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UR EXCAVATIONS

VOLUME VI

THE BUILDINGS OF THE THIRD DYNASTY

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CHAPTER X

THE CITY WALL: GENERAL DESCRIPTION

The contour map of the site of Ur makes quite clear the general disposition of the city. The town proper is represented by a compact cluster of mounds the outer edges of which correspond fairly closely to the line of its walls. The river Euphrates ran against the SW side; a canal, marked today by a deep depression, practically encircled it on the NE. Beyond this, scattered mounds represent suburban quarters which had been continuously inhabited and had therefore risen on the ruins of successive buildings to a more or less considerable height; but the whole of the flat land also seems to have been built over more or less densely at one time or another. We have excavated house ruins lying on the far side of the old bed of the Euphrates, seven hundred metres west of the Ziggurat; and seventeen hundred metres east of the Ziggurat, beyond the modern railway, the low ground of Diqdiqqeh was found to contain the remains not only of houses but of an important royal building of the Larsa period.

The total area covered by the town was therefore very large, but the nucleus of all this was the old city lying between the river and the canal. This was the walled city. In outline it is an irregular oval of which the longer axis lies almost exactly north by south, twelve hundred metres long by about eight hundred metres wide; in the northern half of it lies the Temenos enclosure, and the rest of the area was crowded with smaller temples, business premises, and private dwellings. Within the walls the ground level was very irregular, the highest mounds rising fourteen metres above the plain, the lowest patches as much as six or eight metres. This could only mean that while the first primitive settlements probably occupied natural hillocks separated by low ground at plain level, yet by the time that the village developed into a walled town, certainly by the time when Ur-Nammu fortified his capital, the whole space within the walls was a high platform dominating its surroundings. In part the rise in level was natural, the result of the decay of buildings and the construction of others over their ruins; in part it was due to artificial terracing, of which we find abundant proof. But there was no attempt at uniformity: each important building occupied its own terrace; in the case of the private houses we find their foundations stepped up and down the slopes of the old ruins⁹³ and each individual house-plot was levelled independently of its neighbours.

Before any excavation was attempted therefore the general line of the walls was beyond doubt. In various places we had found burnt bricks of Ur-Nammu, large bricks 0.37 m. square x 0.10 m. thick, (also some 0.345 m. square x 0.09 m. thick) which according to the inscription stamped upon them⁹⁴ were specially moulded for the construction of the city wall. The defences,⁹⁵ overthrown by the Elamites, were necessarily repaired by the kings of Isin and Larsa; Gungunum claims to have restored the great city gate⁹⁶ and Libit-Ishtar 'renewed the place of Ur'⁹⁷, by which phrase he probably intends the wall of the city; Warad-Sin undertook a fresh reconstruction, apparently in the tenth year of his reign⁹⁸. But as to the character of a Sumerian city wall nothing at all was known, and no expedition had so far ventured on the heavy task of clearing the circuit of the defences of any of the ancient sites. At Ur this task seemed to be imposed upon us, but at the same time it was necessary to obtain the desired results without the cost that would have been entailed by the excavation of a wall whose length is about three kilometres; the only practicable course was to make sections of it at frequent intervals and to attempt proper excavation only where that was shewn to be of use. The most promising part of the walls was on the NE, where the mound stood to a height of ten metres above the plain; here the top of the wall was cleared for a considerable distance (from Square GG 29 to Square MM 38) and then, farther to the south, where the line was constantly cut by torrent-channels, cross-cuts only were made, though the outer face was followed consistently for the reach between Squares MM 60 and II 65. The next considerable excavation was in the West Harbour, whose moles were cleared, and after a section which was proved by cross-trenches alone, a further long stretch, between Squares J 32 and S 23, was followed with only one small break; the outlines of the North Harbour were traced by cross-trenches with tolerable accuracy. The details of this work are given in Chapter XI; the results may be summarised here.

They were, on the whole, disappointing, for the defences were much more ruined than surface appearances had led us to hope; no gates could be found, and of the great ramparts built by Ur-Nammu and his successors in that burnt brick which gave to them the likeness of 'a yellow mountain' not a vestige remained; at the same time, there was disclosed a work whose magnitude could not but excite admiration and we could get a clear idea of what were

the defences of Ur at least in the time of its decadence.

Where so little is left, it would be impossible to preserve chronological distinctions to the extent of reserving for treatment in separate volumes of our series the ruins of different dates, from which a picture of the wall has to be built up. In the detailed notes, therefore, all the remains found in each trench or excavation are described impartially, and here the description will not be confined to the Third Dynasty defences.

Ur-Nammu's wall consisted of two elements, a massive rampart of mud brick which was the retaining wall of the city platform and the revetment of the banks of river and canal, and running along the top of this the burnt-brick battlement or wall proper.

To many people the fact that the rampart, whose foot was washed by water, was of mud brick only may suggest a shoddy building. The truth is very different. We are accustomed enough to earthworks as defences, and to earth embankments to contain rivers of flood waters, and no one would object that such are inadequate to their purpose. The rampart of Ur was of the same character, but instead of being formed of piled earth it was laboriously built with mud bricks set in mud mortar (Pl. 39a), a much more solid and lasting material. The light sandy soil of Sumer is ill adapted to earthworks and the high-piled banks of the Euphrates need constant attention in floodtime; this colossal wall of mud brick endured almost as long as Ur. The front of it sloped steeply, after the fashion of an earthwork; the back also was sloped; the height, where it is best preserved, is eight metres, and its top is broad and flat; the width across its base varied from about seventeen to twenty-nine metres. Occasionally, e.g., in Squares KK-NN 36-39, this width is greatly exceeded and solid mud brick can be traced back for over fifty metres; here there was on the rampart some particularly massive building, and one can legitimately suspect the presence of a gate, although of its superstructure nothing whatever remains. In Squares LL-MM 34-35, a square fortress-like building of Kassite date lies outside the main line of the rampart and also may have been connected with a gateway. Occasionally too (Squares OO 46-49), there projects down the slope of the rampart's face a building of burnt brick, the interior of which was filled in solidly, at least to a certain height; these I should conjecture to be sally ports. Similarly there are places, as against the north face of the Enki temple in Square MM 54, where a lane comes right up onto the top of the rampart and, so far as can be seen, there was no wall blocking the end of it; these openings in the lines of defence may have been paths leading to ferries which plied the canal. But for the most part there ran along the flat top of the mud-brick rampart, in the Larsa period probably and in the Kassite period certainly, a row of houses and temples whose blank outer walls joined and made a continuous battlement. On the western or river side of the town the house remains are very scanty and the possibility of many buildings having disappeared and left no trace of themselves must not be overlooked; but it can scarcely be a coincidence that in almost every case where burnt-brick walls were found they lay some 10.00-16.00 m. back from the weathered edge of the slope; it would seem that a wide manoeuvring ground was left in front of the battlement. On the east side of the town the interval between the edge of the rampart and the buildings on it was much smaller; perhaps the principles of defence required on this side were different.

