

7. Excavations in the temenos gateway, Area (TG5)

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When Griffith excavated the temples at Kawa in 1929-31, work followed by that of Macadam and Kirwan in the winter of 1935-6, the temenos wall, 4m thick at the base, was briefly investigated and assumed to be of early Kushite date (Kirwan 1955, 208). Only the north-east angle and a small part of the east wall were found. During the topographical survey at Kawa a gateway through the east wall of the temenos was noted 90m south of the north-east angle of the enclosure. Kawa was a contemporary foundation with Sesebi, the plan of the Pharaonic town there being well known from the Egypt Exploration Society's excavations in the 1930s. It was suggested that the temenos wall may actually be on the line of the Pharaonic defences and the plan of a settlement of the same form as at Sesebi fits well into the topography of the site at Kawa with the newly discovered gate being in the same position as one of the Sesebi gates. Excavations of the gate were undertaken to test this hypothesis and ultimately proved it wrong. The area of the gate and the adjacent sections of temenos wall had a complex history with four major periods documented.

Excavations began here in the winter of 2009-10 and were completed during the following season.¹ The area was investigated to a maximum depth below the recent ground surface of 3.86m at which point the work ceased. This was partly the result of health and safety considerations but was partly the result of archaeological considerations. At that depth the area available for excavation was strictly limited and it was not felt appropriate to cut through what appears to be significant archaeological deposits where there would be little possibility of understanding their true significance. It is assumed that in this area there is the possibility of a further several metres of stratigraphy.

Period 1

Not wanting to destroy the extent remains of the temenos gateway this period was only visible in two small areas to the east and west of the gateway (Figure 7.1, Plate 7.1). The contemporaneity of the surface reached in these two trenches 5.5m apart seems certain. The hard silt surface was pierced by a large number of post-holes. In the limited area exposed no plan of any structures was visible. The post-holes fall into two main groups, larger holes ranged in diameter from 90mm to 120mm and smaller stake-holes from 30-70mm. The former were up to 190mm deep, the latter were often very shallow. Some but by no means the majority were natural features, animal or root holes.

¹ In the first season the excavations were supervised by Tanya Bowie and Ross Thomas, in the second season by Ross Thomas. The plans, sections and elevations were drawn in the field by Ross Thomas and prepared for publication by the author with the assistance of Rebecca Bradshaw.



Plate 7.1. Period 1 surface and post-holes to the east of the later gateway looking north – scale bar 2m.

Period 1-2

In the western trench after the deposit of 500mm of sand and fine gravel deposits, some wind-blown, others containing flecks of charcoal, surface (TG5)151 was cut by a pit 220mm in diameter and 120mm deep filled with loose sand. The surface was sealed by a deposit 60-170mm thick with a hard sand surface cut by an irregular pit 650 x 600mm in size but only 120mm deep and another running into the baulk but with an observed depth of 370mm and 400 x 280+mm in plan. Both were filled with sand sealed by another hard sand surface 50-80mm above. After the build-up of further deposits a sandy surface (TG5)115 was formed contemporary with (TG5)116 to the east. In the eastern trench no structural features were noted during the build-up of 1.12m of sandy deposits to the level of (TG5)116 although some did contain bone, pottery and charcoal.

Period 2

Surfaces (TG5)115 and 116 were cut by four large post-holes, three to the east of the later gate and one to the west (Figure 7.2, Table 7.1). Others can certainly be postulated. Those to the east formed a row 6m in length centre to centre parallel to the later temenos wall but were not evenly spaced. Too small an area was excavated to suggest a function for the posts set into these holes. That in the south-

