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OBSERVATIONS ON THE ROMAN ROAD BETWEEN EXETER, NORTH TAWTON AND OKEHAMPTON

By JOHN PAMMENT SALVATORE, STEVE KAYE, STEVE STOCKER *and* HUGH TOLLER†

A combination of LiDAR satellite imagery, aerial photography, ground observations and excavation has provided evidence for the course of a Roman road both east (where a stretch of the road has been known since the 1950s) and south-west of the Roman fort at North Tawton. An approximate 5.9km length of previously unseen road alignment, where it runs from Hilldown in the parish of Bow eastwards towards the Crediton area has been located, whilst the evidence is also presented for a further unrecorded south-western stretch of approximately 3.4km from the west bank of the Taw across Rowden Moor towards Okehampton. These new observations of the road are described and illustrated in detail following the methodology adopted by the late Hugh Toller.

INTRODUCTION

Investigation of the landscape by LiDAR (Light Detection and Ranging) imagery in the 21st century is likely to reveal a significant number of new archaeological sites in Devon and elsewhere. The technique involves measuring the distance to the ground of numerous laser beam pulses fired from an aircraft and converting this data into a high-resolution image; the method can be particularly useful in the search for Roman roads where either the raised *agger* or the terraced cutting for the road can produce a clearly defined linear signal in the resulting imagery.

LiDAR technology was successfully employed by Bryn Gethin and Hugh Toller in their search for Roman roads in Wales, and the technique was subsequently transferred to England. Road identification from LiDAR investigation has led to their results having been published in various county journals and proceedings up and down the country (for example: Toller 2014). Hugh Toller was working on the LiDAR interpretation of the stretch of Roman road seen in aerial photos and satellite imagery within the parishes of Bow and Colebrooke in Devon shortly before his untimely death in 2015. Hugh was always willing to provide information and updates on his research not only to the Devon County Archaeologist (Bill Horner) but also to all those working in related areas of Roman research. This paper builds upon information provided by Toller, coupled with subsequent LiDAR investigation by Steve Kaye. In addition, ground-truthing and aerial photographic observations made by the authors confirmed previously-unrecognised sections of the route east of the North Tawton fort, whilst Kaye and Steve Stocker employed the same techniques (accompanied by some limited excavation by Stocker) to locate the likely course of the road west of the River Taw in the general direction of Okehampton.

PREVIOUS WORK

One of the earliest published references to the Roman fort and road at North Tawton occurs in a short report of 1953 where Rivet (1953, 174) describes inspecting on the ground the visible remains of a low, flat-topped bank (or elsewhere, a slight hollow way) *c*. 3.7m wide, for a distance of 3.5 miles (*c*. 5.6km) eastward from North Tawton on the line of the

Fig. 1. The River Taw to Halse Moor: a. map SX659999 to SX674998. The Roman fort is depicted by earthworks; b. LiDAR image SX659999 to SX675998.

parish boundary between North and South Tawton. Earthworks now believed to be those of a Roman fort are also described (see Fig. 1a where these earthworks and the course of the road are shown in mapped form). Some years later, Michael Lambert made a close study of the road at North Tawton and attempted to trace further lengths of the road both back towards Exeter and on the other side of the Taw towards Okehampton and ultimately to the crossing of the Tamar (Lambert 1973, 131–39). Much of the information provided by Lambert is acknowledged and reprised in Ivan Margary's 1973 edition of *The Roman Roads of Britain* where he postulates a route (492a) which would have seen the road heading north-west from Exeter and taking advantage of the Creedy Valley towards Crediton before striking west to North Tawton and thence south-west to Okehampton and Launceston. To the south-west of North Tawton, Margary believed the road was represented essentially by the existing B3215 to Okehampton. Part of the known and undisputed length of road east of the North Tawton fort is shown on the OS Historical Map of Roman Britain published in 2016. This length has previously been confirmed by observations at two points which have demonstrated the presence of road metalling (see below).

THE COURSE OF THE ROMAN ROAD FROM THE EXETER FORTRESS TO THE CROSSING OF THE TAW AND THE ROMAN FORT AT NORTH TAWTON

The evidence for this road now consists of a mixture of LiDAR imagery, aerial photography, surface observations and limited trench excavation. It is generally accepted that the road is of Roman military origin with the starting point being the legionary base of *Legio II Augusta* at Exeter (occupied *c.* AD 55–75) although conclusive evidence of the road immediately beyond the gates of the fortress and for the initial route out of the Exe valley is elusive. Given this, and the history of previous research on the road, it becomes necessary for the evidence to be presented in a counter direction (i.e. North Tawton towards Exeter rather than the other way around). This does have the advantage of enabling the road to be described and mapped moving from the previously known sections to those newly discovered and on to those which may be argued and conjectured as a result of compelling topographical restraints.

North Tawton to West Keymelford (and Gunstone Cross?)

The earthwork evidence for the fort at North Tawton and the associated road along its north side appear with some clarity on LiDAR images where the road may be traced eastwards almost from the crossing of the Taw to a point at SX 667998 where it is bisected by the modern A3124 from North Tawton just south of the old North Tawton railway station (Fig. 1b). The road is also visible on LiDAR in places east of the A3124 where it corresponds with the parish boundary between North and South Tawton and between South Tawton and Bow. The boundary, which follows a line of hedgerows east of Halse Moor, has long been recognised as marking the course of the road for a distance of over 3.5km across Coxmoor to Brownlands (SX 713994), where a lane crosses the trajectory of the road. This recognition stems from the fact that there must have been a significant feature in the landscape which was utilised when the parish boundary was chosen and presumably recorded on a contemporary charter boundary almost certainly of the Saxon period. Highly visible topographical features such as streams, rivers, fords, bridges, hilltops, ridges and even sometimes mature lone trees were employed as boundary markers but the most likely candidate for such a clearly defined and lengthy linear boundary in this case would appear to have been the raised *agger* or otherwise extant line of a Roman road.

Confirmation of the presence of the road as a surviving feature on the line of the parish boundary came in the form of two observations made some 22 years apart. One of the authors here (JPS) published an observable section through the previously known length

