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The Ackling Dyke
Roman Road in
Puddletown
Forest,
Dorset

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INTRODUCTION

The Ackling Dyke formed part of the road system in Britain that provided such an effective transport and communication network throughout the country during the Roman occupation. It at one time linked Old Sarum (Salisbury) with Exeter. Parts of the alignment still survive as impressive earthworks notably at Badbury Rings, Bokerley Dyke and Puddletown Forest..

A well preserved stretch of this major Roman road, some 1.75 kms in length and situated about 4km north-east of Dorchester, was investigated and surveyed in 2004 by the English Heritage Exeter Archaeological Investigation Team. The survey was undertaken at the request of the English Heritage Inspector of Ancient Monuments with the cooperation of the Forestry Commission, English Nature and the landowners.

This particular length of road crosses three parcels of land that are each maintained in different ways by their owners:

1. Puddletown Forest.

Within the extensive Puddletown plantation ongoing tree clearance by the Forestry Commission has three aims:

- a. To fully expose the surviving earthworks of the road - a scheduled ancient monument.
- b. To harvest mature timber in the area.
- c. To return a small area of the plantation back to natural heathland.

Extensive and ongoing clearance of scrub and tree cover has revealed the full extent of the impressive road earthworks and the nature of the damage inflicted on them in the past.

2. Privately owned woodland.

An extremely well preserved length of the road lies to the west of the forestry plantation on privately owned land. This stretch of road has been kept largely free of trees and dense ground cover vegetation. It was included in the new analytical survey not only to record this contiguous and very impressive stretch of road but also to provide reference information about the general form and layout of damaged part of the Ackling Dyke in Puddletown Forest.

3. Nature reserve.

Coincidentally whilst the present archaeological investigation was being undertaken a parcel of land adjacent to the western edge of the survey area was being cleared. This operation to remove scrub and bushes was in preparation for the restoration of natural heathland in the reserve by English Nature. Within this newly cleared area lies a short length of the extant road and this was incorporated into the English Heritage survey in June 2004.

GENERAL NOTES

Very little is known about the Ackling Dyke. Margary (1973) briefly describes the route which is depicted on the OS Roman Britain map (2005). A number of small archaeological excavations have been conducted over the last century in discrete places along its length. Putnam (1969, 149) speculates that the Ackling Dyke has early origins; a view he bases on the fact that from about 55 AD until the late 60's the second Augusta Legion had its headquarters at Exeter. It is, he suggests, difficult to imagine the legion being without a reliable line of communication to London. Therefore it is very likely that this road was of military origin - adapted later for use by the *civitates* of the Durotriges and the Dumnonii (of Devon). He proposes that if the road proves to be of an early construction then 'it was built in its present very impressive style right from the start'. His observations are based on the fact that his excavations in nearby Thorncombe Wood revealed 'no trace of a more modest construction lying buried beneath the present agger in an undisturbed section of road'.

There is a recent body of evidence which suggests that the Ackling Dyke could in fact be a late Roman road perhaps overlying an earlier route. Excavations and two geophysical surveys in a ploughed field located to the southwest of Badbury Rings indicate a later 4th century date for the road which was possibly built over a prehistoric route.

An alternative line for the road from Lake Farm fortress near Wimborne to Dorchester is posulated by Field (1988). This is partly based on features he found in his Stinsford excavations although these have since been identified as part of an 18th century garden (Putnam 2005).

Details about the general constructional form of this part of the Ackling Dyke can be deduced from a number of small archaeological excavations – fortuitously located in the vicinity of the newly surveyed section. The first, undertaken by the RCHME in July 1949, was at Bere Down (SY846969) – some 10kms to the north-east of Puddletown Forest. Here 'the agger is clearly visible in the pasture field' and the metalling proved to be 20 feet (6.096m) wide but consisted only of ungrouted flints and small stones on a base of sandy clay laid on the chalk rock. Two wide and shallow eccentric side ditches were revealed to be 59 feet (17.93m) apart from centre to centre (Farrar 1949, 60). The second excavation by W. Putnam was located to the southwest of Puddletown Forest in Thorncombe Wood at SY72709201. A 2m wide cutting was excavated in 1968. The road gravel was found to be 25cms thick on the uphill side and 50cms thick on the downhill side. This metalling showed no stratification but two wheel tracks were clearly visible about 1.5m apart. The running surface was clearly defined as 11 -12 Roman feet wide. There was no ditch on either side of the agger. Putnam noted that 450m to the east of his excavation, where the road reaches the crest of the ridge, there are ditches and external side-banks measuring about 35m across the whole. He reasoned that ditches exist for drainage and that the side banks were built to dispose of material unsuited for use in the agger.

