CHAPTER VI

The Annexes of the Fort and their Buildings

IN a number of the Roman forts excavated in Scotland—at Castlecary, Rough Castle, Lyne, and perhaps Camelon—we find attached to the main work a subsidiary area, not necessarily, and indeed seldom, rectangular, but fortified to some extent with rampart and ditches. To this area the term 'annexe' has usually been applied. At Newstead we have three such annexes, all somewhat irregular in shape. They lie on the east, south, and west sides of the fort respectively. Each annexe is unconnected with either of the others. The straight line of the defences of the fort forms its boundary on one side. The rest of its perimeter has the shape of a curve.

The west annexe probably enclosed an area of about seven acres, although its exact boundary on the north could not be determined, any more than the precise position of its gates. At its largest extent it certainly dated from the Agricolan period. It had been strongly protected by a line of ditches, varying from two to four in number. Behind these was some trace of a rampart lying on cobble stones. A considerable portion of the ditches was cleared out. From the pottery they contained, it seemed probable that they belonged to the earliest period, and the correctness of this surmise was proved by the discovery that the two inner ditches had passed under the line of the wall of the later fort, and had been linked up with the ditches of the earliest fort. The outer ditch, on the other hand, was connected with the later system. At a subsequent period, when the fort was reduced in size, the size of the annexe appears to have been reduced also, a double ditch being cut in a westerly direction from a point north of the west gate of the fort. One arm had seemingly been carried into the line of the earlier annexe ditches. The other, after running some distance towards the west, was turned sharply round to the north and passed through the sole block of buildings found within the annexe, a block to be described presently. A

PLATE XII. THE VALLEY OF THE TWEED FROM THE FORT

The view is taken looking westward from a point near the Baths and indicates the strength of the position on the north.

gate was placed about the centre of the outer of the two ditches. Both were cleared out for some length, and produced fragments of pottery which appeared to belong entirely to the later period. The south annexe measured about fourteen and a half acres. It was defended by a single ditch which did not seem to be connected with the ditches of the early fort. No part of it was cleared out. This annexe had two gates—an early gate which had been covered by an overlapping branch of the ditch, and a later gate further to the east where this means of defence was not employed. The east annexe measured about 20.7 acres. It, too, was surrounded by a single ditch, and three gateways were noted, one on the north, another on the east, and a third—a small postern gate—on the south-east.

The Use of the Annexes

To understand the use of the annexes we must turn again to the larger legionary strongholds. A legion stationed in such a fortress as Novaesium or Lambaesis was settled there for a number of years, so that there grew up outside of the line of the main defences small settlements which might ultimately develop into towns, as did Cologne and York. In these settlements were to be found the time-expired soldiers and the traders who followed in the wake of the army. Nor was it only for the legionary fortresses that such annexes were required. In Arrian's description of the fort at the mouth of the Phasis on the Black Sea, from which we have already quoted, we have a reference to one of these settlements: 'And since it was desirable to render the harbour secure for the ships and to protect the settlement outside the fort, which was occupied by time-expired soldiers and others who were traders, I decided to cut a ditch from the double ditch which surrounds the fort and to carry it as far as the river. This ditch will include the naval station and the houses outside the wall.'

In the small permanent forts dotted along the German Limes we find many traces of these civil settlements and of houses beyond the wall. At Pfünz, at the Saalburg and at Heddernheim, for instance, there were a variety of buildings lying outside the limits of the camp. At Heddernheim the fort proper occupied one end of a large enclosure bounded by a wall with fortified gateways.[1] At Pfünz a number of buildings, *canabae*, probably small wine shops, as well as dwellings and one or two temples, were scattered along the margin of the highway.[2] At the Saalburg, where possibly this

1 *Mittheilungen über Römische Funde in Heddernheim*, Heft ii. Taf. iv.

2 *Der Obergermanisch-Raetische Limes*, Lief. 14, Kastell Pfünz.

feature of the life of a Roman fort has been more thoroughly investigated than anywhere else, we have numerous buildings. Along the side of the road leading southward there are lines of *canabae*, each with a cellar behind it and a well. Further out are the temples dedicated to Mithras and to Cybele, and further out still, dotted along the highway, as in every ancient city, are the graves, keeping ever present to the wayfarers on the road the memory of the dead. '*Ave viator vale viator*' is the salutation ending the inscription of a centurion's tombstone at Arlon. Other buildings which lay on the confines of the Saalburg were a bazaar, a temple of Jupiter Dolichenus, some houses, and a larger structure with several apsed rooms, which at first was styled a villa, but which is now recognised as a bath.

The bath was a feature in the life of the permanent fort no less than of the city. It was a recognised institution, probably under the charge of a specially appointed officer. In the smaller Limes forts it almost invariably lay outside. Many examples have been excavated and planned by the experts of the Limes-Commission.

