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<AT>A Magnetometry Survey of the Second Augustan Legionary Fortress at Lake Farm, Dorset

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# <H1>ABSTRACT

A magnetometry survey of the Roman fort [the terms 'fort' and 'fortress' are used interchangeably throughout – is this OK at Lake Farm, near Wimborne Minster in Dorset, first discovered in 1959, has upgraded the status of this site to a full legionary fortress: a major base of the legio II Augusta during the subjugation of the Durotriges and other tribes of southwest Britain. The interior layout of the fortress was identified for the first time, together with the original road and river connections, extensive areas of extramural activity and evidence for an earlier phase of the site as a marching camp.

**Keywords**: Lake Farm; legionary fortress; marching camp; geophysical survey; II Augusta; Vespasian; Durotriges; Roman invasion

Archaeological features at Lake Farm, at the south-western margins of Wimborne Minster in Dorset (SY 998 991), were first revealed in 1959–60, during the investigation of what was thought to be a prehistoric field-bank or Roman road. Intermittent excavation, directed by Norman Field, a local schoolteacher and amateur archaeologist, from 1959–71<sup>1</sup> and Graham Webster, of Birmingham University, from 1972–73,<sup>2</sup> defined a series of Roman post-holes, gullies, ditches and metalled road surfaces, a water-leat or aqueduct and associated settling tanks. Together, these features appeared to comprise part of a fort covering an area of around

<sup>&</sup>lt;sup>1</sup> Field and Butler 1965; 1966; Field 1967; 1968; 1969; 1970; 1971; 1992, 34-8.

<sup>&</sup>lt;sup>2</sup> Webster 1972; 1973. [add 1973 to bibliograph]

16 ha, the larger part of which was subsequently scheduled (SM 1002418). In 1970, the Ancient Monuments Laboratory (AML) conducted a resistivity survey across the site, followed by ever more ambitious magnetometry surveys in 1976, 1980 and 1982–83.<sup>3</sup> These surveys were untaken by Andrew David, Alastair Bartlett and Tony Clark, and the results figure prominently in Clark's 1990 book *Seeing Beneath the Soil.*<sup>4</sup> [add Clark 1990 to the bibliography]. The importance of the Lake Farm site was apparent from the moment of discovery: its size, structural form and associated artefactual assemblage indicating that it was undoubtedly a key base for the *legio* II Augusta during its conquest of western Britain in the A.D. mid-40s. Whereas most other legionary centres established in southern Britain later became towns, Lake Farm did not subsequently develop, and thus offers the opportunity to examine and record an almost complete ground plan of a first-century fort. The fact that it may have been the base for the II Augusta at the time it was commanded by Vespasian during the subjugation of the Isle of Wight and the Durotriges tribe of Dorset has only heightened the perceived significance of the site.<sup>5</sup>

More extensive excavations of the fort were undertaken between 1979 and 1981, during ground clearance for the Wimborne Bypass, under the direction of Ian Horsey and later Keith Jarvis of Poole Museums Archaeological Unit.<sup>6</sup> This work revealed substantial evidence for internal structures, including timber barrack blocks, rubbish pits, cess pits, wells and metalled road surfaces, as well as defining what appeared to be the south-western corner ditch of the fort. Magnetometry survey established the position of the southern and south-eastern circuit of the defences, while excavation confirmed the presence of V-shaped external ditches. Further archaeological monitoring conducted during the construction of a pipeline in the field to the east identified several Roman quarry pits,<sup>7</sup> and additional quarry features were investigated in watching briefs conducted during 1989, 2002 and 2009.<sup>8</sup> To date, none of the excavations at Lake Farm has been published; those of 1959–81 and the watching brief of 1989 are reported

<sup>&</sup>lt;sup>3</sup> David 1977; 1980; [add 1980 to bibliography] wid and Thomas 1980; David *et al.* 1982; David and Bolton 1983; Field 1992, 38–9.

<sup>&</sup>lt;sup>4</sup> Clark 1990: 139–41. [add to biblio]

<sup>&</sup>lt;sup>5</sup> Suet., Vesp. 4; Branigan 1973, 54; Field 1992, 32.