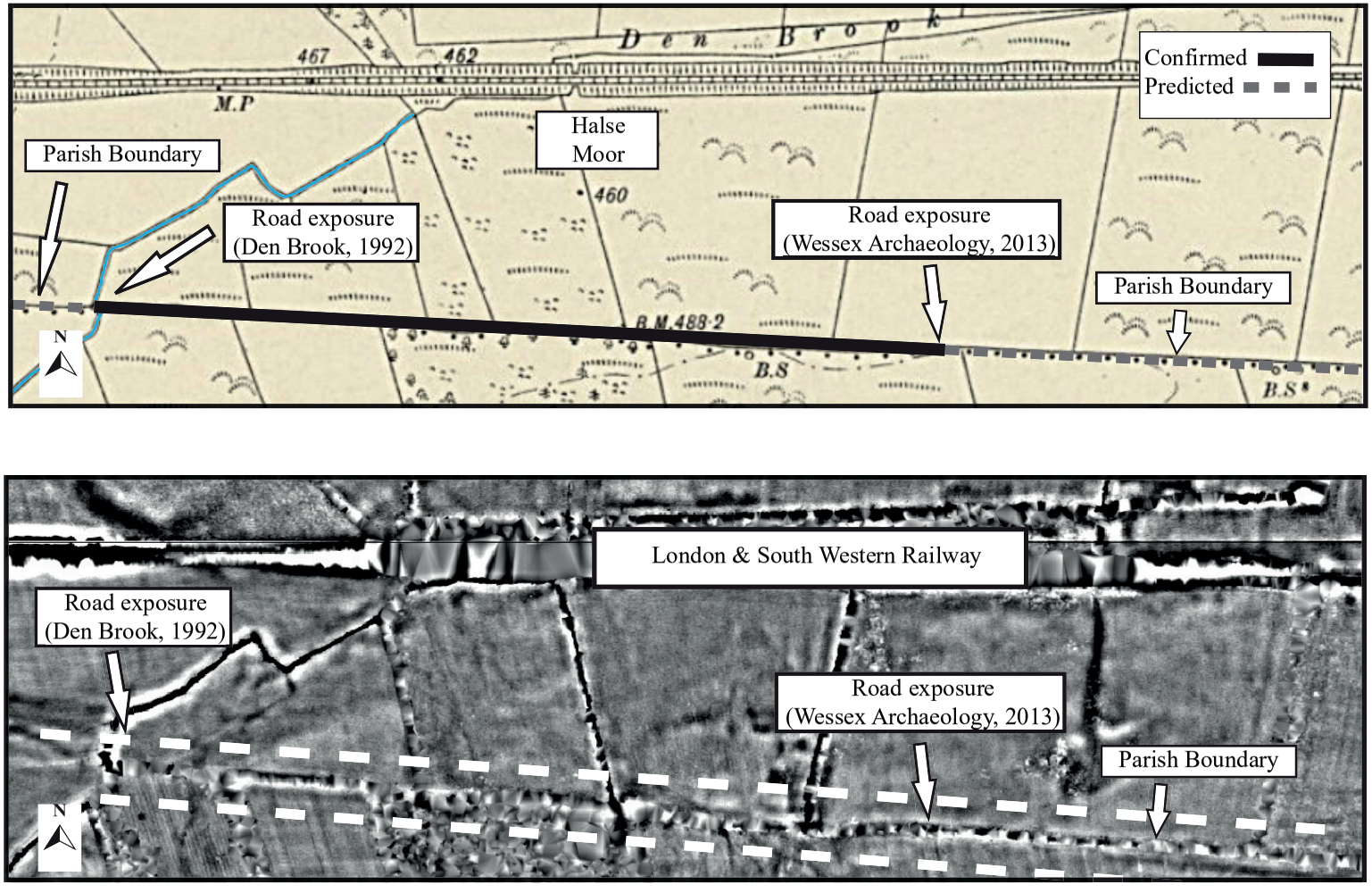

Fig. 2. The road across Halse Moor: a. map SX 677997 to SX 689997 showing the parish boundary and the location of the two exposures of the road surface; b. LiDAR image SX 677997 to SX 689997 showing the long, straight hedgerow line on the parish boundary.

Fig. 3. Detail of the road surface (metalling) and its underlying make-up seen in section at the Den Brook exposure: 25cm scale. (*photo by Pamment Salvatore 1992*).

of the Roman road at Den Brook, Halse Moor (SX 678998) where the road had been exposed by erosion of the stream bank some 1.7km to the east of the North Tawton Roman fort (Pamment Salvatore and Knight 1991)[1] whilst Wessex Archaeology exposed the road surface just a little further to the east of this at SX686997 (Brennan and Leivers 2013). The location of these two observations is shown on Fig. 2.

At the Den Brook stream exposure, the road had a surviving width of just over 4m although a post-Roman ditch on the north side of the road had removed upwards of 1m of the metalling; the true width of the road at this point may therefore have been closer to 5m. Only one surface of the road was detectable in section although it is possible that surfaces above this may have been lost to post-medieval agricultural practices (Fig. 3). The surviving visible surface comprised of small, flat siltstones above two to three courses of pitched stones of Bow Breccia extracted from quarry pits perhaps about 1km north of the road line. The recorded depth of the road material (*statumen*) seen in section was on average 0.10m deep extending to a maximum depth of 0.23m in places (Pamment Salvatore and Knight 1991, 100–04). The second observation of the road surface occurred in 2012 only 0.65km to the east of the Den Brook. At that location the excavators from Wessex Archaeology

[1] Observation actually made in 1992 but published in *Proceedings* 49 for 1991.

Fig. 4. Higher Plantation to east of Hilldown Farm: a. map SX 720994 to SX 736994 showing observed length of *agger*; b. LiDAR image: SX 720994 to SX736994 showing length of *agger* west of Hilldown Farm. Note the subtle eastwards continuation of the *agger* trace through woodlands and Hilldown Farm, and further east the dark, linear shadow in the last field.

Fig. 5. The road where it traverses Middledown: a. map SX731993 to SX746994 showing length of road observed in both LiDAR and photographic imagery; b. LiDAR image: SX731993 to SX746994 showing traces of both *agger* and cutting.

Fig. 6. The road appears as a cropmark across three fields at Middledown (*image reproduced from Google Earth Pro 2011 by Kaye*).

reported finding the surface of the road in an evaluation trench immediately below the topsoil; this surface of small, angular fragments of stone appears similar to that seen at the Den Brook exposure. A width of about 7m of stone metalling was recorded; remarkable, was the identification of two parallel wheel-ruts 1.5m apart (Brennan and Leivers 2013, 87–88).

From a point just east of the modern lane at Brownsland (SX 714994) there is a very slight northerly deviation of the parish boundary which takes it to the crossing of a small unnamed arm of the River Yeo at SX 716994 where it takes a near 90 degree turn to the south, abandoning the road line and instead taking the course of the stream as a visible marker. The road however continues from the stream crossing in an almost direct line eastwards for a distance of approximately 6.1km until it reaches another stream crossing at West Keymelford.

This may now be demonstrated by a number of new observations. The first of these is west of Hilldown Farm where LiDAR investigations by one of the authors (Kaye) has picked up a pronounced *agger* across two fields between SX 724994 and SX727994 (Fig. 4). Further LiDAR traces appear to show the road taking a slight change of direction east of Hilldown Farm (Fig. 4b) possibly to align it with the spur of Middledown Plantation where the road is once again apparent not only in LiDAR imagery but also as a cropmark on aerial and satellite photos (Figs 5–6).