Civil Settlements in Britain

In Britain little has yet been done in the way of excavating these civil settlements beside the forts, and consequently little has as yet been revealed to us regarding the buildings they contained. At Housesteads a shrine of Mithras was discovered beyond the walls. [1] At Chesters a large bathing establishment lies between the fort and the River Tyne, [2] while there is a smaller one outside the fort of Aesica. [3] In Scotland we have in the south camp at Camelon a detached building which is probably a bath. [4] Roy's plan of 'a villa,' discovered at Castlecary in 1769, undoubtedly shows the baths of that station. [5] But by far the most typical of all hitherto discovered in the north is the so-called villa on the outskirts of the fort at Inchtuthil. [6]

At Newstead no buildings whatever were found in the south annexe, although at one or two spots along the side of the earlier road leading southwards patches of cobbles were observed. Here also were many pits and some small wells which probably belonged to the wooden houses which fringed the route. In the annexe on the west, one great block of buildings was discovered, and in these we must recognise the baths of the fort. Unfortunately quarrying had removed almost every stone of value. The walls had been reduced

1 *Archaeologia Aeliana*, Vol. xxv. p. 255 ff. 2 *Ibid*. vol. xii. p. 124 ff. 3 *Ibid*. vol. xxiv. p. 46.
4 *Proceedings of the Society of Antiquaries of Scotland*, vol. xxxv. plate V.
5 *Ibid*. vol. xxxvii. p. 13, fig. 5. 6 *Ibid*. vol. xxxvi. p. 214ff.

to their footings, some had entirely disappeared. In addition to all this, the study of the building was complicated by the effect of recent drainage operations, and still more by the fact that here also we had to deal with the work of several different periods.

The Rooms of the Bath

The plans of Roman baths vary very much. There is not merely the *balneum*, a series of rooms on a small scale intended solely for the purpose of bathing, but also the *thermae*, or great establishments such as those of which we find the ruins in Rome and at Pompeii. These latter comprised halls for games, waiting-rooms, bazaars, and restaurants, the bath being in fact hut one of many attractions. Most of the buildings which we find on the outskirts of the forts have only the rooms which we are accustomed to associate with the actual process of the Roman bath. At the same time the plans differ widely, and not infrequently we meet with larger and more important structures. The Newstead bath began on a comparatively small scale, but was afterwards enlarged. We shall probably be able to understand it better by examining one or two typical plans from other sites, for it has to be borne in mind that the general scheme of a Roman public bath was the same, whether it was placed in Italy or away on the frontiers of the Empire.

However large and complex the building became, there were three chambers of different temperature to be found in all. To begin with, there was the *frigidarium*, or cold room, at one end of which was a cold bath. Then there was the *tepidarium*, a fairly warm room, from which the bather entered the third chamber, or *caldarium*, a hotter apartment, calculated to induce perspiration, and having at one end a bath of warm water, and at the other a great vase or basin filled with cold water, with which to douche the bather before he passed out again. In the larger baths this nucleus had various additions attached to it, such as an outer courtyard, an *apodyterium*, or dressing-room, which was frequently combined with the *frigidarium*, and a store for oils and substances used in anointing the bathers. The *tepidarium* had sometimes added to it a *laconicum* or *sudatorium*, that is, a small chamber, usually circular in form and heated to a high temperature, but having no bath. All the buildings, whether great or small, were of course provided with furnaces for supplying the hot air to the warm rooms, and with arrangements for heating water.

Bath in Lipari

A brief glance at one or two definite examples will be of assistance in interpreting the Newstead plan. We may take first a small bath-house

from the island of Lipari.[1] It is a long narrow building, 133 feet by 32 feet. The first room is the *frigidarium*, which also served as the *apodyterium*. In the apse at one side, into which one descended by steps, was the cold bath. The small chambers at the side of the apse were probably used for anointing, and for the storage of oil, etc., for many glass vials and small terra-cotta vases were found in the ruins. From the *apodyterium* one passed into the *tepidarium*. The floors of this chamber and of the *caldarium* are supported on pillars of brick, leaving open spaces between, so that the rooms resemble a box with a double bottom, into which the hot air

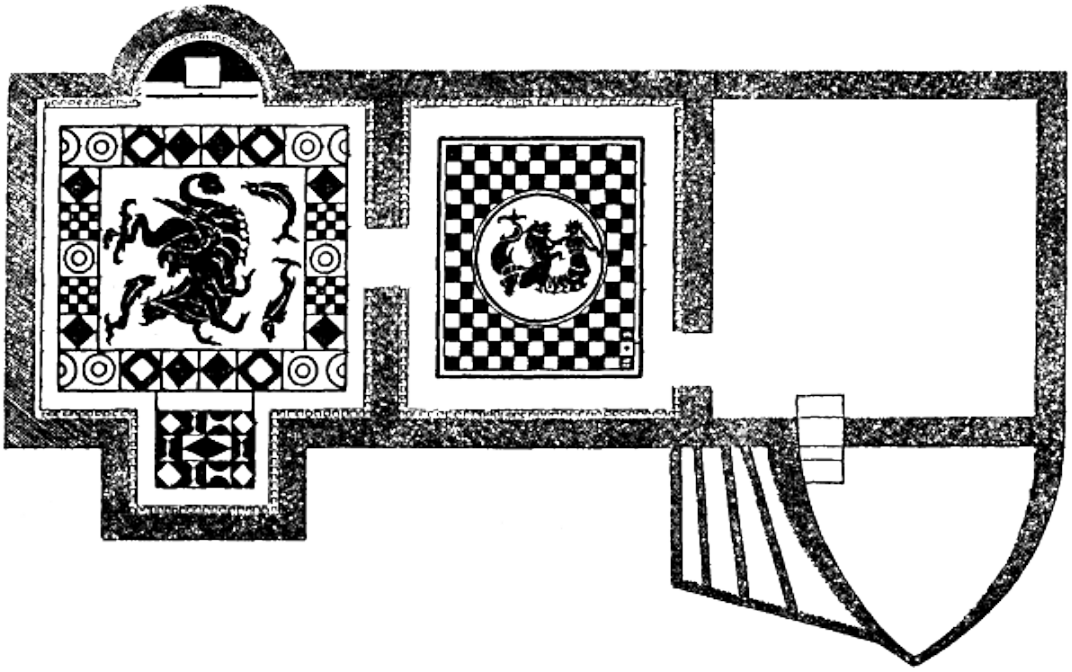

FIG 5. PLAN OF THE BATH BUILDING IN LIPARI

came from the furnace, thus raising the temperature of the apartments above. All round the walls were lines of vertical clay tubes communicating with the hypocaust below. These carried the hot air up the sides of the rooms. The actual floors were covered with a coarse mosaic pavement representing sea monsters, and just at the entrance to the *tepidarium* was a representation of a pair of slippers—as a reminder either that boots were forbidden or that the floor was too hot for bare feet. The niche at one side in the *caldarium* no doubt held the bath, and the apsed projection was probably for the *labrum* or cold water basin.

