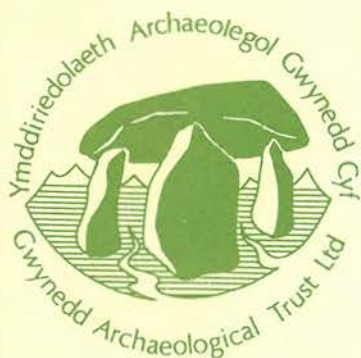


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CONWY SEWERAGE AND SEWAGE DISPOSAL SCHEME



Gwynedd Archaeological Trust Ltd

Ymddiriedolaeth Archaeolegol Gwynedd Cyf

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CONWY SEWERAGE AND SEWAGE DISPOSAL SCHEME REPORT

GWYNEDD ARCHAEOLOGICAL TRUST 1991

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CONWY SEWERAGE AND SEWAGE DISPOSAL SCHEME REPORT

Background Information :

In June 1991, Welsh Water informed Gwynedd Archaeological Trust of its intention to construct a sewage disposal scheme at Conwy (NGR SH 7818 7776). The work would involve the laying of pipes as well as the possible construction of a pumping station near the foreshore. A location proposed for the pumping station was at the north end of Lower Gate street, on the upper levels of the shore immediately north of the town wall. The site is presently used as a boatyard.

Archaeologically, the area under consideration is of importance since it is adjacent to and partly within the town wall. The town wall and the Castle, were built by Edward I in 1288.

Aims and Methods :

Welsh Water's consultants Wallace Evans arranged to excavate a series of trial trenches to examine various factors, such as geology, depth relating to the proposed position and construction of the sewage pipes. Four of these trenches were to be dug either side of the Mediaeval wall at Lower Gate street - an area where archaeological recording might be of some complexity, necessitating several hours of detailed recording.

The four trenches were opened by Wallace Evans between the 12th and 14th November, 1991, and were observed by GAT.

The general working agreement for the watching brief agreed by GAT with Welsh Water, was as follows :

The trenches were to be hand dug by Wallace Evans staff. If it became apparent that certain levels within the trenches were devoid of archaeological material, then supervised machine digging could proceed until further important and relevant changes in the stratigraphy were observed. In the event of any archaeological remains being unearthed, digging would be stopped and the trenches examined by GAT.

During, and at the completion of each opened trench, archaeological recording would be carried out where necessary. This included photography, planning and surveying.

General Observations :

(For general location of trenches - see fig. 1)

Trench 1 (T1) :

The first trench was opened against the south face of the curtain wall, on the foreshore below Lower Gate street. The trench was 3.4m wide at surface level.

To a depth of 0.5m - 1m, T1 was hand dug through a layer of coarse grey gravel beach deposit (plate 1) It was soon realised that this layer would probably be fairly deep, therefore it was decided to allow a JCB machine to carefully remove the remainder of the gravel. As the curtain wall was gradually exposed further down it became apparent that there was a considerable difference in masonry style between the stones above the surface compared to those below (plate 1.)

Beneath the beach surface the masonry was very regular coursed in style - consisting of very large blocks of squared boulders,

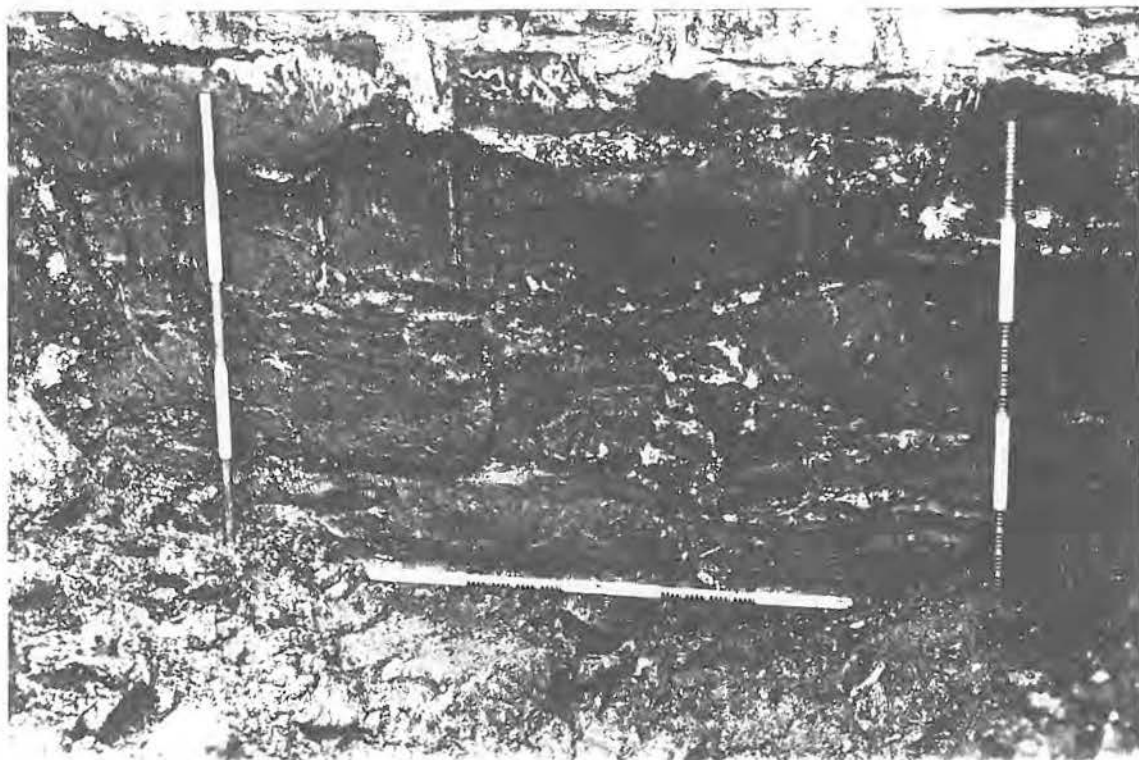


plate 1 Town Wall Masonry (T1)