Although the road disappears as a cropmark east of Middledown it has been observed further east in Horwell Wood (SX 751994). Kaye, following the earlier LiDAR work by Toller, was able to confirm the road line not only within Horwell Wood but also at SX 759994 just above Great Wotton Cottage where the LiDAR signal suggests the presence of an *agger* (Fig 7) which is visible as a 'hump' in the road and the adjacent hedgerows near this point. The next clear observation occurs in the field which was known as Hendland's Brake in an apportionment attached to the 1845 tithe map of Colebrooke where at that date it was described as coarse pasture. This field has subsequently been subject to arable cultivation certainly in the early decades of the 21st century and it is remarkable in having provided perhaps the clearest visible traces of the road in both LiDAR and photographic imagery. The field lies immediately to the east of Four Acre Copse at SX 766994 (Fig. 7). In addition to its LiDAR recognition signals the road shows with great clarity as a cropmark

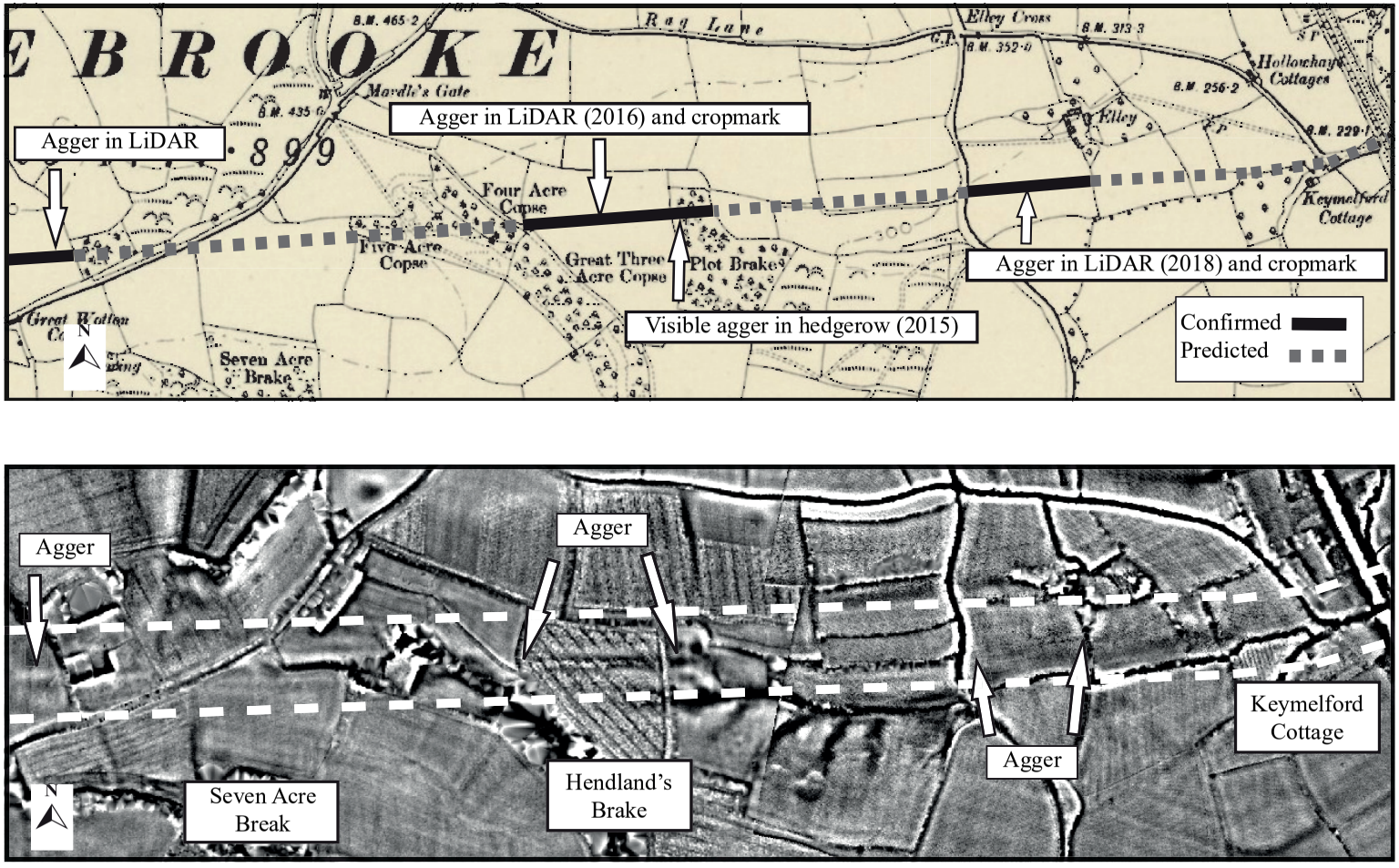

Fig. 7. East of Horwell Wood to Keymelford: a. map: SX 758994 to SX 757995 showing location of confirmed stretches of the road; b. LiDAR image: SX 758994 to SX 757995.

Fig. 8. The road showing as a cropmark in Hendland's Brake field (*Google Earth 2010*).

running east/west across the top of the field in a Google Earth image of 2010 (Fig. 8) whilst the *agger* itself is visible to the naked eye in the hedgerow on the eastern side of the field where the hedge rises up over the crest of the *agger* (see Fig. 9).

The road appears again on LiDAR in the field immediately east of Hendland's Brake at SX 768995 before being lost to view but then reappearing some 400m further on in a field just to the south-west of Elley at SX 772994. This represents the most easterly LiDAR or cropmark observation east of North Tawton yet seen although an extrapolation of the alignment just a short distance further east would take the road to a crossing of the River Yeo at West Keymelford where a modern road makes the same crossing at SX 777995 (Fig. 10).

Fig. 9. Looking south from Back Lane, Colebrooke. The *agger* is clearly visible as a raised bump in the hedgerow (centre of photo) with Hendland's Brake field to the right. (*Photo: Stocker, May 2014*).

If the modern road east of the River Yeo crossing were to be reprising an ancient, indeed Roman, route which had survived in the landscape then this might explain the straight alignment (typical of Roman roads) for the initial 1.6km stretch of road between Keymelford and Potshop Cross at SX 794992 whilst a further eastward extrapolation of the alignment from Potshop Cross might point to a continuation at least as far as Gunstone Cross at SX 806991; this is the predicted course of the road although supporting evidence is absent (Fig. 10).

From Gunstone Cross and towards the modern A377 Crediton to Exeter road there is no firm evidence. Toller believed that he could detect a LiDAR signature for the road heading from Gunstone Cross south-eastwards to a point on the A377 between Newton St Cyres and Half Moon Village but fresh examination by Kaye has rejected this. Therefore, apart from unconfirmed observations of the road in the area around Uton (Margary 1973, 121) there is no conclusive evidence for the road line east of Gunstone Cross (or indeed east of Keymelford if the predicted line presented in this paper is not accepted).

THE COURSE OF THE ROMAN ROAD WEST OF THE RIVER TAW

The evidence for this road, as with that east of the River Taw, relies on a combination of LiDAR imagery, aerial photography, field-walking observations and limited trench excavation nearly all of which has been carried out primarily by two of the current authors (Stocker and Kaye). There is no reason to believe that this length of the road is not also military in origin; this point appears in the discussion at the end of this paper.

