the custom, known to us from Graeco-Roman portrayals, of placing food on sideboards, rather than on a central table. People did not sit at tables while eating, but reclined with their backs to the wall (Humbert 2006, 31). On the other hand, this is to argue that Graeco-Roman practice prevailed at Qumran, when earlier Jewish practice for dining was to sit, and indeed Josephus indicates that Essenes sat at table (*War* 2, 130), as Magness (2002, 126) points out. For this reason it is probable that the refectory of Qumran in L.77 would have accommodated simple tables and benches, not couches (Taylor 2003, 286). Pfann's mud-brick block table supports are as yet unattested anywhere in antiquity, and the shape of the fallen wood in L.86 is not round (see below).

The 'pillars' in L.77 may also indicate a common tradition at a *symposium*. In Hellenistic contexts it was acceptable for men and women to eat together in the household when it was a relatives-only situation (Corley 1993, 25–28). However, in other contexts women and men were separated. Philo tells us that when the Therapeutae ate together in a dining hall the women were divided from men, women on the 'left' and men on the 'right' side, for the sake of propriety and modesty (*Contempl.* 69). In fact, the refectory of Qumran could have contained a partition wall at the eastern part of the room. The low blocks could have been pillar bases that supported palm log pillars, not so much for ceiling support but for room division, with semi-permanent wooden and/or cloth partitions between the pillars which separated people present in this room. From this point of view the location of the 'pillar base' abutting the eastern wall is also explained. Given the parallel supplied by Philo, we could assume that also in Qumran certain women were eating at the left (north) of the partitions and men at the right (south), viewed from the entry doorway. The off-centre position of a stone marker at the other side of the room may support this thesis. The stone marker, possibly for the leader's chair, is positioned in line with the 'right' side of the room, which may confirm a segregated arrangement in terms of spatial organisation (cf. Taylor 2003, 284–86). The archaeological evidence for the presence of some women in Qumran is found in the cemetery (Taylor 1999), though not all female graves date to the time of Qumran's occupation.<sup>7</sup> While this fixed arrangement applies to Period II, a partition system of some kind could already have been used in Period Ib, with less permanent screens brought in to maintain the privacy and modesty of women in a meal situation when required.

In addition to the identification of the blocks as being used for pillar bases for roof supports, table-legs, and room dividers, the 'pillars' have been identified differently in the

adjacent room L.86. As we have seen, Jean-Baptiste Humbert (1994; 2006) has proposed that L.86 functioned as a place for first-fruits offerings. Humbert has suggested that the central ‘pillar’ was a plain altar<sup>8</sup> (Humbert 1994, 199–201; 2006, 30–39). Furthermore, he has rejected de Vaux’s thesis that the wooden remains next to the central ‘pillar’ were actually burnt beams from the ceiling, because they were not found elsewhere in this vicinity, where the roof would also have caught alight. Instead, in Humbert’s reconstruction of the room, the charred beams are remains of a wooden screen (carbonised over time rather than burnt) that separated the people as they entered the room and the location of the ritual area in the southern part (Humbert 2006, 34, 36).

Humbert’s original suggestion that the settlement of Khirbet Qumran once functioned as a cultic centre, alternative to the Jerusalem Temple, was contested by several scholars. The archaeological proof of an alternative ‘sacrificial system’ operating at Qumran has been rejected (VanderKam 2010, 30; Magness 1998, 50, cf. de Vaux 1973, 14). References to animal sacrifices apart from the Temple in Jerusalem are absent from the Dead Sea Scrolls (Magness 1998, 50). Despite the fact that the Community Rule relativises the importance of sacrifice for atonement in line with a moral emphasis (e.g. 1QS IX: 4–5), following the lead of prophetic literature (e.g. Amos 5: 21–24; Isa. 1:11–15), the overwhelming impression from the Dead Sea Scrolls indicates that those responsible for these texts were highly devoted to the Jerusalem cult. As Martin Goodman has noted recently, there are: ‘detailed rules in the Temple Scroll for the Temple cult, buildings and furnishings, calendars for priestly courses in the Mishmarot, frequent references in a variety of texts to priests and Aaron’, as well as helpful advice in 4QMMT on how to run the Temple (Goodman 2010: 269–70). Humbert himself (2006) abandoned this suggestion of an alternative cultic centre in terms of understanding the site as a whole. The issue of the burnt palm logs in the region of L.86 we will discuss below.

