# ROMAN TEMPORARY CAMPS IN BRITAIN

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# ABSTRACT

The thesis draws together for the first time in print a comprehensive list of Roman temporary camps in Britain, drawn from published and archival sources. This material is presented as a corpus at the end of the volume. Following the introductory chapter, which outlines the scope of the work, the history of the development of study into the subject is reviewed in detail, examining the contributions made by both terrestrial and aerial archaeologists. Thereafter the evidence provided by the classical sources is examined and an attempt is made to trace the origins and subsequent development of the Roman military camp. The issue of definition forms the subject of the next section and it is argued that greater clarity than exists at present is required to allow these sites to be adequately addressed. This leads to a statement of the current state of knowledge in the subject, with a review of the central themes and arguments, and it is proposed that the role of terrestrial archaeology, and in particular excavation, has become unfairly undervalued. To support this contention a close study of the evidence provided by excavation is undertaken, leading to a call for renewed efforts through this medium, as a means of both supplementing and complementing the information obtained through the medium of aerial reconnaissance. Three case studies are then presented, utilising the methodological approaches championed in the preceding chapter. The thesis culminates in a critique of the existing knowledge base which concludes that while healthy, the subject is capable of significant advances of knowledge, some of which may best be achieved by recourse to a more balanced approach using all applications available to the discipline.

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As the sixth crumpled piece of paper hits the wastepaper basket, it is beginning to dawn on me that this short section is probably the hardest of all to write, and one perhaps not best tackled in my current sleep-deprived state. Nevertheless it is also one of the most important sections in this work, for me at least, as I contemplate the many kindnesses I have received from friends and colleagues over the ten years which it has taken for this thesis to reach some sort of conclusion.

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## Chapter One

## Introduction

"The planners' always show you a bird's-eye view of what they are doing. You've seen those scale models. Everyone stands around the table and looks down and says that's great. It never occurs to anyone that they are taking a bird's-eye view. In the end, these projects do turn out fine, when viewed from an airplane."

(Anthropologist Dr. Edward T. Hall, quoted by Tom Wolfe in his essay "O Rotten Gotham - Sliding Down Into The Behavioural Sink", *The Pump House Gang*, 1969.)

The context for this extract is a piece of "new journalism" from the 1960s, which deals with human social relations within the milieu of the overcrowded housing projects of New York, which grew like a cancer in the twenty-five years following the end of the Second World War. The piece is a scathing critique of the lack of human feeling which informs the actions of those individuals responsible for the creation and realisation of these schemes. Here, the lofty, God-like perspective afforded by the aerial view, treated by some as a rare gift, has for others the impact of a curse, largely due to the planners failure to appreciate the very partial picture which such a position affords.

The impact of aerial photography upon the study of archaeology, and in particular the study Roman temporary camps, hardly needs any introduction, and far from being a curse on the subject has had an entirely benign, enlivening effect. Yet it is worth remembering, as the quotation above so starkly illustrates, that the picture it presents remains a partial one, however important, and that the more traditional approaches to the subject still have a valid role to fulfil. Indeed in some ways the role of the archaeologist is similar to that of the planner. For though engaged at opposite ends of a process, one as predictor the other as interpreter, both are in the end inextricably involved in understanding human action.

Certainly, it is not the intention here to cast the aerial archaeologist in the role of the villain in a black leatherette pilot's helmet flying in a black aeroplane. Such a contention would be trite, churlish, utterly unjustified and deeply ungrateful. Far too much of lasting benefit has been achieved by those working in this branch of the discipline and without it the subject would be very much the poorer. The contribution

of one or two individuals in particular might reasonably be said to have transformed the subject. The quotation is instead employed to illustrate a central theme of this thesis, which is the rehabilitation of the terrestrial approach to archaeology as a means of making a significant contribution to the study of Roman temporary camps, an area of study so long now viewed as the virtually sole preserve of the aerial practitioner. Far from a call to limit or discredit the information obtained by this latter medium, the plea here will be for a re-evaluation of the data which may be retrievable through conventional excavation techniques and which, it will be argued, offers a possible route to a more refined understanding of certain crucial aspects of these particularly sullen, almost mute remains; namely date and function. The contention, now widely held and expressed (e.g. Hanson & Breeze 1991, 70), that little is to be gained from intrusive investigation of these works will be challenged as unsubstantiated and a case will be made for developing a research framework incorporating just such a programme of work, with the aim of complementing the growing body of data provided by aerial reconnaissance, and the interpretations which have emerged based upon this source. Together, it will be argued, there is the opportunity for greater and more firmly based understanding of these sites; without excavation, our picture of past events extrapolated from photographic evidence alone, will rarely be anything other than a set of inferences, which however persuasively argued will have no foundation in fact.

Since the discovery of the potential applications of archaeological aerial reconnaissance earlier this century, the database of known archaeological sites has increased dramatically, indeed at such a rate that it has severely taxed our collective ability as archaeologists to assimilate, classify and interpret these remains, let alone examine them in detail and assess their full significance. The situation is especially marked in the context of the study of Roman military remains, and most particularly in the study of temporary camps.

The accelerated rate with which discoveries of Roman military sites were made, in the thirty years following the Second World War, may justifiably be termed exponential. Maxwell found the neatest way of illustrating this point when he invited his readers to compare the distribution of known sites depicted on the second edition of the Ordnance Survey Map of Roman Britain, with that of the fourth edition (1989, 49). These publications are separated in time by a mere forty-seven years, yet they are widely at variance. What is perhaps less clear is the qualitative advance which has been brought about as a consequence of this vast increase in raw data. That there has been development is undoubted. New categories of site have been recorded, levels of

complexity on both site specific and regional levels have been determined which were previously unsuspected or at least underestimated. But equally there are still fundamental issues regarding these sites which are little or no better understood than they were fifty years ago; there is no shortage of theory to fill these gaps but a marked lack of hard evidence.

This thesis is constructed with a view to understanding the developments which have taken place in the subject to date, in the hope of both highlighting the advances made and revealing the shortcomings which still exist. It is not primarily an attempt to present new discoveries or to replace existing interpretations of the data with new ones, though both of these things are present; the current theories have been achieved through long and careful study of the available material and it would be impertinent to believe that these could be overturned in the relatively short gestation period which has given rise to this work. More importantly it would serve little useful purpose even if the theories were themselves equally or even more credible than those which presently prevail. Although there is a measure of criticism of existing frameworks, this is undertaken not for the sake of building a reputation, self aggrandisement through the destruction of other's work, but rather to illustrate the lack of evidence with which current practitioners are being forced to make do. The hope is that it will be seen to be an attempt to be positive and to seek ways of improving the current state of knowledge and allow these various theories to be tested, so that our communal understanding of these sites may develop.

In chapter 2, an attempt is made to provide a brief background to the archaeological study of Roman temporary camps, from the earliest antiquarian efforts to identify and classify them, and of course to set them within an historical framework, through to the impact of aerial reconnaissance as a tool for both their discovery and interpretation. Here it is observed that a distinction has emerged between the roles of terrestrial and aerial archaeologists engaged in the examination of Roman temporary camps. The aerial photographer's role is highly specialised, and the study of the activity of the Roman army through this medium even more so. It is therefore unsurprising that the practitioners involved have been relatively few and acknowledged experts in their field. By contrast, the task of excavating these sites appears to have become far less a matter for specialised study, leading to the situation now prevalent where these sites are regularly investigated by non-specialist excavators. It is argued that this situation, while partially imposed by the changing climate of archaeology and its context in the wider world, also reflects the growing perception that excavation of these sites is a

largely unproblematic and unrewarding process, neither requiring nor demanding the involvement of suitably specialised individuals.

Chapter 3 examines the temporary camp in the realm of the classical sources, for a long time the sole means of apportioning meaning to these sites, as chapter 2 reveals. As well as reviewing the various treatments of the temporary camp provided by surviving literary sources and their relevance and trustworthiness, an attempt is also made to trace the development of the use of temporary camps through these works, examining the influences which may have given rise to this category of monument, the remains of which now litter the British countryside. It is argued that this material, while undoubtedly valuable, continues to dominate perceptions of certain aspects of temporary camps, even where directly challenged by the testimony of archaeology and that this position of primacy should no longer be treated as unassailable.

This theme is continued in chapter 4, which examines the vexed question of definition, both of Roman military works in general and with specific reference to temporary camps. It is suggested that the problems of definition lie in the unrigorous application of concepts as a means of distinguishing between different categories of Roman military installation, and that this is a legacy of overdependence upon the testimony of the classical sources. It calls for the unapologetic erection of a classificatory system based solely upon archaeological evidence, echoing in general terms a recent plea made by Frere and Lepper (1988, 260-1), arguing that literary evidence may be applied after this has taken place, so that the scheme adopted is internally coherent and widely understood. It is also acknowledged that this creates significant problems in the identification and classification of temporary camps, both as distinct from permanent works and in terms of the attribution of different functions to different types of temporary work. It is suggested that this too may commonly only be achieved by means of further excavation of sites, bolstered on occasion by aerial photographic evidence.

Chapter 5 represents a statement of the contribution of aerial photography to the study of Roman temporary camps, and attempts to encapsulate fairly briefly the various theories which have been proposed in the last forty years as a way of bringing context and meaning to these sites, both on a site specific level and in terms of their place within the wider context of the Roman occupation of Britain. Space is also devoted to the main debates which have taken place within the subject, where these theories have been challenged and on occasion supplanted by alternative proposals. The result

should be the provision of an accurate picture of the current state of knowledge, as available through published data.

Chapter 6 reviews the largely neglected area of evidence, both real and potential, which has and may be achieved by means of the excavation of temporary camps, a deliberate juxtaposition with the preceding aerial reconnaissance dependent chapter. In the course of the chapter, the testimony of excavation is utilised as a means of testing the veracity and applicability of a series of beliefs and assumptions regarding these sites, culled from both the literary sources and aerial reconnaissance, and the contention is made that the former may be demonstrated to be flawed, while gaps exist in the knowledge achievable through the latter. The prevailing dismissive attitude to excavation as a way of recovering meaningful information is also challenged and the suggestion is made that large-scale examination of these sites is a potential way forward in seeking answers to questions concerning the fundamental issues of the date and function of these sites.

Chapter 7 takes this proposal a stage further, initially seeking to demonstrate the lack of work on a significant scale which has been undertaken to date but which nevertheless is used to denigrate such an approach. This is followed by the detailed exposition of three programmes of excavation which have been conducted on such a scale at the sites of temporary camps. It is argued that these should not be viewed as the test of the proposition alone, but that they should be part of a longer programme of research designed to establish the appropriateness of this approach. It is also argued that the lack of discoveries, both structural and artefactual, on a level commensurate with that found in the examination of permanent works is not grounds for dismissing the process as unproductive, but rather that the results should be treated only with reference to their contribution towards answering the specific problems which attach to the understanding of temporary camps.

Chapter 8 presents the conclusions of the thesis, beginning by offering a potential critique of the current state of knowledge and revealing how our understanding of the Roman army and its activity in Britain through these temporary camps cannot be fully achieved without excavation. It ends with the proposal of a programme of work, centred on excavation, which would examine temporary camps with the express view of answering these outstanding questions and how this might best be achieved in realistic terms set against the current climate in the subject.

An appendix is included at the end of the main body of the text which examines briefly the evidence for tents and their associated paraphernalia, so important in the original use of these sites.

Following the main text a gazetteer of sites is presented, providing for the first time in print a comprehensive listing of all temporary camp sites in Britain, together with a supplementary list of probable, possible, doubtful and disproved or reclassified examples. This represented the starting point for this piece of research, and it is to be hoped will help fill a gap which has recently been highlighted in print as a necessary starting point to further understanding of the subject (Hanson & Breeze 1991, 70).

It is accepted that this corpus, in common with all such undertakings, will have a limited shelflife, as new discoveries and refinements of knowledge become apparent, but it is hoped that it will provide a valuable working tool for other archaeologists operating in the same sphere, as well as demonstrating at first hand the sheer range and diversity of these works and the very significant problems which attach to the handling and proper interpretation of such a wealth of data.

Finally mention must be made of the use adopted in this work of the Latin term which describes the short length of ditch often found in front of the entrance gaps in Roman temporary camps. The term appears in the text of Hyginus, and since then has been the subject of correction counter-correction and debate. Here the masculine form *titulus* has been adopted, following the argument provided by Henderson and Keppie (1987, 281-4, where a full history of the debate, with bibliography, may be found, along with a response by Wild).

## Chapter Two

## The History of Archaeological Research

The British Isles are extremely rich in the archaeological remains of Roman temporary camps, an abundance thrown into sharp focus when compared with the remains of camps known in other countries which fell within the scope of the Roman Empire and its theatre of operations. These remains are especially numerous in the extremities of the country, that is, areas in which the Roman army was engaged in repeated and/or prolonged campaigns at different stages during the Roman involvement in Britain; both facts have been widely observed (e.g. Frere & St Joseph 1983, 19-20; Keppie 1986, 27; Frere 1987a, 211; Maxwell 1989a, 38). Thus Scotland in general has many examples whereas the north of England has comparatively fewer and the south of England has very few indeed. Wales and the Marches is another region well populated with examples of such works, and more recently the south-western and eastern extremities of England have produced evidence for appreciable Roman military activity, including examples of temporary camps. Jones and Mattingly (1990, 78) have recently produced a map of Britain, plotting the locations of known temporary camps, reproduced here as figure 21; although this does not agree in all respects with the identifications made herein, the general distribution displayed there is an accurate reflection of the current state of knowledge.

Several questions are raised by this imbalance in distribution, both within Britain itself and when compared with other parts of the Empire. Most particularly, why should Britain be so rich in these remains and continental countries less so? Why should certain areas of Britain be well represented on distribution maps of known temporary camp sites and others less so? No one answer will suffice: rather, a series of factors play a part in this strong British and regionally imbalanced representation. The question of why specific areas within Britain should be so rich is perhaps the simplest to answer, at least in broad terms. Temporary camps, particularly marching camps, which appear to make up the majority of camp sites (though see further chapter 4 for problems concerning the definition of these sites), are a manifestation of the Roman army on active service, especially during the campaigning season, in times of expansion and/or war. As such it is in those areas which most often played host to such military activity that we should expect to find the physical remains intimately connected with them. The history of Roman activity in Britain, as understood from the surviving literary accounts, demonstrates that the southern regions of the province

were pacified relatively quickly, in contrast to peripheral areas such as Wales and Scotland which formed the focus for extended periods of military campaigning. This fact alone indicates that there should be more evidence of temporary camps in the northern and western portions of the island.

Land use patterns in the intervening centuries also have a significant role to play in the survival, or at least visibility of remains of this military activity. Urbanisation has undoubtedly covered or destroyed many previous remnants of the Roman army's presence; towns and cities tend to be established in key locations linked to the availability of good agricultural land, good communications and the like, factors linked to the natural environment which will often, though by no means always, have changed little since the Roman period. Hence certain points on the map are reused more or less continuously through time, a situation amply demonstrated by the deep stratigraphy which characterises most urban excavations in this country. Heavily urbanised areas of the country, such as the south-east and the industrial belt of Lancashire and South Yorkshire, might therefore reasonably be expected to have provided less in the way of known remains through the simple fact of lack of visibility. Other factors linked to land use patterns through time also play their part in the differential survival of Roman sites. Temporary camps, often constructed of denudable materials such as turf or earth, are highly susceptible to the effects of repeated ploughing, leading to the survival only of partial remains, most of which will be undetectable to the terrestrial eye. Hence the best examples of surviving temporary camps tend to be found in upland areas outside the range of normal arable farming, or in areas which have subsequently been given over to forest cover. These conditions tend to be found in the north and west of the country, far more commonly certainly than the south and eaSt The advent of aerial photography allowed archaeologists a means of recovering some of this 'lost' information, and to date has had an enormous impact upon the study of Roman temporary camps. Yet even this technique has many limitations, being dependent for its success upon a range of factors, including local geological conditions, crop regimes and appropriate meteorological, seasonal and climatic conditions (see for example in general, Wilson 1983, and for a regional case study, Riley 1980a). In Wales for example, while some conditions, such as the expanses of open moorland, support the survival of temporary camp remains, others serve to mask them; thus, it is a common refrain that the large amount of land given over to pasture in the Principality renders aerial photography less effective except in periods of extreme drought (St Joseph 1953, 81; Wilson 1990, 10). Even when these problems can be overcome, experience tells us that the aerial perspective does not always reveal the full picture of past human activity at any given geographical location; chapter 7

illustrates the example of Monktonhall Junction, Inveresk, a site known from aerial reconnaissance where subsequent excavation revealed a level of complexity in the surviving archaeology undetected by aerial photographs .

These problems are now widely acknowledged and discussed. With respect to the impact these factors have on the observable distribution and level of survival of temporary camps, all may be said to play a part. But these reasons alone do not explain why so many examples are known in Britain by comparison with other parts of the Roman world.

Examples of camps from other parts of the Empire have in some instances gained more fame than individual British examples. The complex of works surrounding the Jewish hillfort stronghold of Masada are perhaps the most famous of all, though hardly the best studied (Richmond 1962). The Republican camps at Renieblas near the hillfort at Numantia in Spain, and indeed the six Roman siege camps themselves, also constitute very well known and oft cited examples (Schulten 1914-31; see also Keppie, 1984, 44-51, 74-5). Yet not only are these rare and singular instances, they often individually comprise sites whose temporary nature is open to discussion. Temporary is a relative term: by comparison with the forts and fortresses of the Imperial era, works such as those found at Masada and Numantia are indeed temporary. Yet as integral elements in the sieges of specific, static sites, serving situations which could and often did take months or years to resolve, they most certainly constitute more than overnight stopping points or short term billets, one of the principal characteristics of the marching camp (see further chapter 4, where it is argued that siege camps should not be classified as temporary works).

Other continental examples, more in keeping with the British camps, have been known for some time in Germany and in France (mentioned at various points throughout this work), and other instances have been identified further afield (e.g. Romania, for which see Cataniciu 1981, 59; Frere & Lepper 1988, 264). Certainly, following the reasoning cited above, one would expect to encounter marching camps in and around what were the further limits of the Empire on the continent at given point in time relative to the activity of the Roman army. That this has not happened would therefore seem to require explanation.

One factor is of course the long tradition of antiquarian interest and research in Britain, of which we may be justly proud and profoundly grateful. Many of the modern countries which harbour Roman remains can claim no such background. In

some cases this imbalance is equally true for the better part of the twentieth century. The huge quantitative gulf could not however be explained in these terms alone; here the development of aerial photography as a prospecting technique in the recovery of archaeological data is the key element. The discovery of this method and its subsequent progress and integration as an archaeological tool has been far quicker and more widespread in Britain than elsewhere. From the pioneering days of O.G.S. Crawford and others, to the development of a more systematic, deliberate information-gathering operation in the form of the Cambridge University Committee for Aerial Photography (hereafter CUCAP), through to the problem-solving programmes in operation today through the respective national wings of the Royal Commission (hereafter RCHME, RCAHMS and RCAHMW respectively), not forgetting the continuation of the tradition of important contributions from independent flyers, British exponents of the technique have remained in the vanguard of research. Nowhere on the continent can such a long-standing tradition of aerial photographic work be attested. It is virtually inevitable therefore that there is not the body of raw material from which to work. Here then are the reasons for the current state of knowledge.

It remains to be seen whether or not the gap which now exists will be appreciably narrowed in the future. Certainly conditions on the continent are now far more conducive to a marked increase in the pace of discovery. It has already been remarked that researchers in France and Germany have for a time been accumulating important information on a significant scale from those areas where marching camps would be anticipated. From a British perspective it is the German material which will be of greatest interest, the information recovered being perhaps the most closely comparable. But it is in areas such as Dacia, where first Domitian and then Trajan campaigned, that hopes for new discoveries are most heavily concentrated, since the evidence of campaigns conducted in those periods would provide directly comparable evidence of potentially critical importance. The prospects of information on temporary camps from the Danubian provinces in general present a mouth-watering prospect, and in many cases will be starting from a base of zero knowledge; Wilkes for example has recently indicated the parlous state of knowledge with regard to Roman military installations in general in Noricum (1989, 347-52). Here of course the problem has been exacerbated: not only was the aerial photographic tradition slower to develop, the problems of undertaking such research in the political climates prevalent in most eastern European countries until very recently will have made aerial reconnaissance at best highly problematic and at worst impossible to undertake. It is comforting then to note that the first significant programmes of archaeological aerial

reconnaissance, undertaken in the last few years in some parts of the old eastern bloc, such as Hungary, have been conducted under the guidance of probably the single most important exponent of the technique, the late Kenneth St Joseph (Maxwell, pers. comm.). Hopes for future discoveries are high.

Equally, in countries of the near east and North Africa, both modern political instability and lack of funding have contributed to the dearth of research and thoroughly unfavourable comparison with the situation in Britain. Individual examples of camps have of course come to light in these regions, but usually to date these have been as a consequence of western European or American-based and funded research programmes, some of which were conducted many years ago in the pioneering days of the discipline, or as a by-product of aerial photographic reconnaissance not intended for archaeological research, as for example in the Royal Air Force's coverage of Jordan.

Although it may be too early to judge whether or not Britain has, in reality, a disproportionately high level of examples of these temporary sites, what is clear is that as of today it is to Britain that one must turn if one is to have any hope of undertaking a meaningful general survey of the site type. It has already been remarked that Britain is very fortunate in having had a long and illustrious tradition of interest in and study of these remains. The origins of interest in the strictly archaeological study of the past in this country may safely be traced back to the sixteenth century; historical research of course may be seen to have an even longer tradition. In the intervening centuries the dedication and commitment of successive generations of scholars has given rise to a highly developed and refined understanding of the period of Roman involvement in this island, though one which nevertheless continues to require and attract further scholarly attention.

The tradition of archaeological enquiry in this country is conventionally traced back to William Camden, who gave voice to the results of his exhaustive investigations in the seminal work *Britannia*, composed in Latin and first published in 1586; the importance and influence of the work may be measured by the fact that it was to appear in numerous revised editions over the next two centuries, meantime spawning many copies of varying quality. In order to understand the issues which tax modern scholarship, it is necessary to trace the development of ideas on the subject, illustrating how and why particular theories have gained prominence and providing a springboard for further discussion and the proposal of new or refined methods of approach. The remainder of this chapter will seek to provide that context by addressing the issue of

the archaeological contribution to the study of Roman temporary camps up to the present day.

It is unclear when the first Roman temporary camp was "rediscovered" and doubtless a futile endeavour to try to find out. Many of these sites will have been well known features of the landscape in which they were set, with attendant local folk memories which might well form an unbroken link back to the time of their use. What is clear is that the eighteenth century provided the first golden age, through the good offices of a number of first rate antiquarians, who recorded the discovery of a significant number of these sites, often to extraordinarily high standards given the state of both academic and technological knowledge at the time. In Scotland, it seems fitting that most of the key figures in the rediscovery of these vestiges of the Roman army were military men themselves, such as General William Roy, Captain Robert Melville and Colonel Shand. In England, figures such as John Horsley are of especial significance in the history of the study of the archaeological remains of the Roman army, including their temporary camps, and particularly in his case with reference to Hadrian's Wall and the antiquities of Northumberland; in Wales, though famous antiquarians such as Edward Llwyd represent figures of equal standing in the development of the subject as a whole, there is no equivalent figure at this early date whose contribution to the study of Roman temporary camps reached such a level of importance . These individuals are of course by no means the only, nor even always the most distinguished antiquarians of their era, though they are the ones who made the most significant contributions to the knowledge of Roman temporary camps in particular.

Several excellent essays have been penned on the lives and contributions of these redoubtable individuals (for example, on Robert Melville see Stuart 1868, 26-34; on John Horsley see Macdonald 1933, 1-57 and Steer 1964, 1-21); most recently the antiquarian tradition with respect to Scotland, and to Roman works in particular, has been admirably covered by Gordon Maxwell in the introductory chapter to his book *The Romans in Scotland*. The existence of these works renders detailed discussion of these issues unnecessary here, though it is perhaps worth a brief diversion to highlight the contribution and impact of the most significant of these individuals, General William Roy.

For the student of Roman temporary camps Roy's fame stems from the posthumously produced work *Military Antiquities of the Romans in North Britain*, published in 1793. In this Roy presented a series of exquisite plans, based upon accurate survey of a range of upstanding Roman military installations, many of which present priceless

information about temporary camps, now either destroyed or much reduced. Most famously it is to Roy that we must turn for the best illustration of the peculiar gate arrangement, popularly known as the Stracathro type, which occurs at a small number of sites with an exclusively Scottish distribution. When initially rediscovered at the site of Stracathro by CUCAP it was believed that Roy's depiction of the device at the camp at Dalginross was inaccurate, though subsequent enquiry vindicated Roy's veracity, further enhancing his reputation as a reliable and invaluable source of information (Wilson 1974a, 341 & 344). The greatest compliment to the seminal contribution made to the subject by Roy must surely be the fact that with all the progress which has been made in the intervening two centuries it is still commonplace to see his work cited in academic publications, along with the most up-to-date information which science and scholarship has to offer.

The continuation of antiquarian study into the nineteenth century saw several more major contributions to knowledge of temporary camps. Following on from Horsley, MacLauchlan's work in Northumberland, both on Hadrian's Wall and on the line of Dere Street, produced significant increases in both numbers and understanding of temporary camp sites (1852; 1858). In the same area, John Hodgson was also a major figure with much of note to add to the picture, most famously in his magisterial study of the *History of Northumberland* (1839). In Scotland, the situation never returned to the heights of the previous century, though important additions to knowledge were made, including for example Courtney's discovery of the large camp at Kintore (1868, 387-94).

By the latter part of the nineteenth century archaeology as a subject worthy of study in its own right was beginning to come of age, but curiously it also marks a period in which the study of Roman temporary camps fell into the doldrums. Large scale, planned research excavations began to be the order of the day, and the focus of attention tended to be the permanent installations, rather than the temporary sites. Hence major programmes of work were conducted during this period at various sites in northern Scotland, such as Ardoch (Christison and Cunningham 1898), southern Scotland, such as Birrens (Christison, Barbour & Macdonald 1896), Newstead (Curle 1911), Lyne (Christison 1901b) and on the frontier, Bar Hill (Macdonald & Park1906), Camelon (Christison & Buchanan 1901), Rough Castle (Buchanan, Christison & Anderson 1905) and Castlecary (Christison & Buchanan 1903), in northern England on Hadrian's Wall, as for example at Housesteads (Bosanquet 1904) and indeed in Wales, at sites such as Gelligaer (Ward 1903) and Castell Collen (Evelyn-White 1914). Temporary camps in Scotland, by contrast, received a short

shrift: Christison (1890, 289-91) undertook cursory examination of Little Clyde, and later expended rather more effort at Gask House (1898, 430-1; 1901a, 35-6), but the poor recovery rate at the latter seems to have cured him of any lingering intereSt Hewat Craw later conducted preliminary fieldwork at Channelkirk (1930, 321-6), though again there seems to have been little follow up. The only truly significant enquiries came from Sir George Macdonald in his excavations at the sites of Raedykes and Ythan Wells (1916, 317-59); the rest was largely silence. The work at Newstead certainly touched upon the complex of temporary works there (Curle 1911, 15-20), but was very much an adjunct to the main thrust of the investigation. Equally, along Hadrian's Wall, occasional attention was paid to the temporary works there, such as Gibson and Simpson's investigations at Haltwhistle Burn (1909, 259-63), and Newbold's work at Teppermoor Hill (1913, 71-4), but again these were the exception rather than the rule. Wales was largely ignored, though later on Birley (1936, 69-73) produced the first correct interpretation of the practice works at Llandrindod Common, initially described by Price (1814, 168-72). As the twentieth century progressed however, this corner of the subject once again became the focus for attention, thanks largely to the enthusiasm and scholarship of two individuals: Sir Ian Richmond and O.G.S. Crawford.

The former had by far the more direct impact on the subject. The 1930s and 1940s saw a series of seminal publications in which temporary camps, or in some cases what were then interpreted as temporary camps, formed the main focus of his attention: the group of works at Cawthorn in North Yorkshire (Richmond 1932, 17-78), the sites of Reycross (fig. 20) and Crackenthorpe on Stainmore (Richmond & McIntyre 1934, 50-61), the numerous upstanding works in Redesdale (Richmond 1940, 63-154), including particular attention to the works at Chew Green (Richmond & Keeney 1937, 129-50), together with small scale enquiries at a few other sites, such as Normandykes (Taylor 1936, 237) and Watchcross (Richmond & Hodgson 1936, 170-2), and the production of a number of more synthetic works, which tackled aspects linked to camps or to camps within the wider context of the study of the Roman army (Richmond 1935; 1955; McIntyre & Richmond 1934). It is unsurprising then to find Richmond as the author of the entry under camps in the first (and indeed the second) edition of the Oxford Classical Dictionary (Cary *et al.*, 1949, 161-2).