West of the River Taw to Trehill Farm

The River Taw appears to have changed course on a number of occasions in antiquity subsequent to the Roman presence at North Tawton. This has led to the scourging of the areas alongside the river and the phenomenon is particularly noticeable opposite the Roman fort on the west side of the Taw. In a field north-east of Falcadon Farm (at SX 658999) Stocker has observed *in situ* roadstone

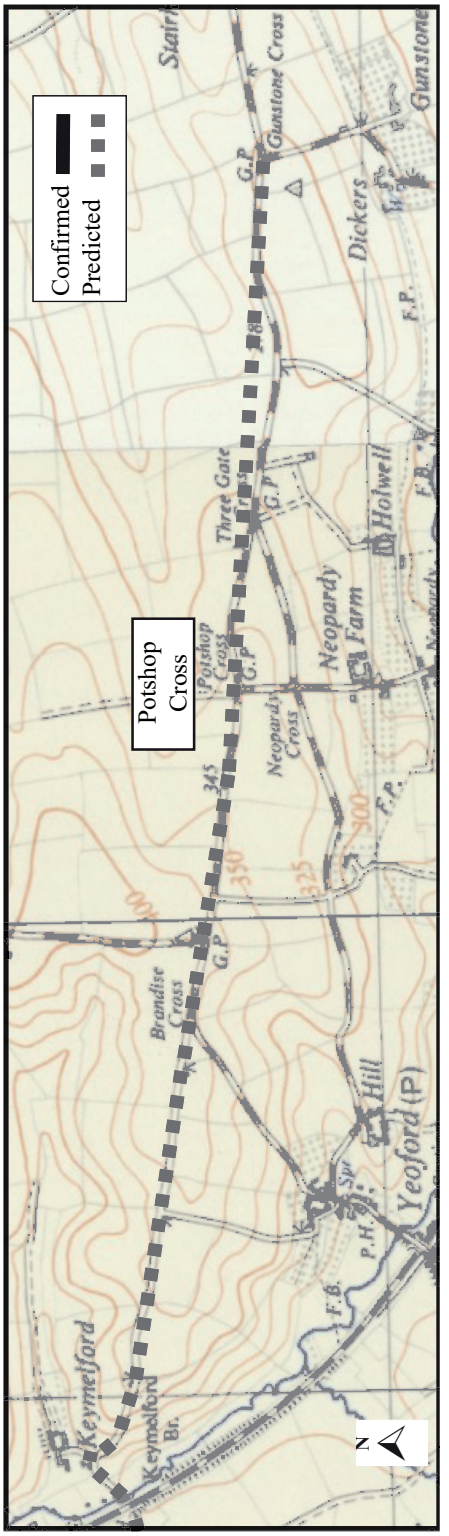

Fig. 10. Map showing the predicted course of the road between Keymelford at SX 777995 and Gunstone Cross at SX 806991.

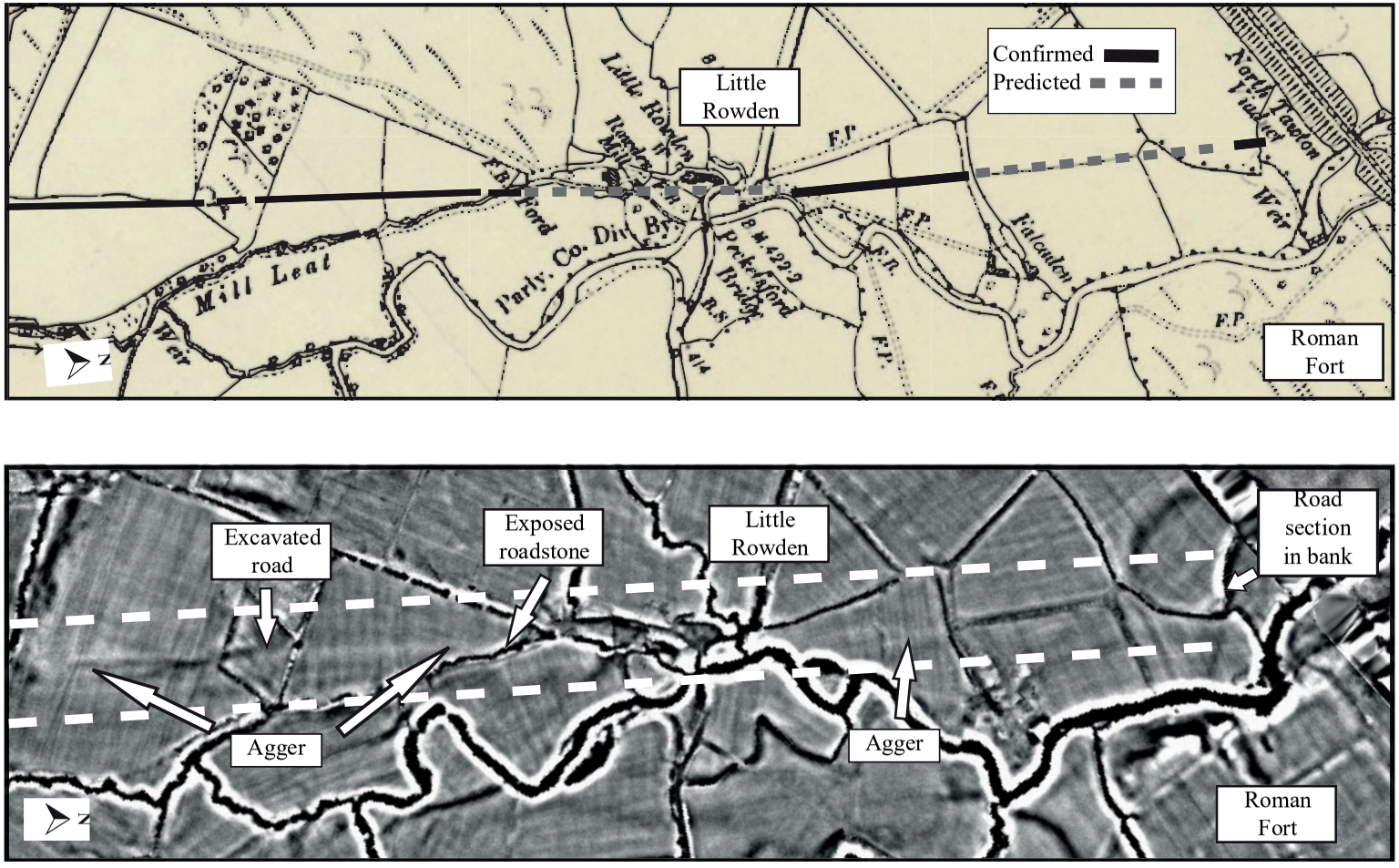

Fig. 11. a. Map showing the course of the road between a point on the west side of the River Taw at SX658999 to Rowden Moor at SX 650989; b. LiDAR image: SX 658999 to SX 650989 showing sections of the road alignment as seen by LiDAR.