#### 4. FORGOTTEN PHOTOGRAPHS

Given the debate about the blocks, it would be helpful to have good pictures of all of these in L.77 and L.86 at the time of their excavation, to see whether the tops indicate anything that would be appropriate either for pillar bases, tables, room dividers or altars. Unfortunately, the plastered blocks were in bad condition. The blocks of L.77 were removed from the site during the campaign, and may have been in considerable disrepair. De Vaux noted fallen mud-brick around them. For this reason much attention has been paid to the ‘pillars’ of L.86.

As noted above, when de Vaux first discovered the ‘pillars’ during the campaign of 1954, the central block was incorporated into a partition wall that sealed off L.87/L.89 in Period II (Humbert and Chambon 1994, 161; Fig. 330). Surprisingly enough, neither a detailed description nor an official close-up photograph was made immediately after it had been disengaged from the wall. Instead of ensuring that proper documentation was made of the position and state of the ‘pillar’, the team decided to restore it very soon after its discovery with a new coat of plaster, even before the charred wood was cleared (Humbert and Chambon 1994, 161; Fig. 331). Curiously, this new plaster was temporary, given the University of Eichstätt website photograph taken by B. Schwank on 5 October 1962: <http://www1.ku-eichstaett.de/KTF/qumran/bilder/abfrage/loc86.jpg>. Here it is apparent that the central block itself was partially excavated, in order to determine its structure. It appears misshapen, with an irregular top, its original height being preserved only on the south side, and its original plaster removed. Subsequent to this investigation, the block was restored with new plaster and a roughly plastered top, as it remains to this day (Fig. 7).



Fig. 7. L86 central block as it is today (photograph: Joan Taylor).

Consequently, it has been almost impossible to draw any conclusions about the way in which the original top of the ‘pillar’ was completed (e.g. was it flat or not?). From this it is understandable that (at least) one of the scholars involved in the debate felt frustration at the lack of information available of the ‘pillar’ at the time of excavation and its subsequent restoration: ‘Je cherchais à savoir comment se présentait, au moment de la découverte, le sommet conservé du « pilier », avec ou sans arrachement et quelle était sa hauteur’ (Humbert 1994, 200).<sup>9</sup> Curiously, in a later article Humbert asserted that the top was completely flat (Humbert 2006, 31–32).

A few years ago, quite unexpectedly, one of the present authors — Bart Wagemakers — came into possession of a photograph of the ‘pillar’ taken at the time of excavation. In conversation with Leo Boer, a former student of the École Biblique in Jerusalem, he was handed two films that had not as yet been developed. The films contained a collection of photographs which were taken by Boer in March 1954, when he joined the third archaeological expedition of de Vaux to Khirbet Qumran for one week. With the help of a professional photographer, the pictures were finally developed after an interval of 55 years (Wagemakers 2008). The quality of the 25 unique photographs of the site was stupendously good. With the help of a list of dates when the pictures had been taken, provided by Boer, and the published field notes of de Vaux (Humbert and Chambon 2003),<sup>10</sup> it was possible to pinpoint nineteen spots from where the pictures were taken so many years ago. Besides,



Fig. 8. L86 central block, with carbonised wood and pottery, being excavated in 1954 (photograph: Leo Boer).

one picture shows us a desolate site apart from a photographer. Fortunately, this man could be traced without much difficulty. It turned out that Peter Pennarts had made another eight pictures when he visited the site, as a journalist, and was shown around by Boer on December 31, 1953. His pictures add up to a total of 33 pictures. From these, 26 spots can be located (e.g. L.6; 37; 90; 91; 96; 54/55). These are now available on the website of the Palestine Exploration Fund, as an aid to all Qumran researchers.

The collection contains two photographs of L.86. In the first one, when Boer took a picture of two fellow-students on a day in March 1954, he providentially also recorded the top of the central ‘pillar’ next to which the students were kneeling, excavating the area to the north of it (Fig. 8).

We have to concede that this picture does not provide us with a view of the whole central block, as the left part of the column is not visible. The photograph clearly shows that the central block was already in bad condition when it was disengaged from the partition wall. The plastering exhibits many cracks and the archaeological team has protected the column with two ties, which are shown also in Humbert and Chambon 1994, Fig. 337. Most likely, this was seen as a measure to prevent the structure from collapsing. A piece of paper rests propped up on top of the block, though it is not indicated how it is supported. Beside the cracks, visible in the plaster of the column, erosion is noticeable in the plasterwork at the upper part of the column. Through the door of L.86 one can see the off-centre stone marker of L.77. Behind the block, the two students of the *École Biblique* are in the process of uncovering the first part of the wooden remains that were later analysed and discovered to be remnants of palm logs (Zeuner 1960), which we will discuss below. One can see that

the top of the 'pillar' is not flat. On the contrary, it has an uneven surface and, aided by the photograph, one can see a hollow. On the right side of the rim at the top of the column, there is a slight decline; in all probability a result of erosion.

