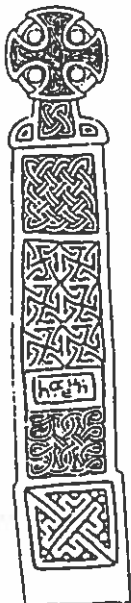


**Archaeological Observation on works carried out by Morcon
(Dyfed) Ltd in Roman Road, Llangunnor, Carmarthen
(November 2002 to February 2003)**

Report No: 2003-06-01



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NON-TECHNICAL SUMMARY

Roman Road is located in the Pensarn area to the south-east of Carmarthen. Regarded as a pre-turnpike road, it was in use during the Post-Medieval period, but is not of Roman date. Part of the road is known to have been cobbled until 1947.

The installation of a foul-water drainage system serving a housing development at Brynhyfryd entailed the excavation of a trench extending approximately 466m along the road. The trench revealed substantial evidence of a fragmented cobbled surface(s) within two deposits underlying the present tarmacadam road surface and associated sub-base material.

The cobblestones noted within each of the deposits differed markedly in size and frequency, suggesting two possible phases of cobbling, dating perhaps to the late 18th or early 19th century.

Archaeological Observation on works carried out by Morcon (Dyfed) Ltd in Roman Road, Llangunnor, Carmarthen

1.0 INTRODUCTION

- 1.1 Border Archaeology was commissioned by Morcon (Dyfed) Ltd to conduct archaeological observation on open-cut trenching along Roman Road for the installation of an underground foul-water drainage system serving a housing development at Brynhyfryd.
- 1.2 The criteria used to decide the deployment of archaeological observation on the works encompassed by this report were proposed by Cambria Archaeology in their role as monitoring authority, in conjunction with Morcon (Dyfed) Ltd and Border Archaeology.
- 1.3 The archaeological observation followed usual on-site procedures that complied with standards set by the Health and Safety Executive (HSE).
- 1.4 Copies of this report will be submitted to Anglo Define Ltd, Morcon (Dyfed) Ltd, Serendipity Holdings Ltd and Cambria Archaeology.
- 1.5 This programme of archaeological observation began on the 20th of November 2002 and was completed on the 7th of February 2003. The provision of archaeological services was managed by Neil Shurety, with the archaeological observation being undertaken by Nicola Hancox (staff project archaeologist).

2.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 2.1 Carmarthen (or *Moridunum*)¹ is regarded as one of the oldest Roman settlements in Wales, as well as being one of two *civitas* capitals (James 2000:41). Place-name evidence suggests that the Medieval settlement (referred to as *kaer wyrthin*) began to the west of the Roman town and fort around the 12th century.
- 2.2 The site is located to the south-east of Carmarthen, in the Pensarn area. The road, which is not of Roman date, was in use in the Post-Medieval period and is regarded as a pre-turnpike road. The hill part of the road was cobbled until 1947.
- 2.3 The area forms part of the 19th century expansion of Carmarthen. The railway line and station were constructed during the mid to late 19th century. As a result, the area expanded, with the spread of industrial workshops and units to the south and east. Prior to the railway, the eastern banks of the Afon Twyi were utilised as docks and wharfs for river and sea traffic. These remained in use until the mid 20th century.

¹ for place-name evidence, see Rivet & Smith (1979) and Nicolaisson et.al. (1986).

3.0 GEOLOGY

- 3.1 The site lies close to the south-eastern edge of an unsurveyed urban area. The neighbouring soil associations are a DENBIGH 1 541j and a TANVATS811e.
- 3.2 The DENBIGH1 541j consists of well-drained, fine loamy and fine silty soils over rock. Some similar soils have slowly permeable subsoils and slight seasonal waterlogging. Shallow soils and some bare rock occur locally. The underlying geology consists of Palaeozoic slaty mudstone and siltstone.
- 3.3 The TANVATS 811e is characterised by deep, stoneless, fine and coarse silty and clayey soils on flat land. Groundwater levels are controlled by ditches and pumps. The geology comprises a marine alluvium.