Fig. 12. Looking north-east within Rowden Wood, the *agger* shows as a discernible rise from the woodland floor (*Photo: Stocker, 2014*).

exposed at quite high levels in a bank which has been created almost certainly by a past oxbow event in the river course. Just to the south-west of this, LiDAR imagery has revealed the presence of a linear topographical feature running south-west in the general direction of Trehill Farm (at SX 636972). This feature, which is thought to represent the ground signature of a Roman road, is visible as a raised elevation on LiDAR between Falcadon Farm and Pecketsford Bridge at Little Rowden (Fig. 11).[2] Measuring between 19m and 30m in width, this stretch is interpreted as the *agger* of a probable Roman road.[3] It is more prominent on the LiDAR image to the south of Little Rowden in a stretch which extends from approximately SX 653993 to SX 651992 (Fig. 11b). Animal erosion has exposed firm areas of metalling at the start of this stretch of the road at SX 653993. The road has been further ground-truthed where a 1m square test pit at SX 652991 was excavated by Stocker in 2017 (Devon County Council Historic Environment Record Ref. MDV122651). A plough-disturbed road metalling of small stone and gravels was located 0.1m below the surface of the field. Further below this the *statumen* (providing the bedding layer of stone for the road) was firm and undisturbed; it was not possible to establish its full depth.

The *agger* (or displaced roadstone from the *agger*) has been observed in a number of natural and/or manmade exposures east of Rowden Bridge. The first of these is in woodland at SX 649988 where a ditch has cut down to the level of bedding stone for the road

[2] Little Rowden is shown as East Rowden on modern mapping.

[3] Although the Latin term '*agger*' is more commonly applied to raised roads with sloping sides (allowing drainage into parallel side ditches) the term may be utilised for broad widths of Roman road on low-lying land or where later agricultural activity may have caused the *agger* to spread.

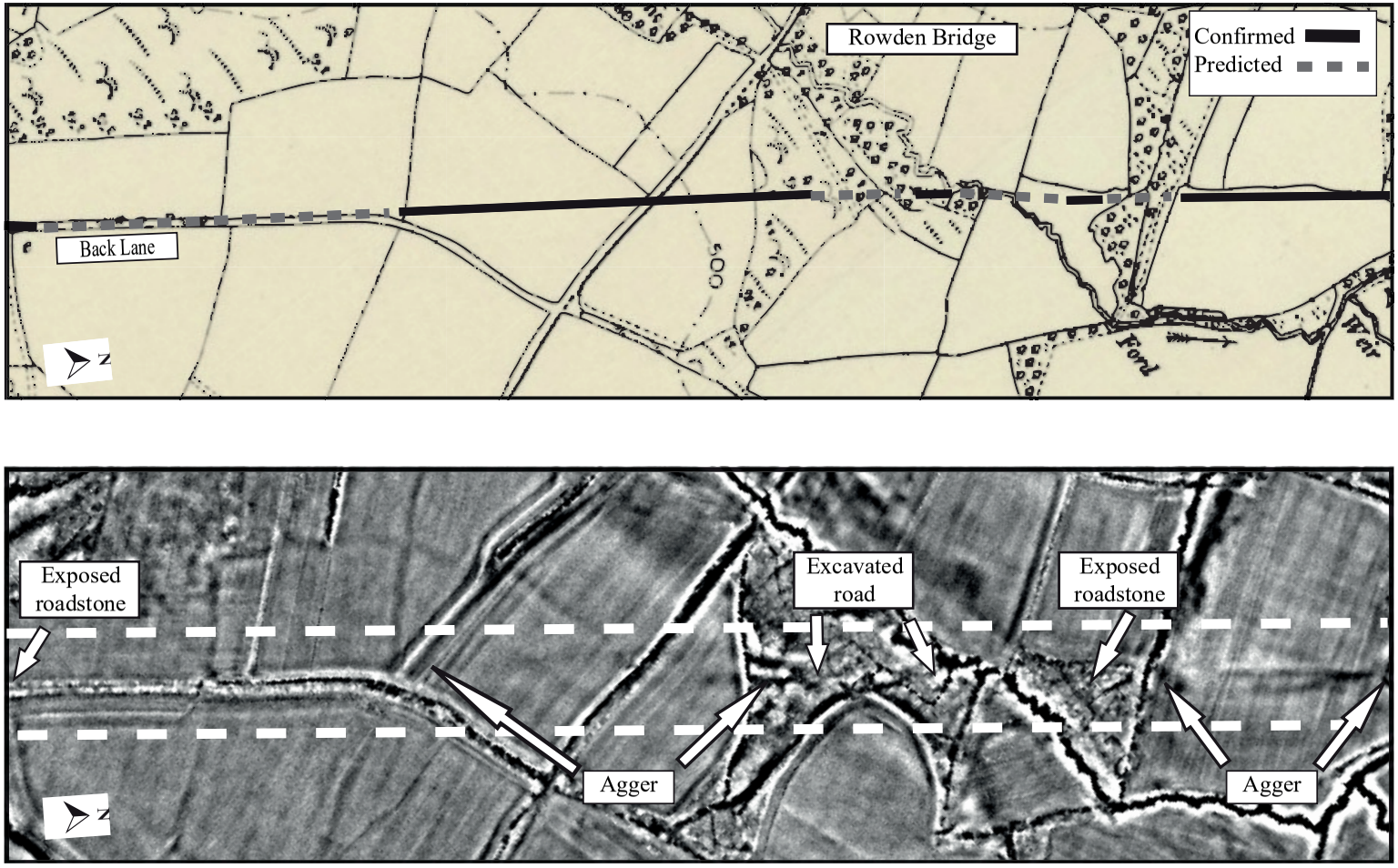

Fig. 13. a. Map showing the course of the road between SX 650989 to Back Lane road exposure at SX 642980; b. LiDAR image showing the *agger* and locations of excavations and road exposures.

which here comprises river-worn pebbles (Devon County Council Historic Environment Record Ref MDV122652). Beyond this, but still within woodland to the east of Rowden Bridge the *agger* shows as a clear rise from the woodland floor at SX 648987 on a NE–SW alignment (Fig. 12). Excavations within the same woodland (at SX 648987; Fig. 13b) were undertaken in several seasons by Stocker between 2014–2017. These excavations have revealed information about the nature and the composition of the road. The road *statumen* comprised river-worn cobbles probably obtained from the River Taw. Having established a firm base, a second matrix layer of smaller stones and puddled clay was added and tamped firmly down with smaller cobbles intermixed with small sharp quarried gravels to produce the finished road surface. The road thickness did not generally exceed 0.2m whilst the road width appeared to be around 8m but with no evidence of the side ditches commonly associated with Roman roads.

In a series of further trench excavations at SX 648986 the evidence suggests that the road was doubled in width to about 16m possibly as a result of a landslip which may have rendered part of it unusable. Although the method of construction remained the same, the river-worn cobbles of the 8m wide addition to the road width on its south-eastern side were of a different appearance and arguably of a lesser quality than those employed in the original build (Stocker pers. comm.).

