Chapter 5: The White Horse

by David Miles, Simon Palmer and Anne Marie Cromarty

The owld White Horse wants zettin to rights
Thomas Hughes (1889)

INTRODUCTION

The chalk figure which gives its name to the Hill, lies near the top of the steep north-west facing slope that forms the rear of the Manger. The White Horse lies around 70 m north of the barrows, described in the previous chapter, and 160 m from the north-eastern corner of the hillfort known as Uffington Castle, and the figure stretches for 110 m along the hillside (Fig. 5.1, front cover and Plate 2.1). The Horse has a strangely emaciated form and highly stylised head with something like a beak for a mouth. The head of the figure is orientated to the top of the hill, with the body curving round the valley side towards Dragon Hill. A fairly full view of the figure can be obtained from Dragon Hill, but a better view is obtained from the south. The Horse is visible from all over the floor of the Vale from a distance of 24–32 km (15–20 miles) on a clear day, particularly when the monument has been recently cleaned or scoured.

The Horse is one of the most well known hill figures in the country and has drawn much attention over the years. It is fully described in Marples (1949) and Woolner (1965), who both review the literature that has been generated concerning the myths and legends associated with the Horse and the theories advanced about its date. The aims of the present project were to investigate and quantify any changes in shape, the nature of the structure of the figure and its date. A geophysical survey and four trenches were excavated and sampled over two seasons, in 1990 and 1994.

SCOURING OF THE WHITE HORSE

Hill figures are known from a number of sites around the country, but many are fairly modern and thus their history and date are documented. This is not so with the White Horse which is known to have existed from at least the early 12th century. The details of the background to the Horse are discussed in Chapter 3, and it is clear that the Uffington White Horse may have disappeared completely if it had not been regularly cleaned and maintained. The background to the maintenance of the Horse has been discussed, but the techniques employed in scouring are of significance here as they may have affected the structure of the monument.

The earliest reference to the Horse's maintenance occurred in Thomas Baskerville's *Journal of Travels* (1681) where he notes that it was the '. . . obligation of some that dwell hereabout to repair and cleanse . . .' the White Horse. Most writers up to the 18th century concentrated on a stylistic description of the Horse; the first constructional detail comes in Defoe, in his *A Tour through Great Britain* (1725) where he described a trench two yards wide on top, about a yard deep and filled almost up with chalk. This was further elaborated by Francis Wise (1738) in his *Letter to Dr Mead* when he described its construction 'by cutting a trench into the chalk of about 2 or 3 feet deep and about 10 feet broad'. The most detailed description of a scouring is by Thomas Hughes *The Scouring of the White Horse* (1889) which is a semi-fictionalised account of the scouring of the Horse in 1857 (Fig. 5.2). It is clear from this that restorations of the past were fairly haphazard compared with modern work on the Horse.

The first authentically recorded scouring was in 1755 (Ditchfield 1896) and approximately 15 have

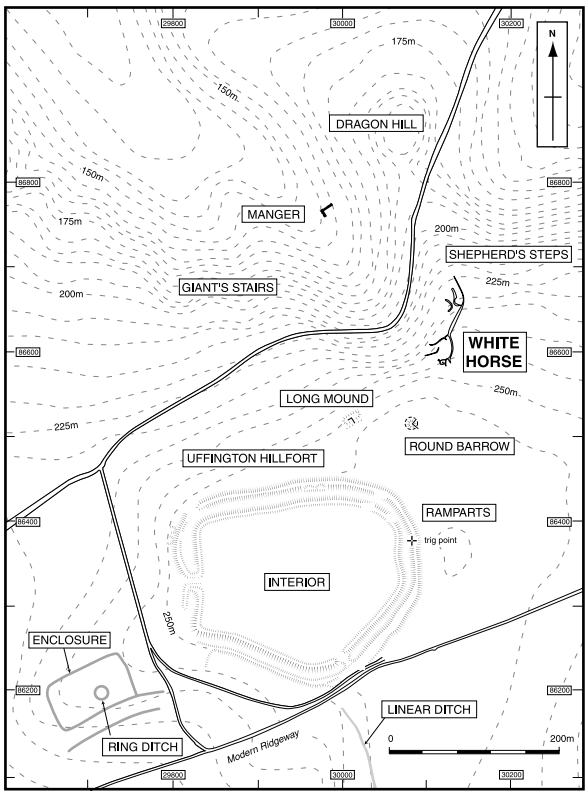

Figure 5.1 Location of the White Horse in relation to other sites.

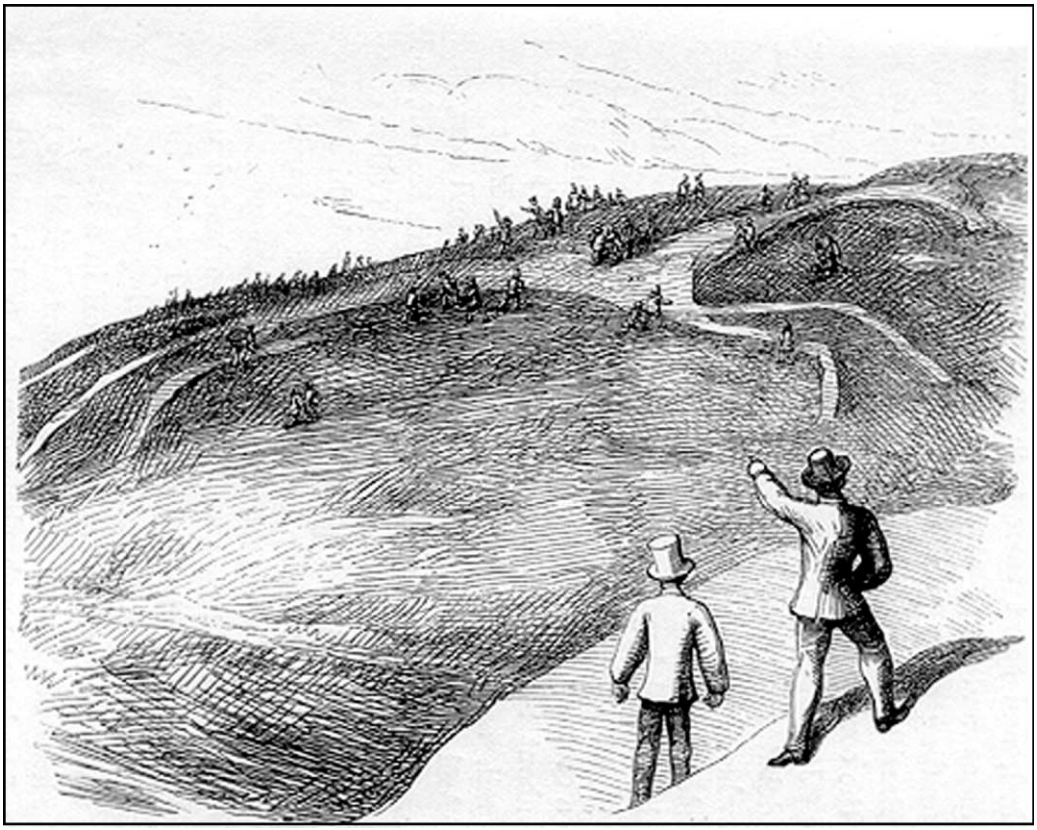

Figure 5.2 'The Scouring of the White Horse in 1857' (from a drawing by Richard Doyle in Hughes 1889, 29).

been historically recorded between then and 1892, when the scouring was funded by the landlord for the final time. Scouring of the Horse involved stripping the discoloured and damaged surface of the figure, removing weeds and trimming the turf edges that defined it. Where necessary the eroded edges of the turf were replaced and the resulting trench was packed with a new layer of white chalk. This was done by a gathering of local people over a period of two days at the expense of the landlord. The landlord was required to arrange this every seven years and provide refreshments for the workers. Marples suggested that the workers may have been more interested in the refreshments than the work on the Horse and that the work may not necessarily have been of the highest standard. When customs changed and the scouring was no longer seen as the responsibility of the landlord it was done much less regularly and the figure was only repaired when it had fallen into such a bad state that public comment was made.

THE CHANGING SHAPE OF THE WHITE HORSE

This repeated renewing of the surface has preserved the figure, but not necessarily in exactly its original form. There has of course been much scope for minor changes to occur in the profile over time due to erosion, and cutting back and restoring of the edges of the figure. On the basis of an analysis of illustrations of the figure dating from the last 200 years Marples asserted that it is unlikely the Horse has undergone any very important change since it was first made, but some changes in detail have occurred. Marples showed a number of illustrations of the Horse (1949).

An illustration from Lysons (1803) shows both forelegs detached from the body, a cat-like head and two deep indentations on the back. These indentations are still visible but much reduced in a sketch in *Archaeologia* (Edmonds 1846), where the figure is otherwise much closer to the modern figure, with the characteristic stylised head with beak and attached foreleg. Two further minor changes were also noted when a silhouette, in *The White Horses of the West of England* (Plenderleath 1885), showed the rear hind leg with a heel that had not existed before and a new spur on the upper side of the foreleg where it joined the body.

The profile of the figure has now been largely fossilised by the recent work of English Heritage and the National Trust, but Marples considered it likely on the basis of careful examination, that the body had lost 0.3–0.9 m in width on the lower side and about 0.3 m along the back, and that the legs had become narrower, and were once all attached to the body in a more orthodox representation. He thought that the nose once extended much lower,

carried a nostril, and resembled the authentic muzzle of a horse. Examination by others (Woolner 1965) of the ground around the Horse also suggested that there have been changes in the shape of the figure, as discussed in a Ministry of Works Report in 1937. Concrete kerbing along the lower edge of the Horse's belly has finally pinned the current shape to the hillside but minor variations may still occur on the more ephemeral features.

PREVIOUS DATING OF THE WHITE HORSE

The dating suggested by stylistic comparisons in the 19th century continued to be favoured in the early 20th century. In an article entitled 'On the date of the White Horse' (Huntingford 1920), it was suggested that the Horse was Iron Age on the basis of coinage evidence, as discussed earlier. Several finds of Celtic date from White Horse Hill were also mentioned, including an enamelled green and red button, found near the Horse and preserved in the Ashmolean Museum, and a shield boss and spearhead found on the hill in 1776 (reported in the *Proceedings of the Archaeological Institute* at Winchester 1849).