The line of the Ackling Dyke at SY710913 immediately to the east of Dorchester was excavated in advance of quarrying in 1987 (Chowne 1988). Five closely positioned machine-

cut trenches were dug across its ploughed - down course through a pasture field. Within the two eastern trenches a metalled surface of small-rounded pebbles could be observed on the agger which was constructed of gravel. In places evidence of a ditch on each side was recorded. In the western trenches the agger had been ploughed out but one ditch was visible as a soilmark. No measurements are given in the report but the width of the road metalling (measured from the small scale plan) is about 4.7m. The overall width of the road is however difficult to deduce from the plan.

In 1995 and 2004 archaeological trenches were cut across the line of the Ackling Dyke at the site of Crab Farm Romano - Britain small town at ST94450227 (Papworth 1995, 2004). Both investigations and also two geophysical surveys focused on the ploughed down settlement and Roman road which lie in a level arable field located to the south-west of Badbury Rings. One of the two trenches cut in 1995 revealed details of the settlement which is of Iron Age origin. The second, at ST94690223, showed that the latest period of construction for the road overlaid the backfilled ditches of the 2.4 hectare Roman fortification. The geophysical survey demonstrated that the road system of the settlement ignored the alignment of the Ackling Dyke. The excavator therefore concluded that the development of the town could not be attributed to the location of an early military site or a major road. In September 2004 a trench was dug at the point where the road crossed the alignment of one of the settlement property boundaries. Located at ST94520213, to the south-west of the 1995 investigations, traces of the road survived only as a scatter of large flint nodules embedded into a darker soil horizon and also in the surface of a pit-like feature. This pit, interpreted as a well, was at least 5m deep. The fact that it had probably been backfilled in the 4th century was indicated by mid-4th century coins and pottery sherds in the fill. A linear gully measuring 0.35m wide and 0.14m deep that crossed the trench was interpreted as the remains of the north-western side ditch of the road.

The geophysical plot shows the distance between the side ditches in the latest phase of the road to be 24m. It also reveals a density of anomalies overlapping these ditches. However a 10m wide blank area on the plot at the centre of the road and other alignment indicators associated with enclosure boundaries suggest that a linear feature existed beneath the road, this was dated by finds to the later 4th century. This early road, if it existed, would have been constructed across a backfilled enclosure ditch from the later 2nd century.

Papworth suggests that the excavations at Crab Farm confirms Fields' assertion (1988,145) that the early Roman road to Dorchester from the east branched west from the Lake Farm fortress at SY999989. Additionally he suggests that it was only realigned across the established Crab Farm settlement at some time after the later 2nd century and that before this time it was a meandering route which had its origins in prehistory.

In his book *Roman Roads of Britain* Davies (2002) summarizes the state of information about Roman roads. He also presents a corpus of data obtained from the numerous excavations - usually in the form of narrow trenches - undertaken over the last century across these linear earthworks. He concludes that there is no such thing as a standard

Roman road because they can serve different functions. These functions can vary from providing a route for traffic, imposing a symbol of dominance, acting as a land boundary, to providing a frontier. The 'typical' road has a raised agger with a ditch on each side separated from an outer ditch by a strip of land which has been cleared of vegetation. The agger side ditches probably acted as soakaways rather than drainage channels because there is often no provision for the water to be discharged. He suggests that the width of the road metalling should be the most reliable of all the measures on a Roman road although he notes that this metalling – the running surface - does not always occupy the whole top width of the agger. He states that the width of a road is a key indicator of its importance and that the average width of metalling in Britain (taken from a sample of 488 excavated agger sites) is 22 pedes or 6.51m. (Note, one pes - plural pedes - equals 0.296m). Such a running surface can be subsequently widened perhaps in response to increased traffic. A straight road wide enough for a beast of burden or vehicle, known as a via, is on average 8 pedes or 2.368m wide. A road wide enough for a vehicle to pass – an actus – is on average 12 pedes or 3.52m wide.

GEOLOGY, TOPOGRAPHY AND LAND-USE

The line of the road through Thorncombe Wood and Puddletown Forest lies across a fairly unstable geological area which is described as comprising grey clay - commonly red stained

*A deep sink hole with a mature tree growing out from the side of the slope just above the bottom
(C9 on plan)*



- and pebbly sand (BGS survey, sheet 328). Much chert and flint is visible on the ground in places disturbed by fallen tree root plates and by forestry clearance activity.