1 *Archaeologia*, vol. xxiii. I, p. 98.

Inchtuthil

From this little bath-house in the South we may turn to the most northerly example that has yet been found-that which stood outside the great camp at Inchtuthil. This is of particular interest, inasmuch as it is not improbable that it belongs to the earliest period of the Roman advance into Scotland. The association of a stone bath-house with an earthen fort that contained no traces of substantial buildings is not strange. The danger of fire from the heating arrangements was probably too great to permit of the erection of such structures in wood. It can be paralleled by

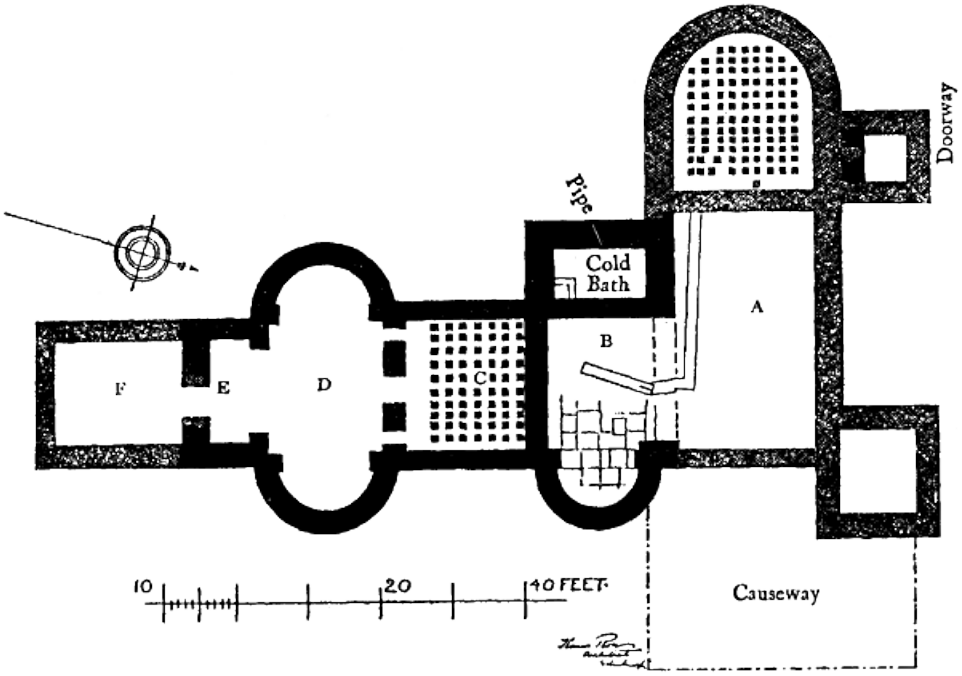

FIG. 6. PLAN OF BATH AT INCHTUTHIL

more than one instance from Germany, where the same conditions are to be noted at Marienfels,[1] Seckmauern,[2] Würzberg,[3] and Schlossau.[4] The Inchtuthil bath-house[5] is smaller than the bath in Lipari, but it is somewhat more complex in its arrangements. The large entrance hall (A), part of which was heated, was no doubt the *apodyterium*. From this the bathers passed into the *frigidarium* (B), with its cold bath at one end. The next room (C) is the

1 *Der Obergermanisch-Raetische Limes*, Lief. 5 a, Kastell Marienfels.

2 *Ibid*. Lief. 46 b, Kastel1 Seckmauern. 3 *Ibid*. Lief. 49, Kastell Würzberg.

4 *Ibid*. Lief. 51, Kastell Schlossau.

5 *Proceedings of the Society of Antiquaries of Scotland*, vol. xxxvi. p. 215, fig. 11.

tepidarium, from which access was obtained to the double-apsed chamber (D) which served as the *caldarium*. The recess opposite to the door of this apartment (E) was probably occupied by the cisterns of cold, tepid, and hot water, such heat as was required being supplied from a furnace placed in the projecting apartment (F) beyond.

Welzheim East Fort

A last example may be cited, this time from the east fort at Welzheim on the German Limes.[1] Here, within the fort itself, we find a little bath-house. The room at the east end is the *apodyterium*, with the cold bath in the apse. The central room doubtless formed the *tepidarium*, while the double-apsed chamber at the west end was the *caldarium*. Beyond the last named, at the point where the greatest heat would be required, was the *praefurnium* or stoke-room. The buildings we have described probably represent the minimum of accommodation required for a public bath. Most of those found on the outskirts of the Limes forts are much larger and contain a considerable number of additional rooms.