4.0 METHODOLOGY

- 4.1 The aim of the programme of archaeological observation was to locate and record as appropriate any archaeological remains that were revealed during the course of the groundworks.
- 4.2 A continuous open-cut trench was excavated mechanically under strict archaeological supervision.
- 4.3 All spoil was scanned thoroughly for artefacts.
- 4.4 Initially the archaeological observation was to be undertaken on two mornings per week, with the understanding that the excavations would be completed in four weeks. However, this schedule proved unrealistic owing to the presence of natural slate bedrock and the discovery of a cobbled road surface. Then a programme more suited to the level of discovery was implemented and subsequently amended as circumstances dictated.
- 4.5 The report has therefore been divided into two parts. The first section deals with that period of continuous archaeological observation (20.11.02 - 06.12.02) deemed necessary by the presence of the cobbled road. The second part details observation that was carried out on a by-arrangement basis (10.12.02 - 07.02.03), being dependent upon the nature of the archaeological remains that were encountered.

5.0 ARCHAEOLOGICAL OBSERVATION (20.11.02 - 06.12.02)

- 5.1 Roman Road is located to the south-east of Carmarthen and directly east of Pensarn. The trenching began at the intersection of Roman Road and Rhiw Babel and ran south-east for a distance of 97.76m. The trench was positioned 1.0m north-east of 'Sarn Villa' and 5.0m south-east of the Roman Road/Rhiw Babel junction.
- 5.2 Mechanical excavation continued below the level of archaeological deposits into the natural slate. The natural stratigraphy had been previously disturbed by the installation of a water-pipe at 2.50m SE and a storm drain at 38.80m SE (both cutting across the trench); and also by modern road surfacing. The trench ran from SN 41326 19209 to SN 41384 19160.
- 5.3 The trench measured 97.76m on the south-west and north-east facing sections and varied in width from 0.60m to 0.69m. The depth varied from 1.30m to 1.72m below existing ground level, owing to the steeply sloping

profile of the site. Features of archaeological significance were drawn in section at a scale of 1:10 and 1:20.

- 5.4 A total of 14 contexts were identified, including natural deposits. These were predominantly associated with road construction and water-drainage systems, which had, where present, removed any earlier deposits. However, in places, the contexts associated with the cobbled road surface were found in situ.
- 5.5 The tarmacadam road surface (001) overlay a deposit of sub-base material (002) to a depth of 0.09m-0.21m. Underlying (002) to a depth of up to 0.36m was a loosely compacted, fine grey gravel (003). These three contexts continued within both trench sections. Context (003) was absent in places where (001) and (002) lay directly over natural slate (005). The initial 0.50m of the excavation revealed occasional small fragments of 20th century white-glazed ceramics and fragments of red brick (-5%). *No other finds were identified.*
- 5.6 The north-east facing section revealed a well-compacted, grey stony clay (004) underlying (003) to a depth of 0.40m. This deposit continued along the length of the trench, but, in places, had been removed by road surfacing activity. Context (004) was noted within the section to a point approximately 26.24m from the beginning of the trench, where it ended abruptly. It reappeared at 60.46m and continued to 85.0m.
- 5.7 Within (004) a fragmented cobbled road surface (006) was identified at 7.03m (SN 41328 19206). The stones were small and rounded to well rounded, measuring approximately 60mm x 40mm. The cobbles were intermittent up to 11.52m (SN 41333 19202). Most seemed to have been disturbed.