<sup>&</sup>lt;sup>6</sup> Horsey and Jarvis 1979; Jarvis 1982. [add to biblig]

<sup>&</sup>lt;sup>7</sup> Watkins 1989.

<sup>&</sup>lt;sup>8</sup> Adam and Valentin 2002; Milward 2009

as interim statements only<sup>9</sup> and the geophysical surveys and watching briefs of 2002 and 2009 have been archived as grey literature.<sup>10</sup>

In 2016, Bournemouth University, as part of the Durotriges Project investigating the nature of the Iron Age to Roman transition in Dorset and the south-west,<sup>11</sup> took on the challenge of building on the work of the AML by resurveying the fortress and its immediate hinterland. This was considered important not only in order to define better the nature of military activity at Lake Farm, helping to identify possible areas of extramural settlement, but also to produce more comprehensive coverage, allowing processing and presentation of the data in ways not available when the first pioneering geophysical work was undertaken in the 1970s and 1980s.

#### <H1>THE SITE

The scheduled area at Lake Farm falls into two separate zones of protection straddling the current administrative boundary dividing the county of Dorset and the newly formed unitary local government district of Bournemouth, Christchurch and Poole (BCP).<sup>12</sup> It is situated on a level, low-lying floodplain of the river Stour at a height of 24 m above Ordnance Datum. The underlying geology comprises the tertiary sands and gravels of the Poole Formation, part of the Hampshire basin complex.<sup>13</sup> Two channels of the Stour run to the north and west of the fort, while a tributary stream runs 100 m to the south. Various investigations have, since the late 1950s, revealed not only a significant amount of Roman archaeology, but also an assortment of other features, including an area of Mesolithic activity<sup>14</sup> and a cluster of Neolithic and later pits.<sup>15</sup>

<sup>&</sup>lt;sup>9</sup> Field and Butler 1965; 1966; Field 1967; 1968; 1969; 1970; 1971; Webster 1972; Horsey and Jarvis 1979; 1981; Horsey 1980; Watkins 1989.

<sup>&</sup>lt;sup>10</sup> David 1977; David and Thomas 1980; David *et al.* 1982; David and Bolton 1983; Adam and Valentin 2002; Milward 2009.

<sup>&</sup>lt;sup>11</sup> Russell et al. 2014; 2017; Stewart and Russell 2017.

<sup>&</sup>lt;sup>12</sup> SAM 1003803 and 1002418.

<sup>&</sup>lt;sup>13</sup> Geological Survey of Great Britain (England and Wales), Dorchester, Drift, 1979, Sheet 328, 1:50,000.

<sup>14</sup> Marsh 1982.

<sup>&</sup>lt;sup>15</sup> Field *et al.* 1964.

The site is today divided into three sections by Wimborne Road (the B3078) and the A31 Wimborne Bypass. The bypass follows the course of the Somerset and Dorset Joint Railways line between Wimborne and Blandford, which opened in 1843 and closed in 1933. A modern farm bridge spans the bypass between Lake Farm and the fields to the north of the site. The fields are laid to pasture and are currently grazed by sheep, except for the south-western corner of the site which is divided into paddocks for horses. The field to the north of the bypass is additionally split in two by a modern fence, the western portion being used for a weekly carboot sale and periodic visits of a travelling circus.

Running north-west, away from the fort, is a length of Roman road situated on the floodplain of the river Stour in an area belonging to the National Trust known as Eye Mead. This road survives in places as a flat-topped causeway across generally marshy land, measuring up to 4 m wide and 0.4 m high, and becoming a buried feature at either end. It is part of a road that originally ran from Hamworthy on the coast to Badbury Rings and thence to Hod Hill, Old Sarum, Bath and Dorchester. The course of the Roman road across Eye Mead is a separate Scheduled Ancient Monument,<sup>16</sup> as are two further sections between Corfe Mullen and Hamworthy, together with the road that ran originally east from the fort towards Winchester.<sup>17</sup> Two additional roads reputedly branch from the Hamworthy Road south of the fort: one to Dorchester, the other to Wareham. Both of these proposed latter routes appear to follow native trackways, avoiding obstacles rather than adopting the straight option followed by military roads;<sup>18</sup> they may have serviced the local early Romano-British pottery industry and associated settlement.<sup>19</sup>

