

## Chapter 5: Road Excavations

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### INTRODUCTION

The A417/A419 road improvement was the most recent engineering project directed toward the provision of a road across this 25 km stretch of landscape, a route which owes its origin to Roman military construction in the 1st century AD. While the archaeological importance of Ermin Street is self-evident, its incorporation into the modern highway network has generally allowed little opportunity for examining the Roman road or its successors. From the outset the investigation of the road was regarded as an important aspect of the archaeological programme on the current project.

Eleven trenches were specifically designed to examine Ermin Street north of Cirencester (Fig. 5.1), seven of these providing complete cross-sections through the modern A417. The other four were smaller. To the south of Cirencester the opportunities were more limited and the Roman road surface was exposed in only one trench. On the eastern side of the town the course of Fosse Way/Akeman Street was investigated with two long sections through the modern Burford Road. The post-Roman elements of all the major road trenches appear in this chapter. Also presented in this chapter is new and unexpected evidence from The Lynches Trackway of a Roman route running up the Churn Valley. The locations of these investigations are shown in Figure 5.1.

Roman trackways were also encountered at Field's Farm, Duntisbourne Leer, and Court Farm. These are described together with related features in Chapter 4 although included in the wider discussion of Roman roads in this chapter. Miscellaneous post-Roman road features are described in Chapter 6.

### ERMIN STREET TRENCHES NORTH OF CIRENCESTER

#### Introduction

Ermin Street was examined by seven excavated sections across the carriageway and verge of the A417 between the Cowley and Itlay underbridges (Trenches 6, 7, 5, 11, 9, 8 and 10 - Fig. 5.1). Another section (Trench 12) was recorded in a watching brief immediately south of Dower's Lane Underbridge. In addition, four trenches between Birdlip Quarry and Highgate House were excavated on the verge of the modern road (Trenches 1 and 2 shown on Fig. 5.1). Those at Birdlip Quarry specifically investigated the Roman road margin adjacent to the later Roman settlement there (see Chapter 4).

The sections through the modern road (Trenches 5–11) were mechanically excavated to undisturbed geology. The exposed section was then cleaned, drawn and photographed. A strip c. 1.7 m wide from the exposed section edge was then excavated by hand and the section drawing amended as necessary. The other trenches (1–4) were hand-excavated after the removal of modern overburden by machine. Each road surface encountered was planned at 1:20.

Trench 3 at the Birdlip Quarry site and Trench 4 to the north-west of the site are described with the Romano-British settlement in Chapter 4. Trench 3 provided evidence of a 4th-century road surface. Trench 4 revealed a highly disturbed Roman road surface but provided little new information.

Trenches 1 and 2, located on higher ground between Cowley Underbridge and Gloucester Beeches, were unhelpful and it was not possible to establish whether there were any surviving Roman surfaces. Trench 11 at Five Mile Underpass was also badly disturbed and it was not possible to identify the Roman surface. It revealed a large undated quarry pit. No further description of these trenches is warranted here, and the following account will be restricted to the remaining more informative trenches.

#### Description of archaeological contexts

The road sections were similar in general terms, but each was sufficiently different from the others to make the establishment of a concordance of road structures from the amalgamated sections impossible in any definitive sense. All the trenches suffered from similar problems of interpretation, the most acute of which was the lack of dating evidence. A total of only 198 sherds (590 g) of Roman, medieval and post-medieval pottery was recovered from 38 contexts – the average sherd weight being about 3 g. Some iron finds, particularly horseshoes, were also recovered although these are controversial as dating evidence (see Clark 1995, 79–81, for a summary of the evidence for Roman horseshoes, which can be dismissed under critical examination). As well as the problem of the chronological insensitivity of horseshoe types, it must be considered inherently likely that horseshoes were lost in ruts and pot-holes, particularly on poorly metallised surfaces, to be recovered as intrusive finds. The truncation of road surfaces presented further problems of cross-correlation, most obviously in the shallower sections where recent construction had resulted in the removal of upper deposits. However, there is a

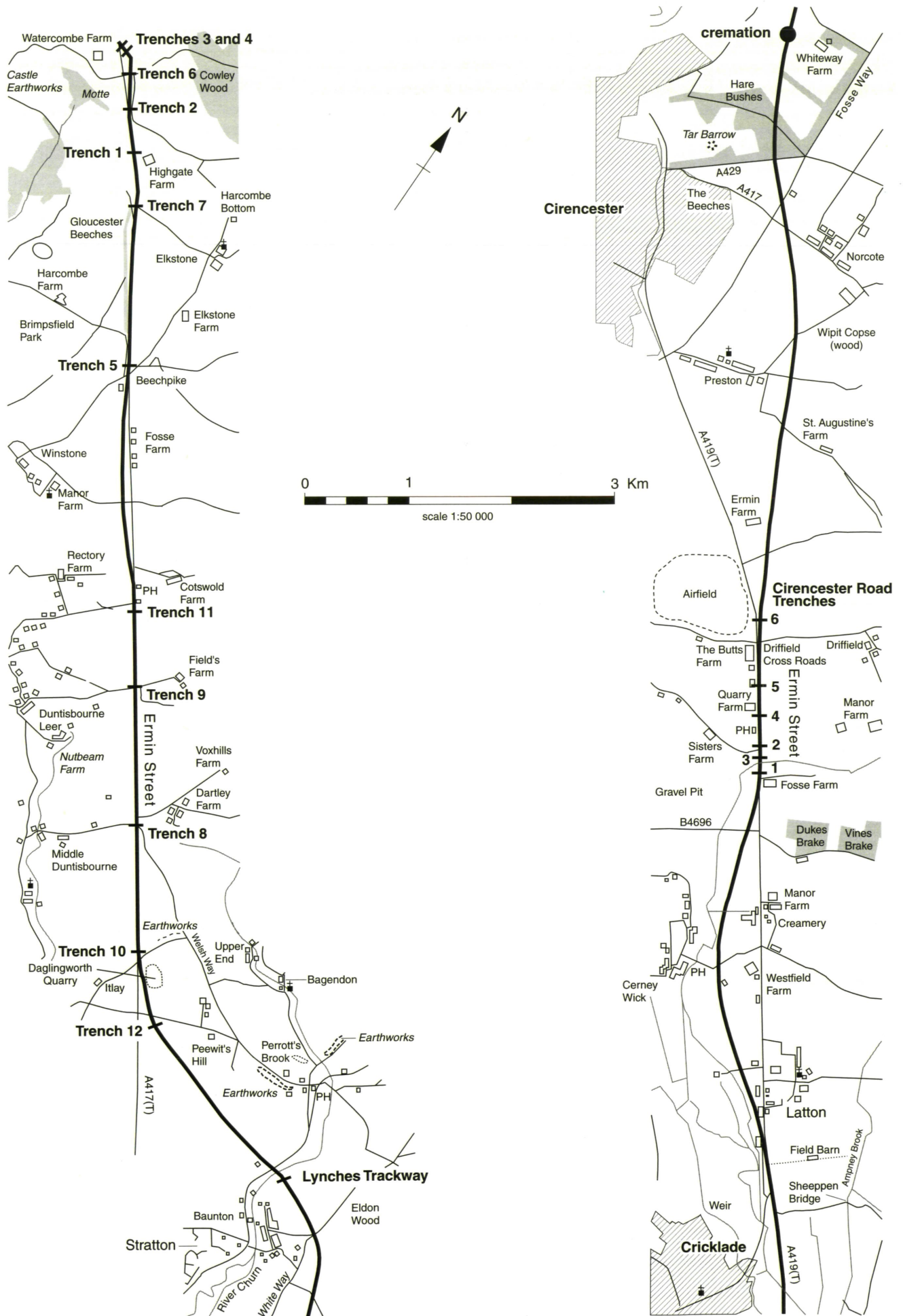


Figure 5.1 Locations of Ermin Street sections.







## Cowley Underbridge, trench 6 section

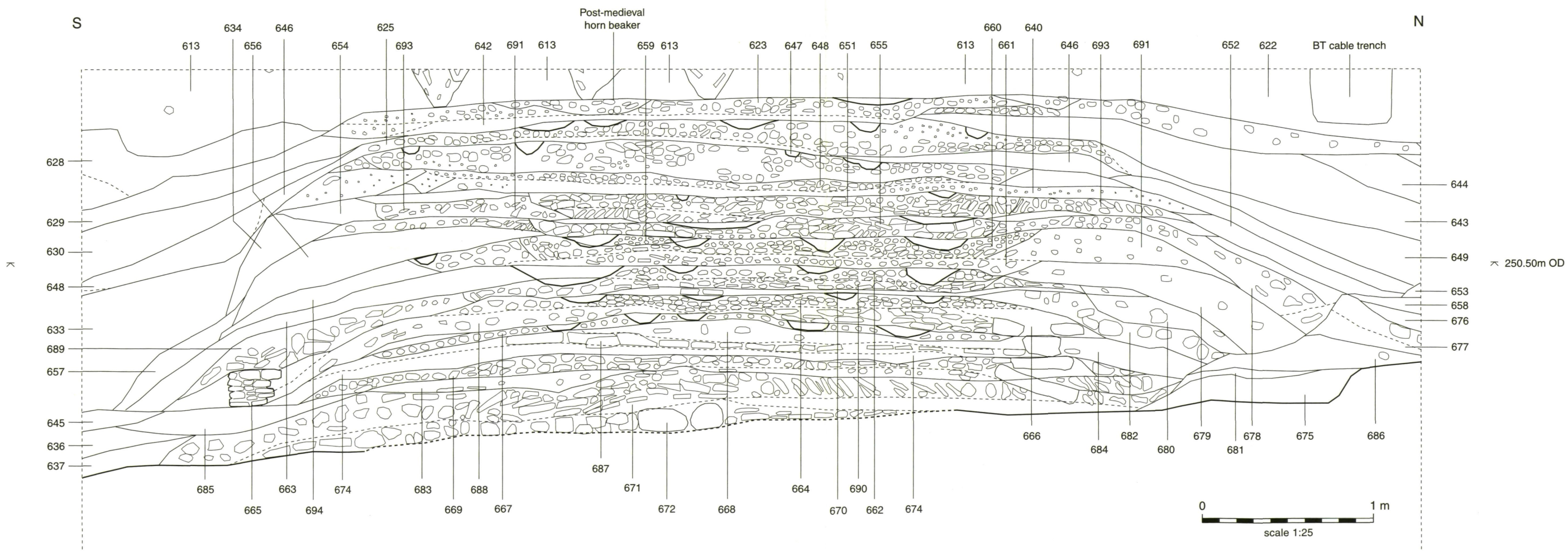
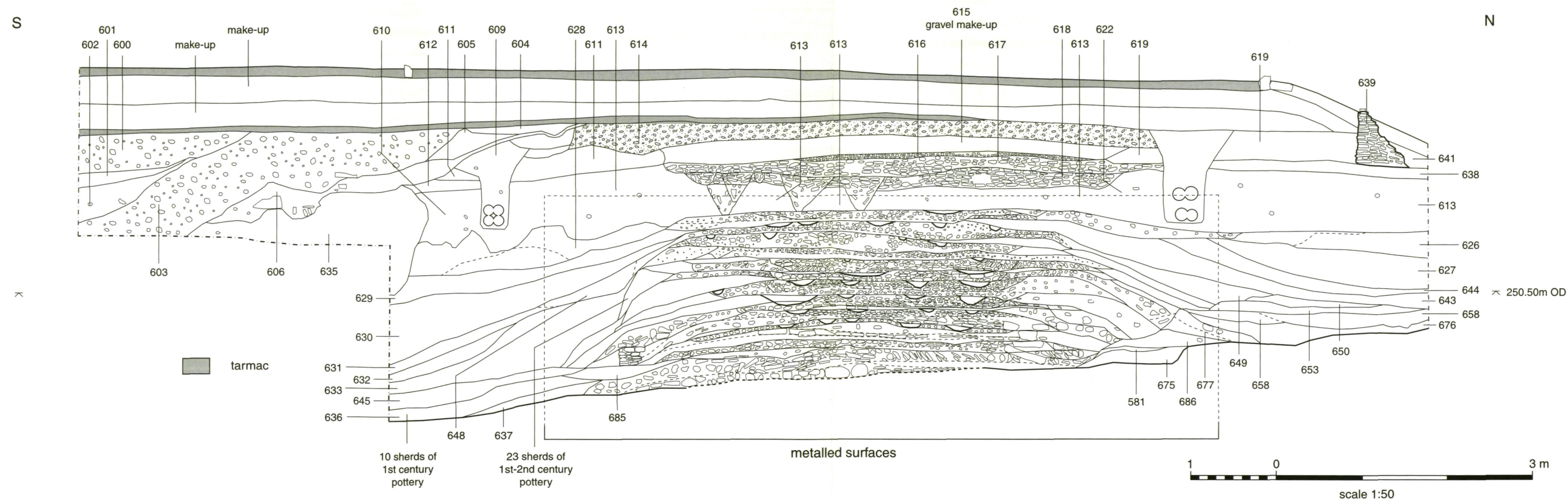