Where the road alignment emerges from the woodland at SX 646986 it continues as a coherent elevation band in the LiDAR data, some 30–35 m wide, across heavily ploughed fields to the south-west (Fig. 13b); this would be an exceptional width for a Roman road where 6–8m across might be considered more usual (although the road width of the Roman road between Exeter and Dorchester at the River Yarty flood plain was found to be in excess of 20m; Weddell, 1993, 41). The likelihood is that the roadstone of the *agger* has been spread by later agricultural practices. Further to the south-west the road narrows again with part of this section running concurrent with a trackway (known as Back Lane). This section produces numerous displaced roadstones within a straight alignment over a distance of about 40m (Fig. 14).

Fig. 14. Looking south-west towards Trehill Farm along a stretch of Back Lane which appears to have incorporated the Roman road-line. (Photo: Stocker 2014).

Fig. 15. a. Map showing the course of the road between Back Lane at SX 642980 to Trehill Farm at SX 636972;
b. LiDAR image: showing linear signals of the Roman road and possible road-building quarry pits.

Probable *in situ* Roman roadstone has been observed by Stocker in Back Lane at SX 642980 (Fig. 15a) and it is from this point that Back Lane deviates from the Roman line whilst the Roman road itself is detectable as a LiDAR signal with an unbending alignment heading directly towards Trehill Farm (Fig. 15). Two pits to either side of the road at SX 637974 (both visible as black, oval-shaped features on the LiDAR image) may have been quarry pits to supply road-building material although they could equally be post-Roman quarries (Fig. 15b). Kaye has identified further LiDAR signals for the road in the field immediately south of Trehill Farm (Fig. 15b) but beyond that the LiDAR responses are somewhat elusive and the road has yet to be clearly observed. Nevertheless, an alignment which would take it towards Church Hill Cross (SX 629965) and thence to or close to the known Roman fort at Okehampton (SX 596960) must be considered likely if the road has a military origin.

DISCUSSION

In their examination of the potential for further study of the Roman road east of North Tawton (following the exposure of the road metalling at Den Brook: Pamment Salvatore and Knight 1991) the authors questioned whether a Roman military road which connected the fortress at Exeter to the fort at North Tawton could have taken a direct north-westerly route from Exeter across high ground or whether it would have taken a slightly more circuitous route circumventing the difficult hilly terrain west of Exeter and utilising instead the more accommodating flood plains of the rivers Creedy and Yeo. The latter hypothesis was favoured by Margary (1973, 120) but a more direct route seemed at least plausible in the 1990s and this matter is discussed further below. However, the LiDAR and ground observations presented in this paper do now strengthen significantly the case for a primary Roman military road alignment from Exeter to North Tawton which did recognise the advantages of relatively level ground alongside the rivers Exe, Creedy and Yeo before the road finally moved away from the river systems and traversed a series of east to west aligned spurs from the crossing of the Yeo at Keymelford to a crossing of the Taw north of the Dartmoor plateau at North Tawton.

It has been stated previously that any evidence for the starting point of the road at Exeter is sparse. However, it has been known since the 1970s that a Roman legionary fortress stood on a spur above the River Exe at a point where a change in geological formation resulted in the strong, and constrained, single-channel flow of the river becoming diffused into a series of channels. This phenomenon (known as anabranching) would have allowed a fordable crossing of the river in Roman times (Bennett, Brown and Reed 2019, 638). The siting of the fortress overlooking this crossing point and on a naturally defended spur suggests that this was the optimum location for the legionary base (Henderson 1988, 92). Furthermore, the fortress was sited upriver of the then highest tidal point which would place the fortress and crossing point above mud-sided, twice-daily inundated channels. Essentially, the placement of the fortress was determined by the local geology, the resultant general topography and form of the fluvial regime together with its strategic dimension.

Only one of the fortress gateways, the main gate (the *porta praetoria*), would have provided direct access to the opposite west bank of the Exe at a time when it is assumed that any other viable crossing point must have been much further inland, upriver and possibly approached from along the east bank of the Exe. A hint that there was a Roman road on the west bank of the Exe, which initially struck north, is provided by the observation of what was tentatively described as a Roman roadside ditch running parallel to Okehampton Road (Reed and Turton 1992). Any such road, if it were to connect to the known Roman crossing point of the Taw at North Tawton, would need to take a direct line across the formidable Whitestone Hills or, alternatively, take advantage of the relatively benign topography offered by the riverine flood plains which serve to provide openings into

the otherwise uncompromising rugged terrain. Support for the latter option comes from an unlikely but obvious source. It is apparent that the railway engineers of the mid-19th century were faced with the same problems arising from the topography to the north-west of Exeter as were the Roman military surveyors nearly 2000 years previously. Thus, from Exeter, the old London and South Western railway line to Okehampton follows closely the course of the rivers Exe and Creedy to the south of Crediton where it leaves that river to follow instead the river Yeo westwards to Fordton and then on to Yeoford (Fig. 16). Staying with the Yeo the railway line follows the upper reaches of the river westwards to the south of Bow where it runs parallel with the Roman road until the two finally converge at exactly the same crossing point of the Taw at North Tawton where the construction of the railway viaduct across the Taw in 1864–65 is likely to have removed any direct evidence of the Roman works.[4]

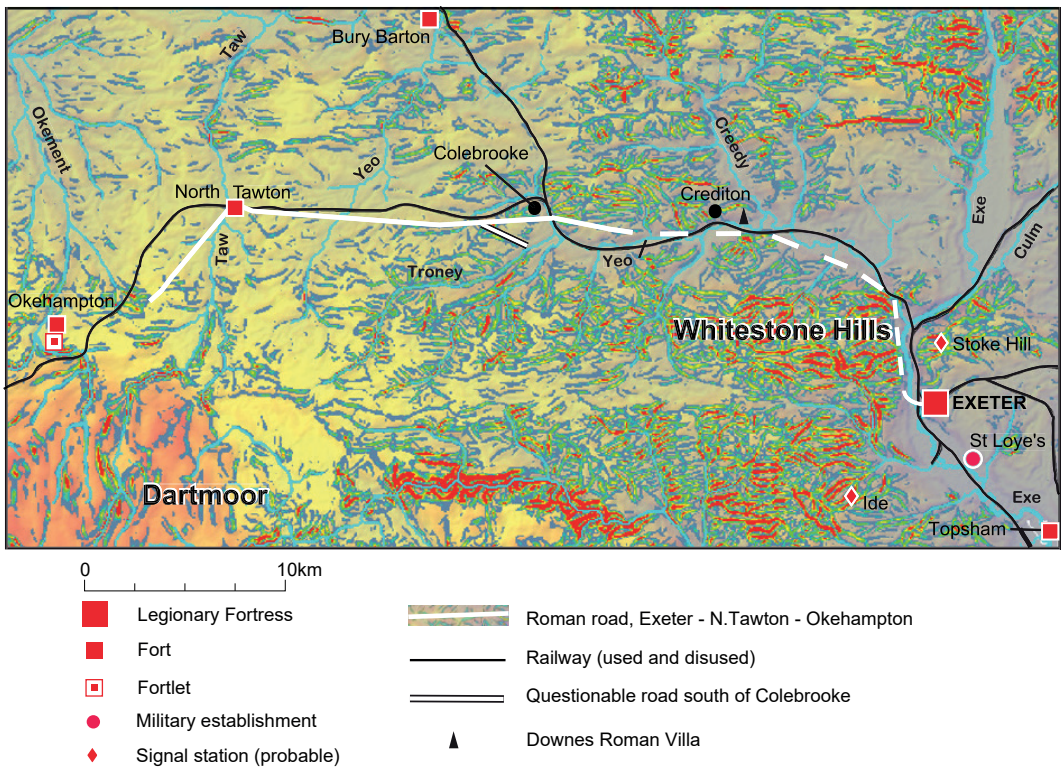

Fig. 16. The suggested route of the Roman military road from the Exeter fortress leading to the now attested section west of Crediton to the crossing of the Taw and beyond.