## <H1>MAGNETOMETRY RESULTS AND INTERPRETATION

The new survey covered an area in excess of 40 ha (FIG. 1)<**FIG1**> and entailed walking an overall distance of more than 300 statute miles (483 km). While adding a number of major anomalies in the areas already surveyed in the 1970s and 1980s by the AML team, the increased

<sup>&</sup>lt;sup>16</sup> SAM 1002444.

<sup>&</sup>lt;sup>17</sup> SAM 1018195.

<sup>&</sup>lt;sup>18</sup> Field 1992, 57–77.

<sup>&</sup>lt;sup>19</sup> Calkin 1935.

coverage also significantly clarifies the overall the size and internal layout of the fortress, revealing extensive evidence of extramural activity.

The major anomaly at Lake Farm forms a rectangular enclosure with rounded corners, measuring 400 m east-west and 320 m north-south, and enclosing an area of 12.8 ha, which may be interpreted as the boundary ditch to the Roman fortress. The internal layout indicates that the fortress is orientated with the main gate, the *porta praetoria*, facing WNW. A clear, broad band immediately behind the ditch indicates the former area of the internal rampart, now levelled, while the multiple hearth-like anomalies behind this line probably indicate the position of bread ovens inserted into the rear of the rampart. Breaches for gates appear in the circuit on the west and east, while, on the southern side, a slight apsidal protuberance in the fortress ditch appears where a gate might be expected. The corresponding position on the northern side has unfortunately been destroyed by a field entrance, inside which ballast and rubble has been spread to consolidate the ground after damage from heavy goods vehicles. The north-western corner of the rectangle is missing; it has been cut by the southern part of Netherwood Lane, the post-medieval road from Wimborne, and further eroded by the water channel running beside the fort. The Ordnance Survey map of 1811, which shows the lane, also depicts a structure, possibly a cottage, on the line of the rampart just north of the porta praetoria which corresponds with an area of magnetic disturbance on the plot, typical of demolition rubble. The south-western corner had been partly covered by the railway track but now lies beneath the Lake Gates roundabout of the A31.

A second ditch (A) can clearly be seen running roughly parallel to, and approximately 15 m outside of, the main fort circuit on its southern side and includes a rounded corner at its eastern end (FIG. 2; annotated on FIG. 3).<**FIG2**>**<FIG3**> From that point, however, the position is confused with numerous pit-like features and two ditches running northward outside the main circuit. The first ditch? In sexactly parallel to, and 20 m away from, the main circuit. The AML team considered this to represent the remains of an inner rampart with two outer ditches 'themselves divided either by a berm or a second, outer rampart'.<sup>20</sup> An outwardly similar 'Punic'-looking defensive system has been identified by Ian Richmond at Hod Hill,<sup>21</sup> where upcast from the outer ditch of the Roman fort was made into a platform, creating a defined killing zone within which fire could be deployed to maximum effect against an enemy. The width of the platform at Hod Hill is given as 55 feet (16.8 m); Richmond notes that at the more

<sup>&</sup>lt;sup>20</sup> David *et al.* 1982, 2.

<sup>&</sup>lt;sup>21</sup> Richmond 1968, 68–9.

vulnerable south-eastern angle, where attack could come from two separate directions at once, the defensive line was strengthened with the introduction of an additional ditch.<sup>22</sup> At Lake Farm, however, instead of turning west at the south-eastern corner, this second ditch appears to continue south and, as it does not appear in the survey area to the north of the bypass, this could suggest that it is in fact a later field boundary.