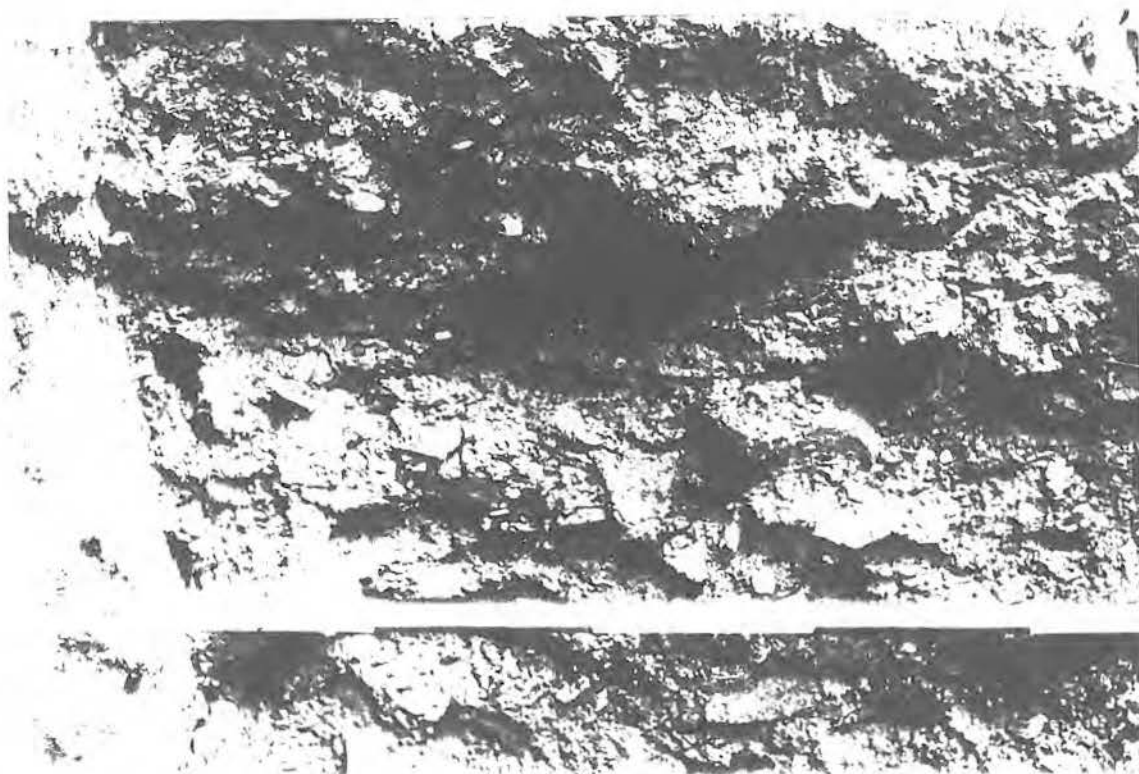


plate 2 Upper Levels of East Section (T1)

closely packed. Above the surface the style was more randomly coursed with a large percentage of 'stringing'. The stones above the surface were also very much smaller.

After the initial half metre (Context 001) it was realised that the beach gravel became more stoney with depth (medium sized pebbles as opposed to small stones), and slightly more silty. Machine work was stopped and the east section of the trench was examined. The section contained a small amount of modern pot fragments. The more silty gravel layer (002), approx. 0.30m deep, contained fragments of bone and occasional small pieces of charcoal (plate 2.) Bone and charcoal samples were taken from the east section before the machine continued to a depth of 1.50m.

Immediately below the silty gravel band, a slightly thinner layer of white coarse mortar was identified (003), but with no traces of any organic archaeological material. Below the mortar, the profile was a continuation of the gravel, albeit slightly lighter in colour and containing very large angular rocks / boulders (004) (plate 3.). This layer contained a small piece of copper and occasional pieces of shell and bone.

The south facing curtain wall was then photographed and an elevation section was drawn to a scale of 1:10. The modern day surface at the west side of the section was found to be 4.33m above sea level. The east section of T1 was also drawn to a scale of 1:10 and photographed.

Once the recording had been completed, the trench was dug by machine to a depth of 3.50m where the base of the town wall was reached (plate 4 and 5.) Health and Safety regulations did not



plate 3
East Section (T1)

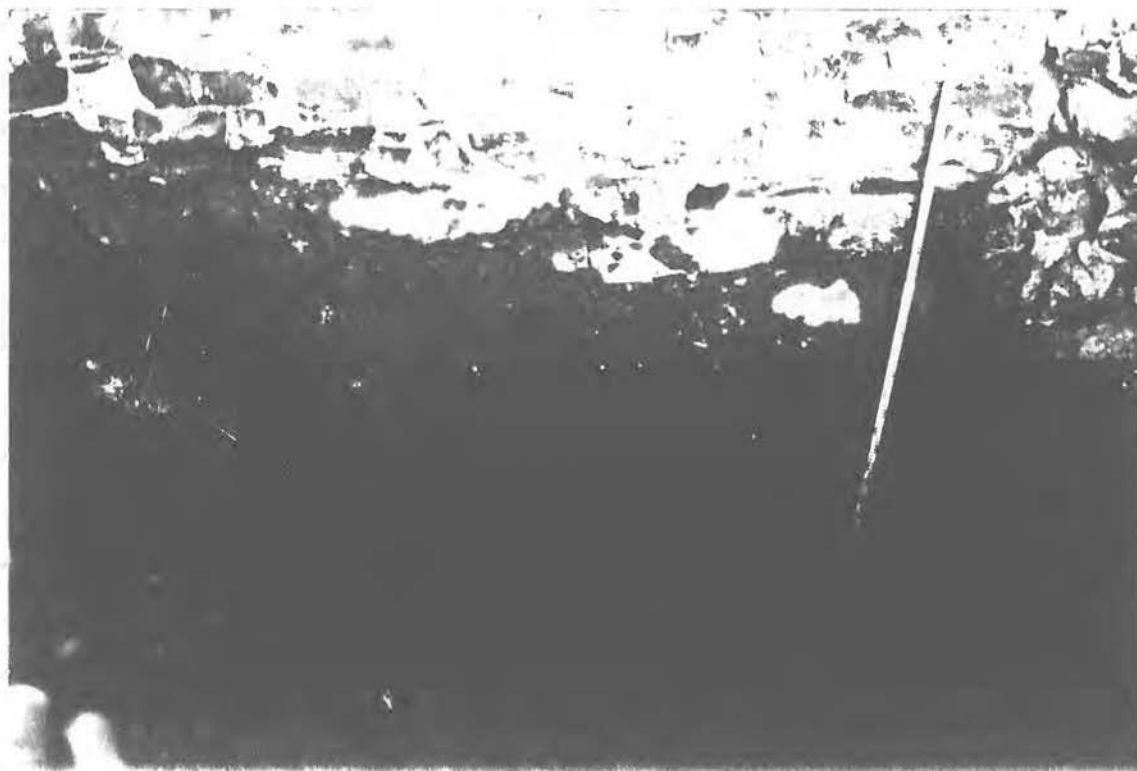


plate 4
General View (T1)