A significant geological phenomenon in the landscape are the numerous and often substantial depressions known as sink holes or solution hollows. These holes, locally called Swallet Holes on the early Ordnance Survey maps, resemble in profile inverted cones - similar in many ways to collapsed shafts but without surface up-cast or spoil. They appear to have been created by water percolating into the sub-strata which caused the ground surface to collapse. There is now no trace of surface water or streams in the vicinity of most of these

features. They occur entirely randomly across the landscape, often in bunched concentrations on level or sloping ground. Usually circular they survive in a surprising variety of depths and diameters, often with fairly precipitous sides. A number straddle the Roman road, a particularly impressive example is at SY73159223 (C9 on plan). This hole is 20m across, 7m deep with a 3.3m diameter flat bottom and a mature tree growing out from the side just above the bottom.

DESCRIPTION OF THE ROAD

Whilst it is perhaps usual to describe a road running from its starting point - in this case at Old Sarum (located to the east) towards its destination at Exeter (to the west) - for convenience the description in this report runs from west to east. The Roman town of Dorchester lies not far to the west of Puddletown Forest so it may not be unreasonable to suggest that this part of the road might have been constructed eastwards by soldiers based at Dorchester. No trace of a large Roman fort associated with this major settlement has been discovered to date (Brewer 2002, 32). However the existence of a significant junction of two Roman roads adjacent to the crossing point of the River Frome indicates that somewhere in or around Dorchester there was once a major Roman fort. This assumption is strengthened by the presence of a military amphitheatre and a military aqueduct (Putnam 2005) .

The remains of the Ackling Dyke cross undulating high ground from west to east after its ascent up the fairly steep slope from the town and the river crossing. It proceeds along the edge of a prominent landform before making a fairly sharp turn to run down a steep east-facing slope. It continues eastwards on gently rising ground through what was once grassland and open heath but is now covered by the dense conifer plantations of Puddletown Forest.

The road is sub-divided into short sections purely for ease of description

A to B on plan SY72949210 to SY73039214 .

This part of the road ascends a gentle southwest-facing hillside and crosses Black Heath. It has been effaced for part of this length by what appears to be a wide and fairly deep cutting, apparently a small opencast quarry cut into the natural slope (A1 on plan). On the southern side of the road line, lying along the floor of this quarry cutting, is a sinuous, disturbed and spread bank (A2) up to 1.3m high. Apparently composed of un-compacted soil it is not a road or bank but appears to be a dump of up-cast spoil associated with the workings. In 1980 the Ordnance Survey Archaeological Investigator reported 'no trace of the agger' on the hillside (A to B) although he did not mention the quarry (ref. Ordnance Survey Roman Road file, RR4e). The origin of the quarry is not clear; the Ordnance Survey (OS) does not usually depict such small scale workings on its plans even so the 1:2500 and 1:10000 scale OS maps - dating from 1886 to 1990 - show the apparently effaced stretch of road as intact which is curious. The 1:2500 digital OS map, amended in 2003, reveals that the agger ended more or less where it does today (B). The 1945 - 49 series of air photographs of the area – not currently available - may cast light on the origin of the quarry and thus the date of the destruction of the agger here.

To the north of the course of the road (A3) an area was cleared in 2004 by English Nature in preparation for restoration as natural heath. The existing scrub vegetation was grubbed out by mechanical digger and much of the topsoil was dumped across the south-facing quarry slope (above A1). This humus-rich topsoil was removed in order to discourage the growth of grass and bushes in favour of the heathland species that thrive on sub-surface minerals. A number of slight hollow ways and ditches, exposed during this clearance, had been cut through the flint and chert surface of the hillside. These features probably represent early paths or routes that negotiated the rising ground over the open heathland (OS map 1889).

B to C on plan SY73039214 to SY73099216

This stretch of road, although extant, is almost completely obscured by dense holly vegetation. To the southwest of Rushy Pond (and to the east of the steep west-facing slope of the openwork - B on plan) lies flat, undulating ground. Here, where a well-defined footpath cuts across the road line, faint traces of the southern side of the spread and denuded agger are visible. To the east of, and truncated by the path a well-defined short length of the agger (B1) extends into dense vegetation cover. It measures 6m across the top and stands to a height of 0.7m. There are probably side ditches here but the evidence is completely hidden by the vegetation. To the east of this exposed agger, within the dense holly cover, the Roman road survives although it cannot be closely examined. However where a well used public right of way (B2) - in the form of a shallow and narrow hollow way - cuts through the line of the road, a clearly defined agger with a side ditch on at least one side can be detected within the dense stands of holly.

C to D on plan SY73099216 to SY73379224

This part of the road is very impressive being both well-preserved and well-defined. In private ownership, it is currently covered by grass with in some places young gorse and bracken. A footpath, which has restricted public access, runs along the top of the agger.