Another ditch (B) can be seen connecting to the curve of the southern side (FIG. 2; annotated on FIG. 3), but does not run parallel to the main circuit, gradually diverging to over 25 m as it progresses north along the eastern edge of the fortress. The presence of this feature was first determined during the geophysical surveys conducted by the AML between 1976 and 1982, running for approximately 390 m from the south-eastern corner and gradually petering out as it approaches the river Stour in the north-east.<sup>23</sup> This feature shows very strong magnetic responses along most of its length, which suggests that it was backfilled with burnt or industrial waste; but where it crosses with the first of the outer ditches the response is weak, which suggests that it is cut by, and is therefore earlier than, that ditch. Several of the pits surrounding the south-eastern corner were augered by the AML and attributed to a secondary phase of activity, late in the fort's history or after its abandonment.<sup>24</sup>

In contrast to the interpretation suggested by the AML, Field preferred to see the arrangement of ditches detected within the 1976–82 geophysical survey as confirming the existence of at least two discrete phases of fortification comprising 'a large military site followed by a smaller one'.<sup>25</sup> The new geophysical survey confirms the AML's measurement for the line of the outermost ditch, running along the eastern edge of the fortress, and identifies further aligned anomalies in the field north of the fortress which provide an overall minimum length for the linear feature of between 500 and 550 m, extending at least 150 m to the north of the rampart line of the main fortress. Given that the south-eastern end of this ditch can now be determined, while the corresponding south-western corner appears to conform to the ditch feature excavated by Field in 1966–70 (and interpreted by him as Phase 1<sup>26</sup>), now under the roundabout of the A31/B3078 junction, the overall minimum dimensions of the larger 'playing-card' circuit can

<sup>&</sup>lt;sup>22</sup> Richmond 1968, 69.

<sup>&</sup>lt;sup>23</sup> David *et al.* 1982, 6–7.

<sup>&</sup>lt;sup>24</sup> David and Thomas 1980.

<sup>&</sup>lt;sup>25</sup> Field 1992, 40.

<sup>&</sup>lt;sup>26</sup> Field 1992, 36.

be determined as 450 m east-west by c. 550 m north-south. If, as seems likely, this circuit represents an earlier phase of construction, then its scale suggests a marching camp.

As a marching camp, one aspect of the overall design remains unclear: the position the original points of entrance. The normal arrangement for temporary Roman bases in Britain was to have four gates, one set on each side, although there are numerous examples where more points of access and exit were created.<sup>27</sup> In the majority of cases, entrances were either recessed into the line of the rampart or strengthened by means of additional earthworks, and were thus designed to limit the effects of a surprise assault. Sometimes these features comprised a *titulus*, or external bank and ditch (as at Hod Hill<sup>28</sup>), or an inverted or external *clavicula*. At Lake Farm, it may be possible to infer the presence of two external *claviculae*, protecting the original entrances: one on the southern part of the eastern circuit where a slight apsidal protuberance in the fortress ditch appears on the geophysical plot (as already mentioned) where a gate might be expected and another, perhaps, in the westernmost half of the southern line. In both cases the ditch line appears to curve outwards, although the precise nature of the rampart line is by no means clear from the geophysical survey.

The interior layout of the later phase of the legionary fortress at Lake Farm (FIGS 2 and 3) is marked by linear features, which are apparently drains, that run in the centre of internal roadways forming a connected grid and so split the fort into a number of well-defined *insulae*. At the eastern gateway (or *porta decumana*) one linear anomaly (C, annotated on FIG. 3) runs obliquely towards the low ground near the river Stour, probably as the outfall of the drainage system, and joins the 'marching camp' ditch (B) to the north of the modern bypass, changing the latter's magnetic signature from positive to negative and thus indicating that they share a common non-magnetic backfill from that point. At the western gate (*porta praetoria*), the drainage channel steps sideways as it becomes a side ditch for the Roman road that runs off towards the hillfort of Badbury Rings.

Rows of probable post-holes marking the footprints of buildings within the Lake Farm fortress appear to conform largely to examples known from excavation elsewhere, such as the legionary fortress of Inchtuthil.<sup>29</sup> Narrow buildings are sited around each side of the fortress; these represent barrack blocks grouped in sixes as cohorts: one single, two double and one single barracks in order in each *insula*. Those barracks visible on the magnetometry plot appear to be

<sup>&</sup>lt;sup>27</sup> Davies and Jones 2006, 27–8.