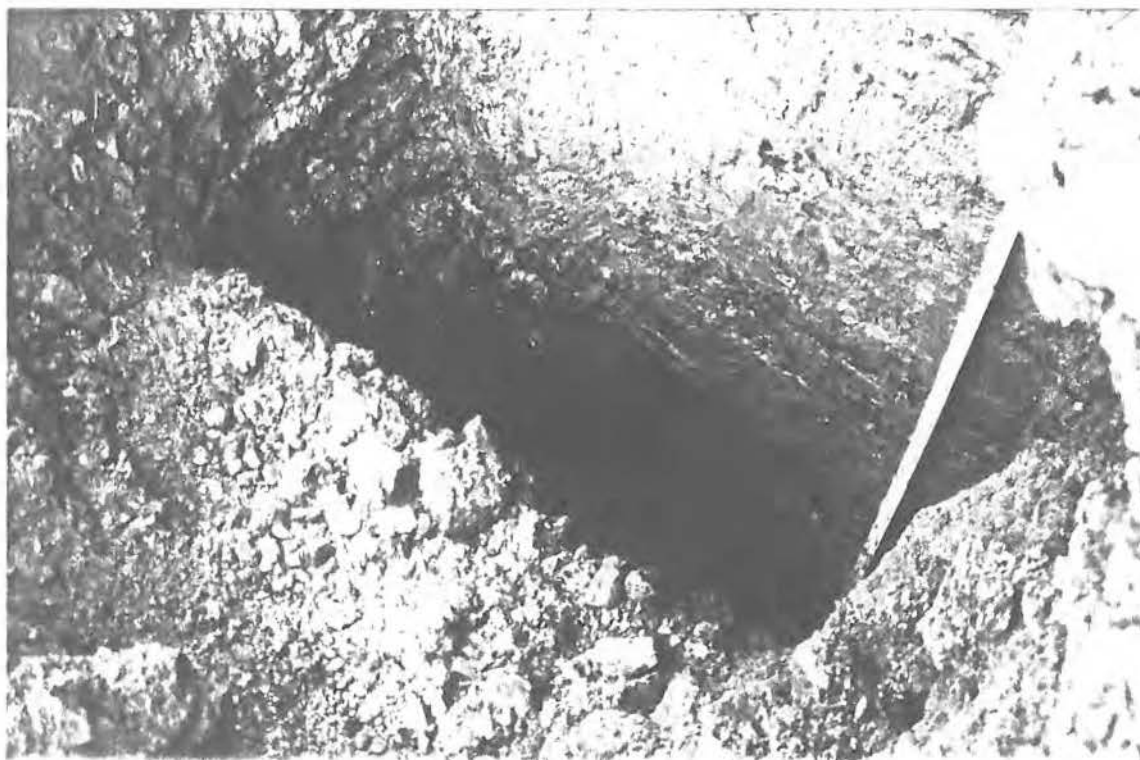


plate 5 General View (T1)

allow any recording from within the trench. The lower levels of T1 could not therefore be drawn or planned accurately and only a general description of the remaining contexts down the east section were noted. Photographs were taken however and the deposits could be measured from the surface.

Below the boulder filled gravel was a very prominent blue / grey organic layer, 1.20m thick, containing some animal bone and a large percentage of shell and medium angular pebbles, (005). This overlaid a narrow band, 0.3m, of a red / brown sandy gravel (006). Below this the blue / grey organic layer continued for a further 1m in depth (007).

The organic layer covered a light brown sandy gravel layer 0.90m in depth (008), which in turn covered orange sand (009) at the bottom of the trench (the same orange sand layer found beneath the wall rubble.)

Now that the base of the town wall had been reached it was hoped that the nature of the wall foundations could be established. From the surface it seemed that the wall was lying on a 1m deep deposit of very loose large stone rubble. Beneath this an orange sand layer could be seen (natural?).

Trench 2 (T2) :

T2 was located almost directly opposite T1 but on the north of the curtain wall. It was very close to the boatyard where it is proposed to build the pumping station. The trench was not opened down the side of the wall because a modern concrete lip had been constructed along this part of the wall. T2 was therefore about 2m north of the wall face.

The initial 1.20m of the trench was opened by machine, (4.11m O.D. at surface / top of section). The first 0.30m consisted of dark grey sandy gravel - beach deposit (001). The next 0.30m consisted of a layer of mortar, red brick and slate (010), and yielded a few pieces of metal. This covered a 0.25 - 0.30m deep layer of very mixed brown sand, clay and pebble (011). which contained lenses of orange and black clay. This overlaid a similar layer of sand, clay and pebble (012) which also contained a large quantity of shell fragments and modern pot (plate 6.)

At 1.20m a black organic sand layer was reached containing a vast amount of animal bone, shell, and animal teeth (013). At this point the machine was removed and a small box section was excavated within the black organic sand (plate 7.) When the box section had been excavated to a depth of 0.10m, a length of timber was reached (014); it was found to be 0.15m thick. The box section and the trench as a whole was photographed, and the varying contexts were measured and noted according to the north facing section. The section was not drawn to scale because the emerging archaeological features were mainly below the safety level.

After the completion of the initial recording, the trench was carefully machine dug once more. From the north facing section it was seen that the black organic layer, containing an animal horn core and large amounts of animal bone, (015), continued down under the timber for a further 0.12m before reaching another length of timber, (016). This second band of timber was 0.13m thick and lay above a further 0.30m of the black organic sand

plate 6 Upper Levels of T2

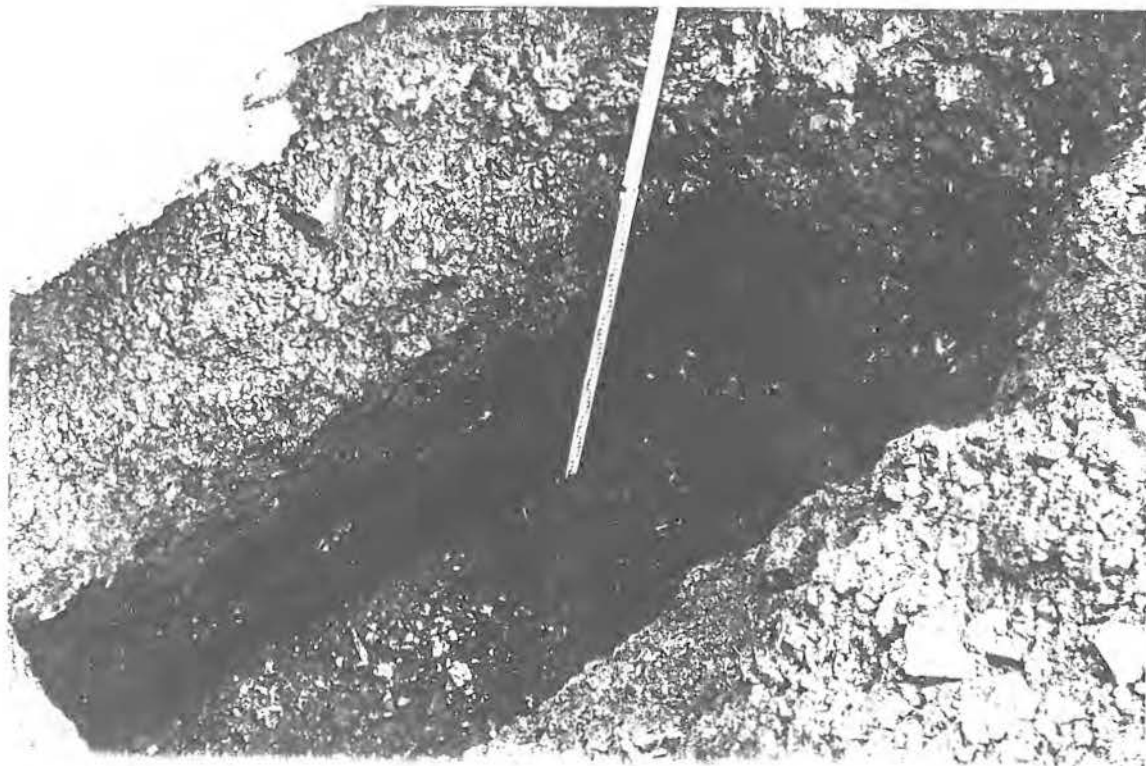
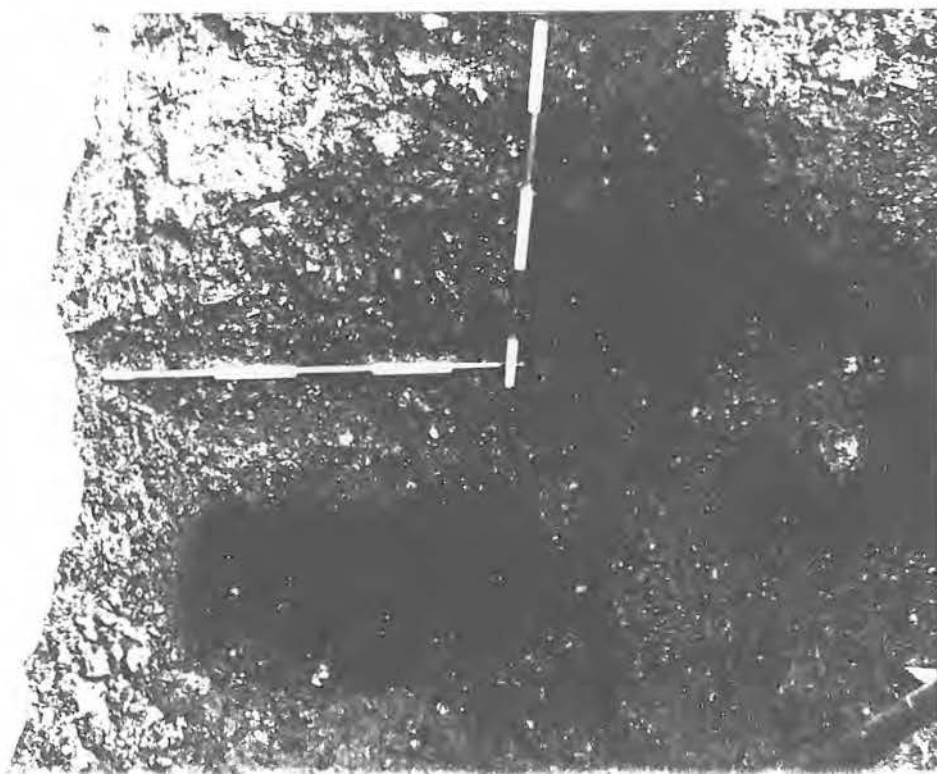