Figure 5.3 Cowley Underbridge, Trench 6, section



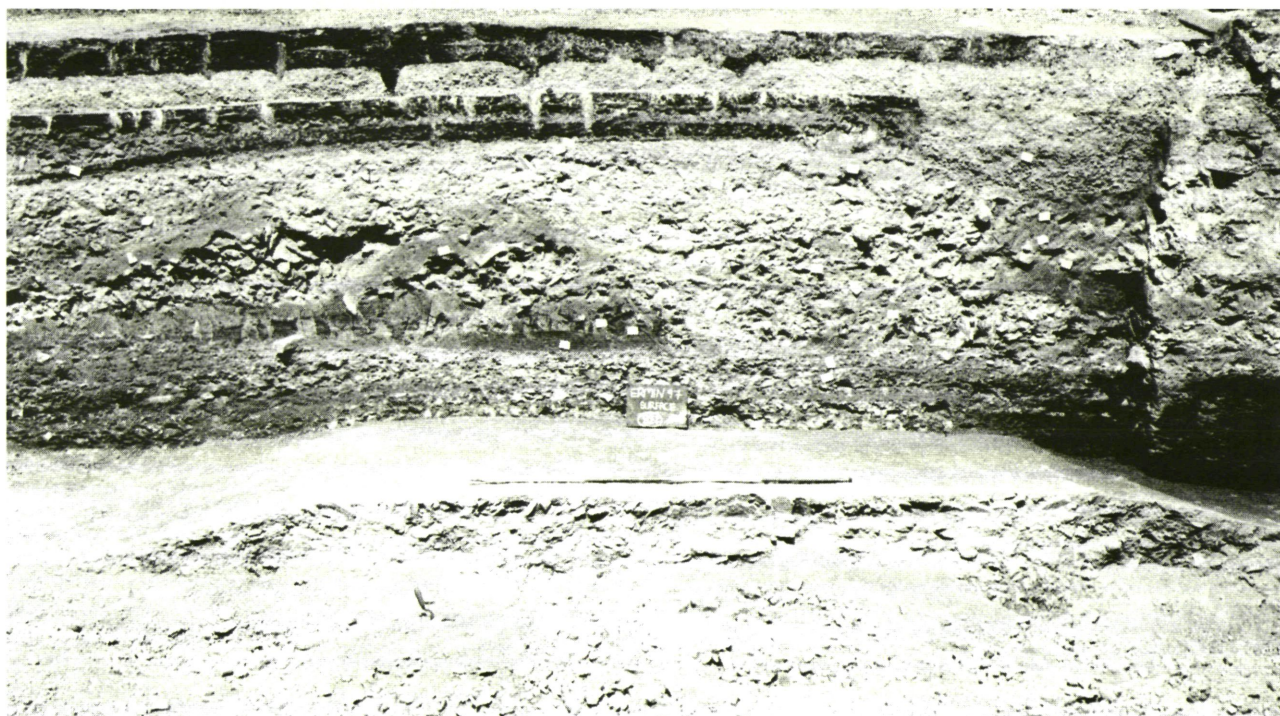


Plate 5.1 Dartley Bottom, Trench 8. Roman road surface 871.

potential problem with any sequence of roads where heavy use, and any reconstructions which involved digging down rather than building up, will result in the removal rather than the addition of stratigraphy.

To avoid excessive repetition a detailed description of each road section will not be presented here. The deeper sections at Dartley Bottom (Trench 8) and Cowley Underbridge (Trench 6) will be described in detail in order to establish the general sequence and characteristics of Roman and later road construction and use. The evidence from the other trenches will be brought in to augment and extrapolate these observations where possible.

#### *Dartley Bottom (Trench 8) (Fig. 5.2, Plates 5.1–2)*

The sequence of road surfaces at Dartley Bottom was one of the most informative regarding the way in which variations in building technique can be shown to correspond to discontinuities in the sequence of roads (Fig. 5.2). There is, however, little evidence to aid the absolute dating of this sequence, which, furthermore remains singular enough to be unsuitable as a 'key' to the interpretation of the other sections.

The trench was situated south of the Burcombe Lane section (Trench 9). The Roman road here was constructed in the head of the valley which fell away towards the north. Snails from the buried colluvial soil, 877, indicate that woodland had existed in this area before the road was constructed (see Robinson, Chapter 8), although had the ground surface been truncated at all for road construction, it is possible that this reflects woodland which had been cleared some time earlier, rather than the immediate pre-road environment. The section does suggest some levelling

of the ground, although this would seem unlikely to have been more than the minimum to provide a reasonably horizontal road base. It is therefore considered possible that the road was laid out through woodland. The initial road make-up layer, 881, was composed of limestone rubble bedded in clayey silt and capped with a surface of limestone gravel, 880. Later, a substantial amount of rubble and silt (875/879, 883) was imported to redress the slope at the northern edge of the road and raise the level of the surface (876). This may have been done to aid drainage since clayey lenses in the underlying layer, 882, suggest that the ground was occasionally subject to flooding.

The subsequent road was the most solidly constructed, with a base formed of tightly packed pitched stone, 874, capped with 'cobbled' surface 871. The two later surfaces, 851 and 842, were similar but laid on thin make-up layers, 866 and 865, which had the effect, intentional or otherwise, of increasing the camber of the road and narrowing its width.

The next phase of construction is the most difficult to understand. A substantial deposit of limestone rubble, 847, was used to raise and widen the road. This did not have a worn surface and it appears to have served as a make-up layer for surface 838 which was a single layer of worn 'cobbles'. Surface 838, however, extended for a considerable distance (over 3 m) to the north of 847 where it overlay a dark silt, 841. It seems that this extension to the surface, constructed on a fundamentally different base, could not be part of the road, unless it was simply not intended for the same sort of traffic as the 'main' part of the road. While the function of 838 cannot be resolved from this relatively small trench, it is unlikely that two techniques of construction for essentially the same road



would have been employed. It is more probable that there are two separate constructions here, the first the rubble base 847 capped with 838 or an equivalent surface which had been worn away, and the second the extension of the road surface over layer 841. This can be assumed to be a deliberate surfacing rather than a spread of metalling from the main road, because of its width and because it extended up the slope. It is difficult to know whether this extension to the road was substantially later than the surfacing of the main road. Much depends on the interpretation of layer 841. This was a friable dark brown silt with only a small quantity of weathered limestone fragments. It was probably colluvial in origin, although it was interpreted in the field as a redeposited dump to support surface 838. It clearly butted 847, but if it were a deliberate deposition it need not considerably post-date that road make-up. If, however, it were interpreted as a natural colluvial accumulation, the dating could be substantially different. Three small sherds of medieval pottery from 841 suggest that surface 838 is medieval or later, but, given the equivocal nature of the evidence discussed, this need not imply a similar date for 847.

The next road surface in the sequence, 832, follows a substantial discontinuity. This is most noticeable in its position, a metre or more north of the earlier roads, but also in the intervening accumulation of silts (833 and 836) which put surface 838 out of use. The new road was only a little over 3 m wide, but was constructed on a substantial rubble base (835) up to 0.35 m thick, cut into the colluvium. The surface was heavily worn and deeply rutted. The succeeding three roads were constructed in a similar manner, with substantial dumps of rubble make-up, particularly on the southern side, which had the effect of widening the road in this direction. A sherd of pottery dating to between the 17th and 19th centuries from rubble layer 829 give some supporting indication that these roads are turnpike and later constructions.

Another road or track surface to the south (834), was contemporary with surfaces 832 or 830, but unlike them was without rutting. It was built upon a layer of clayey silt (839) which provided a slight camber but little solidity. A horseshoe from this layer suggests a post-medieval date for its construction. It appeared to be running approximately east-west and was probably a side-road, perhaps a surface of the drove road Welsh Way which crossed Ermin Street in this vicinity.

#### **Cowley Underbridge (Trench 6) (Figs 5.3–4, Plates 5.3–4)**

The deepest sequence of road surfaces was found at Cowley Underbridge, where Ermin Street crossed the narrow valley 200 m south-east of Birdlip Quarry. The slightly oblique angle of the crossing meant that the road was constructed on a slope from north to south (Fig. 5.3). The ground within the valley was damp and the soil under the road (673) was found to contain waterlogged plant remains (see Pelling, Chapter 8). These indicated a predominantly open grassland environment, although with an arable and

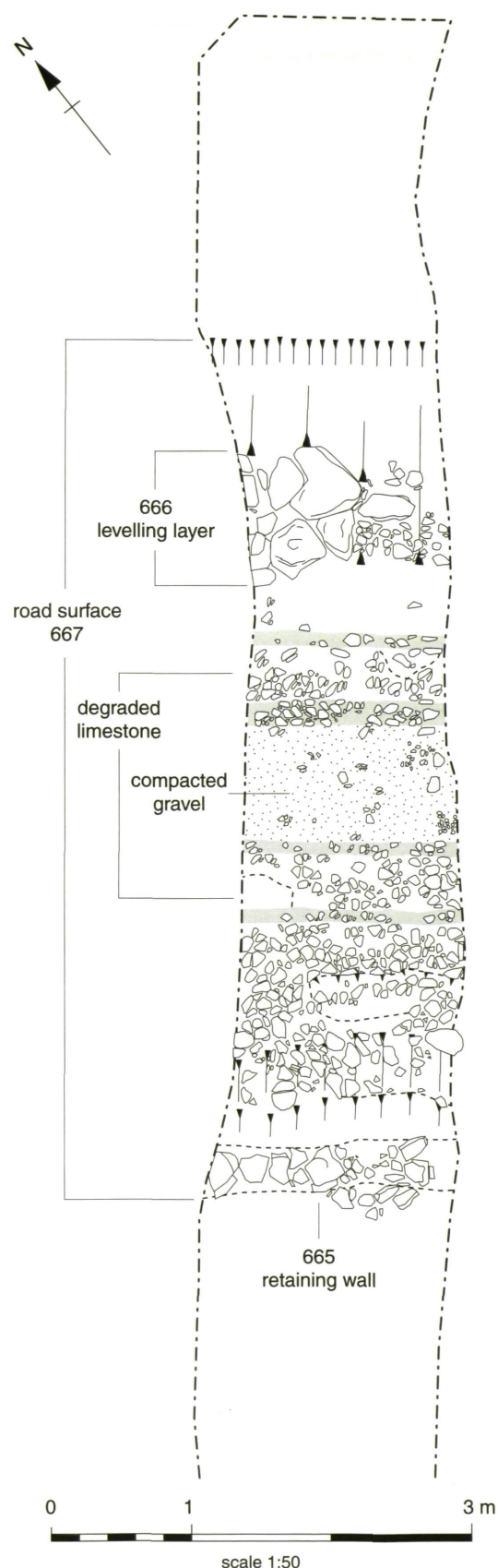


Figure 5.4 Cowley Underbridge, Trench 6, plan.



ruderal element to the flora. The preservation of these plants would suggest that the levelling of the ground for road building did not involve comprehensive de-turfing, and it is possible that the turf was removed from the top of the slope and used to raise the ground further down. Flecks of charcoal in the top of 673 may indicate that some of the vegetation in the road corridor was cleared by burning although this would not have been likely, or necessary, within the valley itself. It appears that the Roman road builders terraced the slope to the north in preparation for the construction. Deposits 675 and 686, interpreted as colluvium, appear to have been cut through and may have been deposited as a bank (deposits 650, 653) on the northern edge of the road to stop water running across its surface. There were no roadside ditches associated with this phase of construction. The first road make-up layer, 672, consisted of mixed limestone rubble in an orange-brown silty clay. This was capped by 671 which was composed of larger limestone slabs, many pitched at an angle, set in a light bluish grey clay. Slabs protruding from the surface of layer 671 were clearly incorporated into surface 669, which may have been a second phase of surfacing rather than the

original one. This layer formed a central corridor, 3.6 m wide, of small rounded limestone 'cobbles' flanked by rather larger flat slabs. The Roman road was thus almost exactly 6 m wide at its base and up to 0.38 m deep. Wheel ruts in the surface of 669 were relatively broad and shallow.