Sir Flinders Petrie refuted this idea and suggested a much earlier date (Petrie 1926). He discussed a group of these figures which he believed to be ancient and probably related. This group included the Long Man of Wilmington, the Cerne Abbas Giant, the Uffington White Horse and the Crosses of Whiteleaf and Bledblow. He stated that the horse figure on British coins, with which the White Horse had often been compared, 'is always a short, tubby beast, and not attenuated at long gallop like the Uffington monster' (Petrie 1926, 15). Based on some fairly tenuous evidence from the other figures in his group of ancient hill figures Petrie went on to suggest a Bronze Age date for all the figures in the group, possibly representing Bronze Age deities.

This was the first time that such an early date had ever been suggested for the monument and was not widely taken up at the time. Three years later another well-known archaeologist, O G S Crawford (1929) criticised Petrie's account and reasserted the comparison to Iron Age coins. He suggested that this resemblance was first noted by Sir John Evans (1864, 21) and believed the Horse to be the sign or tribal emblem of the builders of Uffington hillfort. Crawford stated that the horse was common in La Tène art and some duck-billed animals were also known. He also compared the Horse to the Iron Age Witham shield and the bronze Marlborough and Aylesford buckets, which have representations of horses as decorative motifs.

Another archaeologist was to support this view of the dating of the White Horse (Piggott 1931a), and cited Iron Age coin parallels and other Iron Age artefacts as evidence. He pointed out that the art of this period was decorative rather than representational, with the flowing curves of the figures adapted to fit into the object to which the decoration was being applied, as on this hillside. He also related the figure to a minor Gaulish deity, Epona or 'horse goddess', who, despite normally being depicted as a woman riding a horse, may have originally been a divine mare. However, he concluded that such dating was tentative, since no stratigraphic relationship was known to exist between the figure and any feature of a known date. ''Beyond this we can be sure of nothing, and in many respects the White Horse still remains a mystery' (Piggott 1931a, 46). This authoritative argument has influenced much 20th century thought on the Horse.

A full review of all white horses and other hill figures was published in 1949 by Marples. He was impressed by Piggott's arguments concerning stylistic comparisons, but also included artefacts not considered by Piggott. Marples felt the upraised tail of Iron Age representations cited by Piggott was more than decorative, and was a significant distinction from the Uffington White Horse, where the tail is a continuation of the body. Marples cited examples of horses from Swedish and North African rock art which employed the same graphic technique with a minimum of lines (Fig. 5.3). However, the dating of these apparent parallels is uncertain and some are now thought likely to be late Iron Age, making it unclear whether this comparison is really relevant (R Bradley, pers. comm.).

Another writer based the dating of the figure on the documentary evidence, rather than stylistic comparisons with the present form of the Horse, stating that the Horse was of Saxon date and had originally been much more realistic in form (Woolner 1965). She thought that the shape had been defined by raised areas of the turf, with the white areas representing only the highlights along the top edges of the figure, and that the various ridges still visible in the turf around the figure attested to this. It was stated that the shape of the figure had changed significantly over time, moving up the hill slope with successive scourings. The dating evidence from comparison with coins was considered and rejected, as such an approach depends on the features of the figure surviving unimpaired through 2000 years and innumerable scourings. Any similarities were dismissed as purely fortuitous.

Woolner reviewed the earliest documentary references to the Horse and the folklore surrounding it, using this evidence as a basis for her date. Little importance was placed on the reference to the White Horse within the Abingdon cartularies, stating that they occur only in the introduction of the Abingdon Chronicle, rather than in the main body of the early documents. Nonetheless it was agreed that the place name had become well known by around AD 1200. She concludes that with all the available documentary evidence and from the outline of the Horse itself, a Saxon rather than a British date was correct (Woolner 1965, 40).

This debate between those who supported the Iron Age hypothesis, based on stylistic comparisons to Celtic coins, and the Anglo-Saxon hypothesis, based

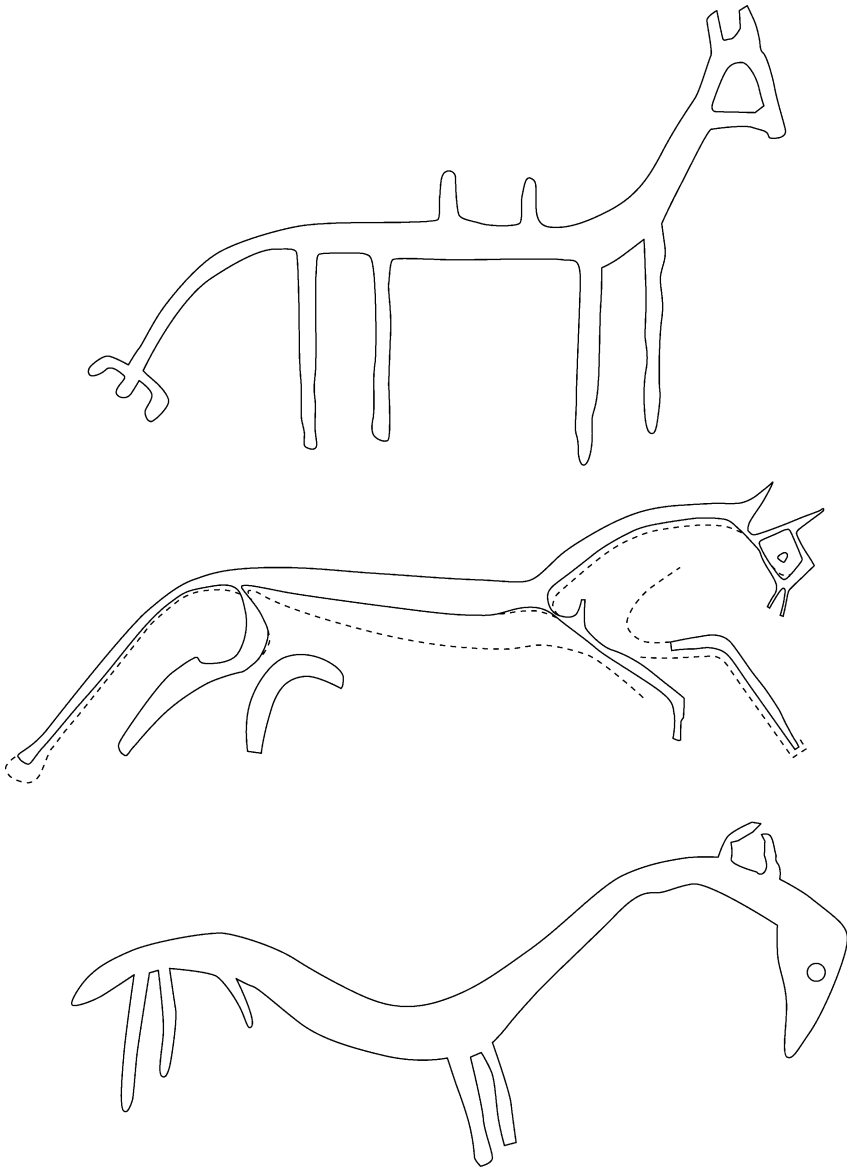

Figure 5.3 Scandinavian (top) and African (bottom) late Bronze Age and early Iron Age parallels (after Marples 1949, 46), for the White Horse (centre).

on documentary evidence, remained until the current project was able to examine the new evidence.

PREVIOUS WORK AND RECENT HISTORY

Despite the great interest in and prolonged maintenance of the hill figure, little archaeological work has ever been carried out on this, or any, chalk hill figure. Grimes undertook some limited work during the restoration of the Horse after the Second World War. As it was considered that this figure, like other well known English landmarks, could be used by the Germans to aid navigation, the White Horse was camouflaged in 1940 with turf, hedge trimmings and box trees, held down by wire netting for the duration of the war. The Cerne Abbas giant in Dorset was similarly treated. This camouflage was so effective that the Horse was accidentally cut into during manoeuvres in the area, which was used as a tank training ground, in 1943. It was thought that this did not cause any real archaeological damage. By 1945 the turf had taken root and much of the wire netting had rusted away, making it extremely difficult to discern the original outline of the hill figure. In 1946 the camouflage was cleared away, and the Ministry of Works who were responsible for the monument at this time were satisfied that the outline was accurately recovered, though Marples (1949, 65) claimed in 1948 that it had not been fully restored.

The Horse had not been properly scoured in the traditional manner, for some 60 years previously,

and it was decided, after experimentation elsewhere, to scour the Horse. The work was carried out between 1951 and 1953 under the direction of W F Grimes. The top surface of the decayed and weed-infested chalk was dug out to a depth of around 0.3 m and new blocks of chalk were laid on edge and were packed in well. A second similar layer was put down, and finally a thin layer of chalk was puddled in over the top to create a smooth white surface (Plate 5.1). Care was taken to preserve the outline, but silt which had built up to form lips along the edge of the longitudinal features was removed so it did not obscure the outline of the Horse, as seen from below.

During the course of this restoration Grimes took the opportunity to excavate a small trench, (1.22 m by 0.76 m: Figs 5.4 and 5.7), at the edge of the eastern part of the Horse's beak down to the bedrock to observe the structure of the Horse and how the shape had changed over time. The section revealed in this trench was recorded (Plate 5.1), and showed that the beak was built up of a series of layers of chalk and that it had previously been approximately 0.15 m longer than at the time of his restoration. As this excavation was not an official part of the work Grimes was undertaking, the results were never published or followed up but lay hidden in archives until the current project.

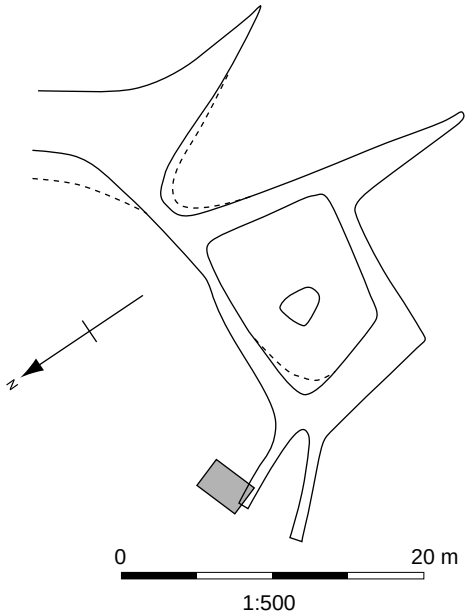

Figure 5.4 Location of the trench excavated in the beak of the White Horse by Grimes in 1953 (from Grimes' notes Ministry of Works 1955. Copyright: English Heritage).