plate 7 Box Section (T2)



(017) which in turn lay on top of a third timber, (018) (plate 8.) The timbers extended over the whole area of the excavation, indicating that they were distinct platforms or layers and not merely isolated timber lengths. Beneath the third timber band the black organic sand (019) continued for a further 0.70m and was more clayey and blue compared to the upper levels of the organic material. Context (019) also yielded several pieces of leather. One metre of orange sand (009) filled the lower level of the trench - the same orange sand as in T1 (plate 9.)

It is apparent that both T1 and T2 contained a substantial organic layer. However, it is striking that the organic content in the T2 layer(s) were much richer, containing many more organic remains. There is no doubt that the predominating waterlogged conditions enabled so much of the organic material to survive.

The maximum depth of T2 was 4m and at its completion it was again photographed and the stratigraphical information was noted in detail.

Trench 3 (T3) :

T3 was located about 15m north of T2. It was machine dug to a depth of 3m but was immediately back filled by Wallace Evans since they regarded the geology as being too unstable to be of any use to the sewage scheme. No archaeological features were seen or recorded during the brief opening of the trench.

Trench 4 (T4) :

Trench 4 was located on the tarmac road of Lower Gate street,

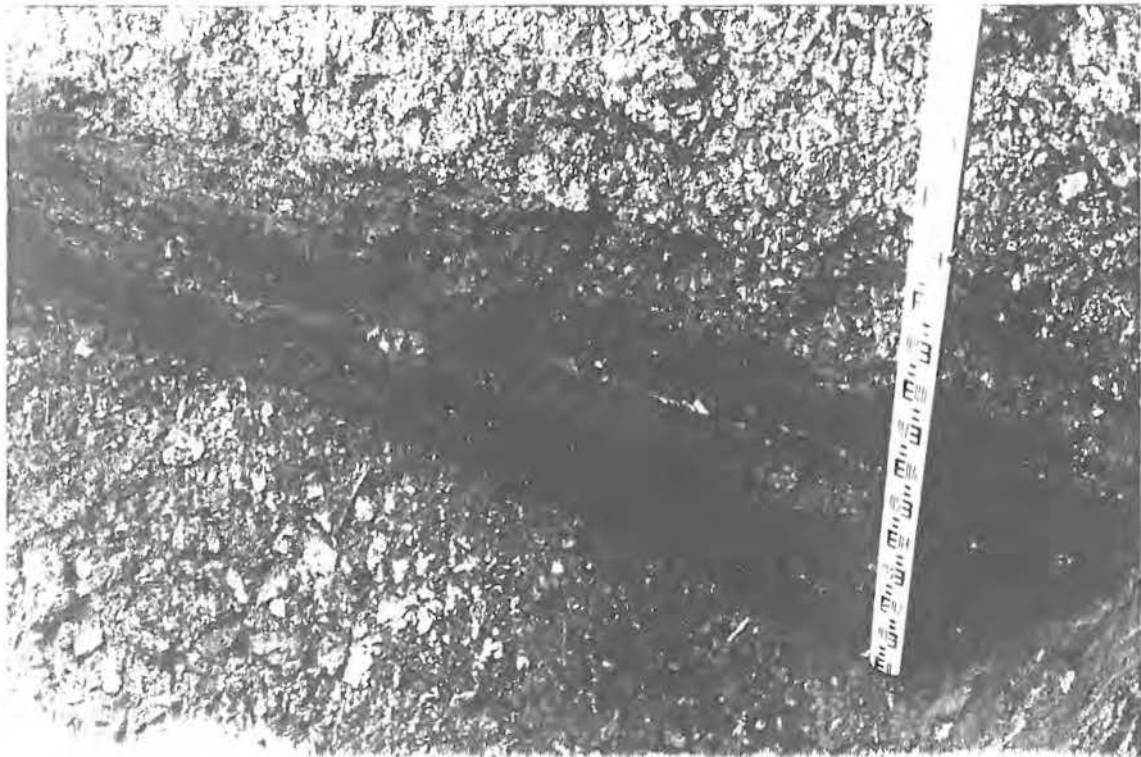


plate 8 Timber Layers (T2)