It is difficult to overestimate the importance of Richmond's contribution to the subject, coming largely, it must be said, at a time before the full impact of discoveries through aerial reconnaissance was realised. The excavations at Cawthorn and Chew Green, while now recognised to be far from representative sites, demonstrated the lessons

which could be learned from properly planned, intrusive inspection of such works. His work at Reycross and Channelkirk, and indeed on the Redesdale sites, showed what could be achieved through careful consideration of upstanding earthworks; the often significant refinements to Richmond's work at these sites which have recently been achieved by further investigation on the part of the RCHME (Welfare, pers. comm.) should not in any way detract from the importance or skill of the original enquiries. While improvements in technological ability allied to a much more refined knowledge of Roman military archaeology have rendered some of Richmond's surveys obsolete, it is nevertheless still his ideas, based on these early investigations, which underpin the arguments concerning many aspects of the study of temporary camps today, from calculations of the holding capacity of camps, to the disposition of internal features, through to the very tents in which the soldiers slept while occupying these sites.

Crawford's contribution was less direct but no less profound. For it was he who did most in those early days to promote the potential of a new technique, that of aerial reconnaissance. He even demonstrated first hand the potential for discovery of previously unsuspected temporary camps, with the publication of the hitherto unknown site at Galloberry (1939, 285). Pioneered by a number of individuals, it was O.G.S. Crawford who did most to make the knowledge of this new technique public, describing the results of early flying sorties in the pages of *Antiquity*. As a consequence of this propaganda, the 1930s saw awareness of the technique rise dramatically, and brought to the fore a number of young individuals who would in time progress the subject to then unimaginable levels, most importantly of course the late Kenneth St Joseph.

St Joseph's earliest publications on the subject (e.g. 1934, 238-43; 1936, 107-12), while important in their own right, give little clue of the sea change which this new technique was to bring about, thanks in large part to his own endeavours. Interrupted by hostilities (the circumstances of which ironically led to advances in the field of aerial reconnaissance), it was in the years after the Second World War that the full scale application of the technique really took place. Signalled by the publication in the *Journal of Roman Studies* for 1951 of a host of new finds from North Britain, followed swiftly in 1953 by a sister paper covering the south of the country, St Joseph inaugurated what was to become a regular series of updates on discoveries, lasting in the end for over twenty five years. And despite continued flying and many more significant finds, coupled with valiant efforts to keep a hungry public informed of these events (Maxwell & Wilson 1987, Griffith 1990), a gap has undoubtedly been left by the cessation of these regular contributions, which has yet to be successfully filled.

The sheer scale of the increase in information and the impact it must have had is difficult to appreciate for some who did not live through it; the effect, the excitement, the feeling of opportunity and of change must have been akin to the 1950s teenager hearing Elvis Presley on the radio for the very first time! Since its inception, CUCAP discoveries alone account for some 55-60% of all known temporary camp sites, taking no account of the volume of material related to other Roman sites, military and non-military and indeed to those of other periods (for a celebration of the work of CUCAP, see Whimster 1983, 92-105). From a patchwork of sites, improperly understood either in themselves or as part of a wider system, one may see the apparently inexorable dawning of clear patterns of activity and movement as new discoveries fell into place. This shift in quantitative and qualitative knowledge was spearheaded by St Joseph, leading eventually to the generation of a polished and, generally, believable picture of the behaviour of the Roman army in the province across at least two centuries.

It would not be an exaggeration to state that, with respect to the development of ideas on temporary camps, St Joseph dominated the subject for a quarter of a century at leaSt Indeed, so great was his contribution that one might suggest that the history of the Roman army in Britain, as we currently understand it, owes as much to him as it does to Tacitus or Cassius Dio. The development of this history is intriguing and may be traced largely through the contributions to the *Journal of Roman Studies* noted above. The earliest papers, in 1951, 1953 and 1955, restrict themselves largely to the straightforward task of communicating new discoveries, unsurprising when one considers the statistics. Between them these three papers introduce almost eighty new sites of temporary status alone, virtually doubling the quantitative state of knowledge at the time. It is clear that St Joseph's initial intention was that these would serve simply as interim statements, buying some time during which he might produce a more detailed and definitive monograph on the subject. This *magnum opus* was sadly never to materialise, though the reasons are not hard to understand. The levels of discovery continued at a steady rate: twenty-six new sites reported in 1958, thirty in 1961, twenty-four in 1965, thirty-two in 1969, thirty-one in 1973, sixteen in 1977; these figures again relate only to temporary works. Clearly the sheer weight of numbers overtook the best of intentions, and attention was accordingly concentrated first and foremost on communicating the latest discoveries. This did not however prevent St Joseph from attempting to put these sites in some wider perspective, and it is the discussive sections, which appear in the papers for 1958, 1969, 1973 and 1977, which set out his ideas for how these camps related both to one another and within the broader framework of the history of military activity in the province.

It is these sections to which we must turn for the categorisations which still underpin the study of the subject today: various series of camps are proposed, each allocated to particular historical periods, ultimately helping to flesh out the narratives provided by the classical sources. In chapter 5 the development of these ideas is traced in detail, together with various criticisms which have been made of them. For now though it is enough to note the overwhelming impact of the work of this man and its long-lasting and far-reaching effect on the study of Roman temporary camps.

Equally important to the new discoveries themselves was the stimulus CUCAP's example provided for others, and it would certainly be wrong to suggest that all developments in the subject stemmed from the work of one individual or organisation, however important. In the first twenty years after the War highly significant contributions came from individuals working within the various Royal Commission offices. In Scotland, both Richard Feachem and Kenneth Steer regularly turned their attention, both separately and together, to these yet improperly understood sites. In addition to their joint direction of excavations at Oakwood (1952, 81-105), important work was conducted by the former on Broomhill (1950b, 217), and on six alleged construction camps associated with the Antonine Wall (1956, 329-39), as well as discovering the possible site at Dupplin (St Joseph 1958, 90), while the latter drew attention to the presence of the enormous camp at Pathhead III (St Joseph 1969, 107). Working with the Welsh wing of the Royal Commission, the late A.H.A. Hogg was responsible for the discovery of several important sites, among them Coelbren (Wilson 1969, 200), Esgairperfedd (Hogg & Jones 1967, 274-6), and individual examples in the complexes at Llandovery (I) (Davies 1968a, 106) and Gelligaer (IV) (St Joseph 1961, 126). Subsequently the different branches of the Royal Commission were to play an increased role in the initial discovery of these sites, through the implementation of regular programmes of flying, both complementing and supplementing the work undertaken by CUCAP. The early 1960s saw the creation of an aerial reconnaissance division of the RCHME, leading to further new discoveries and refinement in techniques of all descriptions. The 1970s saw Scotland follow suit, if a little tardily, providing, in the context of temporary camps, an even greater contribution in the last twenty years. The 1980s finally saw the RCAHMW following the trend and hopes for an increase in information here are high.

With respect to the Royal Commissions, particular mention needs to be made of the contribution of one man, Gordon Maxwell, who along with St Joseph's successor (and one time research assistant) at CUCAP, David Wilson, has to all intents and purposes

now assumed the mantle of the great man himself. Between them, these two are at one and same time torchbearers for the St Joseph approach, carrying his legacy towards the new millennium, but also considerable innovators in their own right; their regular forays into print testify to continued new discoveries and new interpretations, building upon or refining previous knowledge. For temporary camps it is Maxwell's contribution which has been most significant and recently his research has greatly enriched the subject through the publication of several monographs (Hanson & Maxwell 1983; Maxwell 1989a; 1990), and a plethora of learned papers (for which see the bibliography) in which new theories are propounded and a few old ones re-examined.

Important advances in knowledge cannot accurately be ascribed only to individuals working within institutions closely linked to discovery or close study of individual sites. Much essential research has stemmed from the endeavours of dedicated individuals, particularly those working within a particular geographic region of the country. The name of Derrick Riley is closely linked with the area of South Yorkshire and Nottinghamshire, where many years of flying led to a detailed understanding of the landscape, especially with respect to its nuances *vis-à-vis* aerial photography (1980a). In the process Riley identified several previously unrecognised temporary camp sites in a part of the country not immediately connected with the survival of Roman military works: Farnsfield (Riley 1977, 189-92), Newton Kyme (Monaghan 1991), Scaftworth (Griffith 1990, 25) and Warsop (Riley 1980b, 332-4) are all his own personal discoveries. Equally, Arnold Baker's work is intimately linked with the western counties of England, particularly the Welsh Marches, and while perhaps even less well known to the wider archaeological public than Riley, his contribution in terms of new sites is no less impressive: Brampton Bryan (St Joseph 1965, 85), Buckton (Stanford 1960, 210), Upper Affcot (St Joseph 1961b, 125) and Whittington (St Joseph 1973, 236) are all attributable to Baker's knowledge and tenacity as an aerial photographer. Of all the individual contributions however probably the most significant, and often the most controversial, has been that of Professor Barri Jones. Jones' energy and enthusiasm has seen him active in several areas of the country, most notably in his native Wales, but also in the border country either side of the Solway estuary and also in the far north of Scotland. At times Jones' contribution has been rather undermined by his seeming unfailing ability to discover or resurrect sites of questionable character: Abertanat (Frere 1988, 417), Astbury (Jones 1968a, 3-4), Bellie (Frere 1986, 370), Clawydd Coch (Frere 1992, 256-8), Easter Galcantray (DES 1984, 14); all have at some time been proposed as Roman temporary camps by Jones, some latterly being reinterpreted as permanent works, and all have attracted, many continuing to do so,

varying degrees of scepticism within the archaeological community. Yet Jones' record on the positive side is undeniable: Annanfoot (Goodburn 1978, 418: where it is called a fort), Arosfa Gareg (Jones 1966, 174-8), Brackenrigg (Frere 1985a, 74), Cawfields III (Frere 1977, 373), Dolddinas I - V (Jones & Knowles 1960, 397-402), Kirkby Thore I (Goodburn 1979, 283), Rhyd Sarn I (Jones 1961, 254-5) and Ystradfellte (Jones 1966, 174-8) are all inextricably linked with his name, some as discoverer, others as excavator and interpreter. Part at least of Jones' 'crime' seems to be his willingness to go out on a limb and look for the unusual or probe the blank areas on the map; if this at times leads down blind alleys, then surely the positive returns more than compensate for the occasional misinterpretations, for if we only ever look for what we already know is there, then we will be far less likely to advance the subject any further.

Most of the above activity, in the latter part of the current century, has taken place from the vantage point of an aeroplane. By contrast, terrestrial examination of these sites, and particularly intrusive investigation (i.e. excavation) has been somewhat limited, at least in terms of the scale of work conducted. Several of the named aerial specialists have followed up their research on the ground, most notably St Joseph, Maxwell and Jones, but their work has been restricted normally to a few trenches employed to answer very specific questions, such as filling in gaps in perimeters identified by cropmarks, establishing the Roman character of a length of ditch through its profile in section, or determining the relative dates of sites where two camps, or a camp and another feature have been seen to overlap. Occasionally, long term campaigns of trenching have been carried out at sites of especial importance or complexity, such as Durno, Girvan and Lochlands. Outside of this small band of individuals, very few archaeologists are regular excavators of temporary camps. Lawrence Keppie is the notable exception to this rule, having conducted work at various sites in Scotland, among them Annan Hill (Keppie 1988a, 13-21), Bar Hill (Frere 1983, 288; 1984, 276; 1985a, 264), Castledykes (Keppie 1987), Dullatur (Keppie 1978, 9-18), Dunning (Keppie 1988b, 6-8), Garnhall I (DES 1989, 59; 1990, 34; 1992, 70) and Inveravon III (Frere 1984, 276). Otherwise only two more individuals have investigated as many as three separate sites, Hanson (at Ardoch (1978, 146-9), Inveresk (DES 1985, 30-1) and Summerston (DES 1981, 87)) and the present author (at Kirkpatrick Fleming (DES 1991, 12-3), Beattock (see chapter 7) and Girvan (Burnham, Keppie & Esmonde Cleary 1994, 257)). More importantly, when we consider the ways in which temporary camps are now being studied, a potentially rather worrying trend appears to be emerging.

Consider the following list: Austen, Bailey, Bennett, Burgess, Cachart, Charlesworth, Chouls(x2), Crone, Crossley, Duffy, Dunwell, Gibbs(x2), Halpin, Hamilton, Jobey, Johnston, Jones, J.E., Jones, R., Mackenzie, Maxfield, McCord, McCullagh, McKeague, Parnall, Poulter, Ralston, Robertson, Robinson, Rogers(x2), Shepherd, Sherriff, Silvester, Speller, Stanford, Swarbrick, Townsend, Turner, Waddelove, Webster, P., Welfare, Woolliscroft. This represents the named directors of excavations at Roman temporary camp sites, other than those individuals noted above, since 1960. To be sure there are some well known, even illustrious, names from the field of Roman military studies amongst them, and some less well known but nonetheless appropriate individuals, but the fact is they are in the minority. These sites are therefore regularly being dug by people with no appreciable background in the study of the Roman army; indeed at least a third of them, to my certain knowledge, are specialists in either prehistoric or Medieval archaeology. Would a Roman military specialist be deemed an appropriate person to excavate a Wessex barrow, or a Medieval burgh?

Without meaning to decry the abilities of any of the other excavators of temporary camps, most if not all of whom are demonstrably fine professionals, it seems a shame that temporary camps appear to be increasingly viewed as expendable archaeological commodities, unworthy of specialist attention and certainly not as complicated sites requiring detailed background knowledge for their investigation. Part of the problem is of course the new climate of a more commercialised archaeology, where work may often be awarded to the lowest bidder rather than the most appropriate professional. Ironically, it is this new climate which provides the best hope of affording opportunities to tackle temporary camp sites on a scale rarely achieved before. An even greater responsibility therefore rests with the authorities empowered to award contracts or advise on their distribution. It is a sad coincidence that many of the foremost figures in the subject have recently died - St Joseph, Riley, Hogg - and though their tradition continues in the very capable hands of individuals such as Gordon Maxwell and David Wilson, it is not altogether clear who is coming through the ranks to supplement and ultimately take over the baton from them. If the high standards of research created and maintained by these individuals are to be continued, it is crucial that temporary camps be afforded the protection they deserve, including the right to have their excavation designed and undertaken by those with a proven interest and knowledge in that field.

This then characterises the development of the study of Roman temporary camps, from the earliest antiquarian endeavours through to the present day. Having

established the archaeological background to the subject under study, it will next be instructive to turn to the literary testimony, to trace the development of the temporary camps through the sources and determine what information may be extracted and applied to aid the study of their physical remains.

## Chapter Three

## The Origins and Development of the Roman Camp

Having looked at the history of archaeological research into Roman camps, it is necessary to turn to the literary sources, in order to see what additional information may be found there. This chapter has a twofold aim: one, to try to trace the origins of the Roman temporary camp; and two, to investigate and assess the value of the key sources, especially as regards the application of information contained therein to the archaeological remains which litter the British countryside.

Before doing so though it is worth drawing a distinction. Any archaeologist working in an historical period has an obligation to pay heed to the literary testimony. This does not mean it is impossible to step outside what is written down, but rather that attention must always be paid to contemporary accounts, where they exiSt The following chapter draws upon these sources to see what light they shed on the subject of Roman military camp development, but it in no way professes to be an attempt at first hand textual criticism. In all cases, unless specifically noted, pre-existing translations have been utilised and textual interpretations formulated by established authorities have been followed.

Despite the obvious problems inherent in utilising ancient texts - biases, incompleteness, misinformation and the like - there is a great deal to be gained from them, both as a complement to the evidence provided by the physical remains and in terms of information which cannot be extrapolated, or is difficult to infer, from the archaeology. They also, clearly, offer an historical framework within which the camps should be sited.

The first detailed account of the Roman military camp is contained in the histories of Polybius, specifically within the now famous digression which appears within book six of that work. At this point Polybius turns from his discussion of the Roman constitution in order to describe the Roman military system (VI.19ff.). In so doing he feels constrained also to describe the marching camp, paying particular attention to its form and to the disposition of troops within it (VI.27-42). The crucial factors which render the account of especial importance are the level of detail supplied and the fact that, in broad terms at least, it is a datable, contemporary account (though see Rawson's quibble below). Considerable effort has been expended on pinpointing the

date of the work; in fact it now seems most likely that the composition of the Histories was spread over half a century. There is indeed continuing debate over the dates of both Polybius' birth and death (see most recently and for a review of the debate, Eckstein 1992). Nonetheless it is clear that the account will have been written at some point in the middle of the second century B.C. (on this issue and others discussed in the following pages see: Mommsen 1894, 242; Cuntz 1902, 75; Glover 1930, 1; Ziegler 1952, 1445-6; von Fritz 1954, 3, 28, 405; Walbank 1957, 1; 1967, 636; 1972, 6; 1979, 768; Pedech 1961, 145-50; Musti 1965, 381-2; 1972, 1115; Momigliano 1977, 67-9).

Polybius' attitude towards the writing of history, his preoccupation with utilising the genre as a didactic tool and his belief in the concept of a universal history, have all attracted considerable academic comment and debate. Here though it is most important to evaluate his worth as a commentator on military matters and appraise the level of accuracy which he achieves throughout his work. On the latter score, the general climate of opinion would appear to be favourable. Naturally a blind acceptance of all Polybius' pronouncements at face value would be dangerous, as Walbank has warned (1972, 6). As a writer he was susceptible to bias, dogmatism and ulterior motivation in his writing; equally there are times when he appears to misunderstand his subject matter, and further occasions when he is simply in error (Marsden 1974, 271). Perfection though is an impossible goal, and ultimately Polybius emerges from the scrutiny of modern scholarship as an essentially trustworthy chronicler: as Walbank (1972, 43) remarks,

"Polybius' own reliability and regard for truth are generally (and justly) accounted high."

This observation is important in evaluating the credence which may be placed on the account of Roman castrametation, especially when one considers that Polybius was acknowledged as an expert in military matters, only Tarn among modern scholars disagreeing with this opinion (1952, 285). Regularly throughout the Histories Polybius takes the time and trouble to expatiate upon various military themes: generalship (III.81), booty (X.16-17.5), fire-signalling (X.43-7), comparison of the legion and the phalanx (XVIII.28-32) and a host of others. The description of the camp is but one example of such a passage. It is clear too that at some point in his life Polybius composed a treatise on tactics, for despite not having survived down to the present day it appears to have been well known and highly regarded in antiquity (Polybius IX.20.4; Arrian - *Techne Taktika* I; Aelian - *Taktika* I; XIX.10; III.4).

Further evidence of Polybius' military expertise may be inferred from his position as a military adviser to his Roman contemporaries. He was specifically summoned from Greece to aid in Rome's final campaign against Carthage, perhaps at the behest of his personal friend, the Roman commander Scipio Aemilianus (XXXVI.11.1) and may even have been present at the siege of Numantia in 133 B.C., though this is not certain (*pace* Cuntz 1902, 16, 50; Ziegler 1952, 1458; Arribas 1964, 192). It is a matter of great regret, given the available archaeological testimony, that Polybius' account of the Numantine War has, like his treatise on tactics, not survived for us to inspect today (Cicero - *Epistulae Ad Familiares* V.12.2). The remains of the Roman investiture of the hillfort at Numantia have been the subject of a celebrated study by the German scholar Adolf Schulten, these, critically for this study, including the palimpsest of field works at the neighbouring site of Renieblas (Schulten 1929). An opportunity for direct comparison of literary account with archaeological site has thus been lost, to say nothing of the opportunity to test Polybius' accuracy as a military commentator.

There remains though Polybius' general account of the Roman camp. It has been established that the prevailing academic opinion perceives him to be a reliable source, with a broad knowledge of military matters. Much of the reason for this may lie in Polybius' obsession with obtaining first hand accounts of his subject matter whenever possible, itself in part a consequence of his declared interest in only the history of the recent past, where the facts could be ascertained and devolved from mere myths and legends. It is thus with a measure of disappointment that one confronts the possibility that Polybius' account of the Roman camp may simply have been lifted from a convenient, pre-existing *vade mecum* (Fraccaro 1934, 154-161; Walbank 1957, 711; Momigliano 1975, 25; Keppie 1984, 51). Yet this reaction is premature; Polybius' use of such an article need not belittle the importance of the information transmitted; indeed, what could be more accurate than an approved military manual? As has been noted, most modern scholars appear to be convinced of Polybius' worth as a reliable source. One note of doubt has however been sounded by Rawson, who seems, at first, to hold a diametrically opposed view (1971, 13-37, esp. 13-5, 22-4). She proclaims that,

"His (Polybius') account of the Roman army in Book VI is still a somewhat mysterious document. He has often been accused of describing a system no longer current in his own day...and even of providing material of altogether *sehr zweifelhaften Werte*, perhaps based on an unreliable antiquarian source." (1971, 13)

The crux of Rawson's paper however is merely an extension of the *vade mecum* theory, and neither a searing, nor a particularly damning indictment of the author. She argues convincingly that Polybius' source was probably a handbook belonging to a military tribune, hence accounting for the unusual slanting of his narrative towards the operation of the camp as affecting or as relevant to that particular rank of officer (1971, 14). She also feels that the information derived from this putative handbook may be slightly, but not seriously outdated, probably having been obtained by Polybius from a personal friend. Certainly, as Rawson notes (1971, 15), there is good reason to believe that Polybius considered his description to be a faithful rendition of contemporary practice, not least since his narrative is written exclusively in the present tense. The possibility that this handbook may have been specific to an individual tribune, or to a particular event, rather than a generalised text for all tribunes in all situations, is also interesting but hardly damning in terms of Polybius' veracity as a source. Indeed, with the exception of the statement noted above, Rawson at no point claims that the information under discussion should be deemed inaccurate or untrustworthy, merely that,

"...certain features of Polybius' account...distinguish it from anything to be found in any other ancient writer on military subjects..." (1971, 14).

The account must surely be treated as a highly valuable source, whether based on Polybius' personal observations or on his reading of an official document. His reputation for possessing a thorough knowledge of military matters is not in question and his use of what would, accepting Rawson's theory, constitute an original documentary source, is entirely consistent with the picture of Polybius as an historian determined only to record verifiable facts and events. And, with the exception of a few questionable passages, all of which are capable of satisfactory resolution (see further below), there is no substantive evidence to suggest that the description he provides of the camp is either wildly inaccurate or misleadingly outdated. The description may reasonably be accepted as a true, if perhaps somewhat idealised, picture of the Roman military camp in the middle of the second century B.C.

This said, it will be instructive to examine Polybius' account of the Roman camp in a little more detail.

Following a preamble which discusses the levying of troops, Polybius introduces the subject of the camp by noting that,

"...one simple plan of camp...(is) adopted at all times and in all places." (VI.26.10).

This, and the ensuing description of the procedure for laying out a camp (VI.26-32), demonstrate unequivocally that by this point in Roman history marching camps were erected according to a clearly defined set of formulae. Although the arrangement of the republican army differed markedly from that of the principate, the essential internal organisation bears striking similarities, *mutatis mutandis*, with the description of imperial camps proffered by Hyginus (see further below).

Polybius records that the camp location for the night was selected by an advance party (VI.41), and that these individuals were also responsible for choosing the optimum position for the consul's tent (the *praetorium*), this becoming the hub of the entire layout (VI.27). This area was then measured out and marked with a white flag (VI.41), after which the formulaic methodology of measuring in the positions of the rest of the camp was a simple and speedy process. Road lines were marked out with spears, other living areas, including the market and the *quaestorium*, with red flags.

Several attempts have been made to draught up Polybius' description of the internal layout of the camp (among them Daremberg & Saglio 1877, 944, fig.1214 and Fabricius 1932, 79, fig.12), though all are bedevilled by the same inconsistency in Polybius' text. This comes at the very end of the description of the camp layout (VI.32.6-8) when he states that,

"Whenever the two consuls with all their four legions are united in one camp, we have only to imagine two camps like the above (i.e. the camp layout he has just described) placed in juxtaposition back to back, the junction being formed at the encampments of the *extraordinarii* infantry of each camp whom we described as being stationed facing the rearward agger of the camp. The shape of the camp is now oblong, its area double what it was and its circumference half as much again. Whenever both consuls encamp together they adopt this arrangement; but when the two encamp apart the only difference is that the market, *quaestorium* and *praetorium* are placed between the two camps."

On first reading this seems to imply that when the double consular army camped apart, arguably the three most critical stations - market, *quaestorium* and *praetorium* - were located in a sort of no man's land, unprotected by the ramparts of either enclosure. All who have studied the passage have recognised that it is problematic, "fantastic" to use Walbank's term, and a list of the different opinions appears first in Marquardt and von

Domaszewski (1884, 405), then, updated and discussed at length in Fabricius (1932, 78-87). The crucial point is our understanding of the term *stratopedon*, and the resolution of the problem may be found by translating the word as "legion" rather than "camp" or indeed "army". Walbank is probably correct in rejecting Fabricius' argument that the section is a foolish interpolation and also in supporting Fraccaro's theory, further backed by Rawson (1971, 22) that the meaning is to envisage these stations at the centre of any oblong camp, and in the position as described by Polybius, where a single consular army encamped alone.

Polybius on several occasions specifies that streets were an important aspect of these encampments. At VI.27.5 he notes that a space fifty feet wide is left outside the line of the tribunes' tents,

"...to give room for the horses, mules and baggage of the tribunes."

Again, at VI.29.1, he notes that,

"...the whole system of *viae* ... (are) in fact like a number of streets...".

Section VI.30, describing the positioning of the allies within the camp, repeatedly stresses the provision of "street" space. All of this culminates in the revealing statement that,

"The whole camp thus forms a square, and the way in which the streets are laid out and its general arrangement give it the appearance of a town." (VI.31.10).

We are thus presented with a picture of a highly ordered installation, erected according to Polybius by reference to a repeatable formula, and dependent upon the abilities of specifically skilled individuals for its successful arrangement. Comparisons, in all these respects, may be drawn with the imperial camp as described by Hyginus (see below).

Most of the remainder of Polybius' discussion details duties, punishments and rewards (VI.33-39), though a further interesting section, for the purposes of this study, occurs at VI.40, when Polybius addresses the subject of breaking camp. Here the order of events is given as: take down the tents and pack them away; load up the baggage animals; and set off on the march. There is no mention of destroying the encampment, to ensure it could not be reused against the Roman army by its enemies at a later date. Whether this should be taken as read, or as an indication that no such precaution was

taken remains a moot point. One later source, Josephus, himself a man not unfamiliar with matters military, claims that all encampments were to be destroyed once quitted (*Bellum Judaicum* III.90), though the many upstanding remains of camps still visible throughout Britain suggest that even where prescribed, regulation and reality were often quite separate entities (see further below).

Polybius' concluding remarks are also interesting in that they reiterate a sentiment already expressed, and of interest for the possible light it sheds on the origin of the camp. At VI.41.10 he notes that,

"So that, as everyone knows exactly in which street his tent will be, since all invariably occupy the same place in the camp, the encamping somewhat resembles the return of an army to its native city. For then they break up at the gate and everyone goes straight on from there and reaches his own house without fail, as he knows both the quarter and the exact spot where his residence is situated. It is very much the same thing in a Roman camp."

Once again then the comparison between towns and camps is drawn, an issue which will be examined in more detail below.

The Polybian account then affords some important insights into the Roman camp of the Republican period. Clearly from the description provided it shares many characteristics with the camps which would have been employed by the Roman army in Britain in the Imperial period: regular geometric morphology, regular layout of streets, defensive entrenchments. Unfortunately Polybius says nothing in his discussion about the origins of this highly-organised camp, which gives every impression of being an institution, an entity with a long pedigree.

Therefore, having adduced the state of affairs in the middle of the second century B.C., it will now be instructive to investigate what may be gleaned about the origins, development and history of the Roman military camp in the years before the detailed written account of Polybius and the physical testimony of the works at Numantia.

The description proffered by Polybius is of a sophisticated, tried and tested scheme. The question is begged, how did the Romans reach this state of affairs; specifically, were they taught or did they develop the layout for themselves? One possible answer is provided by the Roman general Julius Frontinus, or at least by the work commonly attributed to him, the *Strategemata*. The passage in question runs thus:

"In ancient times the Romans and other peoples used to make their camps like groups of Punic huts, distributing the troops here and there by cohorts, since the men of old were not acquainted with walls except in the case of cities. Pyrrhus, king of the Epirotes, was the first to inaugurate the custom of concentrating an entire army within the precincts of the same entrenchments. Later the Romans, after defeating Pyrrhus on the Arusian Plains near the city of Maleventum, captured his camp, and, noting its plan, gradually came to the arrangement which is in vogue today." (IV.1.14)

In this opinion, Frontinus would appear to be supported by a famous, if less detailed, passage from the historian Livy (XXXV.14.8). Recording a supposed conversation between Scipio and Hannibal at Ephesus, during which the Carthaginian commander is asked to list his choice of the finest generals in history, Livy notes after the selection first of Alexander,

"To the next request, as to whom he would rank second, Hannibal selected Pyrrhus, saying that he had been the first to teach the art of castrametation."