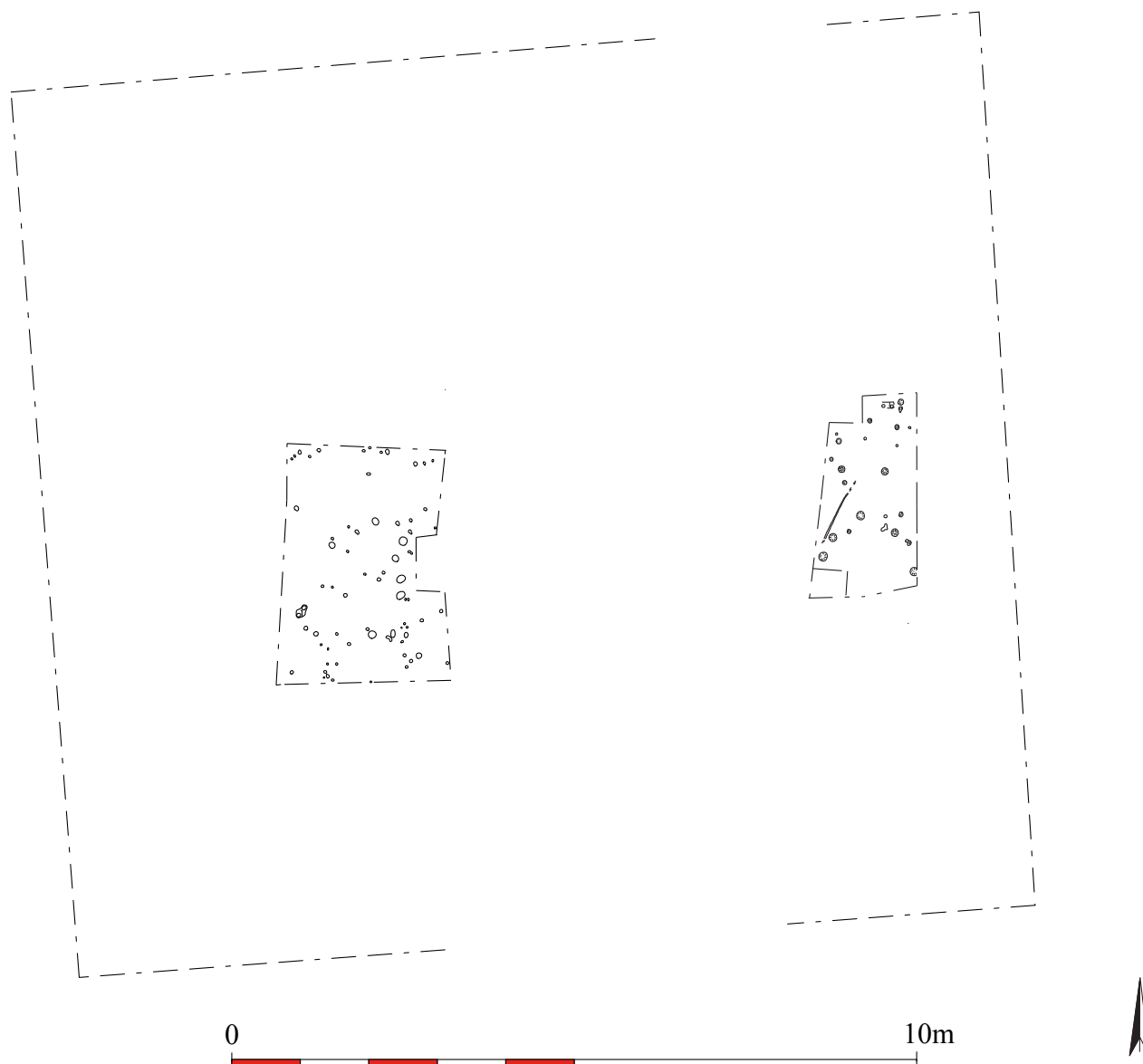


Figure 7.1. Area (TG5). Period 1 (scale 1:100).

western hole appears to have been removed by rocking back and forth suggesting that the timbers were removed rather than decaying *in situ*.

Table 7.1. Dimensions of the Period 2 post-holes.

	Diameter	Depth
(TG5)118	440mm	460mm
(TG5)121	440mm	470mm
(TG5)123	440mm	490mm
(TG5)125	490mm	670mm

Period 3

In the construction phase of Period 3 the timbers were removed from the large post-holes and a vertical sided foundation trench was cut into the surface. Into this was placed towards the centre of the gateway a row of mud bricks only visible on the east side of the gate paving in the sondage. Those right in the centre of the gateway were set

on edge while those to either side were angled in towards the centre forming a slightly convex surface (Plate 7.2).



Plate 7.2. Mud brick and rubble foundation for the stone paving in the Period 3 gateway – scale bar 2m.

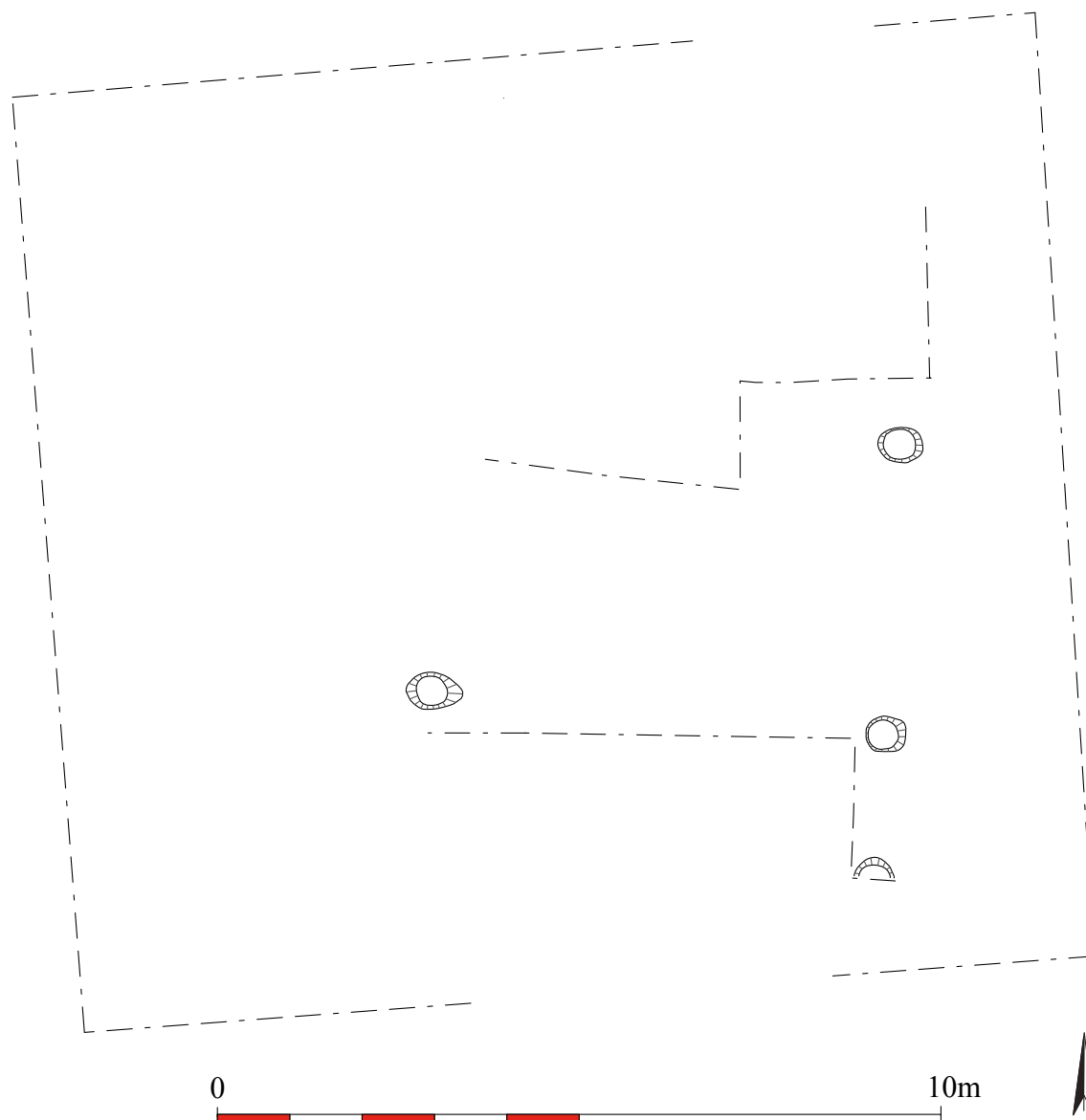


Figure 7.2. Period 2 post-holes (scale 1:100).