*View of the agger
flanked by trees,
looking north-east.
Note the well-worn
footpath*



*Second
view of the
agger and
the footpath
looking
north-east*



The area, known as Duddle Heath, was unenclosed grassland in 1889 (Ordnance Survey, 1889) but is now covered by dense lines of circa 75 year old conifers and scattered mature deciduous trees. In 1929 the Ancient Monuments Inspector advised that the young pines and firs planted over the agger and its ditches 'should be removed without delay'. (Ancient Monuments site report dated 06.04.1929). Trees now line each side of the road and partially impinge on its extremities; the well rotted remains of very large tree stumps are visible scattered throughout the plantations. The agger is on average 1m in height with a flat top which varies in width from 4m to 6m. There is no noticeable widening of the agger at the pronounced bend in the road (C1) but to the east, the top is about 7m wide where the road has been spread and disturbed (C2). The overall width of the road ranges from about 26m to 33m. There is visible surface evidence that the agger here is heavily infested by tree roots, also some well rotted tree stumps occupy the top. Small pieces of chert and flint are exposed in animal scrapings but, perhaps surprisingly, no animal burrows were noted in the prominent earthwork.

The steep sides of the agger are still well defined and, where they exist, the heavily silted remains of side ditches average 0.3m deep and are up to 4m wide (C3). There is no trace of a side ditch where the agger runs along the edge of the steep natural slope (C4) although in some places there is a slight terrace (or berm). This terrace marks the break between the agger slope and the natural slope and could indicate the presence of a silted ditch or walkway (C4).

This length of road has, on the northern side and also in places on the southern side, a level strip of land beyond each side ditch. This flat area (now partially tree covered) is delimited by an earthen bank which is, on average, 0.5 m high internally and 0.3m high externally (C5). There is however now no trace of an outer ditch. The relationship of some of the banks to the road is often difficult to ascertain due to the depth of vegetation, therefore the origin and function of these banks cannot be deduced (C6).

The agger and pronounced side ditch - looking southwest



The road is straddled by a number of large sink holes which, in at least two instances, cut the outer bank that now delimits the road. This observation tends to give weight to the theory that some of the sink holes are gradually getting larger. One of these holes (C7) is 350m across but is now fairly shallow at 1.4m deep. Additionally, adjacent to the road, located either on level ground or on the slope, lie a number of rather ragged and amorphous shallow pits which are on average 1m deep (C8). None display the uniform inverted conical shape of the sink holes and there is usually no associated up-cast, although low spoil mounds are evident within the pits. These shallow depressions, which resemble small quarries, may have been used as the source of material either in the construction of the agger or for another purpose altogether as discussed later.

View of agger looking north east with a side. Flanked by trees



D to E on plan. (SY73379224 to SY73599219).

A broad swathe of the plantation located on the ridge slope was clear-felled by the Forestry Commission circa 1989 (1979 APs). It was also cleared of bushes and ground cover in 2003-2004. The intention is to re-establish a natural heathland habitat across an area that was depicted as unenclosed grassland called Puddletown Heath on the OS 1889 map. The road is crossed by a well-used scarp-edge track (D); here the profile of the agger, side ditches and outer slopes are clearly revealed. As it approaches the crest of the steep natural east-facing ridge-slope the road turns to the SE apparently to avoid a substantial sink hole (D1). This impressive natural conical hole, which is 3m deep and 26m in diameter, now interrupts the line of the outer bank and also cuts into the side ditch of the agger. This earthwork evidence tends to indicate that the sink hole has expanded since the road was constructed; perhaps it is still growing both in area and depth.

Beyond the sink hole the road continues its curving descent down the ridge slope adopting an impressive and gradual curvilinear course to negotiate the very steep slope of this prominent natural landform. It would seem logical to expect that the road builders would have cut into the slope at its' crest to reduce the gradient, however the agger stands out high above the ground surface level and thus it is evident against the skyline. Here it now averages 1m above the general ground surface with a wide ditch on the south side (D2). Part of this ditch is disfigured by the remains of a large woodland clearance bonfire.

Two pronounced hollow ways, which lie immediately to the north of the agger, have cut deeply into the steepest part of the ridge slope. The fact that they bifurcate below the crest of the ridge (D3) suggests a long period of use – latterly by modern vehicles – to negotiate the steep slope. The nearest hollow way would have destroyed any remains of a side ditch on a northern side of the agger. The outer hollow way, depicted on the 1889 OS map, follows a curving route through what is now dense tree cover. Halfway down the ridge slope (D4) the agger has been badly damaged and the natural slope disturbed by these hollow ways. Only remnants of the agger can be positively identified on the lower slopes (D5) because it has been spread, cut into and partially overlaid by the forestry track. However the northern

A deep, vegetation-filled sink hole (D1 on plan).



side survives with a slight terrace at its foot. This terrace merges into the natural ridge slope and provides the necessary water run off without the need for a side ditch soakaway – a feature recorded elsewhere (C4). The overall width of the road from scarp top to scarp top is 24m.