The same encounter is described by Appian (*Syr.* 10), though the detail about camp-building is omitted. The late Roman writer Ammianus Marcellinus is yet another to remark on Pyrrhus' reputation as a camp builder of renown,

"...he (Pyrrhus) was most skilful in choosing suitable places for his camp." (XXIV.1.3).

A strong tradition thus clearly prevailed among the Romans, presenting Pyrrhus as both innovator and unwitting teacher of the Romans in the art of castrametation. If trustworthy, these remarks would be of the utmost importance in establishing the origins of the Roman camp. It would date the first rigorously laid out camps to the period of Pyrrhus' campaigns against the Romans in the early part of the third century B.C. (280-275 B.C.). The account however is directly contradicted in a passage from Plutarch, on this occasion writing specifically about Pyrrhus. The extract runs,

"...and when he (Pyrrhus) had observed their discipline, the appointment of their watches, their order, and the general arrangement of their camp, he was amazed, and said to the friend who was nearest him, 'The discipline of these barbarians is not barbarous.'" (*Pyrrhus* XVI.4-5).

It should first be acknowledged that all of the foregoing writers suffer from being far removed temporally from the events under discussion; Livy represents the nearest, at some 250 years removal. All will of course have drawn upon earlier sources, probably one upon the other cited here. Livy, the only one clearly not guilty within this chain of plagiarism, nevertheless specifically names his source as the historian C. Acilius, a Roman writing in Greek in the middle years of the second century B.C. This is however no guarantee of accuracy over the others, and indeed they would themselves have had access to Acilius and similar earlier source material.

When it comes to choosing between the two conflicting accounts, it is instructive to note that the chief criticism of Plutarch's account is that he is guilty of delivering platitudes in place of established facts (Nederlof 1978, 119-20; Leveque 1957, 323-4). Such an argument would see Plutarch as deliberately falsifying the truth, in order to afford the Romans the kudos attendant upon developing the concept of the organised military camp, at the expense of its "true" originator, Pyrrhus.

Another event during Rome's wars with Pyrrhus has been alluded to by several authors in an attempt to bolster the Roman cause. In this case, Pyrrhus is reported to have sent spies into the Roman camp, in order to gain information about its organisation and strength (Dionysus Halicarnassus XIX.11; Frontinus - *Strategemata* IV.7.7; Eutropius II.11.2; Zonoras VIII.3.6). This scenario is dismissed by both Leveque and Nederlof as a *topos*, citing virtually identical stories relating to Greek spies in Xerxes' camp at Sardis (Herodotus VII.146), and the Carthaginian spies in the Roman camp under Scipio (Polybius XV.5.4-8; Livy XXX.29.2-3). Yet Plutarch himself is not accused of relying upon *topoi*, but of deliberate fabrication. Indeed if anything the passage quoted by Ammianus has a stronger hint of the *topos* about it. The idea of a general personally choosing the ground upon which the army should camp is a recognised stock remark among writers of the classical period, and is probably used, among others, by Livy of Philopoemon (XXXV.28.1-9) and Tacitus of Agricola (*Agricola* 22). To confuse matters further, Ogilvie and Richmond (1967) have stated their belief that the passage on Pyrrhus written by Livy is a *topos*, and in truth it must be said that such a suggestion does not seem too unlikely.

The circle is thus completed and it proves little more than that the documentary sources are both problematic and open to differing interpretations. A general feeling nevertheless emerges that the Romans at least perceived their debt to be to the Greeks (*pace* Plutarch). From this point onwards however the development of the camp as a fully organised system seems to be entirely of the Roman's design. Livy provides

potential evidence for a fully developed Roman camp as early as 200 B.C., when he records Philip's extolation of the virtues of Roman castrametation,

"...and seeing the Roman camp which lay at his (Philip's) feet, it is said that he admired its whole arrangement and each section allotted its own place, with the rows of tents and also the well placed streets between..." (XXXI.34.8).

This description begins to approach the characteristics which we would normally associate with Roman castrametation. Although the familiar danger exists, that Livy may simply be projecting his contemporary understanding of military construction techniques into his version of the past, the date is not that much earlier than Polybius' account; perhaps then some credence may be attached to it.

Such a scheme then would allow that the Romans had a fully developed system of military castrametation in operation by 200 B.C., having learned of it three quarters of a century previously from their encounters with Pyrrhus. The problem at this point is to attempt to substantiate this theory by recourse to other sources. If Pyrrhus was himself influenced in any way, it is most likely to have been by the Macedonians. Is it then possible to find any evidence of Greek military precursors of the Roman military camp?

Such a search is worthwhile, but before embarking upon it there must be a clearer conception of what precisely is to be sought; i.e. what elements or entities may be identified as representing antecedents to the Roman system. This in turn presupposes that we know what the Romans understood to be the defining characteristics of a quintessentially Roman camp. If truth be told, both Livy and Frontinus are far from specific in detailing precisely what they mean by a camp, and the former, at least, provides information at several points throughout his narrative which appears to be intrinsically contradictory. A search through the pages of Livy's Histories reveals countless mentions of *castrum* (see also chapter 4), many related to the earliest periods in Roman history, others closely contemporary with his own time, and spanning the 700 years between, without ever providing a clear indication that a change in design, practice or thought took place, whether gradual or immediate. This being so, are we to deduce that Livy recognised a qualitative difference when he remarks that Pyrrhus was the first to teach the art of castrametation? The implication, though it is a matter beyond proof, is that a change in practice did occur, intimately connected with the way in which the construction of camps was approached. By extension too, Livy's accounts of earlier camps, despite often being described as possessing gates (X.32.8-9;

XXXIV.46.8; XL.27.1-7), internal roads (XXV.25.8), ramparts (VI.24.6; X.20.11; XXI.59.6; XXIII.26.11; XXIII.47.3; XXV.7.7; XXV.14.6), ditches (XX.13.9; XXV.14.6), palisades (III.26.3; IV.29.2), in short many of the accoutrements associated with the Roman camp of his own day and later, must either represent anachronisms within their allotted historical contexts, or elements which in themselves are not considered essential to those processes attributed to the ingenuity of Pyrrhus. Frontinus' account is much more specific, insofar as he draws attention to the element which he considered set Pyrrhus' camp apart from that of the Romans at this time. He remarks that prior to Pyrrhus all military camps were haphazard affairs, while Pyrrhus was the first to bring together the entire army within a single set of, presumably specially constructed, defences. However, if this is the distinguishing feature, it contradicts both the early accounts of camps provided by Livy, and more importantly contradicts the implication of Livy's statement that the Pyrrhic development amounted to an entire art, rather than an essentially simple, physical development. Since the matter is incapable of definite solution, it will be necessary in delving into the Greek written sources, to search for two things: precursors for encampments within a set of defences and precursors for rigorously laid out military camps.

Following the train of the argument started above, the obvious starting point is to return to Pyrrhus. He was one of the Molossian kings of Epirus, then subject to the kingdom of Macedonia. Pyrrhus personally established a monarchy in Epirus, based on the Hellenistic model, then turned his attention towards gaining it independence from the Macedonians, this in the very early years of the third century B.C. His potential influences are thus clear, in terms of conducting war in general, army organisation and specifically castrametation. Clearly if familiar elements of castrametation could be traced in the military camps of the Macedonians, or even more broadly the Greeks, then the idea that the Romans owed a debt to Pyrrhus would gain some additional credence.

In terms of the rigorously internally organised military camp at least, this proves to be a somewhat unrewarding queSt Indeed in terms of any sort of military camp, there is evidence to suggest that a search for Greek influence is something of a blind alley. The prevailing opinion among modern scholars is summed up by Daremberg and Saglio thus:

"*...il resulte que les Grecs ne se donnaient generalement pas la peine de creuser un fosse auteur de leur camp; mais leurs ancetres ne faisaient pas de meme.*" (1877, 940).

If we turn to the ancient sources for an opinion, Polybius is certainly unequivocal. With regard to the Roman manner of laying out a camp, he concludes a lengthy excursus by stating that,

"The Romans pursue, it seems to me, a course diametrically opposite to that usual among the Greeks. The Greeks in encamping think it of primary importance to adapt the camp to the natural advantages of the ground, first because they shirk the labour of entrenching, and next because they think artificial defences are not equal in value to the fortifications which nature provides unaided on the spot. So that as regards the plan of the camp as a whole, they are obliged to adopt all kinds of shapes to suit the nature of the ground and they often have to shift the parts of the army to unsuitable situations, the consequence being that everyone is quite uncertain whereabouts in the camp his own place or the place of his corps is. The Romans on the contrary prefer to submit to the fatigue of entrenching and other defensive work for the sake of the convenience of having a single type of camp which never varies and is familiar to all." (Polybius VI.42.1-5).

A specific example is cited by the same author at V.20.4-6.

"On arriving at a village called Glympeis,...they (the Messenians) encamped near it with an unmilitary lack of precaution; for they neither protected their camp with a trench and palisade, nor did they look round for a favourable spot, but relying in the simplicity of their hearts on the goodwill of the inhabitants pitched their camp just under the wall. Lycurgus, when the arrival of the Messenians was announced to him, set out with his mercenaries and a few Lacedaemonians, and reaching the place just as day was breaking, made a bold attack on the camp."

Polybius may of course be referring to the situation as it pertained at the time he was writing. But if it is true in a wider sense, then to believe the role of Pyrrhus in the development of the military camp would require us to believe him to be an extraordinary innovator, there being a general feeling that the Greeks knew little of castrametation. Consultation of the other written source material for pre-Pyrrhic Greek camps is little more encouraging.

The study of Greek military camps appears sadly to have been largely ignored, at least in any detailed sense, by both ancient and modern commentators. Pritchett, in his monograph on the Greek state at war (1974), bemoans the fact that the only detailed

work on the subject at the time of writing was to be found in Anderson's "*Military theory and practice in the age of Xenophon*". Of the ancient historians, there is knowledge of a treatise by Aineias on camps which has not survived, and of a chapter in Onasander entitled "*Peri tou poiein charaka*". Pritchett effectively scoured the original sources in search of mentions of Greek encampments, wrestling also with the problem of the terminology.

With regard to the recognition of any form of regularised Greek camp, there are few possible candidates. References, referring to contexts spread over many centuries, provide a varied picture of the practices of different Greek armies. The most regular sounding camp is mentioned by Homer, when he describes a naval camp with numerous intersecting streets and an *agora* capable of holding the entire Greek army (Iliad X.66), this defended by a ditch and palisade. The encampment additionally served to defend the beached ships, and around its perimeter boasted high, two-leafed gates, wooden towers at intervals and battlements. The living quarters have been interpreted, by Pritchett, to be solid wooden structures. This is, quite clearly, a great deal more permanent than the Roman military camp under study here, but the basic premise underlying it does seem to have rather more regularity and planning than Polybius' general statement would allow.

Xenophon too has a description of a camp suggestive of orderliness and planned layout,

"For wherever the great king encamps, all his retinue follow him to the field with their tents, whether in summer or winter. At the very beginning Cyrus made this rule, that his tent should be pitched facing east; and then he determined first, how far from the royal pavilion the spearmen of his guard should have their tent; next he assigned a place on the right for the bakers, on the left for the cooks, on the right for the horses, and on the left for the rest of the pack animals. And everything else was so organised that everyone knew his own place in the camp - both its size and its location."
(*Cyropaedia* VIII.5.2-3).

But beyond these two accounts the impression is of far less rigorously constructed and appointed installations. Another reference culled from the Iliad speaks of an entrenchment comprising a ditch (*taphros*), a rampart (*teichos*) and a palisade (*skolopai*) (IX.349-50). Plutarch records that Iphicrates, the early fourth century B.C. Athenian general, defended his camp with palisade and ditch (*Mor.* 187A), while by inference, a camp defended by a stockade of Athenian construction is mentioned by

Thucydides (VI.64). Xenophon relates that the Thebans often felled trees and used them as a defensive barrier (*Hellenica* VI.5.30), an observation apparently backed by Polyaenus (*Strategemata* II.1.25). Xenophon also credits the Odrysians with palisade construction at their camps, evidently built up to about the height of a man (*Hellenica* III.2.2-5); this latter reference is datable to 399 B.C.

However it is clear that the greatest amount of information regarding the camps of the Greeks is to be found in the pages of Polybius. And indeed it is here that the answer to the question of the nature of Macedonian castrametation may be obtained. Polybius, in discussing Philip, notes that the Macedonians were most industrious in building ditches (*taphreiai*) and palisades (*charakopoiiai*) (V.2.5), the unwritten implication being that the Greeks were not. The remark concerning the Macedonians appears to be bolstered by the account of Aischines (*Ktesiphon* 140), during his telling of how Philip constructed a *charax* around Elateia after he had seized it. Pritchett indeed states that,

"...we learn that the Makedonians (sic) were experienced at making entrenchments and palisades" (1974, 143),

though he cites as evidence only the two passages just mentioned.

Further information may be gleaned from Polybius' passage regarding the type of stakes utilised by both Greeks and Romans (XVIII.18). This has been copied and augmented by Livy, attributing the same information to both Greeks and Macedonians, though clearly elements of doubt must attach to the veracity of this additional detail (XXXIII.5.5-12). Pritchett's conclusion from the foregoing is that third century B.C. Greeks would have been used to employing palisades as protection for encampments.

In general terms then, the source material reveals little more than the most generalised observations on camps and their layout, Polybius being the notable exception. Pritchett is content to sum up by saying that the concept of palisade building may be deemed to have been practised by the Greeks from the time of Homer onwards, and would have been much more common than ditch construction. He further suggests that in terms of taking care over camp construction, the Macedonians would seem to have been more judicious than their Greek neighbours.

Since the publication of Pritchett's monograph, any work dealing with the subject of camps has tended to lack detail on such matters (e.g. Lawrence 1979). The initial

question thus remains unresolved: is there a link between the appearance of Pyrrhus in the southern Italian peninsula in the early third century B.C. and the Roman practice of castrametation? The consensus seems to be that the Macedonians may have had a fairly rigorous approach to camp-building, and Epirus might easily have been influenced by them. The point cannot however be pressed further than this. On the face of it, if Greek or Macedonian camps had been as well organised and carefully planned as the Roman camps of Polybius' time and later, it is surprising that no hint of such a state of affairs appears in the many Greek sources of the time. One would surely be stretching credulity too far in believing that elements such as palisades, ditches and rampart construction were unknown to the Romans from the earliest times. Thus if an influence is to be found, it should be in terms of overall, regularised plan and internal arrangements. Such influences cannot be demonstrated with any degree of confidence. It is therefore worth turning attention towards other possible leads.

One of the most common assumptions to be found in the literature, both ancient and modern, is that in both urban and military matters, as well as in other areas, the Romans owed a considerable debt to the Etruscans. Ogilvie sums up the feeling thus,

"The Romans thought of the Etruscans as great town-planners who laid out their cities on a carefully surveyed grid-system, and with precise attention to religious protocol, just as their military engineers attributed the formal design of the Roman camp to the same Etruscan model." (1976, 30).

Scullard presents a similar scenario,

"The Romans, however, believed that their earliest settlement, *Roma Quadrata*, had been laid out in the same way as their later colonies and camps by a process which went back to Etruscan augural methods." (Scullard 1966, 75),

as does Sherk,

"Roman surveying can be traced back to very early times and almost certainly owed much to Etruscan institutions." (Sherk 1974, 544).

Leaving aside for the present the fact that these statements appear to contradict the opinions of Frontinus and Livy, it is worth examining the evidence for and against this

belief in rather more detail, to ascertain what level of truth may be found to exist there, and thus to attempt to shed further light on the origins of the Roman military camp.

Just as there is documented evidence in the Roman belief in Pyrrhus as the "teacher" of castrametation, so there is documentary evidence of a Roman belief in their general debt to the Etruscans. Plutarch, to take just one example, relates that the very foundation of Rome itself depended upon Etruscan influence, stating that Romulus was advised by the Etruscans and followed their methods. The knowledge of these early Etruscan practices was preserved through their documentation by later Roman writers such as Verrius Flaccus, a distinguished Augustan scholar whose *de significatu verborum* survives in the epitome of Festus Grammaticus. Here details are presented of the *rituales* prescribed by the ancient books of the Etruscans, intended to cover procedure in all manner of circumstances, including the foundation of cities and the organisation of the army (Festus - *De Verborum Significatu* 358).

The generally accepted sequence of events appears to be as follows: the Etruscans evolved a methodology for town planning, which involved the foundation of towns according to a systematic scheme, both highly ritualised and rigorously organised, the latter based upon a grid-system centred on two axes. As Roman power grew, eclipsing that of the Etruscans themselves, they incorporated, developed and augmented Etruscan traditions, to the point where a distinctive Roman style of surveying is discernible, first clearly evident in the *coloniae* of the fourth and third centuries B.C.; thereafter Roman military surveyors adopted the scheme utilised in the planning of towns, and developed it for use in the setting out of military encampments.

Unfortunately a closer inspection of the evidence for this chain of "events" suggests that the reality was somewhat different. We may happily accept that the Romans believed in, and indeed fostered, the idea that they learned their town-planning, and ultimately camp-building, skills from the Etruscans. But this, as was also clear with respect to their beliefs about Pyrrhus, does not amount to proof in itself. Indeed the two beliefs are contradictory and cannot co-exist, at least in such bald terms. The "evidence" for an ancient Etruscan rule book on town planning is furnished by Roman writers, who recorded the, by then antique, Etruscan laws relating to town-planning. The *disciplina etrusca* took the form of the *libri tagetici*, a group of books containing the religious doctrine ascribed to the mythical child-like law-giver Tages, one set of which, the *libri rituales*, reputedly contained the rules which governed Etruscan town-planning (Festus 358L). Although the *disciplina etrusca* is now lost to us in detail, aspects of it have been preserved by Roman and Greek writers. It is known to have

prescribed, among other things, rules for the establishment of the *pomerium*, a highly ritualised process by which a sacred furrow was created, delineating the extent of the town to be constructed, including the lifting of the ploughshare to create gaps for the gates, followed by numerous religious formulae to be carried out in consecrating walls, gates, temples, etc. According to Servius, it also demanded that towns be furnished with three gates and three main streets (*Aen.* I.422). Sketchy as the details may be, it is beyond doubt that the Etruscans did indeed have a prescription for town planning.

Clearly too, there was a belief that a set of rules governing land surveying (*limitatio*) also formed part of the Etruscan prescriptions for the creation of towns; Varro is the principal source of information (*Lingua Latina* VI.57). *Limitatio* was a quite distinct entity from town planning, being concerned with the regular division of land outside the towns themselves, though it was similar in so far as it involved formulaic measurement inextricably linked to well defined religious protocol; Varro once again provides important information on the subject (*Lingua Latina* VI.53). The Etruscan *limitatio* is often considered to have been the forerunner of the Roman methodology of land surveying, which reaches its zenith in the centuriated fields which may still be made out through the medium of aerial photography across the Empire. The debate on this matter though need not concern us here.

This then is the literary evidence for an Etruscan influence on Roman town planning. However when we examine the archaeological evidence for early Etruscan towns, even though such material is relatively scant, there is little to suggest that these early foundations adopted a regularised plan (Boethius & Ward-Perkins 1970, 16). In fact the evidence points to the gradual development of towns, in a piecemeal fashion, in common with other Mediterranean towns of this vintage, including even Athens and indeed Rome itself (despite Plutarch's foundation fairytale and the whole *Roma Quadrata* myth). As far as can be made out from the limited information available, the older, irregular Iron Age villages within the Etruscan domain were slowly replaced by wooden or mud-brick buildings constructed on a square plan (see e.g. Ward-Perkins 1959, 38-79, esp. fig. 5) and set out along narrow, sinuous streets.

By and large the oldest Etruscan towns were established on hilltops, sited to take best advantage of the natural defensive properties such locations offered. Layout, size and shape were all predetermined by the characteristics of the individual hill; Veii provides one of many suitable examples (Ward-Perkins 1959). Indeed, as Boethius and Ward-Perkins state,

"...in our archaeological evidence we cannot trace any master plan or fixed quadrangular or circular perimeter heralding the Roman four-sided *coloniae* and *castra* among the oldest Etruscan towns or in Rome itself." (1970, 56).

Why then should the Romans believe in this debt to the Etruscans? One suggestion is that the Romans deliberately sought to enhance and embellish their links to the Etruscans for the perceived kudos which such an association would bring. Nissen (1869), for example, challenged the picture painted by Varro and others as sheer invention, arguing instead that the origins of *limitatio* were ancient Italic. This modern interpretation, interestingly enough, gave rise to a corresponding modern myth, though it is unlikely if Nissen lived long enough to appreciate the irony. For as a direct consequence of his proposal, on the Italic origin of *limitatio*, the conviction grew in the minds of an increasing number of scholars, that the *terremare* settlements of the Italian Iron Age were the direct antecedents of the Roman military camp. These were sub-rectangular enclosures, with an earthen bank surrounding, superficially similar in form to the much later Roman marching camp. The belief, first propounded in the nineteenth century, still had followers well into the present century (Peet 1909; McCartney 1917, 163-5), so much so that Sir Ian Richmond felt it necessary to debunk the notion in his entry on camps for the first edition of the *Oxford Classical Dictionary* (Cary *et al.* 1949, 162). Even so, the perception that the Romans deliberately fabricated their debt to the Etruscans persists (see for example Castagnoli 1971).

While there is no reason to reject the contention that the Romans actively encouraged links to their Etruscan forebears, there is enough evidence to suggest that they had some justification for doing so. Some Etruscan settlements do possess the regular layout which was to become a characteristic of both Roman settlements (towns, and fields, in the form of centuriation) and Roman military installations. A good example is the town of Marzobotto, where aerial photographs of the site still reveal very clearly the grid-system upon which the whole settlement is arranged (Arias 1953, 31-41; Mansuelli 1963, 44-62). This however has a much later foundation date, usually reckoned at c. 500 B.C. (Boethius & Ward-Perkins 1970, 60; Ogilvie 1976, 30; Scullard 1966, 76) and its design seems definitely to have been influenced strongly by Greek practice.

Indeed this suggestion is stated boldly as fact by Dilke, who contends,

"It is thus increasingly obvious that Greek surveyors...were extremely practical and in Italy passed on their knowledge to the Etruscans and Greeks." (1985, 88).

And it is with this statement that the disparate strands of evidence in this detective story perhaps begin to come together to an acceptable resolution. Greek influence on the Etruscans is not, of course, a concept first propounded by Dilke. As early as 1878 Beloch had noted evidence of ordered town planning in the Greek colonies of Campania, and sought to stress the influence this would have had upon the peoples of the Italian peninsula (Beloch 1878), largely in an attempt to counter Nissen's theory of an Italic origin (already noted above). By the time of Boethius and Ward-Perkins' magisterial survey of the evidence for Etruscan and Roman architecture, they could highlight with confidence, by means of a plethora of examples, the case for Greek influence on both Etruscan town planning and land surveying (1970, 60). In fact regularised town plans may be recognised in a variety of seventh and sixth century B.C. Greek colonies in southern Italy and Sicily. Smyrna represents a good example (Cook 1959, with an "imaginative reconstruction" of the town plan in fig. 3, 15; *ibid.* 1962, 70-4), where a marked design of regular streets was imposed upon the irregularly laid out old city at some point in the seventh century B.C. Cook noted that, "This expansion...indicates a planned development of the city and improvement in living conditions." (Cook 1959, 15-6).

Other examples, naming only a few, include Selinus, Alcragas, Paestum and Metapontum (Woodhead 1962, 21-3).

Greek town planning is conventionally believed to have been formalised and perfected under Hippodamus of Miletus, though since he flourished in the fifth century B.C. it is clear that the organisational concepts visible in the colonies listed above, and at other sites, both Greek and from further afield, when viewed in broad terms, predate him by quite some considerable time. By this is meant that, while the distinctively orthogonal layout characteristic of the Hippodamian scheme may be absent from many of these early sites, enough features exist to suggest that the basic concepts may be traced back further into the paSt Even among the Etruscans there are indications of regular town plans prior to Hippodamus. Marzobotto, mentioned above, and displaying a highly regularised plan, has been dated to c. 500 B.C., while the Graeco-Etruscan settlement of Spina, though erected on piles and served by a network of canals rather than streets, is equally regular in plan and also dates to c. 500 B.C. (Alfieri & Arias 1958). The Greek colonies in Italy and Sicily listed above predate Hippodamus by even longer.

The essence of the foregoing is that the concept of a regularised town plan, as represented by straight streets laid out in parallel lines on two axes to form a grid pattern, had been in place concurrent with the Etruscan civilisation at a time when the latter were not practising such methods. While it is possible that the Etruscans possessed some intrinsic knowledge of town planning - if for example they represent migrated Lydians, who had brought such skills with them to Italy - it is clear from the archaeological evidence that the best examples of rigorously laid out Etruscan towns occur late in their dominant period, by which time they would certainly have come into contact with the Greek colonies in Italy. Greek influence must be accounted an important factor in the development of the planned town. Yet it would be wrong to attribute the development of this concept to the Greeks alone. Evidence exists to illustrate the presence of similar traditions in a variety of civilisations around the eastern Mediterranean at least simultaneous with, if not earlier than, the earliest known Greek examples. Hence it is that the phrase "common Mediterranean culture" is frequently invoked by modern scholars as a means of explaining the origins of town planning. It will suffice here to mention just two instances by way of illustration. The two selected are Assyria and Egypt, both of which as long ago as the nineteenth century were recognised as possessing common elements in their settlement patterns.

Regular town planning may be seen to have been practised in Assyria from a very early date, by recourse to both literary and archaeological evidence. One need look no further than Herodotus for confirmation, since he records of Babylon that it was, "...a vast city in the form of a square", and later that,

"The main streets and the side streets which lead to the river are all dead straight, and for every one of the side streets or alleys there was a bronze gate in the river wall by which the water would be reached." (I.179-80).

Ward-Perkins has interpreted this passage as demonstrating the existence of a grid-plan street pattern in Babylon (1974, 11). The concept of the Greeks taking influences from the Assyrians is a recurring one; Ogilvie for example attributes the introduction of heavy infantry armour to the Greek soldiery, around 750 B.C., at least in part to Assyrian influence (1976, 44-5). Even more interesting is the evidence that the Assyrian army employed camps during their campaigns, information which may be adduced from the bronze reliefs on the gates of Shalmaneser (King 1915). Here both rectangular and circular encampments may be seen (rectangular - Pl. VI, band I,6; Pl. XII, band II,6; Pl. XVIII, band III,6; Pl. XX, band IV,2; Pl.XXX, band V,6 (lower

register); Pl. XXXVI, band VI,6; Pl. XLII, band VII,6; Pl.LI, band IX,4; Pl.LIII, band IX,6; Pl. LIV, band X,1 (upper register); Pl. LIV, band X,1 (lower register); Pl. LX, band XI,1; Pl. LXIX, band XII,4; Pl. LXXI, band XII,6; circular - Pl. I, band I,1; Pl. XIII, band III,1; Pl. XIX, band IV,1; Pl. XXX, band V,6 (upper register); Pl. LXXII, band XIII,1; Pl. LXXIII, band XIII,2.), and since the camp always appears to be the point of departure, they may reasonably be considered as campaign camps. It is also clear that these are camps as opposed to cities. The latter may be recognised in Plate XIII (Tyre), Plate XVI (Khazuzu), and in other examples.

Regular planning in the layout of a settlement may also be seen at a considerably earlier date in Egypt. Herodotus again supplies literary testimony, when he describes the situation there as one in which land was divided up into square plots for ease of management and for fairness' sake (II.109). One of the earliest is Kahun, the city of the workers employed in the construction of the pyramid of Sesostris II, and dating to around 1890 B.C. Here, small regularly laid out barracks are set along parallel streets, all of which intersect a main street at right angles, the latter forming the spine of the settlement, and leading to the gates (*Enciclopedia dell'arte antica e orientale* 1958-66, vol. 4, 287 & fig. 340). It is unlikely that the Greeks were directly influenced by this or other similar Egyptian worker's cities (e.g. the later Tell el-Amarnah, dated c.1370 B.C.)(Ward-Perkins 1974, 11) and thus a strong case may be seen to be emerging for the broadly simultaneous, yet unconnected, practice in many parts of the eastern Mediterranean, of laying out towns according to a rigorous geometric design, based upon intersecting, parallel streets.

If then we begin to think of the process by which ideas were spread and developed as a symbiotic arrangement, rather than as a chain of events, with different societies both developing independent systems, while also taking note of and incorporating broadly contemporary developments in regions with which they were in contact, either through trade or through war, it will far better explain the myriad, often confusing and sometimes contradictory statements and beliefs which existed in antiquity with regard to the origins of organised town planning and land surveying. Such a scheme will allow that both the Etruscans and the Greeks played a role in influencing the Romans, and that Egyptian, Assyrian and other societies' ideas would have contributed to the melting pot of the Mediterranean. Not so much a "common Mediterranean culture", as the peculiar geographical and political nature of the eastern Mediterranean in the first millennium B.C. provided a complicated but effective network for the spread of ideas.