Plate 5.1 'Trial trench cut into lower beak of the White Horse during repairs carried out in 1953, with an earlier chalk beak apparent below the existing level', from W F Grimes' excavation records (Copyright: English Heritage).

The work of maintenance and conservation of this figure has been carried out in modern times by English Heritage. More recently The National Trust has continued this work and the turf around the Horse has been regularly repaired and replaced, though there have been some threats to the monument. The land above the figure was ploughed during the war, probably leading to greater hill-wash over the figure. At various times during the period since 1920 huts have been erected near the Horse and an abandoned RAF lorry was burnt out between the Horse and the hillfort. However, none of these things have significantly affected the archaeology of the site. The site is now regularly inspected and maintenance work undertaken as thought necessary.

INVESTIGATIONS IN THE 1990s

Ideas that the form of the Horse had been changed and that its current stylised shape was not original, suggested that the form was not a reliable guide to dating. Investigations were therefore begun to attempt to find some dating evidence and to discover the original shape of the Horse.

The research agenda for the two seasons of investigations on the Horse was to combine archaeological excavation and survey, to investigate any evidence to support the idea that the shape of the Horse had changed substantially over time, and to establish the archaeological strata of the Horse.

The possibility of associated stratified finds or samples and deposits that could be scientifically dated could then be sought. The methodology involved opening a limited number of small trenches, at strategic points around the present outline of the Horse, to examine the site stratigraphy. The areas examined were the beak and beneath the belly of the Horse (trenches 1 and 2, 1990) and the hind legs and lower back areas (trenches 3 and 4, 1994).

Geophysical survey
by Andrew Payne

Excavations in 1990 were preceded by a detailed resistivity survey, carried out by the former Ancient Monuments Laboratory, encompassing the entire Horse and the area immediately around it. The survey was undertaken in an attempt to map the extent of the artificial deposits defining the shape of the horse, in the hope that this might reveal any alterations in the form of the figure over time. It was not clear at the outset how feasible it would be for resistivity to detect differences in the soil linked to the survival of evidence for earlier forms of the Horse. The two additional areas excavated in 1994 (trenches 3 and 4, Fig. 5.6) were a direct attempt to resolve questions arising from the results of the geophysical survey. Trench 4 was positioned to determine the cause of a curvilinear low resistance anomaly, projecting upwards from the Horse's back and trench 3 was opened to investigate indications in the resistivity data of a variation in the morphology of the hind legs.

Magnetometer survey (described fully in Appendix 3), although attempted, was found to be of very limited value, as there was very little magnetic variation between the Horse deposits and the surrounding natural soils. This was expected, but modern features associated with the management of the Horse were also problematical. The only magnetic anomalies encountered over the Horse arose from metal objects recently introduced into the soil for site management, such as fencing material, wire laid down just under the turf to help control erosion and pegs to help maintain the outline of the Horse. The modern material produced extremely intense magnetic disturbance which dominated the survey to the extent that any weaker responses to possible archaeological features (pits for instance) associated with the Horse will have been obscured.

Resistivity survey was considered a more suitable geophysical technique for investigating the shape aspects of the Horse, as this method can be capable of detecting differences in soil texture and compaction. Rammed chalk foundations set in natural chalk deposits have been known to produce high resistance anomalies, demonstrating that compacted chalk surfaces, similar to those laid down to form the White Horse, can be detected by remote means. The Horse is defined by a combination of positive earthworks, which are built-up layers and negative earthworks or features that have been cut out of the earth and filled with chalk. An area of raised topography has a similar effect on the electrical current as a wall surrounded by soil because there is a high resistance boundary, due to air or empty space, at either side of the feature. All these factors will have affected the results from the White Horse survey.

The resistivity survey of the White Horse was carried out using a Twin Electrode probe configuration (or array) and a 0.5 m mobile probe spacing, giving an effective depth of investigation of 0.75 to 1.0 m of the surface. The resistance measurements were collected on a 30 m grid using a Geoscan RM4 resistance meter and DL10 datalogger. Readings were spaced at intervals of 1.0 m along successive parallel 30 m traverses and the traverse interval was 0.5 m. The traverses were aligned approximately east-west and therefore the reading interval was closer by a factor of two along the spine of the Horse giving greater lateral resolution of detail in this direction. This methodology, although not ideal, was dictated by the instrumentation available at the time and the steepness of the slope which did not easily permit the use of a half metre reading interval in both directions.

As might be expected over compacted chalk, the body, limbs, neck, tail and head of the Horse are all defined as areas of higher resistance. The readings from around the Horse are generally lower in comparison. The Horse seems to form a boundary between an area of lower resistance on the gently sloping area above it and an area of generally higher resistance down the steep slopes that fall precipitously into the Manger beneath it. These trends probably reflect geomorphological processes that have resulted in varying soil depth above and beneath the Horse, but the lower resistance above the Horse could also relate to thinner grass-cover caused by visitors walking near the Horse. Areas that are frequently walked upon usually have thinner surface vegetation and this generally results in less moisture being released from the ground by evapotranspiration, which in turn lowers the resistance of the near surface. It may be that a pronounced area of low resistance near the Horse's head (at point 6 on Fig. 5.5b) could be an exaggerated response to the same process if this one area, in particular, is a favoured viewpoint for visitors and is therefore heavily trampled. Wire mesh with high electrical conductivity perhaps laid down to control erosion in this sensitive area would also give rise to such an area of pronounced low resistance.

At first sight the high resistance response from the chalk figure itself suggests the previous existence of a slightly bulkier animal with a wider body and neck than the one at present. However, this apparent widening could also be a result of uphill or downslope movement of the Horse over time which has left behind traces of earlier outlines. This is probably the most likely explanation for the widening observable in the survey. The legs of the Horse appear to have extended further down-slope by 3–4 m on the resistivity image of the Horse when overlain on an equivalent scale plan of the modern

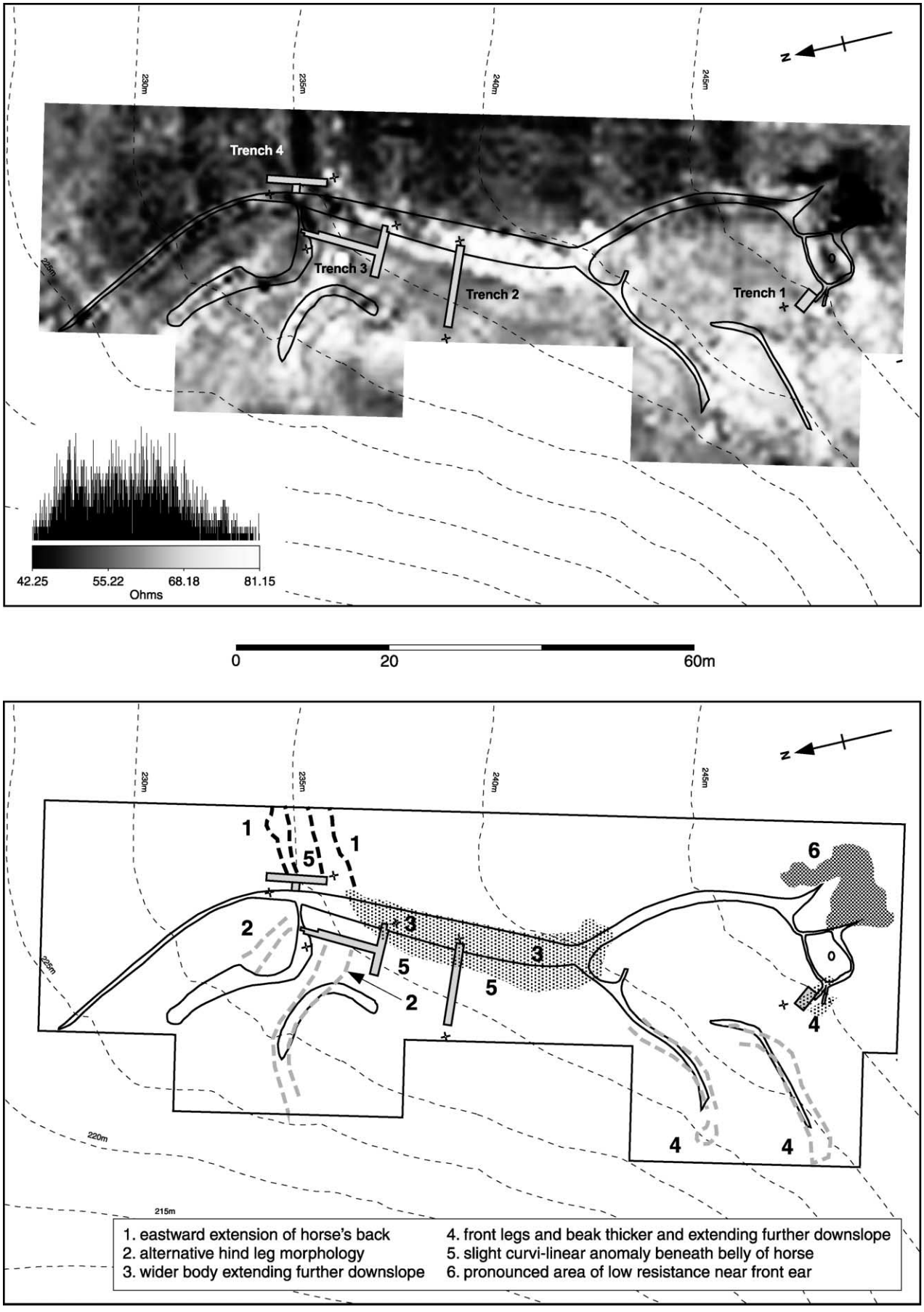

Figure 5.5 Geophysical survey of the White Horse showing (top) the results of the resistivity survey in relation to the trenches located to investigate the anomalies, and (bottom) the features located and their possible interpretation.

outline, lending further support to the theory of a gradual migration of the Horse (Fig. 5.5). The apparent lengthening of the limbs in the resistivity survey could also be due in part to the distorting influence of steep gradient because the resistivity survey grid measurements are based on slope, rather than horizontal distances. However, it is unlikely that the discrepancy in the length of the legs can be accounted for by slope factors alone.