The Baths at Newstead

Turning to the buildings in the west annexe at Newstead, we may note that the whole forms an irregular block, more or less rectangular in form, and some 310 feet in length. This block was roughly divided into two halves by a ditch, one of the inner or later series of ditches round the annexe having been cut through it in a northerly direction. The half which lay to the west contained the foundations of a large rectangular structure, which lay near the surface. Very little of it remained beyond the cobble foundation of the walls. There was no trace of hypocausts. The relics it yielded were few in number—one or two small fragments of early Terra Sigillata, a first brass coin and a denarius of Domitian. The condition of matters in the eastern half of the block was entirely different. On this side the foundations were covered with debris, showing abundant signs of occupation. In the blackened soil from the hypocausts lay bricks, pieces of roofing-tiles, fragments of plaster, and portions of the cement of the floors, with here and there fragments of pottery, while the walls themselves bore abundant signs of alteration. Gradually, as the surface debris was removed, it became evident that in the centre of the area were the foundations of a comparatively small bath building which, from its position and the method employed in laying its foundation, had evidently formed the nucleus round which the later building had gathered. The walls were not lying upon river cobbles, but upon a concrete foundation

1 *Der Obergermanisch-Raetische Limes*, Lief. 21, Kastell We1zheim, plate iv. fig. 4.

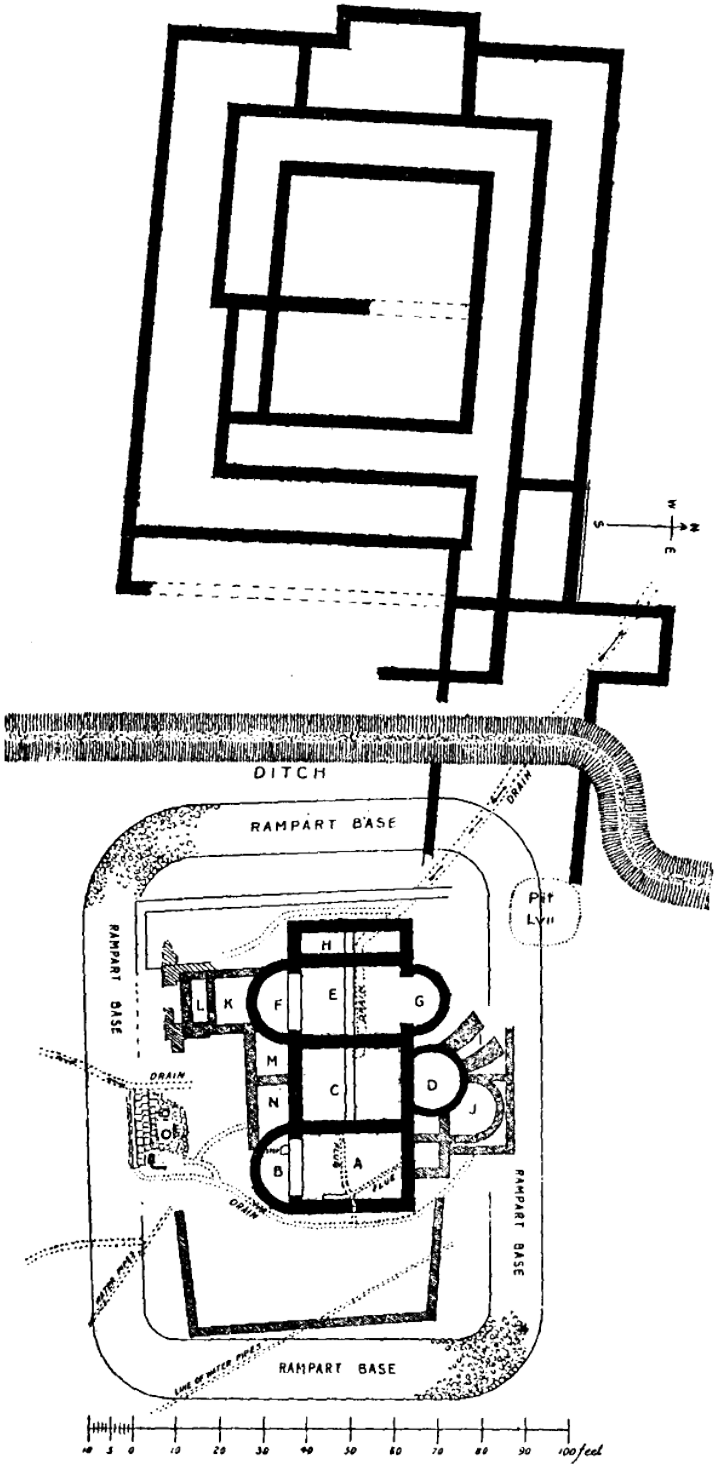

FIG. 7. PLAN OF BATH AND ADJOINING BUILDINGS AT NEWSTEAD

composed of broken pieces of sandstone and blue river-stones mixed with lime. In this respect they closely resembled the early walls at the east end of the Principia and those lying beneath the south buttressed building.

The whole block measured sixty-seven feet in length by twenty-nine feet in breadth. It had been divided into three main sections, of which the central chamber and the large apsed room to the west had been heated by hypocausts. It was thus very like the baths in Lipari and those within the East Fort at Welzheim. Indeed, it had not a little in common with the 'villa' at Inchtuthil. The accommodation was simply that of the typical Roman bath. The entrance must have been at the east end, though little remained to make the position of the doorway certain. Possibly it had been covered by a portico; but, if so, the many alterations had obliterated all trace of it.