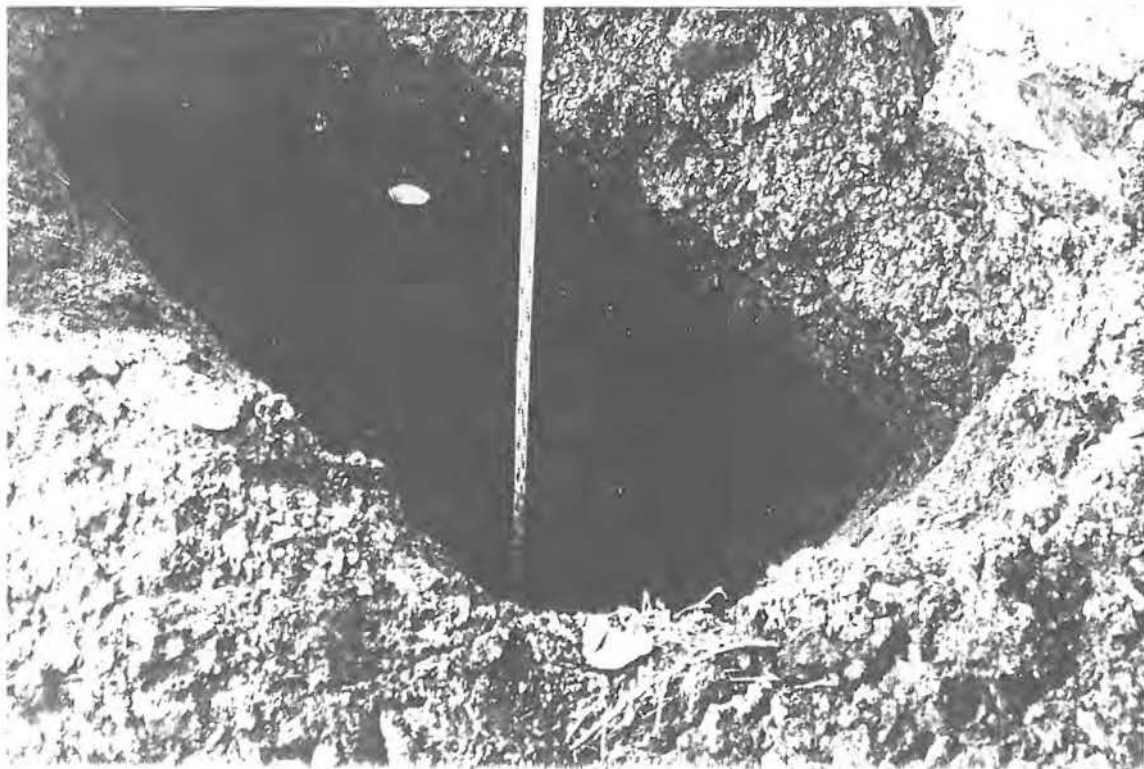


plate 9 Lower Levels of South Section (T2)

underneath the arch of the town wall at the north end of the street. The opened area measured 2.6m by .55m. The tarmac surface of the section was found to be 5.29m O.D.

T4 was entirely hand dug, mainly because a total of six modern service pipes ran north to south across the trench approximately 0.5m beneath surface level. The trench was therefore only dug to a depth of 0 .65m by Wallace Evans. This meant that the stratigraphy did not extend any deeper than the rubble fill/levelling for the modern tarmac. Needless to say, therefore, no archaeological features were detected at this shallow level (plate 10.)

The trench was recorded photographically and a brief south facing section drawing showing the cuts for the pipes was done.

The stratigraphy for T4 was as follows:

The top layer of tarmac (020) had a maximum depth of 0.10m towards the east end of the section. From the section drawing the cut for the pipes can be seen approximately 0.80m from the west edge. Four fills were detected on this west side from the base of the tarmac to the bottom of the trench. The layer immediately below the tarmac was 0.15cm in depth and consisted of grey rubble levelling for the tarmac above (021). Beneath this, a 0.10m band of yellow sand (024) overlaid 0.20m of dark grey/blue clayey gravel (025). Underneath this a layer of yellow silty gravel was identified (026), the bottom of which formed the base of the trench. On the east side of the trench a thin lens (0.06m) lay beneath the tarmac. This lens consisted of pink rubble levelling containing small amounts of mortar specks (022). The remainder of



plate 10 General View from East (T4)

the trench stratigraphy on the east side (and across to the cut on the west side) was a single fill of very dark grey rubble/gravel (023).

Additional Findings :

While carrying out the watching brief at Conwy, a substantial length of timber was found lying at surface level on the beach. The timber was butted up against the south side of the town wall directly where the wall came to an end near the shoreline (plate 11.)

It became apparent that the timber was not merely a plank but was an average 0.25m wide and at least 0.30m deep. The piece measured over 9m long and was set against six round timber posts on the seaward (east) side (plate 12,13,14.)

The object was cleaned, photographed and drawn at a scale of 1:100. Levels were also taken along its length; its southern end being at 2.32m O.D.