Plate 1 North-east facing section showing cobblestones within (004)

- 5.8 At 21.93m (SN 41327 19195), the trench was widened to allow construction of a manhole (1). The section was extended south-west by 0.75m for a distance of 0.90m. Cobblestones became visible in section here (Figure 1). The cobbling was more substantial here, although the surface remained intermittent and several stones were displaced by the excavation.
- 5.9 At 21.50m, was a loose to moderately compacted soft, pink-brown, gritty clay (007) with occasional small, angular, stone inclusions. This deposit lay beneath (003) and above (004), extending south-west back into manhole (1) for 1.31m. Context (007) was also present on the north-east facing section from 21.93m-23.83m, continuing into the north-west facing section and along the trench to 38.0m, where it ended abruptly. *No finds were identified in this deposit.*
- 5.10 The more substantial stones continued in section to 26.21m. At 26.24m (004) ended abruptly. A loosely-compacted, yellow-brown, slate/shale and clay (011) continued along the trench to 30.86m where it ended gradually. The cobbles continued in (011) to its end, but again were intermittent, except for a tightly compacted row of smaller cobbles from 26.69m-27.68m.
- 5.11 From 30.86m-33.80m, the stratigraphy comprised only contexts (001), (002) and (005). From 33.80m, the road surfacing included (003), overlying (011) which was present to a depth of 0.25m-0.49m. Underlying (004) to the trench base was natural slate (005). Context (011) continued in section to 55.10m, where it ended sharply, leaving (001), (002) and (005).



Plate 2 North-east facing section showing cobblestones within (011)

- 5.12 The cobblestones were still apparent within (011). From 38.80m (SN 41344 19187) the lane started to curve to the left, but the trench continued its original line; as the trench progressed it moved from the left to the right side of the lane and the cobbles became markedly less frequent and smaller.
- 5.13 At 55.10m, on the far right side of the lane, the trench was widened to construct a second manhole (2). The section was extended south-west by 0.33m for a distance of 2.10m (SN 41349 19173). No cobbles were identified here and none was present during the excavation. The cobbles may not have extended this far across the lane; alternatively, they may have been disturbed by modern surfacing work.
- 5.14 The north-east facing section of the manhole (2) also revealed a deposit of heavily compacted concrete (013) underlying (001) and (002) and overlying (005) to a depth of 0.50m. This deposit seemed to be associated with a natural spring immediately to the north-east in the hedge bank.
- 5.15 From 57.20m (at the end of manhole 2) only contexts (001), (002), (003) and (005) remained in section up to 60.46m, where contexts (004) and (011) became apparent. Context (004) underlay (003) and overlay (011) to a depth of 0.35m-0.38m and (011) overlay (005) to a depth of 0.76m-1.04m.
- 5.16 From 61.10m to 76.22m contexts (001), (002), (003), (004), (011) and (005) remained in section. Context (011) ended abruptly at 66.10m, truncating (005). The remaining contexts continued to 85.0m, where (004) then ended gradually. At 95.80m (003) was absent and (001), (002) and (005) continued to the end of the trench at 97.73m.
- 5.17 At 95.80m, the trench was widened to construct a third manhole (3) (SN 41384 19160). The trench was extended south-west by 0.60m for 1.96m and comprised (001), (002) and (005).
- 5.18 Within the south-west facing section, up to a distance of 2.50m, was a well compacted, grey, stony clay soil (004) underlying (003) to a depth of 0.36m. Underlying (004) to a depth of 0.46m was a loose to moderately compacted soft, pink-brown, gritty clay (007), with occasional small, angular stone inclusions. This deposit lay above a further deposit of well-compacted, grey, stony clay (012).
- 5.19 Underlying (012) to a depth of 0.83m was a moderately compacted, brown, stony clay (008). Underlying (008) to the pit base was heavily compacted natural slate (005). *No finds were identified in these deposits, which appeared to represent some form of post-Medieval activity.*
- 5.20 From 2.50m to 42.70m the deposits were disturbed by a water-pipe that crossed the trench at 2.50m, by the wide car-park entrance to 'Roman Villa' and by a storm drain running down the north-east side of the lane crossing the trench to the south-west side at 38.80m.
- 5.21 Beyond 2.50m, the stratigraphy comprised (001), (002), (003) and (005), with intermittent deposits of loosely compacted, medium sand (010) some 0.08m thick and a 0.03m thick loosely compacted, gritty, cream deposit (009) beneath the road surface. From approximately 18.0m, context (004) was also present, measuring 0.04m-0.06m in thickness, lying below (003), (009) and (011) and above (005). At 38.80 to 40.90m, the storm-drain interrupted the stratigraphy. *No finds were identified in these deposits.*