The very impressive steep ridge slopes located on the southern side of the road (D6), have clearly been cut back, graded and terraced. This major work is almost certainly of Roman origin - engineered to negotiate this prominent ridge that must have presented one of the major obstacles on the route of the Ackling Dyke. At least one sink hole and two quarries are extant on the very steep ridge slope (D7) which has been heavily disturbed by the tree

The cleared ridge slope viewed towards the north east, showing the southern side of the agger and the new landscape dramatically revealed by tree clearance (D4 on plan).



The lower slopes cleared of timber with the impressive distant view from the east-facing ridge slope



clearance. The remains of a large bonfire created during tree clearance work disfigure the slope (D8) and there are a number of dry ditches created by water action.

E to F on plan SY73599219 to SY73959232.

The road crosses the undulating and gentle slope of the ancient grassland of Puddletown Heath (OS map 1889). Mature conifer plantations of various ages now impinge on the road extremities which here are straddled by numerous sink holes and shallow quarry pits.

The agger, which once must have been a prominent earthwork, has been partially overlaid by forest tracks. It has also been badly damaged by surface quarrying dug to exploit a ready source of material when the forestry tracks were constructed (E1). A few of these tracks have a compacted layer of imported gravel on their cambered tops with clean-cut side drainage ditches. In this form they resemble a cambered and metalled Roman agger

The side of the agger with a slight terrace and natural slope (D5)



complete with shallow side ditches. The northern edge of the agger stands to a height of 1.3m (E2); it is not clear whether a ditch existed on this side because forestry operations have disturbed the ground which is now overlaid by tree brushings and dumped spoil. The southern side of the agger is obscured and effaced by a constructed forestry track which occupies the line of the side ditch (E3). The slopes which now fringe the southern side of the road most probably denote the original width of the Roman road (E4) which here measures approximately 34m wide.

The vegetation cloaked and damaged agger looking west (near E1 on plan).



F to G on plan SY73959232 to SY 74339252..

The road, which lies on a slightly different alignment to E - F, has been terraced into a gentle southwest – facing hill slope on what was Puddletown Heath. Minor gullies and stream courses were in-filled when the road was constructed across the rising ground.



The views looking east and west along a damaged part of the road (F on plan)

The road, which is now fringed by blocks of conifer plantations of various ages, has an overall width of 26m. The agger width however cannot now be ascertained because it has either been overlaid by a track (F1) or extensively effaced (F2). Both the track and the damage to the agger are depicted in 1889 and thus pre-date the forestry plantations (OS map 1889). Recent damage in the form of large wood clearance bonfires and also disturbance caused by walkers and more recently cyclists has confused the picture. A linear earthen

bank 0.8m high and 6m wide overall (F7), which has mature conifers growing along its top, appears to the southern side of the damaged agger - the only surviving part of the road in this area. Here its southern edge is defined either by the natural slope, or by a low spread earthen bank (F3) or, for a short length, by a wide silted ditch which has a butt-end (F4). To the east of the ditch the area is covered with tree brushings, consequently it is difficult to interpret the earthworks, however there appears to be a terrace between the base of the agger and the top of the natural slope (F5) - as noted earlier on the road (C4). Further east, a low earthen bank (F6) which marks the extent of the road, is similar to banks noted elsewhere (C5). The northern side of the road is delimited by steep short scarps which were cut into the natural hill slope when the road was constructed. At its steepest this graded slope is bisected by a ditch which clearly acted as a soakaway for surface water and also perhaps for ground water issuing from the slope above (F8). A wet and marshy area (F9) on what is now the original base of the road indicates that this method of dealing with the water no longer functions. In this area there are a number of amorphous spreads of timber debris and the remains of some bonfires, the result of recent woodland clearance operations.

The northern side of the road showing the wet and marshy area. (F9 on plan)



Beyond the northern side of the road there are a number of pits of various sizes as well as parallel deep and narrow hollow ways. These are interpreted respectively as sand pits and the course of a mineral tramway. This tramway presumably conveyed sand in the 1840s to the brickworks at Broadmayne 7 Kms away (Putnam 2005). At least one of the narrow hollow ways opens out onto the line of the Roman road (F10) but its course further south is not traceable. Also its destination is not clear, although a similar hollow way leaves the line of the road at the junction of the tracks to the south-west (F11). A number of quarry pits (F12) and sink holes (F13) straddle the road. The agger has been disturbed by an area of recent scrub clearance activity (F14).

The 1889 OS map shows a prominent land boundary and a track crossing the road where there is now a wide plantation ride. Here the road has been overlaid and partially obscured by spread and dumped material (F15)

G to H on plan. SY94349253 to SY94429256.