The first room (A), which must have served as *apodyterium* and *frigidarium*, measured twenty-three feet by fifteen feet. The apse at its south end contained the cold bath (B). This occupied the whole of the apse, being fifteen and a half feet in length by seven and a half feet wide at its widest part. It remained quite perfect to a depth of fourteen inches. The floor and sides were covered with a thick coat of cement plaster mixed with brick. At the bottom of the walls was a rounded beading of the same material projecting five inches on to the floor, to prevent leakage—a feature common in such structures. Near the west end was the step into the bath. It consisted of a single freestone block, one foot eleven inches square and six inches high, also covered with cement and having the same moulding round its edge. In the side of the apse opposite was the outlet for the water. Probably this had held a leaden pipe which had been taken out during subsequent alterations, for a second floor lay fourteen inches above the floor of the bath we have been describing. In Plate XIII., Fig. 1, the Bath is shown with a small portion of this second floor still in position at one end.

From the *frigidarium* the bather would pass into the tepidarium (C), an apartment twenty-three feet long by seventeen feet wide, heated by a hypocaust. The masonry at the north-east corner of this was still standing in excellent preservation for five courses. Plate XIII., Fig. 2. None of the supports of the hypocaust remained in position, but one or two roughly-shaped sandstone pillars, two and a half feet high, which lay among the debris, one of which is shown in the illustration, had no doubt belonged to it. On the north side was a small chamber (D) almost circular and thirteen feet in diameter. The

width of the doorway could not be ascertained; the jambs had disappeared. This probably served as a *laconicum* or *sudatorium*, in which the temperature was raised to a height sufficient to produce a profuse perspiration. Such an adjunct to the bath did not occur in any of the plans already discussed. But a chamber of the kind probably formed part of the baths

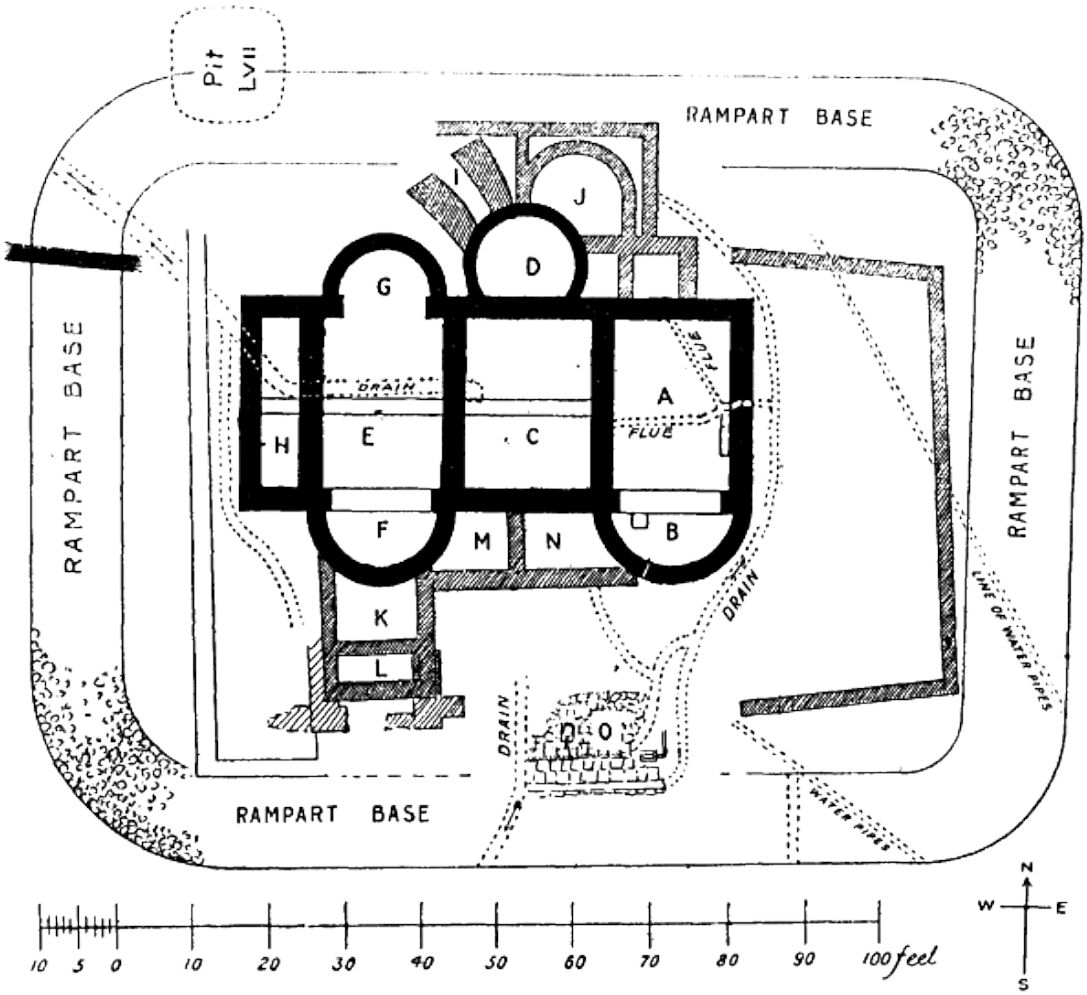

FIG. 8. PLAN OF BATH AT NEWSTEAD

at Castlecary, and it may be seen in several of those that have been excavated in Germany. Both at the Saalburg and at Rückingen, for instance, it appears as a square chamber attached to the *tepidarium*, and having in each case a separate *praefurnium* behind it.[1] Separate heating arrangements

1 Von Rössler, 'Die Bäder der Grenzcastelle,' *Westdeutsche Zeitschrift*, vol. ix. taf. 11.

were necessary, as the temperature had to be much higher than that of the *tepidarium*, with which it was usually directly connected. According to the specification of Vitruvius the *laconicum* was circular at its base and roofed with a hemispherical dome, in which was an opening which could be closed at will by raising a disc of bronze which hung beneath it.[1] The hot air from the furnace was, no doubt, carried up the walls in tubular bricks. Of the furnace itself we have probably the remains in the two heavy stone walls, four and a half feet wide, which attach themselves externally to this part of building. The space between them (I), three feet wide, was doubtless utilised for the fire. The curve towards the west seems designed to prevent the proximity of the outer wall on the north interfering with the stoking arrangements.