As for Pyrrhus, it is conceivable that he evolved a specifically military application of these techniques for use on campaign camps, which was seen, admired and ultimately incorporated, with appropriate alterations, by the Romans. Such a scheme also allows for an independent Roman tradition to have evolved, inspired to some extent by the Etruscans, themselves influenced in turn to some extent by the Greeks. There is no doubt that one cannot follow a path back to the origin of the military camp, for neither does such a single path exist, nor does such a specific, intractable source.

One problem however yet remains. Accepting that the Roman camp has diverse influences, geographically, culturally and methodologically, there must come a point in time at which a recognisably Roman form of castrametation is in regular use. The Frontinian and Livian accounts would require this to have occurred no earlier than the third century B.C., yet there is a significant body of opinion which would see clear indications of an intrinsically "Roman" castrametation in the layout of the early Roman colonies.

Jones (1975) has examined the evidence for Roman military defences prior to the Claudian invasion of Britain in A.D. 43. Noting that, "In fact, the practice of constructing fieldworks and the development of Roman defensive systems formed part of a long tradition, whose origins lay in early Republican times.", he proceeds by contending that the best evidence for early defences is furnished by the early military colonies, together with the siege camps at Numantia (Jones 1975, 1, 8-9). In this respect he is in line with the groundswell of modern scholarly opinion, though it is interesting to note that Grimal presumed the development of the idea to have worked in reverse. Noting the artificiality of establishing a town from scratch on unoccupied land, he states that this was how military camps were set up and thus, "in this way, colonies seem to be simply a development of the camp system." (Grimal, as translated and edited by Woloch 1983, 11). To be fair though, Grimal does later state that a purely military derivation for the regular layout of the colonies is a gross oversimplification of reality.

Jones is more circumspect in his remarks about the origins for Roman military defensive practice, subscribing to the belief in a mixed influence, part Etruscan, part Greek, and partially also drawing upon the multifaceted influence of town planning. Certainly by the fifth century B.C., at a point in time when Rome was emerging from Etruscan hegemony and beginning to expand its control across Italy, the *coloniae* which it set up displayed regular town planning. This indeed is the most persuasive of arguments, accommodating most of the potential influences in the one feature.

Further, it is pertinent to note that the *coloniae* performed both a civil and a military purpose and did indeed share various basic characteristics which were later to be found in the camps: a regularly laid out, intersecting street pattern; a road encircling the settlement shadowing the line of the defences; and of course the defences themselves, in the form of rampart, wall and external ditch, though of course walls formed no part of the temporary structures used by the army. These elements may be found in many *coloniae*, including Alba Fucens, Antium, Cosa and Pyrgi, though the late fourth century B.C. *castrum* at Ostia is perhaps the best example. Here, a rectangular area of some 5.5 acres was enclosed by four walls constructed from tufa blocks, each bearing a gate at its central point (assuming the unseen north side conforms to the pattern established for the other three) (Meiggs 1960, 22-3). Meiggs indeed specifically contends that "the colony is thus seen as little more than a strongly fortified camp". This observation is borne out by the classical sources; Appian categorically states that these sites were intended to serve as strongholds (*Bellum Civile* I.7), a contention backed by other classical authorities (e.g. Servius - *Ad. Aen.* I.12), and implicit in the text of Livy, who regularly refers to the inhabitants of *coloniae* in military terms, describing them as *pedites*, *equites*, *centuriones* and the like (e.g. XXVI.36.12; XVII.50.6; XXXI.49.6; XXXIV.56.8; XXXVI.2.9; XXXVII.47.2). Salmon (1969, 15) has stated that the strategic military function of *coloniae* was in fact their chief *raison d'etre*, in this respect drawing a sharp distinction between the Roman and Greek versions, the dynamic for the latter being principally private enterprise. Certainly there seem to be too many similarities between *coloniae* and temporary camps for clear links not to have existed between them: the rectangular shape, each wall furnished with a gate, the peripheral road and intersecting grid-iron pattern of streets, all *sine qua non* with respect to *coloniae*, could easily be a description of a marching camp, *mutatis mutandis*. Salmon was impressed by the similarities, observing that the excavated remains of several *coloniae* looked like Roman camps, "which in effect was what they were" (1969, 27); he found the links even more marked in the case of Antium, which was furnished with a turf perimeter wall as opposed to the more usual stone.

Concluding the search for the origin of the camp, the quest must be deemed to have been unsuccessful; it is simply too well buried in the murky past and though many potential clues exist, it would take a better detective than the current author to find the correct solution amidst a variety of red herrings and blind alleys. Some comfort can be taken from the fact that other and better scholars have also tried and failed in this endeavour, or simply decided that the search was not worth the effort. Richmond for example declared that: "It (the temporary camp) is associated with the earliest annals

of Roman history...but its origins are doubtful." (Cary *et al.* 1970, 199). Harmand was even more blunt in his summation: "*Les origines du systeme romain des camps restent obscures.*" (1967, 99), as indeed were both Jones: "It is...difficult to trace accurately the origins of the Roman camp system." (1975, 9), and Keppie: "Precisely when - or from whom - the Romans learnt the art of camp building is not clear." (1984, 38).

More secure ground is provided by information pertaining to the late Republic and early Empire, where archaeological evidence can be called upon to provide concrete examples of early Roman military installations against which the literary evidence may be compared. The Roman installations associated with the investiture of Numantia have already been noted above, and their broad contemporaneity with Polybius' description of the Roman camp acknowledged. Other, later Republican camps are also known in the Iberian peninsula, some of them commonly dated to the first century B.C. At the same palimpsest of works at Renieblas, near Numantia, the large, angular-cornered camps, numbered IV and V by Schulten, are often associated with Pompey's campaigns against Sertorius in 75-4 B.C. (Jones 1975, 12), though Keppie warns that there is insufficient evidence to support this case and prefers a date in "perhaps the 80s" (1984, 73). Further west, the famous camp at Caceres in Lusitania has been linked to the campaigns of Metellus Pius in 80-79 B.C. (Schulten 1932, 334), this time accurately, confirmation having been provided by subsequent examination of the ceramic evidence (Keppie 1984, 73).

France remains the best location for surviving archaeological remains of the campaigns of Julius Caesar, his forays in other parts of the empire, still sadly including Britain, having yet to be recognised in the form of earthwork or cropmark sites. Caesar's reputation as a military maverick appears also to have extended to his camp building activity, certainly if his own accounts are to be believed, and this is interesting in terms of the development of the camp for it implies that there was a well established norm from which he could deviate, thus rendering his actions worthy of remark. It is also important in a more general sense, since it illustrates that whatever the rule books on castrametation said, it was always possible for the army to step outside its parameters, if and when circumstances called for such action or perhaps even simply at the whim of the commanding officer. At the same time it renders the data available on camps related to Caesar of questionable worth in trying to trace the development of the device, since it will be difficult to prove whether or not any given aspect represents the norm or the exception to the rule. Nonetheless, the pages of the *de Bello Gallico* and the *de Bello Civili* possess an abundance of data of relevance and interest, covering aspects such as the selection of sites, the construction and composition of defences,

the arrangements employed at entrances and more abstract information such as the reasons governing the employment of particular types or weights of defences. Of especial interest are Caesar's comments on issues such as the reuse of native hillforts (*de Bello Gallico* III.1), a procedure which excavation in Britain has shown to have been by no means rare (e.g. Hod Hill (Richmond 1968), Brandon Camp (Frere 1987c, 49-92), Hembury (Todd 1984, 251-68); for a general paper, see Todd 1985, 187-99), while his remarks on the use of ditches - the more employed, the more permanent the work (*de Bello Gallico* VII.72; VIII.9) - appears to be borne out by the experience of examination of Roman military sites in Britain (see further chapter 6). A note of caution is however sounded by Jones, who having related Caesar's written testimony notes "Archaeological exploration has shown the reality to be neither so substantial nor so uniform" (Jones 1975, 13). The dangers of treating literary testimony with too much reverence is thereby amply demonstrated.

It is in the Rhineland sites datable to the campaigns of the Julio-Claudians that archaeological evidence first attests clearly permanent works, in the process allowing a distinction to be drawn between temporary and permanent sites. From this point onwards it is to Britain that one must turn for the best evidence relating to temporary camps. The issue of definition is discussed in more detail in the following chapter; to conclude the present one, it will be instructive to examine the sources for the Imperial period, particularly the two writers most commonly invoked to supplement the testimony of archaeology, Hyginus and Vegetius.

There is a tendency for classical authors to focus on the same few issues with regard to camps, no doubt since these were felt to be the aspects of greatest interest to their readership, or in order to make or enhance a particular point. Thus, illustrating the toughness of a particular general, or the terrible conditions endured by the soldiery, one reads time and again of the hardships of living in tents during winter manoeuvres (Tacitus - *Annales* I.30; Suetonius - Iulius 65; Pliny - *Pan.* 12; Herodian VI.7.6-7; *SHA* - Hadrian 10.2; Ammianus XIX.11.4) or while engaged in training in general (Tacitus - *Annales* XIII.35; Fronto - *Princ. HiSt* 11; Tertullian - *Ad Mart.* 3; *SHA* - Avid. Cass. 6, 1-2). Training seems to have been a popular subject for writers to comment upon, thus we have for example Seneca delivering his own opinion of military manoeuvres (*Ep.* XVIII.6) and Frontinus remarking on route marching and camp building as suitable tasks for training exercises (*Strategemata* IV.1.2). We even have the thoughts of two separate emperors on the subject; Hadrian's *adlocutio* to the soldiers at Lambaesis in Numidia, dated A.D. 126, preserved in a surviving inscription (*CIL* 18042 = *ILS* 2487), and Severus' speech to the troops in Upper Pannonia, dated

A.D. 193 (Herodian II.10.5). Tacitus even records a troop rebellion against being forced to build practice camps, dated A.D. 14 (*Annales* I.35).

From the archaeologists' viewpoint, a few remarks stand out as being potentially of special intereSt Josephus has a fairly lengthy excursus on the construction of camps during the Jewish War (*Bell. Iud.* - III.76-84) and later makes the oft repeated statement that the army destroyed its camps on departure, to ensure that it could not be reused by the enemy and also because it was simpler to build a new one from scratch (*Bell. Iud.* - III.90). *SHA* (Pescennius Niger 10) records that each *contubernium* in camp had its own hearth, suggesting if both true and applicable to what we regard as temporary works that some remains should regularly survive in camp interiors for archaeologists to study. Tacitus, recounting the German campaigns of Germanicus, records the Roman camp as being defended to front and rear by earthworks, and on the flanks by palisades (*Annals* I.50), again (recalling Caesar's testimony) hinting that the construction of camps need not always have been so formulaic as is sometimes imagined. By and large however, it is two sources which are most often cited by modern scholars when utilising literary testimony in the study of Roman temporary camps: Hyginus and Vegetius.

The two texts in question are the *de Munitionibus Castrorum*, by Hyginus and the *Epitoma Rei Militaris*, by Vegetius. The former writer, and surely the earlier of the two, is a shadowy figure who continues to provoke much scholarly debate, regarding his name, his dates, the title of his work and even his qualifications as an appropriate author of such a text. Of his name and the title of his work, Lenoir (1979) is certainly correct in stating that we know neither with any certainty; both 'Hyginus' and the alternative form of title, *'de Metatione Castrorum'*, are much later designations allocated by Medieval copyists, and both are far from secure. There are at least two known Latin writers named Hyginus, and it is possible that one of them penned this work, though close scrutiny of the different styles of writing by Gemoll in the late nineteenth century led to his belief that this represented the work of a third individual (1877, 167-74). The title "*de Metatione Castrorum*", as Lenoir has noted (1979, VIII), is misleading, since it best describes only the latter section of the treatise, which in many respects is an adjunct to the main thrust of the work; the usage of the title "*de Munitionibus Castrorum*" is commonly preferred and is consequently adopted here. With respect to the author's name, "Hyginus" has also become commonplace and, following the lead of many illustrious scholars before, will be adopted here for ease of reference, as well as to avoid using the more accurate but inelegant "Pseudo-Hyginus" favoured by continental writers.

The work itself is incomplete, as the introductory sentence makes clear, though this does not detract from the value of the source, representing as it does the sole work of its nature to have survived to us from antiquity. The surviving text splits neatly into three sections, the first (chapters 1-22) dealing with general principles of castrametation, the second (chapters 23-44) applying Hyginus' own methods of calculation to the layout of a hypothetical camp, and the third (chapters 48-58) providing a brief description of methods employed in the fortification of the camp. Hyginus himself was at pains to point out that the importance of the work lay in the first two sections, since these represented his own original contribution to the subject, unlike the third section which he readily admits is culled from the works of other authorities (c.45), many of whom he notes have already dealt with the subject of camp fortification (c.48). Lenoir has suggested seeing Polybian influences in the work (1979, IX-X), as well as proposing that Hyginus will probably have utilised existing army handbooks in constructing the third section of his work.

For the purposes of this study there are three factors of importance which require to be established with regard to Hyginus' work: the author's reliability as a source of information, the date of the work and the relevance of the work to the study of the archaeological remains of temporary camps.

On the matter of reliability there appears to be, as in other issues connected with Hyginus, an element of doubt and debate. The author at one point describes himself as a novice, though the context of this description is capable of different interpretation. Oxe (1939, 66) believed Hyginus to be referring to his experience as a surveyor, while Domaszewski (1887, 40) thought this description was a reference to his abilities as a writer. Lenoir, after study of the content of the text, noted the repeated use of highly technical language and the central theme of the work, before favouring Domaszewski's explanation (1979, XI), an opinion which does not appear to have met with significant disagreement.

On the matter of date however there is still a good deal of disagreement. Lenoir, after long deliberation, believed the work to have been written in the Trajanic period (1979, 133). Richmond however regularly referred to the work as a third century A.D. treatise (Collingwood & Richmond 1969, 8; Hammond & Scullard 1970, 199-200), a viewpoint which seems to have attracted little support. In more recent years the main debate seems to centre on the claims of two schools of thought: one, led by Birley (1966, 57; 1981, 287), which would see the work as later second century A.D. in date,

most probably attributable to the reign of Marcus Aurelius, the other, led by Frere (1980, 51-60), which prefers to place the work in the later first century, probably in the reign of Domitian. Even these do not exhaust the possibilities, Maxwell for example having referred to the work as dating probably a little earlier than the middle of the second century A.D (1989a, 40). The point is important to the immediate study mainly because of Hyginus references to the *titulus* and *clavicula*, the devices employed at gates commonly found at temporary camps throughout Britain. In attempting to allocate historical contexts to these sites, much stress is placed on the mention, particularly of *clavicula*, in Hyginus' treatise, and arguments concerning the dates of particular camps or groups of camps rest in part on the date of this work. At times an element of circularity enters the argument, as for example when Frere argues the case for a Flavian date partially on the grounds that *claviculae* appear at predominantly Flavian camps (1980, 57), itself a point yet to be proved beyond doubt (see further chapter 9). At present the only uncontroversial statement which can be made is that the date of Hyginus remains controversial; as a consequence, it will be rejected as a means of lending support for the date of archaeological sites furnished with *claviculae*, and should certainly remain so until some clearer resolution of the subject is obtained. To this writer it seems more likely that archaeology will resolve the situation for itself, through the recovery of dating evidence from such sites, rather than by extrapolation from a problematic literary source. It may even be that archaeology will eventually help to resolve the contention concerning Hyginus' dates.

This leads neatly into the final question concerning Hyginus, namely how dependable and useful is the source to the student of the archaeological remains of Roman temporary camps. It seems to this writer that the answer must be that it is extremely limited in its potential applications and that even where applied this should be done only with great caution and only after archaeological testimony has been sought and found wanting. Specifically, this is a criticism of the now numerous attempts which have been made to extrapolate the size of force which any given temporary camp site might have accommodated, working from the testimony of Hyginus. When one considers the nature of Hyginus' camp however, it is immediately apparent that he is dealing not only with a hypothetical situation (not in itself overly problematic) but with a military force which cannot have been employed in any other than the most unusual circumstances. The force he describes in other words is unlikely ever to have taken the field in Britain. Several authors have noted this situation. Richmond, drawing comparisons between the Polybian description of a camp and that of Hyginus, noted that:

"While Polybius had tried to describe common practice, this (Hyginus') imperial camp is treated as a mere exercise in castrametation, using factors unlikely to be found in conjunction." (Hammond & Scullard 1970, 200).

Lenoir too has some reservations about the uncritical application of Hyginus' formulae to archaeological material, stating:

*"Qu'on ne puisse pas appliquer exactement les indications qu'il nous donne a l'etude de detail des camps decouverts par les fouilles importe peu, puisque les instructions d'Hygin portent, comme il le dit lui-meme, sur la partie preparatoire du travail sur le terrain."* (1979, XV-XVI).

As Lenoir goes on to note, the work is a theoretical tract, extremely valuable as such, but surely to be used with caution when measured against the reality presented by the archaeological remains.

Turning to the second of the main classical texts commonly utilised by students of Roman temporary camps, Vegetius' *Epitoma Rei Militaris*, a similar set of problems to those concerning Hyginus are immediately confronted. Most important of these are the date of the work, the reliability of Vegetius as a source and thus the usefulness of the work for the archaeologiSt

Less penumbral than Hyginus, many of the circumstances surrounding Vegetius are nevertheless obscure and hence the subject of continued debate. As with Hyginus, another work is known attributed to a writer with the same name and as with Hyginus close study of the two texts was carried out in the late nineteenth century to determine if the two works could be ascribed to the same person. In this case, Schoener's conclusion was that both the *Epitoma Rei Militaris* and the *Digesta Artis Mulomedicinae* had been penned by the same hand (1888, 18-20), a suggestion which while not heavily criticised in print has clearly not met with universal acceptance (Stelten 1990, XIII, *pace* Milner 1993, XXI).

The date of the work, while broadly accepted as late, also remains a controversial matter, though of limited importance for the purposes of the work here. Briefly, he is generally believed to have written sometime between A.D.383 (an absolute figure discernible from Vegetius' reference to Gratian as *divus*) and A.D.450; Schenk (1930, 4) suggested the work was written for the Emperor Theodosius, Seeck (1876, 61-83) that it was intended for Valentinian III (A.D. 423-55), and supporters of both views

have subsequently made their own cases (for a Theodosian date see Silhanek 1972, 4-21 & Barnes 1979, 254-7; for a Valentinian date see Goffart 1977, 89-90 & Birley 1985, 57-67; the arguments are summarised in Milner 1993, XXV-XXIX, who appears to favour the earlier date).

It might seem therefore that Vegetius is too far removed in time from the period of greatest Roman military activity in Britain for his testimony to be of any great relevance, but since the author himself admits deliberately drawing on the works of illustrious forebears - Cato, Celsus, Frontinus and Paternus are all explicitly named as sources - there is every possibility that relevant information is contained within the pages of his work. Further, the context of the treatise, an appeal for a return to the old Roman military ways in the face of increasing threat to Rome from barbarian hordes, indicates why such information would be especially pertinent. Nonetheless, several authorities have called into question the applicability of Vegetius' testimony; Campbell, recalling Schenk (1930), notes that:

"The *Epitoma* is a rambling antiquarian collection of chronologically unsorted material from all periods of Roman history." (Campbell 1984, 23).

Vegetius' work is divided into four sections or 'books', the first covering recruitment and training, the second the ancient legion, the third field strategy and tactics and the fourth siege and naval warfare. From the perspective of this volume, two discrete sections are of particular importance: chapters 21-25 in book I, and chapter 8 in book III, both of which detail regulations governing the construction of a camp, and indeed contain much duplicated material. There are also occasional nuggets of information scattered throughout the text elsewhere (e.g. II.7, II.10, III.2, III.10).

It is interesting that Vegetius rues the lack of use of temporary camps by the Romans for some time prior to his penning the work (I.21), which if true, depending on his dates may have implications for the suggestions of both Daniels (1970) and Hanson (1978) that fourth century A.D. contexts exist in Britain into which surviving archaeological evidence for temporary camps might be fitted. Yet there seems to be enough evidence to suggest that camps did continue to be used by the army well into the fourth century, if the regular mentions of such in Ammianus are any guide, while the practice may have been maintained even longer in the eastern empire (on this see Grosse 1913, 90-121; news of possible recent research conducted into Byzantine marching camps, allegedly by John Casey, was received too late for further enquiry - P.W.F. Freeman - pers. comm.)

Finally, though not a literary source at all, it would be most remiss to end a review of source material of relevance to the study of temporary camps without considering the body of sculptural or pictorial evidence which survives, most famously in the form of Trajan's Column, but also on the far less well studied column of Marcus Aurelius (Zwikker 1941).

The value of this potential source of information has long been appreciated by Roman scholars, the most authoritative statement for many years being that produced by Richmond (1935), though recently Frere and Lepper have wisely counselled caution:

"Within limits this use is justifiable...particularly when the pictures can be supported by other evidence: but the Maestro was not a professional soldier, and sometimes he can be shown to have misunderstood his sources." (1988, 260).

There is in fact a significant problem in using the Column to provide insights into the character of temporary camps, this being the difficulty involved in distinguishing permanent from temporary works in the various depictions; Frere and Lepper indeed believe that the sculptors were themselves less than clear on the essential differences 1988, 264). This is perhaps most striking in the artistic licence which appears to have been used in the representation of the defences of Roman installations, these regularly appearing as far too high for temporary enclosures. Points of detail also seem at times to have been missed; thus the lack of palisades crowning the ramparts, which both Vegetius (I.21, I.24 & III.8) and Livy (XXXIII.5) testify were normally employed. Nevertheless other panels from the column provide valuable corroborative evidence for army practice, including confirmation of the use of *claviculae* at gates, though sometimes peculiarly executed, and perhaps most usefully details of Roman army tents (see further chapter 8). Once again, the correct verdict should be grateful acceptance of this important source of evidence, balanced by a cautious attitude in the application of information thus obtained to the physical remains recovered by archaeology.

## Chapter Four

## Towards a Definition of the Temporary Camp

In attempting to tackle the subject of Roman temporary camps, it is essential from the outset that the subject under study be clearly understood and explicitly defined. This may seem to be a self-evident or simplistic statement, an unnecessarily pedantic prelude to the "meat" of the subject under scrutiny, but in fact definition, or more accurately the confusion surrounding it, is a problem which continues to plague the archaeological study of Roman military installations.

So entrenched is the problem that it would be foolish, not to say highly presumptuous, to suggest that it might be resolved to everyone's satisfaction here; this is not the intention at all. Instead, this chapter will concentrate on an attempt to review past and current attitudes to the issue, with a discussion of their respective merits and demerits, culminating in a statement of the criteria which will be adopted here for defining those sites which will and those which will not be covered by this thesis.

This study is concerned with the archaeological remains of Roman temporary camps; it is thus a matter of primary importance that decisions regarding the inclusion or exclusion of specific sites be governed by explicitly stated criteria. The central issue here concerns achieving a critically acceptable means of defining a site's temporary, as opposed to permanent, status, by reference to the physical remnants of these works. The current state of knowledge regarding these sites does not however stem solely from archaeological sources of information. As chapter 3 has shown, a wide range of surviving literary sources from the classical era exists to provide insight into the subject. An ancillary issue requiring further attention must thus be to establish how justified the use of this material is for the archaeologist and under what circumstances it may be pressed into service to aid understanding of the subject matter. Finally, it seems clear that temporary camps served a variety of functions for the Roman army, though it is far less obvious how distinctions might be drawn between these usages through observation of the mute physical remains. It will be necessary therefore to review this matter and assess whether or not and in what circumstances function may be ascribed to particular examples of temporary camp.

The main problems to be addressed in this chapter are thus threefold and may be summarised as follows:

1. How can temporary camps be distinguished from other Roman military (and non-military works), or what are the defining archaeological characteristics of a temporary camp?
2. To what extent can literary evidence be applied to the archaeological material as a means of achieving an acceptable definition?
3. How can function be ascribed to temporary camps, or how can different types of temporary camp be distinguished on archaeological grounds?

It will be instructive to begin by considering how Roman temporary camps have been defined over time up to the present day. Early definitions, by which is meant those published in the latter years of the last century and the earlier decades of this century, tended to rely exclusively or almost exclusively on surviving literary sources from the classical era. This was a perfectly reasonable state of affairs, given how little archaeological evidence was then available upon which to draw. Relatively few temporary camps had yet been identified as such, and those which had received virtually no examination in the form of 'scientific' excavation (see chapter 2), this very procedure being only in its infancy.

Numerous examples could be reproduced here but it should suffice to draw attention to a representative few. The entry under *castra* in Pauly Wissowa's *Real Encyclopädie*, penned by von Domaszewski, provides a description of both republican and imperial camps, based respectively on the accounts of Polybius and Hyginus (1899, 1762-6), drawing from time to time upon briefer references contained in the works of a diverse range of authors. Marquardt's *Manuel des Antiquités Romaines*, while a little less sober in approach, takes a broadly similar tack (1891, XI, 109-13), as do Daremberg and Saglio, who include for good measure an investigation of Greek camps (1877, 940).

As time progressed, archaeological investigation of temporary camp sites began to be undertaken, though not yet on any appreciable scale. Nonetheless the information retrieved by this means reached a level which meant that the testimony it provided could not be ignored, and this knowledge began to be absorbed within definitions, though still very much as the poorer relation to data obtained from classical sources. The entry in the second edition of the *Oxford Classical Dictionary*, supplied by Sir Ian Richmond, and published as recently as twenty-five years ago, is a good example of the trend (1970, 199-200); here Schulten's work at Numantia (1914-31), various accounts of work on the camps at Masada (e.g. Richmond 1962; Yadin 1967), and

Richmond's own work at Cawthorn (1932, 17-78) and the various temporary camps in Redesdale (1940, 63-154) are all incorporated into the piece to illuminate the classical source material. Nonetheless the bulk of the entry still promotes the Polybian and Hyginan accounts as representing the essential information.

With the explosion of information provided by the technique of aerial photography definitions were amended to take account of what was at first a significant quantitative and latterly qualitative increase in knowledge of the numbers, distribution and visible characteristics of these sites. Further excavation of examples provided another source of information. What in effect this flood of data allowed was the opportunity for archaeologists to produce their own definitions for the first time, rather than relying on classicists to solve the problems for them. Particular attention was paid to drawing distinctions between temporary and permanent works, an issue which was to be decided on purely archaeological grounds. This situation is manifest in definitions provided by two "classic" modern monographs.

The first appeared in the textbook which for many years served as the basic introduction to the study of Roman Britain for undergraduate students, Collingwood and Richmond's *The Archaeology of Roman Britain* (1969). This begins with a chapter devoted to the subject of camps, kicking off with a brief paragraph highlighting the difficulties of definition:

"Roman remains of several kinds, as well as several not Roman, are popularly known as 'Roman camps'; but it is proper to restrict the name to Roman works for the temporary accommodation of troops. Defensive works in which troops were to be permanently quartered, though in the very broadest outline resembling camps, are properly called forts, if small in size, or fortresses, if large; and the word 'camp' is still more inappropriate when applied to the ramparts surrounding a town, village or fenced house." (Collingwood & Richmond 1969, 8).

The second was presented by Graham Webster in the first edition of his standard text *The Roman Imperial Army*, also published in 1969, and it had a very similar message to impart:

"The terms 'camp' and 'fort' have often been used very casually for Roman sites. For example, on the Ordnance Survey maps of pre-war vintage the word 'camp' has been applied not only to all kinds of military works, but also to towns and settlements and occasionally to defensive earthworks of other periods. One ought to be more precise

in these definitions and confine the word 'camp' to a marching camp and 'fort' to the more permanent establishment, normally housing a single unit, while 'fortress' should be reserved for legionary establishments." (Webster 1969, 166).

In both instances however, with this preamble suitably noted, the definitions which follow with respect to the temporary camp itself continue to draw heavily on classical sources for both general issues (such as construction techniques) and more detailed matters (such as the disposition of troops within the camp interior).

Most recently, published definitions have concentrated solely on the temporary camp itself, the assumption presumably being that the issue of distinguishing permanent from temporary is no longer particularly problematic. There is also a far greater role for archaeological information to play in informing these definitions, though drawn more from the realm of aerial photography than from the results of excavation. Many of these are too lengthy to reproduce in full here, though all follow broadly similar patterns with more or less supporting detail, depending upon the context in which it is presented (Keppie 1986, 25-31; Maxwell 1989a, 38-67). Most describe the nature of the defences, the range of sizes and shapes which exist, the variable arrangements evident at the entrances and the activity which would have taken place inside the defences during the sites' occupation. All continue to make significant use of the available literary sources.

The object of the exercise here is not to take pot shots at the preceding definitions, which are all perfectly acceptable set in their own time or context. None however tackle head on the central issue to this thesis: on what grounds may we classify a site with the term temporary?