It is unlikely that a palm log pole was positioned on the block. Clearly, the Qumran inhabitants used palm logs for roof supports and beams, since Edmund Wilson, who also visited the site in the course of the excavations, writes: 'Layers of ashes seem to show that the roofing, probably made out of the Dead Sea reeds, had eventually been burned, and the empty mould left by the trunk of a palm suggests that it was used as a beam for some kind of central support' (Wilson 1955, 64). However, there would have been no reason to position palm logs on a high (c.80 cm) plastered block made of simple mud-bricks: palm log poles to hold up the roof would have stood on stone pillar bases (see Chambon 2003, 446–7, 454–9). Since the top of this block has a shallow hollow, it seems designed to hold a basin securely in position, given that a flat table would mean a basin placed there would wobble. This kind of moulding of mud-brick and plaster is also known from houses all over the Mediterranean since ancient forms continue in relatively modern usage (see Fig. 9). The question is to determine what kinds of vessels would fit particular mouldings. While this moulding for a basin may be suggestive of a libation altar, there is no contemporaneous parallel for a cultic altar being made of mud brick and plaster, rather than stone, and a simple secular usage appears most likely, a usage that would need to correspond with the usage of the identical block built in to the southern wall of L.86. This wall-connected block is not shown in any close-up image preserved from the 1950s, but the exactly-corresponding height of the two blocks indicates that they are intended for the same purpose.



Fig. 9. Moulding to accommodate water jugs, Andalucia, Spain (photograph: Joan Taylor).

It is fundamental in archaeological analysis that the identification of the purpose of items within a room should be understood in relation to each other, so that the simplest explanation for the whole corpus of artefacts and features is proposed. The advantage of the suggestion of pillar bases and table-legs is that these are practical, and both suggestions take into account the attested features of this part of the structure. The exterior walls of the latter part of Ib were supported with buttressing, and the use of the room for crockery storage means that tables were a likely piece of furniture here; the theory of cultic use does not seem to cohere with the artefact repertoire so easily. However, in visiting the site of Qumran in November 2010, one of the authors, Joan Taylor, noticed another hitherto unnoticed feature of this space during Period Ib: a water outlet built in to the western wall on the south side, directly along from the southern block (see Fig. 10), which in fact parallels a similar water outlet in the northern wall of L.77 (Fig. 11), interpreted as being a way of bringing water in to the room from the channel outside.

Outside this area in Period Ib there was no water channel. In the first part of this period, prior to the earthquake, there was a plastered water basin built here, attached to the exterior wall, in the region designated as L.88 (see Fig. 2a). Two plastered steps led up to it from ground level (see Humbert and Chambon 1994, Figs. 311, 322). After the earthquake, the exterior wall was buttressed with stones and the basin and steps were covered over (see Fig. 2b). The water outlet therefore fed water to the room from a basin outside in Period



Fig. 10. L.86, Period Ib: outlet (photograph: Joan Taylor).



Fig. 11. L.77, Period Ib: outlet (photograph: Joan Taylor).

Ib, before the earthquake. Its proximity to the first block built in the southern wall would mean that for practical purposes wooden trough could easily be filled up by opening a sluice to allow water to flow in to the room from the exterior basin, in the same way as the sluice would have operated from the channel in L.77. A washing bowl positioned on a block in the wall with a slightly hollowed top would have been practical, since it could have been filled from this trough. In addition, this block, in the middle of pottery stores on either side of it, would be in an ideal position for washing crockery, which could be easily wiped and stacked systematically on tables either side of the washing basin: the wood of these tables surviving only as non-carbonised powder visible in the pottery photographs (Humbert and Chambon 1994, Figs. 336, 338–344). The tables were perhaps the same height as the block, a suitable height for working upright, so that the one to the right of the block would have stood above the water outlet. In Humbert and Chambon 1994, Fig. 336, this water outlet is blocked by debris and is almost invisible.

When the earthquake of 31 BCE destroyed the crockery, with the collapse of upper walls, the inhabitants dealt with this situation by sealing off this zone and by buttressing the exterior walls to save the whole room. With the old block abutting the wall no longer usable, a new block would then have been created with the same function, on the same floor, with tables around it designed for pottery, in the same way as before. There was now no easy water system, with the end of the basin in L.88, and water would have had to have been brought in from L.77, still used in the post-earthquake phase of Period Ib.