The majority of the houses excavated on the wall line were of Kassite date, but they shewed signs of constant repair and rebuilding, and under most of them were found Larsa burials, implying that their foundation went back to the Larsa period. In some of the ruins there were found numbers of clay sling-bolts, and it is natural to conclude that householders along the wall were obliged to keep stores of ammunition against the event of an attack; probably the manning of the walls also was the duty of those resident on their line. In the house wall foundations of the Larsa period there are more bricks bearing royal stamps than are usually to be found in private buildings; the bricks are re-used or, if new, have nothing to do with the structures in which they occur, but are surplus material left on the contractor's hands after the completion of the public work for which they were moulded. Such re-used bricks may be found anywhere, but here their number does suggest the possibility that the conditions attaching the houses on the wall were peculiar, e.g., that the building of them was entrusted to government contractors. It is on the face of it unlikely that buildings, even private houses, which formed an essential part of the city's defences, should be left entirely to private initiative, or that the top of the royal rampart should be unconditionally at the disposal of anyone who chose to build there; there must have been some supervision at least, and it is more probable that the government built the houses and leased them to persons who would be responsible for the wall's defence.⁹⁹

The large but completely ruined building in Square JJ 34 was really a royal building, the work of Kuri-Galzu. All that remains of it is a long passage divided by buttresses — perhaps gateways — into at least three chambers which have no side entrances to the NW, where there is a wall about 8.00 m. thick, and only one on the SE leading into a large chamber whose outlines have been obliterated by the foundations of a Neo-Babylonian structure in mud brick; like the Kassite fort below (Squares LL 34-NN35), whose precise authorship is doubtful, this may have been connected with the main eastern gate of the city. The other royal buildings, the temples of Enki (Squares MM 34-35) and Nin-Ezen (Square U 60) have no military importance except insofar as they, like the private houses, stand on the rampart and help to make up the line of the battlements.

In one place (Square NN 39) there seems to have been, as early as the Larsa period, damage done to the face

of the rampart which called for serious repairs, and in front of the mud brickwork of the Third Dynasty we find a revetment part of which was in burnt bricks. The burnt-brick construction was local, and on the north gave place to mud brick, but was found again in Square MM 42 and had perhaps been continuous between the two points. But here there are buildings projecting beyond the main line and stepped down the rampart, so that the revetment may envisage a peculiar need; if the building rose directly from the edge of the rampart, a burnt-brick foundation would indeed be necessary and would of course be carried down the slope. In the Neo-Babylonian period more extensive repairs were needed and a heavy revetment in mud brick is found in various places, *e.g.*, in Square NN 39, outside the Larsa addition, and in Squares JJ-MM 60-63 (see Pl. 40b) as well as in the West Harbour; it was a wall about 4.40 m. thick, built of the large mud bricks characteristic of the late period, and at the back of it there were rectangular projections to key it in to the rubbish which separated it from the face of the original Third Dynasty rampart. To the same period belong foundations in Squares LL 38-39 which seem to be those of a great tower whose lower part was of solid brickwork; the ruins already mentioned in Squares JJ-KK 35; and others, certainly connected with the defences, in Squares FF 27-GG 28, scanty though the Neo-Babylonian remains are, they are sufficiently spaced out along the wall line to shew that a great deal of work was done in that period. Buildings on the wall were more exposed than most to the effects of weather and it is not surprising that mud-brick buildings should have been completely denuded away; when therefore we find revetments and buildings of considerable size constructed with bricks whose measurements shew them to be later than the Assyrian period¹⁰⁰, it is natural to associate the repairs to the town wall with the construction of a new wall for the Temenos, and to assign both to the same ruler, Nebuchadnezzar. The theory would further explain why the site of the Nin-Ezen temple was at this time shifted farther inland; the old temple on the rampart was in utter disrepair and Nebuchadnezzar, instead of rebuilding it on the same site, put up a new temple on its northern limits; by so doing he would have been enabled to carry his new fortifications in an unbroken line instead of having them interrupted by the temple.¹⁰¹

Not the least interesting feature of the defences is that they enclose two harbours, one on the east side of the city, opening out of the river Euphrates, and one at its northern end. The existence of these was fairly obvious before excavation began (see the contour plan) but it was not easy, even by excavation, to establish their details. The western harbour was enclosed by a mole which was really a continuation of the normal rampart except for the fact that the southern mole, for the short distance for which it ran across the dry river bank, was built as a wall with vertical faces instead of sloped; as soon as it reached the water's edge the sloped embankment started again. The entrance to the basin was 9.00 m. wide, lying towards the southern end of the harbour front; beyond it the north mole, strengthened by a late revetment, ran on in a straight line to join the angle of the rampart beyond the harbour's limit. The basin itself was more or less rectangular and measured about 105.00 m. in either direction. The buildings seem to have stood well back from the water's edge (at least, we found no traces of buildings close to the water) and from where they started the ground sloped up steeply, the houses being stepped into the sides of the mounds formed of the ruins of the older town; the ground between the houses and the basin seems to have been flat (except on the north side, where the existing remains shew a slope), and on top of the abutment of the southern mole we found remains of burnt-brick paving which suggest that the quays may all have been paved. Superficial cuts gave us the line of the basin's edge as a weathered slope of mud; but a deep excavation (in Square S 47) at the back of the harbour shewed a sloped but properly built lining of mud brick which rested on a projecting foundation of burnt brickwork, and quantities of loose burnt bricks lying in front of this and evidently fallen from it suggested that the mud brickwork had originally been faced with burnt brick perhaps for its entire height. At a late period the mouth of the harbour was closed by a wall of mud brick joining the ends of the moles; the basin, already badly silted up, became dry and was in time filled with drift sand, but this occurred too late for any buildings to be erected on the harbour site.

The northern harbour was larger, irregular in shape, and different in construction. Instead of a mud-brick rampart, the mole was a real bank of mud artificially constructed and, judging by appearances, the mud of which the bank was built was obtained by excavation or by dredging from the harbour basin. It is quite possible that originally there was here a wide expanse of low-lying sodden ground forming the apex of the island which was the city; certainly the mounds on the southwest slope down very abruptly to this low patch, and those on the southeast though less steep are still pronounced (see the contour plan, Pl. 60), but to the north the nine-metre and lower contours disregard the inlet of the harbour site and there is even a slight rise of level corresponding to its mouth; all this seems to indicate a low and level area but not an actual bay opening from the river and with its bottom below water level. In any case the basin must have been largely artificial.

From the high mound which forms the northern point of the residential quarter (Square R 25), the straight line of the built rampart was continued by a mud bank with gently shelving sides which were reinforced by a thick coating of mud into which were inserted fragments of pottery, a method still used in Iraq. A breach in the bank formed the harbour entrance, and the bank was carried on and then twice turned at an angle so as to take the shape of a truncated triangle and return to hit the high mound along which ran the northeast section of the town wall.

From the first angle however there was a branch of the bank running apparently northwest for a distance of some 50.00 m., apparently an outer work of the harbour which we did not follow further; outside the line again, in Square AA 18, there was an independent bank, similarly constructed with mud and reinforced with potsherds, on which had been a (late) building in mud brick. There was no sign of building on the moles themselves. The fact does not constitute evidence, for it is fairly certain that none could have survived. The top of the bank was, before excavation, perfectly clear, a line of grey mud covered with fragments of pottery running across the level sand and absolutely flush with it; it had been denuded by wind action to that general level, and the great quantity of pottery on it was the result of that denudation which had pulverised and removed the mud but left the heavy sherds *in situ*. The banks had been higher, and if the tops of them have gone, then *a fortiori* any buildings on them would have gone also. A glance at the ground-plan will make it obvious that there were buildings and that the town wall was continued round the harbour basin; nobody would have been at pains to build the whole wall and then have left this huge breach at its northern end; the mud bank, some 30.00 m. wide, is amply wide enough to act as base for the wall proper, and one must imagine the harbour enclosed by fortifications similar to those of the rest of the town's circuit.