It has been demonstrated above, primarily by way of LiDAR investigation, that the road between the North Tawton fort and Keymelford follows an almost direct west to east alignment. If the direction of that alignment is extrapolated further eastwards from Keymelford the road would arrive at a location somewhere in the area of Fordton to the

[4] The convergence of ancient road and modern railway is shown graphically on an aerial photo by Stewart Brown on the front cover of the DAS *Proceedings* No. 49 of 1991.

south of Crediton. That a Roman road, as yet undetected, existed in the Fordton area, certainly in the post-military Romano-British period, seems assured by the discovery by aerial photography of a Roman villa at Downes just to the east of Fordton beside the north bank of the River Yeo (Griffith 1988). It is reasonable to believe that a road would have connected this villa to the *civitas* capital at Exeter; possibly, a direct successor of the military road. It is notable that the villa site lies close to the modern A377 which, in its southerly approach to Exeter, largely follows the upper edges of the Creedy flood plain; this illustrates yet again the lack of direct and easily traversable routes, whether they be ancient or modern, between Crediton and Exeter other than those within the narrow confines of the river flood plains.[5]

All of the above calls into question a potential Roman road evidenced by a series of straight and successive hedge alignments to the south-west of Colebrooke which appeared to be of some antiquity and which resembled the twin Roman road and hedge alignment seen to the east of the North Tawton fort. The Colebrooke alignment deviates sharply from that presented in this paper and strikes a line from Prestons (SX 755993) south-east towards the River Troney and the higher ground beyond (Fig. 16). This putative road was photographed from the air by Griffith (1988a, 56) and had attracted the attention of a number of commentators on the subject both before and after the aerial photographs were published (e.g. Margary, 1973, Stevens, 1976 and Pamment Salvatore and Knight 1991). Indeed, prior to the availability of LiDAR and high-resolution satellite and aerial photography this road line was commonly accepted as a legitimate candidate for a continuation of the known length of Roman road line to the east of North Tawton. For example, Margary (1973, 120) stated that traces of road were visible running parallel alongside part of the linear hedgerow alignment (although he further believed that the road would then revert to its eastwards course alongside the Yeo rather than heading south-east towards the very high ground of the Whitestone Hills). However, the supporting evidence for this road could now be considered highly dubious; the visible sections of road cited by Margary appear on 19th century OS mapping to be those of a trackway of probable post-Medieval date. In addition, the alignment itself running across the stream-bounded ridge is common to other NW–SE aligned ridges in the area whilst the suggestion that a Roman fort (Stevens, 1976, 242) lay astride the supposed Roman road may have led to an understandable conflation with the fort supporting the existence of the road and vice versa. Certainly, the putative fort site, which may be nothing more than an anomalous rectangular field interposing in the hedge alignments, provides no LiDAR signalling of a Roman military defensive work and its interpretation as a Roman military establishment has in any event largely fallen out of favour. In summary, what was originally considered to be a possible, even likely, Roman road has neither been proven nor supported by later examinations. In the light of the new evidence confirming the primary east–west Roman road running between Keymelford and North Tawton the putative road might now be, if not entirely discounted, then greatly reduced in credibility for the purposes of Roman road study in the area.[6]

[5] As recognised by Fox and Ravenhill (1959) who, believing that the now known to be mid-1st century Stoke Hill signal station was much later and associated with the late 2nd century walled city of Exeter, and unaware of the city's military antecedents, produced an illustration (*op cit*. fig. 10) which shows a postulated road which follows the Exe, Creedy and Yeo to connect Exeter to the Roman town of *Nemetostatio* (North Tawton?).

[6] One of the authors (JPS) is called upon to reassess his own observation at North Down (Pamment Salvatore and Knight 1991, 104) and concludes that the stone type (quarried Bow Breccia) found in a river-bed location of a tributary of the Yeo to the south-east of the River Troney, cannot be held to be indicative of the presence of a Roman road; more especially as no road flanked by roadside ditches was visible in the bankside as had been the case at Den Brook (*ibid*. 102-03).

Turning to the newly-discovered section of road on the western side of the River Taw; this takes a south-westerly direction from the Roman river-crossing towards Okehampton. The road appears to have been navigated between local hilltops along a more general route between two points visible from most other places along the road; these being the summits of the Staddon and Corscombe hills. There are modern triangulation points at these places today – proof of their value to a later group of surveyors. The route deviates slightly to the south to align with the crests of three rises at Back Lane, Rowden and Trehill Farm. This road west of the Taw has very little visible *agger* and no roadside ditches were encountered in the limited excavation which took place. This made location on the ground a difficult task – only short sections are fossilised in hedgerow and road lines. Several false routes were investigated before the final line was established by way of a combination of excavation, ground observation and LiDAR investigation as described above which has established a convincing 3.5km length of road alignment.

Work will continue to try to elucidate more of the route to the south-west but if this was the primary Roman military route west of the Taw it would be expected to connect to the Okehampton fort.[7] A contemporary, and associated settlement, which appeared to have been abandoned by *c*. A.D. 85 at the latest, was excavated by AC archaeology outside the fort's eastern defences in 2018 (Rainbird 2019). Discovered as part of this investigation, was a very well-built road exiting from the fort's east gate and heading ESE. This road could be viewed as a spur road connecting to the main Roman military route. Alternatively, this could be the primary road itself; although if this were to have been the case, then a significant change of alignment would have been required at some point to turn the apparent south-westerly trajectory of the road from North Tawton (see Fig. 16) into a more westerly approach into the east gate of the fort. Where the road crossed the Okement is still to be determined, but one factor which might be decisive is the siting of the fort itself. Roman forts are often built to overlook and control river crossings; indeed, the fort at North Tawton performs precisely that function and the same case was made earlier with regard to the prime reason for the choice of Exeter as the legionary fortress base of *II Augusta*. At Okehampton however the crossing itself might not be directly adjacent to the fort but further to the south at locations (across the East and West Okement) now within the modern town but whose establishment may have some antiquity back even into the Roman period or even earlier.