To begin it will be instructive to return to the quotations cited above from Collingwood and Richmond and Webster, since these extracts present a common classificatory system, supposedly based on archaeological characteristics rather than information culled from the literary sources, which still has predominance today. In this scheme, a clear distinction is drawn between permanent and temporary works, though it is never explicitly stated exactly how this distinction is to be achieved. There appears to be a tacit assumption that the different categories of site will be more or less instantly recognisable as such when first identified. The category "permanent" is shown to be capable of further sub-division, on various grounds, into fortresses and forts (and presumably fortlets), and here at least one of the defining characteristics is readily observable: size. We are also informed of what a camp is not, e.g. other forms

of defended settlement, though again without explicitly stating on what archaeological grounds one may make this distinction. Again, there appears to be an assumption that the differences between these entities will be self-evident. We are told what the basic function of a temporary camp is, and we are told what its constituent parts should comprise and how it would have been utilised.

Thus we are introduced to a terminological system, which the authors argue should be rigidly adhered to, to avoid further confusion. To archaeologists, the definition and system of classification propounded by both Webster and Collingwood and Richmond is instantly recognisable and, on a conceptual level at least, unproblematic. Discoveries in the intervening years have certainly added to the range and diversity of Roman military site types, e.g. the awareness of new categories of site, such as the so-called vexillation fortress, but by and large the rules remain much the same. The system which has evolved relates to archaeological evidence, and each newly discovered Roman military installation is classified according to whichever category of site its characteristics most closely resemble.

Frere and Lepper indeed take matters a stage further, proposing a table of classification for Roman military sites and calling for the abolition of the very term 'temporary camp', on the grounds that it is both tautologous and an outdated throwback to the very situation which has been widely criticised, of using 'camp' to represent both temporary and permanent works (Frere & Lepper 1988, 260-1).

It is interesting that nearly twenty years after the concerted cry for greater rigour in the application of terminology to Roman military installations, Frere and Lepper find it necessary to echo the call. They suggest that the reason for the uncritical application of the term 'camp' may be in part due to the similar lax usage of the Latin term *castra*. They would appear, on face value at least, to have a point. The scheme initially outlined by both Webster and Collingwood and Richmond, and subsequently widely adopted by Roman archaeologists working in Britain, appears by contrast to have found little favour with the community of classicists. In the latter field of study, Roman military works often appear to have remained firmly in the realm of the written word; and the word is *castra*. Proof that this is true may be provided by reference to any number of examples where works by modern ancient historians apply the term 'camp' to permanent Roman military works; three very recent instances should serve to both illustrate the practice and demonstrate that it is a continuing phenomenon:

"We have quite a lot of evidence from military camps and their nearby *vici* of courtyards that have been called marketplaces for 'licensed merchants'.
(Whittaker 1994, 110)

"Model of a Roman camp"
(caption for a photograph of a model of the legionary fortress at Chester, Campbell 1994, pl. 7)

"Observations on some military camps and place names in Lower Egypt"
(title of article in recent journal, Worp 1991, 291-5)

In many respects this is, in itself, a very minor problem. It is common knowledge that within the realm of the classical sources any and all of Collingwood and Richmond's categories, both permanent and temporary, may be described by the single, all-embracing term *castrum*, generally translated as 'camp'. Hence the use of what has become an archaeologically loaded term may be seen as perfectly acceptable within the frame of reference of the ancient historian.

The ubiquity of the term *castrum* may be readily demonstrated, by reference to the pages of the classical sources, where it is widely used and often not in any discernibly rigorous way. The works of Livy are here presented to serve as an example. His History of Rome, as surviving, runs to some thirty-five books, during which the word *castrum*, in its various grammatical forms, is utilised on no less than 1081 occasions (the absolute figure is in fact much greater; this count refers only to contexts, within which the actual word may be repeatedly used). Even allowing for artistic licence, for the fact that Livy was often projecting anachronistic concepts back into the distant past, and for simple error, it is nonetheless apparent that the word is capable of usage in various contexts, and that its application is often uncritical and generalised. Its use is analogous perhaps with modern utilisation of the word settlement, which may be applied to any collection of dwellings regardless of size, context or function. If the pages of Livy are an accurate reflection of common usage, then *castrum* need only carry with it the implications "military" and "living area", with some non-specific connotation of a capability for defence. For example, in a Republican context at least it is evident that *castrum* could mean a settlement, furnished with defences; at Ostia, the fourth century B.C. fortified town is commonly referred to as *castrum* (see chapter 3).

It is true that refinements of the term existed, and in various sources it is possible to read of *castra aestiva* (e.g. Tacitus - *Annales* I.16.30), *castra hiberna* (e.g. *ILS* 151; *L'Année Epigraphique* 1915, 42) and *castra stativa* (e.g. Livy XXI.35.5; XXVI.9.2; Vegetius III.8), providing additional clues to the type of installation being described, though the assumption that the former may be transferred unproblematically to equal temporary camp and the latter two to equal permanent fort is surely an oversimplification (*pace* Le Bohec 1994, 131). While the literary terms themselves are clear enough on a conceptual level, our understanding of all categories of archaeological remains, as outlined above, is both too detailed to fit within this tripartite scheme and yet nowhere near refined enough at present to allow for anything more than speculation as to which particular combination or combinations of physical remains might represent which particular descriptive term. Which particular term for example would be best applied to the category vexillation fortress? Most archaeologists will have their preference but it would be fair to say that a reasonable case could be made for at least two of the three Latin terms. Further, if one accepts Frere and Lepper's contention that *castra stativa* probably refers to a type of work only rarely employed, the problem of matching archaeology with Latin terminology becomes even more acute.

Yet this in itself fails to address the central question of what archaeological criteria may be taken to signify temporary. It can be accepted that the Latin term *castra* has a range of meanings and was used by Latin writers in both specific and generalised contexts in the same way that the word camp might and has been used today in a modern setting. The more specific terms *aestiva*, *hiberna* and *stativa*, commonly rendered in English as summer (camp), winter (camp) and permanent (camp) respectively, are helpful in providing clues to the exact nature of the site being described, and where rendered on inscriptions from secure archaeological contexts are invaluable, but it would be expecting too much to believe that we could ever reach a state of knowledge where we could define with absolute confidence the appropriate status of modern archaeological remains in every instance; it is still less realistic to expect that we could tag specific archaeological sites with these terms given our current state of knowledge of the characteristics of and differences between these archaeological sites. There is no need, nor much justification, for berating classicists for working within the frame of reference supplied by their own discipline; one should not expect them to obey rules laid down by and for archaeologists. What is essential is that archaeology establish its own ground rules for classification, based on archaeological evidence alone to ensure internal integrity; when such a system has

been designed, then speculation about the applicability of Latin terms can be attempted, but not before.

Again it is essential to stress that this is not an argument for ignoring or devaluing the classical sources. Used critically these provide an invaluable body of evidence from which to draw corroborative and otherwise unavailable data. Nor is criticism intended of the sources cited above, which justifiably draw upon literary evidence to enable a fuller picture of the temporary camp in all its aspects to be presented, necessary for the contexts in which they were writing. There is however a tendency for some modern writers to accept literary evidence uncritically, in terms of its applicability to archaeological material, based it seems largely on the fact that since it represents a 'genuine' voice from the appropriate period in the past then it must carry more authority than any perspective we, in the twentieth century, might choose to place upon it. Yet it is important to stress that the claim to superiority which some classicists (and archaeologists) invest in the literary source material over the testimony of archaeology is simply not borne out by the evidence. For example, consider the following statement which appears in Le Bohec's description of temporary camps:

"Because they (temporary camps) were built quickly and dismantled immediately afterwards they have left few traces for archaeologists, and consequently have to be studied using literary sources and representations on the columns of Trajan and Marcus Aurelius". (Le Bohec 1994, 131).

The arrogance of this statement is breathtaking. Quite apart from the disservice it does to many highly respected scholars who have devoted the best part of their careers to the archaeological study of these sites, with impressive results, this thesis will demonstrate that much of the information provided by these sources, while invaluable if used critically, can be shown, as a direct result of study of the archaeological evidence, to be both misleading and at times simply wrong (see further chapter 6).

To recapitulate then: the contention here is that information derived from careful study of the archaeological material should be allowed a voice, and that that voice should not be automatically viewed as in some way less credible than written texts. Existing definitions of temporary camps remain heavily reliant upon conceptualisations of function, which are often difficult to demonstrate by recourse to the evidence, at least partially due to the lack of exploitation of an increasingly wide ranging body of archaeological material. Literary evidence is valuable if used critically but cannot be utilised as a means of arriving at a suitable classificatory system for temporary camps.

What archaeological evidence there is can be shown to contradict the literary evidence on various points, suggesting that the uncritical use of such information can provide an inaccurate picture of how these works were constructed and used. A definition of temporary camps on purely archaeological grounds is thus sought, commensurate with the system of classification which defines fortresses, forts and fortlets, against which the literary evidence may then be more justifiably compared to add meaningful detail. To achieve this the following two questions still need to be answered:

1. When does temporary become permanent?
2. On what grounds may we assign function to camps?

It has already been noted that British archaeologists of the Roman period have adopted a scheme for the classification of military installations, most usefully set out tabular form by Frere and Lepper (1988, 260-1), but which is also implicit in the structure of Frere and St Joseph' s monograph *Roman Britain from the air* (1983, 19-144). This system has gained wide acceptance and the implication which one might derive from this is that it is unproblematic. I would contend that this is far from true. In short, the system in place relies not upon observable archaeological phenomena but on conceptualisations of function. Thus no clear criteria for distinguishing a vexillation fortress from a legionary fortress from a large marching camp are ever stated. If one removes the testimony of excavation from this situation, the grounds for drawing distinctions are even more shaky; this is the essence of the problem confronting this thesis.

Frere's contention elsewhere that "Roman marching camps are an easily recognisable class of earthwork" (1987a, 210) is thus less than fair when the subject is scrutinised in detail. It may seem that way, it may even be true that the majority of temporary camps are easy enough to identify as such, but this still leaves a significant number of sites which defy classification under the existing scheme, and the main reason is because when put to the test the scheme is founded on little more than a variation of Jung's collective subconscious 'memory' of what these sites are.

If we return to the various modern attempts to define temporary camps, many recurrent themes crop up repeatedly as representing characteristic elements: the nature of the defences, size and shape, gate type. But do these features allow a distinction to be drawn between temporary and permanent works?

Size is the most obvious means of sub-dividing permanent installations, but none of these 'types' have absolute sizes, tending to fall within ranges, and more importantly temporary camps cover the full range of all these types and sizes both much greater and smaller too. Thus size alone will not help distinguish temporary from permanent in a great many cases, though we may perhaps accept that the very largest works fall into the former category.

Shape is certainly a factor which is used to distinguish Roman military from other types of site, though there are several documented cases of misidentifications which show that it is not an infallible determinant. It is certainly true that temporary camps, as understood at present, adopt a wider range of morphological characteristics than most other commonly used Roman military works, but it is equally true that many conform to the classic 'playing card' shape. Shape alone then cannot distinguish temporary from permanent.

The nature of the defences is regularly cited as a factor by which temporary camps may be recognised. All general descriptions of the type refer to single bank and ditch defences, and an overwhelming majority of sites appear to fit the bill. But even this characteristic cannot be deemed an absolute determinant. In the first place, various permanent works are also defended by means of a single bank and ditch. In the second place, as chapter 6 will demonstrate, not all camps have a rampart and ditch as defence; examples lacking the latter are attested and may indeed have been more common than is currently believed. Even the literary sources allow of a camp not furnished with a defensive ditch (Vegetius III, 8). Further the possibility of double ditched camps cannot be discounted simply on the grounds that none have so far been recognised in Britain, especially given that the full range of types of camp and how they should be defined has not yet been established with any degree of certainty. Consequently the nature of the defences alone will not establish a site's temporary or permanent status.

The arrangements of gates at temporary camps perhaps brings us closest so far to a determining characteristic. Temporary camps display a range of constructional styles at their gateways: *tituli*, combinations of *claviculae* and most uniquely of all the so-called 'Stracathro-type' arrangement. But even this is not completely diagnostic. Forts are attested with *tituli* guarding entrance gaps, Hod Hill for example, and more confusingly the site at Ward Law, with its unique arrangement of four *tituli* outside one gate, commonly believed until recently to represent a permanent fort (Maxwell & Wilson 1987, pl. IX). A further list of examples is supplied by Johnson (1983, 306

n.12). Further, some sites of dubious status, i.e. not clearly permanent or temporary, the most celebrated example being at Cawthorn, employ *claviculae* at their gates. In many cases it is sites like Cawthorn (where all but one of the works are now generally thought of as forts (e.g. Frere & St Joseph 1983, 109-10) which are at the very heart of the problem of definition, since they refuse to sit neatly within any of our pre-existing categories. If awkward and unhelpful descriptive terms such as 'semi-permanent camp' are to be avoided, then it is crucial that defining characteristics for the terms temporary and permanent be established. So while gate accoutrements certainly give a very strong hint of a site's status, they are not alone quite enough to constitute a guarantee.

The foregoing may seem to be demanding extraordinarily narrow or detailed definitions to be employed. It might reasonably be argued that while no single one of the above may alone determine a site's character, a combination of several or all of them at the same site surely places the matter beyond all reasonable doubt. This is no doubt true for the majority of sites. It is not the intention here to create problems where they do not exist for the sake of making an argument. The problem arises in the relatively small, but not inconsiderable number of sites where genuine doubt as to their character continues to exiSt In these circumstances, the existing system is shown to be loose and rather uncritical, since it is not possible within its frame of reference to 'test' these recalcitrant sites by the application of the same methods by which other categorisations have been reached.

I would suggest that the crux, as the terms temporary and permanent suggest, lies in the nature of the occupation itself. I would contend that we must seek such classification in terms of buildings and other direct evidence of the nature of the occupation. If a temporary camp is truly temporary, then surely it is axiomatic that tented accommodation will have been employed; thus, anything with barrack blocks, or granaries or other formal buildings cannot be classified as temporary. There will of course be objections to this putative rule of thumb. Breeze cites the example of Metchley in the English Midlands, where a site which might normally be regarded as showing all the indications of having had tented accommodation, was clearly intended for a rather longer duration of occupation than could be appropriately termed temporary (Breeze 1983, 16), though Jones had been perfectly happy to see the site as a conventional fort (1975, 167). Cawthorn is another example which does not sit happily in either category, a fact clearly illustrated by the various interpretations which have been offered to explain these works (Richmond 1932; Webster 1969, 167; Frere & St Joseph 1983, 109-10). Again, internal occupation as evidenced through

archaeological remains does not speak of any great degree of permanence, and indeed other, here treated as less diagnostic features, such as the configuration of the gates, recalls temporary rather than permanent structures.

At Rough Castle, the excavators suggested that tented accommodation may have existed in the *praetentura* of the fort (MacIvor *et al.* 1980, 240) and more recently Morel has made a case for seeing the scant structural remains at Augustan sites on the continent, such as Oberaden and Dangstetten, as indicative of tented accommodation, for which makeshift shelters were provided (1991, 376-86), which if correct tends to blur distinctions which might be drawn on the grounds of occupation evidence even more.

But such criticisms would miss the point. It is not necessarily the case that pre-existing definitions will remain acceptable; perhaps they will require amendment, or new categories will need to be invented to accommodate patterns of evidence retrieved. For example at Metchley perhaps we are seeing a construction camp having been erected within the confines of the site which was to become a permanent fort, rather as has been suggested at other sites, such as Castledykes (Robertson 1964). The point is that the evidence should lead to the definitions; what cannot be accepted is that the definitions are agreed first and then everything else must be made to fit around them. This I would contend is the root of the problem surrounding classification at present, and it is most acute in the underexploited instance of temporary camps.

This classificatory system must also stand regardless of the building materials employed in the construction of the installation. There is nothing intrinsic to the use of stone, timber, turf or earth which of itself allows us to classify a site as temporary or permanent. As Hanson has noted;

"Clearly there is a degree of timber, or any building material, being as temporary or permanent as the individual wishes to see it. The materials themselves are not suffused with the qualities 'temporary' or 'permanent'." (Hanson 1982, 169)

It is of course clear that to the Roman army, at least for a period spanning the first and second centuries, buildings constructed of timber were considered perfectly appropriate even where the construction was intended to survive for a good number of years. As Hanson again has noted, the long duration of medieval timber-framed buildings down to the present day in many instances demonstrates the potential

longevity of such a technique (1982, 169). Thus it is not the presence of stone buildings as opposed to timber buildings, or both as opposed to turf constructions, which allows us to gauge the duration of occupation, but the very presence of buildings and the investment in time and effort they represent which informs us of the site's character. In Hanson's case, an argument was being presented for the value of timber over stone; he suggested that the type of material used in construction was not, *per se*, the key factor in decision making. Rather decisions rested upon:

1. The speed with which a structure could be erected.
2. The availability of the building materials.
3. The ease with which the raw material could be converted into a usable component.

These points are just as valid in considering the construction of a temporary camp; the quickest method, linked to the ready availability of appropriate resources would have counted for everything. Thus we find camp defences built of boulders, cobbles, gravel, sand, clay, turf, wood, and combinations of all of these; anything in fact which came to hand and could be put to effective use. We can probably state that stone will not commonly be used for camp construction because of the effort involved in using such a medium, but even here there will be exceptions. Thus in desert locations there will be no timber or turf to build installations of any type and therefore stone will probably be used in all such circumstances. But such circumstances should be obvious and certainly do not apply to Britain.

Nor should gate structures be expected in camps. Nor again should properly built roads. But what might we expect? Accepting that this is now venturing into the world of conjecture, basically anything that human beings are likely to need or produce in the course of a day or a few days: shelter and warmth, food and drink, waste. The shelter comes from tents and these will be well nigh impossible to recognise archaeologically, stakeholes are most unlikely to have survived even in the most remote and inhospitable regions, though stone patterning related to tent lines might just survive in such situations. Even where actual remains of tents have been found, they tend to be in permanent locations so are in themselves capable of misleading (see appendix 1). Food could be eaten cold, though one might anticipate hot food being eaten some of the time at least within temporary accommodation. Hence hearths and ovens are not an unrealistic expectation even within temporary works, and here the literary testimony may provide support. Caesar refers at one point to the prohibition of hearths within the camp to avoid detection by the enemy, implying that such were a normal occurrence (*de Bello Gallico* VI.29), while elsewhere we are told that each

contubernium would have its own hearth (*SHA* - Pescennius Niger 10). Waste, both directly and indirectly caused by humans, is inevitable, though we cannot be sure of the arrangements made for it. It is unlikely however that men were expected to leave the confines of the camp on active campaign to answer the call of nature or dispose of rubbish, so presumably arrangements did exist for dispersal inside the camp. It has been suggested that human beings have only three ways to dispose of rubbish: burn it, bury it or throw it in the nearest body of water. Here the most likely solution will have been simple pits. It is also highly unlikely that all waste product found its way into pits; thus rubbish should be expected to some degree.

Whatever the validity of the preceding speculations, one largely unexploited avenue of enquiry is surely clear enough: investigate the interiors of more military sites, and build a clearer picture of how all sorts of sites were used. Such an approach could have the benefit of affording the basis for a workable classificatory system based on observable fact. Yet this, of all aspects of temporary camps, is the one which has been least examined, the argument being that there will be little to find, surely a perfect example of a circular argument. Chapter 6 demonstrates just what shaky foundations such a notion is based upon. In truth, a section across the defences of a site will not help classify it, or understand how it was used, though it will of course yield useful data in its own right. An excavation of the interior of a temporary camp, however paltry the material remains recovered, will tell us something about the nature of the occupation there. After all, what other type of archaeological site would receive such imbalanced attention and not be deemed improperly examined?

If these criteria are accepted then it allows us to make some progress towards the proper subject for this study. For example, the relatively recently recognised category of site, known as vexillation fortresses, may be safely excluded from our scrutiny. Excavated examples of this type of site indicate the presence of internal structures, gate structures and the rest and are clearly intended for a longer duration of occupation than can happily be encapsulated under the epithet temporary (e.g. Frere & StJoseph 1974; Bishop & Freeman 1993). Equally, another recently discovered category of military site may be justifiably excluded from this study, namely those rather nebulously defined reoccupations of parts of the interiors of native hillforts. Once again, excavation evidence from these sites indicates the presence of buildings such as granaries and barrack blocks and must have served a more than purely temporary function (e.g. Todd 1984; Frere 1987c).

Perhaps more contentious, though justified under these criteria, is the exclusion of siege camps from this survey; with respect to the British evidence this means the two camps at Burnswark, commonly believed to represent part of an artillery practice range for the Roman army, focused on the already abandoned native hillfort (though Frere (1987a, 215) continues to prefer to see it as the scene of a real siege). Here the evidence becomes less clear, since excavation has not been extensive and what there has been has not revealed a plethora of material indicative of occupation (Jobey 1978). But these sites have roads, presumably necessary for the transportation of artillery equipment, and in any case a siege by its very nature is something which could take a very long time. Although a case could be made for its inclusion on the grounds that it is a practice siege works, and thus not occupied for any long duration at least at one time, in the light of inconclusive excavation evidence it seems more appropriate to associate the Burnswark camps with the generic type 'siege camp', thus explaining their exclusion from this study.

This brings us on to the second critical issue, of assigning function to camps, for the temporary nature of a camp rests in large part upon the function for which it was used. Temporary works, as generally understood, are commonly also sub-divided according to their perceived function: hence there are broad categories designated marching camps (or less popularly campaign camps), practice camps (and sometimes training camps, though this is also used to designate something rather different) and construction camps, as well as more specific titles including bridgehead camps, forage party camps, naval camps, etc. Yet all of these terms bring with them a whole baggage of preconceptions, often particular to the individual writer, as well as depending upon the tacit agreement of any number of nuances of meaning, for which there is no available yardstick or template definition against which assumptions may be checked and corroborated. Frere and Lepper's argument that the very term temporary camp is a major cause of confusion, being a relic of the time when all works were referred to as camps, has already been highlighted. Instead, they would prefer to break down the sites into functional categories: marching camp, construction camp, siege camp, practice camp (Frere & Lepper 1988, 261). This would indeed be a preferable state of affairs, were we able, on the grounds of current knowledge, to assign works with confidence to these various categories. The problem however remains that we cannot, since once again clear distinguishing criteria based on archaeologically observable facts rather than concepts, have yet to be agreed, and suitable testing of sites for indications of these criteria has yet to be carried out. Categorisation of sites on functional grounds remains firmly in the realm of assumption.

These assumptions are usually assigned not on the grounds of intrinsic evidence but upon perceived relationships with other sites or works. An exception to this is the practice camp, which is usually so defined on the grounds of size, though the proximity and numbers of examples in close proximity to particular permanent establishments is usually drawn into the picture to substantiate claims. Very small camps incapable of holding any significant body of troops, are thus put down as representing the results of training exercises. While this line of reasoning itself holds all manner of potential problems, it is not intended to take issue with it here, since the defining characteristic can be readily identified. At present there are no signs of permanent internal occupation, thus they may be incorporated under the general heading 'temporary camp'.

More contentious is the attribution of the function of construction camp to a particular site; contentious because the description relies upon the perceived relationship of the site to another, whether a nearby fortress, fort, physical frontier or whatever, which cannot in any case be proved, and also because such camps are likely to have been occupied for a reasonably long period of time (the duration of the appropriate construction programme). Some arguments are more persuasive than others; a good deal of convincing circumstantial evidence appears to substantiate claims that the camps at Inchtuthil represent labour camps housing the troops engaged in the construction of the neighbouring fortress (Pitts & St Joseph 1985); by the same token, recent aerial photographs of Gourdie (see plate 1) seem to demonstrate beyond doubt the function of the Roman camp there, showing clearly how the probable Roman lime kilns are encompassed and respected by the perimeter ditch (Hanson - pers.comm.). Sommer's list of potential labour camps, by contrast, often lacks conviction when the sites are studied independently, since the only criterion applied seems to be the very formulaic one of the proximity of a temporary camp of a particular size to a given fort site (Sommer 1984, 55-6). As it is by no means clear that the respective sites are broadly contemporary in many cases, and there is no clear guide of what size of camp supports what size of force, nor again what size of force is needed to construct a fort, these suggestions seem so formulaic as to be largely worthless. It is not even clear that the Roman army always or indeed ever built separate camps to house troops engaged in such work; there is the equally possible suggestion that they in fact worked within the ramparts of forts or fortresses as they were being erected, as noted above, though this of course would not be quite so possible when engaged in the construction of linear barriers or roads.

For the purposes of this study all alleged construction camps will be treated on the same merits as all other sites; evidence of internal structures, gates and roads will be taken as the defining characteristics which lead to the acceptance or rejection of any particular site. The problem again is lack of convincing first hand evidence; these sites have not been excavated therefore we do not know what was happening inside and we have no clear criteria upon which to distinguish between, say, a marching camp and a construction camp, merely a set of (albeit at face value reasonable) assumptions.

Finally, it is inevitable that there will be categories of site which defy ready classification, regardless of the governing criteria adopted. Thus even allegedly temporary or permanent sites which do undergo excavation may still resist straightforward compartmentalising. At present, the complex of works at Cawthorn in Yorkshire represent probably the clearest case of such a situation.

Here, four works of unquestionably Roman date exist in the now heavily forested area close to Pickering in North Yorkshire. These between them display an unusual range of forms, the more unusual for being so closely gathered. When Sir Ian Richmond turned his attention to these works in the 1920s (1932, 17-78), he produced a characteristically ground-breaking interpretation of the surviving archaeological remains. Four works were present in total, and these were suggested by Richmond to represent "practice camps", meaning here camps produced by the army while on manoeuvres as part of their training in military camp construction. This, he proposed, accounted for the unique forms which some of the camps displayed, perhaps representing experimentation rather than wild inaccuracy. The most traditional of the four works was interpreted as the construction camp, i.e. the camp used to house the soldiers while they practised their building techniques in the surrounding countryside. The theory, like many of Richmond's, was ingenious and superficially at least highly persuasive, its veracity backed up in no small way by his then unchallenged command and knowledge of the Roman period in Britain and beyond. Subsequently his interpretation has been challenged, and alternatives offered in its place (Frere & St Joseph 1983, 109-10). These sites have been subjected to the same selection criteria as the rest, with the result that only one, Richmond's unexcavated camp C, is included within this corpus of material. Further work at the sites, or significant future reinterpretation may alter this situation. My defence is that at least these sites will be accepted or rejected for clearly defined reasons.

So despite these caveats, it is argued that using such clearly defined criteria as a starting point will be of benefit in attempting to resolve some of the problems

regarding the definition of temporary camps. At the very least it should allow us to rid ourselves once and for all of loose and unhelpful terminology, such as the awkward designation "semi-permanent camp", a term which says virtually nothing of the object it describes intrinsically and which to date has really served no other purpose than to function as a catch-all for sites which defied easy understanding.

Close scrutiny of the issue of definition seems to lead inexorably back to the same point. The problem is one born of the lack of proper investigation of all camps, regardless of their status, size, shape, location, and alleged function. It demonstrates clearly the crying need for further investigation, by means of excavation, at these sites, and in particular of the interior areas where the troops themselves will have been living. Chapter 5 will illustrate the advances which the subject has made principally through the marvel of aerial photography, while chapter 6 will illustrate that for this to be of real value to us, this technique must be properly served by complementary fieldwork on the ground. The chapter will seek to demonstrate that this has not been the case to date.

## Chapter Five

## The Testimony of Aerial Reconnaissance

Prior to the Second World War, when archaeological aerial reconnaissance was still in its infancy (see further chapter 2), the number of temporary camps known within the British Isles was relatively small, perhaps between eighty and ninety, of which over one third comprised those diminutive works commonly interpreted as practice camps. Upstanding examples necessarily formed the only known instances of such sites, and excavation of these works had not been conducted on a significant scale (see further chapters 2 and 6). Consequently, ideas tended to rely heavily upon inferences drawn from the literary sources, combined with whatever observations could be made on the ground. This tradition stemmed back at least as far as General Roy and was only significantly altered with the programmes of work on several examples of this category of monument undertaken in the 1920s and 1930s by Sir Ian Richmond (Richmond 1932, 17-78; Richmond & McIntyre 1934, 50-61; Richmond and Hodgson 1936, 170-2; Richmond and Keeney 1937, 129-50; Richmond 1940, 63-154).

While Richmond's work was (and to some extent remains) undoubtedly influential, its impact is nothing compared to the revitalisation of the subject brought about by the advent of archaeological aerial photography. The principal players in the development of this branch of the discipline have already been introduced in chapter 2. What remains to be outlined is the current state of play with regard to knowledge of these sites, a situation which owes much to the endeavours of a handful of individuals. For this, it will be most straightforward to deal with Britain region by region, examining the prevailing theories and how they have been constructed.