The line of the road is almost completely obscured by dense undergrowth and bushes which are growing under the high canopies of very tall mature conifers. The analytical survey

The northern side of the road showing clearance and the remains of one of the bonfires



Recent shrub clearance showing damage to the agger



of this area - restricted to the fringes because of the vegetation - revealed some earthworks in the form of linear banks which are most probably associated with the road (G1). The prominent scarps and wide ditch to the north (G2), which has been exaggerated by the construction of an un-metalled forestry track, represent the northerly extent of the road. The remains of a large woodland clearance bonfire disfigure part of this area.

This short and very overgrown stretch of the Ackling Dyke demonstrates the problems for woodland clearance. Here there are circa 100 year old tall conifers with very high canopies which allow rhododendron and brambles to proliferate beneath. Future clearance of the vegetation covering the delicate archaeological features must be undertaken by hand and not by heavy forestry machinery. The reason for this can be seen to the west (F14) where the agger was flattened and the ground surface damaged during mechanical clearance of the dense scrub.

SUMMARY AND DISCUSSION

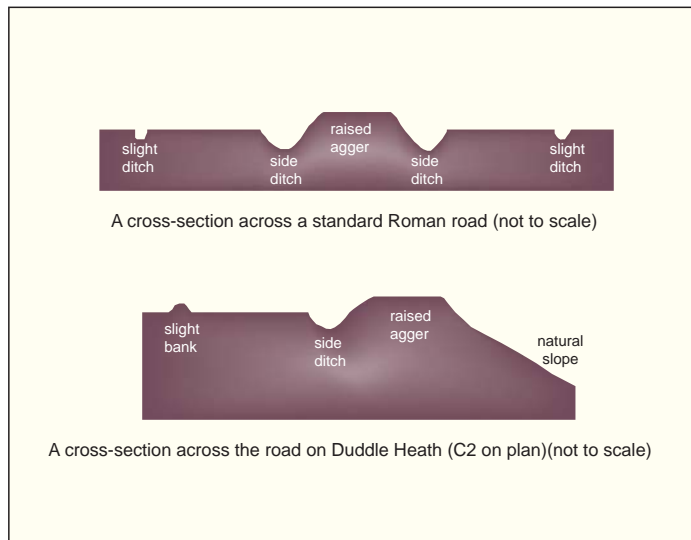
This new English Heritage analytical investigation, undertaken in 2004, is almost certainly the first detailed survey of this part of the Ackling Dyke since it was constructed. The Ordnance Survey map of the road, drawn in 1889, is a somewhat stylised depiction which has been reproduced on all subsequent maps. This depiction was constrained by the relatively small scale of the maps and also the Ordnance Survey rules which generally discouraged the illustration of 'small slopes' on maps.

The new survey has recorded a 1.75 km length of the Ackling Dyke; one part of which is impressive and well-preserved and must perhaps rank as the most spectacularly sited example of a Roman road in southern England. The survey demonstrates that as the road negotiates the undulating high ground it adopts a series of straight alignments with subtle changes in direction to accommodate local topographical conditions. As Chevallier (1976) succinctly puts it 'Roman roads are only straight when natural obstacles and the terrain allowed them to be'. He adds that complete sections of road were built one at a time and so this method of building may well explain the slight changes of alignment. The unusual major deviation in the alignment of this road that was required to negotiate the steep natural ridge indicates both its significance and importance as a Roman route, not least because of the huge amount of effort required to build this particular length.

The excavations at both Thorncombe Wood and Bere Down suggest that this part of the Ackling Dyke was not exposed to heavy and prolonged use over decades, let alone centuries. Both excavation reports broadly agree that there was no trace of successive layering or repair and also that the compacted running surface of the agger was not substantial. In both cases of course the upper surface of the agger might have been affected by ploughing. The depth of the metalling at Thorncombe is from 25cms to 50cms whilst at Bere Down the 20ft wide (6.1m) metalling was 'in the form of a thin layer of flints and small stones on sandy clay over the chalk rock'. Davies (2002, 56) notes that the average depth of metalling on 213 roads in his Roman road database is 51cms (although the minimum could be as little as 9cms). Elsewhere the excavated agger is too badly damaged to interpret or measure..

The form or cross-section of this road is in many cases clearly influenced by the topography. For example the typical Roman road usually has a ditch on each side of the agger to act as a soakaway. However on this road there is occasionally no requirement for a side ditch, this was because in places it lies along the upper edge of a natural slope where excess surface water would have naturally run off the agger and down the slope - although in some cases a slight terrace exists between the base of the agger and the top of the natural steep slope. Where the road has been cut into a hill slope the newly created scarp on the uphill side is sometimes laterally bisected by a ditch below the line of the crest – this was apparently designed to catch the water run off and possibly also ground water before it ran down onto the agger.