The mud-brick, plastered blocks of L.86 appear clearly to be very different to the blocks of L.77, the latter built in Period II as opposed to Period Ib. Even assuming some moderate destruction of the upper parts, the blocks of L.77 are too low for tables or for the positioning of basins, being no higher than about 40 cm, on the basis of the photographs from the excavation. In fact in these photographs it is clear that there is a low ridge running north from the second block out from the eastern wall, which is visible also on the photograph of L.77 taken by B. Schwank, available at the University of Eichstätt database on Qumran: <http://www1.ku-eichstaett.de/KTF/qumran/bilder/abfrage/loc77.jpg>, and shown in the plan in Humbert and Chambon (1994, 156, Plan XXV, and Fig. 319; see Fig. 2b), indicating that the farthest north-eastern part of L.77 was subdivided in Period II. Humbert identifies this as a low dry-laid wall (Humbert 2006, 32). This would be consistent with a division utilising a screen — made of non-permanent materials — resting against the blocks, and there would then have been screens that could be lent against the other blocks as well. The screens would have run from the northern wall to the middle blocks, out into the centre. There are no remains of these screens because in Period III this room was cleared out and re-used as a kitchen/workroom/mess hall: this redesign is evidenced by an oven (possibly used not only for cooking) built against the northern wall, as well as a Period III ground-built basin just to the right of the entrance steps (Humbert and Chambon 1994, 158, Fig. 323), adjacent to an installation with curved walls, in which de Vaux found ash, indicating a hearth (Humbert and Chambon 1994, 316, 15-3-1954).

The separation of space by room dividers therefore accounts for the blocks in L.77, given that they are associated with a ridge dividing the space. Gendered divisions (so Taylor 2003) are in fact not the only reason for separating space within a dining room, since the separation of dining halls into smaller units may indicate hierarchy. This is much indicated in the Graeco-Roman world, evidenced in the forms of mosaics around which portable couches were arranged in large halls (Slater 1991, 123, 128–129, 140). Hierarchical divisions were an issue underlying Paul's rhetoric in 1 Corinthians (see for example the discussion by Murphy-O'Connor, 2002, 178–85). This feature of optional and variable separated space may then itself be a reason to assume that L.77 functioned as a dining room.



Fig. 12. L86 carbonised wood, being excavated in 1954 (photograph: Leo Boer).

##### 5. THE CHARRED PALM WOOD AND ITS DATING

The second photograph of L.86 taken by Boer in 1954 (Fig. 12) shows a Bedouin man posing against the eastern wall next to the charred wooden remains that have already been excavated. This man is sitting about two metres to the east of the block. To the right of him, the backs of the students are visible. The photograph was taken as the men were laying bare the wooden remains in front of the central block. This can be seen in the other picture. It is obvious that the two pictures were taken shortly after each other.

As opposed to the common view that the wood comes from the Period II destruction of the site (Magnes 2002, 123); Fig. 8 and 12 make clear that the wooden remains are lying on the Period Ib floor, as also indicated by de Vaux's notes and pictures (Humbert and Chambon 1994, 319 and explored in Taylor and Higham (1998).<sup>11</sup> De Vaux writes in his notes of 22nd March 1954 — one day after Boer's photograph was taken:

Enlèvement de la couche supérieure de 86: ce n'est pas un sol, mais le plancher supérieur écroulé: il y avait un étage. Le sol de cette période est le sol plâtré visible sous le canal romain. Le mur qui a fermé le locus des deux côtés du pilier central est fondé directement sur le sol plâtré qu'il a un peu affaissé. Sur ce sol, dans le locus 86, restes de poutres brûlées. (Humbert and Chambon 1994, 319)

De Vaux does not record anything in his diary for 21 March, when the photograph was taken, but only the day after. The charred wood — which de Vaux identifies as 'burnt beams' (*de poutres brûlées*) — came to light *only during the course of* the removal of what lay well underneath the Period II floor, after the wall built between L.86 and L.87 on either side of the central pillar was removed (see Chambon and Humbert 1994: 161; Fig. 330, 332: note there is no indication of burnt palm wood in this picture). It indicates that a fire occurred

here *prior to* the renovations of Period II — with its floor built on a higher level — and is not to be linked with the destruction of Period II, the destruction of which was indicated by a different topmost level of small cinders de Vaux excavated at the very beginning of the excavation of this locus on March 16th, 1954 (Humbert and Chambon 1994, 318; for a plan of the strata see Humbert 2006, 33, Fig. 1.4).