The silt deposits 636, 637, 645 and 685, to the south of the road were mixtures of redeposited natural silt with some stone rubble and appear to have been deposited to consolidate the edge of the road and to prevent the road base from spreading laterally under the pressure of traffic. A total of ten sherds (76 g) from a single early Severn Valley Ware vessel dating to the later 1st century AD derived from deposit 636. This deposit was stratigraphically earlier than road surface 669, and provides the most conclusive evidence from any of the excavations for the presence of the original Ermin Street. The care taken over the construction of the road and the distinction between the road foundation and surface, appear to be typical of the early Roman road. In this instance it is clear that there were two make up layers resulting in an extremely solid graded stone *agger*, with a camber such that the centre of the road was c. 0.1 m higher than the edges.

The difficulty with understanding the Cowley Underbridge section lies in deciding where the highest Roman surface lies. The section shows a sequence of ten road surfaces directly above 669 before a layer of silt, 613, appears to indicate that the road in this location went out of use. The sequence of roads shows similarities of construction technique, although there are also some distinctive individual characteristics. In general, each road surface was composed of small limestone 'cobbles' on a base of larger stones, which in turn were bedded into a levelling layer of clayey silt laid on the earlier surface. Surface 664 was associated with a drystone retaining wall, 665, on the south side. On the north side the terrace cut into the colluvium acted to prevent the road spreading in this direction. Higher up, surface 655 was observed to have kerbs of larger stones, although it is possible that this was a fortuitous exposure of the larger foundation stones by erosion, rather than a deliberate technique (as with surface 667, Figure 5.4). A road wash deposit (634) associated with this surface yielded a number of sherds (40 g) of early Severn Valley Ware of the 1st to 2nd centuries. This is suggestive of a relatively early date for this surface, particularly as the sherds may have come from a single thin-walled vessel broken in antiquity and are, perhaps, unlikely to have been redeposited. However, this dating evidence cannot be regarded as conclusive.

The subsequent road surface (651) was again well-constructed and had a distinctive edging of pitched stone and smaller rubble (693). This had the effect of widening the road to about 4.5 m, although only the central 3.0 m over the more solid base was rutted. The road was also distinctive in having a relatively large quantity of burnt stone in the make-up. A Roman cart linch pin came from surface 651. The southern edge of the road may also have been reinforced at this time with a dump of brown clay (633), although this



Plate 5.2 Dartley Bottom, Trench 8. Pitched stone foundation (874) for road surface 871.





Plate 5.3 Roman road surface 669 at Cowley Underbridge (Trench 6).

may have belonged to a later phase. It appears that the friable road wash silts 634 were cut back to an almost vertical face to receive this deposit.

Above surface 651 the road was constructed to a poorer standard. Surface 648 comprised a thin layer of cobbles on a sandy base. This was replaced by 647, consisting of a relatively thick rubble dump the surface of which had been worn smooth. There was no evidence of cobbling. Surfaces 625 and 623 again consisted of cobbling over a base of larger stones, but were poorly constructed and heavily worn.

After the deposition of silt, 613, the sequence again continues when road foundation 618 was dug into this deposit directly above the earlier road surfaces and to the same width. This became worn and was later repaired and slightly widened (617). This late road is clearly post-medieval and is distinguished from the Roman roads by the fact that the road foundation was dug into the underlying deposits. There was no dating evidence from 618 nor from the underlying silt 613. Below the silt, road surface 623 contained a horseshoe of probable late medieval or post-medieval date and a fragment of horn beaker (cat. 660) of 17th- to 19th-century date. This suggests that the latest Roman surface lay below 623, although it may have been a late Roman surface which had continued in use into the post-medieval period. There is nothing in the construction of 623 to indicate that it was not Roman.

## Discussion

There can be little doubt that the earliest roads in Trenches 6 and 8 were Roman military constructions. They were built on solid rubble foundations up to 0.4 m thick and capped with limestone metalling. The road surface was about 4 m wide. Similar constructions were found in Trenches 10, 5 and 9 and in the Dower's Lane watching brief. Gloucester Beeches, Trench 7 (Fig. 5.5) was the exception in this, as in other respects, as the first *agger* (756) was relatively slight and composed of smaller stones. It is probable that the solidity of the road foundation was related as much to ground conditions as to the prescribed method of construction. It is known from excavations in other parts of the country that the size and composition of the *agger* could vary substantially without any apparent reason (Taylor 1979, 67–69). From the Burford Road sections (see below and Figs 5.9–5.10) it appears that metalling was sometimes laid directly on bedrock where this was considered solid enough.

It is apparent that Ermin Street was repaired or reconstructed on a number of occasions during the Roman period. The Dartley Bottom section (Fig. 5.2) indicates that there were at least five Roman constructions here, the third of which, with an *agger* of pitched stone, was perhaps the most solid. Of the eleven road surfaces at Cowley Underbridge (Fig. 5.3), the first seven (up to surface 651) are almost certainly





Plate 5.4 The earliest Roman road surface (669) beneath Cowley Underbridge (Trench 6).

Roman, with the pottery from layer 634 suggesting a date for the sixth surface (655) no later than the 2nd century. Surface 651 used pitched stone in its construction, but the technique was mainly used in the road edging. It is worth noting that the sixth road construction at Burcombe Lane (Trench 9), 1 m above natural subsoil, was also of pitched stone capped with metalling, as was the fifth construction identified in the watching brief at Dower's Lane Underbridge, 1.2 m above natural. There was also some pitched stone in the road foundation 1036 at Itlay Underpass (Trench 10) towards the top of the sequence (Fig. 5.6). There is no evidence that these are not Roman. It is possible that the use of pitched stone was a technique particularly prevalent in the later Roman period in this area. At the Birdlip Quarry settlement it was used from the later 3rd century (and probably not before), although the domestic context of this site may not be comparable with the road. Even in the later period Ermin Street seems likely to have been constructed either directly by military engineers or civil engineers trained in the military method (Taylor 1979, 52).

Pitched stone was used for the earliest road at The Highwayman (Fig. 5.7) where the *agger* (533) was carefully constructed and sealed with redeposited local clay (532). Elsewhere in this trench the use of

pitched stone was not evident and it was absent from Gloucester Beeches (Trench 7). The number of Roman surfaces in Trenches 5, 7 and 10 is open to question. At Gloucester Beeches (Fig. 5.5) there are likely to have been no more than two (733 and 771/734) although the later wheel ruts makes this difficult to assess. A post-medieval horse shoe came from rut 770. Itlay Underpass (Fig. 5.6, Plates 5.5–6) and The Highwayman (Fig. 5.7) both show an uninterrupted sequence of road surfaces until they are truncated by the modern road. It is unclear how many are Roman but at Itlay Underpass the use of kerb stones as a revetment for surface 1051 (robbed on the south-west side) is similar to the technique used for surface 664 at Cowley Underbridge, and it seems reasonable to assume that this was also a Roman construction. If the later use of pitched stone in 1036 is equivalent to 651 it would indicate a similar long sequence of Roman construction at Itlay Underpass. The evidence, then, may suggest a systematic rebuilding of Ermin Street later in the Roman period, but it is not conclusive, particularly as pitched stone was used in a likely post-medieval context at Burford Road Trench 3 (layer 309, Fig. 5.9).

Despite these reservations, it is clear from the excavations at Birdlip Quarry with Trench 3 of the Ermin Street sections (Fig. 4.101–4.102) that road construction did continue into the 4th century, albeit in a more rudimentary fashion. At this site the lateral expansion of Ermin Street with the deposition of a layer of cobbles can be dated reasonably securely to c. AD 320–330. The context of this development is unclear, but the extent of the cobbling south from the roadside settlement, up to 10 m wide and parallel to Ermin Street proper, suggests that this was more than a local surfacing related to site access. At Field's Farm, 6 km to the south, a cobbled surface was found to have been laid over an infilled quarry pit (Fig. 4.3). The pit was probably connected with the construction of Ermin Street and the cobbling certainly appears to represent a later widening of the road. The intact surface was exposed for a width of 1.4 m. Since the original road was not encountered it is unclear how wide this surface was, but a projection of the road from Ermin Street Trench 9 indicates that this cobbling may have extended 8 m from the main alignment. An early 4th-century coin (cat. 217) from the surface of the cobbling suggests that it may have been laid around this time. The location of this road surface at some distance from a contemporaneous settlement supports the suggestion from Birdlip Quarry that the road surfacing was not associated with access to the settlement. It also appears to have been unrelated to the funerary monument at Field's Farm whose ditch had probably silted up by the 3rd century. In addition, a worn cobbled surface at the margin of Ermin Street was recorded in Trench 1 at Daglingworth. Its proximity to the post-medieval dewpond in this trench (Chapter 6) suggested that the two may have been associated but the surface was undated. It is worth noting that a 4th-century coin (cat. 219) came from the overlying layer. At Sly's Wall South remnants of peripheral cobbling could not



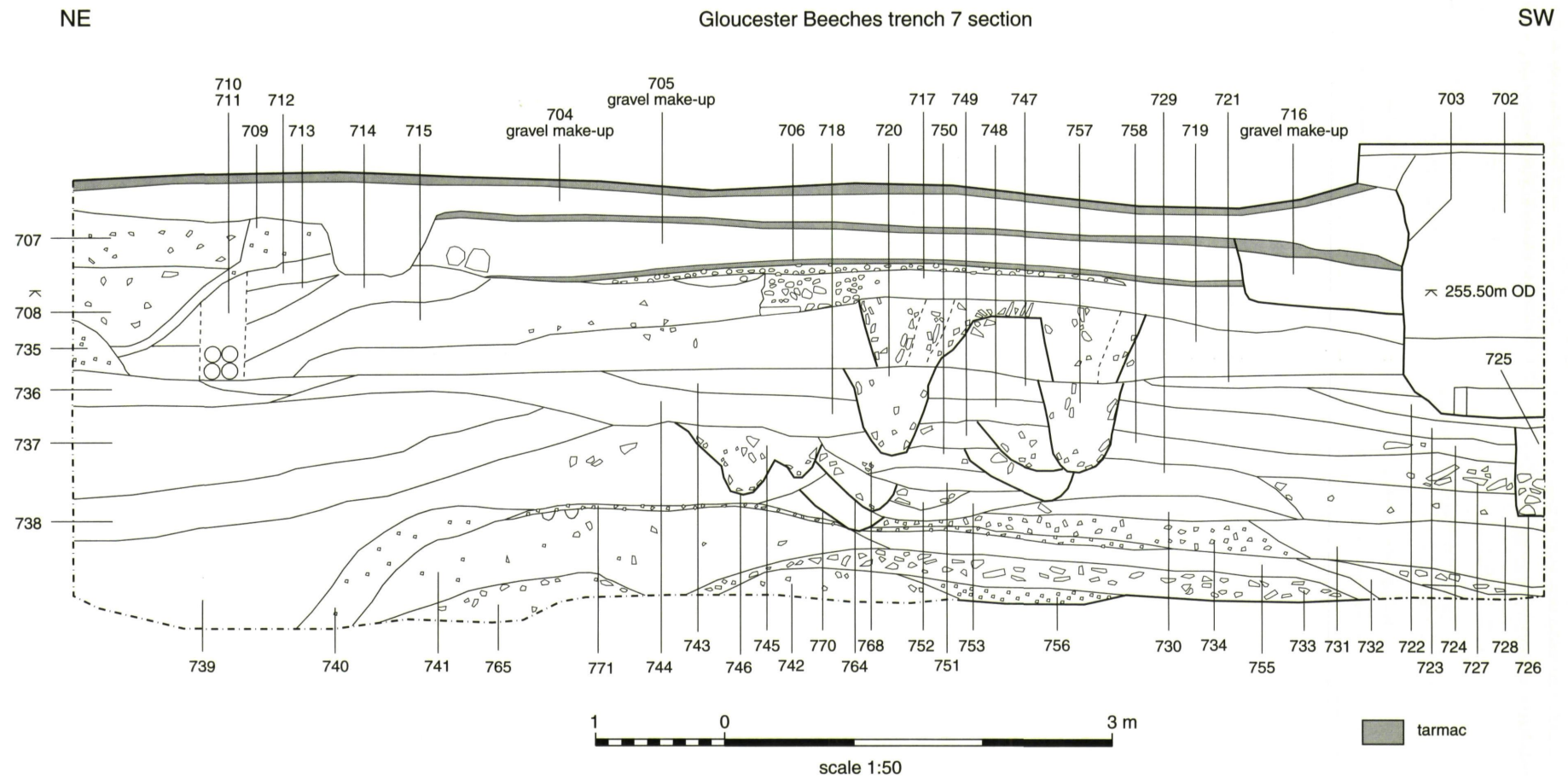


Figure 5.5 Gloucester Beeches, Trench 5, section.