The bricks did not appear in the edge of the western sondage so how far under the paving they extended is uncertain. To either side the foundation consisted of a deposit [(TG5)117] 230mm thick, a mixture of stone, mud-brick rubble and sand which abutted the mud bricks and also filled the post-holes. This deposit extended right across the area excavated to the east of the gate and was visible in the edge of excavation; the contemporary similar material to the west was deposit (TG5)114. Laid on the mud-brick and rubble foundation was a stone pavement constructed of large white sandstone slabs with a few of red sandstone (Figure 7.3, Plate 7.3). Those observed in section ranged in thickness from 80-400mm and the largest slab was 882 x 582mm in size. The pavement's east edge was in line with the front of the gate and it is assumed that its rear edge was similarly aligned. Its extent to north and south was unclear as it was directly overlain by the passage



Plate 7.3. Stone paving in the Period 3 gateway – scale bar 2m.

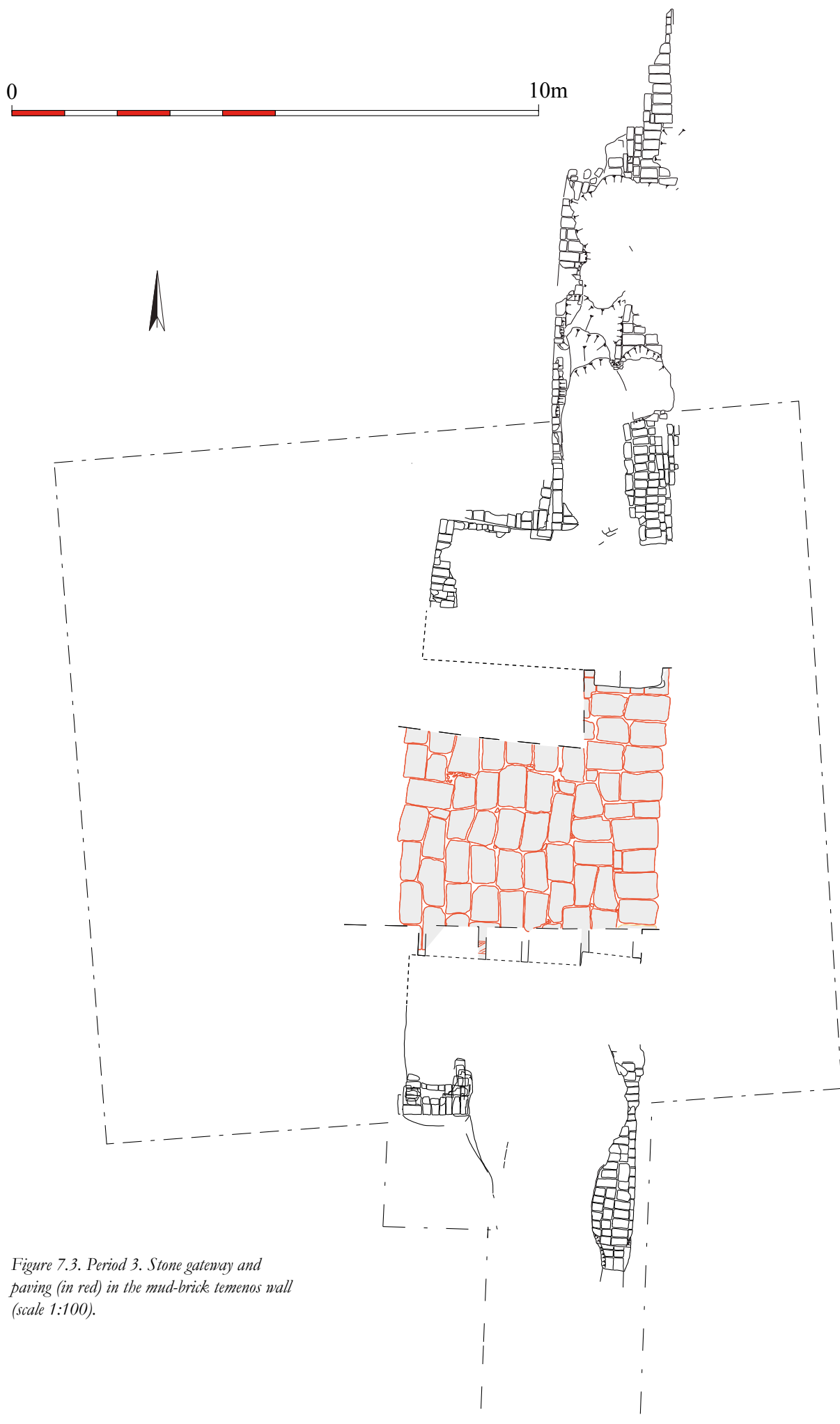


Figure 7.3. Period 3. Stone gateway and paving (in red) in the mud-brick temenos wall (scale 1:100).

walls of the gate which used it as their foundations. Both these walls were only revealed in part as the later walls were largely left *in situ* making total excavation impossible. The south wall was glimpsed in several narrow slots. Of what could be seen of it, it can be confidently assumed to have been similar to the north passageway wall. The eastern end of this was cleared and consisted of four courses of well-dressed white sandstone masonry surviving to a height of approximately 1.6m (Plate 7.4, Figure 7.4). The front face was battered at an angle of about 5°. The jamb measured 1.29m east-west and projected 286mm from the wall line.



Plate 7.4. The north jamb resting on the stone paving in the Period 3 gateway – scale bar 2m.