On the land side the limits of the basin were not easy to fix. Near the east corner a perfectly good bank ran underneath the Neo-Babylonian palace building, this proving that by the time of Nabonidus the harbour had either shrunk considerably or dried up altogether. On the southeast (in Squares V-X 26) its approximate line was traced, but only a mud slope was found, from which the ground ran steeply uphill to the foundations of (late) buildings in Squares S 26, U 27-V 28. Judging by the contours, there would seem to have been a canal running from the back of the North Harbour (about Square Y 27) in a straight line to Square EE 42 where it turned to pass southeast of the Neo-Babylonian Temenos, again in a straight line, and to issue through the town wall in Square S 58; here the rampart was found to turn inwards so that its sloped face on the south looked northwest; a cut made in the wadi to the north of this produced only drift sand and light rubbish down to a depth of 3.50 m. The canal was not otherwise tested, but its course is marked by a deep valley passing between high mounds, and although the detritus from those has silted up some of its bed to a height of two metres, that seems to be the natural result of the weathering of the ruins, and it is difficult to account for the long and regular depression by any theory other than that of a canal running through the heart of the city. The sharp angle of the bank in the east corner of the North Harbour may well mark the entrance of the canal.

CHAPTER XI

THE CITY WALL: DETAILED DESCRIPTION

Squares GG 29 – JJ 33

The long high mound here was entirely occupied by private house ruins of Larsa and Kassite date, built closely together so that their outer NE walls formed a continuous line which was, at those dates, the real wall of the city. All traces of Third Dynasty burnt brickwork had disappeared, but underlying the houses there was the core of the mud-brick rampart of Ur-Nammu. Since the sloped front of that rampart had twice been revetted with later mud brick, it was possible to strip away these accretions and expose the original face, the lower part of which was tolerably well preserved (Pl. 38b). The rampart was of mud brick, built up against the side of the mound of the old town, which had been cut back to a vertical face to accommodate the building; the front sloped at an angle of, approximately, forty-five degrees (0.52 m. in 1.00 m.); it measured 15.00 m. wide at the base and was standing to a height of 8.40 m., but had been considerably cut or weathered down, and its original height must have been about 10.00 m. In Squares II 32 – JJ 33 the houses came to an end against a solid structure with a back wall of burnt brick (Larsa date) having very deep foundations, (they went down 3.10 m. below the neighbouring house foundations) which formed a SW projection inside the line of the rampart (Pl. 38b). Since behind the burnt brick there was mud-brick packing indistinguishable from that of the rampart, it would seem that the projection was original and that some sort of official building connected with the defences stood here in the Third Dynasty period. From this point the mound fell away (in Square KK 33), and apart from some Late Babylonian interior walls nothing was found until we came to the Kassite fort.

Square MM 34

A cut against the NE face of the fort shewed that it was built on the edge of the canal wall, and the foundations of its NE wall could not be distinguished from the substance of the latter. The rampart was of the normal grey mud brick whose sloped face, although badly weathered, could easily be recognised because there lay over it a rubbish stratum of bright red (burnt) brick-earth mixed with fragments of broken bricks. The face of the wall had a batter of 1.50 m. horizontal in 2.00 m. vertical (but allowance should be made for the weathering of the upper part), and there was then a flat terrace about 2.00 m. wide, below which the face ran down with an (apparently) gentler slope of 2.00 m. horizontal in 1.60 m. vertical; the soil against this lower face was lumpy and cracked like the dry mud of a river-bank, and at the bottom there was clearly stratified mud sediment; this therefore was the edge of the canal bed.

Square MM 36

The revetment wall of the canal shewed a broken face with a batter of approximately 2.50 m. horizontal in 3.20 m. vertical, but this was partly due to weathering, and the foot, where the true surface was preserved, gave a slope of 65 in 100. The soil against the face was mostly brick rubbish and broken pottery, but below this was a dry water-laid mud. Along the top of the mud brick, 3.00 m. above water level as given by the mud deposit, there ran a line of burnt bricks (0.29 m. x 0.175 m., together with some 0.33 m. square) giving a present wall width of 0.70 m., but as the back does not make a true face, the wall may have been much thicker or may have had a backing of mud brick. It would seem to be the footing of a parapet wall at low level.

Squares MM 36-37

Set back from the revetment wall was a solid mud-brick wall which had been faced with burnt brick (only two or three courses remained and there was mud brick above, but not coming quite to the front). It is only an isolated fragment, breached at the SE end, and at the NW end broken away by a brick-lined well which has been made from a higher and later level; but it aligns with and is certainly a continuation of the wall farther to the SE (in Squares MM 37 – NN 39), and it is almost certainly a continuation of the re-entrant wall in Squares LL 35-36, though the return which joined them has disappeared (Pl. 39a).

In front of the wall is a burnt-brick pavement which slopes down at a violent angle to the NW and NE; it seems to be later than the wall. The pavement is 2.50 m. wide. Beyond it and 1.25 m. higher up in the soil there were two

Neo-Babylonian walls of mud bricks 0.32 m. sq. running NW x SE, parallel and 5.50 m. apart, the inner wall 1.40 m. thick and the outer 1.00 m. thick; they enclosed a long trough-like kiln, brick-lined, 0.70 m. wide, which had been roofed with a vault whose springers start at 0.55 m. above floor level. The channel was full of ashes of light wood and the soil around was reddened by heat, but the bricks were not at all vitrified, so that the heat would not have been excessive. There was nothing to shew for what the kiln was used, but the fact of its being here can only mean that in the Neo-Babylonian period the defences were in disrepair, or lay further back. Dug into the kiln ruins were many coffins of the Persian period.

Square KK 37

There were here ruins of a small house apparently of the Larsa period (there were actually two periods represented by different floor levels and patching of the walls, but they need not involve any long lapse of time). The building was unimportant in itself; the floors roughly paved with burnt brick, the walls built with three or four courses of burnt brick and mud brick above. Its interest lay in the fact that it was built against the back of the rampart and therefore gave its dimensions. The floor of the NE chamber was stepped up against the footings of the rampart, 0.50 m. above the general level; its NE wall was the mud-brick rampart the face of which was masked by a single course of bricks; and its SE wall, where there was a salient from the line of the rampart, had a face of burnt brick three courses thick backed against the Third Dynasty mud brick. At this point, therefore, the rampart had a thickness of 55.00 m. from the back line of the salient to the burnt-brick wall and of 71.00 m. to the outer edge of the mud-brick revetment. Behind the house the rampart rose another 1.10 m., and on the top of it were remains of poor quality burnt-brick construction, probably house remains. Two Persian coffins lying flush with the modern surface, and a ring-drain in the NE room of the house also rising to modern ground level shewed that there had been much denudation.