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## Itlay Underpass trench 10 section

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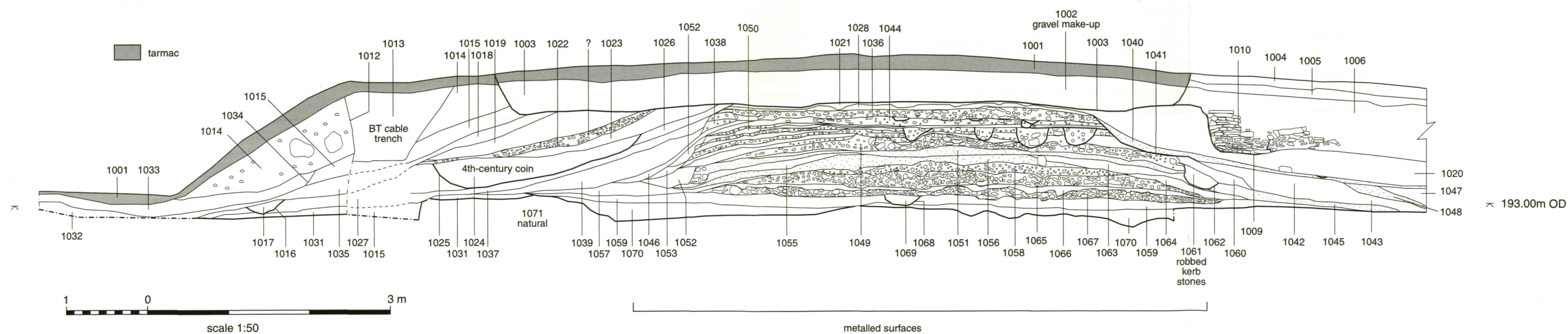


Figure 5.6 Itlay Underpass, Trench 7, section.

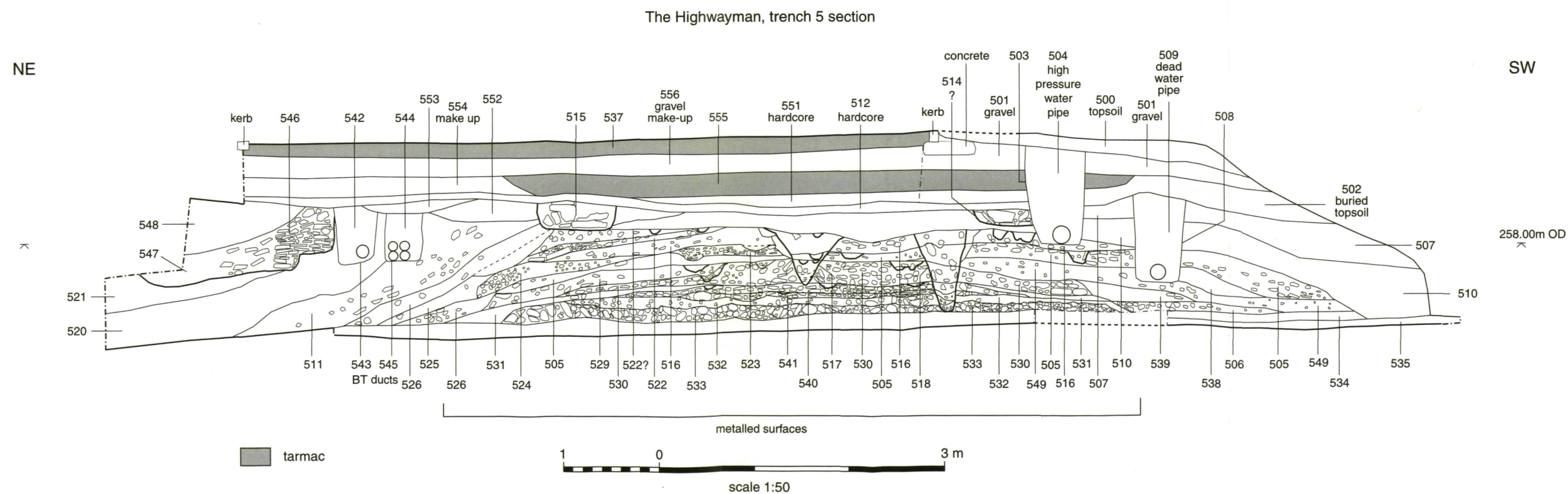


Figure 5.7 The Highwayman, Trench 10, section.





Plate 5.5 The earliest Roman road surface (1066/1067) in Trench 10 at Italy Underpass.

clearly be a late Roman road, although this does remain a possibility.

At Cowley Underbridge (Fig. 5.3), surface 648 (conceivably but not demonstrably 4th-century in date) was a poor quality cobbled surface, but it did not widen the road. The Gloucester Beeches section further south (Fig. 5.5) is difficult to interpret. There was a widening of the road with surface 771 and this was directly overlain by a thick deposit of silt 739, so the surface may have been late Roman. The trench at The Highwayman (Fig. 5.7) gave little clue as to the date of any of the road surfaces above the earliest one, although layer 505 appears to represent a widening of the road, albeit on the other (south-west) side. The Dartley Bottom trench provides the most intriguing evidence for late road widening in the form of cobbled surface 838, but the medieval dating evidence from 841, while contestable, could identify this as a post-medieval surface rather than a 4th-century one (Fig. 5.2). The other road sections, including the Burcombe Lane trench, just 120 m south-east of Field's Farm, yielded no useful evidence on this question, probably due to truncation. The main road sections therefore give no reliable support to the suggestion of a general road widening in the 4th century although the question still remains open. It may be argued that these sections, the points where the road crossed dry valleys, should be viewed as special cases where road widening would have been less practicable and therefore less likely even if it had been undertaken on the flatter ground. The question as to why widening the road should be considered necessary at all is a further enigma. It may have been an alternative to

strengthening the main body of the road by allowing an alternative or more dispersed passage, although this would appear to be an unconventional, and perhaps, unlikely response to the problem. Another possibility is that it was a pavement to one side of the road for horses and pedestrians. Either intention carries the implication that the road was considered important at this time although its repair was to a lower standard and, as far as can be judged, not influenced by Roman engineering textbook practice.

The difficulty of understanding the middle sequence of roads at Dartley Bottom (Fig. 5.2) has been discussed. The clear discontinuity above the make-up/metalling 847/838 would suggest that this was the latest Roman construction and that it was followed by a period of soil accumulation. The translation of this sequence to the Cowley Underbridge section implies a sequence of eleven Roman road surfaces before a standstill in construction and soil accumulation. However, as well as medieval pottery from 841 at Dartley Bottom (which is unhelpful but can be accommodated in this interpretation) there are also two horseshoe nails from surface 842 which suggests that this was the road surface inherited in the medieval and post-medieval period, and that the overlying road (847) was almost certainly of turnpike date. With this alternative date, the re-alignment and narrowing of the turnpike road with the later construction of 835, then needs explaining.

If the implications of a turnpike road lying directly on a Roman road surface extended to the section at Cowley Underbridge (Fig. 5.3), similar difficulties of interpretation are introduced. Here, the turnpike road





Plate 5.6 Italy Underpass, Trench 7, section.

construction equivalent to 847 is likely to be 647. This is different from the underlying roads in that it consisted of a relatively thick layer of rubble with a smoothed and rutted surface, but without evidence of metalling. It also appears to have been associated with a consolidation of the southern road margin in the form of a dump of clay 633. It is similar to layer 530 at The Highwayman, although they are not necessarily equivalent and neither contained dating evidence. The later surface, 623, was almost certainly used in the post-medieval period, but if it were a turnpike repair rather than the surviving Roman surface, the layer of silt (613) before the presumably 19th-century reconstruction (618) again needs to be explained.

One key to interpreting these sections is to understand how the post-medieval roads were constructed and what evidence to look for. The course of Ermin Street from Cirencester was on the principal route between London and Gloucester in the 17th century (Albert 1972, 36), an importance which it had presumably held since the Roman period. It may therefore have been repaired at any time from then using the traditional parish-based system of labour which was formalised by statute in 1555 (Jackman 1962, 33–36). However, the lack of a significant volume of wheeled traffic before about 1600, coupled with the comparatively high quality of the original Roman construction in this section of the road, makes it unlikely that any substantial repairs were undertaken until the 17th century at the earliest. Even then, these

are likely to have been *ad hoc*, intermittent and of variable quality, and may have involved merely patching the Roman road where it was considered necessary. The evidence for extensive wheel rutting in all the roadside excavations of the project, which included the erosion of a hollow way at Middle Duntisbourne, suggests that had any road repairs been undertaken before the turnpike era, they were entirely inadequate.

The importance of this route between London and Gloucester is reflected in the comparatively early date at which most of it was turnpiked. The section from Gloucester to the top of Birdlip Hill was one of the earliest turnpikes in the country (by an Act of 1696/7) and other sections of the route, via Lechlade and Henley, followed. The road from Cirencester to Lechlade was turnpiked in 1727. The road between Birdlip and Cirencester, turnpiked in 1747, completed the route. Whether the turnpiking led to any substantial reconstruction of the road is open to question. Road construction in the early stages of turnpiking was not necessarily based upon sound engineering principles, most of the effort of road maintenance being expended on measures to impose restrictions on road users (Albert 1972, 132). It was only in the later 18th century that a consensus on best practice began to emerge. This became more formalised in the early 19th century, particularly under the influence of J L McAdam and the pressure of official concerns, such as those of the Board of Agriculture and the Post Office. With regard



to the operation of the Turnpike Trusts, Albert (1972, 138) states that:

'Although construction of foundations and attention to road form were an important part of the repair procedure of certain trusts, most trust repair was concerned primarily with placement of large quantities of materials upon the road. The majority of repair orders dealt with the acquisition of materials, and carting and material costs generally comprised the greatest proportion of repair expenditure. However there were but few directives made which stipulated how the materials were to be applied ... This suggests that on many roads the placement of materials may have been as haphazard as some critics have claimed.'