plate 11

Quayside Structure

from south



plate 12 Quayside Structure from south



plate 13 Quayside Structure and Timber post

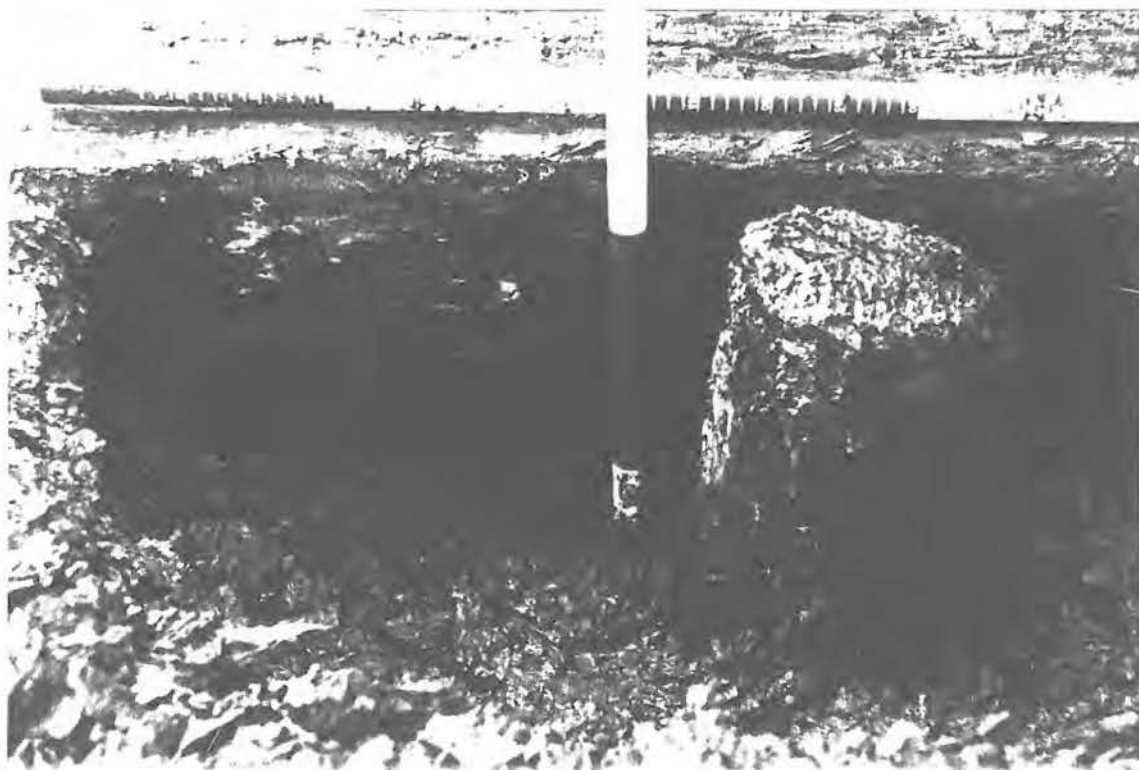
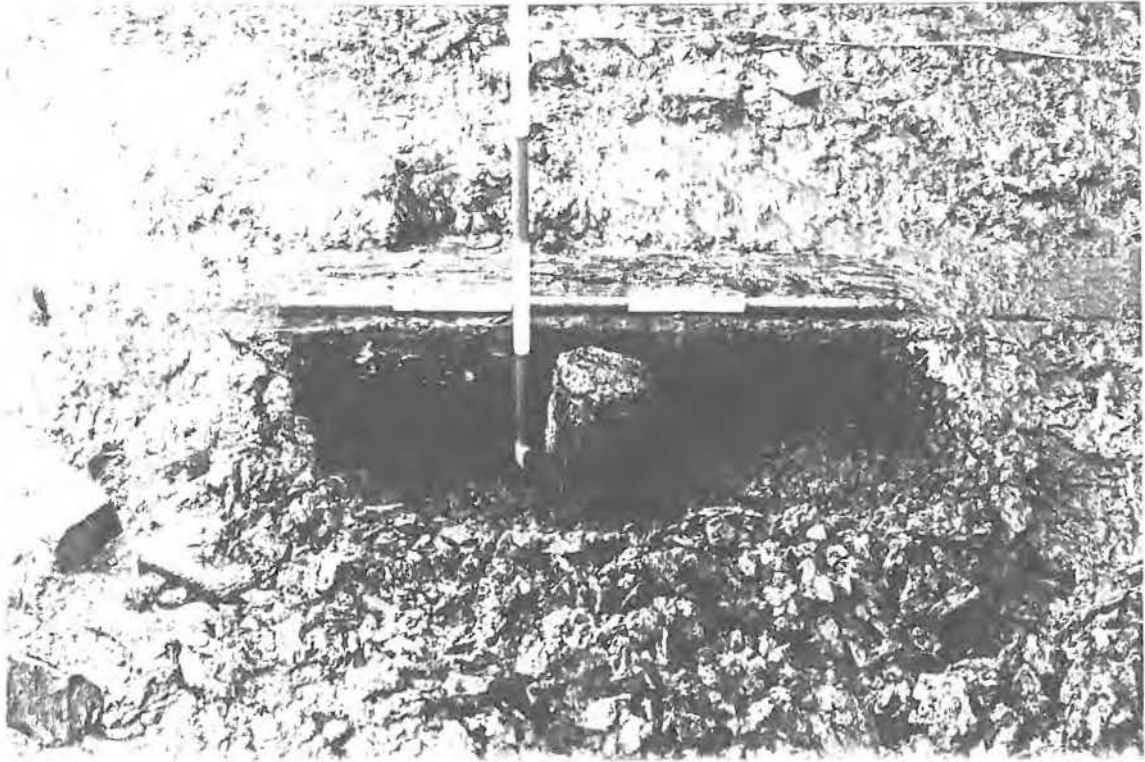


plate 14 Quayside Structure and Timber Post



Conclusions :

Trench 1 :

It was interesting that the surface of the beach coincided with a marked change in masonry style on the town wall. Immediately below the surface the stones were much larger and closely packed compared to the more 'stringed' pattern seen above the surface. One may tentatively suggest therefore, that the level of this particular area of the foreshore has not changed since the construction of the wall.

When the base of the wall in Trench 1 was reached, it was uncertain whether or not the wall was lying on a foundation structure. There was no evidence for timber piles beneath the wall, but a 1 metre deep layer of very loose rubble lying between the wall base and the natural sand may have been the remains of a foundation. It is equally possible however, that the loose rubble merely represents natural weathering of the wall base. If this is so, then it is surprising to note that the orange sand may have formed the foundations to the wall.

Trench 2 :

Very substantial archaeological remains were found in Trench 2. The section profiles strongly suggest that a three-tier timber feature lay within an intensive organic occupation. The precise function of the timber platforms could not be determined but the location of the trench near the shoreline may lead one to tentatively suggest that the timbers may have been connected with an earlier quayside structure.

Trench 3 :

Since Trench 3 was quickly abandoned as a test trench, no archaeological features were revealed.

Trench 4 :

Being located under the town wall archway on Lower Gate street, it was hoped that any earlier road surfaces might have been revealed in Trench 4. However, as Wallace Evans eventually decided not to dig deeper than the fill of the present road surface, no archaeological features were found.

Quayside Structure :

The function of the timber was not immediately apparent, although as in Trench 2, it may have been associated with an earlier shoreline structure.