The Period II floor was built at a considerably higher level than the Period Ib plastered floor, with a run of three steps *up* from the Period II floor level of L.77, as seen clearly in Fig. 323 of Humbert and Chambon's collection (1994). The doorway with its steps going up were sealed with mud bricks in Period III in the course the construction of a channel, while the Period Ib floor — on which the charred wood lies — is level with the L.77 floor of Ib. A door enjambment seems to be shown in the picture by Boer, but is missing in Fig. 331 printed in Humbert and Chambon (1994).

The reason that the burnt palm log remains came to be associated with Period II is the result of a later confusion in the mind of de Vaux himself — leading Qumran researchers astray and confusing the chronology in this area. This was because de Vaux had to deal with the results of radiocarbon dating that he accepted as providing a more accurate result than was actually the case. As he stated: 'experiments made on fragments of beams of palm wood coming from L.86 indicate that they were burned about A.D. 66' (de Vaux 1973, 36). De Vaux faithfully provided this information on the basis of the scientific studies by Zeuner published in the *Palestine Exploration Quarterly* (1960), and therefore ignored his own on-site observations, apparently unaware of how very imprecise radiocarbon dating can be. Zeuner's botanical tests accurately indicated that the wood was from a date palm (*Phoenix dactylifera L.*), and he determined the diameter of the trunk he analysed to be 25–30 cm (Zeuner 1960, 27). But the radiocarbon dating done on the remains took place in an era when this science was still in its infancy. These results yielded a date of  $1940 \pm 80$  years, in fact a large span of time, but then an inbuilt age of 15 to 85 years was added, leading to the following bold conclusion: 'the analysis having been done in 1956, we obtain about A.D. 66 or thereabouts for the date of the burning' (Zeuner 1960, 27–28).

Not only is such precision impossible with radiocarbon dating, even today, but the calibration methods on which this result was based are no longer considered correct. In 1998 a new calibration with the OxCal computer programme using the results published by Zeuner (and including inbuilt age) was done at the Waikato University Radiocarbon Laboratory by Dr. Thomas Higham, and yielded a range of 40 BCE to 80 CE at 95% probability (Taylor and Higham 1998, 91–92; a lower probability at 68%, though often used for archaeological reconstruction, by no means gives as much accuracy in terms of possibly correct dating). In other words, de Vaux was misled into assigning the burnt palm logs to the end of Period II as a result of wrong assumptions on the basis of the radiocarbon analyses of the late 1950s. Rather, the radiocarbon dating confirms a range that would appropriately include the latter part of Period Ib, as it is now defined, or the end of Humbert's Level 3, Phase B, though the precise end of this occupation period and the beginning of Period II, remains slightly unsure.

In terms of the structure indicated by the wood (a screen, table or roof?), the palm logs lying on the Period Ib floor are positioned in front of the eastern wall of L.86 on either side of the partition that was constructed in Period II. Since the partition was not there at the time of the fall of the wood, it is curious that there is no evidence of burning on the other side of the central block. Importantly, in Fig. 8 one can clearly see that the two students are picking out large sherds of broken pottery in this area of carbonised palm, meaning that this vicinity of L.86 continued to hold some earthenware that was caught by the collapse of the burnt wood. Other pottery may have been saved before the entire roof fell in.

De Vaux's records appear to indicate that in the course of removing the thick upper layer of fill under the Period III level into which the channel was built, a number of whole objects were found, including a bronze plaque, a clay ball, a wooden plaque, a crater, a two-handled jug, various plates, goblets and jugs (KhQ 1433–35; 1449–57; 1467; 1476, with lower part of this layer, on the Ib floor, yielding KhQ 1503, 1509 and 1510). The difficulty is that there is no description about exactly where these objects were found; only on the basis of an important photograph (Humbert and Chambon 1994, Fig. 332; Humbert 2006, Fig. 1.5, 34) is it apparent that at least some of these — if not all of them — were discovered in a corner of L.86 as it was in Period II, against the partition wall, within a raised rectangle formed by stones lying on the floor level, which would have probably supported an upper chest made of wood. Whatever the case, here the objects were well protected for a time as they were found whole. The upper floor level of Period II was largely cleared in Period III with the development of the water channel that ran through this area, so most of the pottery from this time and the Period II plastered floor itself would have been obliterated (and sherds were not recorded in the excavation). Period II (or Period III) seems to have yielded also a stash of hidden coins in this area (Humbert and Chambon 1994, 319: 16-3-1954).