It is possible, then, that the earliest turnpike road consisted of dumps of rubble, such as layers 847 and 647 (Figs 5.2 and 5.3), upon the worn Roman surface. Only in the early 19th century were more fundamental road constructions undertaken, involving the more marked elevation of the road surface at Cowley Underbridge (618) and Dartley Bottom (832). The dump, 719, at Gloucester Beeches may also be identified with this phase, although the material was almost pure silt. All these constructions can be seen as following the methods of J L McAdam whose aim has been summarised by Albert as 'the construction of a smooth, elastic road surface formed upon a dry subsoil' (Albert 1972, 142). McAdam's main principles of construction were that the road should be raised above the level of the surrounding ground to aid drainage, with the addition of side ditches if necessary; and that the road surface should be made as impermeable as possible by rolling or ramming in a surface of metalling. He gave less importance than Telford did to building the foundation of solid stone which he considered both expensive and unnecessary, for he said that a properly consolidated road surface formed upon a well-drained subsoil could support any weight. In the interests of economy he also did not construct roads wider than necessary for the volume of traffic, and 14 to 16 feet (4.5–5.0 m) of metalled surface was normally considered sufficient (Jackman 1962, 276, footnote 1).

If these elevated road surfaces at Cowley Underbridge and Dartley Bottom mark an early 19th-century road improvement, silt deposits 613 and 833 would have to be seen as imported rather than accumulated material. There was no real indication that this was the case, although since the 'McAdam method' recommended the use of cleaned or sifted materials, it is possible that the resultant homogeneity of a road embankment would appear similar to a natural accumulation. Certainly, the clean dumps of silt on the Roman road surface at Birdlip Quarry (Area 1, context 1206; section 270 Area 6, context 1163, section 268 – Fig. 4.100; and possibly Ermin Street Trench 4, context 404) would suggest that this recommendation was put into practice on Ermin Street.

The successive rebuilding of the 19th-century road at Dartley Bottom is noteworthy. Five cobbled road surfaces can be identified before the first, relatively

narrow, tarmac surface (806) which was probably laid shortly after 1900 (Trinder 1992, 632). Due to the truncation of the upper road surfaces in the other sections, it is unclear how typical this sequence might be, but it may be seen in the local context of the difficulties posed in negotiating this particular valley with a road of acceptable width and gradient.

The conclusion from these sections is that well-constructed Roman road surfaces continued to be laid on top of the original military road probably into the 2nd century or even into the 3rd century AD. This resulted in a stratified sequence up to 1 m thick in places. There may have been some late Roman surfacing of a more rudimentary nature, but the use of the Roman road throughout the next 1500 years with *ad hoc* repairs as required and when resources allowed makes it impossible to identify the latest Roman surface with any confidence. In the turnpike era more large-scale repairs were undertaken, but in the early years these were probably no more than deposits of rubble on the worn road surface. These are thought to have included layers 847 at Dartley Bottom and 647 at Cowley Underpass. The late 18th and early 19th centuries marked a more fundamental reconstruction of Ermin Street on banks of imported silt into which the road foundation was inserted. This had the effect of improving drainage and easing the gradient while appreciably widening the road corridor, although the metalled surface itself was still relatively narrow.

## ERMIN STREET TRENCHES SOUTH OF CIRENCESTER (Fig. 5.8)

### Introduction

Six trenches were excavated from the new Driffield Junction to Fosse Farm on Cirencester Road (Fig. 5.8), in order to investigate archaeological deposits associated with Ermin Street. The positioning of the trenches followed topsoil stripping which was monitored to establish areas of greatest archaeological potential, taking into account the depth of the engineering formation level which was not to be exceeded. All the trenches were outside the road corridor of the old A419. Only one trench (Trench 3) revealed a fairly well-constructed, rutted road surface, which was almost certainly Roman. The other trenches revealed little of archaeological interest.

In addition to these trenches the margin of Ermin Street was revealed at Street Farm, Latton. This is described below.

### Cirencester Road Trench 3

#### Description

The trench was 12 m long by 2.2 m wide excavated perpendicular to the modern road. A metalled road surface (3004) was encountered under overburden. Only the eastern edge of the road was revealed and indicated that the road was over 7 m wide. Wheel ruts indicated that the road ran at an angle to the modern



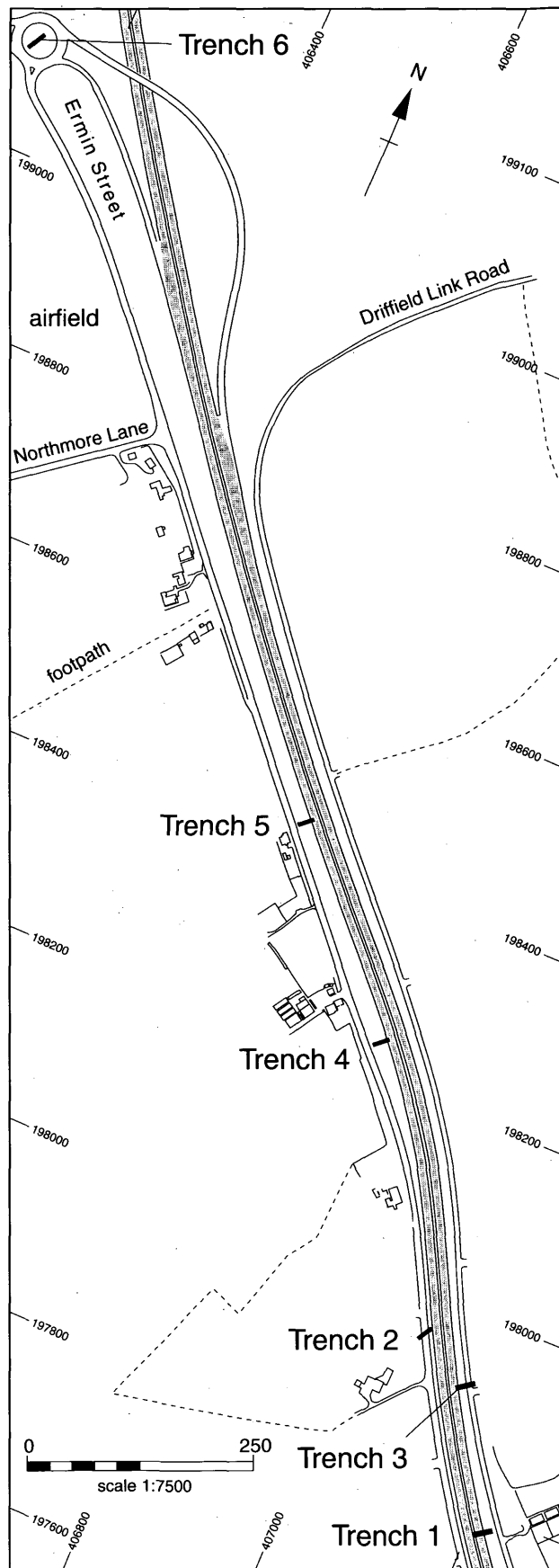


Figure 5.8 Cirencester Road, Trench locations.

one, in a more east-west direction. The road was built upon dumped deposits of clay and stone, up to 0.12 m thick, which rested upon natural alluvial clay. Above this was a foundation layer (3005) which was a dump of 60% small and medium stone supporting the metalling. The foundation and metalling reached a maximum thickness of about 0.25 m over the dumped deposits. The road was therefore a solid construction although the *agger* was relatively slight and there was no noticeable camber.

#### Discussion

It is not surprising that five of the trenches failed to encounter Roman Ermin Street since it had been presumed to lie under the modern A419. From the results of the trenching it can perhaps be assumed that, for the most part, it does. In view of this, the road in Trench 3 was somewhat unexpected. There is no reason to suppose that it was not Ermin Street, although it lacked the depth of deposits and re-surfacings which were evident in the trenches excavated north of Cirencester. This may be due to its different topographic position or history of use. The construction was not substantially different from that found in the sections of the road excavated north of Cricklade (Wainwright 1959, fig. 4), where the road was about 8 m wide and 0.5 m high and apparently only of one phase. It was also similar to the section of road excavated at Weavers Bridge in Stage 2 Evaluation Trench 1 (CAT 1994) which was about 7 m wide with a very slight clay *agger*.

Another puzzle is the slightly different alignment of the road. This may be explained by the local topography since Trench 3 was positioned in a shallow valley where the road crosses a small stream (Muttleford Stream on the map of Andrews and Drury 1773) just north of Fosse Farm. The alluvial clay in this trench contrasted with the natural limestone geology in all the other trenches. It is possible that the road deviated in order to follow the most suitable ground in this, presumably rather boggy, area. It is further possible that this road represents one of an unknown number of alternative routes across this valley – one which later became abandoned as the road followed a new course just to the south. This is one possible explanation for the lack of evidence for re-surfacing.

A projection of the road eastwards would indicate that it increasingly parted company from the A419 for a short but unknown distance before being re-aligned in a more southerly direction, possibly closer to Fosse Farm than any of the current roads. The area excavations at Fosse Farm, on the other side of the A419, revealed no trace of the Roman road, although it would not have been expected this far south-west in any case. In a westerly direction a projected alignment follows the south course of the A419 Cirencester Road tolerably well. The absence of roadside ditches from all the trenches here suggests that they were never dug in this section of Ermin Street, although it does not prove it since the other five trenches, as well as the



Fosse Farm and Lower Street Furlong excavations, may have been positioned too far from the Roman road.

### Ermin Street at Street Farm

The edge of Roman Ermin Street was exposed in the excavations at Street Farm, Latton on the extreme south-east margin of the site. It was observed running for 33 m. Hand excavation in a 3 m-wide section (Transect 1) examined the gravel *agger* to a width of 2.2 m. The construction was found to be about 0.4 m thick with a slight camber. It overlay a buried soil.

The *agger* was constructed with a series of six compacted gravel layers. These were very clean and showed no signs of wear. Similar bands of natural gravel were seen in the sides of nearby quarry pits reinforcing the suggestion that the road here reflected a single phase of construction, with gravel laid down as it was excavated from nearby pits. The underlying soil was a reddish brown, almost stone-free clay loam. There was no evidence to date the construction of the road. In Transect 2 quarry pitting of probable Roman date was examined. This was much disturbed by later quarrying, but appeared to represent linear quarrying associated with the construction of the road.

Little of the Roman road was exposed. As it survived it appeared to represent a single phase of construction, but there was no evidence of a road surface and it appeared that the original surface or surfaces had been truncated. It therefore remains unclear what the sequence of construction and repair was on this section of road.

### BURFORD ROAD SECTIONS (Figs. 5.9–10)

#### Introduction

The excavations at Burford Road, Cirencester, comprised two long transects, each measuring c. 50 m by 4 m, positioned to obtain cross-sections through the modern road in order to examine its precursors - in particular the Roman Fosse Way (Fig. 3.28). The work was conducted in two phases to allow for road closure and the diversion of traffic along a temporary road. Initial excavations were undertaken in Trenches 1 and 2 to the south of the A419 and in Trenches 3 and 4 to the north of the road. The central sections (Trenches 5 and 6) came in the second phase and completed two continuous transects through the road and its surrounds. The eastern transect thus comprised Trenches 1, 5 and 3 (Fig. 5.9) and the western one Trenches 2, 6 and 4 (Fig. 5.10).

The OAU trenches were located in the area of CAT evaluation trenches 512, 513, 514 and 515 (CAT 1991a). While these were unable to section Burford Road itself, some evidence was obtained to suggest the presence of the Roman road and roadside ditches/quarries as well as roads and quarries of the turnpike and later eras. It is not the intention to re-examine this evidence in detail, although some comments are warranted in the light of the OAU excavations, particularly as the evaluation results have been included in a recent

synthesis of the archaeology of Cirencester (Darvill and Gerrard 1994, 53).

### General results

One of the main features common to both transects was the substantial loss of ground on the southern side of the road due to post-medieval quarrying. This impression is exaggerated by the depth of made ground under the modern road. Even so, in Trench 2/6/4 a projection of the surface of the bedrock from beneath the modern road suggests that up to 2.5 m of ground has been lost (Fig. 5.10). This may, in fact, be an underestimate since it is unclear whether the original surface of the bedrock is evident anywhere in Trench 2. In Trench 3 the depth of quarrying may have been shallower, but not a great deal. To the north of the A419, there had been less quarrying, although post-medieval quarry 415 (Trench 4) had truncated the earliest road surface in this transect (410) and removed the ground to the north for a distance of over 6 m. It may have been the same feature as the slightly narrower quarry found in Evaluation Trench 514, about 10 m to the west (Fig. 3.28), and was about the same width as the post-medieval quarry in Evaluation Trench 513 to the east which again cut the earliest road surfaces. There therefore appears to have been substantial linear quarrying on this side of the road in the post-medieval period, although not on the scale of that to the south. This has undoubtedly affected the survival of Roman features.