- 5.22 From 42.70m to 55.10m, the section revealed cobblestones. From 42.70m, context (013) gradually ended and disappeared at 44.75m. Underlying (013) to this point, and continuing in section beneath the road-surfacing, was a loosely compacted, yellowish-brown, slate/shale and clay deposit (011) within which cobblestones were identified. Context (011) extended to a depth of approximately 0.42m and overlay (005).
- 5.23 From 55.10m to 63.20m, the road surface directly overlay natural slate (005). This is the point where the second manhole (2) was excavated on the north-east facing section of the trench and where the cobblestones were no longer visible. The reason for this occurring on the south-west facing section was probably disturbance from the storm-drain.
- 5.24 At 63.20m (SN 41349 19173), the road surface overlay a moderate to well-compacted, grey, stony clay (004) containing cobblestones (006). Underlying (004) to a depth of approximately 0.37m was a loosely compacted, red-brown, sandy soil (014), with tree-root disturbance. Underlying (014) to the trench base was natural slate (005).
- 5.25 From 66.0m to 97.76m, no cobblestones were identified. The stratigraphy was represented only by (001), (002) and (003); and by the natural slate (005) (SN 41384 19160). *No finds were identified in these contexts.*
- 5.26 **ARCHAEOLOGICAL OBSERVATION (10.12.02 - 07.02.03)**
- 5.27 Mechanical excavation continued from 97.76m to the end of the trench at 455.10m (SN 41697 18973), where the trench was then extended north-east across the field to the location of the new housing estate at Brynyfryd, at the point where the first test trench was excavated (approximately 76.0m east of 'Brynheulog') on 03.09.02. Archaeological observation was not required beyond 455.10m.
- 5.28 The remainder of the trench measured 357.34m in length, 0.65m-0.85m wide and 121.0m-2.0m deep. Features of archaeological significance were drawn at a scale of 1:20.
- 5.29 At total of nine contexts were identified in this section of the trench. These are included in the 14 contexts previously noted, except for (015) and (016) which are additional deposits.
- 5.30 The tarmacadam road surface (001) overlay a deposit of sub-base material (002) to a depth of 0.26m. Beneath this to a depth of 0.21m-0.36m was a loosely compacted, fine, grey gravel (003). The road surfacing continued for the remaining length of the trench on both sections, with (003) being intermittent.
- 5.31 The remaining stratigraphy consisted of contexts (004), (005), (011) and (015) - a well-compacted, grey-brown, stony clay. Contexts (004) and (011) were present together and individually, at intervals along the trench.
- 5.32 It was noted that (004) overlay (011) for the most part and where the cobblestones were identified the majority were within (011), although some were also identified in (004). Context (011) became considerably more sandy and clayey for the remainder of the trench and was given a new context number (016).
- 5.33 From 110.0m to 123.60m four contexts were identified. The tarmacadam road surface overlay sub-base to a depth of 0.14m. Underlying this to a depth of 0.24m was the fine, grey gravel deposit and beneath this the natural slate (005). *No finds were identified.*