Square LL 38

Here again the back of the rampart was found. The mud-brick core of the rampart was traced back from its front in Square NN 38 and found to be continuous; the mud bricks are reddish-grey in colour, 0.27 m. x 0.15-0.16 m. x 0.075-0.08 m., so that we have to do with a Larsa reconstruction. The back of the rampart was faced with burnt bricks, 0.27-0.29 m. x 0.17-0.19 m. x 0.09 m., of typical Larsa appearance, and was battered and buttressed; the buttress had a projection of 0.65 m.; its foundations started three courses above those of the wall proper; after five courses it was stepped back 0.20 m., and after four more courses burnt brick gave place to mud brick. NW of the buttress the burnt-brick face (four courses high and two bricks thick) was found to rest on mud brick which, with a much weathered face, sloped out for a distance of 1.40 m. and to a depth of 1.80 m.; it was impossible to say whether it had originally had a vertical or a battered face.

By the 7th century B.C. the wall was ruined to its present level and was buried beneath sloping strata of ashes, potsherds, and broken brick. On the mound so formed there was then built a massive tower of mud bricks (0.32 m. x 0.16 m. x 0.11 m.) which overlapped the old work on the city side. What was found was only the SW end of the solid foundations; the original measurements NE x SW could not be fixed.¹⁰² SE of the 'tower' the Larsa mud-brick rampart could be traced for a short distance, but its back face was hopelessly weathered and was soon lost.

Squares MM 37 – NN 39

In the SE half of Square MM 37 the outer face of the rampart was again found. It is obviously the continuation of the section described above (Squares MM 36-37) and has in front of it remains of the same sloped pavement; but there seems to have been a salient or buttress between the two sections, now destroyed. The existing buttress at the NW end had a projection of 0.85 m.; from it the wall footings are stepped down to the SE, shewing an original slope of the ground surface. The burnt bricks of the wall face are mostly 0.34 m. x 0.08 m. (a Kassite measurement) with some of 0.29 m. x 0.19 m. x 0.08 m. and one 0.52 m. square x 0.08 m. — these probably re-used. Pavement bricks are mixed, 0.36 m. square, 0.34 m. square, and 0.25 m. x 0.15 m. A second buttress is composed of two parts; the NW half was of mud brick with a burnt-brick face, 1.50 m. wide, abutting on one of solid burnt brickwork 1.20 m. wide; the NE face was much destroyed. The wall face then ran straight and in Square MM 38 was set back, and there ran out from it what seemed to be a wall rather than a buttress; after a breach exposing the mud-brick core, the burnt brick face shewed another buttress and then, in Square LL 38, a straight stretch, the wall built of two types of brick, 0.36-0.37 m. sq. x 0.085 m. and 0.29 m. x 0.19 m. x 0.08 m. with a single example of 0.34 m. square x 0.10 m., set in bitumen. Then came a very definite wall, 1.45 m. thick, running out to the NE for 4.10 m., after which it returned NW to enclose a chamber with a high-lying brick pavement of which the greater part was destroyed; beyond the chamber the main wall was of the same two types of bricks, but mud mortar was used instead of bitumen. This ended abruptly after 2.80 m. and mud brick took the place of burnt brick; flush with the face of the mud-brick wall was a vertical drain-shaft built of burnt bricks 0.29 m. x 0.19 m. x 0.08 m. set in bitumen,

(Square NN 39). From the foot of the shaft a channel of burnt bricks (0.29 m. x 0.19 m. and 0.26 m. x 0.17 m.) set in mud mortar slopes down to the NE, and parallel with it on the SE is a wall of similar mixed bricks (Pl. 39b). Like the main wall, these projections rested on the mud-brick mass of the lower rampart. Where the drain-channel ended, there were the remains of a burnt-brick revetment shewing two buttresses and a straight stretch with twelve courses of bricks 0.25-.26 m. x 0.17 m. x 0.075 m. which, to the NW, was replaced by mud brick. In front of this was a second revetment or *kisu* of mud bricks 0.33 m. square x 0.10 m., keyed into the rubbish against the face of the first revetment by projecting slabs of rough limestone and by rectangular keys of brickwork in which burnt as well as crude bricks were used; the outer face of the second *kisu*, which was probably of burnt bricks, had been completely destroyed. The Third Dynasty mud brick seems to stop short at the inner revetment.

Square NN 40

Here, on the line of the inner revetment in Square NN 39 was found the much-weathered sloped face of the mud-brick rampart; it was traced to a depth of 2.00 m.; a trench cut back from it shewed continuous mud brick for a distance of 34.00 m.

Square MM 42

A short length of burnt-brick facing to the mud-brick rampart, bricks 0.25-.26 m. x 0.17 m. x 0.09 m., the front battered. It was broken away on the SE where there had been a salient of which only the mud-brick core remained. Behind the salient was a small room in the wall thickness with a mud floor strewn with ashes 0.80 m. below the top level of the existing rampart; its back wall (SW) is battered and built against the higher mud brick, so that at this point the rampart was stepped down to the SE and NE. The SE wall of the room is an addition, not bonded to the NE and SW walls; beyond it to the SE there is another step-down of 0.80 m. in the mud-brick mass which runs at this level to the wall of the next building.

Squares MM 42-43

A small building on the mud rampart, its floors 1.60 m. below the top level as given in Square MM 42; the building occupies a little wadi, a breach in the general wall line, which must reflect original conditions. Its SE wall (with eight courses of burnt brick and mud brick above) acts as a retaining wall for the next stretch of mud brickwork whose present top is 2.00 m. above the house floors. The NE wall of the house has perished, but remains of the burnt-brick pavement give its position. The bricks in the SE wall measure 0.29 m. x 0.19 m. x 0.085 m., those in the NW wall (twelve courses) 0.26-.27 m. x 0.175 m. x 0.08 m.; those in the interior walls are mixed, although the walls are bonded. It looks as if the house lay at the side of a street cutting through the ramparts and giving access to the canal. Below the floor were a vaulted brick tomb and several other burials.

Square MM 43

A wall of burnt brick running NE x SW with strongly battered face holds up the higher mud-brick mass to the SE of it: the cross-walls between this and the wall of the house last described seem to have been added to block what may have been a lane, and there is solid filling between them. The NE facing of the rampart is also strongly battered, in burnt brick; it breaks away where there was a salient of which part remains, (it is picked up again in Square NN 44); the salient was solid mud brick of the grey colour of the revetment added to the canal front in Square OO 44.

Square OO 44

At 3.50 m. beyond the front of this salient was found the edge of the original canal wall, much weathered; to the face of it had been added a *kisu* or revetment 4.00 m. thick of grey mud bricks 0.32 m. square x 0.10 m., with rectangular projections at the back to key it into the rubbish; the face was steeply sloped, giving a height of 2.00 m. in 0.50 m. horizontal; at 2.00 m. below its top, the soil in front of it was dry cracked mud deposited by water action. Along the edge of this revetment had been built a solid structure in mud bricks 0.35 m. square x 0.10 m. Both revetment and superstructure must be Neo-Babylonian. To the SE of it, in Square NN 44, was a low wall of mud bricks 0.26 m. x 0.165 m. x 0.08 m., of a warm drab colour, which must belong to the old parapet wall.