In Trench 3 the shallow quarry 319 was almost certainly Roman, but remains the only feature in the current excavations with convincing evidence for a date this early. The road surfaces themselves lacked any such evidence. In Trench 2, the potsherds from the quarries 204 and 213 on the southern side of the A429 were exclusively Roman, although, taking account of the more recent ground loss here, it is unclear whether quarries of this size are likely to be of Roman date. Evaluation Trench 512 yielded exclusively Roman pottery from a surprising depth (more than 3 m below the modern surface) and it seems likely that there was a Roman quarry here, although the excavations were too limited to substantiate this and, since the depth to bedrock remained unrevealed, it was unclear how deep the original features might have been. A Roman roadside ditch was identified in Evaluation Trench 514, although there is a problem with post-medieval material which may have been intrusive. In Evaluation Trench 515 the presence of a Roman roadside ditch was also asserted on the grounds of morphology and alignment, although there were no finds. The evidence for Roman activity in this area therefore remains slight and there has been significant truncation by later features.

Only 99 sherds (696 g) of pottery, from 17 contexts, were recovered. They dated to the Roman and post-medieval periods. The Roman pottery dated predominantly to the 2nd to 4th centuries AD and the post-medieval material was mainly 18th-century or later. There were a number of other finds, including



nails, horseshoes and miscellaneous iron objects, and some brick and tile. Most of this material was unhelpful for dating purposes.

### Trench descriptions

A similar sequence of road surfaces and associated deposits were encountered in both trenches. In Trench 1/3/5 the earliest definable road construction, 553, overlay silts 529 and 573 (Plate 5.7). This was heavily rutted, the ruts from this surface probably causing the apparent rutting in silt layer 529 which, however, is less likely to have been used as a road surface. It is unclear how well this road was originally constructed. The only evidence for road foundation was on the southern edge where surface 575 was laid on a base of small rubble and silt. It is possible that this was a better preserved remnant of 553 which had been intensively churned elsewhere. To the north, a thin layer of stones, 317, over 325 appears to have been at least partly contemporary with 553 but perhaps a later extension. It was possibly as much as 6 m wide. There were no finds from the road layers themselves but the overlying greyish silts 535 and 320 contained a fragment of bottle glass, two clay pipe stems and a horseshoe fragment. In Trench 2/6/4 the equivalent road construction, 661 and perhaps 673, were limited to the area overlying surface 410/663. The later road appears to have been laid after cutting into accumulated silts 409 and 620. The surviving evidence indicates that this road was only about 3 m wide, although it is possible that its extent to the south was removed when the make-up to the subsequent road, 621, was prepared. Two farthings of Charles II (1660–85) came from 620 (cat. 223–224). This is important dating evidence since the coins were found close together and are likely to have been associated, ruling out any question of residuality. At face value, this gives a quite precise *terminus post quem* for road surface 661.

Road 621 was a far more substantial construction. Preparatory works appear to have included levelling the ground to the south and dumping a bank of silt (405) on the northern side. The road was constructed of limestone rubble, up to 0.4 m thick, without any evidence of a separate surfacing. It is possible that quarry 415 to the north was dug to supply the stone.

In Trench 1/5/3 the equivalent construction 302/524 followed a phase of road which was constructed of pitched stone (309). This was offset north of the earlier main roads. It was not evident in either Trench 4 or Evaluation Trenches 513 and 514, probably because of the later quarrying. The technique of construction is unusual in the post-medieval period but there can be little doubt that it was of that date. A horseshoe of post-medieval type came from the stones themselves while a post-medieval sherd and a clay pipe stem came from the overlying silt 310.

The detail of the subsequent road 302/524 was better preserved in this trench. It can be seen to have been flanked by substantial deposits of imported silt 313/303/542/527 cut by a shallow ditch, 528, on the

southern side. The road make-up consisted of limestone rubble in a matrix of redeposited natural silt, and may have had an integral surface of more tightly-packed stones (301/523). Despite the relatively massive construction of road 621/302/524, the road was still quite narrow (4–5 m).

In the next phase the road corridor was widened to the south with a considerable dump of silt, 602 and 529. This was retained by drystone walls 605 and 566 (later repaired with concrete blocks 536). It is likely that this coincided with the major period of quarrying to the south and it appears that the quarry to the north was filled in. To judge from section 6, the new road (627) did not fill this corridor. This was left to the later roads of the 19th and 20th centuries whose basal layers (610/545/509) became surfaced with tarmac to a width of 8 m or more.

The earliest deposit in Trench 2/6/4 was the fragmentary remains of road surface 410/663 which had been laid directly on limestone bedrock. To the south the surface was unrecognisable although the natural limestone which had been worn and eroded (629) appears to have been used as the road. The truncation of 410 to the north left an intact surface only about 3 m wide. This was probably the same as the earliest road surfaces in Evaluation Trenches 513 and 514 which were also laid directly on bedrock. In Trench 1/5/3 there seems to have been no corresponding surface, the earliest deposit being a stony silt, 574, which probably represented the eroded remains of one. This was overlain by an accumulation of less stony silt 579/325 and 573. A horseshoe from 573 suggests that this material was medieval or later in date. It is significant that the earliest deposits in both transects lay in slight hollows suggesting that the earliest road surfaces had been largely worn away. Layer 325 sealed a shallow quarry, 319, which was largely filled with a pale yellow silt (323) yielding 39 sherds of 2nd to 4th-century pottery and some Roman tile. A fragment of late medieval or post-medieval horseshoe (Type 4) and a horseshoe nail also came from this feature, but these are judged to be insufficient as dating evidence and these items were probably intrusive. A further seven sherds of later Roman pottery came from fill 318. It is probable that this quarry was Roman and may have marked the northern edge of the Fosse Way. In that case the Roman road would have been 5–6 m wide.

### Discussion

The Burford Road excavations failed to find any incontrovertible evidence for a Roman road under the modern one, although the earliest surface in Trench 2/6/4 (layer 410/663) is considered likely to have been one. This appears to have been completely worn away further south and also in Trench 3/5/1. The coins of Charles II from the overlying silt, 620, suggest that the Roman road was in continuous use, without repair, into the turnpike era, with the resulting formation of a slight hollow way in the limestone bedrock.

The Roman road does not, in any case, appear to





Plate 5.7 Heavily rutted road surface (553) under the modern Burford Road (Trench 5 looking south-east).

have been a substantial construction and was without evidence of an *agger* (although this may have been eroded away completely). It was probably considered that the bedrock provided sufficient foundation for the road surface. In common with the situation found in the Ermin Street sections, it does not seem to have been generally thought necessary to dig roadside ditches. Quarry 319, which may have been of linear form, presumably provided the metalling.

The dating evidence, such as it is, indicates that the subsequent road surfaces were probably post-medieval. This evidence should not necessarily be taken at face value, since the very nature of road use and repair before the modern era would suggest that finds may have come from deep ruts and pot-holes which became filled in with material of similar character to the original road. However, road surface 553 appears to be securely later than quarry 319 and must have been late Roman at the earliest even if the medieval *terminus post quem* provided by the horseshoe from 573 is ignored. The finds from the overlying greyish silt and the pitched stone surface 309 provide what, even in these circumstances, must be considered overwhelming evidence of a post-medieval date for these layers. A post-medieval horseshoe embedded in road surface 661 corroborates the numismatic evidence from Trench 6, and it would be difficult to advance any argument to support a Roman date for these layers.

These observations are at variance with the conclusions arrived at for Evaluation Trench 513 which indicated the survival of a number of intact Roman road surfaces (CAT 1991a, 59–62). The evidence for these, as presented, is sufficiently unique to make it incompatible with that from the

current excavations. In particular, the sequence of 'mortared drains' were not found in either transect. From the section of Evaluation Trench 513 they appear not to be significantly earlier than the adjacent post-medieval quarry and their interpretation as Roman drains must be doubted. From the experience of the road sections in the current project they appear more likely to have been deep wheel ruts of post-medieval date, the impression of stone lining being given by stones being pitched and compacted against the sides of the ruts. A photograph of the surface of the Fosse Way uncovered to the west of Cirencester provides an indication of this (McWhirr 1982, plate 4). It is considered probable that only the lowest remnant of road surface in this evaluation trench is likely to be Roman as there is certainly no evidence for the survival of a substantial sequence of Roman road deposits in this area.

The context for these earliest post-medieval road surfaces was probably the turnpiking of the 18th century. The date of the turnpike construction along the Burford Road probably came after the Act of 1753 (Gerrard and Viner 1994, 135). The Fosse Way from Cirencester to Stow-on-the-Wold was turnpiked in 1755 and provides an alternative, albeit very similar date of construction. The pitched stone surface in Trench 3/5/1 is of uncertain context and may be relatively localised. The fact that these roads were not particularly well-made and became heavily rutted cannot be taken as evidence that they were of pre-turnpike date. Turnpiking was no more than a method of raising money for road repairs or construction and had no necessary implications for the method of construction itself. The quality of road construction



continued to be highly variable at best, and even roads that were praised in the earlier part of the century had often deteriorated through use to a considerable degree a few decades later. The major change in road construction leading to lasting improvement came through engineering solutions in the later part of the 18th and the early 19th centuries. Road 302/524/621 is a clear example of a 'macadamised' road, the principles of which have been outlined above (see Ermin Street Sections). It may, in fact have been built by John McAdam himself, who is known to have constructed, or reconstructed, the Trunk road from Dorchester-on-Thames to Cirencester (via Faringdon and Lechlade) in the 1820s (Jackman 1962, 293) – the Cirencester section of which had been administered by the first Turnpike Trust in the area after the Act of 1723.

### **THE LYNCHES TRACKWAY** (Figs. 5.11, Plates 5.8–9)

#### **Introduction**

The Lynchs Trackway (Glos. SMR 2085) is a routeway of uncertain origin which runs from Cirencester up the Churn Valley (Fig. 8.23). It is on the line of the pre-turnpike road which runs on the opposite side of the valley to the present road (A435).

In the Stage 2 evaluation the Lynchs Trackway was examined with a single trench (Tr 1991/506) which tentatively identified two phases of trackway construction thought to date to the medieval and post-medieval periods. Further examination of the trackway was required as part of the mitigation strategy, and accordingly a 4 x 15 m trench (Trench 1) was positioned immediately adjacent to the location of the evaluation trench. The site was stripped of topsoil and a 1 m wide central area was excavated by hand down to the natural limestone substrate.

#### **The Roman trackway**

##### *Description*

The excavation revealed that the earliest trackway had been cut into the valley slope forming a c. 2.2 m wide hollow up to 1 m deep in the hillside with a c. 1.4 m wide, 0.4 m high, bank on the downslope side (Fig. 5.11). This natural bank appeared to have been enhanced by the addition of stony material (14) excavated from the hollow. Though no trace of wheel ruts were discovered on the cut natural surface, the limestone did show traces of wear.

Overlying this earliest surface was a layer of dark grey-brown silt (23) which contained over 80 sherds of 2nd-century Roman pottery. Re-examination of the sherds thought to be of medieval date from the equivalent layer in the evaluation trench indicated that they were in fact Roman. The associated tile and nails were also probably Roman. Otherwise, the sequence of deposits in both trenches was quite similar.

Above deposit 23 was a compact layer of stony material (22) which may have represented a

re-surfacing of the trackway. The 28 sherds of pottery recovered from this deposit were all mid to late Roman in date, as were the majority of the 29 sherds from the succeeding stony deposit 21, which appears to have resulted from slumping of the upcast material 14. Sherds from the same vessel came from 21, 22 and 23. The non-Roman pottery consisted of a few residual Iron Age sherds.