Beyond the *tepidarium* lay the *caldarium* (E), a room twenty-three feet long by sixteen feet broad with an apse at either end. Here also we can but conjecture the nature of the internal arrangements. The wider apse on the south (F) had, no doubt, contained the warm bath corresponding in its position to the cold bath in the *frigidarium*, while the smaller space in the apse at the opposite end of the room (G) would be occupied by the *labrum* containing cold water to throw over the bather. The narrow chamber or recess (H), twenty-three feet by five feet, immediately adjoining this room and terminating the building on the west, was no doubt designed to hold the water cisterns of copper, three in number—for hot, for tepid, and for cold water respectively. These were usually circular in form as may be seen in the new baths at Pompeii, or at the Saalburg, at Rückingen, and at Feldberg. They were generally placed somewhere close to the *caldarium*, and beneath them was the principal furnace of the establishment. At Newstead the exact position of the furnace is somewhat doubtful. No trace of it was discovered projecting from the west end, its usual place in the plans of baths, being the situation where it could be best employed to heat the water of the cisterns which was afterwards conveyed in pipes to the *caldarium*. It is possible that the walls projecting from the south of the *caldarium* (L) represent a *praefurnium*. We find one at Silchester similar in plan and occupying the same position relatively to one of the *caldaria* of the baths. At Newstead, however, these walls did not appear to belong to the earliest period, although they were in part overlying two blocks of heavier masonry which may have been the remains of the earlier

1 Vitruvius, v. 10 (11) 5; also Marquardt, *La Vie Privée des Romains*, vol. i. 340.

1. Cold bath showing two levels

2. Masonry of tepidarium 3. Drain under west wall of caldarium

Masonry at south-west angle of the building

PLATE XIII. THE BATHS

praefurnium. Some of the stonework of this portion of the building is shown in Plate XIII., Fig. 4.

Alterations on the Bath Buildings

In the small building of which we have been speaking there is preserved a remarkably simple plan of a military bath-house. It is evident that later additions were made to it until probably its original outlines were entirely lost in the extensions. Doubtless the recovery of its plan is due solely to the debris of later constructions which overlaid it. These will be discussed in more detail later. The result of their investigation was on the whole unsatisfactory as the outer walls had well nigh completely disappeared, and even the foundation trenches could not be traced satisfactorily, owing to the damage done by recent draining. It was quite evident, however, that the baths reflected in some degree the successive alterations which had taken place in the fort itself. The most striking feature of these changes was the construction of the ditch which divided the whole block of buildings into two parts. It ran from south to north, and curved slightly towards the east as it passed through the block, as though to cover the bath more completely. It then resumed its northward course, and was probably joined to a second ditch which passed along the north side of the annexe, but which is now concealed underneath the public road. The dividing ditch was about ten feet wide and eight feet deep. From its position one might very naturally infer that it had been constructed during the earliest period of the baths. But it was clearly later. A denarius of Hadrian was found among the material taken from the bottom, while a 'second brass' of Faustina the Elder lay in the filling near the surface. The pottery, too, appeared to be entirely of the later period, among it being fragments of bowls bearing the characteristic stamps of CINNAMUS and DIVIXTUS.

The Building adjoining the Baths

Coincidently with the cutting of the ditch, the eastern portion of the block—that is, the one which the ditch was intended to protect—seems to have been enclosed by a platform or a defensive rampart. All round the block there lay a foundation of river cobbles twelve feet broad, enclosing an area 113 feet long by 78 feet wide, with rounded corners. The cobbles were embedded in clay, but the superimposed material had almost entirely disappeared except at the east end, which was still covered with yellow puddled clay to a depth of one and a half or two feet. The whole structure conveys the impression that it was intended to serve as a protection for the building. It is difficult, if not impossible, to cite any parallel instance of a rampart surrounding a bath-house. In the excavation of the block it formed an

important guide, as it marked a definite stratum helping to define the different changes that had taken place. The small bath-house, from its method of foundation and the evidences of subsequent alteration, was clearly earlier. The large block of building to the west must also have been in existence prior to the making of these defences, arid it was presumably abandoned at that time. Two of its walls had been cut through by the ditch, while the end of one of them was detected passing beneath the foundation of the rampart. These walls, like the rest of the building of which they form part, but unlike the early bath-house, lie on river cobbles.

Both the early bath-house and the western block, then, seem to have been older than the ditch and rampart. What was their relation to one another? Did they belong to the same period? It was unfortunate that a complete plan of the western block could not be obtained. The walls lay at no great depth, and at the west end their scanty remains could be traced without much difficulty. But as they came near the ditch, portions had disappeared entirely, and to the east of it, with the exception of the two walls in question, no part of the building could be traced at all. In such bath buildings as those at Silchester, the rooms properly belonging to the bath are approached by a spacious pen style and a large apodyterium. An entrance courtyard is also to be seen in the plans of more than one of the military bath-houses in Germany. In this case, however, the block, although at first sight it seemed to suggest a courtyard entering from the west, proved to be marked by none of the peculiar features of the bath. There were no signs of hypocausts or of the debris of tiles and plaster work, and no remains of apsed apartments. Moreover, the building lies in a different alignment from the baths themselves. No prolongation of its incomplete walls indicates that the two were ever joined together. The block to the west, in fact, appears to have been built for some separate purpose. It is possible that the walls cut through by the ditch formed part of a corridor, by which access was obtained to the bath buildings. Of these walls, the one lying to the north was traced for what appeared to be its full length. It terminated on the edge of a large pit or well (LVII) which lay partially beneath the cobbling. It was built of sandstone, three or four courses of which remained at the end. There was no sign of any return.