Squares OO 46-47

There was here a definite salient coming right out to the edge of the canal bank. The building was of burnt brick resting on the mud brick of the rampart, but lay low, being cut down into it (Pl. 40a); digging in front of the rampart produced water-laid mud 2.00 m. below the level on which the building stood. Walls were of burnt bricks 0.25 m. x 0.16 m. x 0.08 m. and were 0.85 m. thick, unusually thick for house walls; pavements were of bricks 0.23 m. x 0.15 m.; immediately behind the SW wall the mud-brick core of the rampart stood 0.70 m. higher than

the interior floors and from this ran back solid, rising steadily for another 2.30 m.; the mud brick stood high against the NW and SE walls also, and the building was definitely cut back into the rampart. It consisted of a series of small rooms facing on the water front, shewing no resemblance to the normal house plan; the side walls seem to have been prolonged to the water front so as to enclose a paved court onto which the rooms opened.

Squares MM 48, 50

Here the line was broken by a wadi cut deep into the soil; on either side of it, on the higher ground, there were scanty house remains which continued to give an approximate line for the back of the rampart, but no trace of its frontage could be found.

Square NN 51

There were a few house remains of which one room was cut back into the back slope of the mud-brick rampart, the solid mass of which could be traced eastwards for its full width, but gave no true outer face. It was much disturbed by intrusive larnax burials of Neo-Babylonian and Persian date. Close to the surface there ran over it at a transverse angle the foundations (four courses) of a Neo-Babylonian wall of mud bricks 0.32 m. square, with wide mortar joints.

Square MM 53

A patch of burnt brickwork of Larsa type in approximate alinement with the SE wall of the Rim-Sin temple of En-ki gave the main frontage; in front of it was the slope of the lower part of the mud-brick revetment running down to the canal.

Square MM 54

At the back of the rampart was the corner of a small building which was separated by a narrow lane from Rim-Sin's En-ki temple. Against the NW corner of the temple, there ran across the street the stump of an older wall which was buried when the temple was in use, although it lay much higher in the soil than the temple foundations; therefore the lane ran uphill from the water; the house foundations also, resting on made soil, lie high, shewing a rise of ground level from the line of the existing wadi. The SE wall of the temple is shallow, resting on the mud-brick mass of the rampart, and the NE and SW walls have their foundations stepped down inland. To the SE of the temple the weathered glacis of the old rampart was traced to the water line.

Squares MM 56, LL 57

The house wall continuing that of the temple was of burnt bricks 0.27 m. x 0.19 m., together with a few of 0.29 m. x 0.20 m. x 0.085 m., and rested directly on the mud brick of the rampart. Where it broke away there was in front of it, 2.40 m. distant, a heavy wall of mud bricks 0.24 m. x 0.15 m. x 0.09 m. (a Third Dynasty measurement) running at a slight angle; its outer face had been weathered away, and digging in front of it produced solid mud brick sloping downwards, but no true face.

Squares LL 59, MM 59

In Square LL 59 very fragmentary remains of walling in burnt and mud brick carried on approximately the front line and then broke away. In front of this, in Square MM 59, a wall of mud bricks 0.34 m. square x 0.11 m. (possibly Kassite, but more probably Neo-Babylonian) ran along the edge of the original canal wall. The latter was much weathered and now gave a slope of 30 in 100; it was cleared to a depth of 2.70 m. In front of this again was a later revetment or *kisu* about 4.40 m. thick, built of mud bricks 0.34-.37 m. square (the most common 0.34 m. square x 0.11 m.). This *kisu* was separated from the old face by 1.20 m. of rubbish; at the back of it were rectangular projections to key it into the rubbish filling (Pl. 40b). The front of the *kisu* was irregular and perhaps originally curved; in Square LL 61 our trenches, following its line, gave us again the old wall of bricks 0.25 m. x 0.16-.17 m.; this was cleared (in Square MM 60) down to a depth of 2.80 m. and was then followed by shallower digging to Square JJ 64.

Square II 63

Here we cleared a small house lying immediately behind the rampart for which its back wall acted as a retaining wall; from this to the front line as established by the work done in Square JJ 64 the width of the rampart was 23.00 m. The building was presumably a private house, but it did not conform to the normal house plan. Its walls, 0.60 m. thick, were of burnt bricks 0.25 m. x 0.17 m. x 0.075 m., up to a height of 1.50 m. for the outer and 1.00 m. for the inner walls, above which mud brick was used. The floors were brick-paved and under the floor of the main room was an unusually large corbelled brick tomb, plundered from above. The north end of the building had perished.

Squares JJ 64, II 65

The outer lip of the mud-brick canal wall was followed by a continuous trench which gave the line of the defences; there was no vestige left of the burnt-brick buildings behind. A cross-cut into the upper rubble of the mud-brick core produced, in the surface soil, a number of clay sling-bolts and ballista-balls. From this point onwards the line was followed by a series of cross-cuts made at intervals; surface conditions shewed that nothing in the way of buildings could be expected and the lower element of the mud-brick rampart was the only thing to be traced.

Squares GG 66, FF 66, DD 65, CC 65, 66

In Square GG 66 the mud brickwork shewed a good sloped face. In the surface soil behind it were found many more ballista-balls. In Square FF 66 the sloping face was well preserved; behind it the solid mud-brick core was found to have a thickness of about 29.00 m. In Square DD 65 the wall face was much weathered but none the less distinct, running down in a slope broken by milder gradients; a surface trench traced the solid core back for 29.00 m. In Squares CC 65, 66 the face was good and towards the bottom became almost vertical; the core was traced back for 20.00 m.

Square BB 64

Behind the rampart, fixing its inner limits, was a building, now very ruinous, shoddily built with mixed burnt bricks of every sort; it possessed no interest whatsoever. From its south wall, which acted as a retaining wall for the rampart, the core of the latter was followed for 29.00 m. when (in Square AA 65) it sloped down to the water at a gentle angle of 1 in 10 (this may be due to weathering; the top of the wall lay under 1.50 m. of drift sand and we excavated only for 0.70 m. below this; but the face was good and the individual bricks distinct).

Squares Z 64, X 63, W 62

The sloping face of the wall in Square Z 64 was much weathered but distinct; the core was traced back for 16.00 m. In Square X 63 the face was good; the top of the wall rose to surface level, was 0.70 m. deep at the lip and then sloped steeply to a depth of 1.70 m., the bottom of our excavation. In Square W 62 the face, though badly weathered, was distinct and was traced down for 1.70 m.

Squares U 61, 60, T 60

In front of the Nin-Ezen temple, whose outer wall formed the battlement, the mud-brick rampart was terribly weathered and its slope was broken up into a series of irregular steps; in Square U 61 still more destruction had been caused by a number of small furnaces or kilns of burnt brick which had been cut down into it in the Persian period; the line here was completely obliterated.

Square T 59

From the corner of the temple its frontage line was carried on by a wall of burnt bricks (mixed types) 1.25 m. thick, which rested on the mud-brick of the rampart; 6.00 m. in front of it the edge of the sloped face was found in two spots.

Square S 58

The rampart edge was found and followed; it took a sharp turn to the NE, so that the slope faced NW; although it was much weathered the change of direction was clear. Against it had been built a later revetment or *kisu* of mud bricks, grey in colour and apparently large (too weathered for accurate measurements), and at the same time burnt bricks 0.32 m. square had been laid along the old lip, either as a pavement or as the foundation of a building (very few of them were *in situ*). The angle given by this short stretch of frontage agrees with the present contours of the site, the line of sloped brickwork running along the south side of the broad and deep wadi which crosses the town area. It suggests a canal running through the heart of the city. A cut made in the middle of the wadi bed produced nothing but drift sand; a cut halfway up the slope on its north bank shewed drift sand to a depth of 1.90 m. and thereafter light rubbish, ashes, etc. sloping sharply down to the south; we dug to a depth of 3.50 m. and were still in light rubbish.