By far the most impressive body of evidence relates to modern Scotland. Here, the current picture of events in the northern reaches of the province as established by Roman scholars rests heavily upon historically documented events as sketched by classical authorities, principally Tacitus and Dio Cassius. Three main periods of Roman military activity in Scotland are attested; the later first century A.D. conquest period under Agricola and his replacements, spanning perhaps 20-25 years in all from initial penetration to complete withdrawal; the mid-second century A.D., focusing on the construction, abandonment, brief reoccupation and final abandonment of the Antonine Wall, spanning in all a period of perhaps twenty years, or a little more; and the early third century A.D. punitive, or perhaps conquest, campaigns undertaken by the emperor Septimius Severus and his sons, a brief interlude lasting no more than a

few years at moSt The tendency has been for Roman archaeologists to fit the military activity, evidenced through the remains of both permanent and temporary installations, within this tripartite scheme.

St Joseph has unquestionably contributed most to the picture of events which we recognise today from general histories of the Roman period in Scotland. With the rapid growth in knowledge of new Roman sites brought about by aerial reconnaissance, he was able to make what has been arguably the most significant, and constantly evolving, contribution towards fitting the known archaeology within an historical framework, eventually subsuming within his history the majority of sites, both long known and newly discovered by the aerial medium. In 1958 he proposed for the first time the categorisation of temporary camps into discrete groups or series, based upon a set of common characteristics and backed by arguments which provided a general date, based on circumstantial evidence of varying levels of credibility (St Joseph 1958, 93-4). Although subsequently subjected to significant refinement over time, this remained St Joseph's favoured means of affording wider meaning to and context for this growing body of data, and indeed, as a tool for understanding the role of temporary camps within the wider historical framework, has been adopted and maintained by all scholars subsequently contributing to the picture.

To the Flavian period St Joseph allocated several groups of camps. The first of these was the Stracathro-type series, so called due to their common possession of the unusual gate arrangement first noted from the air (though not, as it transpired on the ground, a claim attributable to William Roy, who noted such an arrangement at Dalginross) at that site. This was initially designated Flavian on two counts: one because of the proximity of the Stracathro-type camp at Dalswinton to the excavated and securely dated forts at the same location, and two because "every certainly dated *clavicula* is of the Flavian period" (St Joseph 1958, 93). Later (1973, 229) St Joseph acknowledged that this group of sites could not reasonably be viewed as part of a single campaign, their varying sizes precluding such a straightforward interpretation, though by 1977 the two northernmost examples, at Auchinhove and Ythan Wells II, were pressed into service to explain the discrepancy between the 110 acre series and the 144 acre camp at Durno ( St Joseph 1977a, 144).

The second of these was what St Joseph termed the 30 acre series, a category, first promulgated in 1969, which was assembled on the grounds of the similar size and number of gates (four) displayed by all its members (St Joseph 1969, 114). It is clear that the trio of sites at Dunblane, Ardoch and Dornock were central to this category,

these being presented as successive stages on a line of march. To them were appended sites at Inveresk, Finavon, Bonnytown and Bellie, with the acknowledgement that the latter site had yet to show signs of its gate type and number. The date for this group was arrived at by reference to the sequence of works evident at Ardoch (then still conjectural, but subsequently proved by excavation), which St Joseph believed to begin with the 30 acre camp because it occupied the best ground available. Bonnytown and Finavon were adjudged to lie beyond territory known to have been occupied in the Antonine period, thus discounting this chronological context, and by opining that the Stracathro-type camps were not large enough alone to accommodate the entire Agricolan army, St Joseph was able to explain the 30 acre camps as making up the difference, or at least as being capable of accommodation within the scheme without bespeaking of too many troops. In 1973 this series was reaffirmed, though with the loss of Inveresk and the addition of Cardean (1973, 229). The intervening discovery of the large camps at Abernethy and Dunning (1973, 218-21, 228-9) were introduced to explain the presence of these smaller works, both being seen as evidence for the division of the army into smaller groups, as recounted by Tacitus as having occurred in Agricola's sixth season (*Agricola* 25).

Later still, St Joseph (1973, 231-3) added a further group of camps to his list of potential Flavian sites, separating his 120 acre series into two discrete batches and assigning this earlier provenance to the northernmost five of the old series, referring to them henceforward as the 110 acre series. The remainder, now styled the 130 acre series, were attributed to the Severan period. Initially these camps, also including the four 165 acre camps lying south of the Forth, had been lumped together, classified (paradoxically) as of over 120 acres, and proposed as Antonine or Severan but not Flavian in date, a conviction hinging on the relationship at Ardoch between the largest camp and a signal station, the former overlying the latter (1958, 93). By 1969 this contention had been revised, the whole series, still undivided, now being deemed as Severan. The newly founded 110 acre series was given greater credence following the discovery in 1975 of the large camp at Durno, which St Joseph promoted as the most likely candidate for the Roman army camp on the eve of the Battle of Mons Graupius (1978a, 271-87). The 110 acre series provided an appropriate wider context for this scenario. St Joseph explained it as the northern vestiges of the full Agricolan army on campaign, setting out from Carpow and working north along the south-east side of the Sidlaw Hills. The putative camp at Logie on the North Esk was pressed into service as evidence of another stage on this route, though this site was subsequently rejected by St Joseph (1978a, 279).

In addition to the foregoing series, several other camps were allotted a Flavian date on a variety of grounds. Abernethy and Dunning (noted above), situated on a line between Ardoch and Carpow are perhaps the best known examples, two sites with close morphological characteristics, so dated because of the discovery of first century A.D. pottery from a primary context in the ditch of the former (St Joseph 1973, 219-20). Other sites, such as the small camps at Dun and Gourdie, were similarly attributed to the Flavian period, the former again due to dating through pottery recovered from primary ditch fill (1973, 225-6, 229), the latter on the grounds that it represented a labour camp for troops charged with winning stone for use in the construction of the nearby fortress at Inchtuthil, an interpretation subsequently bolstered by the identification as contemporary the series of lime kilns within the camp defences (see above chapter 4 and Plate 1)).

Refinements, criticisms and amendments all followed. Few have challenged the Flavian date of the Stracathro-type camps, though as St Joseph himself acknowledged (see above), most caution against viewing them as a coherent collection of sites representing stages on a single campaign (e.g. Maxwell 1981, 34; 1989a, 56; Hanson 1987, 123). Some refinements to St Joseph's original justificatory arguments have also been made in the intervening years. The circumstantial evidence at Dalswinton was replaced by clearer relationships perceptible at the sites of Stracathro and Newstead, where in each case the temporary camp has a demonstrable relationship with annexes to the permanent forts (Maxwell 1981, 34 & 37), in each case the assumption being that the temporary work is the earlier of the two sites. Since the forts in both cases are plainly Flavian, the likelihood is that the camps are of this date too, no earlier Roman context in Scotland being known. The prevailing orthodoxy would perceive the Stracathro-type camps as representing different things in different places: some marching camps, some labour camps for both fort construction and in one case logging, some campaign bases.

By contrast the 30 acre series has been widely criticised as lacking in coherence, arguments concentrating on the disparity of the sites which make up its members (e.g. forcefully, by Hanson 1978, 144-5; 1987, 126; quietly, by Maxwell 1981, 40-1). One could add that the range of sizes of the camps of this alleged series spans 23.5 - 35 acres, which represents a significant proportional difference. By way of comparison, it would be equivalent to calling any site within the range 102 - 151.5 acres part of the 130 acre series, or any camp of between 49.5 - 73.5 acres part of the 63 acre series. Geographically too, four of the sites are isolated and one is not even certainly a camp. Nor does the position of the 30 acre camp in the sequence at Ardoch represent a

convincing case, since not only does this rest on the Ardoch camp being part of a series, it depends upon acceptance of the Severan date of the 63 and 130 acre camps, which while widely accepted has yet to be demonstrated beyond doubt.

Equally the 110 acre series has had its critics, seeing again in the grouping of these sites, if not a false agglomeration of camps (though Raedykes is commonly seen as problematic as St Joseph himself noted), then at least a contentious line of argument in settling upon them a Flavian date, which appears suspiciously convenient as a means of bolstering St Joseph's identification of Bennachie and Durno as the scene of Mons Graupius (e.g., and with similar emphasis, Hanson 1987, 131-4; Maxwell 1981, 39-40; 1989a, 58; 1990a, 51-4).

Contributions to the picture of Flavian Scotland *vis-à-vis* the temporary camps have not all of course been made only by reference to St Joseph's published work; some independent arguments have been promulgated by others working in the field. The most significant have stemmed from the research of Gordon Maxwell, a long time collaborator with St Joseph and one whose work continues the traditions associated with the latters' working methods. Rather less specific and prescriptive than St Joseph, Maxwell has favoured relying on more general characteristics as a potential means of dating these sites. His paper in 1981, for example, proposed three groups of sites in descending order of likely Flavian provenance. The first echoed St Joseph in promoting camps with Stracathro-type gates as of this period; the second, not intended as a coherent series, rather collated sites where either absolute dating or real or strongly suspected physical relationships with other, often intrinsically datable, sites led to the conclusion that they were of Flavian date; the third was assembled, in Maxwell's words, "because of their similarity to dated camps or because their distribution has led to them being claimed as of Agricolan origin" (Maxwell 1981, 39-42). One generally accepted formula to have emerged from this work is that Flavian sites will have a propensity to favour square shape, though it is interesting that Maxwell himself swiftly advised caution in the application of such a formula, warning of the many Welsh camps naturally presumed to be of first century A.D. date, which conform to markedly rectangular plans (Hanson & Maxwell 1983, 65).

The setting of temporary camps in an Antonine context in Scotland was for a long time as rare an occurrence as the discovery of datable artefacts from a temporary camp ditch. The situation is amply demonstrated as late as St Joseph's discussion section in his 1973 contribution to the *Journal of Roman Studies*. Here sandwiched between long treatises on the Flavian and Severan periods, he devotes four lines to the

intermediate period, and beyond suggesting that Lyne I and "perhaps some of the camps near Camelon" might be Antonine, confines his remarks to stating that most of the small works located in close proximity to the frontier should be viewed as broadly contemporary with that monument (St Joseph 1973, 230), a reiteration of a suggestion he had made nearly twenty years earlier (1955, 86). These sites were promoted as representing construction camps used by troops engaged in the construction of the mural barrier itself, or, more rarely, the primary forts set along its length. To a great extent this catch-all interpretation has been afforded to virtually all sites within half a mile of the Antonine Wall, the rare exceptions being camps such as Garnhall II where the apparent stratigraphic relationship precluded such an explanation (in this instance the camp appeared to underlie the Wall itself, though recent work at the site suggests the ditch of the camp stops before the Wall - Woolliscroft, *in. litt.*). Though St Joseph first promulgated the idea, it was other writers who were to expand and develop upon it, initially Feachem (1956, 329-39), further refined by Maxwell (1974, 327-32) and reaching full maturity in a highly-polished passage contained within the latter's jointly-authored monograph on the Wall (Hanson & Maxwell 1983, 104-36).

Elsewhere, throughout the boom years of the discovery of Roman military installations through aerial photography, few sites were proposed as Antonine. In 1958, St Joseph suggested that the over 120 acre series might be Antonine or Severan, but produced no coherent argument for either case, merely a case for why they should not be viewed as Flavian (1958, 93). Later however he abandoned the earlier context in favour of a Severan date for these sites, subsequently allocating a few of them to the originally rejected Flavian era.

It was Hanson & Maxwell who made the first significant attempts to attribute an Antonine provenance to some of the growing body of known camps in Scotland. Concentrating their attention on sites lying south of the Forth-Clyde isthmus, their main proffered guideline was the relationship of the individual camp to known Roman roads. Their argument proposed that those sites which can be seen to respect roads should be viewed as post dating them, while those which betray no such relationship might reasonably be perceived as Flavian sites, the latter having been constructed prior to the formulation of physically constructed lines of communication (Hanson & Maxwell 1983, 65). To this foundation they added the observation that an increasing number of sites were known in southern Scotland, by and large unattributed to a specific period, which ranged in size between 17 and 22 hectares (42-54 acres). Finally, and with due caution, they noted the tendency (though stressing no more than that) for Flavian sites to take on square shape; this left a rump of rectangular sites

unattributed. By utilising a combination of these factors, Hanson and Maxwell thus produced a list of some nineteen potentially Antonine camps in southern Scotland, placing this period on distribution maps of temporary camps in Roman Scotland for the first time (1983, 67-8).

Subsequent works have tended to emphasise only new discoveries which might fit the criteria established for identifying Antonine camps, or reiterate the same guidelines (Maxwell 1989a, 59-60). On the whole there has been little direct criticism of Hanson and Maxwell's scheme, their suggestions apparently meeting with widespread approval.

The presence of several series of Severan temporary camps in Scotland has long been contended, the original theories informing these identifications stemming once again from the work of St Joseph. It is however interesting to note that the camps which have become synonymous with that period were originally allocated, or at least thought possibly to relate, to other periods. The groups in question, now referred to as the 63, 130 and 165 acre series, began life (in print in 1958) as parts of two groups, the 63 and over 120 acre series. The 63 acre series was argued to refer to a different context to the over 120 acre series because one example of each type overlapped at Ardoch (St Joseph 1958, 93). St Joseph, at this time working without the benefit of the testimony of excavation, thought it possible they might relate to Flavian activity, especially noting that Roy had believed the 63 acre camp at Ardoch to be the earlier of the two. In addition, St Joseph noted that both here and at Innerpeffray, another site where one example of each series exists, it looked as though the smaller camp occupied the better ground, as if no constraint, such as pre-existing earthworks, had constrained the 63 acre camp builders. The over 120 acre series, believed the later of the two, was deemed most likely Antonine or Severan. This contention was bolstered by the belief that the example at Ardoch overlay a signal station (again, at that time, not substantiated by excavation); it was argued that the latter must have formed part of a permanent system, and that consequently it must be either Flavian or Antonine in date. Reducing the potential occasions on which a permanent Flavian "system" could have been constructed to two, and implicitly discounting the earlier by not mentioning it, St Joseph rejected a role in a second Flavian phase, since this would be connected with Roman withdrawal from northern Scotland and, to him, the camps implied movement forward to the Moray Firth. No preference was stated at this stage however between the two remaining potential contexts; this followed later.

By 1969 St Joseph had produced an updated and refined account of the 63 and over 120 acre series, the overall numbers of the former having doubled, from seven to fourteen, the latter having increased by four to seventeen (1969 116, 118). The case for seeing a common origin in the 63 acre series was clearly and self evidently strong, the individual sites truly displaying similar characteristics: size, shape and number, type and positioning of gates. Further, as St Joseph noted: "Northwards from Ardoch the camps are at such close intervals as to suggest that almost the whole sequence on the main line of march is now known" (1969, 116). The realisation that several of these sites shared the feature of a small attached annexe (1969, 114) served only to strengthen the coherence of the constituent members as parts of the same whole. This forms the basis for the acceptance of this group of works as a series, and it is inherently strong. For that reason, it has remained virtually unchallenged since first postulated.

By contrast, even when first proposed, the over 120 acre series could readily be seen to include a wide range of sizes of camp, and even at this relatively early stage St Joseph drew a distinction on this and geographical location grounds, between the very large examples in the south of the country and the remainder lying north of the Forth (St Joseph 1958, 93). Subsequent study caused him to further divide these sites, first separating the largest camps into a discrete 165 acre series (1969, 118) and then splitting the northern group into two, one body tending towards 130 acres in size, the other to 110 acres (1973, 231-3; 1977b, 143-5); each new group, in addition to possessing differences in size, could also be distinguished in terms of their geographical distribution, largest examples lying farthest south, smallest farthest north. Ultimately, as has already been noted above, this latter group was reassigned a Flavian date; the remainder were by now being actively promoted by St Joseph as Severan.

This dating rests largely upon the interpretation placed on two sites: Ardoch and Carpow. At the former the relationship between a 63 acre camp and a 130 acre camp has now been tested at two points by excavation (St Joseph 1970, 163-71; Hanson 1978, 146-9). Both sets of results demonstrate the smaller work to be the earlier. Excavation by the former authority has also established that the 63 acre camp post-dates the 13 acre camp (and by extension the 30 acre camp, which he argues is Flavian, for which see above), while the 130 acre camp post-dates a small signal station (see above). This provides an assured relative chronology between the two examples of the large camps, which may be extended to other sites such as Innerpeffray, and Grassy Walls/Scone where again examples of both types exist side by side. At Carpow, St Joseph has identified a "polygonal enclosure" of large size

which he relates to the 63 acre series, seeing it as the target for the troops marching from Ardoch by way of the camp at Broomhill near Forteviot, being the point where the crossing of the Tay would be effected. Arguing that the Flavian army under Agricola would have had no reason to effect a crossing of the Tay at this point, being instead more concerned with reaching the Caledonians in the Highland glens, and recalling the Severan coin issue commemorating the construction of a bridge of boats, he marshals these various pieces of circumstantial evidence and proposes that the route in question can hardly be other than Severan (1969, 116-8). If this hypothesis be accepted then one need only return to the evidence from Ardoch to calculate that the 130 acre series must post-date a series of Severan camps. St Joseph then points out the close similarity in all but size of these two series, and suggests that the larger group should also be seen as Severan, representing the second of the punitive campaigns undertaken by that emperor as related to us by Dio Cassius.

Despite occasional comments cautioning against the wholesale acceptance of these interpretations expressed in the wider academic community (e.g. Hanson 1978, 146; Maxwell 1989a, 65), there has been little serious criticism of St Joseph's proposals, either in terms of the internal coherency of these series or in terms of their alleged date. Indeed in some instances the Severan date of these works is treated as incontrovertible fact (e.g. Reed 1976, 92-102). It would be fair to conclude that the Severan date of the 63 acre and 130 acre series camps has been broadly accepted as the best available working theory, whatever doubts there may be having yet to be expressed in forceful terms in print. Yet there are some aspects of the theory which give cause for further reflection. In his final scheme, St Joseph states that the similarity of the 63 and 120 acre series is so marked that they should be seen as of the same period. This is a significant change from 1958, when St Joseph argued that the two series should be viewed as having different contexts (outlined above) separated in time by well over a century. The subsequent shift to a Severan context for both series rests on the presence of the polygonal enclosure at Carpow, viewed as the gathering point for the whole army ahead of a crossing of the Tay (St Madoes on the further shore representing the bridgehead camp) (St Joseph 1973, 220-3, 231-2). The size of the works was promoted as best representing a Severan context, since we know through the testimony of Herodian (III.14.4) that the expeditionary force assembled for this occasion was especially large. Carpow suits a Severan context for strategic reasons, St Joseph suggesting that Agricola would have been more concerned with confronting the Caledonians and sealing the Highland glens; this is bolstered by the presence there of a Severan fortress, at which excavation had failed to recover traces of Flavian occupation (e.g. Birley 1963, 184-207; Wilkes 1971, 52-4), though in this

respect it is worth noting the recent discovery by a metal detectorist of coins of both Vespasian (dated A.D. 72-3) and Trajan (dated A.D. 103) from fields just north of the fortress (Burnham, Keppie & Esmonde Cleary 1993, 278). Since then though some doubt has been cast on the purpose of the polygonal enclosure, Wilson suggesting that it might just as easily represent the outworks of the fortress and thus not a gathering point at all (1984, 57). To this may be added the simple fact that no secure dating evidence to support a Severan context for either of these groups has yet been recovered.

Other objections, both regarding the interpretations of specific sites and on more general issues, have been voiced. Both Hanson (1978, 140-1) and Daniels (1970, 92) have drawn attention to the apparent obsession with these three (or at the time when both were writing, two) historical contexts, pointing out that several other examples have been more or less ignored: Daniels singles out campaigns under Ulpius Marcellus, Constantius Chlorus and Constans, Hanson notes these and several more potential scenarios in the fourth century A.D.; meanwhile non-historically documented activity is never mentioned (Jones & Mattingly 1990, 79). The RCAHMS has continued to discover new sites, as have several other individuals, and many of these have been interpreted, usually being fitted within the schemes detailed above. Maxwell, for example has painstakingly winkled out the existence of another 63 acre series camp at Dunipace, close to the complex of sites focused on Camelon (Maxwell 1991, 9-11). New discoveries have allowed the confident identification of campaign routes, where previously only strong suspicion was possible; examples include the sites at Carlops, Cold Chapel, Cornhill I and Kirkhouse, which highlight the route from Clydesdale to the Forth (see further chapter 9). By and large though the situation, as broadly understood, remains unchanged since the early 1980s.

The picture of Roman military activity in England, with particular reference to temporary camps, is far less developed than north of Hadrian's Wall, predominantly due to the far poorer survival of remains, both as upstanding sites and as cropmarks. Certainly the historical narrative produces a less clear cut picture within which to set these remains. The available contexts tend to be restricted principally to the first century A.D. (though as in Scotland there are later dates, both countrywide and more localised, which could have seen military movement), and this concentration has led to a sense of helplessness, on the grounds that it will always be harder to find ways of distinguishing between different periods of use, especially in areas where the available historical framework is tight; the material differences between a Cerialian and a Frontinian camp are naturally deemed likely to be virtually negligible. But even

allowing that such attribution will be problematic, there is the more fundamental problem of the relatively parlous state of knowledge found in England, at least by comparison with the database which now exists north of Hadrian's Wall and in certain areas in an absolute sense.

Indeed it is not possible to deal with England on a countrywide scale; some areas of the country are wholly devoid of evidence for the movement of troops in temporary camps, the far south and south-east most famously, while others have only enough information to allow develop of the sketchiest of pictures. Interpretations have tended to concentrate on a more strictly regional basis. This said however, some regions have archaeology capable of sustaining fairly refined theories, and the most impressive body of material is undoubtedly to be found in Northumberland.

Northumberland plays host to more upstanding temporary camps than any other county or region in Britain, Scotland and Wales included; indeed it has more than are to be found in the whole of Scotland taken together, though admittedly a significant proportion is represented by small, probable practice works. The Northumberland camps tend to concentrate on two distinct linear monuments; Hadrian's Wall and Dere Street. The latter, so long thought of as a distinct group, thanks in the main to Richmond's classic study of them, in fact share little more than their geographical location in common. There is no real sense that these sites represent a coherent series, though some examples equally clearly may be linked to others both within and outwith the Northumberland camps; rather they appear to be a rare glimpse of the conglomeration of such works which might build up over time along a principal Roman line of communication, in this case Dere Street. As such, they are better viewed in tandem with sites known in southern Scotland, to which, in a Roman context, they are clearly more intimately connected. Certainly Maxwell's groups of possible Flavian sites in Scotland include examples from the Redesdale sites (1981). The advent of aerial reconnaissance and the discoveries made as a consequence have gone some way towards reintegrating this group of camps in their proper setting.

The works along Hadrian's Wall, which naturally incorporate further examples from the neighbouring county of Cumbria, have tended to be treated in a manner similar to those on the more northerly frontier, many being interpreted as construction camps associated with Wall or fort building activity. In addition, several very small examples have been interpreted as practice camps, as such having closer affinities with examples known in Wales. Attention has however tended to be rather unfocussed; Breeze and Dobson (1987), unlike Hanson and Maxwell, devote little space to a consideration of

these works in their monograph on Hadrian's Wall. The thirteenth edition of the *Handbook to the Roman Wall*, edited by Charles Daniels (1978), touches upon some of the works visible along its length, but their treatment is not comprehensive. Outside of antiquarian studies, only one comprehensive attempt has been made to deal with these sites. This paper, originally delivered by Julian Bennett to the Roman Frontier Studies Conference in Stirling (1980, 151-72), was devoted to establishing the likely function of the various sites, dividing them up into distinct groups. As noted above, he came to the conclusion that several different types of site could be identified, some marching camps, some construction camps, some practice camps, and some even perhaps more likely to represent the vestiges of more permanent structures. The attempt was long overdue but sadly is at times rather too formulaic, a shortcoming which to some extent undermines the value of the exercise. Subsequently, Jones and Mattingly have produced a condensed version of the current state of understanding, complete with a welcome interpretative map (1990, 110-1, 117). Ultimately however, much work remains to be done on this body of material and it is therefore with a sense of expectation that the archaeological community awaits the results of long term study of these, and many other temporary camp sites in England, work which has been undertaken by the RCHME in the late 1980s and which is due for publication in the near future (Welfare, pers. comm.).

Elsewhere in the north of England camps tend to be known in small groups or pockets, linked more to fortuitous survival (and discovery) or the particular patterns of individual flying programmes. Examples include the sites at Troutbeck (Bellhouse 1957; Frere & St Joseph 1983, 24-7) and Cawthorn (Richmond 1932; Frere & St Joseph 1983, 109-10). Two exceptions to this rule exiSt The first, and by far the better known, is the small group of camps which lead across Stainmore and which display unique characteristics of shape and employment of gates. These, again initially at least owing all to Richmond for their fame (Richmond & McIntyre 1934, 50-61), are commonly believed to represent movement of troops under the governor Cerialis, following the subjugation of the Brigantes (Wilson 1974a, 347; Shotter 1984, 13-4; Frere 1987a, 85). Reycross and Crackenthorpe have long been known and were each planned by Roy (1793, pl. xvii), long prior to their rehabilitation by Richmond; Plumpton Head was added to the group following its discovery by CUCAP (St Joseph 1951, 54) and Shotter has recently postulated the further inclusion of Kirkby Thore I, despite the obvious difference in size (1984, 13-4). The second, covering the same general area but tending to occur beside the Roman road leading between Brough and Carlisle, is a group of generally small camps. Many of these sites were discovered in the early years of CUCAP (St Joseph 1951, 54) and despite the publication of a

number of general works on the north-west of England since then (e.g. Shotter 1984; Higham and Jones 1985), appear to have attracted little subsequent attention.

Further south the picture becomes even more fragmentary. Several sites are now known in Yorkshire, but not in anything like enough numbers to allow clear routes or contexts to be allotted them; Lancashire remains a closed book. Occasional attempts to fit the few known sites within the historical framework have appeared (e.g. Hanson and Campbell 1986), but these are very much speculative efforts, making do with what is, as yet, wholly unsatisfactory evidence. Certainly there is no coherent or comprehensive infrastructure of camps which may be tied, however tentatively, to the historical contexts available for the area in the manner that has been achieved for Scotland, or even Wales.

The situation in south-eastern England is only marginally better served in this respect. Again a number of sites are now known here, but without the sort of density needed to allow convincing patterns of movement to be established and dates to be appended to them. It is also apparent that knowledge here relies heavily on individual endeavours. A glance at the map shows a "window of knowledge" with regard to temporary camps, roughly defined by the four corners of Lincoln, Ancaster, Littlechester and Chesterfield, an area which corresponds remarkably well with the home patch of the late Derrick Riley. Attempts to contextualise these sites have naturally looked to the early conquest period, occasionally bringing in the period centring on the Boudican revolt as an alternative scenario, but as with adjacent Yorkshire the evidence available is incapable of supporting anything but hopeful guesses. East Anglia has also relatively recently been found to have hidden the vestiges of temporary camps (see for example various papers by Edwards); yet again hopes here are pinned on future discoveries as a means of obtaining more than the sketchiest context for these sites. Home Counties England is famous for its reluctance to display any traces of the Roman army on campaign, a situation which spreads into the central Midlands and throughout Wessex. The situation in south-west England is marginally better, ever since CUCAP discoveries of temporary camps at Alverdiscott and North Tawton (St Joseph 1977, 125-6; Silvester 1978, 249-54; Maxfield 1980, 297-301; Maxwell & Wilson 1987, 3-4), but here again more dots are needed before the job of joining them to reveal a meaningful picture can be undertaken with confidence.

It is of course to Wales and the Marches that one must turn for evidence on a scale even approaching that found in Scotland. Here again the greatest debt is owed to the work of CUCAP and its protagonist, a fact amply demonstrated by the relative lack of

debate on the issue as pertaining to Wales since St Joseph ceased his regular contributions in the late 1970s. Even so, it would be a mistake to imagine that the level of knowledge or of refinement in setting sites within an historical framework even approaches that existing with respect to the Scottish sites.

In 1958 and again in 1961, St Joseph noted that comparatively few temporary camps were known in Wales and the Marches but stated his belief that many more awaited discovery (1958, 96; 1961a, 269); earlier (1953, 85) he had suggested that this situation might be explained in terms of the relative lack of good arable land within the Principality. This refrain has been repeated more than once in the following years (e.g. Hogg 1973, 8; Wilson 1990, 10), though not to universal agreement; others have offered a rather gloomier prognosis, believing there are few surprises in store for the temporary camp seeker, at least for those terrestrial fieldworkers concentrating their attention upon open moorland locations, in direct contradiction of Hogg.

It is thus not until 1973 that St Joseph attempts anything approaching an overview of the evidence for troop movement, in the form of distributions of temporary camps (1973, 241-4). Even here he is at pains to enunciate the problems, thus: "The camps vary greatly in size, in plan, in position, and in choice of ground.", and later: "Camps of this diversity do not readily fall into series such as have been distinguished in Scotland." (1973, 242). And despite being able to identify potential pairs of camps which might form stages on the same route, such as St Harmon and Esgairperfedd, or Caerau and Y Pigwn, the nearest St Joseph is able to come to a significant grouping of sites is his tentatively-couched suggestion that five camps (Wall, Burlington, Wroxeter, Whittington and Penrhos), running from east to west and then veering to the north-west, might represent stages on an early campaign route into North Wales.