The fact that many sink holes straddle the road and, significantly, appear to influence its alignment in at least two cases, poses a number of questions. Firstly did the Roman surveyors have difficulty setting out a road line that would avoid the excessively pitted



landscape? The fine sink hole at the major bend in the road (D1) would suggest this to be the case. Secondly, have some of these sink holes opened up since the road was constructed? The hole (E4), which has clearly been partially infilled by the northern agger slope, might indicate this to be so. Whether large sink hole lay on the line of the road and had to be infilled before it was constructed is not known, but it would seem to be likely. Thirdly, could sink holes have 'opened up' under the agger causing it to have collapsed in places? The excavation profile in Thorncombe Wood depicts 'a solution hole in the underlying chalk'. This smallish hole which is shown covered or perhaps infilled by gravel, sand and iron pan, lies immediately to the north of the agger. The presence of the amorphous, shallow quarry pits that lie adjacent to the road (C8) could have been the source of material to infill emerging sink holes - although this might not have been feasible given the nature, size and instability of some of the extant examples. Fourthly, could the road have been abandoned and not ever been reused because of the presence of the potentially dangerous and deep sink holes? The decision might have made to re-route this part of the road to avoid further danger from the unstable geology; the dense distribution of the sink holes occurs not only in Puddletown but also in areas to the north-east and south-west. More research is required to understand this natural phenomenon, for example how the surface water presumably from rainfall acted on the ground surface. However as these holes probably denote geological rather than historical time it seems likely that most of the holes were extant when the road was constructed, although a number may have increased in size over time given the unstable nature of the sub strata.

The term causeway used by Putnam and others to describe the agger is certainly very appropriate given the fact that the earthwork is very pronounced and often stands high above the surrounding ground level. The generally accepted reason for the construction of such a substantial agger is to provide good drainage (Chevallier 1978). However the presence of a large agger on the crest of a steep scarp-edge where the water would flow away naturally begs the question about its form. If this road is indeed 'one build' rather than several phases - that is to say new surfaces added on top of the old running surface - then it is even more impressive as a causeway.

The evidence seems to indicate that this part of the Ackling Dyke might not have had a particularly long life. Davies (2002) postulates a theory for such short-lived roads in his classification of two distinct types of Roman road. One type which has fairly light metalling and hardly any discernible constructed layers of material in its core, he terms a Penetration Road. He suggests that such a road would have been built quickly, using little or light metalling to support the advance of the Roman army during the early period of an advance into new territory. The second type, the Territory-holding road, comprised a road of substantial construction built when the territory had been occupied. He notes that after an area had been fully integrated and was being Romanised the original and distinct functions of the different types of road would have disappeared. This interpretation supports Putnam's conclusion in 1968 that 'the road is of one build with no sign of repair'. Whether Davies's theory also lends support to Putnam's second conclusion, namely 'that the road has the air of an expensive prestige road which proved a white elephant and had little use' is open to debate (Putnam 1968, 148). Even if this road proves to have a limited use and also a short lifespan, the time and effort invested in its construction must have been significant. The impressive amount of earthmoving required not only to negotiate the steep slope but also to follow the gentle, terraced alignment in Puddletown Forest represents a major commitment on the part of the road builders.

As previously discussed the agger stands prominently above the general ground level not only throughout this length of road but also in the neighbouring districts of Bokerley and Badbury. This raised agger is very noticeable where the road crests the steep east-facing ridge slope at the pronounced angle in the course of the road (D2 on plan). The effort expended to heighten the agger on the slope crest - rather than by cutting into the slope to reduce height - suggests that here and indeed further west where it runs along the ridge crest that this was a deliberate feature perhaps intended as a statement of power. This statement would have been made not by the road itself but by the soldiers who marched along it. The morning sun would have glinted off the shields and armour of a column of soldiers as they marched up the steep gradient and along the ridge top on their way to and from Badbury Rings to the east and Dorchester to the west. It is not unreasonable to suggest that such a marching column would have been visible for many kilometres distant - especially across the broad valley of the River Frome located to the south.