Square P 56

A trench on the north side of the wadi mouth produced the top of the mud-brick rampart. The sloping face was cut about beyond recognition, but the distinction between its solid brickwork and the mixed rubbish piled against it was clear. From the edge the top was traced back for 10.00 m., when it was interrupted by a hole filled with rubble, behind which the wall top reappeared again.

Square P 53

The top of the rampart was followed until it dipped down with a rough but unmistakable face against which was drift sand with mixed rubbish and pottery below.

Square P 52

The top of the wall was followed to its lip. At the south side of our trench the face was badly cut about, but on the north its surface was preserved and could be followed easily; it was true and smooth, with a batter of 45 in 70; from a metre below the modern surface all the soil against its face was light rubbish with a plentiful admixture of pottery. The wall front ran not straight but in a curve calculated to take it to the start of the harbour mole.

Squares O 51 – N 48

The West Harbour. The curved wall was here well preserved; the face had a batter of 50 horizontal in 70 vertical; it was of solid mud brick with sand and mixed rubbish against it. Along the top ran a rough paving of burnt brick across which, 7.00 m. back, ran a surface drain parallel to the wall. A few late (Persian) graves had been dug into the wall top and seemed to be associated with some scanty remains of building at the north end. The sloped front abutted on a wall, 9.00 m. thick, of mud bricks 0.35 m. square, with a vertical outer face which ran NNW; this seemed to be the start of the harbour mole where it passed over dry ground. At the back of the wall there were traces of mud brick and then the soil sloped down sharply to the north; below the rubble here there was clean sand at 2.70 m. below the wall top. In Square O 50, the character of the wall suddenly changed and its face, instead of being vertical, was battered with a slope of 50 horizontal in 60 vertical; here presumably it was washed by the water of the harbour mouth. Then the battered face turned inwards at right angles, and at 9.10 m. beyond, there was found another wall end with sloped face, and the wall continued in the same line. The gap was certainly the entrance. It was entirely blocked with mud brickwork very similar to that of the wall itself, but the bricks were of a slightly different colour and were laid at odd angles; though the distinction was none too easy to make, it was there, and the later work can only mean that in time the harbour was abandoned and its mouth blocked by a wall joining the ends of the two moles.

Squares O 49, N 48

The north mole proper was built of mud bricks 0.35 m. square and had a vertical face. At the top it was only 2.00 m. wide and the back face was steeply sloped into the harbour basin. Against its front face, separated from it by a gap 0.40 m. wide filled with broken burnt bricks and rubble, there is a second wall 8.00 m. wide with a battered outer face. It was impossible to say quite what had happened here, but the most probable explanation is that the inner wall is the older, that its face had become badly weathered, and that it was cut back for the new revetment to be added to it.

Squares Q-R 49

The sloping face of the revetment wall of the harbour basin was found just below the modern surface; it was of good mud brick with clean drift sand against its face, for 2.00 m. down. The slope gave a rise of 1.00 m. in 1.10 m., but whether this was original or not could not be told.

Square R 49

The cut shewed the same sloping face of mud brick, the only difference being that there was here more rubbish mixed with the covering sand.

Square S 47

It was evident here that the wall face was much perished. At the top the total width of the brickwork was only 2.00 m.; at 3.70 m. depth the total width was 8.00 m., so gradual was the slope. Below the mud brick were three courses of burnt-brick foundation. Against the wall face there was drift sand down to 3.00 m., then a band of brick rubbish and whole bricks which lay along the wall face and ran out from it; and 4.10 m. clean sand began again and went down to 6.00 m., getting gradually harder, with a mixture of potsherds in the deeper levels which seemed to be water-laid. Some at least of the bricks lying in front of the wall had fallen from it, and it looks as if there had been here a facing of burnt bricks standing to a considerable height.

Square T 49

Here we cleared the outer walls of the houses standing nearest to the harbour basin; the NW wall was practically parallel with the line of the waterside and from it a lane ran steeply uphill. As the contours shew, the ground shelved steeply all round the harbour and the houses were terraced up the slopes; thus the EM group of Larsa houses is high

above the harbour and the buildings along the SW of the group have perished with the denudation of the slope.

Square O 45

A trench cut near the top of the mound produced a stretch of very heavy walling built with mud bricks (made with an unusually large admixture of chopped straw) 0.36 m. square and 0.10-0.13 m. thick (five courses have a height of 0.63 m.). In front of it was found part of a clay dedication-cone (U. 15651) recording the building by Warad-Sin¹⁰³ of a temple to Inanna, named E-Dilmunna. The wall rested on made soil. A trench cut downhill from it produced late coffins and some mud brick but nothing in the nature of a rampart within 1.70 m. from the modern surface. It was therefore indecisive, but the side of the basin must have been approximately where it is placed on the plan. It did come to light in Square N 46, where, at 1.20 m. below the surface sand, a short stretch of the face was quite well preserved; it was vertical, and lined up approximately with the shapeless mass in the last trench.

Squares N 47-46, M 46

The remains here were not easy to understand. Immediately below the surface in Squares N 47-46 was a wall of mud bricks 0.32 m. square, running NW x SE with the beginning of a branch to the NE; only the NE face was found. In the angle was a shallow drain, and to the NW of it a mass of mud brickwork (bricks 0.30 m. square) which on the SE had its foundations stepped forward and going down for 2.00 m.; it lined up with the fragment in the NE half of Square N 46 and seemed to be the face of the inner harbour wall. In Squares M-N 46 we found what appeared to be the end or back of the same wall, and at 1.40 m. from it a wall which ran at right angles to it: the eastern corner of this was in Square N 46 and it ran SW, interrupted by a breach, for some 10.00 m. into Square M 46 and then returned NW, the corner being distinguished by a buttress on the SW face. The face was vertical and against it were light ash, broken pottery, and mixed soil to a depth of 2.50 m. This return gives us again the outer face of the town rampart. SE of it there was no brickwork but a flat mud platform across which ran an open drain of burnt bricks and bitumen; on the line of the return of the wall, the drain stopped and the platform fell away into a steep slope of hard mud, against the face of which was drift sand; it was presumably a mud 'apron' masking the start of the mole.

Squares M 45, N 44

In Square M 45 was a mass of mud brickwork with a more-or-less vertical face; but this was accidental: more brickwork was found beyond it and the original face was at least 5.00 m. to the SW. Into the top of this a rough hearth had been cut. At 16.50 m. behind the face (in Square N 44) there were burnt-brick walls (mixed bricks, 0.26 m. and 0.23 m. long) which rested on solid mud brick (bricks 0.32 m. square) and had mud brickwork rising to a higher level behind them; the buildings, whatever they were, seemed to be on and not behind the rampart.

Squares L 43, M 43

The face of the rampart was found in very fair condition, although the upper part of it was weathered into a series of steps; against it was much burnt-brick rubble in strata sloping sharply downwards. The top of the brickwork was traced inland for 16.50 m., and at that point there were on it very scanty remains of the burnt-brick frontage.