Since then, although new discoveries have been made they have been on a much reduced scale when compared with the period 1946-76 before St Joseph's retirement. Both Webster (1981) and Stanford (1980) have produced synthetic works which include discussions of the evidence for temporary camps, neither straying far from the picture evolved by St Joseph. Specific areas within Wales have also received attention in RCAHMW volumes, including comment on the relevance of the temporary camps, again without significantly altering the established view (1976; 1986). Jones has continued to concentrate his attention on specific sites, most recently Abertanat and Clawydd Coch, the exact nature of which remain as yet unclear (Jones 1991, 29-35), while he and Mattingly have recently provided pictorial evidence for possible campaigning routes and thus the functions of the camps, though even this owes much

to St Joseph and has a tendency to fill the gaps with impressive but vague and unsubstantiated arrows (Jones & Mattingly 1990, 80-1) .

Consequently there has been little new material upon which to base new research into the wider meaning of the distribution of temporary camps. A measure of the slump in new information may be gained by comparison of the sections on Roman Wales and Roman Scotland which appear in Maxwell & Wilson's paper (1987, 1-41), covering discoveries between 1977 and 1984; twenty seven pages are devoted to the northern material, by contrast with less than one for Wales. A later summary of discoveries in Wales, covering the period 1969-89, does little to enhance this somewhat bleak picture (Wilson 1990). The lack of an aerial division of the Royal Commission in Wales until well into the 1980s will certainly have contributed to this slight sense of stagnation, and it may be anticipated that further flying programmes such as have been conducted in Scotland following St Joseph's 'retirement' will lead to further discoveries and hopefully provide a new momentum for further interpretation.

This more or less sums up the current state of play in the subject with respect to temporary camps. Additional contributions have been rare, other than on individual sites, and are usually content to reiterate the work of the scholars noted above. One exception is Sommer's attempt to draw together evidence for construction camps associated with the building of permanent forts, though this suffers from an overly formulaic approach consequent upon its being little more than a side issue to his main thesis. In short, all camps of a particular size and within a particular radius have been included, though it is clear that little more thought has been given to the claims of specific examples listed. The result is that some examples are unconvincing and occasionally bizarre (e.g. the ditch underlying the *principia* at Carrawburgh fort) and an overriding sense that the attempt would only have been worth making if a deal more site specific attention had been paid to the subjects (Sommer 1984, 55-6).

It has been noted that many gaps in knowledge still remain, but by and large there is a sense that this will be resolved in time through the patient aerial observation of the countryside. New discoveries will allow the current picture to be fleshed out and refined and gradually, as more detail emerges, the full truth (or as full as is realistically achievable) will become known. Yet the picture which does stand is not unproblematic, and not only in terms of lack of detail. The very basis of the framework which has been erected around these discoveries is far more contentious than is commonly allowed, being based more on the reputation of individuals than on the inherent strength or security of their reasoning. It is clear that the only picture

which is currently accepted as both detailed and secure is that pertaining to the material from Scotland. If however the basis for that framework is inspected in detail, it may be seen to rest on far shakier foundations than might commonly be believed. Further attention is paid to this issue in chapter 9.

It remains then to ask what, short of awaiting further aerial discoveries, might be done to elucidate matters further. My contention is that the only possible alternative lies in the excavation of these sites, on a scale commensurate with the sorts of information required to better understand their character. To that end the following two chapters investigate the achievement to date of excavation in throwing light on these works, the potential which exists for improvement and a possible means of attaining that goal.

## Chapter Six

## The unsung testimony and contribution of terrestrial fieldwork

In the previous two chapters an attempt has been made to define the temporary camp and to look at the way in which the classification of these works has been attempted thus far. The picture which emerges has been shown to be heavily reliant upon the testimony of aerial reconnaissance, being highly dependent upon using the characteristics of camp size, shape and gate type to create categories. This basic ordering is augmented by the incorporation of selected items of information contained within the relevant written sources (chapter 3) and, most rarely of all, by reference to a handful of securely-dated sites established through limited excavation. These elements, coupled with an attempt to identify coherent spatial patterning of groups or series of camps with like characteristics, has established basic sets to which have been allocated particular dates. These in turn have then been fitted within the wider chronological framework of the Roman occupation of Britain.

What is rarely mentioned in discussions of temporary camps is the high degree of pure speculation which underpins these frameworks and the considerable number of sites which this process has failed to accommodate within either a given series or within a broader chronological framework. The aim of this chapter will be to look closely at the results obtained from the small number of excavated camps in Britain, and set this limited but conclusive body of data against some of the commonly held assumptions regarding this class of monument which have been deduced from the far less conclusive medium of aerial photographic interpretation. In so doing, questions will be raised about the nature of existing methods of classification and analysis. This approach is considered necessary, partially as an exercise in balance, partially for the sake of completeness, but most importantly because it is essential to work from the known before attempting to fill in gaps with conjecture, however clever or well informed the individual providing the guesswork might be. It will be seen that such an exercise does indeed challenge currently accepted views concerning temporary camps which, while widely held, do not stand up to close scrutiny. It should also demonstrate that the study of temporary camps is neither as straightforward, nor as formulaic, as might otherwise be believed, and that the existing state of knowledge is in dire need of an injection of actual "facts", if a proper understanding of these works and their importance within the framework of the Roman occupation of Britain is to be fully appreciated.

The common view of temporary camps, to all but a few scholars working closely with the material, may be characterised by the following general description.

Temporary camps are easy to identify. Products of the Roman Army on campaign, or on manoeuvres, they adhere to strict guidelines for their construction and layout - as one would expect in a highly professional military organisation - and may be readily identified by their playing-card shape, comprising straight sides and rounded angles. Temporary camps are very simple constructions giving rise to straightforward archaeological remains. They invariably comprise a set of defences, formed by a bank or rampart and ditch, the former created from the material excavated from the latter, the whole surmounted by a palisade of wooden stakes, supplied by the footsoldiers in the occupying force who carried this paraphernalia with them as part of their equipment. Occupancy was short-term, usually one night or at most a few nights, after which the army moved on, setting up another camp of near identical form at the next stopping point on their march. Shelter within the camp would be provided by tents, of varying scales of grandeur or utilitarianism - as befitted the rank of the occupant - rendering it archaeologically virtually impossible to recover traces of internal constructions. No buildings, whether of timber, turf or stone, would have been constructed during the "life" of a temporary camp. The only remains one might find are pits, perhaps dug to receive cooking or other detritus. The short duration of occupation and the order imposed on the troops by the superior officers means very little rubbish will have been left behind to be recovered during excavation in the form of small finds. Temporary camps, on the whole, will thus be devoid of intrinsically datable artefacts. On quitting camp, the army would slight the defensive perimeter, by upping stakes and casting the rampart back into the ditch, thus ensuring that no earthworks remained which an enemy might utilise against them in battle (these points may be found in almost any general description of a temporary camp: see, for example, Frere & St Joseph 1983, 19-20; Keppie 1986, 5-31; Maxwell 1989 38-67; Jones & Mattingly 1990, 77-88).

The implication which emerges from this, for the archaeologist, is fairly clear. Temporary camps, as represented in the archaeological record, will comprise little more than a ditch, or at best a bank and ditch, enclosing an area virtually devoid of archaeological remains. Excepting those cases where a temporary camp impinges upon another archaeological site or feature (in which case that relationship should be tested by excavation) there should be no need, in examining these sites, to do anything other than establish the nature of the surviving defences and determine the full extent

of the perimeter. This will allow the size and shape of the camp to be gauged, and with the aid from time to time of the presence of very specific types of gate emplacement, one will have amassed all the information necessary to fit these sites into groups, or series, which in turn can be applied to the most appropriate of a few available historical contexts - say the campaigns of Agricola, or those of Septimius Severus.

The aim of the arguments contained in the following pages is to examine virtually every point contained in the preceding general description. And indeed, when one actually studies the evidence available from the testimony of both aerial photography, and terrestrial fieldwork, a rather less straightforward picture emerges. It will be the aim here to demonstrate the flawed or partial nature of this set of assumptions. Further, the evidence presented is also, in effect, a plea for a reconsideration of the way in which we treat these works archaeologically, on the grounds that a different approach or set of approaches may yield more information than has until now been believed possible.

The first issue to be addressed is that of the general form of temporary camps. While the playing card analogy is a useful general rule of thumb it is imperative to note, and in this particular instance fairly widely recognised, that camps can take a far wider variety of shapes than these simple guidelines would appear to allow. Shape is one of the primary tools utilised by archaeologists in determining the date and context for temporary camps, a situation demanded by the large number of camps known only from their morphology as detected from an aerial perspective. As a consequence, considerable attention has been focused on this aspect of the study in the 50 years since the end of the Second World War, and the range of shapes which camps can and do take is understandably fairly well known. Nor is this knowledge fed solely by archaeological observation. Vegetius relates a range of possible forms open to the military surveyor when laying out a camp (Vegetius, *Epitoma Rei Militaris*, III.8):

*"Quibus caute studioseque provisis, pro necessitate loci vel quadrata vel rotunda vel trigona vel oblonga castra constitues"*

"When such precautions have been adequately taken, the camp may be laid out as a square, or circular, or triangular, or oblong, as the site demands."

So far, circular and triangular camps appear to exist only as a theoretical construct in the pages of that treatise, though by the same token, forms more unusual than those

prescribed by Vegetius have been identified on the ground, demonstrating the highly flexible approach adopted by the Roman army in the field and proving that they need not be confined strictly by the dictates of this or that *vade mecum*. A few examples should amply demonstrate the point.

At Raedykes, in Grampian Region, one may still trace on the ground the better part of the circuit of one of the most peculiarly-shaped camps in the country. Here the perimeter defences may be described as an irregular rectangle which has then had its south-west corner lopped off and reapplied to the north-east corner, thus creating a sharp and jutting angle and overall a most irregular outline (for a plan of Raedykes see: Macdonald 1916, fig. 6 facing p.344 = Crawford 1949, 109). Reycross, located on desolate moorland in County Durham and now intersected by the A66, constitutes one of the best known marching camps in the country and, like Raedykes, remains largely intact as an upstanding monument. Here the trapezoidal camp plan resembles an image high on a wall shot from a projector set up on the floor, the perspective of the image seeming wildly distorted (Richmond and McIntyre 1934, 51; Frere and St Joseph 1983, 25). Channelkirk, in the Scottish Borders, so far as its perimeter is known, appears at first glance to have been laid out by a drunkard, though careful consideration of the topographical constraints imposed by the requirements of such a large camp quickly illustrate the adaptability of the army faced with such circumstances (Maxwell 1989a, 62). Finally, at Cawthorn exists the famous "coffin-shaped" camp, Richmond's camp C, most closely resembling in form the fortifications normally associated with Roman siege works, its gates all employed along one side of the camp (Richmond 1932, 17-78). Clearly then the imagination and ingenuity of Roman camp builders stretched further than the pages of Vegetius alone will allow.

In general terms the preceding examples still represent unusual variations on the basic camp layout, though it is equally true to say that a significant proportion of all known temporary camps fail to conform to the standard playing card shape, even if most can be seen as slight variations on that theme. As a rule, the larger the camp the more likelihood there is of an irregular layout, for a wide variety of reasons. Both Hyginus and Vegetius provide lists:

*"Ceterum quocumque latere flumen sive fontem habere debebunt in qualicumque positione castrorum. Iniqua loca, quae a prioribus novercae appellantur, omni modo vitari debent: ne mons castris immineat, per quem supervenire hostes aut prospicere possint quid in castris agatur; ne silva celatura hostes adiaceat neque fossa vel valles*

*per quas obrepi castris occulte possit; ne vicini fluminis torrentis subita tempestate castra inundata intereant."*

"Furthermore, whatever the strategic position of a camp, it should have a river or a source of water on one side or the other. Unfavourable terrain, called a "stepmother" by previous writers, should be avoided at all costs; so, the camp should not be overlooked by a mountain, which the enemy could use to attack from above or from which they could spy on activities in the camp; there should be no forest in the vicinity which might offer concealment to the enemy, and no ditch or valleys which might allow a surprise attack on the camp; and care must be taken that the camp is not inundated and destroyed by a sudden overflowing of the waters of a neighbouring river."
(Hyginus - *De Metatione Castrorum* 57: translation by Campbell 1994, 102)

*"In metandis castris non sufficit locum bonum legere, nisi talis sit ut alter eo non possit melior inveniri, ne utilior, praetermissus a nobis et ab adversariis occupatus, apportet incommodum. Cavendum quoque ne per aestatem aut morbosa in proximo aut salubris aqua sit longius, hieme ne pabulatio desit aut lignum, ne subitis tempestatibus campus, in quo manendum est, soleat inundari, ne sit in abruptis ac deviis et circumsedentibus adversariis difficilis praestetur egressus, ne ex superioribus locis missa ab hostibus in eum tela perveniant.*

"When surveying a camp, it is not sufficient to choose a good site unless it be so good that no other site better than it can be found. Otherwise a more advantageous site overlooked by us may then be occupied by the enemy, bringing danger. Also ensure that unhealthy water is not close by or wholesome water too far away in summer, and that there is no shortage of fodder or firewood in winter, that the site on which one is to camp is not liable to flooding after sudden rainstorms, and that it is not in broken, remote country where the enemy might surround us and make it difficult to escape, and that missiles cannot be shot from higher ground by the enemy and reach it."
(Vegetius - *Epitoma Rei Militaris* III.8: translation by Milner 1993, 76-7).

Some of these, and other, considerations can be seen to have exercised the minds of the Roman army by study of the archaeological remains in Britain. These include for example the deliberate enclosure or omission of particular tracts of land, such as the inclusion within the north-west corner of the camp at Oathlaw in Tayside of a small hill (Crawford 1949, 97) or that of several areas of high ground within the perimeter of the camp at Durno in Grampian (St Joseph 1978, 271). Also evident at some sites is

the effort made by the army to fit the camp within the constraints of the local topography, where suitable camping ground has proved difficult to locate, as for example appears to have been the case at the exaggeratedly elongated camp of Bagraw I and II in Northumberland (Richmond 1940, 120) or at the oddly-shaped camp at Twyn-y-Briddallt in Mid-Glamorgan (RCAHMW 1976, 98-9). It is also worth remembering that the Roman army surveyors were human and doubtless perfectly capable of simple error. Certainly St Joseph believed that the strange shape of Twyn-y-Briddallt could be attributed to flawed castrametation (St Joseph 1965, 86), while the highly irregular trapezoidal camp at Pennymuir III was also, in the opinion of the Royal Commission, the result of sloppy surveying technique, on the grounds that its shape did not appear to be determined by the nature of the available land (RCAHMS 1956, 375-7).

Few camps of over 40 acres, and several of smaller area, will be found to conform to a perfect or even near perfect rectangle or square, for reasons ranging from practical necessity to incompetence. What this means for archaeologists is that there is a need in future to approach the landscape, whether from the air or on the ground, with a greater level of awareness of the possibility of camps taking on morphological characteristics not listed in the few relevant literary sources and previously unrecognised in the existing archaeological catalogue of Roman military encampments.

Turning to the issue of the defences of the Roman temporary camp, several observations may be made which challenge the received view of the "normal" situation i.e. single rampart and ditch, the material from the former deriving from the latter. Study of the known sites in Britain reveal a number of examples which deviate from this pattern. At Arosfa Gareg, a 45 acre camp occupying a most inhospitable location on Welsh moorland, Barri Jones' sections across the defences revealed an earth and stone rampart fronted by a turf cheek, but with no evidence for a ditch. Where one would be expected, the old ground surface was found to continue unbroken, some six or seven inches below the modern ground surface (Taylor 1960, 213; Jones 1966, 177). A similar situation is attested in the region of Hadrian's Wall, at Haltwhistle Common VII, one of a group of small camps located either side of the Stanegate. Here Julian Bennett established the lack of a ditch in four sections placed across the defences (Frere 1977, 373). In the latter case it is possible that the camp was never intended to function as a fully operational entity, being instead a practice work resulting from the training of the troops, as indeed Bennett suggests (1980, 156, where it is described only insofar as it represents one of Bennett's series 1 D camps), though at over 0.5 ha it is certainly large enough to have accommodated a perfectly

reasonably sized force; Bennett himself suggests between 450 and 500 men. One can however accept that there are enough peculiarities about the location and character of this particular camp to allow that it would be inadvisable to promote it as broadly representative of temporary camps as a whole.

This represents the sum total of known camps without ditches in Britain, although there are other examples where ditches have not been provided at least for the full perimeter of the camp defences. Perhaps the best known example is the large camp at Durno, believed by many to be the site of the encampment of Agricola's army on the eve of the battle of Mons Graupius (St Joseph 1978a). Here the excavators found that the ditch had been left undug or was very slight indeed at several points on its circuit. This was deemed to be a reaction to the presence of outcrops of igneous rock which characterise the local geology and which presumably proved too difficult to excavate for the army at certain points, leading in these sectors to reliance on a rampart only (St Joseph 1978a, 274-5). At Melin Court, in West Glamorgan, situated roughly 4 km. east-north-east of the large camp at Blaen-cwm-Bach, a camp of a little under 5 ha. exists, roughly 60% of which may still be detected in boggy ground (Wilson 1975, 223). Agricultural drainage channels cut through the south-east defences of the camp in 1985 found "no certain trace" of a ditch, despite the fact that the preservation of the rampart was good enough to reveal the timbers of a corduroy foundation (Frere 1986, 366).

The few examples cited here, when set against the entirety of the temporary camps known in Britain, is a small enough percentage to appear virtually insignificant, readily explicable in terms of the very particularistic problems or circumstances at each one of the exceptional sites. We do know however that both Vegetius (III.8) and Hyginus (c. 48) actually prescribe a camp furnished only with a rampart for defence, as one of three methods of providing such shelter and security for the army on campaign, a fact which Jones and Bennett were both at pains to point out (Jones 1966, 177-8; Bennett 1980). Vegetius informs us (*Epitoma Rei Militaris* III.8):

*"Tribus autem modis definiunt castra muniri posse. Primum in unius noctis transitum et itineris occupationem leviorem, cum sublati caespites ordinantur et aggerem faciunt, supra quem valli, hoc est sudes vel tribuli lignei, per ordines digeruntur....Quod si terra solutior fuerit ut ad similitudinem lateris caespes non possit abscidi, tunc opere tumultuario fossa percutitur, lata pedes quinque, alta tres, cui intrinsecus agger excrescit ut sine metu securus requiescat exercitus."*

"But they say that a camp can be defended in three ways. The first, for one night's duration and for shorter stops in the course of a journey, when turves are laid out to form a mound on top of which stakes, or *tribuli*, are set in line....When the earth is too loose for it to be possible to cut out the turf like a brick, the fosse is dug in temporary style, 5 feet wide, 3 feet deep, with the rampart rising on the inside. Thus the army is enabled to rest secure and without fear."

Jones also points to the illustration of a ditchless camp on one of the panels from Trajan's Column, though this latter is perhaps less persuasive evidence, when viewed in the light of the knowledge that the artist responsible can be shown to have had a less than secure grasp of military matters (Frere & Lepper 1988, 260).

According to Vegetius then, the ditchless camp was employed for overnight stops or even shorter durations, the implication clearly being that a ditch would be constructed only when sufficient turf for the creation of a rampart was not readily available. Defences of greater magnitude were to be reserved for the more permanent work, or *castra stativa*. If Vegetius is to be believed, temporary camps without ditches will have been the first choice of the army in the field, and thus presumably one should expect more examples of this type of work to have been created than the form which is most common to our modern eyes, the camp with ditch. Following from this, where camps with ditches do exist, the rampart should not be built of turf, but of ditch upcaSt

The archaeological evidence provides a rather different picture, suggesting instead considerable diversity on the part of the Roman camp builders. There is a small body of evidence for camps furnished with a rampart of turf only, though in each case accompanied by a ditch; examples include Dolddinas I (Jones & Knowles 1960, 397-402), Malling I (St Joseph 1973, 223-4), Pen-y-Gwryd (Webster 1969, 184-6), Yardhope (Frere 1977, 379) and Ystradfellte (Jones 1966, 174-5). Turf more commonly appears to have formed part of the rampart construction, used in conjunction with other materials, either as kerbing, as at Greenlee Lough (Frere 1984, 279-80), Oakwood (Steer & Feachem 1952) and Troutbeck I (Wilson 1974, 412-3), where the body comprises clay, at Arosfa Gareg (Jones 1966, 177), and Reycross (Robinson 1990) where the upstanding rampart comprises mixed earth and stones, and at Chew Green I , where turf was utilised as both kerbing and bedding material to a rampart comprised principally of brash (Richmond and Keeney 1937). On many more occasions, the use of turf in the construction of the rampart may be deduced from the

presence of such material in the ditch fill (e.g. Annan Hill (Keppie 1988a), Galloberry (Miller 1952, 120-2)).

There are however several demonstrable cases where turf has formed no part of the rampart, even in circumstances where the materials employed would normally be deemed too unstable for use without some additional retaining medium. At both Edenwood (Maxwell & Wilson 1987, 36) and Wandel (RCAHMS 1978, 136), for example, gravel ramparts are described by the excavators, without mention of turf or stone kerbing. Pennymuir III is noted as having a rampart of peat and sand derived from the ditch (RCAHMS 1956, 375-7), Broomhill of sand only (CBA 1953, 10). Ythan Wells I seemingly had a rampart comprising earth and stones on a deliberately-laid bed of clay (Macdonald 1916), Blaen-cwm-Bach a similar main body but here kerbed with both clay and stone (CBA 1970, 17). Again, at many other sites composite ramparts have been claimed by the excavators on the basis of the contents of deliberately-filled ditches (thus gravel with turf kerbing is claimed for Castledykes I (DES 1987, 45) and Carronbridge (DES 1990, 10), clay with turf kerbing for Annan Hill (1988a) and Bromfield (Wilson 1969, 216).

Several points seem to flow from the foregoing. In the first place, despite the apparent rarity of such camps, as represented by the paucity of archaeologically attested sites in Britain, the possibility remains that further examples, and potentially a significant number, of ditchless camps have been irretrievably loSt The two clear examples of camps without a ditch which exist today do so in large part as upstanding earthworks, i.e. where the rampart may still be traced on the ground for enough of its circuit to allow its essential character to be identified. Since by far the majority of known camps in Britain today have been revealed to us through the subterranean survival of only their ditches, it is perfectly conceivable that many examples of camps defended only by a turf or earthen rampart have long since been obliterated, as Bennett notes (1980, 171 n.8), especially in areas where intensive arable cultivation has taken place. The army, like any other institution, was subject to fads and fashions, ideas which might have currency for short or long periods of time. One need only look at the case of the provision of *claviculae* at entrances, or indeed the very particular Stracathro-type gateways evidenced at a small number of camps, to see an example of such a fashion, in the latter case commonly believed to have been in vogue for no more than perhaps half a century at moSt And as Bennett suggests, though with a proper note of caution (Bennett 1980, 171 n.8), could it not be possible that camps without ditches were utilised by the initial Roman invasion force in A.D. 43, thus accounting for the (apparent) lack of any such works in this part of the country?

In the second place, if we are realistic, we must surely be wary of treating Vegetius' testimony too literally, especially since his account is not written from the perspective of an experienced serving soldier (see chapter 3). Vegetius may well be writing what should happen, yet one must surely imagine instead that decisions regarding appropriate camp defences were very flexible, as the various camp layouts infer, depending upon a wide range of factors, such as the level of danger perceived, the whim of the officers, the nature of the terrain, the local geology, the time of day when work on the camp began, the weather conditions, the mood of the men and so on, rather than always inevitably following the strict letter of the law, as contained within the military manuals. Certainly the archaeological evidence presented above appears to support the notion of great flexibility.

One other variation not yet considered is that camps may have been furnished with more than a single ditch. On this subject Vegetius is unforthcoming and we are thus left with the testimony of other sources, or archaeology, to provide insight. It would be true to say that no definite examples of double-ditched military enclosures, which may be classified as strictly temporary camps, have yet been identified in Britain, although some proposals, albeit tentative ones, have been made. The character of "vexillation fortresses" has already been discussed (see chapter 4) and the category dismissed as representing considerably more than just a temporary camp. But there are other contenders which require at least to be examined.

The first of these is a site at Duncot, near Wroxeter, in Shropshire, discovered during aerial reconnaissance in the early 1960s by Arnold Baker (St Joseph 1965, 87). The site may be classified as being of broadly Roman character, though unusually elongated and as yet apparently lacking entrances. It encompasses approximately 5 acres, the whole enclosed by a double circuit of ditches. Opinion on the character of the work is sharply divided: Dudley and Webster (1965, 143) believed it to be a fort, Webster later tempering this assignation to a possible early fort (1970, 335), a description followed by Jones (1975, 185-6), and with a deal more certainty by Houghton (1975, 43-4). The notion that it might represent a camp was first propounded by Webster (1970, 189), based at least in part on the results of excavations there undertaken by Houghton which failed to produce traces of internal buildings or "a single sherd" of pottery. This is not entirely borne out by other reports of the excavation, which indicate that pottery of mid-second century date was discovered in the upper fill of the military type, V-shaped ditch, complete with ankle-breaker. The fact that the ditch appears to have silted up naturally indicates that the

pottery does little more than confirm the general Roman character of the site, without pinpointing the date. Stanford seemed prepared to accept the site as a camp too (1980, 118), while St Joseph, writing before the benefit of knowledge derived from the excavation results, was sceptical even of the sites' military character, seeing in it closer parallels with the "Celtic" precinct at Gosbecks Farm near Colchester (St Joseph 1965, 87).

On this site the jury must be declared to be still out; Houghton's' excavation results seem to have provided clear evidence, or as clear as one can be on such a small scale investigation, of the site's military character. The defences even appear to have been augmented, on the south-west side, with some form of *chevaux-de-frise*, represented archaeologically by a regular pattern of stake or post holes (Wilson 1975, 247). The general lack of pottery and of evidence for internal buildings certainly keeps open the possibility of temporary occupation, though in truth it would be premature to declare this site a temporary camp without further investigation. While it would be wrong, on present evidence, to push the specific case of Duncot too far, it serves to raise a more general problem, of conditioning or even complacency. Since no such temporary camps are known, there is a marked reluctance to accept one on its own merits and it will take more than a single example to break down this particular barrier. In the meantime it is essential that an open mind be kept on all potential sites of this nature, and that they should not simply be dismissed out of hand.

Much less convincing, but worthy of note nonetheless, is a site at Highstead in Kent, known only from excavation (Frere 1977, 424-5). Here the excavators discovered a double-ditched enclosure apparently furnished with a palisade, which they interpreted as a possible Claudio-Neronian military establishment. Far too little is known about this site to allow anything other than mere speculation, but it is worthy of note that on the basis of the known remains comparisons could be made with the early site at Richborough, which is commonly seen as a form of temporary or semi-permanent camp, furnished with double ditches and a strong gate (Cunliffe 1968, 232-4). Though in the end too little is known, it seems most likely that Highstead, like (or unlike) Richborough, should be viewed as rather more than a simple temporary camp. Yet once again, as with Duncot, if nothing else the existence of the site teaches us the importance of the need for open-mindedness in approaching the subject of works of temporary character.

If it is important to keep an open mind on some sites where too little is known, it is equally important to display appropriate caution, as the site of Orsett Cock in Essex

amply demonstrates. Remains noted here, comprising an apparently double-ditched rhomboidal enclosure, were for a time believed by many to represent a temporary camp or early Claudian military base (Rodwell 1970, 338-9; Rodwell 1974, 13-39; Dunnett 1975, 41; Edwards *et al.* 1979, 15). Initial excavations seemed to add weight to this identification, revealing both ditches to be V-shaped but subsequent larger scale work ultimately proved the site to be a native enclosure (Toller 1980, 35-42). Its inclusion here is instructive if only to illustrate how difficult such identifications can be and how cautious we should remain in assigning character, date and function to works only partially excavated, however persuasive their apparent form or location.

A final word does require to be said on this matter, by drawing an analogy with a continental site, as proof that double-ditched enclosures may not automatically be dismissed as representing temporary camps. For despite Wilson's contention that no such sites are currently known to exist in Britain (1976, 22) he is at pains to indicate the undoubted presence of works of this nature across the English Channel in France. Here, Roger Agache's extensive programme of aerial reconnaissance in the Somme Valley has provided evidence of double-ditched military enclosures, presumed to date to the Caesarian period (Agache 1970, 387-8). Quite apart from the possibility of such works remaining to be located in Britain, perhaps even examples belonging to Caesar's brief sojourn here in the mid-first century B.C., there is clearly no good reason to utterly dismiss the possibility of camps of this nature existing elsewhere and at later dates. It is however surely significant that almost all of the contentious examples noted above, of potential double-ditched camps or works which are often tagged "semi-permanent" for want of a better description, are located in the southern half of the country, often in the far south, in the areas where the earliest military activity took place. If the unusual forms of installation known from the other side of the channel are indicative, then there is some reason to suppose that searching for camps of the type well known in the north of the country will be a largely fruitless exercise, and that the parameters of the definitions of such sites will have to be expanded to accommodate rather more unusual designs. Certainly, the fact that such arrangements are not prescribed by Vegetius is not in itself a strong enough reason for denying the possibility of their existence, as the wide range of morphological characteristics recorded already in Britain and elsewhere amply testifies. Unlike camps furnished only with ramparts, which will often prove invisible to the methods of detection currently available to us, it may be that it is we ourselves who are blinded to the possibility of double-ditched camps by no more than our own preconceptions and expectations.