Very importantly, the photograph by Boer (Fig. 12) shows the mass of the wood to the east of L.86, which is otherwise shown only in the shadow in Fig. 331 of Humbert and Chambon (1994) and not very clearly in a photograph (Fig. 13), from which Humbert reconstructed a fallen screen (Humbert 2006, Fig. 1.8). The close-up picture of the carbonised palm logs by Boer indicates that there is indeed a clear shape to the fall, but it is probably not possible to reconstruct furniture along the lines of Humbert. Looking at this wood as a



Fig. 13. Wooden remains *in situ* in locus 86 (photo: Roland de Vaux; Catalogue École Biblique 12186; courtesy of Jean-Baptiste Humbert, EBAF, Jerusalem).

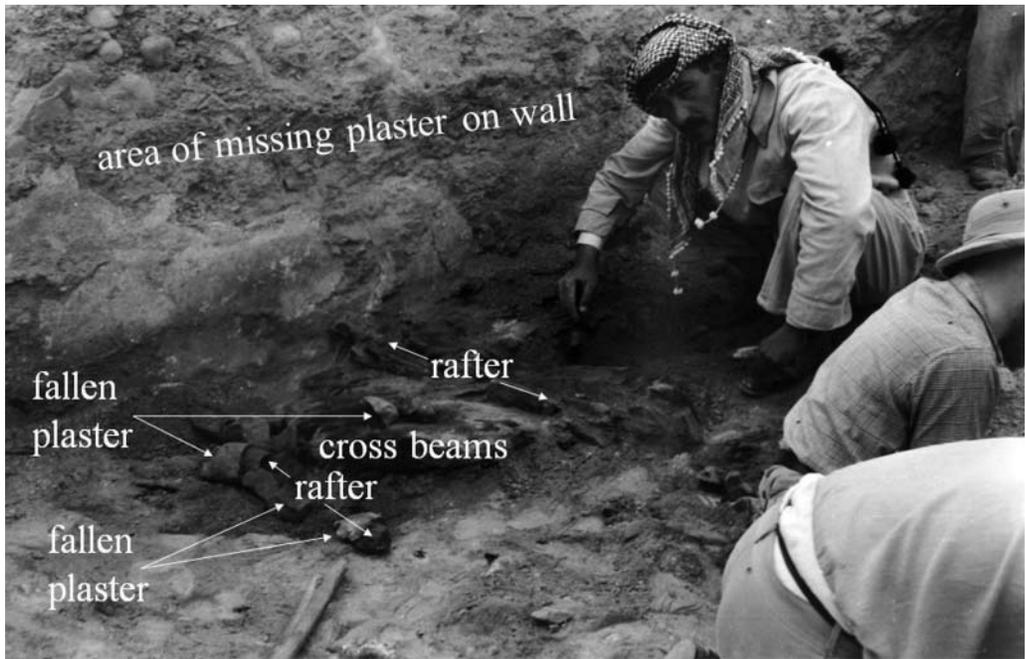


Fig. 14. L86 carbonised wood, being excavated in 1954 (photograph: Leo Boer), with indications of features.

cohesive entity, a long rafter on the right of the picture juts out perpendicularly from the wall, while there are a number of cross beams aligned at right angles to it, lying on top, swollen with fire. There are the remains of a second rafter on the left side, almost entirely burnt away, and here the nearest piece has a broken fragment of plaster adhering to it. Part of the wall plaster, with what seems to be cobb, lies behind this, and then on another piece of pole there is a piece of plaster bent around it. While the wood is burnt, the plaster is not scorched but has been ripped down off the wall with the collapse of the wood (Fig. 14). From this picture we can see that later, after the initial excavations, the pieces of wood and plaster in the foreground were tidied up to lie on top of the central section of the cross beams, so that the shape of the fallen remains was lost. In other words, it is now possible to see that the shape of the wooden remains as they appear in the photograph used by Humbert (2006, Fig. 1.7) no longer preserves the actual shape of the wood as it was found *in situ* (and note also that in this later photograph the central block has been plastered over). What the photograph reprinted by Humbert (2006, Fig. 1.7) does show (and Fig. 12 does not), however, is that there was a deposit of cross beams, parallel to the wall, precisely under where the two men are excavating: it lies just to the north of the central block and would have been met by a continuation of the far rafter along the wall, which has been much eaten away and fragmented by fire. The remains of this central deposit of wood, with fragmented cross beams, was exposed when the photograph of Fig. 12 was taken. This deposit of cross beams appears to lie on top of the remains of the far rafter. In other words the roof was built by constructing beams across the width of the room (rafters) and cross beams were laid on top. This parallels the roof construction shown in Fig. 6 above, in which reeds replace

the wooden cross beams used at Qumran, laid on top of the main rafters. There is no central 'spine' beam running the length of the room in such constructions. It is possible that the main rafters were constructed out of a harder, stronger wood than palm log (which is not so sturdy), and were therefore narrower than the bigger, lighter palm wood beams laid crossways on top.