Square K 41

The front of the rampart was clear, a mass of pottery and brick rubble lying against the face of the mud brickwork, which sloped sharply, giving 10 vertical in 30 horizontal; but the actual face had perished and the line it gave was not true to the direction of the wall. The top of the rampart was traced back inland and at 17.60 m. from the edge there was a line of burnt bricks which may give the frontage, but behind them the solid mud brickwork continued, and rose at least 1.50 m. above the level of the supposed burnt-brick foundations. In Square K 40 also, only the core of the rampart remained; its front sloped sharply down with rubbish piled against it, and this more or less on the true line; but there was no real face. A trench cut alongside this, in the same square, again failed to find a true face, but the broken surface of the mud brick with drift sand against it was unmistakable. At 16.50 m. behind it were scanty traces of burnt brickwork resting on the mud brick.

Square J 38

The face of the rampart had perished. Overlying it was mud brickwork of a later type (bricks 0.32 m. square) whose foundations, resting on the sloped front of the old wall at 1.60 m. below the modern surface, shew a vertical face with a definite corner at the SE end. At 19.10 m. behind it are scanty remains of a building in burnt brick, but, since there is in front of it a pot burial which was probably inside a room, the wall cannot give the frontage of the building, which must have been nearer to the rampart edge.

Square J 36

The face of the rampart was well preserved and was nearly vertical, its slope being only 1 in 10; there was pottery and light rubbish against the face. The wall top was traced back to the summit of the mound but no remains of buildings on it were found.

Square I 34

The trench shewed solid mud brick sloping sharply at its eastern end, but no true face.

Square I 32

A torrent bed coming from the west corner of the Ziggurat had destroyed most traces. The core of the rampart however could be identified and from here we followed the line of its badly weathered edge continuously to Square N 27. The work produced a very wavy line, for the wall, being so pronouncedly sloped, the top of it lay further forward where the destruction was greater; further back it stood relatively high; probably it should be restored as straight in spite of appearances. The work done by us was superficial, but was tested at intervals by cutting into the brickwork; this was necessary in view of the decomposed character of the surface.

Square K 31

Here a trench was driven back over the rampart core, which was denuded and flattened by water action; solid mud brick however was found and at about 16.00 m. from the edge, in Square K 32, cross-cuts gave traces of buildings in burnt brick; similar traces were found at the same distance from the edge in Square K 31. In Square L 30 there were remains of burnt-brick construction only 7.00 m. back from the apparent edge.

Square M 29

A sharp setback is probably accidental, the rampart here being much denuded by a torrent channel. In Square N 27 the line was completely lost, for a deep wadi running down from the great Nannar courtyard had eroded the soil and destroyed everything to plain level. Some mud brick lying outside the true line might have been from a *kisu*. That there was a salient here was shewn by the return curve of the rampart where it was found again in Square O 25. This new line was followed and in Square P 25 deeper excavation laid bare the face of the rampart, much weathered but unmistakable, the individual bricks being perfectly distinct. Against it there lay near the surface a sloping bed of decomposed mud brick, and below this strata of ashes and light rubbish (down to 1.60 m.) also steeply sloped. From this point the existing remains ran in a hollow curve as far as Square R 23, but the whole of it seemed to be due to weathering and the original line is more likely to have been straight. At this point the rampart was not of the usual mud brick; it was a real bank of clean hard mud with a very gentle slope (1 in 5); the upper part was agglomerate, but at about 2.00 m. below the surface a cut into it shewed laminations as of water-laid deposit, and it seemed likely that a considerable amount of alluvium had been heaped against the original face, which was probably much steeper. At 13.00 m. back from the edge there was no trace of any building in burnt brick. In Square S 22 this bank came to a rounded end which sloped at much the same angle. In Square T 22, after a 20.00 m. interval, it began again and could be traced running in a straight line to Square W 19. Here the surface indications were very clear, for there ran across the flat low plain a bank of dark mud 1.50 m. high and about 30.00 m. wide, the top of which was covered with clinkered brick. Digging into this we found that it was an artificial bank of which the core was mud while the top (originally) and the sides were built of a regular ballast of broken bricks, clinkers from brick kilns, and potsherds which lay in sloped strata and had evidently been tipped over the sides from the top of the bank; the greater proportion of the same materials on the surface was due to denudation. A good deal of similar ballast was mixed with the mud of the core. Numerous cuts and trenches in Squares T 21 and U 20 proved the bank face at different points and established its character as described above.

Squares W 19, X 18

There seemed to be here a branch bank running for at least 50.00 m. out to the NW, but only the NE face of it could be traced; that face however was very good, with clinkered reinforcement and clean sand lying against it. From Square X 18 to Square Z 19 we followed the bank by means of a continuous trench, and although its line was somewhat irregular it was still perfectly consistent; the section shewed a sloping face liberally reinforced with clinkers and potsherds, against which lay drift sand; at 3.00 m. depth the sand gave place to flat water-laid mud. In Squares Z — AA 18 to the north of the bank and 133.00 m. from it, there rose above the level of the plain an isolated mound also of mud littered with brick clinkers; a cut driven across this shewed a sloping face similar to that of the mole (the slope was 6 in 10) with clean sand against it; on the top there were traces of mud-brick walls. The mud bank was evidently the mole protecting the harbour which lay behind it, now represented by a flat expanse of sand. A trench was dug from the top of the mole back into the harbour. In Square Y 20 (at the north

end of the square) was a slope of clean mud which in section shewed no deposit laminations but was uniform throughout, and looked as if it had been dredged up from the bottom of the harbour and heaped against the back of the mole; it was quite different from the reinforced mud of the mole's face. From this a flat mud surface stretched back under the sand; in Square Y 22 this lay 0.80 m. down and a section of it shewed very fine horizontal strata of water-laid mud. This is much too close to the modern surface to have been deposited by the water of the ancient harbour and it can only be due to drainage water from the ruin-mounds to the south, which collected here in the low-lying area and, held up by the barrier of the old mole, remained stagnant and deposited the dirt brought down from the ruins. We did not dig deeply enough to find the harbour bottom.

Squares AA-BB 19

From the back of the clinkered ridge in Square AA 19, a band of dark soil, cutting across the sand, ran straight back to the corner of the town wall in Square CC 25. In Square BB 19 the original ridge continued, but from the point where the southern ridge had branched off its character changed and the bank was of plain mud with no pottery or building refuse; then it came to a sudden end, with a face sloping down steeply to the NE and drift sand against it. This point where the mole ends so abruptly lines up, apparently, with the edge of the canal bed as traced in Squares FF 25 to II 27.

Squares BB 25, AA 25

The long bank of dark grey mud was so clearly marked that excavation on its line did not seem to be required, but where it abutted on the high ground at its south end, in Square BB 25, a cut was made and produced the inner face of the mole, a good bank of hard mud looking WSW; following this, we found that it turned sharply to the southwest. There was a breach and then it appeared again on the west edge of the same square and thereafter, in Square AA 25, turned again at right angles and, running almost due south, disappeared under the wall of the great Neo-Babylonian palace.

Squares V-X 26

Here, following surface indications, we dug a trench along what was evidently the bank of the harbour on the town side. From the present ground level it sloped down at an angle of 1 in 2; the substance of the bank is the ordinary debris of the town platform, and the makers of the harbour had evidently cut this back to make the pool; but it is revetted with a thick mud plaster freely mixed with fragments of pottery and broken brick, and larger fragments seem to have been pushed separately into the plaster while it was being applied. Our workmen professed to recognise in this a normal and practical method of strengthening a canal bank.