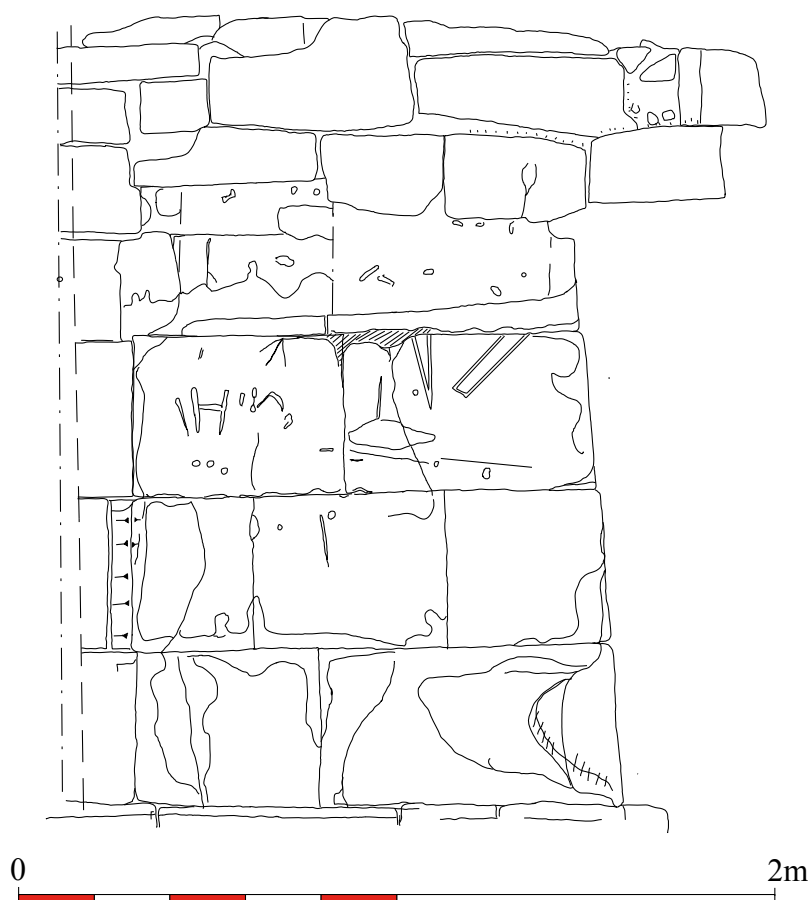


Figure 7.4. Period 3 north gate jamb with the Period 6 revetment above (scale 1:20).

Together with the southern jamb they will have reduced the 5.6m wide passage to 5.07m. No evidence was found for the location of the door pivot nor for any bolt mechanism either in the pavement in the centre of the gate or in the north passage wall. There was no scoring resulting from the closing of gates. The eastern corner of the gate passage was rounded and severely wind-eroded particularly on the lowermost block indicating that it was exposed to aeolian erosion for some considerable time.

The stone passageway walls were a revetment of the mud-brick temenos wall which was inturned at the gate. The north wall was approximately 2.56m thick, the inturned section with the revetment being 2.6m thick. The north face of the inturned section [wall (TG5)45/106] had its lowest two courses on a slightly different alignment than its superstructure and these courses were of headers. The headers were sealed at their east end by four courses laid as headers and stretchers, again projecting beyond the superstructure of the north-south temenos wall. The superstructures of these two walls were thereafter bonded. To the south of the gate the mud bricks were 250 x 180 x 100mm in size. South of the gate the wall had been very extensively robbed. In this area only limited excavation was undertaken which indicated that the wall extended at least 9.8m to the south of the south passageway wall.

Up against the east face of the pavement was a construction deposit 80mm thick, which had formed a hard surface when trampled. It left a small step up onto the pavement which was levelled out by the addition of 100-110mm of pebbles, pot sherds and sand [(TG5)109]. To the west a deposit of mud, pebbles, sherds and firm sand formed the surface contemporary with the pavement.

Period 3-4

How long the pavement remained visible cannot be ascertained. It will have needed to be cleaned on a regular basis otherwise it would have vanished very quickly beneath the wind-blown sand. There is epigraphic evidence for sand removal on a large scale at Kawa and this may have occurred here. However at some point the battle against the accumulation of sand was abandoned and thereafter a series of layers built up over the pavement. The first [(TG5)105] was 100-130mm thick of compact gravel and pot sherds in a sand and silt matrix which covers most of the excavation area and seals the projecting mud brick courses of wall (TG5)45. Of the many layers above some are of wind-blown sand and do not extend across the whole of the excavated area. The surfaces of the deposits tend to be more compact within the passageway of the gate where there was a greater abundance of pottery sherds, small lumps of mud and stones. After a build-up of 860mm above the stone pavement the surface was cut by a single post-hole [(TG5)92] set almost half way along and half way across the

passageway. It was 390mm in diameter and 90mm deep, filled with a loose sand.

To the north of the inturned mud brick wall delimiting the north side of the gate passage was a midden with a mass of pottery and bone with ash lenses. Three separate deposits could be identified [(TG5)91,87,73] over 600mm thick. This midden extended out of the excavations to the north and was presumably associated with some activity in that area rather than with the gateway.

At a level 1.1m above the paving was a sandy surface [(TG5)79] with some admixture of silt and charcoal. Cutting this was a line of six post-holes running obliquely across the gate passageway (Figure 7.5). These attained a maximum depth of 110mm and a diameter of 330mm. Looking at the spacing and dimensions of the holes it appears that initially there were only four posts (another may be hidden at the south end under the unexcavated baulk), the southern three 1.68 and 1.44m apart centre to centre while the gap at the

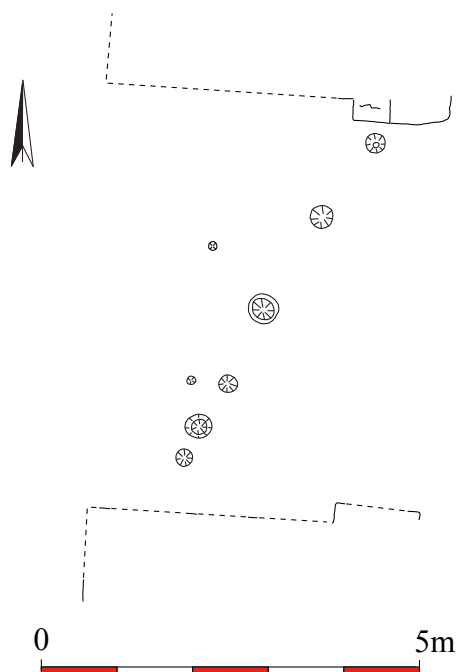


Figure 7.5. Period 3-4, post-holes (scale 1:100).

north end was 1.2m wide. That at the northern end of the line was set very close to the stone face of the passageway and the situation was probably similar at the other end. Two smaller posts were then added in the southern section of the line and two much smaller posts/stakes was set a little behind the line. The largest post-hole (post?) was that in the centre.