Although it does seem likely that the figure has moved over the course of time, the resistivity survey results also suggest that the form of the Horse has essentially remained constant throughout its lifetime. With the possible exception of the hind legs, there is no real evidence that the overall shape of the Horse was ever more naturalistic in appearance. However, there are some indications that the hind legs may originally have followed different alignments to those of the present Horse. The shape of the high resistance anomaly in the region of the foremost hind leg suggests a longer and straighter limb of more naturalistic appearance linked to the main body of the Horse, in place of the detached hooked or arching limb present today.

The survey detected evidence of a feature consisting of a terrace beneath the Horse's belly interpreted variously as a lynchet formation or a natural geomorphological feature (possibly a product of soil creep). This feature is evident as a low resistance anomaly running east from where the tail meets the back of the Horse and continuing the curve of the belly. A similar curvilinear feature is evident further down the slope following the contour line near the end of the Horse's tail.

A localised area of particularly pronounced low resistance (approximately 7 by 5 m in extent) is present immediately above the front ear of the Horse (anomaly 6 on Fig. 5.5b). This may relate to scarring of the ground near the head area or erosion control measures but it could also indicate some form of excavated feature with a filling more water retentive than the surrounding chalk. One obvious explanation for such a feature is the presence of an in-filled former chalk quarry, dug conveniently nearby to replenish the Horse. In the longer term this enigmatic anomaly would merit further investigation by trial excavation.

Geophysical techniques have undergone considerable development since this survey was undertaken and it might be worthwhile to investigate the site further in the future using more advanced geophysical techniques. In particular, electrical imaging or resistivity profiling (Aspinall and Crummett 1997) might be useful and there might also be a place for Ground Penetrating Radar (GPR) (Conyers and Goodman 1997) in any future non-destructive investigation of the Horse.

THE 1990 AND 1994 EXCAVATIONS

Four trenches were excavated on the Horse (Fig. 5.6). Two were excavated at the edges of the White Horse monument in the 1990 season of work. The first, trench 1, which reopened the 1953 trench dug by Grimes, was excavated to test the variation in soil conditions around the Horse and to assess the viability of discovering the original outline of the Horse. The second was to investigate how the present outline of the Horse related to the earlier phases of the monument. Two further trenches were excavated in the 1994 season to answer specific research objectives raised by the earlier investigations of the monument. The first aim was to check the interpretation of the possible lynchet, which was seen in the 1990 trench 2 and if possible to recover finds from it which could help in the dating of the feature, and thus the Horse. Trench 3 also hoped to verify the more naturalistic appearance of the hind legs indicated by resistivity survey and trench 4 aimed to investigate the linear anomaly evident from the survey running from the back of the Horse , with particular emphasis on its date and relationship to the Horse.

Trench 1 – the 'beak'

This trench was placed at the tip of the lower part of the Horse's 'beak' to reveal the extent of the beak seen in 1953 and to locate the trench dug by Grimes whilst restoring the monument (Fig. 5.7). The original trench was found to have measured *c* 0.8 by 1.2 m and ran north to south. The trench was re-excavated to a depth of 1.05–1.2 m down to the bedrock with the aim of confirming and enlarging upon Grimes' record of the section. A 1952 halfpenny was discovered above the bedrock in the bottom of this trench and was reinserted during backfilling. No other finds were recovered during the excavation of this trench. The chalk layers forming the Horse were found to be quite distinct from the grey silts of the hillwash and turf layers. A sequence of continuing renewal of the monument could be discerned.

The initial beak was represented by a layer of light grey/white rammed chalk and silt (Fig. 5.7, 1217), separated from the natural chalk bedrock by around 0.3 m of hillwash (1220 & 1219). The beak was associated with a silt deposit (1221) which probably represented the contemporary turf line. A vertical break separated the beak material from a clay silt deposit on the lower, north, side that may have represented a deliberately formed edge to define the shape of the beak. During this phase the beak was around 0.4 m longer than the latest surface found at the time of this excavation in 1990.

This initial phase of the beak was overlain by an old turf line (1216) and subsequently by two further hillwash horizons (1214 & 1215), representing a period in which this part of the monument was neglected. This neglect allowed the development of more turf (1213). This turf was cut by renewed maintenance of the beak. The beak was renewed to roughly the same dimensions as before and was maintained for a substantial period without another significant break until relatively recently. This was represented by a 0.27 m thick layered deposit (1210) of rammed chalk flanked by a succession of contemporary hillwash (1212) and turf (1211) deposits.

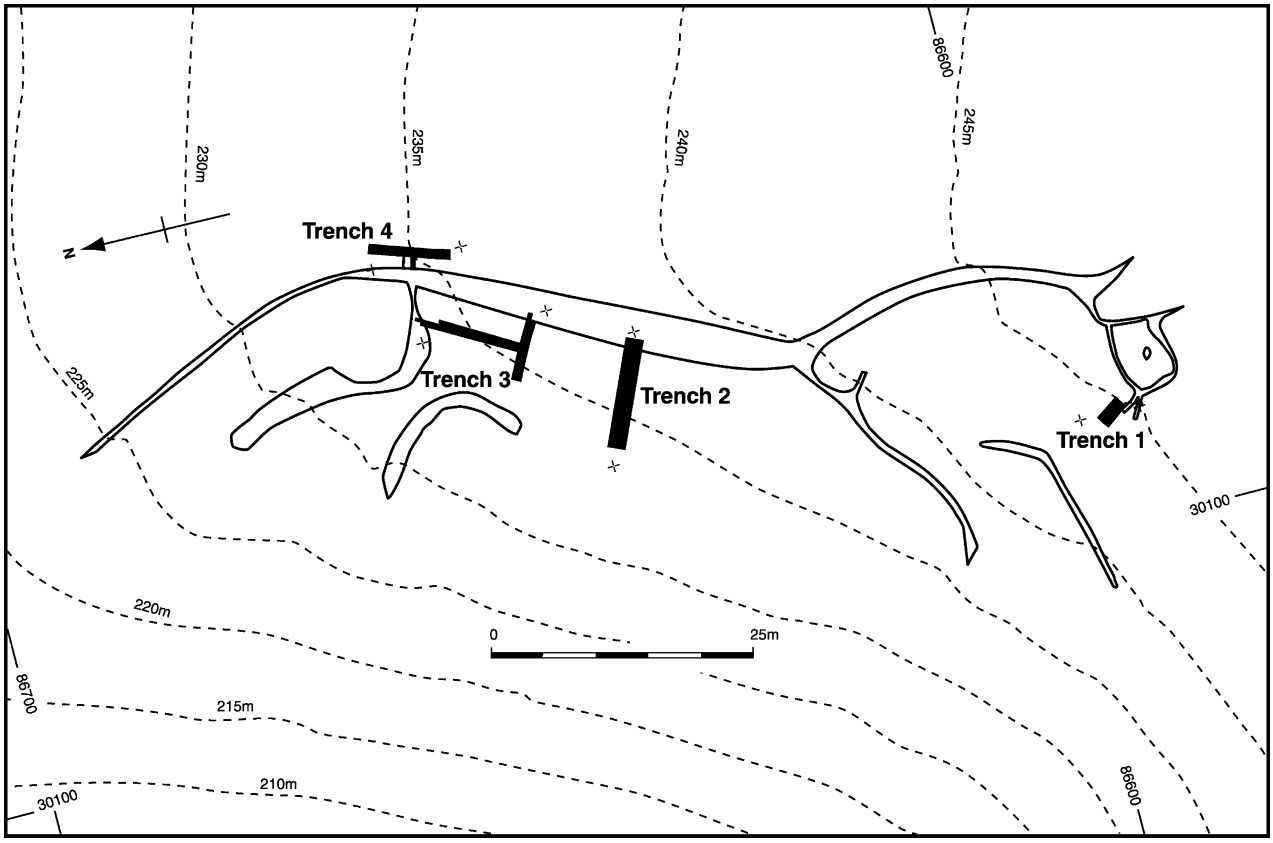

Figure 5.6 Location of the excavated areas of the White Horse: trenches 1 and 2 in 1990, and trenches 3 and 4 in 1994.

A change in the method of construction and the dimensions of the beak occurred after this period. A new surface was created by the digging out of a small trench to be packed with blocks of chalk (1207) and overlain by four successive layers (1205, 1204, 1203 and 1202) of rammed chalk to form the 1953 shorter beak. Not all of these layers may represent later phases of beak construction but accumulations of hillwash from the erosion of the beak. This last phase of construction as found by excavation coincides with what is known of the methods employed by Grimes and his team when resurfacing the monument in 1953 and is likely to represent this activity.

It was clear from this trench that the beak had been resurfaced at various times during its history, and that the chalk figure did not appear at this point to have been formed by an exposure of the underlying bedrock by cutting away the turf in the shape of the monument. It was also seen that the extent and form of the beak had changed over time, and that the image seen today, although probably similar to that in the past, is not exactly the same.

Trench 2 – the belly

A larger trench was dug, extending from 0.3 m inside the kerb of revetting stones that form the current edge of the belly of the Horse, approximately east to west down slope for 10 m to investigate how the modern form of the chalk figure related to earlier phases of the monument. In particular, the idea that the Horse originally had a fuller more naturalistic shape was to be explored. The sequence revealed, seen in Figure 5.8, and described below, was in many respects similar to that recorded in trench 1, but with a few significant differences, and was also very like the stratigraphy of trench 3 a few metres to the north.

The natural chalk bedrock was found to be overlain by a considerable build up of colluvial hillwash deposits forming a slight terrace. A cyclic sequence of colluvial build up could be followed, consisting of light grey silt and silt with chalk flecks (1021–35). The slightly different types of deposit possibly corresponding to different seasons of deposition. The possibility that this could represent a plough-lynchet was carefully considered but rejected (M Canti, pers. comm.). The feature is considered to be an entirely natural one resulting from normal geomorphological processes, such as soil creep, acting on unconsolidated colluvial deposits on a relatively steep gradient.