Although it was very evident that the bath buildings had undergone considerable alterations at various periods, the exact nature of these changes

could not be traced satisfactorily. Most of the stone-work of the outer walls had entirely disappeared, so that the outlines could only be traced from the foundation trenches. It was plain that before the construction of the ditch some enlargement had taken place. Walls of later construction than the building itself (M, N) lay to the south of the *tepidarium*, occupying the space between the apses on either side. These walls rested on river cobbles.

The Latrine

Somewhat further south was a latrine (O). This adjunct to the building had unfortunately been damaged in the draining operations of 1904, when a drain had been cut in a westerly direction through the floor, removing one or more troughs and some water channelling. It is possible that the latrine may have been open to the sky. Certainly no walls enclosing it could be made out, except the back wall on the south, which had formed the south wall of the latrine pit. At the east end, this wall was one foot nine inches in height. The pit, which ran east and west, was sixteen inches wide and twenty inches deep. At the west end it discharged into the main drain, which ran in a south-westerly direction. The floor of the latrine was paved with large slabs of stone. Round three sides of the floor—the east, south, and west—ran a stone water channel of no great depth, with stone troughs at intervals upon it. Two of the latter remained *in situ*. A third, which was taken from the building during the draining operations, no doubt belonged to the same series. In the illustration given in Plate XIV., Fig. 1, the latrine is viewed from the east end. On the left the cobble base of the rampart may be seen. The latrine pit and the remains of the water channeling may be noted. The water had probably been led in by clay tiles with neatly made faucet joints. A line of these was found running from the neighbourhood of the west gate of the fort to the baths, but the actual source of the water supply was not ascertained. Having passed along the open channel cut in the flag stones and through the troughs, the water was discharged into the drain running to the south. This type of latrine, with its water channel in the floor, was also in use at Housesteads. There the stone troughs were no longer *in situ* at the time of the excavation, but two of them, which were found in the paved gangway of the building, had, without doubt, fulfilled the same purpose as the corresponding objects at Newstead. The second of these,[1] with its outlet at one corner, is exactly like the trough in the Newstead water

1 Bosanquet, *Excavations at Housesteads*, p. 252, fig. 25.

channel at the point of discharge into the drain. It is worth adding that a latrine with the same water channel running round the four sides of the floor, occurs at Timgad,[1] and that a similar arrangement is to be found at Pompeii.

The latrine appeared to have been in use subsequent to the construction of the rampart. Indeed its south wall had every sign of being nothing more than a retaining wall built against it. On the exterior next the rampart the surface was very rough, with yellow clay adhering in the interstices of the stone-work. That the building was comparatively late was shown by the discovery of a lower level beneath it. On removing the flags of the latrine floor, a second floor, covered with flags, was found fifteen inches beneath it. The appearance of this second floor is shown in Plate XIV., Fig. 2. The south wall of this apartment, two and a half feet in thickness, had been utilised as the inner wall of the latrine pit above. What function the room itself had originally served could not be ascertained, but the wall on the south had probably formed the exterior wall of an early enlargement of the bath-house. Apparently it had connected with the wall shown on the plan, bounding the west and south-west angle. This last, however, was traced only from its foundation trench.

The two levels noted at the latrine had their parallel in the main block of the bath building. The floor of the *caldarium* had been raised by placing upon it a double stratum of freestone blocks, arranged in rough herring-bone fashion, with a line of clay between the layers and a clay floor above. This covering of the lower floor was about twelve to fourteen inches in depth, and extended into the small recess or apartment on the west, covering the surface of the wall dividing it from the *caldarium*. Evidently, then, at the time the floor level was raised, this wall had been already reduced to the level of the soil. It is probably to the same period that one may assign the construction of a deep drain, running from near the middle of the *tepidarium* through the *caldarium*, and then in a north-westerly direction towards the Tweed. Where it passed beneath the main wall of the bath building at the point of exit, it appeared to have merely been tunnelled through. Plate XIII., Fig. 3. There was no trace of any arch or lintel to support the wall above. To the same period also probably belonged a wall, running from east to west, dividing the *caldarium* and *tepidarium* into two portions.

1 Boeswillwald, etc., *Timgad*, p. 14, fig. 7.

1. Foundation of rampart and upper level of latrine

2. Latrine after removal of upper floor

PLATE XIV. THE LATRINE

At the other end of the building the cold bath showed two distinct levels. The floor of the bath belonging to the lowest level has been mentioned above. It consisted of a bed of concrete, six inches thick, lying on broken red sandstone and river stones, with the step down and the moulding, already described, round the bottom. Over this floor lay a filling of clean dry river gravel, ten inches deep, and on this rested a second floor, three to four inches thick, of lime cement mixed with a little powdered brick, showing the same moulding round the edge as has been noted in the lower bath. The original floor of the *frigidarium* was about two feet above the lowest level of the bath in the apse, and even one foot above the raised level.

To the north of the *frigidarium* was another addition. Here an apsed room (J) had evidently stood; the floor of *opus signinum* remained lying on layers of debris with intervening lines of cobble stones, two feet nine inches in height. One of these lines of cobbles, twenty inches below the later floor, probably marked an earlier level: it was found projecting under the cobbles of the rampart eight inches beneath them. To the east was a wall running north and south, but returning at each end towards the west. This also seemed to be a late addition. It was founded upon two layers of river cobbles, bedded on seventeen inches of yellow clay, at which level, at the south-east corner six inches to the east, lay the rampart foundation.