The line given was irregular but unmistakable; against the sloping front there was only clean drift sand to the depth to which our work was carried (1.00 m. from the surface), so that it was easy to follow. That the irregularity was accidental was shewn by the fact that where the worst set-back occurred the mud and pottery revetment was missing and the inner filling exposed, proving that the curve was due to a breach in the original bank. In the NW corner of Square V 26, the bank turned and followed the foot of the modern slope in a direction which would bring it approximately to the point in the NW wall where the mud brick of the rampart proper was replaced by the mud bank.

A number of trenches were dug high up in the mound whose foot was followed by the harbour bank. In Square V 27 a wall of mud bricks (0.32 m. x 0.16 m. x 0.11 m.) was found 40.00 m. back from the harbour front; in front of it were remains of a pavement of mud brick laid over rubbish. In Square U 27 was a wall of bricks of the same size with a projecting buttress; from the buttress face there was solid brickwork stretching back for 16.50 m. In front of it the ground, hard rubbish, overlaid with a floor of mud brick, sloped gently down towards the harbour, still preserved for a distance of 24.00 m. A small pit sunk in Square U 26 failed to find the continuation of this floor and exposed only a mass of loose burnt bricks (0.29 m. x 0.16 m. x 0.075 m. and 0.32 m. square x 0.06 m.) which had been set in bitumen mortar. A trench in Squares S 26-27 shewed in Square 26 a mud-brick wall 19.20 m. wide, behind which there were no further signs of building. A pit in Square R 25 shewed the solid mud brick of the west wall of the city, with a sloped back (slope 1.50 m. in 4.00 m.), with the rubbish filling against it.

From the east mole of the harbour the wall was tested by cross-trenches up the high ground in Square GG 29. Squares CC-DD 26 shewed the solid mud brick of the rampart ending in a face which was broken but not far from the true line. A cut to the east of this gave only a silt level.

Square EE 26

At the west end of the trench the rampart was found in fairly good condition with a nearly vertical face; in front of it was a level of water-laid mud.

Square FF 27

The wall shewed a good face, nearly vertical. At 9.00 m. behind it on the (late) glacis of the core there was a wall 1.00 m. thick of mud bricks 0.32 m. square x 0.11 m., Neo-Babylonian, presumably part of the Neo-Babylonian defences.

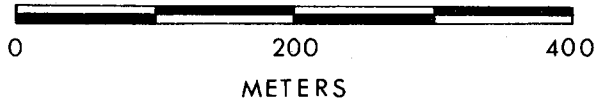
Square GG 28

The wall face was much destroyed and weathered into a succession of steps; its solid brickwork was traced back to the Neo-Babylonian wall already found in Square FF 27.

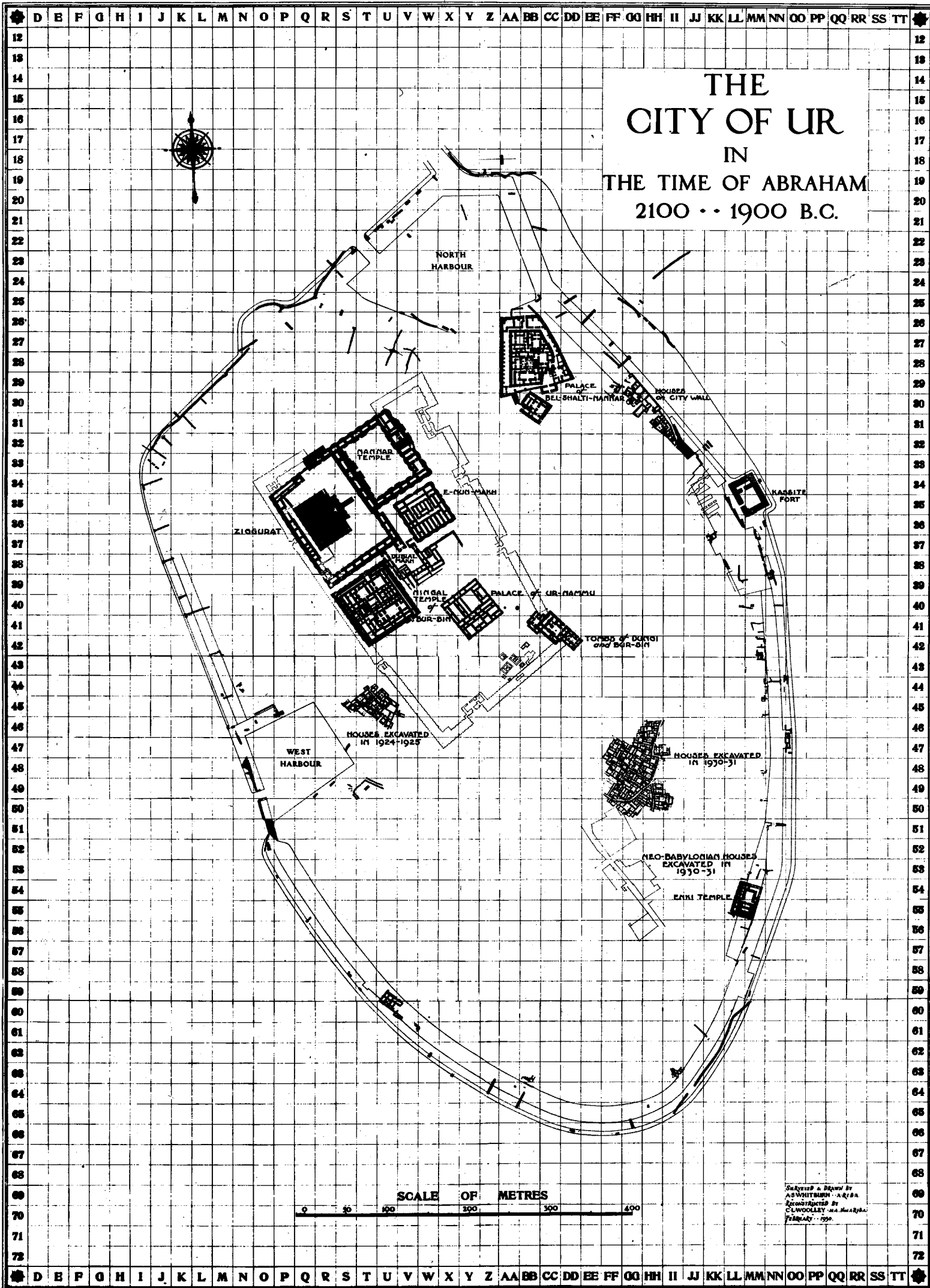
The flat bed of silt in front of the foot of the wall, stretching across the low wadi shewn by the contours, was clearly the bed of the old canal. Trenches cut across it found, some 50.00 m. to the east, a dip in the level which when followed proved to be a definite bank (Squares FF 25 to II 27) outlining a stream bed. Obviously in the late period the old canal had shrunk and a narrow channel had taken the place of the original broad stream separating the walled city from its eastern suburbs.



Contour Interval 1 Meter
△ Survey Station



Contour map of Ur



The City of Ur shewing the principal buildings excavated