This was separated from the main phase of construction of the Horse by a further layer of hillwash (1020). This overlay both the early colluvial build up and a disturbed part of the bedrock, which may have represented the initial Horse surface (1036). The chalk bedrock was generally fissured on a west-north-west to east-south-east alignment, with differential bands of blocky and more shattered rock. The first metre of bedrock in the upper end of the trench differed in appearance, being soft and more decayed. It is difficult to distinguish what may constitute original Horse from what may be a product of natural agencies. This was not observed in the other trenches. This area of disturbed bedrock was overlain by compact, decayed chalk (1017)

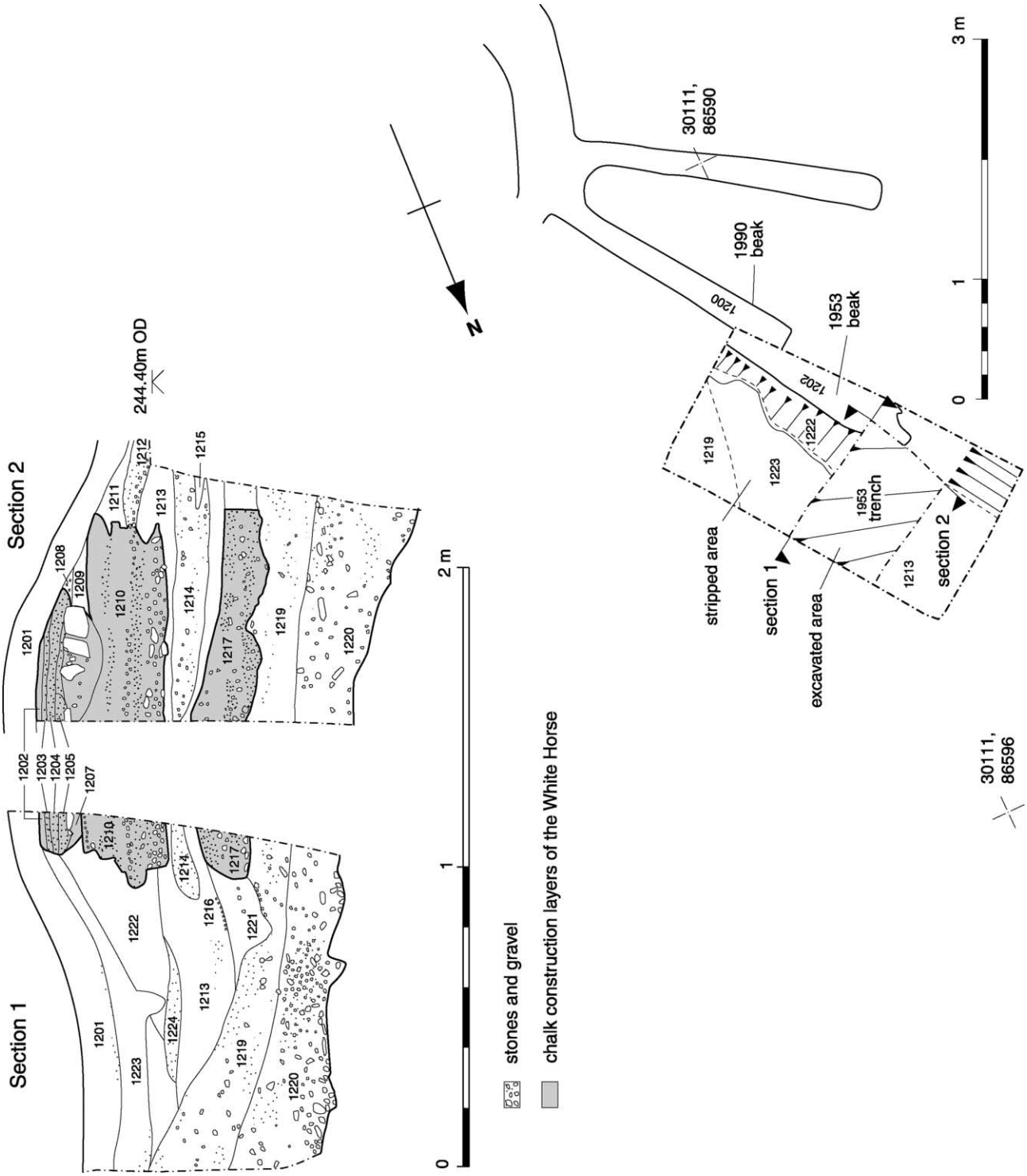

Figure 5.7 Plan and section of trench 1 excavated within the beak of the White Horse also showing Grimes' 1953 trench.

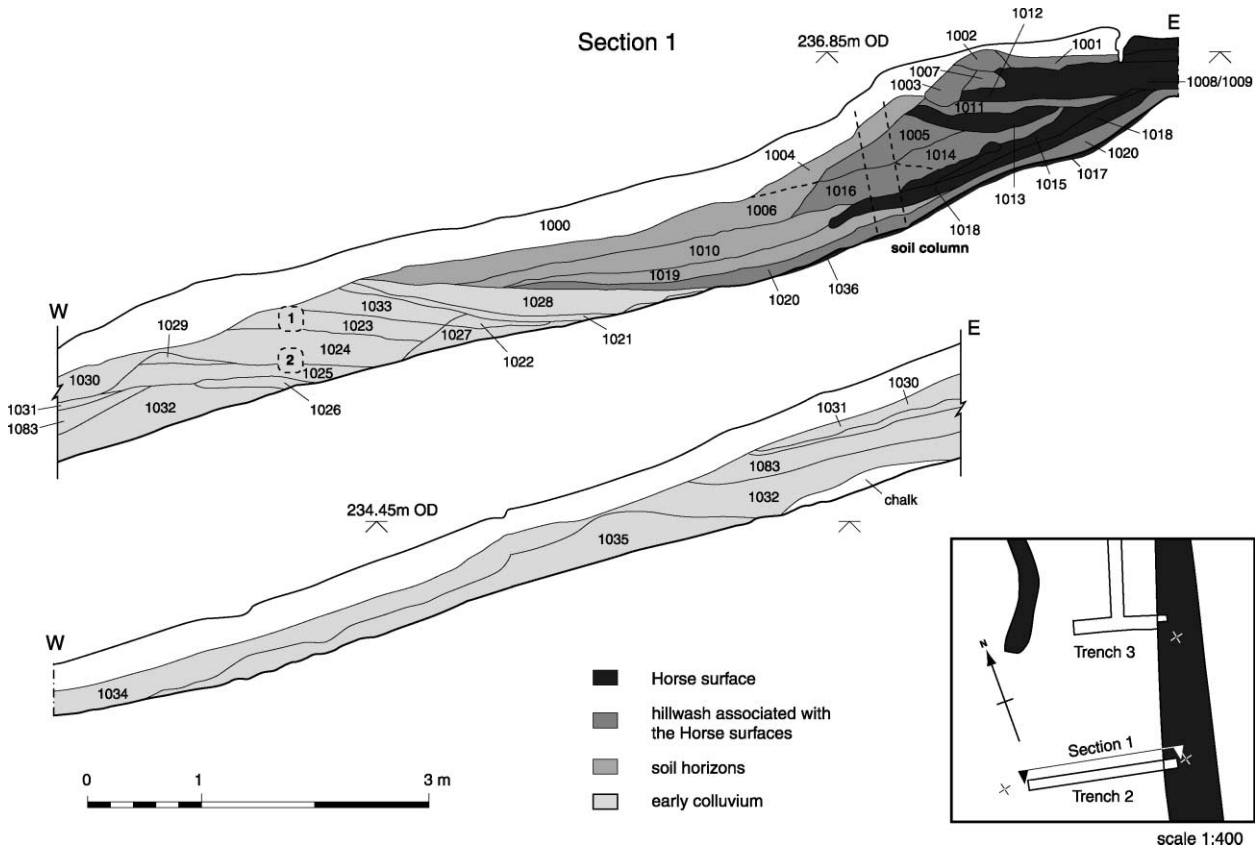

Figure 5.8 Location of trench 2 and section through the belly of the Horse.

which could have been part of the initial Horse surface or alternatively, the product of weathering of the chalk, later compacted by the overlying build up of hillwash and Horse surfaces.

If 1036 did represent the initial surface of the Horse, it is possible that hillwash layer 1020, described as light brown silty loam with chalk flecks, formed as a result of cleaning and maintaining the surface. This deposit was overlain in turn by two similar layers (1019 & 1010) of light brown loam with chalk blocks. Smaller chalk blocks within the upper layer (1010) distinguish between these two. Both may relate to the preparation of the early Horse surface 1018. This deposit consisted of grey chalk with coarse chalk clasts. This was overlain by a further very chalky Horse surface 1015. This last was possibly contemporary with an old turf horizon 1006. These were separated by a deposit of grey silty chalk and pea grit, possibly formed by the decaying of surface 1015. This was followed by another period of chalky hillwash build up (1014 & 1005) before another Horse surface 1013.

There then occurred a discontinuity in the stratigraphic sequence. A further thin layer of hillwash (1011) overlay many of the earlier deposits and was overlain by a Horse surface (1012) composed of chalk blocks laid horizontally. A series of hillwash deposits were found to have built up on the edge of and over the Horse surfaces (1004, 1003 & 1007). The last of these deposits and the underlying chalk block Horse surface (1012) was found to have been cut by a vertical cut 1008, around 0.5 m west of the kerb forming the edge of the Horse in 1990. This cut was filled by a further surface of the Horse (1009). This surface was formed by the placing of pitched chalk blocks. This surface was overlain by further erosion and hillwash horizons (1002 & 1001).

The last of these layers was cut by a kerb, set back *c* 0.6 m from the previous edge of the monument and containing the 1990 surface of the Horse and separating it from the contemporary topsoil and turf layer 1000. The only two finds to be recovered from this trench were recovered from this layer. These were two sherds of pottery, one of these was found to be of post-medieval date. The vertical cut 1008 and pitched chalk block layer 1009 seems very likely to date to the 1953 reconstruction described earlier.