<sup>&</sup>lt;sup>28</sup> Richmond 1968, 69.

<sup>&</sup>lt;sup>29</sup> Pitts and St Joseph 1985.

of uniform dimensions, suggesting that they were all for infantry; none has the wider roadway that Richmond associates with cavalry barracks,<sup>30</sup> nor are there obvious signs of stable blocks that could accommodate horses. The placement of the fort on the floodplain could, in any case, have made it unsuitable for cavalry. It was certainly a very wet location, since, in addition to the ditches in the main trackways, there also appear to be narrow drainage channels in several of the tracks between some of the barrack blocks. The intrusion of later thoroughfares obscures enough of the barracks areas to prevent certain identification of the blocks allocated to the double-strength first cohort, however; while the double-sized *insula* at the northern side of fort could be the location of the first cohort, it appears to be only partially covered with barrack blocks. Field found an aqueduct and cistern at the south-western corner of the fortress,<sup>31</sup> so it is possible that any outfall from the speculative latrines would be downstream of that water supply, suggesting a probable position in the missing north-western corner.

Behind the row of barrack blocks along the western front of the fort is a line of four rectangular areas, relatively open in terms of the magnetic anomalies, that would conventionally, within such a fortress, be the position of the tribunes' houses. The traces of post-holes evident on the geophysical plot continue toward the centre of the fortress, but the outline and nature of the buildings are obscured by the position of the modern farm bridge and a water pipe that can be seen between the bridge and the northern farm gate. Excavations in 1979 found traces consistent with a *praetorium* in the region of the farm bridge,<sup>32</sup> so we may assume that the house of the general, presumably at this time Vespasian, was situated here on the via principalis next to the *principia* and facing into the *praetentura* and the smaller houses of the tribunes. The only clues to the nature of the structures immediately behind the praetorium and principia are two large magnetic anomalies that could signify the furnaces of a workshop (*fabrica*). The position of any hospital (valetudinarium) is undetermined, but the insula to the north is relatively clear of magnetic anomalies, which could indicate its site within the fortress. The tight pattern of post-holes between barracks on the northern side could be interpreted as the footprint of a granary, though the distance from the nearest gates would make this a rather inconvenient location, and, as stated above, the layout evidence suggests this may have been the location of the barracks of the first cohort.

<sup>&</sup>lt;sup>30</sup> Richmond 1968, 81.

<sup>&</sup>lt;sup>31</sup> Field 1992, 35–7.

<sup>&</sup>lt;sup>32</sup> Horsey and Jarvis 1979.

Some of the small magnetic anomalies evident in the field next to Wimborne Road may be relics of the weekly modern car-boot sales held here, but in the *retentura* a band of strong anomalies, roughly 20 m wide, stretches across the centre *insulae* west of the barracks buildings and suggests possible workshops. To the east of the fort, two parallel linear anomalies may be interpreted as the ditches flanking a roadway, approximately 5 m wide, that formed a continuation of the *via decumana*. Numerous strong anomalies representing pits or hearths can be seen in this area. These generally appear to respect the roadway and can be assumed to be contemporary, perhaps representing workshops or part of a *vicus* settlement. This roadway continues east beyond the extent of the present survey and is suggested to be the original supply route for the fortress. A row of four large possible quarry pits filled with magnetic material that lie between the roadway and the modern A31 are of unknown age or purpose, but may relate to the road and track-surfacing materials, as suggested for the quarry pits to the east on the same alignment that are cut by the sewer pipeline.<sup>33</sup>

A long linear feature detected outside, but on a slightly different alignment to, the eastern ditch of the fortress has been suggested as the rampart of an earlier fort;<sup>34</sup> yet it appears to cut the roadway, so indicating it was bridged and may still remain in use, perhaps being ultimately related to later drainage works. Just west of the *porta decumana* and north of the trackway is a circular feature typical of an Iron Age round house. This perhaps indicates that the indigenous population may have occupied the site during, or immediately prior to, the establishment and construction of the fortress. Further small anomalies south of the fortress may be post-holes, but there are, unfortunately, significant areas of disturbance here from fences and ferrous cast-off from the horse it is of the OK? what is 'ferrous cast-off from horses'?], and so it is not possible to make any certain identifications.