The next deposit formed a hard surface with mud-brick rubble and pottery trampled flat. It was sealed by a deposit of sand which sloped down a little to the north and south in the passageway where its surface was levelled up with mud-brick rubble and stoney rubble [(TG5)76,75] on which wall (TG5)3/56 was built.

Period 4

Built over the denuded remains of the period 3 south passageway wall and partly on rubble a new wall was constructed

utilising reused large stone blocks (Figure 7.6). These, surviving to a height of two courses, about 400mm, were laid in a careless fashion in some cases with the bedding planes of the stones set vertically. The lowest course projected between 191mm and 243mm from that above on its north side and also to a lesser extent to east and west. The lowest course of the wall was 4.69m in length, the upper course mainly of headers was a maximum of about 680mm thick except at the north-east angle where it was 1.32m thick. The stone revetment extended 1.48m along the face of the temenos wall to the south of the gate at the level of its first course. There was no projecting jamb against which the gate could close. Traces of white plaster may indicate that the wall was rendered although this may relate to the original use of the stones.

The north passageway wall was also replaced with a wall of similar construction to that to the south but without a projecting lowermost course. This was only visible largely in plan as the Period 6 modifications were not removed during excavation. By the time of its construction the primary wall must have been reduced almost to the ground level and the highest course was in a very poor state, being very friable and heavily eroded. The gate passage was 5.1m wide above the footings and its east end increasing to 5.4m wide to the west.

Broadly contemporary with these activities was a rebuilding of the outer face of the temenos wall to the north of the gateway. A small construction trench 140mm deep was dug to allow the rebuilding of the wall face (TG5)40.

Perhaps at this period the north-western corner of the mud-brick inturned wall was rebuilt at a high level from bricks on average 260 x 140 x 80mm in size with thick mortar beds – up to 60mm – arranged as headers and stretchers [wall (TG5)39]. This was partly set directly on the core of the primary temenos wall but towards the wall edge where it had been eroded the new wall sat on a layer of sand.

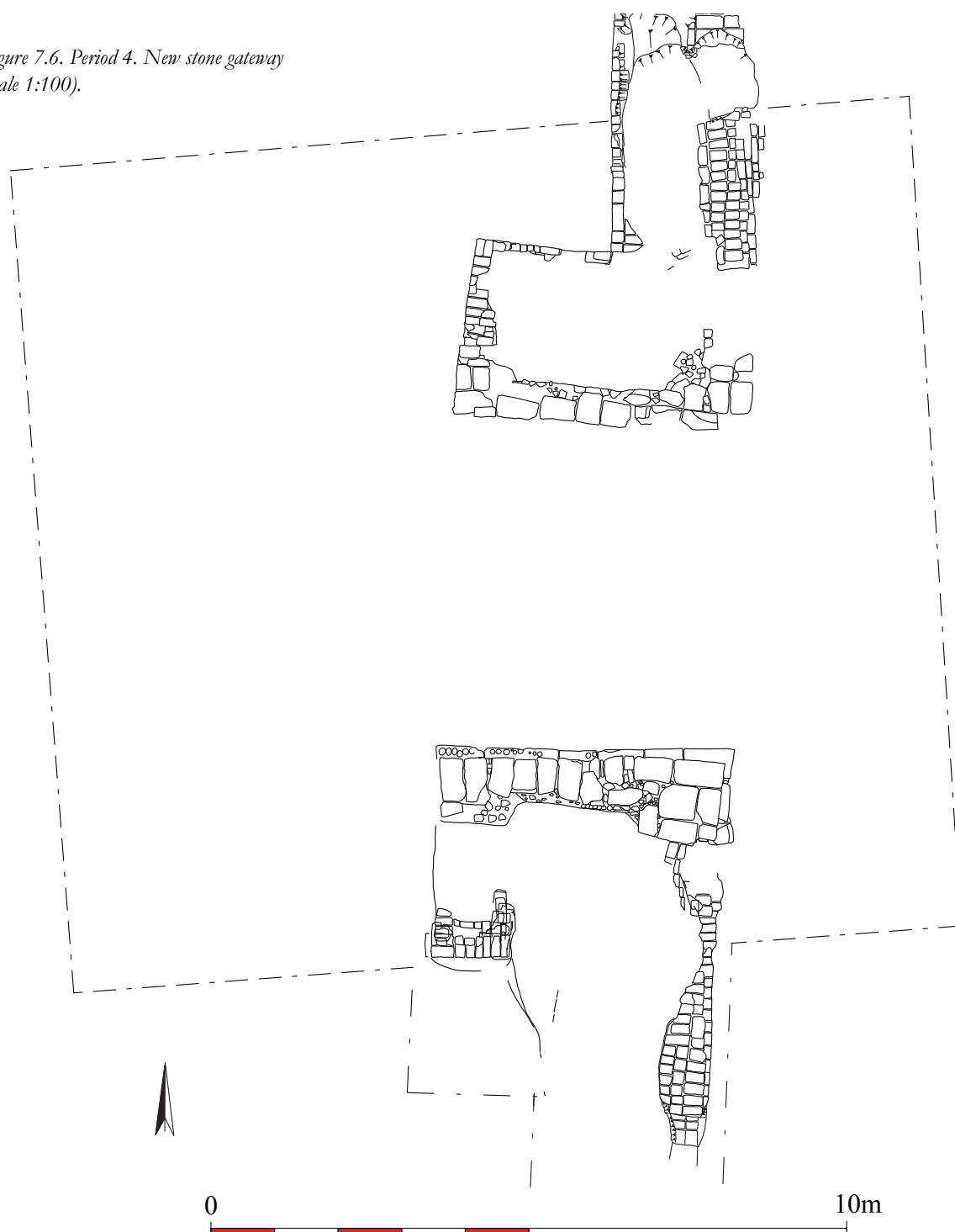
Period 4-5

Abutting the new south wall was a further levelling layer of compact sand with some pottery and bone [(TG5)29]. Cut into the upper surface of the projecting first course of the south wall was a series of circular bowl-shaped depressions (Plate 7.5). At least one of these was cut through by a Period 5 post-hole. They may have been small grinding hollows or part of a game; the depressions are similar to those used in *mancala* although the arrangement with only a single row is very different.