Seven or eight phases of the Horse surface could be distinguished in this trench. A number of different methods of construction of the surface were employed over the lifetime of the monument. These included one phase of weathered chalk, three using puddled chalk, one of horizontal chalk blocks, and at least two phases of pitched chalk blocks and the present Horse surface. These phases spanned a considerable period of time but the lack of datable material recovered precluded dating of the original construction or any of the phases except those known from historical records.

Trench 3 – the belly and hind legs

Trench 3 was cut below the belly of the Horse in the second season of work on the monument. This was

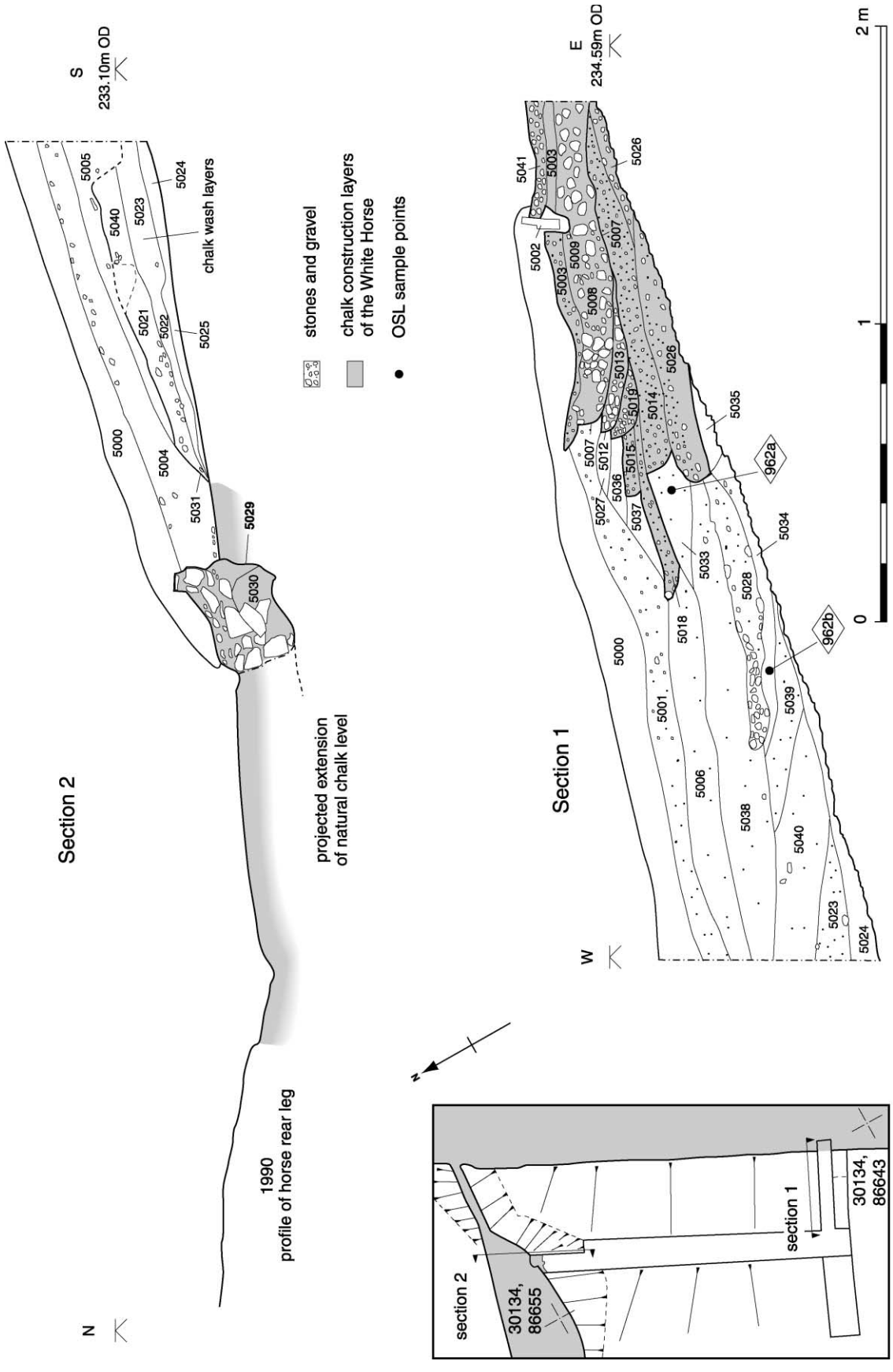

Figure 5.9 Location of trench 3 and section through the body and hind legs of the Horse.

located to the west of trench 2, towards the back end of the Horse. The trench was T-shaped in plan with an arm extending north above the foremost hind leg, to cut into the edge of the rear hind leg. Several aims determined the form and siting of this trench. The east to west arm of the trench was excavated to elucidate the stratigraphy, to obtain soil samples for dating the monument, to check the interpretation of the colluvial build-up terrace and hopefully to retrieve datable finds. The north to south arm followed the colluvial terrace allowing more of this deposit to be searched for finds and to cut into the hind leg of the Horse to investigate the history of its construction.

The east to west section

Within section 1 of the trench, samples were taken for Optically Stimulated Luminescence (OSL) dating (Fig. 5.9). Two layers were sampled, 5034 (sample 962b) and 5033 (sample 962a), because of their position in relation to the Horse surfaces. Layer 5034 was hillwash overlain by one of the earliest contexts relating to the Horse surface. The second sample was also from a layer of hillwash which overlay the Horse surface and was thought would provide a *terminus ante quem* for the first Horse layers.

The sequence of the east to west trench was similar to that observed in trench 2. The natural chalk bedrock (5025) was found to be fissured, as in the earlier trench, and overlain by a layer of decayed chalk (5024). This was overlain in the lower end of the trench by a thick deposit of colluvium which consisted of a sequence of light brown grey silty loams with a fairly high percentage of small angular chalk fragments and some natural flint nodules (5023, 5022, 5021, 5040 & 5039). These loams were all fairly similar but varied in silt content and degree of compaction. The deposit could be seen, in the east to west arm, to form a slight terrace as in trench 2, and continued through the north to south arm, beginning tapering out towards the rear leg of the Horse. A single piece of animal bone and three flint flakes were recovered from this colluvium layer.

In this trench a layer of hillwash (5034) overlay both these colluvial deposits and the solid chalk bedrock. It is possible that the bedrock in the top end of this part of the trench was exposed to form the earliest surface of the Horse, as suggested in trench 2, by stripping the overlying decayed chalk deposit (5024). The decayed chalk layer was lacking from the upper part of the trench. It is possible that the hillwash layer (5034) is the product of decay and erosion of this surface. This layer consists of loose mid-grey brown silt loam with some small to medium chalk fragments, and can be correlated to context 1020 in trench 2, dividing the early colluvial deposits from the successive layers of Horse surface and hillwash in the top end of the trench. This deposit was sampled for OSL analysis because of its position in relation to the Horse surfaces (see below).

Layer 5034 was overlain by one of the earliest contexts relating to the Horse surface, excluding the bedrock. This layer (5035 = 5032) was similar to the preceding one in colour, with a silt matrix, but was much more compact with a much higher chalk content. It is possible that this was an early Horse surface, but this need not necessarily have been the case. A more likely interpretation for this deposit is, perhaps, that it consisted of material washed down off the exposed surface of the chalk Horse to collect at the edge of hillwash deposit 5034, where this had been cut back as part of early efforts at maintaining the Horse. A single serrated flint flake was recovered from this layer. This deposit was succeeded by another layer of loose mid-grey brown silty loam with larger chalk fragments (5028). This too, could be an early Horse surface, but is perhaps more likely to represent rubble washed down from the early chalk bedrock surface.

Overlying this was a fairly thick layer of loose, light grey brown silt loam with chalk inclusions up to 30 mm in diameter. This layer (5038/5005) extended over the slope below the Horse through the lower part of the east-west arm of the trench and north towards the hind leg in the other arm of the trench. Four flint flakes were recovered from this deposit. Contemporary with this colluvial soil, was a new Horse surface (5026). This was made of compacted powdered chalk and chalk fragments 0.15 m deep. This was followed by another period of erosion and hillwash with a new turf line (5033) developing. Another soil sample was taken from this layer for OSL dating. The date obtained would provide a *terminus ante quem* for the first Horse surfaces (see below).

This turf line was cut for a new Horse surface (5014) to be laid. The new surface was again made of compact, puddled chalk. It was up to 0.1 m thick and of almost the same dimensions as the preceding one, extending around 0.8 m further down the slope than the 1990 surface of the monument. Again, hillwash built up below the chalk figure on the still fairly steep slope, though it was decreasing in gradient with the terrace of colluvial deposits which had built up by this time. This deposit (5006/5004) was observed within both arms of the trench. A single backed flint knife and four other flakes were retrieved from it.

This was followed by a sequence of renewed Horse surfaces and the development of thin turf layers relating to a period of regular maintenance of the monument. Overlying both the hillwash deposit and the earlier Horse surface was a new compact chalk surface (5018) extending a further 0.4 m down the hill slope. Turf (5037) built up over this surface and was later cut by restoration of the surface of the Horse with a new layer of puddled chalk (5015). A thin turf line (5036) developed over the top of this surface, before the monument was again resurfaced. The new surface (5019) was cut into the contemporary turf line and the preceding two Horse surfaces. It was made of small chalk fragments packed in a powdered chalk matrix. A further turf line (5027) developed over this before another cut (5012) was made into the turf and the underlying Horse surface, and packed with compacted chalk (5013). This deposit was made up of small pitched chalk blocks in a powdered chalk matrix, forming a sixth surface of this part of the Horse after the exposed bedrock phase.