CONCLUSION

The road alignment discussed in this paper is argued to be that constructed by the Roman army to connect the legionary base at Exeter to a crossing point of the Taw (where a fort and multiple camps are known) and thence onwards towards the fort at Okehampton either directly or by way of a spur road with the primary road crossing the Okement at a location as yet undetected. The reasons for a route taking the course that it did have been fully explored. It has been suggested that the topographic 'ruggedness' created by the hills and steep valleys immediately west of Exeter presented difficulties to the Roman military engineers who, when choosing a route for a road, generally selected lower elevation topography with adequate water supplies at regular intervals and a surface generally level and without sharp gradients. These preferential parameters would have lent themselves to more efficient and speedier movements of supply wagons which may be why a more direct route from Exeter seems not to have been chosen as the primary military road to the west and north-west of the city (Fig. 16). The military complex at North Tawton placed along this strategic road, probably owes its positioning to the likely existence of a fording point across

[7] Investigated and proved to be a fort by Bidwell *et al.* in 1979

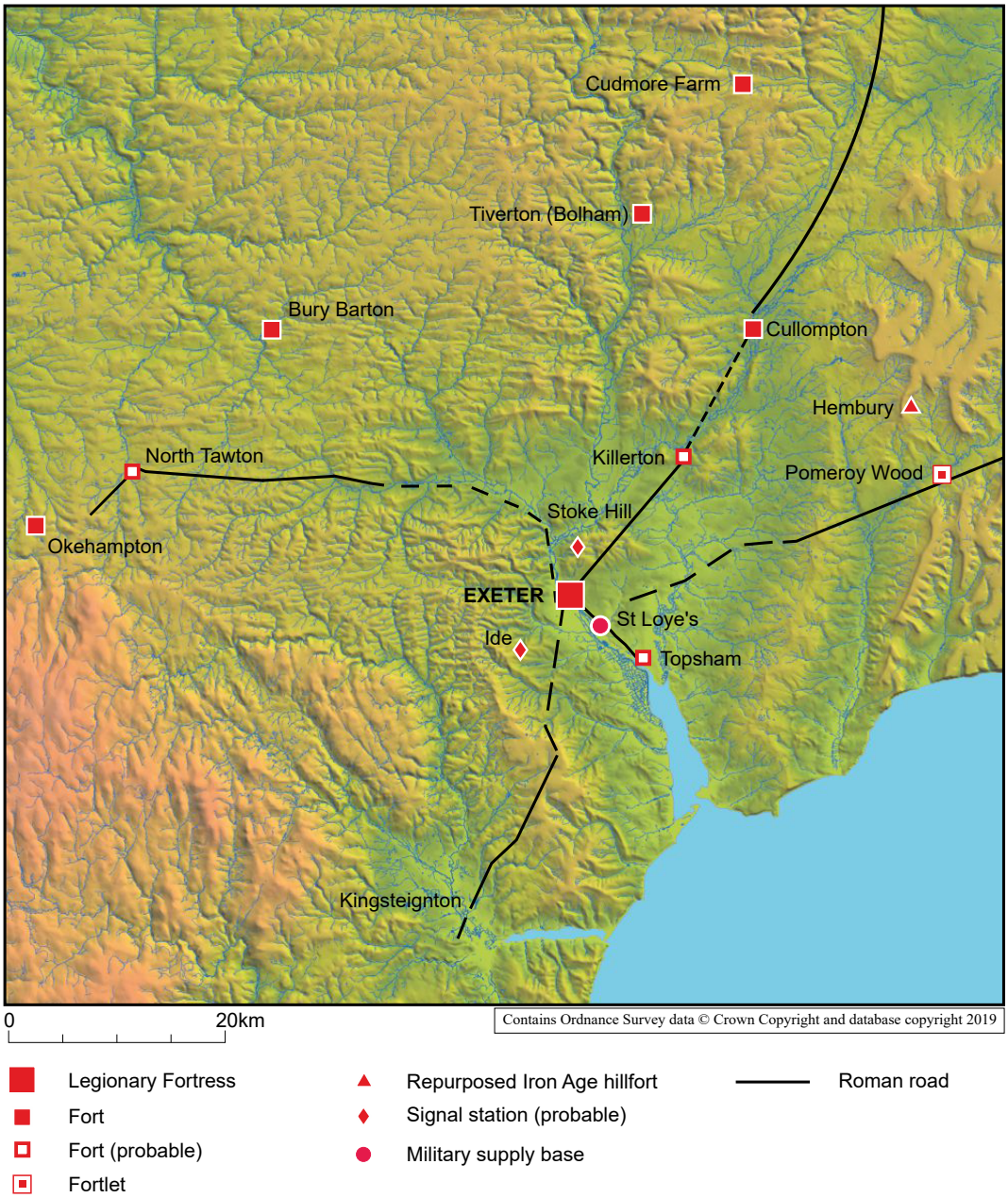

Fig. 17. Known Roman military establishments and road lines within a 40km radius of the Exeter fortress.

the Taw created, as at Exeter, by the faulted boundary between two geological formations. The presence of multiple camps on the east bank of the Taw at this location, including one camp of potentially legionary size (Smart and Fonte forthcoming) and at least one camp on the west bank just to the west of Falcadon Farm first identified by Kaye, suggests that several different campaigns may be represented, and various units may have overwintered or halted temporarily in the vicinity of the crossing, erecting marching camps or *hiberna.* It seems plausible that the fort at North Tawton was constructed as a semi-permanent base for auxiliary troops once the line of communication had been established alongside an already-existing road. This is likely to have followed the consolidation of Roman military occupation in Devon probably sometime after *c.* A.D. 55 when construction of the fortress at Exeter is likely to have been under way.

That the road which connected the Exeter fortress to the crossing of the Taw at North Tawton continued on to a crossing of the Okement, somewhere in the vicinity of the Okehampton fort, appears to be indisputable albeit the evidence for this has yet to come to light. It will be surprising if, ultimately, it will not be possible to find traces of a road leading as far west as a crossing of the Tamar, even perhaps onwards to the Cornish fort of Nanstallon near Bodmin excavated by Fox and Ravenhill (1972). So far, the one excavated section of possible Roman road within Devon west of Okehampton remains that seen in excavation at Sourton Down (Weddell and Reed 1997, 70–78), whilst during the course of the preparation of this paper multiple routes south-west and west of Okehampton were being investigated by the Historic Environment Service of Devon County Council (Bill Horner pers. comm.).

It is the LiDAR investigation technique which has revolutionised the search for Roman roads and which may at some future date aid in revealing more of what Toller has described as 'the connecting web of 'strategic' roads which linked the network of forts established in the hinterland of the legionary fortress at Exeter and beyond' (2014, 128). Fig. 17 shows the known Roman military establishments within an approximate 40km radius of Exeter; whilst they may not all have been occupied at the same time it may be argued that all would have been connected by road to the Exeter legionary base. An attempt has been made in the same illustration to plot those sections of road now positively identified, together with the predicted course of other sections of road including that argued within this paper. The picture is likely to improve with further discoveries made by LiDAR and by those prepared to spend countless hours on the ground testing observations made in the landscape, thus allowing us to build a fuller picture of the Roman army presence in Devon during the mid-1st century until its departure.

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