Period 5

This substantial gateway must have been in poor condition when it was rebuilt or strengthened in timber. Massive posts formed the two sides of the gate passage (Plate 7.6) while a central triple post-hole (Plate 7.7) presumably supported the timbers against which the two leaf gate closed at the inner end of the passageway (Figure 7.7). Most of the timbers were set in substantial, but shallow post-holes (for example post-hole (TG5)28 at 300mm in diameter and 190mm deep)

Figure 7.6. Period 4. New stone gateway
(scale 1:100).



apart from the two on the south side of the gate, which were partly cut through the first projecting course of the Period 4 stone facing which presumably was already covered by deposits and thus invisible. The westernmost of these post-holes was extremely deep, at 950mm. The alignment of the gate is a little different from that of its predecessor with a gap of about 1.25m between its north side and the earlier north side of the gate passage. The passageway was approximately 3.5m wide at its east end. To the west the layout is unclear as the arrangement of the post-holes is difficult to interpret.

Period 6

The south wall of the gate passage was extended by approximately 1.77m to the west by a wall faced with large stone blocks and with a mud core (Figure 7.8, Plate 7.8). It abutted against the Period 4 wall and was in line with its north face. The wall was about 1.17m thick and projected west of the inturn of the temenos wall. It survived to a height of two courses, 660mm. This appears to be contemporary with a more extensive refurbishment of the north side of the gateway. Here the Period 3/4 wall was extended to the west by a wall mainly constructed of mud bricks arranged in a mixture of headers and stretchers in each course but



Plate 7.5. Circular, bowl-shaped depressions cut into the stones of the Period 4 gateway's first course – scale bar 500mm.



Plate 7.8. Period 6, reuse of the Period 4 stone gateway and extension of the gate passage at its west end – scale bar 2m.



Plate 7.6. Post-holes of the Period 5 gateway looking east – scale bar 2m.



Plate 7.7. Triple post-holes at the inner end of the Period 5 gateway – scale bar 500mm.

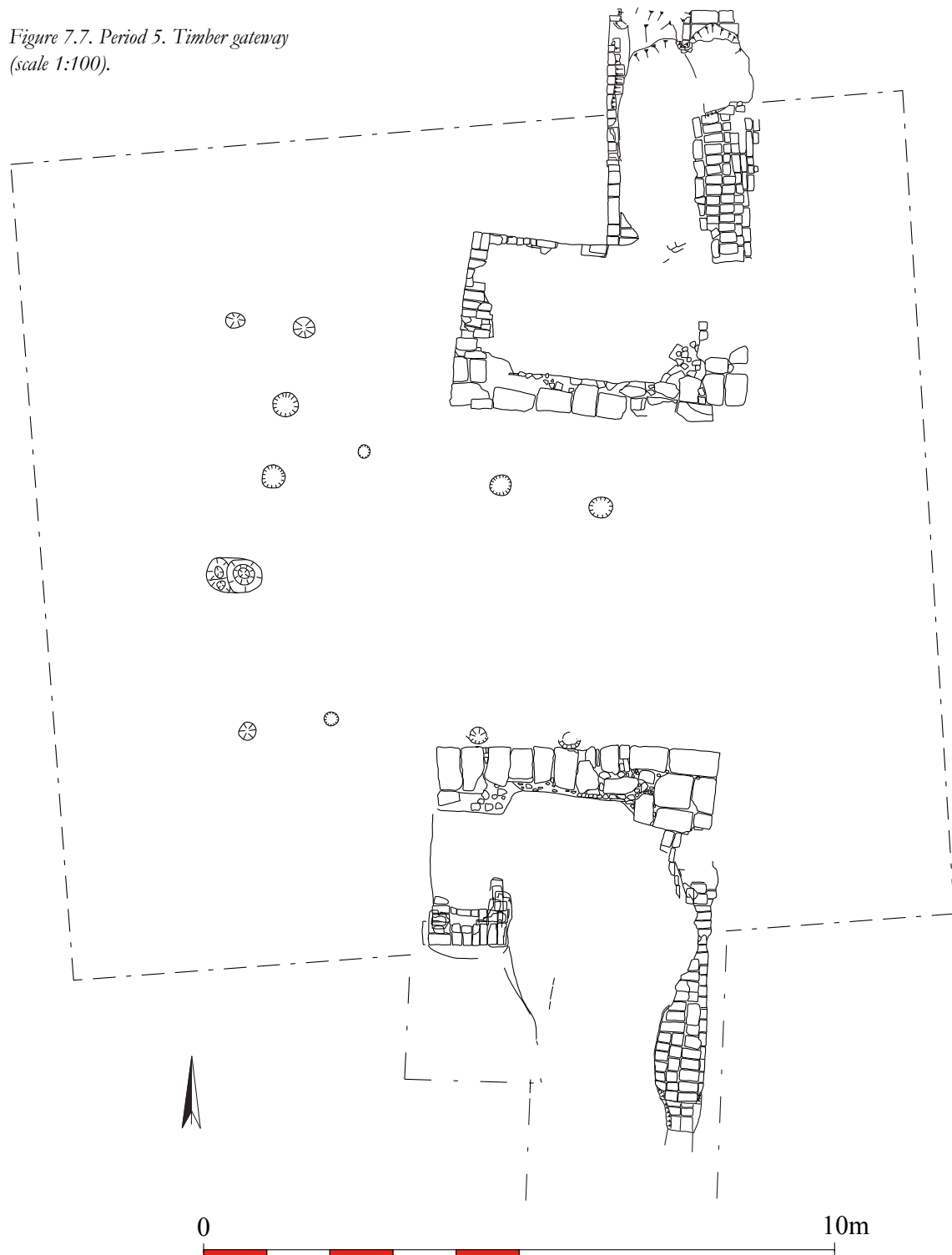
also incorporating some stone blocks. It measured about 1.76m east-west and 1.3-1.59m north-south and survived to a height of 440mm. The brickwork abutted the end of the Period 3/4 stone revetment and also extended part way along its south face thickening the walls by approximately 625mm, the lower courses were of brick fragments. Further east the thickening was of stone blocks, the south face of both sections being battered with the lower course each projecting a little more. The stone thickening also extended around onto the east face of the temenos wall to the north of the gateway for a distance of 3m (Plate 7.9) and including part of a cornice block set upside-down amongst its stones. Here the Period 4 rebuild of the outer face of the temenos wall was hacked into to allow the insertion of the new stone revetment. One of the blocks used in the new revetment

had three of the shallow circular depressions as seen in the southern Period 4 wall. In this period the gate passage was 4.48m wide at its east end increasing in width to 5.32m to the west and was approximately 4.4m long.