The survey covered 0.6 ha on the northern side of Eye Mead, close to the river Stour, where there appeared to be a flattish area that could have housed structures beside the river-crossing point. The results do not show any obvious anomalies that could betray structures, but there are two curving ditch-like features running diagonally from the road line to the north-east and a large pit-type anomaly on the projected line of the road. The strong response on the western border is from a metal fence and it appears that the wire boundary lies buried at this point across the field access. There are striations that were probably caused either by ploughing or tyre tracks in the waterlogged ground. The Roman road is believed to run through the area of field

<sup>&</sup>lt;sup>33</sup> Watkins 1989.

<sup>&</sup>lt;sup>34</sup> Field 1992, 40.

access, but the ditches do not show on the magnetometry, suggesting that, if they still exist, they are filled with neutral earth rather than material enriched by human activity. Numerous small anomalies display the black-and-white dipolar responses generated by small ferrous objects.

A legionary fortress this size would most certainly have had a bath-house, and a possible candidate location was found by surveying a neighbouring field directly below the southern gate near the course of the southern stream; this located a ditched annexe filled with highly magnetic material. In the fields to the south-west of the fortress, the survey has further identified what appear, morphologically speaking, to be Iron Age or Romano-British field-systems. Some of the latter are aligned with the later Hamworthy to Lake Farm road, and so are likely to be contemporary or later.

#### <H1>DISCUSSION

<sup>&</sup>lt;sup>35</sup> Branigan 1973, 53–4; Frere 1974, 90–1; Webster 1981, 45; Putnam 1984, 15–17; Field 1992, 42–4; Manning 2002, 33.

<sup>&</sup>lt;sup>36</sup> Putnam 1984, 17.

<sup>&</sup>lt;sup>37</sup> Richmond 1968.

<sup>&</sup>lt;sup>38</sup> Field 1976; Papworth 1997; 2004. [add 2004 to bibliograph]

<sup>&</sup>lt;sup>39</sup> Papworth 1997, 354-8.

lie beneath the Roman and later medieval street plan of Dorchester,<sup>40</sup> although no evidence has, to date, been found to confirm this.

The new geophysical survey has indicated that, rather than being the site of a vexillation fort, the main phase of activity at Lake Farm saw a fortress of sufficient size, with enough barrack blocks identified, to house the whole legion of 11 [ten referred to above – correct or clarify as necessary horts (5,280 men). Legionary fortresses in early Roman Britain were considerably smaller than those of later periods; the overall sizes of both Lincoln and Exeter, at around 16.6 ha,<sup>41</sup> compare reasonably well with that of the main-phase fortress at Lake Farm (12.8 ha). In this respect, it should also be noted that, prior to the Claudian expedition to Britain, the base of the II Augusta at Strasbourg, on an island site west of the main channel of the river Rhine, may have been as small as 12 ha.<sup>42</sup> Eberhard Sauer argues, in relation to the smaller size of firstgeneration legionary fortresses in both the Claudian and Flavian periods, that the fluid nature of campaigns meant there may have been no real expectation that bases would remain in the same position for long enough to merit a complex or elaborate infrastructure and that a reduction in enclosed space would help to accelerate building works and, consequently, generate an overall smaller defensive perimeter.<sup>43</sup> In this respect then, Lake Farm can be considered a temporary campaign fortress. This has implications for our understanding of the period of time the Roman army believed it would need to remain in strength in the tribal area of the Durotriges, and possibly, in turn, suggests a rapid and wholehearted capitulation by the local population to the Roman military.