The relatively pristine condition of this road - at least in some places - indicates that it may not have been used - or re-used - intensively over a long period. Alternatively, of course it could have been re-constructed, although the evidence from the archaeological excavations indicates that there was no such reconstruction. This evidence indicates that the Ackling Dyke at Bere Down and at Thorncombe Wood (within the Dorchester to Badbury Rings section) was abandoned, arguably after a relatively short life, and was never used again. Indeed, of the c. 27 kms of the Ackling Dyke which linked Dorchester and Badbury only about 5 kms are shown to be overlaid by metalled roads and tracks on the 1987 Ordnance Survey 1:50,000 scale map. The conclusions of this archaeological evidence serve as a reminder that perhaps not all Roman roads were used or reused over a long period. This conclusion however has to be balanced against Davies's comments about a report on an early excavation across the Ackling Dyke near Bokerley and also excavations across two

other roads. He notes that the excavators concluded that the prominent agger was of one build and as a result the traditional explanation was that the Romans need to demonstrate dominance over the area. However he states that the excavation section in fact suggests a complex sequence of layers possibly comprising several re-metalling exercises (2002,36). If this was proved to be the case when modern excavation techniques are applied to such roads then the interpretation of the Ackling Dyke as a short term Penetration Road would also need to be re-appraised.

The evidence for a 4th century date for part of the road near Badbury and also the theory that the early route ran from Lake Farm to Dorchester rather than from Badbury Rings to Dorchester requires further research and authentication. However whatever the reason and date for the abandonment of this part of the Ackling Dyke the extant earthworks within Puddletown Forest and on Duddle Heath represent an impressive testimony to the planners and builders of the Roman road in this region.

METHODOLOGY

The survey was undertaken using a Trimble EDM and GPS with graphic infill. The surveyors were Martin Fletcher, Elaine Jamieson and Ben Moore.

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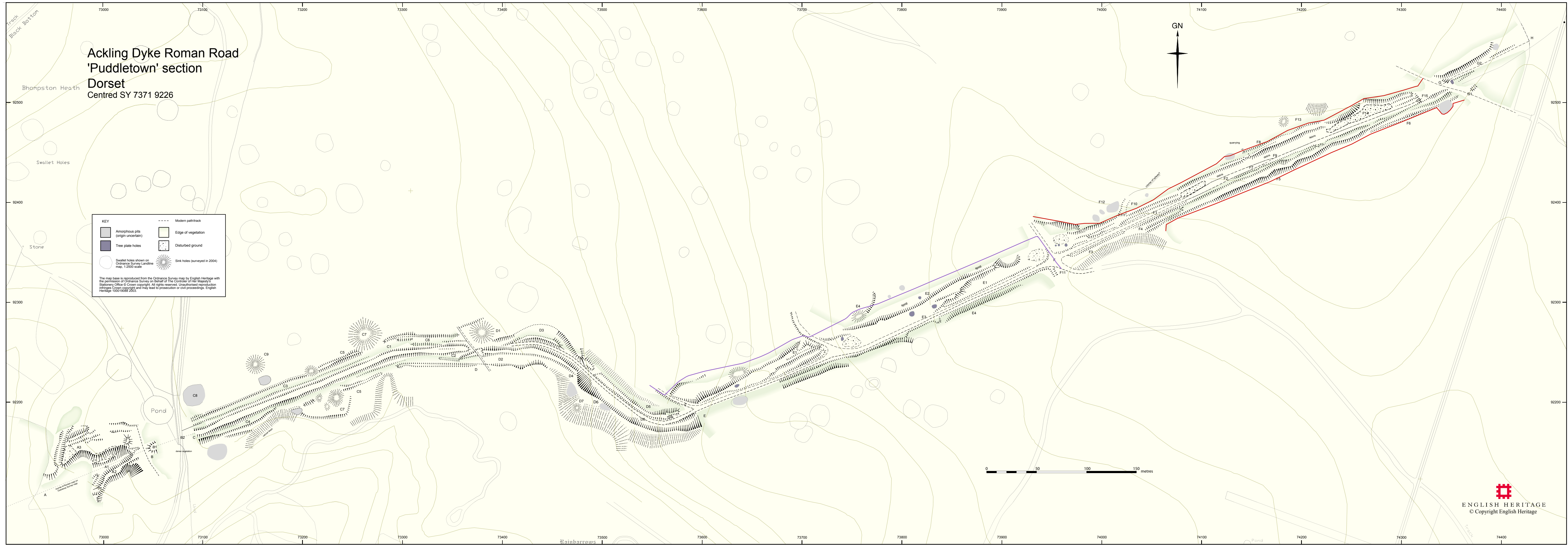
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Air Photograph sorties.

Dates

1947.	CPE.UK 1934 4078/9	17.06.47
1958	F22 58/RAF/2516 0034	17.07.58
1979	79/123 277	15.09.79
1989	87. 117. 49	05.05.89



**Ackling Dyke Roman Road
'Puddletown' section
Dorset
Centred SY 7371 9226**

KEY

Amorphous pits (orange symbols)	Modern path track
Tree plate holes	Edge of vegetation
Swallet holes shown on Ordnance Survey map 1:25000 scale	Disturbed ground
Skull holes (surveyed in 2004)	

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