These deposits were all subsequently buried beneath a c. 0.4 m thick band of silty clay colluvial soil (15), which was in turn overlain by another colluvial deposit (8) which was lighter in colour and less compact. Both deposits contained only small numbers of Iron Age and Roman sherds and it remains unclear when the colluvial accumulation started. However, it seems likely to have been caused by post-Roman ploughing. Downslope of the trackway was a further series of colluvial deposits which underlay the second phase of trackway construction. These were presumably of similar derivation to 8 and 15, but no finds were recovered and their date could not be established. A thin, dark sediment (3) lying on the slope above the trackway yielded a relatively high concentration of Iron Age pottery (11 sherds), including a notched rim of probable early Iron Age date. A small number of Roman sherds were also present.

The date for the demise of this earliest phase of trackway is uncertain but it seems unlikely to have lasted beyond the Roman period. However, the general route of The Lynchs Trackway clearly survived as a terrace in the hillside and resurfacing in a slightly different location was undertaken in medieval or post-medieval times (below).

#### *Discussion*

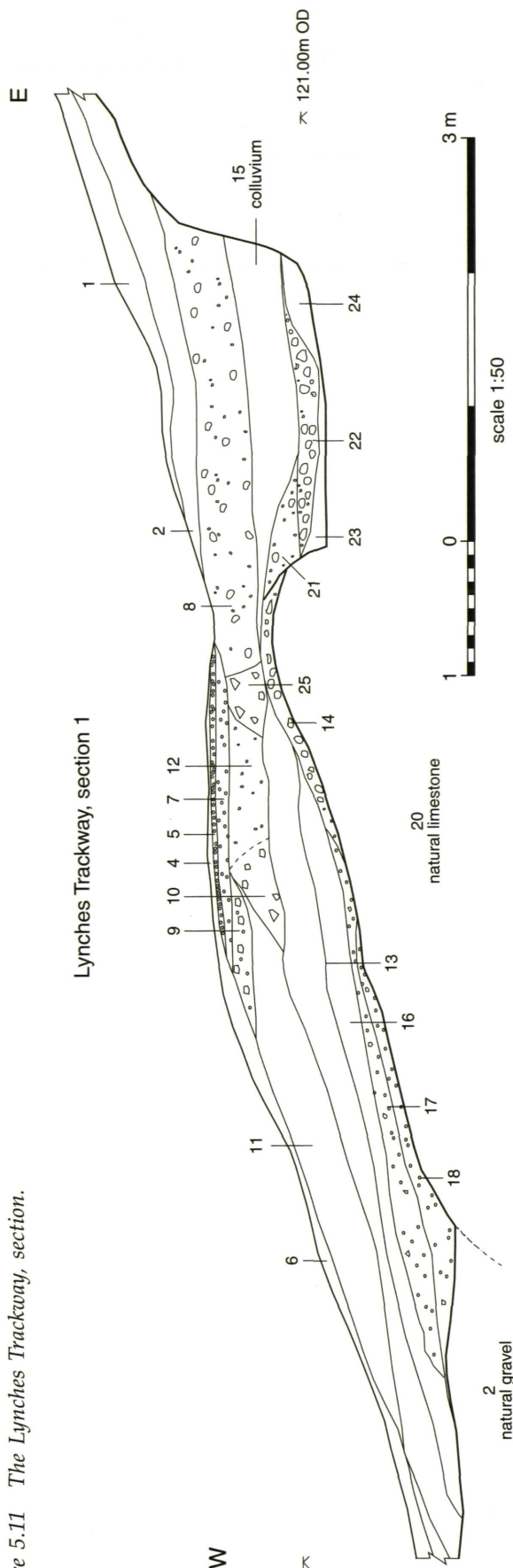
The amount of Roman pottery recovered (together with 57 fragments – 339 g of animal bone) leave no doubt that the associated deposits are Roman rather than medieval. The surfaces of the road were also distinctively well-made to the degree that their Roman appearance was remarked upon in the evaluation report despite apparently contradictory dating evidence.

The fact that the road was cut into solid bedrock and carefully constructed implies that it was of some importance. However, the upcast material, 14, was only 0.1 m thick and not sufficient to have been derived from digging out all the hollow, so probably this was a pre-existing hollow way. However, in the evaluation trench the upcast material was 0.4 m thick, and taking into account subsequent erosion this may account for the excavated hollow. The upcast material did not seal a buried soil and this may mean that a corridor of land was stripped in preparation for road building.

The presence of substantial quantities of Roman pottery, much of which was not heavily abraded, indicates a 2nd-century site in the immediate vicinity. An early Iron Age site also appears to have been adjacent, presumably above the valley. However, no trace of settlement was found during the watching brief in this area.



Figure 5.11 The Lynches Trackway, section.



### The post-medieval trackway

A second phase of trackway construction, post-dating the Roman route, was recognised at The Lynches Trackway. This later phase lay above and a few metres to the west of the original Roman construction on the edge of the present terrace (Fig. 5.11).

Two stony banks (10 and 25) were built on top of colluvial deposit 13. The stratigraphic link between the eastern bank 25 and colluvial deposit 8 was not firmly established, though both were stratified above the earlier bank material 14. Whether bank 25 was cut into deposit 8, or deposit 8 was built up against 25, remains unclear. The area between these two containing banks was filled with a silt deposit (12), presumably as a make-up layer for a relatively narrow surface which no longer survives.

Colluvial deposit 11 and stony deposit 9 were both built up at the edge of the terrace against the western bank 10. It is unclear whether 9 represents a deliberate consolidation of the terrace edge or the eroded material from the road. At a later date a c. 0.1 m thick stony band of material (7) was laid down over revetments 10 and 25, and deposits 9 and 12.

Deposit 7 most probably represents a make-up or bedding layer for the overlying cobbled surface (5), which was utilised until recently as a bridleway. Surface 5 showed traces of rutting and evidence of repair. Above 5 was a thin band of trampled silty clay (4), which was partially overlain by topsoil.

The only securely datable finds from this later phase of trackway construction were four sherds of residual prehistoric pottery from the silty deposit (12) between revetments 10 and 25, and four sherds of post-medieval pottery from the cobbled surface 5. The date of the initial reconstruction of the trackway with its associated banks is therefore unclear and could have been in the medieval period or slightly later.

## THE ROAD EXCAVATIONS: DISCUSSION AND CONCLUSIONS

## Ermin Street

The project afforded an opportunity of investigating Ermin Street more extensively than had hitherto been possible. The excavations through and adjacent to the road represent a considerable effort directed towards understanding the Roman military road and its subsequent development, and despite the inconclusive nature of some of the results, due mainly to a lack of dating evidence, the information is presented and discussed on its merits.

The road is conventionally thought to have been constructed in the late 40s AD, shortly after the Roman settlement of the region. While Darvill and Holbrook (1994, 52) draw attention to the normally scant evidence for the dating of the Roman road network, an early date for Ermin Street is implied in their discussion of the regional road alignments, since the Leholme Fort at Cirencester (founded AD 45–50) appears to have been sited upon the line of Ermin





*Plate 5.8 Trench excavated through The Lynches Trackway on the side of the Churn Valley. looking north-east.*

Street, and for this reason the road may have been the primary feature. Unsurprisingly, the excavations of Ermin Street contributed nothing to the refinement of the dating. The later 1st-century sherds from layer 636 at Cowley Underbridge (Ermin Street Trench 6 – Fig. 5.3), may, on the face of it, suggest a later date for the initial road construction, but it is actually unclear whether the road surface which they underlay (669) was the first or second construction here, and it is perhaps more likely to have been the second.

Several authorities have commented upon the expertise of Roman surveyors in establishing the lines of roads which frequently represented an almost perfect compromise between minimising the distance and maximising the ease of road construction and travel between two, often extremely widely spaced, points (eg. Margary 1973, 17–18; Taylor 1979, 35–57). The knowledge of the regional topography and the exact relationship between places to be connected is made more remarkable by the fact that roads were frequently planned, surveyed and laid out in the middle of a military campaign (Taylor 1979, 54). The line of Ermin Street between Cirencester and Gloucester is one example which, while not a great distance in terms of the national road network, is notably direct in its negotiation of the terrain. Margary has described the 16 miles (25 km) stretch of this road. It leaves Cirencester to the north-west and runs in a virtually direct line to the highest part of the route (279 m) at Gloucester Beeches, with an almost imperceptible

change of direction near Daglingworth. This is actually at the point where the road crosses the alignment of a cross-ridge boundary, or dyke, at Milestone Plantation (Glos. SMR 2045). The date and significance of this feature are unclear, as is its possible influence on the alignment of the road. An evaluation, as part of the Stage 2 mitigation, of a cropmark which continued the alignment of the earthwork on the western side of the road revealed nothing of archaeological significance (GCC 1990, 51). At face value this may suggest that the earthwork ran up to the road and therefore post-dated it. From Gloucester Beeches a slight adjustment of course allowed Ermin Street to avoid the steep head valleys of the river Frome to the west and follow another straight line as far as Nettleton. From here the most radical change in direction took the road to the Cotswold scarp at Birdlip, and thence, with another minor change in course, to the Kingsholme fort near Gloucester. The fact that the area around Dartley Bottom and the Duntisbourne sites was wooded in the immediate pre-conquest period, and may have been so at the time the road was surveyed, had no effect on the alignment of the road. Alternatively, the directness of the road may argue that the land had already been cleared by the time of the conquest.

South-east of Cirencester, Ermin Street changes direction just outside Leaholme fort at a point near the later Silchester Gate, alters course again west of Driffield Crossroads and then continues in a fairly straight course past Cricklade. The current project did





Plate 5.9 The Lynches Trackway showing Roman surface (22) and stony bank to left. The central slot has been excavated to bedrock.

not offer much opportunity to examine this section of road, although the trenches along the Cirencester Road between Driffield Junction and Fosse Farm provided some confirmation of the course of Ermin Street largely through negative evidence. A slight change in alignment near Fosse Farm was suggested by the presence of the road in Trench 3. This may have been due to the need to ford a small stream here at a suitable point. It is worth noting that the change in direction just outside Cirencester, which has been discussed recently by Darvill and Holbrook (1994, 52), may be explained by the need to cross the Churn here at a suitable fording point. The evidence indicates that Ermin Street crossed the Churn again somewhere near Weavers Bridge (Wainwright 1959; CAT 1991c), where again the road alignment changes slightly. The excavations there did not extend close enough to the present river to uncover the road, although it was identified at the evaluation stage in the expected position (CAT 1994). The complex and extensive post-Roman changes in the river course identified from the excavation area would suggest that the original river and crossing may be difficult to pinpoint even assuming the evidence survives.

There seems little doubt that a great deal of effort was expended in the construction and maintenance of Ermin Street in the 1st and 2nd centuries. The evidence for this really only comes from the sections north of Cirencester where, despite difficulties of interpretation, a number of superimposed road constructions were identified as almost certainly

Roman. At Cowley Underbridge (Trench 6) it seems probable that the original military road was repaired on seven occasions, perhaps all before the 3rd century, which raised the road level by almost 1 m. At Dartley Bottom (Trench 8) there appear to have been four repairs and a similar number may be identified at Burcombe Lane (Trench 9) and the Dowers Lane Watching Brief section. If these interpretations are correct, it also appears that solid pitched stone *aggeres* were constructed relatively late in the sequence, although they were also evident in the original constructions at Cowley Underbridge and The Highwayman (Trench 5). It cannot be assumed that road repairs were continuous along this stretch of road and they may reflect the particular problems posed by crossing the valleys where the trenches were located. The absence of roadside ditches may also reflect these particular topographic positions although they may have been located further away. Ditches were certainly present where the road verge was exposed on the flatter ground north of Birdlip Quarry, but south of Birdlip Quarry and at Field's Farm it appears that the 'roadside' ditches may have been specifically related to the nearby settlements rather than the road itself.