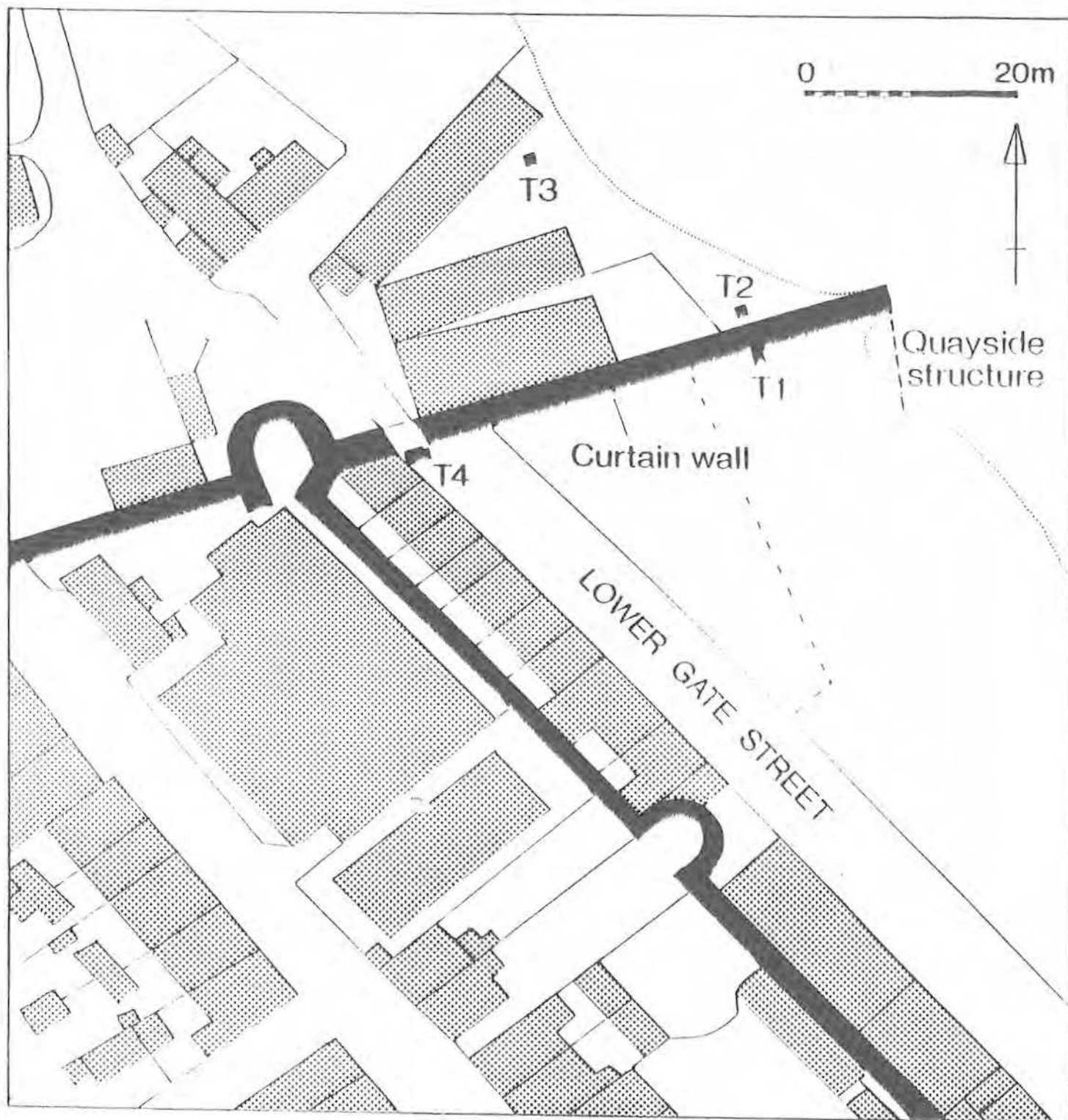


fig. 1 General Location

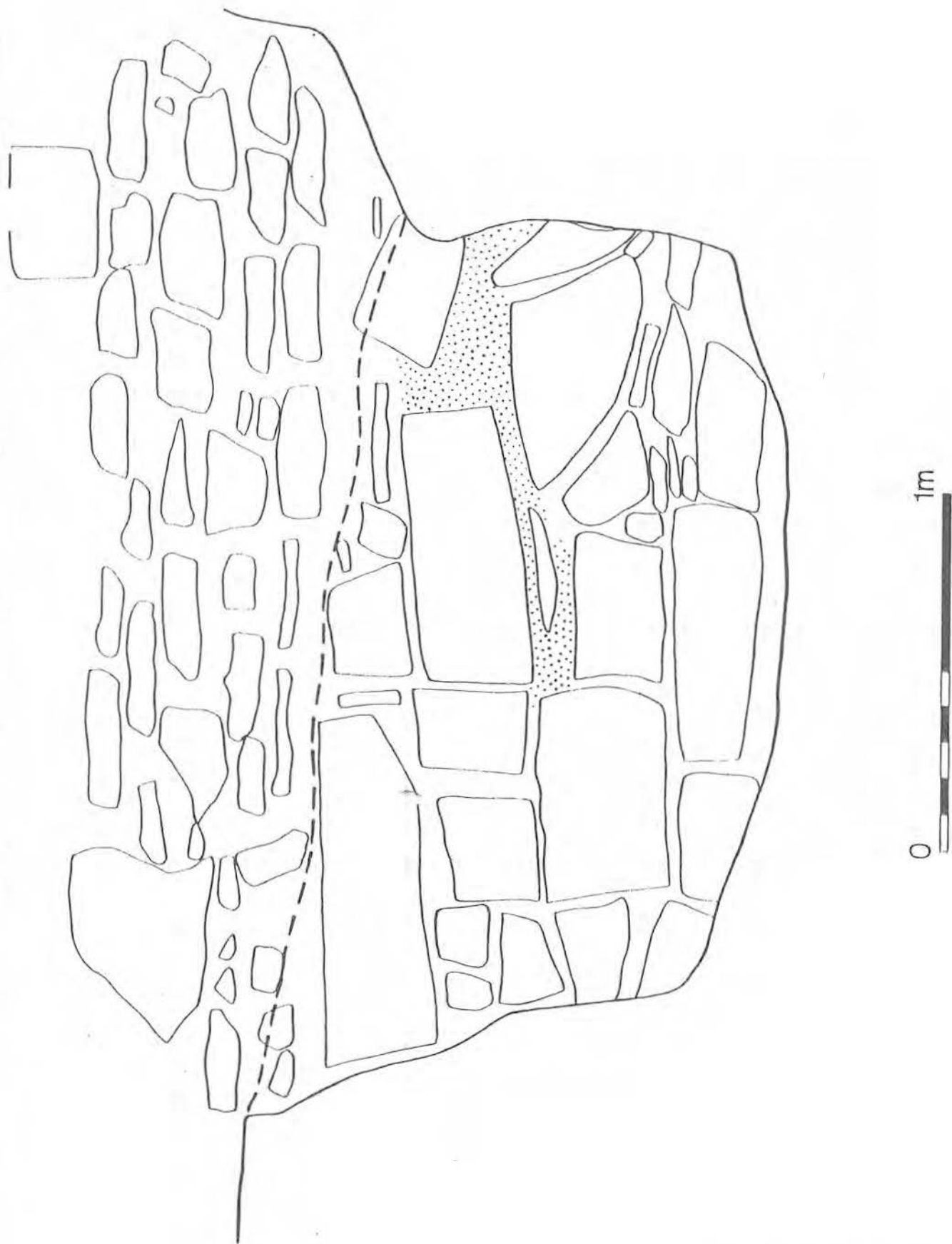


fig. 2 (Trench 1)