Finds in the course of the Excavation

While the general destruction that has taken place renders it impossible to disentangle satisfactorily the different phases through which the bath buildings have passed in course of time, it seems clear that the enlargement and alteration of the original bath building had begun before the making of the rampart, and that further alteration took place afterwards. It is probable then, that we have here traces of the different phases which the baths underwent at four different periods, corresponding to the main alterations of the fort. The early building in all likelihood dated from the advance of Agricola. Its early extension and the large building on the west would belong to the first or second period of the later fort. The ditch and rampart would be constructed when the fort was reduced in area. Finally came the last occupation of all. Of the relics found in the baths, the pottery, though not large in quantity, was representative of the early, as well as of the later, period. The coins covered the same space of time as those found within the fort itself. The earliest was a consular denarius of C. Aburius Geminus (*circa* 129 B.C.), and

the latest was a denarius of Marcus Aurelius. The proportion of 'first brass' coins recovered seemed larger here than elsewhere. Possibly such coins represented the charge for entrance.[1] A group of four pieces—two 'first brass' of Trajan, a 'first brass' of Hadrian, and a 'second brass,' perhaps of one or other of these emperors —were found adhering together, though corroded, in the *frigidarium*. From this room, too, came several bone pins and pieces for the games which were no doubt played in the baths. One or two fibulae were picked up. A finely enamelled pair of these, as also a single brooch of the S-shaped type, came from beneath the rampart cobbles on the north. Remains of roofing tiles and flue tiles were abundant.

The water pipes were of two kinds—the larger fifteen and a half inches in length, with a diameter of three inches, neatly made with faucet joints having a diameter of one inch and three-quarters, the smaller without faucets, and with a diameter of one inch. The latter probably served as branch pipes. A small uninscribed altar was unearthed to the south of the *caldarium*, and a gutter stone, recalling similar stones from the forum of Timgad,[2] came from the *frigidarium*. The ditch which intersected the bath buildings contained two stones which had probably formed part of the arches at the entrance to the apsed recesses. These are square at one end and slightly rounded at the other, and they are furnished with projecting flanges on either side. Similar stones have been found at Chesters (in the baths), and they occur in large numbers at Corbridge. It has been suggested that the projecting flanges were employed as a base for the plaster mouldings on the arch. This seems highly probable. There was plaster still adhering to some of the stones found at Corbridge. Architectural fragments were very scarce. But pieces of plaster work, showing both a red and a yellow colour, were frequent around the late apse on the north side. Towards the north-east corner of the block of buildings was a considerable deposit of oyster shells.

FIG. 9. WATER PIPE

1 An inscribed tablet found at Aljustrel in Spain, gives the regulations for the management of a Bath attached to a mine, which include the prices for admission. The *semis* or 'third brass' was the charge for men; for women, on the other hand, the charge was the *as* or 'second brass.' CONDVCTOR A VIRIS SING[VLIS] AERIS SEMISSES ET A MVLIERIBVS SINGVLIS AERIS ASSES EXIGITO. *C.I.L.* ii. Supplement, 5181. 23. Cf. *Bar Hill* p. 46.

2 *Timgad*, p. 80, fig. 36.

The Pit and its Relics

The most important discovery connected with the excavation of the baths was, however, the great pit (LVII) already referred to, which lay on the north side underneath the base of the rampart. Here the cobbles towards the north had subsided—a sure indication that something was to be looked for below them. The subsidence had perhaps been expected by the builders of the rampart, for at this point the layer of cobbles ~~was two feet~~ thick, and was placed upon a bed of yellow clay eighteen inches thick, such as was frequently used in filling disused holes. The pit was more or less square, measuring seventeen feet by eighteen feet at the mouth. In the upper levels were a number of bricks which had doubtless been used for lining the walls of the baths. These were scored for plaster. There were also one or two fragments of *tegulae mammatae*—tiles with points projecting so as to leave an open space for hot air between them and the wall. At twelve feet was a human skull. A little lower came a fragment of a dish of Terra Sigillata with the maker's name IVLLINI, a little lower again a charred piece of oak, a bronze camp kettle, a small tankard handle, a strigil, a short sword with a bronze mounting, a fragment of a larger sword, a sword bent double with part of its hilt of bone, five iron hub rings, a hippo-sandal, several much rusted pieces of iron, and a small cube of bone bearing marks which showed it to be a die. At fifteen feet there were recovered a bronze helmet mask, a lamp of iron, the pieces of a coarse earthenware bowl, and yet another sword—this time the typical heavy blade of the legionary. Towards the bottom, which was reached at twenty feet, were two bronze pots, a rake, and a very fine bronze oenochoe.

The whole find is of the highest interest. The bronze jug with its lotus decoration, the strigil, and the die bring back to us the more luxurious side of life at Newstead. With them we must class the enamelled fibulae, the playing 'men' of bone, and the gem with a figure of Helios found on the ruined floors above. But what interpretation are we to put on the broken and twisted sword blades, the heavy *gladius*, the charred oak beam, the dead man's skull, and the beautiful crushed visor-mask? For a moment we seem to peep behind the curtain which hides from us some tragedy. Perhaps the earliest occupation ended in disaster. At the west end of the oldest part of the bath building were the remains of a second skull. Possibly after some abandonment the weapons lay on the surface beside the ruins and were thrown into the pit when it was filled up.