Given that the palm logs are not made into flat planks, and are fairly roughly worked, the wood does not suggest any item of furniture. It would be most likely that this wood was indeed a section of fallen roof that has been preserved because it had been carbonised prior to being buried, simply reflecting the extent of the fire, which would have leapt up from a point below. Some parts of the wooden roof would have been burnt away. Other parts of the roof that collapsed without being burnt would have decomposed, so it is only the carbonised parts that have survived. As this roof section fell it detached some plaster from the wall which would have fallen below and above it and been moulded to its shape with the collapse of further debris. The fire has mainly run along the length of the far rafter beam we see, and eastern side near the wall, and burnt into the central cross beams also, resulting in the line of collapse we have here.

The roof that then collapsed in L.86 resulted in the thick layer of fill, the roof being undoubtedly made not only of long rafters that stretched the width of the room from wall to wall with cross beams on top, but also a covering of mud and straw, as surmised above. The surviving wood was preserved because it was carbonised by fire prior to its burial (not over time as suggested by Humbert, since other wood would then have survived also). Fig. 13 does show not a single central pole but a central composite deposit.

The pottery in this area means it is likely that L.86 in Period Ib remained in use as a storage area for meal-related crockery after the earthquake that destroyed the crockery in its southern part. This makes it more likely that L.77 itself also continued to be a dining room in the latter part of Period Ib.

This would mean that a small, localised fire broke out in this part of the room at the end of Period Ib, but this did not spread substantially before it was extinguished. There is no record of any distinguishable significant layer of ash in the room as a whole (Humbert 2006, 36). Nevertheless, such was the damage that the Period II inhabitants rescued what they could, and then simply blocked off the back part of the room, building up a new floor at a considerably higher level, sealing the debris beneath it, and accessing the new higher floor by steps going up from L.77.

There is, however, one further consideration in terms of the chronology of this part of the site. The floor of L.77 in Period II was fundamentally at the same level as the previous floor of Period Ib, except that it was levelled off, without a slope to the southern door. If the destruction in L.86 is not actually related to a fire at the end of Period II, does it necessarily need to be related to a settlement-wide fire at the end of Period Ib, or could it be a completely self-standing localised problem, perhaps connected to the instability of the walls of the room, or an accident with a lamp? In other words, at the beginning of Period II, the room comprising L.86 could have already been in the form it was left in the latter part of Period Ib, with the sealed off section of L.89 at the back. The reason to suggest this comes from the fact that a coin was found during the excavation of L.87, behind the central block, which dates to Agrippa I (Humbert and Chambon 1994, 319; KhQ 1436). Perhaps this coin is intrusive (buried) and connected to the collection found in L.86 (front part) dating to the end of Period II or beginning of Period III, since this collection contained money from procurators under Nero as well as coins from the time of Agrippa.

If it is not intrusive, then this might also indicate continuing maintenance of the buttressing through Period II. Then, with the destruction evidenced by the roof's collapse, the room was cleared and the back part — L.87 — was sealed off, with a higher level constructed on fill. A cabinet was built into the south-west corner. Into this higher level,

after it was destroyed at the end of Period II, the Period III channel was then cut, down to the Period Ib/early Period II floor. The chronology of L.86 as a whole then would indicate not necessarily a template for the periods of the whole site but a partially localised chronology relevant to the clearly attested instability of this room, so that within Periods Ib and II (or Humbert's Level 3) there are idiosyncratic subdivisions. The issue of the coins' exact placement is, however, as yet unresolved.

This discussion indicates the importance of the newly discovered photographs for furthering our understanding of the archaeological evidence from Qumran. As researchers continue to work on this material, it is only by puzzling over fine details that clarifications can be made. Any new data is welcome.

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#### NOTES

<sup>1</sup> See for a discussion of several theories in the last six decades: VanderKam 2010, 20–33; Ullmann-Margalit 2008; Magness 1998, 53–57.

<sup>2</sup> Roland de Vaux was the first archaeologist who considered the Essenes as the former inhabitants of the place. It was the consensus hypothesis for decades and remains the most widely accepted theory (Taylor 2007; 2009a; 2009b; Magness 2002).

<sup>3</sup> Note that for the purposes of this discussion we are basically following the chronological assessment and division into archaeological periods as presented by de Vaux, but with the modifications of Jodi Magness (2002, 47–69), with the further modification that Period III continued at least to the late 80s of the first century (Taylor 2003, 146).