- 5.34 The north-east facing section comprised the same contexts, although two rounded stones were identified at the base of the gravel, overlying natural deposits at 112.0m and 112.40m. These were possible cobblestones that had been previously disturbed, as they were similar in appearance to those previously recorded. The stones measured approximately 0.10m x 0.06m. *No other finds were identified.*
- 5.35 From 146.0m to 176.0m both the north-east and south-west facing sections were recorded at a scale of 1:20.
- 5.36 Five contexts were identified south-west facing section. The tarmacadam and sub-base extended to a depth of 0.09m-0.20m. Underlying the sub-base to a depth of between 0.24m and 0.27m was a well-compacted, grey, stony clay (004). Context (004) continued in section to 150.30m, where it ended abruptly.
- 5.37 Underlying (004) to a depth of 0.02m-0.40m was a loosely compacted, yellowish-brown, slate/shale and clay (011). Context (011) began gradually at 149.52m and continued in section to 176.0m. Underlying (004) and (011) to the trench base was natural slate. The north-east facing section comprised the same contexts.
- 5.38 Within contexts (004) and (011) was a well preserved section of cobbled road surface (006). At 150.0m to 153.0m (SN 41435 19135) it was possible to remove the road surfacing as the trench was excavated, leaving the cobbles intact.
- 5.39 From 146.0m to 150.0m, within (004), a fragment of 18th or early 19th century red brick was found within the cobblestones providing an apparent *terminus post quem* for the surface. However, brick only occurred in this particular location and context. The cobbles occurring in (004) were markedly different in size and frequency from those in (011). The latter tended to be larger, more regular and seemingly undisturbed (Figures 2 & 3), whereas those in (004) were smaller, occurred sporadically and appeared disturbed. Therefore it would appear that there are two possible phases of cobbling, of which a tentative date for that observed in (004) would be 18th/19th century.
- 5.40 At 161.0m the trench was extended on the south-west facing section by 0.50m for a distance of 2.0m to the south-east, in order to construct a manhole (4) at SN 41449 19132. No cobblestones were identified as the trench was extended as context (013) was present to a depth of 0.30m below the road surface. Underlying (013) to the trench base was natural slate.
- 5.41 At 171.54m (SN 41454 19119) the cobblestones on the north-east facing section were replaced by frequent, small, sub-angular and rounded stones. These smaller stones were also present on the south-west facing section at approximately the same point, although occasional cobbles were evident in context to 173.80m (SN 41462 19127), apparently owing to the trench being close to the hedge on the south-west side of the lane at this point.
- 5.42 The cobblestones were again visible at 199.65m on the south-west facing section at SN 41490 19117 and at 203.38m on the north-east facing section (SN 41487 19110).
- 5.43 From 190.0m to 216.75m five contexts were identified in the south-west facing section. The tarmacadam and sub-base extended to a depth of 0.17m-0.26m. Underlying these to a depth of 0.18m-0.38m was context (004). Underlying (004) to a depth of 0.31m-1.35m was context (011).

Underlying (011) to the trench base was natural slate. The north-east facing section comprised the same contexts.

- 5.44 Cobblestones were present at 199.65m on the south-west facing section within (011), which continued in the stratigraphy to 202.51m, where it ended gradually. At this point the cobbles continued in (004) to approximately 202.91m, where they were replaced by small, sub-angular, stone inclusions. On the north-east facing section, which revealed a similar pattern, the cobblestones were present within (011) at 203.38m and continued to 207.65m at SN 41488 19118.
- 5.45 At 207.65m the trench was extended on both the south-west and north-east facing sections to construct a manhole (5) at SN 41490 19117. The trench was extended by 0.70m on the south-west facing section and by 0.70m on the north-east facing section for a distance of 1.70m to the south-east. On neither of the extended sections were cobbles visible.
- 5.46 At 209.35m (SN 41498 191116) to 216.75m (SN 41504 19108), both the south-west and north-east facing sections were recorded. The cobblestones remained within (004). Context (011) was present within the stratigraphy but with greater depth than previously. *No further cobbling was identified in this context on either section for the remainder of the excavation.*
- 5.47 From 220.0m (SN 41507 19104) to 230.0m (SN 41515 19002) four contexts were identified within the south-west facing section. Context (004) underlay the tarmacadam and sub-base to a depth of between 0.24m and 0.41m. Context (011) underlay (004) to the trench base. The north-east facing section had the same stratigraphy.
- 5.48 Cobblestones were identified within (004) but these were smaller, extended deeper into the context and appeared to have been displaced from their original position. There was also a high frequency of small, sub-angular stone inclusions in and around the cobblestones. This may be the result of this section of trench being directly outside the residential/farm properties of 'Eryl' and 'Philsima' on the north-east side of the lane, which are likely to have disturbed the archaeological deposits.
- 5.49 Cobblestones could be clearly identified on the surface at the edge of these properties. From 220.0m to 230.0m the cobblestones became increasingly difficult to identify and finally disappeared.
- 5.50 From 289.50m (SN 41559 19083) to 300.70m (SN 41565 19057), four contexts were identified in the south-west and north-east facing sections. The tarmacadam and sub-base overlay (004), which in turn overlay (011). This was of a more firmly compacted consistency than previously and with moderately frequent (10%) small sub-angular stone inclusions and occasional (-5%) medium and large sub-angular and rounded stone inclusions. *No finds were identified.*
- 5.51 The section from 377.90m to 413.60m was excavated, backfilled and then re-excavated. Five contexts were identified in the south-west and north-east facing sections. The tarmacadam and sub-base overlay (004). Underlying (004) to a depth of 0.54m was a well-compacted, grey-brown, stony clay (015). Underlying (015) to the trench base was a moderately compacted, yellowish-brown, sandy clay and stone/shale (016).
- 5.52 Several possible cobblestones were identified in the north-east facing section only, but there also appeared to be a number of stones within the spoil.