The terrace of material built up from deposits of hillwash, turf and Horse surface layers was then covered by a layer of hillwash up to 0.15 m deep. This deposit (5001) was observed in both arms of the trench, becoming more powdery towards the north end. No finds were recovered from this deposit, but it was cut by the post-war restoration of the Horse. This can be identified by the nature of this restoration of the surface that is known from Grimes' records. This cut (5007) was observed to have been packed with pitched chalk blocks varying between 0.05–0.1 m square, in a powdered chalk matrix (5008). This was overlain by a compacted layer of small weathered chalk fragments within a chalk silt matrix (5003). This layer is likely to have been the product of frost action on chalk

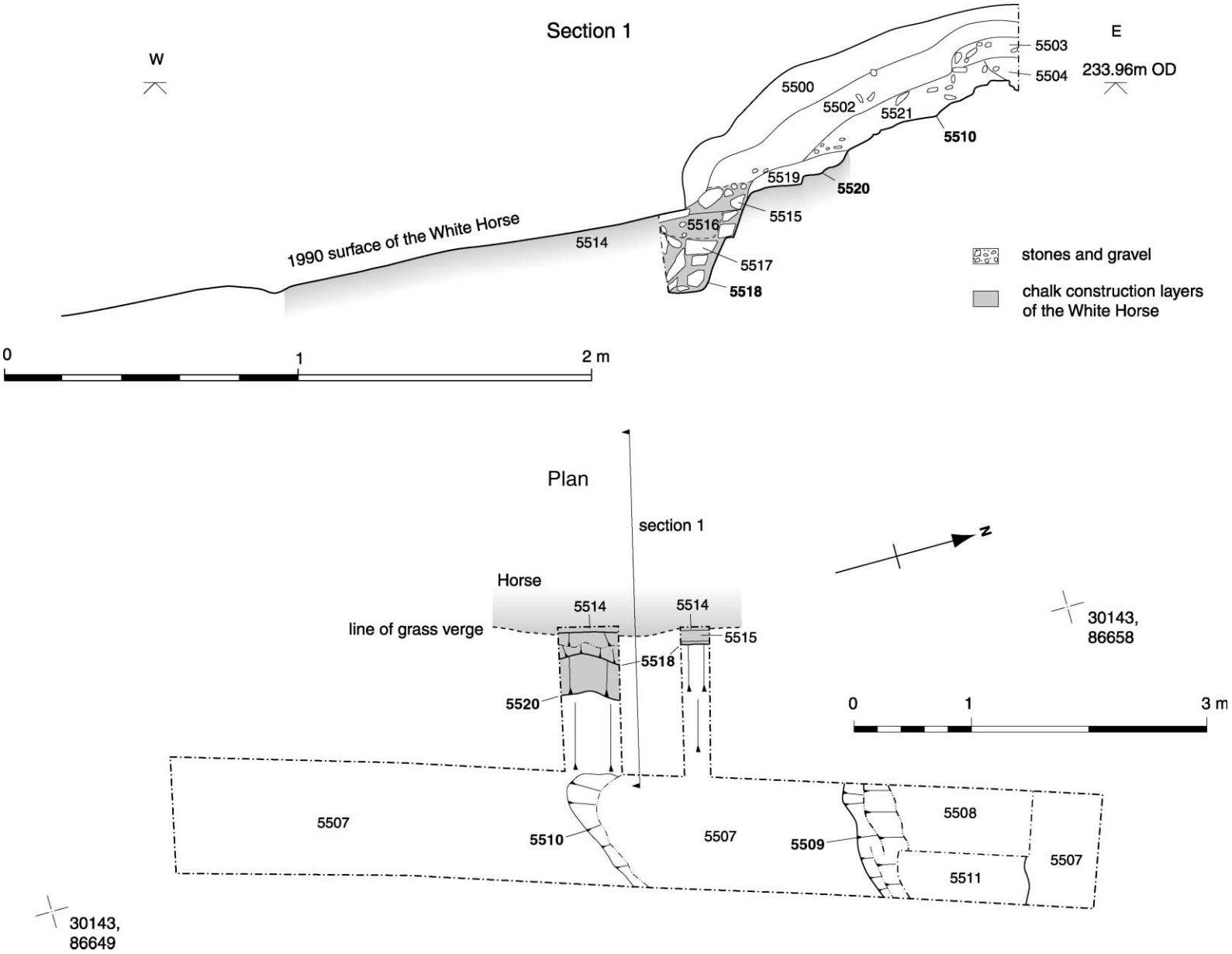

Figure 5.10 Location of trench 4 and section through the back of the Horse and investigation of geophysical anomaly.

surface 5008. A photograph taken in February 1952 recorded such a layer.

The 1990 surface was observed in an extension on the eastern end of the trench. This surface (5041) was made of packed chalk fragments averaging about 20–30 mm. The edge of the surface was formed by a kerb of concrete paving slabs set on end in a small trench (5002) cutting the post-war restoration surface and overlying frost shatter layer. This kerb was set back about 0.7 m back from the edge of the 1950s restoration surface.

The north to south trench and hind leg

In the northern end of the trench a different sequence of cutting away rather than building up to form the Horse surface was observed in section 2 (Fig. 5.9).

The earliest layer (5031) cut away the early terrace of colluvial material observed in the southern part of the trench to reveal the chalk bedrock. This cut lay approximately 0.65 m to the south of the edge of the 1990 surface. This became infilled over time with hillwash deposits and the southern part of the hind leg was covered by colluvial layer 5004, the equivalent of deposit 5006 in the east to west section. This deposit and any early surfaces of the Horse at this point were cut away by a new surface of the Horse set in a 0.3 m cut, 0.25 m to the north of the original. This cut (5029) was packed with chalk blocks up to 0.08 m in diameter, to a depth of 0.23 m. The construction of this surface is clearly comparable to surface 5008 in the east to west part of the trench at the Horse's belly, and can also be attributed to the 1950s restoration work on the monument. The edge of the 1990 surface lay 0.4 m to the north of the edge of this surface. The 1990 surface of the Horse was not excavated in this part of the trench, but a profile across it and the turf to the north was recorded.

Trench 4 – the back and geophysical anomaly

The fourth trench was located approximately a metre above the Horse's rump to cut across the anomaly shown by the geophysical survey to extend up hill apparently from the rear of the Horse (Figs 5.5, 5.6 and 5.10). Two small spurs on the lower side of this trench extended down to cut the edge of the Horse surface. The aim of the trench was to see whether the outline of the Horse had been significantly altered over time.

The geophysical anomaly

The main part of the trench revealed that the bedrock (5507) was naturally cut by periglacial solution hollows (5509) which had been filled by frost fractured chalk (5511) and friable mid-brown grey silt towards the top (5508). These features were intercutting relating to separate episodes of solution. The fill of the upper feature was cut by a lynchet-like feature (5510) filled by a truncated soil (5504) with evidence of some disturbance. The soil was described as loose mid-brown grey silt with some small to medium rounded chalk gravel becoming more frequent towards the base. No finds were recovered from this deposit. It was unclear if this represented a phase of ploughing, or if it was due to natural agencies.

This soil layer was cut by another solution hollow (5505), filled by a deposit of friable dark brown silt (5506). This fill had similarities to the subsoil horizon (5503) formed by decay of the chalk bedrock below. Both were overlain by a buried topsoil horizon (5502), both of which contexts were described as around 0.05–0.12 m thick friable dark brown grey silt with small chalk fragments, and are likely to be the same horizon. A single flint flake from 5502 was the only find recovered from this trench. This deposit also contained some small fragments of concrete suggesting that it was modern. It is known that the land on top of the hill wash was ploughed earlier this century, and it is possible that this soil relates to that episode. These deposits were overlain only by the modern topsoil (5500).

It was apparent that the chalk filled solution hollows located would have been enough to create the observed anomalies noted on the geophysical survey. The shattered chalk would have shown a similar reading to the Horse surfaces. It is clear that this was never part of the White Horse monument.

The upper edge of the Horse

The small trench spurs revealed the sequence of construction of the upper edge of the Horse. The earliest possible evidence of the Horse was a shallow flat-bottomed cut (5520) in the natural, and this was visible in the illustrated section (Fig. 5.10). It is not entirely certain that this related to the Horse, but it is possible that this represented the exposure of the bedrock to form the first Horse, in the same way as had been observed in the earlier trenches on the underside of the figure.

This cut was filled by an accumulation of compact mid-brown grey silt about 0.06–0.08 m thick (5519). Alternatively it is possible that this cut is the result of erosion, which was subsequently infilled with turf to restore the edge. This was overlain on the upslope side by a thicker layer of more friable silt with angular chalk gravel (5521) that made up the base of the early soil (5504). Layer 5519 was cut on the lower side to a depth of 0.42 m by 5518.

Cut 5518 was made to define the shape of the figure during the post-war restoration of the surface and was packed with large angular chalk rubble 0.23 m deep (5517). This was overlain by a 0.13 m layer of loose silt with a fairly small percentage of rounded chalk gravel (5516), followed by another 0.1 m deep with a high proportion of rounded chalk (5515) that represented the consolidated ramming of chalk into the top of cut 5518 to form the surface of the Horse. This surface was overlain in part by the recent buried topsoil 5502 and the 1990 surface of the Horse. This surface (5514) was formed of puddled chalk as had been observed at other parts of the figure. The 1990 topsoil was beginning to encroach on the edge of this surface, and would soon require to be cut back to maintain the form of the Horse.

The construction and maintenance of the Horse at this edge was characterised by cutting back as had been observed for the upslope edge of the hind leg in trench 3 in contrast to the building up of hillwash and new surfaces which characterised construction of the bottom edges of the figure as seen in trenches 1 to 3.

OPTICALLY STIMULATED LUMINESCENCE DATING

by Julie Rees-Jones and Mike Tite

The sediment samples taken for OSL dating came from trench 3 at the belly of the Horse. Sample 962a

was taken 0.40 m below the present ground surface, from a layer of colluvium that overlies one chalk figure and is cut by another later figure above (5033, Fig. 5.9). Sample 962b came from 0.60 m further along the section, down from the Horse, and from a colluvial layer underneath all the preserved chalk figures (5034). Measurement procedures are described in Appendix 1, feldspar and quartz dates being obtained for sample 962a and a quartz date only for sample 962b, and the measured values for the palaeodose, a-value and dose rates are also provided there.

The feldspar and quartz dates for sample 962a agree with each other within one standard deviation, the latter similarly agreeing with the quartz date for sample 962b. Therefore, since feldspar and quartz bleach at different rates, it seems probably that the White Horse samples were fully bleached at deposition and the dates obtained are accurate. Where full bleaching was not apparent, discrepancies in dates seem more likely to occur as in the Uffington hillfort trench 2 ditch samples discussed later in the volume.