<sup>4</sup> This dating for the end of Period Ib has itself been thrown into question by new analysis. Lönnqvist's study of the Qumran coins collection in Amman concluded that the contents of three pots that comprise the hoard have more variety than hitherto supposed, and include seven Roman imperial dinars, dating from 97 to 210 CE (Lönnqvist 2007, 9, *contra* Sharabani 1980, 275), as well as a coin minted in 12/11 BCE but countermarked in 52/53 CE (no. 304), and another possibly minted in 65/66 CE (no. 321; Lönnqvist 2007, 23–24). The later Roman coins are most likely intrusive, as Robert Donceel was able to verify before Lönnqvist's study, by using an original list of coins made by Henri Seyrig (Donceel 1992, 559–60, n.10). Dennis Mizzi accepts that the later Roman coins are intrusive in the Amman collection, but he affirms nos. 304 and 321 as original, and suggests that the hoards were first assembled in 9/8 BCE, given that they are found in pottery that Mizzi (2009, 278–83) identifies as belonging to the first century BCE: the latest date of the bulk of the coins. This seems very possible: such a treasure would usually have been in a locked piece of furniture, made of wood or metal (as indicated by Matt 6:19–21), which could still have been accessed for occasional additions throughout Period II. The notion that the coins were finally buried

at the end of Period II appears indeed most likely, since in 68 CE the Roman army destroyed Qumran (Taylor 2006b). As Mizzi points out, it was only at this time that population disruption meant that the whereabouts of the coins was forgotten; in Period III a new population came to settle this site, people who did not know where such valuable collections of coins were buried. This means, however, that the coin hoard cannot be used to date the end of Period Ib or the beginning of Period II. In the new chronology proposed by Jean-Baptiste Humbert (2003, 443–444), his Level 3, Phase A ends with the earthquake but there is no gap in terms of the habitation, with Phase B continuing from 30 BCE to 10 BCE, followed by perhaps a short space and then Phase C continuing to 68 CE.

<sup>5</sup> The inverted commas are used because the interpretation of these structures as pillars is still a subject of discussion.

<sup>6</sup> According to de Vaux the roof supports were built because of economic considerations. As a result of using these supports, scarce and expensive beams were not needed anymore (de Vaux 1973, 26). Nevertheless, it is interesting to note that other rooms with comparable measurements did not have roof supports.

<sup>7</sup> The so-called 'southern' cemetery south of the Wadi Qumran, with about 30 graves of varying orientations (de Vaux 1973, 58), is likely to date from the Byzantine era. One of these (Tomb 1), contained a female, oriented east-west, and 30 beads (KhQ 2670), and either two earrings or an earring and ring (KhQ 2671 and KhQ 3651; Clamer 2003, 171–2). The other three opened tombs of this cemetery contained the remains of children. The radiocarbon dating of a small sample of linen from this grave, QUM-524 Bo03 (KhQ 3649), indicated a result of 565–635 CE at 1 standard deviation. A Byzantine date coheres with the jewellery typological study made by Christa Clamer, who noted that the earrings from Tomb 33 in the southern arm of the main cemetery, Tomb 1 in the southern cemetery and a crumbled glass bead from Tomb 32 should be

dated to the Late Roman or Early Byzantine periods. These conclusions, along with the new radiocarbon date, seriously call into question the proposition made by Joe Zias (2000) that the intrusive Qumran graves should be attributed to relatively modern Bedouin (and see Norton 2003: 118–22). Elsewhere in the Qumran cemeteries that are dated to the time of the occupation of the settlement, a small but significant number of female skeletons have been identified (Eshel, Broshi, Freund and Schultz [2002], Table V, 161–3, and also 150–1).

<sup>8</sup> The absence of decorations on this supposed altar, for example trims, is not so extraordinary, according to Humbert. He alleges that this type of altar, characterised by its poor expression, was well known in the Near

East and has been related to tables presenting sacrifices in Byzantine sanctuaries.

<sup>9</sup> He reiterated his disappointment in a later publication by writing: ‘Unfortunately, we have no close photographic documentation of their original state after excavation’ (Humbert 2006, 32). Despite the lack of this kind of photograph Humbert uses a less detailed picture of the pillar to make assumptions about the original features.

<sup>10</sup> Helpful were also the pictures of the excavations published in: Humbert 1994; de Vaux 1954; 1956.

<sup>11</sup> Chronologically these two photographs of Boer can be placed between pictures 330 and 331 on the one hand and 337, 336, 338, and 331 on the other, published in Humbert 1994, 161–63.

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