5.53 Trench Extension

- 5.54 The trench was also extended from its beginning outside 'Roman Villa' into the main road of Rhiw Babel, north-west as far as the central white line, in order to construct a manhole (6). The stratigraphy was found to have been heavily disturbed by road construction, along with a storm-drain and water-pipe crossing the trench, which had removed any deposits, features or artefacts of archaeological significance.
- 5.55 The trench measured 9.75m on the south-west and north-east facing sections and was 0.62m wide. The manhole was excavated off this trench to align with the road direction and measured 1.75m on the north- and south-facing sections and 1.10m wide. The depth was limited to 1.50m. The trench ran from SN 41323 19223 (north-west facing section) to SN 41312 19223 (east-facing section).
- 5.56 All sections comprised the same stratigraphy. Six contexts were identified, with three being additional to those previously recorded - (017), (018) and (019). Underlying the tarmacadam and sub-base was a well-compacted, grey, small angular stone hardcore deposit (017). Underlying (017) to a depth of 0.31m was an earlier tarmacadam road surface (018). Underlying this to a depth of 0.46m was a moderate to well-compacted deposit of grey, small angular stone, sand and gravel (019). Underlying (019) to the trench base was the natural slate. *No finds were identified.*

6.0 SUMMARY

- 6.1 Located to the south-east of Carmarthen, in the Pensarn area, Roman Road was in use in the Post-Medieval period and the hill section was cobbled until 1947.
- 6.2 The trench revealed evidence of a fragmented cobbled surface (006) in two deposits underlying the present tarmacadam road surface and associated sub-base material. These deposits, (004) and (006), lay approximately 0.20m-0.25m beneath existing ground level.
- 6.3 A fragment of 18th/early 19th century red brick found within (004) gives a possible *terminus post quem* for the surface. However, the brick only occurred in one particular location. Moreover, the cobbles occurring in (004) were markedly different in size and frequency from those in (011). The latter tended to be larger, more regular in size and seemingly undisturbed, whereas those identified in (004) were smaller, occurred sporadically and appeared disturbed.
- 6.4 It would appear, therefore, that there are two possible phases of cobbling, of which a tentative date for that evident in (004) would be 18th to early 19th century.