The accuracy of the White Horse dates is further reinforced by the agreement in the annual dose rate determined by two independent methods, that is, by portable gamma spectrometry and thick source alpha counting with potassium flame photometry. In addition, since the growth curves for the equivalent dose determinations are linear, there is no risk of the age over-estimation that can arise when the growth is exponential. Similarly, there is little likelihood of a lower age as a result of a lower water content, and hence increased dose rate, since the observed water content was already low (20%) at the time of sampling and any possible age over-estimation is covered by the errors ($\pm$20%) assumed for the water content.

In summary, therefore, it is suggested that the date of the layer of colluvium associated with the initial construction of the Horse was between 1380 and 550 BC, at a 68% confidence level, or between 1740 and 210 BC, at a 95% confidence level. Therefore, it seems very likely that there is only a 2.5% chance of the first Horse having been constructed later than 210 BC (see Appendix 1 for additional information).

DISCUSSION

The morphology of the White Horse

The method of construction of the White Horse was not understood prior to these excavations. Despite the early reports by Defoe and Wise of a trench filled with chalk, unless engaged in scouring the figure, most people did not appreciate this aspect of the Horse. The figure was considered in much the same manner as an artefact, and was not thought to have any stratigraphy. It was thought of as a flat feature cut from the turf to expose the bedrock. The area of discoloured and decaying chalk bedrock beneath the later Horse surfaces may suggest that the Uffington White Horse was constructed in this way initially and was subsequently replaced by other methods of creating a suitable surface. The disturbed surface of the bedrock could have been the result of weathering or disruption caused by the construction of a puddled chalk surface within a trench.

The construction of a puddled chalk surface for the figure is likely to have replaced the bedrock exposure relatively soon after the figure was first cut, as figures created by exposing the bedrock may not last long. A White Horse was formed in this way in the late 1860s on the steep escarpment west of Inkpen Beacon, by Mr Wight the owner of Ham Spray House a mile away in the valley below (Marples 1949, 100). The figure survived to at least 1922, but had completely disappeared by the time Marples was researching his book less than a century after its construction due to lack of maintenance.

The puddling chalk surface therefore seems to have become the usual way of maintaining the figure, a method which creates some stratigraphy. However, the Horse's stratigraphy is variable due to the nature of its construction and the effects of erosions and weathering. New surfaces were deliberately constructed with layers of chalk being applied over the remains of the earlier surfaces. Between renewals, the frost, rain and wind action inevitable in such an exposed position broke up the surface and loose material moved down slope. This flow was then halted by the break of slope at the lower edge of the figure, where the debris accumulated. This action eroded the upper edge of the figure, at the same time as building up the lower edge, and the erosion undermined the bank at the upper edge making it liable to collapse, altering the shape outline.

During renovation the lower edge was redefined by merely adding a new layer of pure chalk over the mixed chalk and soil debris of the hillwash. The upper edge was then either cut back, or downwards, with the eroded turf replaced, if the original outline was to be maintained. This downcutting at the upper edge results in the removal of evidence of the earlier outline, while the build up at the lower edge preserved evidence of the earlier surfaces. Hillwash accumulations extending beyond the edge of the figure were not removed, but were preserved beneath soils developed between periods of erosion and hillwash. These successive layers form the ridges of turf observed around the figure.

Shape, position and inclination

Despite the great potential for change in the shape of the figure during successive renovations and the apparently telling irregularities in the surrounding turf, the geophysical survey did not give any clear indications of significant changes in shape or position. The only anomaly that might have indicated a significant change in the outline of the Horse, a linear feature extending uphill away from the rear of the Horse, proved by the excavation of trench 4 to have

resulted from unrelated natural geomorphological features. This ruled out any possibility that the current position of the tail is not original. The only other changes suggested by the geophysical survey were minor changes in the position of the legs, but these were not confirmed by excavation. These anomalies probably trace the ridges of chalk hillwash which have accumulated beneath the figure.

As there was an emphasis on minimum disturbance of the monuments, these excavations could not conclusively prove that the figure had not gradually moved up the hillside due to the erosion and redefinition of the upper edge mentioned above. However, it was possible to confirm that the shape had not changed significantly. Cut 5520 in trench 4 (Fig. 5.10) may indicate that the upper edge of the Horse is now around 0.3 m below its highest extent at this point. On the lower side of the Horse, as exposed in trenches 2 and 3, the edge has contracted only about 1 m from its original extent. This suggests only a slight narrowing in the body of the figure.

The north to south arm of trench 3 suggests that the rear hind leg has narrowed by around 0.6 m over the years. This is a relatively large change given the narrowness of this part of the figure, but does not indicate a radical change in the layout of the figure. No evidence was found of the foremost of the hind legs ever having been joined to the body.

Grimes' trench and trench 1 of the current excavations showed that the 'beak' was an ancient feature, if not part of the original figure, and clearly not a modern addition. Not only were there several layers representing deliberately constructed surfaces within the section stretching down to near the bedrock, but this part of the figure lay on a mound of accumulated material that had washed down from the exposed surface of the figure above (Fig. 5.8). This mound is comparable to the built-up lip at the lower edge of the body visible in trenches 2 and 3. The feature has become slightly shorter in recent times, with the 1990 beak found to be around 0.45 m shorter than its maximum extent.

The only aspect of the Horse's morphology that does seem to have changed significantly over time is its inclination relative to the hill slope. The initial Horse surface would have matched the slope of the underlying bedrock at around 18° from the horizontal but the surface angle has decreased over time by around 10°. This is the cumulative result of erosion of the upper side and build up on the lower side. This has reduced the visibility of the figure from below significantly. Presently although much of the figure can be seen from below, it cannot be seen in its entirety, even from the top of Dragon Hill the head of the Horse is not visible although the rest can be seen. Presumably the Horse was intended to be visible over long distances, as it still is, it is likely that it was originally more visible from nearer at hand. Today it appears that the original intention was to create a symbol to be recognised from the distance, but in reality its visibility from close at hand may have been equally important.

The chronological debate

This new knowledge of the morphology of the figure allows the alternative dates for the monument presented in the most widely accepted hypotheses to be tested archaeologically, something that was not previously possible. A Saxon date had been suggested on documentary grounds, and this idea was supported by local legends. Similarly an Iron Age date had been favoured by many scholars comparing the Horse stylistically with horses on Celtic artefacts.

The current project established that the figure had survived more or less intact in detail against all odds, substantially diminishing the idea that its shape had been substantially altered over time. As the low, attenuated tail seems to have been an original feature of the figure, and the beak is at least an early feature of the figure, there is support for a prehistoric date for the Horse, possibly early to later Iron Age, or possibly even late Bronze Age.

The figure may have become slightly narrower through time, the archaeological evidence does not support the suggestion that the figure shifted significantly up-slope. Survey of the area failed to trace any coherent pattern in the numerous bulges in the surrounding turf. The excavations proved that these resulted from accumulating hillwash, and were not deliberately constructed.

The OSL date for the White Horse

None of the more usual dating methods such as stratified artefacts or radiocarbon dates was applicable in this case. No artefacts were found *in situ* beneath the Horse surfaces. The undiagnostic roughly Neolithic to early Bronze Age flints retrieved from the colluvial layers were secondarily deposited and likely to be residual, so could not give a useful *terminus post quem*. The surfaces of the monument itself were not amenable to dating having been constructed of clean chalk.

OSL dating could not be used to date the surfaces directly, but provided a date for the colluvial deposits above and below the first puddled chalk surface. This yielded a broad date range for this early surface. It could not give a date for the initial construction of the Horse, if the disturbed bedrock is in fact the earliest surface, but the date given proved that the figure was prehistoric rather than Saxon in date.

CONCLUSIONS

The Horse originally may have been formed by an exposure of the chalk bedrock, but most of the figure is constructed of successive layers of puddled chalk and hillwash. The position and distinctive shape has been maintained more or less intact since its initial construction. The tail has always been a continuation of the line of the body even though its attenuation may have become slightly more marked due to runoff down the length of the figure. The foremost

hind leg was always detached from the slender body of the animal. The body may have become slightly narrower over time, but not significantly so. It was not possible to ascertain whether the distinctive beak was an original part of the design, but it is definitely of considerable antiquity.

Use of the OSL technique for dating sediments associated with the earliest Horse surfaces suggests that the figure is at least 2500 years old, and that it was initially constructed in the early Iron Age or perhaps even the late Bronze Age. This could be contemporaneous with the construction of the hillfort and there may have been links between the two monuments. Thus the Horse was constructed in the prehistoric rather than Saxon period.

The combined approach adopted in this project has proved successful. Limited excavations provided the good understanding of the stratigraphy needed to identify suitable deposits for dating. Excavation also helped in ground proofing the geophysical survey. Excavation was also able to identify which features of the design were original and or altered.

As well as settling a long running dispute about the antiquity of the figure this new evidence allows a reappraisal of the use of the documentary and other sources to date hill figures in general. Documentary evidence can provide useful details of restoration and construction in modern times and can provide useful *termini anti quem*. Legends and documentary references attributing the figure to a particular period and people are all likely to have an element of truth as people have valued the monument throughout time and continued with its maintenance. The dating of the White Horse supports stylistic comparison but this concept cannot always be accepted uncritically.

This date for the White Horse also coincides with the rise of the horse in the archaeological record. Horses had arrived in Britain during the late Devensian, but these wild horses are thought to have become extinct towards the end of the Pleistocene. Domestic horses appeared in the faunal assemblage in the Near East in the early Bronze Age, having spread from southern Russia and Central Asia, and were subsequently introduced into Western Europe in the late Neolithic and early Bronze Age at the time of the appearance of Beaker pottery (Davis 1987, 134). The presence of horses in faunal assemblages from sites in Wessex and the south midlands did rise significantly in the late Bronze Age and early Iron Age (Keeley 1987).

In the late Bronze Age and early Iron Age horse gear started to appear in hoards, as seen at the Tower Hill site, discussed in this volume. Hill (1995, 104) suggests that horses may have had a special status at this time, being regarded as lying on the boundary between domesticated and wild animals, between culture and nature in the same way as humans. Thus the Horse may have been an important image for the creators of this symbol on a prominent hillside. This was a location which had also been singled out for ritual activity by the barrow builders and had significance too for the builders of the hillfort. Uffington hillfort is examined in the next chapter of this volume.