The temenos wall

From the gateway to the north-east angle of the temenos the wall is visible, and towards its northern end, as a result of the 1929-1936 excavations it is an upstanding monument. There 17 courses can still be seen all of headers with a number of the bricks in some courses set at an angle (Plate 7.10). By the gate the surface of the wall was cleaned for a distance of 15m to the north of the passageway wall (Plate 7.11). A number of different phases were visible but their

Figure 7.7. Period 5. Timber gateway
(scale 1:100).



exact sequence was unclear. Following on from the Period 4 rebuildings of the wall it was overbuilt, at approximately the present-day ground level by another substantial wall of mud brick. This appears to have been offset from its predecessor to the east, it is founded both on the core of the original wall and on the wind-blown sand immediately to its east. In the area investigated only a single course survived. However in light of its quality of construction and the width of the surviving brickwork there is no reason to doubt that this was a substantial wall which attained a significant elevation. This rebuild may be contemporary with Period 6 as it

appears to continue the line of the wall face of the newly installed stone revetment.

Post-gateway

Against some of the walls were deposits of mud-brick rubble. Cutting into the mud-brick temenos walls to the north and south of the gateway and removing very large parts of the inturned sections of wall were many robber pits dug to a maximum depth of 2.47m into the walling. No dating evidence was found for these - their fills contained many



Plate 7.9. The Period 6, gateway from the exterior – scale bar 2m.



Plate 7.10. The temenos wall by the north-east angle showing construction technique. This was uncovered during the 1929-36 excavations – scale bar 2m.



Plate 7.11. The temenos wall immediately to the north of the gateway looking north – scale bar 2m.

residual Kushite sherds. One of the workmen recalled that in living memory farmers used to cross the Nile to collect *maroq* from Kawa but these activities may have been going on for a considerable period of time. The *maroq* diggers were careful to leave the wall faces in place torevet their pits and keep out the sandy deposits. Thereafter the whole area filled with wind-blown sand up to the surface, the level to which the latest phases of the gate and temenos wall were preserved.

Interpretative summary

Period 1. A hard surface extending over the area of the later gateway with the remains of timber structures of uncertain character.

Period 2. A major timber structure built with large deeply-set posts. This probably does not long predate the stone gateway and the placing of the posts suggests the possibility that they formed a timber gateway with a passageway approximately 4m wide and 6m long flanked on its east face by a row of timbers spaced at intervals of c. 2m. These may have formed the face of a timber or composite wall/rampart.

Period 3. Construction of a massive stone gateway and mud-brick wall. The stone pavement with an elaborate foundation was built first and then the stone revetment of the gate passage was set directly upon it. The stone pavement although showing little wear was in use for a long period during which the north jamb was severely wind eroded.

Period 3-4. During the steady build-up of material within the gate, much of it probably dumped there to form a firm road surface access was restricted by a timber fence running obliquely across the gate. If gates had ever been provided the gradual raising of the level in the passageway will have made their maintenance in use very difficult.

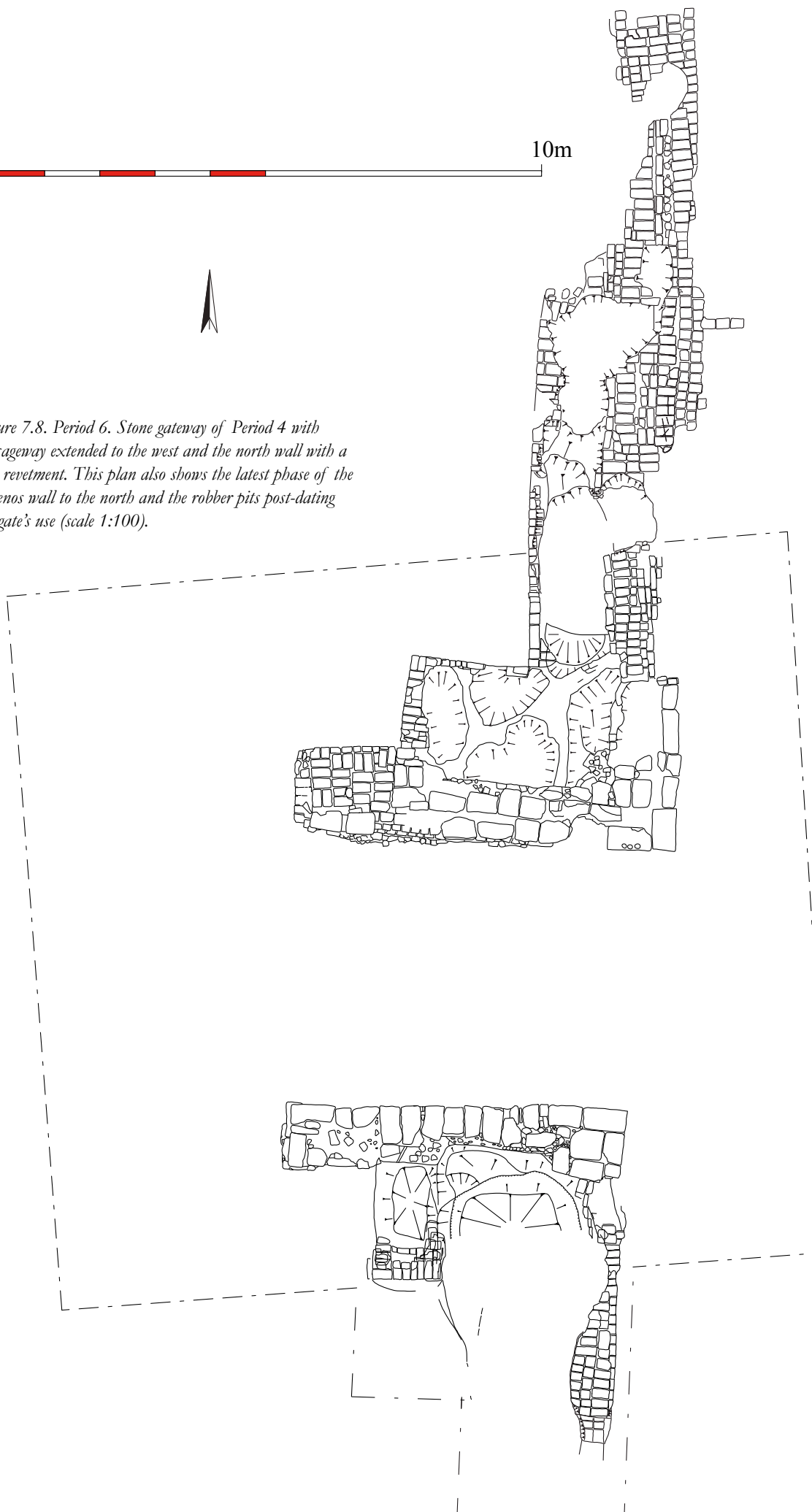
Period 4. After the upper parts of the gateway walls had been removed and the uppermost course had suffered extensively from wind erosion a new stone-revetted gateway was built, the stones resting partly on the fill within the passageway. This was built of reused material.