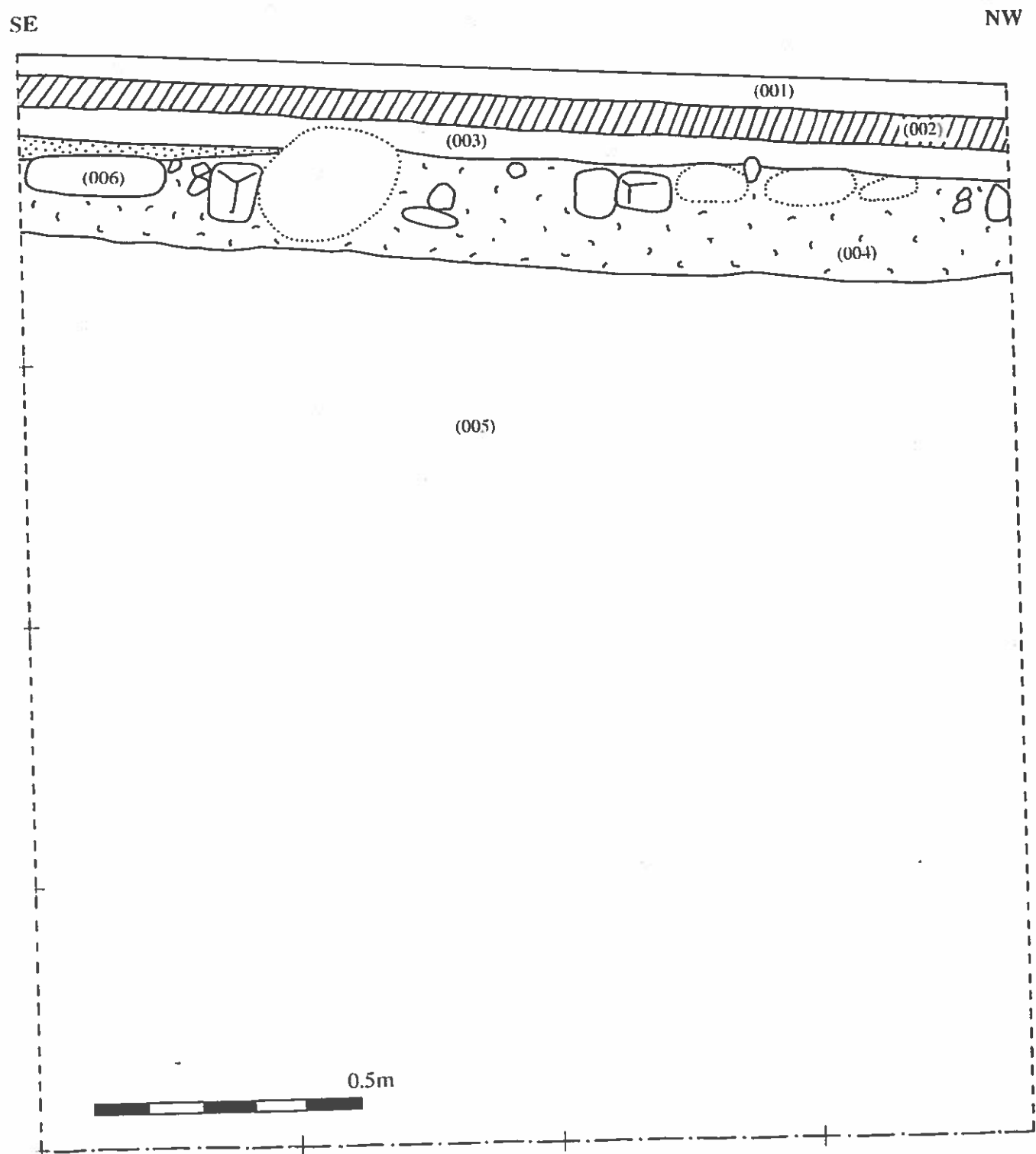
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**FIGURE 1 NORTH-EAST FACING SECTION OF MANHOLE (1)
EXCAVATION, SHOWING COBBLED SURFACE WITHIN CONTEXT
(004)**



**FIGURES 2 & 3 NORTH-EAST & SOUTH-WEST FACING SECTIONS
SHOWING COBBLED SURFACE WITHIN CONTEXT (011)**