The evidence for an early 4th-century road surface at the late Roman settlement at Birdlip Quarry is unequivocal. The surface here was poorly constructed, consisting merely of a single spread of limestone cobbles on unprepared ground which widened the road on the southern side of the site by up to 10 m. It



remains unclear whether this was purely local or part of a more systematic attempt at improvement. On the whole the cobbling appears too extensive to be related to access to the settlement, and it is clearly possible that the remodelling was widespread. There was no firm evidence of this from any of the major sections although there were possibilities, and in any case, their topographic positions may have made them untypical of the road as a whole. There was, however, some suggestion of a late road extension at Field's Farm. Road construction at this date should not necessarily be unexpected since economic activity in the countryside was widespread. At the Alchester Road suburb, Towcester, a modification of the main road and the construction of a new branch road were dated to the late 3rd to 4th centuries (Phase 3. Brown and Woodfield 1983, 53). However, the logic behind the road widening at Birdlip Quarry is difficult to understand since the surface lacked a solid foundation. The construction would appear to owe little to Roman military engineering practice and it is unclear who would have undertaken road main-tenance at this time.

The evidence for road construction south-east of Cirencester is much more limited. The single exposure of the road in Trench 3 near Fosse Farm, and the record in Evaluation Trench 1 at Weavers Bridge yielded evidence not dissimilar to that already published from the Cricklade area (Wainwright 1959), indicating a comparatively slight *agger* with a single, eroded metalled surface. It is impossible to say whether this apparent contrast to the road constructions found north-west of Cirencester owes anything to policy in the Roman period, or whether it can be accounted for by local topographic circumstances and later use. It can be noted that Ermin Street, at all these locations south of Cirencester, was constructed on alluvial clay or silt, and road construction may have been at least as demanding in the Lower Churn/Upper Thames region as it was in the Cotswolds, despite the flatter ground. It cannot therefore be assumed that the road required less attention.

#### The Fosse Way and other roads east of Cirencester

The puzzling alignments of the Fosse Way, Akeman Street and White Way east of Cirencester have attracted some attention and the problems have been usefully summarised by Darvill and Holbrook (1994, 51–53). The road sections excavated across Burford Road failed to conclusively identify, let alone date, the Roman road here (whether it be called Fosse Way or Akeman Street), but this was probably due to later erosion along the line of the road. There is no particular reason to doubt that it existed here, and the Roman quarries were probably associated with it. Margary (1973, 148–9) argued that the Fosse Way did not originally extend to Cirencester but was aligned south at Raggedhedge Covert and continued (along the line of Cherry Tree Lane/Kingshill Lane) so as to meet Ermin Street at Preston Bridge three quarters of a mile south of the Silchester Gate. A spur road (the later Burford Road) was then constructed extending west

from Hare Bushes Lodge to the *Verulamium* Gate. Following this argument, the fact that Akeman Street was aligned upon Hare Bushes Lodge, rather than the *Verulamium* Gate is evidence that the spur road from the Fosse Way already existed. This would make Akeman Street a relatively late addition to the road system here, although it is not clear how late this need be. This hypothesis does not comfortably accord with the evidence from Oxfordshire that the road was of early military strategic origin and, from excavated evidence, at least pre-Flavian (Booth 1997, 150), and quite probably Claudian (Hands 1993, 11–12).

Another possibility, expressed by Kenyon and Wachter (cited in Darvill and Holbrook 1994, 53), is that the course of the Fosse Way south at Raggedhedge Covert was a diversion from an original alignment which took it straight to the eastern gate of the Leaholme fort where the *Verulamium* Gate was subsequently sited. It has been noted that the Tar Barrows may be early Roman monuments which, if this projected alignment is accepted, would have occupied a typical roadside position. An early Roman funerary monument adjacent to Ermin Street at Field's Farm was excavated as part of the current project. There may be another example near Smallbeech Copse visible on an aerial photograph (Glos. SMR 4783) located 20–30 m from the Roman road. The funerary enclosure outside the Bath Gate has been discussed (Chapter 4, Field's Farm). It is possible that such monuments were not uncommon in the Cirencester region. An isolated Roman cremation was found in the watching brief north-west of Whitelands Wood (NGR SP03220374). It was much disturbed but may have originally been in a wooden box. This may conceivably have been near a roadside. Although it was about 300 m away from the projected alignment of the Fosse Way just discussed, it was very close to a possible alignment of the Fosse Way from Raggedhedge Covert to the north gate of the town, which Margary has suggested is the main alignment of the road (Margary 1973, 148). This alignment would have some merit in accounting for the puzzling course of the Fosse Way on the south-western side of the town which was well to the north of the Bath Gate. Margary was inclined to dismiss the suggestion that the road was ever built on this alignment because of a complete lack of field evidence. The results of the present project have done nothing to contradict this although the cremation at Whitelands Wood remains intriguing.

The suggested alignments of the Fosse Way to the north or east gates of the Roman town do not appear to have been targeted in the Stage 2 evaluation while the watching brief during groundworks yielded only the Roman cremation discussed. The context of this burial therefore remains unclear. There was absolutely no suggestion of a contemporary settlement in the road corridor here and, unless there was one somewhere on either side, a roadside location for the burial must still be considered possible despite the absence of evidence for a road.

The question of the origin and possible original alignment of the White Way has received some



attention although there is little direct archaeological evidence to contribute to the discussion (Margary 1973, 145–6; Darvill and Holbrook 1994, 53; CAT 1991a, 133). The anticipated alignment of the road south of Exhibition Barn was investigated with the excavation of a 250 m-long trench (Chapter 4, Fig. 4.33). This revealed a Roman ditch on approximately the alignment of the road, and another one was found in the watching brief 75 m to the east. There was no trace of a road and the ditches are more likely to be field boundaries than roadside ditches. Unless the original White Way lay rather further to the east of the excavations and was not evident under the conditions of the watching brief, it appears that there was no identifiable Roman road crossing the corridor of the present project.

### Minor roads and trackways

The east-west ditches at Norcote Farm are considered likely to have been Roman and may have defined a trackway linking the known Roman settlement at Witpit Copse (Glos. SMR 3176) with the Roman road at Kingshill Lane (Fig. 3.31). The nature and status of this settlement is unknown, although most of the dating evidence recovered so far appears to be of the 3rd and 4th centuries (information from SMR).

The excavation of The Lynches Trackway yielded a large amount of pottery from the earliest deposits above the natural limestone furnishing incontrovertible evidence that the trackway was in use in the Roman period. Whether it was a Roman creation, or inherited from the Iron Age, is not certain. The Iron Age pottery from the excavations was not found in primary contexts. The course of the track, which winds along the slope of the Churn valley, is not typically Roman, since it would have been easier to construct a new road on level ground. It therefore seems more likely to have been an older route which had become a hollow way and had been re-surfaced in the Roman period. It is possible that it was connected with the centre at Bagendon, whose precise nature is debatable but whose importance appears to span both periods. A Roman road surface is known to run up the hill towards the present village from the direction of the Welsh Way river crossing (Glos. SMR 9800 and 9317). Alternatively, The Lynches Trackway may have served the nearer Romano-British settlement on Baunton Downs (SP 025058) although this would not have been the obvious route to take. The status of this site is unclear although the cropmarks and surface scatters indicate that it was extensive and the finds include at least two uninscribed altars (RCHME 1976, 13). The quantity of pottery from The Lynches Trackway actually suggests a much nearer settlement although no further finds came from the watching brief between the trackway and White Way to the east, and the derivation of the pottery is unclear.

Another trackway, this time heading more directly towards Bagendon, was revealed at Trinity Farm. It followed the line of the modern public footpath which runs from the Cheltenham road (near the

Cirencester Golf Club House) in a straight line as far as Welsh Way, where it changes direction towards the present village. This dog-leg may be accounted for by the need to avoid the earthwork along Welsh Way. While the trackway was clearly in use in the post-medieval period, the fact that it ignores all the modern field boundaries indicates that it pre-dates enclosure and had come into disuse before then. It may have been the one of the principal routes to Bagendon before the Cheltenham road was turnpiked in 1827, although, from Cirencester, the route up Ermin Street would surely have been easier. The origin of this trackway is unknown and it is a subject which is worth further investigation. The directness of its trajectory for over 1 km suggests that it may have been laid out in the Roman period, although this suggestion is extremely speculative on current evidence.

The excavated trackways joining Ermin Street near Field's Farm have been discussed. That to the north of the Roman funerary monument ran to an enclosure just south of Field's Farm itself (Fig. 4.2). The trackway was a relatively early feature since it predated the 'roadside' ditch, although it was blocked by a later ditch segment. It is possible that it was directly contemporary with the adjacent square barrow, which was also constructed before the 'roadside' ditch was dug and had probably silted up before the 3rd century. Thus both features appear to have been relatively short-lived. This may have implications for the date of the associated? settlement although corroboration is required. The trackway on the opposite side of the road (Duntisbourne Leer, Area 2) appears, in contrast, to have been long-lived. Although only a single recut was identified in each ditch, the presence of both 1st-century and early Saxon pottery suggests that the trackway was maintained over a long period. Unlike the trackway on the opposite side of the road it also appears to have had a cobbled surface. It led to a Romano-British settlement or building 400 m away (Glos. SMR 3644) about which little is known despite some archaeological attention. The trackway further north (Duntisbourne Leer, Area 1; Glos. SMR 11203) was poorly preserved and yielded little information. The settlement it served has not been identified. The possible trackway ditch (ditch 90) excavated at Sly's Wall South (Glos. SMR 9432) presents a number of problems of interpretation and was not confirmed as Roman.

Other ditched trackways in the vicinity of Ermin Street are known from aerial photographs. Most of these are likely to be Roman, although requiring confirmation. Just east of Stockwell, Cowley, a ditched trackway running north-west (NMR SO 94914/2) may have served the known Romano-British settlement on Shab Hill (Glos. SMR 3810 and 3811). South of Cowley Wood a possible ditched trackway runs past the eastern entrance of an undated sub-rectangular enclosure (Glos. SMR 4697; NMR SO 9513/8 and 16). Faint traces of a ditched trackway run from Ermin Street near Highgate House, and this may be the same feature (NMR SO 9512/2, 3 & 6). In the same area part of a large rectangular enclosure lies behind Highgate House and appears to be served by a hollow way from



Ermin Street. These are undated. In the parish of Duntisbourne Rouse there is a cropmark of a ditched trackway heading from Ermin Street towards Voxhills Copse (NMR SO 9807/5). There is also a small enclosure at Voxhills Farm (NMR SO 9908/1), although this may not be related.

There is good evidence for a Roman trackway at South View Farm, north of Stratton, where a ditched trackway aligned at right angles to Ermin Street runs to a Roman settlement (Glos. SMR 9692). This is represented by a group of enclosures and other features with surface finds indicating a date from the 1st to the 4th centuries. The trackway reaches a possible boundary ditch and then turns and heads towards Baunton (NMR SP 0104).

South of Cirencester, Roman trackway ditches (Wilts. SMR SU09NE615) associated with the multi-phase Scheduled Ancient Monument were examined at Court Farm, Latton. A narrow trackway 4.5–5.5 m wide (of two phases) may have been replaced by a wider one, 15.5 m wide. It was not possible to date the trackways closely. The area was considerably disturbed by Roman quarrying which was seen to largely respect the first phase of trackway. If the quarrying was related to the original construction of Ermin Street, a very early date for the primary trackway might be implied. However, it is impossible to be sure

of the date of the quarrying which, while probably associated with the road, may have been mostly or entirely related to its maintenance rather than original construction. The pottery from the excavations was largely residual. The Roman pottery was confined to the 1st and early 2nd centuries AD and was present in sufficient quantities to suggest an early Roman site in the vicinity. It was unclear whether this was something which the quarrying had obliterated, or whether it lay close by outside the excavated area. There was certainly no possibility that structures had survived within the zone of quarrying. If the quarrying had destroyed an earlier Roman building or settlement of some kind, this in itself would indicate that most of the quarrying, at least, was unconnected with the construction of the original military road, although it remains possible that some of it was.

There is abundant evidence for Roman settlements on both sides of Ermin Street between Cirencester and Cricklade, although little of this was explored in the present project. These were undoubtedly connected by an extensive network of roads and tracks of which cropmark evidence provides some indication. A full treatment of this evidence is beyond the scope of this report, although the probable Roman element of the cropmarks between the settlements at Court Farm and Weavers Bridge, Latton are shown in Fig. 4.32.