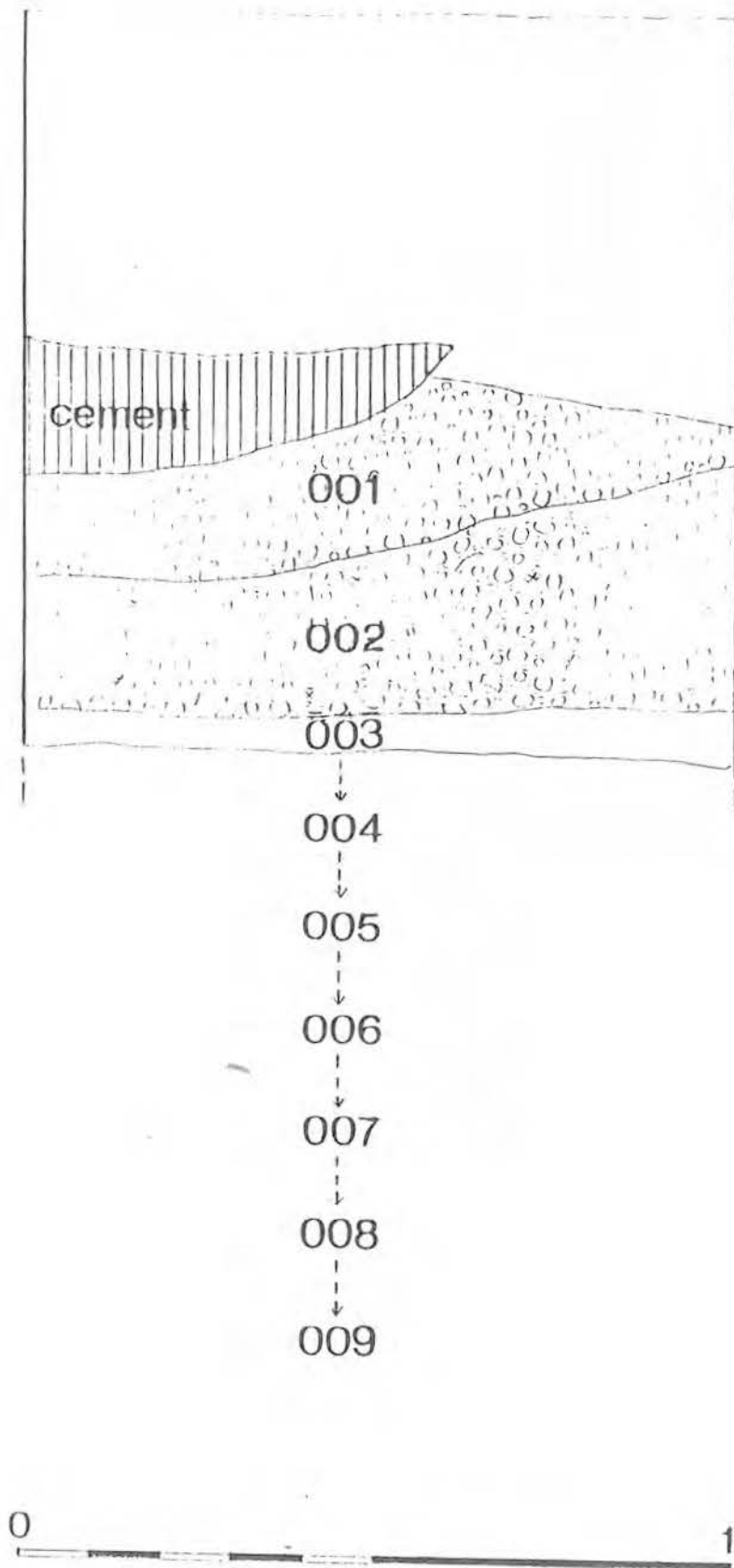
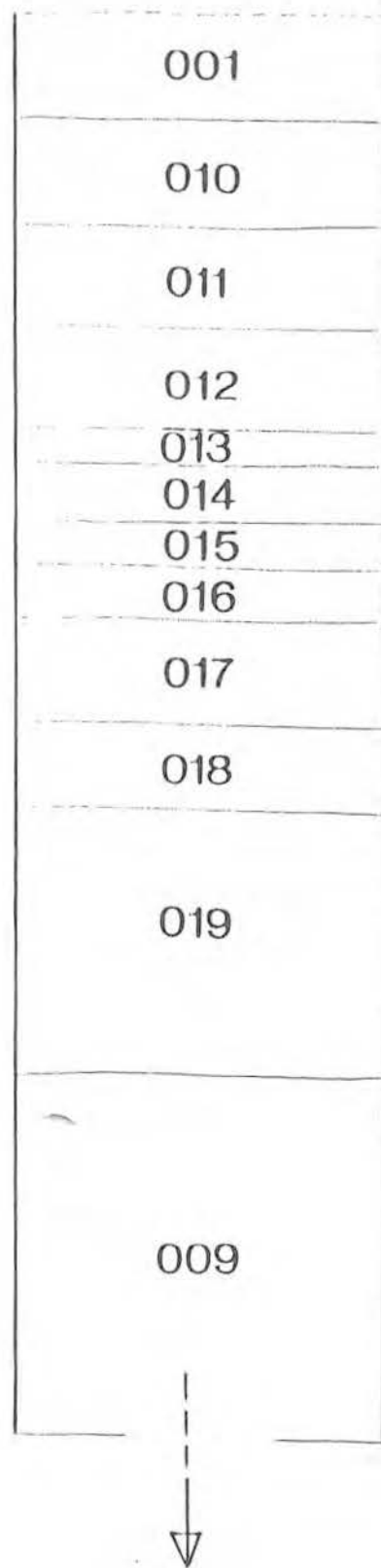


fig. 3 (Trench 1)



0 1m

fig. 4 (Trench 2)

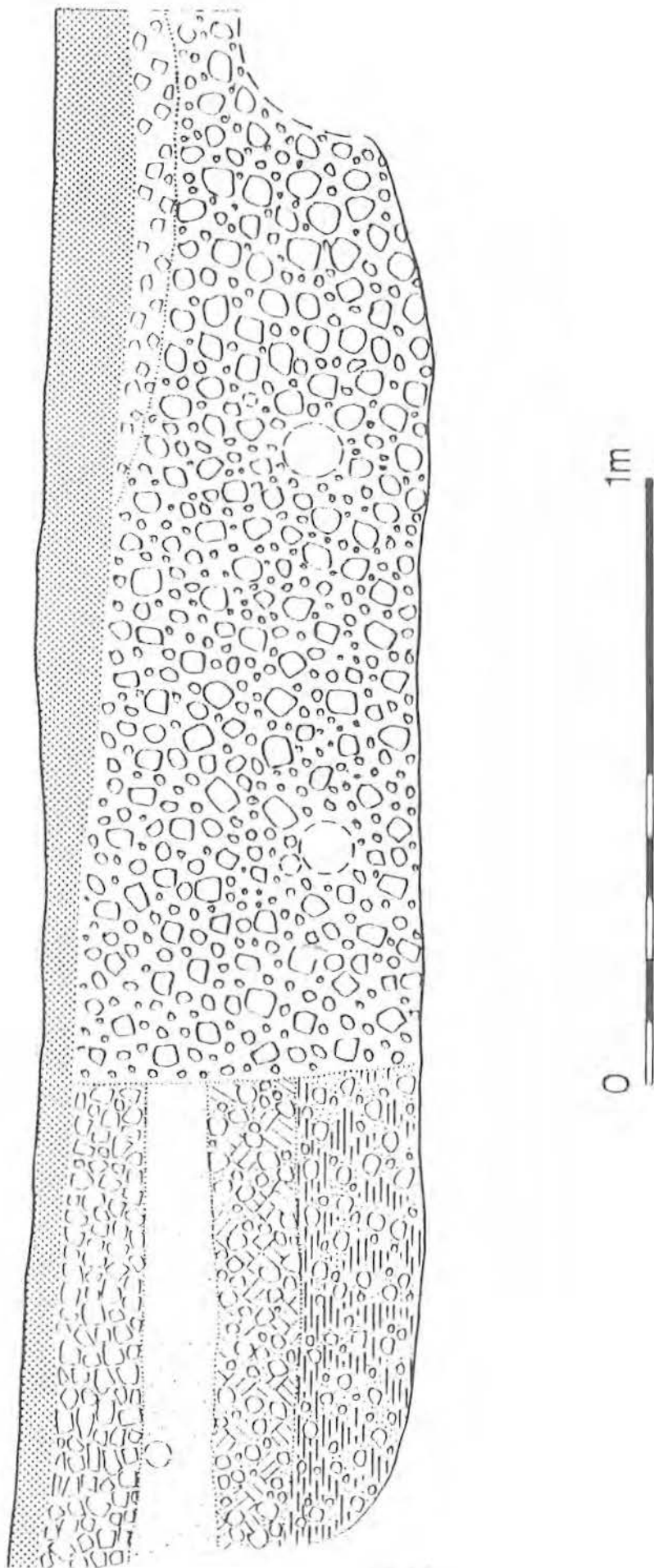


fig. 5 (Trench 4)