The position of Lake Farm fortress in relation to the layout of roads in this part of Dorset (FIG. 4) suggests that it was originally set up and supplied by boat, possibly along the river Stour from Hengistbury Head on the coast. If the road from Hamworthy was the key supply route, it might be expected that this would directly access the southern gate (*porta sinestra*), as there is no topographic impediment to such a route. However, by considering the road to Old Sarum via Badbury that leads directly from the *porta praetoria* across Eye Mead, it appears that the Hamworthy road was probably built to join that routeway rather than service the fortress. The course of the eastern road has unfortunately been obscured by farm buildings, the modern line of the Wimborne Bypass and modern housing, but its route could take it to the main course of

<sup>&</sup>lt;sup>40</sup> Putnam 1984, 20–1; Field 1992, 125–34.

<sup>&</sup>lt;sup>41</sup> Henderson 1988, 95; Wacher 1995, 132; Sauer 2005, 115.

<sup>&</sup>lt;sup>42</sup> Keppie 2002, 17–18; Sauer 2005, 116.

<sup>&</sup>lt;sup>43</sup> Sauer 2005, 116.

the river Stour and to a possible landing place, potentially near the medieval fording point where Canford Bridge now stands. Evidence suggests that a later extension may have continued eastward towards Winchester, with this road's line heading for the same crossing point on the river.<sup>44</sup> As such, the road running out of the fortress east down the Stour valley could have continued in use as a link to the Hamworthy to Badbury road long after the fortress had been abandoned and demolished.

A key element to understanding military activity at both Lake Farm and also across the wider landscape of southern Britain is that of phasing. The new geophysical survey strongly indicates that there were at least two discrete periods of military occupation at the site. This was first suggested by Field following excavations conducted at the south-western corner of the legionary fortress: a primary fort, of more temporary character, was replaced here by a smaller, but more substantially constructed establishment, which Field interprets as a vexillation fort.<sup>45</sup> The results from the recent geophysical survey suggest that the primary phase of military activity actually comprised a substantial marching camp, which was superseded by a smaller legionary campaign fortress. The orientation of the camp appears to have foreshadowed that of the later fortress, facing west towards the direction of advance.

Although considered comparatively rare in southern and south-western Britain during the 1960s and 1970s, when Lake Farm was first identified and examined, a number of Roman marching camps have now been recorded by aerial reconnaissance and geophysical survey.<sup>46</sup> In Dorset, at Bradford Abbas, some 56 km (35 miles) to the north-west of Lake Farm, a marching camp was first identified from cropmarks in 2010.<sup>47</sup> The full extent of this playing-card shaped enclosure has yet to be established, but, at 265 m north-west–south-east and at least 350 m north-east–south-west, it compares well with the slightly larger area defined at Lake Farm (450 by *c*. 550 m). Furthermore, the placement of the primary phase marching camp at Lake Farm conforms to the Roman trend of establishing bases on low and gently sloping spurs with good all-round views and a river, for water supply and transportation of materials and provisions, on one side.<sup>48</sup> The proximity of the river itself may have caused some problems,

<sup>&</sup>lt;sup>44</sup> Field 1992, 108–13.

<sup>&</sup>lt;sup>45</sup> Field 1992, 40–1.

<sup>&</sup>lt;sup>46</sup> Welfare and Swan 1995, 4, 53–6, 169; Davies and Jones 2006, 8, 69.

<sup>&</sup>lt;sup>47</sup> Winton and Grady 2013.

<sup>&</sup>lt;sup>48</sup> Davies and Jones 2006, 11–12.

however, perhaps being a little too close for comfort. Today, the Stour can flood in spectacular fashion and the name of Lake Farm is particularly suggestive.

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### FIGURE CAPTIONS

FIG. 1. Lake Farm, Wimborne Minster: full magnetometry survey area. [a little below print quality – if possible, please resupply at 600dpi at 138mm wide]

FIG. 2. Lake Farm, Wimborne Minster: magnetometry plot of the legionary fortress.

FIG. 3. Lake Farm, Wimborne Minster: schematic annotated interpretation of the legionary fortress. [below print quality – if possible, please resupply at 600dpi at 138mm wide]

FIG. 4. Location of the Lake Farm fortress in relation to other sites mentioned in the text. [below print quality – if possible, please resupply at 600dpi at 138mm wide]