Period 5. The gateway was strengthened by substantial timbers after at least the first course had been covered by deposits.

0 10m



Figure 7.8. Period 6. Stone gateway of Period 4 with passageway extended to the west and the north wall with a new revetment. This plan also shows the latest phase of the temenos wall to the north and the robber pits post-dating the gate's use (scale 1:100).



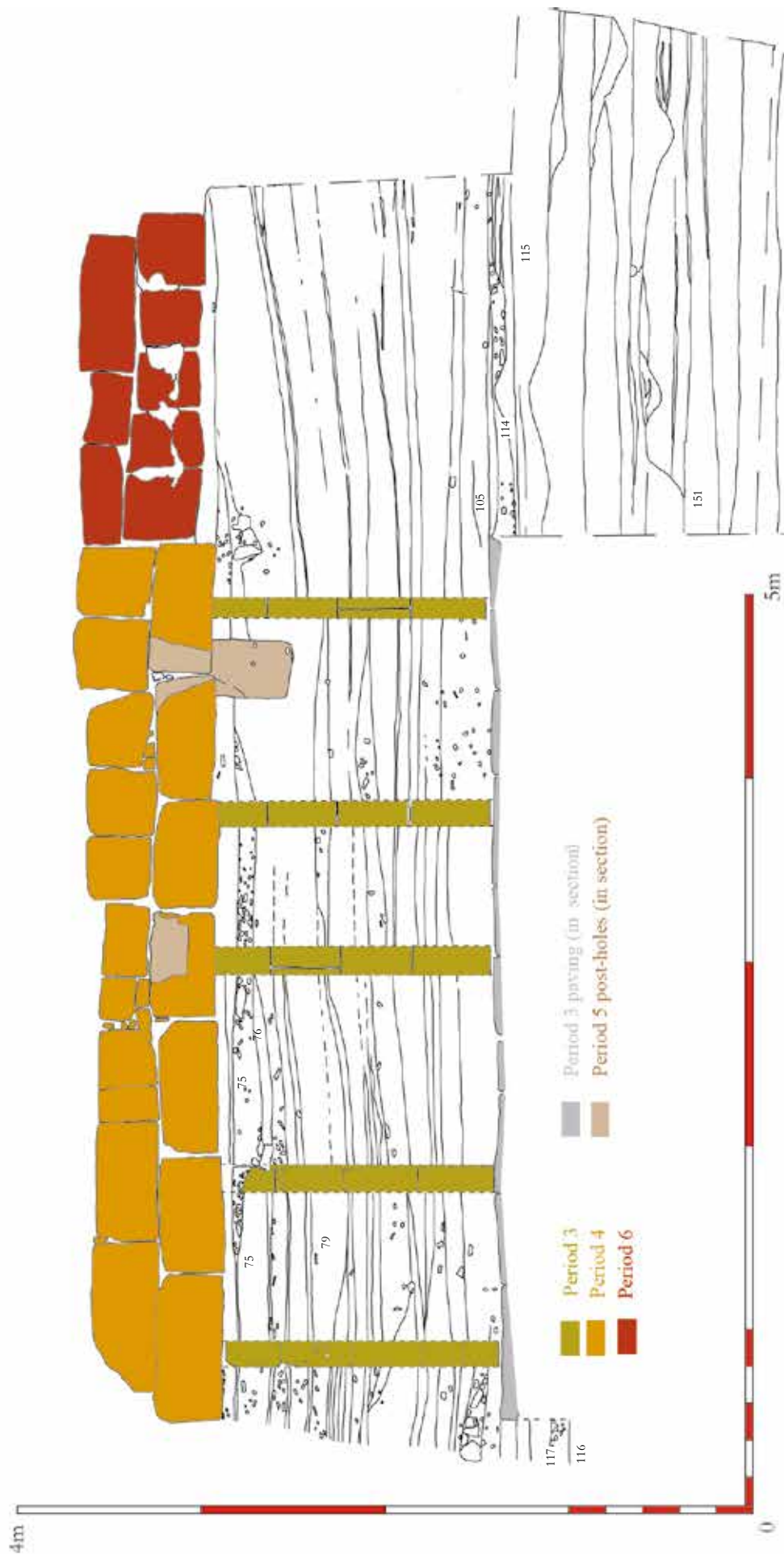


Figure 7.9. North-facing section through the gateway with elevations of the Period 3, 4 and 6 passageway walls.

Period 6. Re-use of the Period 4 gateway and extension of the gate passage to the west. The north face of the passage was revetted in mud brick and stone, some of it reused and this was carried around onto the exterior face of the temenos wall immediately north of the gate. The temenos wall was rebuilt to the north and offset a little to the east where it rested on wind-blown sand.

Post-gateway. The mud-brick core of the temenos wall was extensively quarried while all upstanding remains were eroded down to the contemporary ground surface by the wind.