Whatever the validity of such speculation, further evidence can be adduced to demonstrate how the construction of camps could deviate from the supposed norm. Relatively recently, a little evidence has come to light suggesting that the Roman army may also have employed a counterscarp bank on occasions in their camp defences, similar in character, though clearly on a far smaller scale, to the situation pertaining on the Antonine Wall. Here "the material dug from the ditch was not, for the most part, used to construct the rampart behind it...instead the soil was thrown up on the northern lip to form what is known as the outer or upcast mound." (Hanson and Maxwell 1983, 77). The same writers remark a little later that "in (one) sector the outer mound has survived better than the Antonine Rampart itself", a situation ascribed to the fact that the rampart was made of more easily eroded or compacted turf, while the upcast mound comprised mainly rock rubble. At Annan Hill, excavations undertaken by Keppie in the mid 1980s on the east and south sides of the temporary camp there encountered just such a feature (Keppie 1988a, 15). A section across the east defences, a little way south of the entrance gap, found no trace of the rampart *in situ*, though a deposit of turf revealed in the ditch fill is likely to have derived from such a feature. However on the outer side of the ditch, trace of a counterscarp bank, comprising compacted pinkish-red clay, was located, which Keppie believed to represent material excavated from the digging of the ditch. This was 1.3 metres in width and 0.25 -0.3 metres high, apparently intact, close to half the width and half the depth of the adjacent ditch. A second trench at the south terminal of the east gate found no such survival.

Such a feature is not entirely unique. At Oakwood, Steer and Feachem described sections across the southern defences of the camp revealing a rampart of puddled clay augmented by a few turves, fronted by a small ditch, beyond which lay a mound derived from ditch upcast (sand and gravel), which material had been stabilised by means of a clay kerb on the edge marching with the ditch (Steer and Feachem 1952, 83-5). This upcast mound had been visible as a surface feature prior to any excavation taking place. In Wales, Webster was certainly alert to the possibility of use of the excavated ditch fill to form a counterscarp, for although no trace of such a feature was found at the site of Pen-y-Gwryd, the suggestion of such a practice was nevertheless made by the excavator (1969, 184-6).

The implications of this information are again rather interesting. The conventional picture of Roman camp defence construction is a straightforward "out of the ditch and into the rampart" operation; the evidence from Annan Hill and Oakwood seems to go beyond this. Nor does the provision of a counterscarp bank appear in the text of

Vegetius or Hyginus. In the two examples listed above the sequence of events appears to have been a little more complex. At Oakwood, the ditch is described as small and its contents clearly went mainly to construct the counterscarp bank - the rampart proper, comprising mainly puddled clay, must have been brought from another source. The sand and gravel drift geology was clearly not deemed suitable in the creation of a stable rampart and the fact that only "a few turves" were employed in the rampart perhaps suggests that this material was not in great abundance either. Such geological conditions were encountered on numerous sites known to have temporary camps present; indeed there is even an epigraphic account, contained within the famous record of an address to the troops by the Emperor Hadrian at Lambaesis in Numidia (ILS 2487), when the emperor describes how a cavalry cohort had performed their tasks.

*"Fossam glaria duram scabram[que] recte percussistis et radendo levem reddidistis."*

"You dug a ditch straight through hard and rough gravel and made it smooth by levelling it."

It would appear then that different provisions were made when the basic materials for defence construction did not allow the rulebook to be followed. As noted above, numerous camps, particularly in Scotland, were erected in locations where sands and gravels formed the basic drift geology. In many instances, what evidence there is does support the use by the Romans of materials such as turf or clay to bring stability to the rampart structure, either as the sole rampart constituent or in the form of bedding or kerbing (see above). Equally though there are cases where gravel and sand alone appear to have been used, without augmentation, as at Edenwood and Wandel (see above).

It will be well worthwhile to pay greater attention to the evidence for both rampart and counterscarp bank in these locations to gain a greater insight into the way in which the Roman army dealt with such difficult circumstances. Once again it might be noted that provision of such a feature is nowhere to be found prescribed in the pages of Vegetius or Hyginus, indicating that temporary camps cannot be said to conform rigidly with the information provided by the surviving literary sources.

It is likely that a camp which has had its rampart obliterated through time by whatever agency will also have lost its counterscarp through similar processes, though this need not always be true, especially where the rampart has been built of turf. Either way it is

entirely possible that evidence for counterscarp banks at other temporary camp sites have existed but have been missed simply because the excavator was not alert to the possibility of its existence in the first place. The lesson is that such items should be searched for in any future investigation of a camp's defences.

The next issue requiring attention is that of duration of occupation. Yet again the problem of definition rears its head, since this component represents an essential part of the means by which categorisation of temporary camps may be reached. The question of definition has already been tackled and what is clear is that even sites widely accepted as temporary can and do show unequivocal evidence for a longer duration of occupation than a single night or even a few nights, and for reuse at some indeterminate later date, either by the same force, or by the same force either reduced or enlarged in overall numbers, or by a totally different force utilising the same tried and tested site.

In chapter 4 an attempt has already been made to look at the evidence for lengthy occupation of so-called temporary camps, and for a discussion of the issues the reader is referred back to that chapter. What has not yet been investigated is the matter of reoccupation of temporary camp sites.

Evidence for reuse comes in two quite distinct forms, one most easily detectable from the air, the other traceable through excavation. The former evidence is well established and well known, regularly visible on aerial photographs and the resulting plans of temporary camps from across the country. The list is long:

Ardoch III and IV
Bagraw I and II
Beattock I, II and III
Bochastle I and II
Brackenrigg I and II
Burlington I and II
Carlops I and II (possible)
Castlecraig I and II
Castledykes I and II
Castledykes IV and V
Channelkirk II and III
Cornhill I and II
Crawford III and IV (possible)

Dunblane I and II
Ellisland I and II
Eshiels I and II
Glenlochar VI and VII
Haltwhistle Burn I and II
Haltwhistle Common I and II
Inchtuthil I and II
Inveresk I and II (possible)
Kirkby Thore I and II
Leighton I and II
Lochlands V and VI
Lochlands VIII and XI (and potentially significantly more)
Pathhead I and II
Pennymuir I and II
St Boswells I and II
Uffington I and II
Ulston Moor I and II

All of these camps represent "single" sites - i.e. with defences commensurate with a single temporary camp - which also display clear planometric evidence of lengths of ditch (and by association rampart) additional to that comprising the perimeter. These additional lengths are normally explained as evidence for reuse, involving usually the reduction of the camp's interior area and occasionally its enlargement. These camps alone represent roughly 10% of the total known or probable camps in the country, indicating the regularity with which the Roman army would reuse not simply the same land as previous occupying forces but even the same earthworks. When one adds to this the number of camps which cluster together at the same site, one finds that a clear majority of camps - some 55% - occupy a site in close proximity to another camp. This clustering phenomenon is well enough known thanks to aerial photography, though the weight of evidence for it is well worth emphasising, while always allowing that there could be a danger of distortion of the figures - a form of self-fulfilling prophecy - insofar as researchers will tend to be drawn towards sites where archaeological evidence is already known to exist, leading potentially to a bias in the level of attention afforded such sites.

Where aerial photography has produced abundant evidence for what is commonly inferred to be indications of site reuse, in the relatively recent past terrestrial excavation has begun to build up its own testimony, based mainly on the investigation

of temporary camp ditches. At Dalginross I the processes of use and abandonment at the site were established following excavation there in 1990 (DES 1990, 44; Rogers 1993, 277-86). This work demonstrated that, after an initial occupation the defensive ditch was deliberately backfilled, only to have a second ditch cut through this material in its turn. Since a similar pattern was found in two separate ditch sections in the vicinity of the east gate it seems a reasonable assumption that reoccupation involved reuse of at least this sector of the original camp. It is interesting that no indication of reuse has been detected from the air, in the form of subdividing banks and ditches, this despite conditions conducive enough to allow rows of pits to be identified within the camp interior (St Joseph 1965, 81). Evidence of repeated activity at the site of Dalginross I has been suspected since O.G.S. Crawford noted signs of a rampart lying between the fort and its defensive outwork (Crawford 1949, 41), which may or may not be related to the likely second camp apparently occupying the same ground, noted by St Joseph (1965, 81). The evidence obtained through excavation may now be seen to have added a further, previously unsuspected dimension to this important Roman military complex.

At Dunning, in Tayside Region, two discrete programmes of fieldwork established complementary results which seem to indicate site reuse. In 1988 excavation was undertaken by Lawrence Keppie in the vicinity of the north gateway, two trenches being employed to record the defences prior to the laying of a pipe (Frere 1989, 267-70). A shallow U-shaped ditch was unearthed, in which natural silting appears to have taken place before the deliberate superimposition of "a thin raft of clean grey clay", sealing this deposit. This was followed by the deliberate narrowing of the ditch by the application of a layer of clay to the inner slope, after which further natural silting occurred. The excavator suggested that this evidence was commensurate with reuse of the site at least some months and more likely a year or longer after the original defences had been cut. Some 0.17 metres (6-7 inches) of silt is described as having accumulated before the addition of the clay sealing and lining. Such a depth has been suggested, at other sites, to represent a considerably longer period of "lying time"; at Ythan Wells I and II, excavations designed to test the relationship between the Stracathro-type camp (II) and the "110 acre series" camp (I), revealed the former to be the earlier, some 7-11 inches of silt at least having accumulated in its ditch before the imposition of the rampart of the latter (St Joseph 1970, 176). At the time of the excavation St Joseph used the working assumption that the larger camp was Severan, hence the build up of silt represented well over 100 years of lying time. Shortly afterwards however, and perhaps partially as a consequence of this excavation, he refined the dating of these large camps, now providing a Flavian context for the larger

work at Ythan Wells I (St Joseph 1973, 232), thus inferring that the same silt build up represented only a couple of years build up at moSt This change of heart has been repeatedly criticised by Hanson (1978, 145; 1980, 26; 1987, 131-4), and at the very least his warnings should alert us to the dangers of attempting to estimate the passage of time from the quantity of silt build up in a ditch. Nevertheless the results from the work at Dunning clearly indicate site reuse by the Roman army.

The second bout of excavation at Dunning may indicate that a longer, rather than a shorter, timescale should in fact be envisaged. This time work concentrated on the area around the west gateway, and in each of the ditch terminals at this point clear signs of recutting were found, though not at any other point on the perimeter (Burnham, Keppie & Esmonde Cleary, 1993, 277; DES 1993, 101-2). Fragments of Black Burnished Ware pottery of mid-second century A.D. date were recovered from the second fill from the bottom of the *titulus* ditch, thus seemingly confounding the previously held belief that the site should be thought of as exclusively Flavian. This latter assumption is based upon the morphological similarities which Dunning bore to the nearby camp at Abernethy, similarities which include general shape and size (for comparative plans see Maxwell 1989a, 52). The two works were seen as respective stages in the progress of an army on the march, and the discovery of Samian pottery of late first century A.D. date in the primary fill of the ditch at Abernethy seemed to prove a Flavian context for this movement (St Joseph 1973, 219-21, 228-9). Although the new discoveries at Dunning need not affect the initial Flavian character of the two sites, it is clearly excavation which has provided proof upon which a settled chronological sequence may be built up, and one which is far more complicated than the evidence of the aerial photographs alone would allow.

Even greater potential complexity of site use and reuse has been established through a lengthy campaign of trenching at the camps at Lochlands Farm, near Camelon. In this case repeated aerial reconnaissance had already "tipped the nod" to archaeologists that a complicated sequence of events might be represented here. Though as yet the overall situation is far from clear, digging so far has established in one case a temporary camp ditch (that of VIII) recut at least twice and perhaps even more, in an area where cropmarks demonstrate there was already significant reuse of the same general vicinity (Maxwell & Wilson 1987, 39).

At Finavon, ahead of the widening of the A94, one small trench was opened across the north-east defences of the camp (Halpin 1992, 171-82). Here, clear evidence was recovered for the recutting of the ditch, though the excavator seems excessively wary

of interpreting either phase of use as Roman, due to the lack of artefactual dating evidence (*ibid.*, 178-9). Although the lack of absolute dates is frustrating, it is hardly surprising given the level of excavation undertaken, and the evidence which has been produced is yet another indication of the potential complexity of sequences of occupation at sites of this nature.

At Bishop Rigg near Corbridge, a small temporary camp was excavated in, for the time, rather greater detail than normal ahead of road construction work (Jobey 1979, 99-113). This problematic site remains in some respects at least somewhat enigmatic, though excavation was able to clear up several points of contention, including the very Roman character of the site. Work on the east ditch revealed a ditch fill pattern which the excavator described as giving the appearance of representing a later recut or refurbishment. The primary fill, of silt and coarse gravel, seemed to have been sealed by a deposit of sandy silt containing pea gravel which also contained an intrusion of coarser gravel, and it was this latter feature which Jobey believed to represent secondary activity. The upper ditch fill, comprising undifferentiated earth and gravel rendered certainty impossible however. Pottery was recovered from this site in both secure (from the bottom of the ditch fill and probably of early second century A.D. date) and insecure (from the surface of the interior and the upper ditch fill and of early to mid second century A.D. date) contexts. The applicability of the latter finds to the life of the camp has been called into question, but the possible recut ditch could support the idea of two distinct phases of use. Whatever the case it is clear that excavation has allowed a greater awareness of the complexity of activity at this site.

A sixth site where excavation of the ditches of camps has proved particularly instructive in establishing the sequence of events is that of Dullatur, close by the Antonine Wall. Here, the presence of a temporary camp was finally established beyond doubt in the late 1960s, when cumulative aerial photography appeared to indicate the existence of two camps, one lying entirely within the perimeter of the other (St Joseph 1969, 108-9). Excavation of the site, in 1975 and 1976, proved this assumption to be inaccurate however, by demonstrating that both camps I and II had made use of the same stretch of defences for their respective west sides (Keppie 1978, 9-18). The full extent of the communal defences may indeed be greater than is currently known, since the north side(s) of both works currently lie hidden beneath modern houses and their gardens. Excavation also established the relative chronology of the site, showing that I was the earlier of the two camps, that part of its ditch not reused in II having been deliberately blocked off by means of a clay bank, and the nearest part of it filled in to ground level with clay. So once again reuse is

demonstrated and a relative chronology established by excavation, where aerial photography had been unable to provide such a refined understanding of the processes which had occurred on site. Such activity is of particular interest given the location of the sites beside the wall, a juxtaposition which might normally lead to their identification as construction camps for troops engaged in wall building activity. Prior to excavation, Keppie had expressed scepticism of such an explanation for these sites, on the grounds that they lay in the middle of a wall sector securely located by means of findspots of distance slabs (1974, 154-5). The evidence for a reused camp site at Dullatur may bolster Keppie's case for seeing some of these sites as representing movement north-south prior to the wall's construction.

From the above examples then it may be seen that clustering of camps may certainly be seen as the norm and as a consequence we should not be surprised to discover that reuse of sites was also fairly common. Apart from the fact that this once again appears to contradict the methods prescribed by at least one ancient literary authority (Josephus - *Bellum Judaicum* III.90, though see further below), what is perhaps most surprising is the length of time it has taken us to establish that these processes of reuse may be rather complex, and in many cases beyond the powers of aerial reconnaissance alone to provide critical and confident descriptions, far less interpretations. The evidence now emerging from excavations suggests that such practice may well prove to have been far more commonplace, and more complicated, than has previously been supposed.

Having established that the sequence(s) of occupation at individual temporary camps may well be more complex than has previously been imagined, some attention should be paid to the nature of that occupation; particularly, what level of occupation might one expect to find in a temporary camp and how will this manifest itself in the archaeological record? The standard picture, as noted at the beginning of the chapter, is a gloomy one. Most scholars would agree that surviving remains, both structural and artefactual, will be minimal, and that this dearth is a direct and inevitable consequence of the very temporary nature of the occupation. Scrutiny of the available information, extracted from excavation, and of the methodological approach to the excavation of temporary camps would however suggest that the real situation may not be quite this depressing.

Starting with the evidence for internal structures, there are now several examples which may be cited as proof that the interiors of these works need not be complete blanks in terms of meaningful recoverable information, and without the concomitant

need to associate the presence of internal structures with an encampment deserving of a title other than "temporary".

It has already been argued (chapter 4 above) that any Roman military work displaying significant traces of internal buildings, whether of stone or of wood, or which displays other structural remains indicative of what might even be classified as "semi-permanent occupation", as for example would be the case where provision had been made for timber gateways, cannot by definition be classified as a temporary camp. As a consequence various categories of site, such as the so-called vexillation fortresses, the Claudian "stores bases" on the south and south-east coast of Britain and the growing number of native hillfort sites within which Roman military occupation has taken place, together with many individual sites of less certain character, have been deemed to lie outwith the scope of this study.

Nevertheless, there is still a body of evidence, for what may be classified as broadly structural remains, which can be shown to exist within the interiors of undoubted examples of temporary camps. Aerial photography has played by far the major part in the recognition of these features, the most celebrated example being surely the discovery of, in some cases at least, apparently ordered rows of "pits" within the defences of the alleged construction camp outside the legionary fortress at Inchtuthil (Maxwell 1982, 105-13; Frere and St Joseph 1983, 39-43; Pitts and St Joseph 1985, 223-9; Frere 1985b, 229-39). Despite the ephemeral character of these features (see fig.2), and the concomitant need for a relatively rare combination of conditions to allow their identification from the air, a short but growing list of sites can now be cited as having produced similar evidence: Glenlochar (St Joseph 1951b, 60), Dalginross (Frere and St Joseph 1983, 131), Stracathro (Pitts and St Joseph 1985, 227), and Lochlands (Frere 1989, 271). Without the testimony of a major excavation of one of these complexes - and to date still only Inchtuthil I and II and Lochlands have received any attention in the form of terrestrial fieldwork - aerial photography remains the only means of establishing a coherent explanation of these features. However the information recovered as a consequence of the limited work at Inchtuthil has been highly significant.

As Pitts and St Joseph remark, "The pits within (the camps) at Inchtuthil are more numerous and some of them more regularly arranged in straight lines than those recorded at any other site." (1985, 227). The obvious first questions are what do the "pits" represent and what can this tell us about the nature of the occupation? Frere divides the features into three broad categories, having dismissed some of the larger

and/or more irregularly patterned examples as either non-Roman or non-archaeological: the first, clustering outside the camp and never encroaching closer than 9 metres away from the perimeter ditch, he suggests may represent activity related to the presence of camp followers; the second, arranged in both single and double lines running parallel with the sides of the camp and located well within the interior, he believes represent rubbish pits related to the disposition of tent lines; the third, following the north-east, south-east and south-west (of II) perimeter ditches on the inside and some 6.7 metres from the inner lip, he proposes may represent both rubbish pits and cooking ovens (Frere 1985b, 229-30).

As noted above, excavation was employed focusing on a group of nine pits of the second category, of which four were fully excavated. Vertical sided and flat-bottomed, all were of appreciable size and depth, the scant contents recorded - very small pottery fragments and animal bones - being commensurate with an identification as rubbish pits. One rather interesting conclusion of Frere's in studying the excavation results was his contention that the distances between the two lines of excavated pits was too small for them to represent anything other than the fronts of two facing rows of tents, presumably separated by a road.

Work on the Lochlands examples recovered evidence of charred wood, ashes and burnt earth (Maxwell & Wilson 1987, 39) and have been designated by the excavators as of Roman military character (Frere 1989, 271).

Clearly then, at the few camps where aerial reconnaissance has provided a lead in the identification of such features, there is the prospect of learning much through further excavation. Sadly, excavation of marching camps to date has, with very few exceptions, been on a very small scale indeed (even working from the known, the area opened over the pits at Inchtuthil was a little under 25 x 15 metres), and while a few of these explorations have produced some evidence of similar structural remains, the context is usually too obscure to allow any meaningful description or interpretation to be attempted. In most cases the remains encountered amount to little more than an odd "pit" or "?post hole", almost always found in a situation without a stratigraphic relationship to associate it to the camp within the perimeter of which it lies. Consequently one cannot say what the particular feature itself might represent, or whether indeed it has any relationship to the camp at all. Occasionally one is lucky enough to be able to separate the non-Roman from the Roman. For example, excavations conducted within the interior of the large marching camp at Auchtermuchty in Fife found two interconnecting pits, which fortunately produced

sherds of Medieval pottery from basal deposits, allowing the feature to be conclusively divorced from the Roman occupation of the site (Duffy 1992, 184-6). In most cases however excavators are not so fortunate.

One possible exception to this is the site at Bishop Rigg, near Corbridge, where excavation in 1974 of a portion of a small camp ahead of road construction work produced rather more in the way of structural evidence, particularly in the south-east corner of the interior (see fig. 3). Here again though the excavator was unable to link this material to the camp in any way, and found it impossible even to find coherent patterning within the structural features themselves (Jobey 1979, 105-8). In fact, there is some reason to believe that these features may well be connected with the occupation of the camp, utilising the same criteria applied by Frere to the pits at Inchtuthil. While some of the features, just as at Inchtuthil, are probably unconnected with the use of the camp, others, most notably numbers 20-25, plus others in clusters of two and three, may surely be said to form patterns broadly consistent with tent lines. The distances involved between numbers 20-25 at Bishop Rigg is rather less than those noted in excavation at Inchtuthil; roughly one metre or a little more at the former, between 1-2 metres at the latter. But this difference could be accounted for by the different scales of the two works; it also seems that the provision of space at Inchtuthil was more generous than that prescribed by Hyginus (Pitts and St Joseph 1985, 244). Jobey suggests that the features cannot be related to the camp occupation because they lie in the area where the rampart would have been, though in fact when one considers the likelihood that the ditch as found was artificially wide, and that the reuse may have meant a reduced ditch width anyway, the problem is more the probability that they invaded the space one would expect to be used by the *intervallum* rather than the rampart, for which there is in fact space; discounting F on the plan, there is clearly a gap which is respected by the regular features located during excavation. The matter remains problematic but perhaps not quite so negatively clear cut as Jobey suggests; his contention that the features "made little structural sense" (my emphasis) is perhaps a crucial one. One should not, after all, expect structures, in the form of buildings at least, within the confines of a temporary camp. In this respect much depends on the security of the interpretation of the post holes as post holes, which seems to depend on the presence of some packing stones. Since no plans or sections of these features were provided it is difficult to gauge the accuracy of this contention.

Evidence for pits and post holes elsewhere is scant in the extreme. At Bromfield, near Ludlow in the Welsh Marches, excavation in 1968 ahead of the destruction of the site

by gravel quarrying allowed slightly more than the normal keyhole investigation of a marching camp (Stanford 1968a, 195-6). Here attention focused on the south-west ditch, some 116 feet being cleared and several sections opened across it. The grand total of three internal features are recorded by the excavators, two pits and one possible post hole, all without any clear stratigraphic relationship to the camp and any intrinsically datable evidence from within their fills. At Dunblane, a single possible post hole was discovered at the south gate of the camp (Robertson 1969, 36), but otherwise, despite the opening of a few trenches into the interior, no structural remains were encountered. At Inveravon III, a similar picture resulted from excavations conducted there in 1983 (DES 1983, 2-3; Frere 1984, 276); trenching on the east side was carried into the interior but only one possible post hole was revealed. Excavation at Dalginross too located a single possible post hole, beside the clavicula and reckoned b the excavator to be associated with the second phase of site use (Rogers 1993). At Kintore I, a watching brief, carried out on an area of the camp interior in 1984 ahead of a housing development (Shepherd 1986, 205-9), located two small "scoops", one filled with charcoal and exhibiting other traces of burning, together with what seems to have been a field oven (see further below). At Blaen-cwm-Bach, work in 1969-70 revealed evidence probably related to cooking in the lea of the west rampart (see further below) (CBA 1970b, 17), and in addition located two or three possible post holes of indeterminate function.

The remainder is silence. Yet despite the fact that this amounts to a very limited return in information, it is important to be aware of the dangers of trying to formulate interpretations without the benefit of excavation. During his work on the temporary camps of Redesdale, Sir Ian Richmond identified what he claimed to be a series of "pits" within the camp at Birdhope I. Subsequent resurvey by the RCHME has led to a reappraisal of these features, preferring now to see them as graves, not least because closer inspection shows their distribution to continue beyond the confines of the camp perimeter (H. Welfare, pers. comm.). The lessons seem clear. Camp interiors, especially those situated on land which has been subjected to repeated agricultural activity, are unlikely to produce viable information except perhaps where the scale of investigation is great enough to allow whatever features do survive to be set in their proper context.

If it were simply a matter of the possible recovery of a few truncated pits, one might conclude that there was little mileage in conducting more detailed examination of these interiors. But relatively recent developments, again principally achieved as a result of

the excavation of these interiors, indicates that there may be more information waiting to be discovered.

In discussing the "pits" at Inchtuthil, Frere opined that some of one of his three categories, i.e. those which run parallel with and a little way inside the defences, could be provisionally identified as cooking ovens, on analogy with permanent forts since this is the position such features occupy in those circumstances (Frere 1985b, 230). Again, in relatively recent years, excavations at a number of temporary camp sites have produced evidence, some more convincing than others, for the presence of these and associated fixtures within camps interiors.

Cawthorn provides, once more, the earliest known evidence of excavated ovens from what has admittedly since been rejected as a temporary camp (Richmond 1932). Though the material produced by Richmond is of value in the study of these features in general, the subsequent reinterpretation of the works in which the ovens were recovered as permanent forts rather reduces the value of this example for the purposes immediately at hand. After a lengthy gap a few more examples of features which have been interpreted as associated with cooking activities began to be recognised, this time in sites where the temporary nature is not at issue. The first was at Blaen-cwm-Bach, where an exploratory trench in 1969 found quantities of ash, charcoal and disturbed soil immediately behind the west rampart. Further work the following year showed that these deposits had emanated from a feature tentatively described by the excavators as a cooking trench, nearly 8 feet long, between 2-3 feet wide and 1-2 feet deep (CBA 1970, 17). Located end on to the rampart, it was bowl shaped at one end and had attached to one of its longer sides a semi-circular clay and stone filled feature, interpreted as an oven. Indications of burning seen in the trench added weight to the interpretation and the feature does bear comparison with the examples of ovens investigated at Cawthorn. Then, in 1975 at Lyne II near Meldon Bridge in Borders Region, examination of the camp ahead of pipe-laying operations uncovered a large, shallow feature, identified by the excavator as a possible cooking hollow inside the camp (DES 1975, 38; Goodburn 1976, 306). At Lochlands, in 1983, one of the complex of camps there produced from the *intervallum* area on its south side a shallow pit filled with ashes and burnt earth, which was interpreted as a cooking hollow or an ash pit to be associated with (unlocated) nearby ovens (Frere 1984, 275). The following year several alleged examples were found at Inveresk. Hanson notes the presence within the camp interior of "a number of large pear or dumb-bell shaped ovens, approximately 3m. long and 1.5m. in maximum width which contained much charcoal and some carbonised grain." (Hanson 1984, 3) (see further chapter 7). In the

same year, Shepherd recorded a field oven during a watching brief on an area within the interior of Kintore I (Shepherd 1986, 205-9). Initially the site revealed itself as a concentration of large stones associated with considerable traces of burning, which when removed was found to be covering a small, sub-rectangular pit, 1.2m. x 0.9m by c.0.5m. deep. This was filled with burnt material, including charcoal from which was recovered a single carbonised grain of oats. In 1989 a further example was discovered during work at Carronbridge (though no published details have appeared as yet), within what the most recent excavator has described as probably a Roman military site and possibly an annexe to I, though the latter suggestion has subsequently been rejected (Johnston 1989, 20), while in the following year at Kirkpatrick Fleming a shallow scooped feature close to the north-west gate and just inside the line of the defences was recovered, which exhibited clear traces of burning having taken place (DES 1991, 12-3 & below, Chapter 7). Most recently an example has come to light at Beattock V during excavations there ahead of the construction of the M74 in 1994 (see further below chapter 7 and Plate 6). This latter is perhaps the most persuasive yet to come to light, taking a form very reminiscent of the examples found within the legionary fortress at Inchtuthil. Ovens seem to be better represented at one single continental site than in Britain as a whole. At Krefeld Gellep, near the auxiliary fort at Gelduba, German archaeologists believe they have found the scene of the battle recorded by Tacitus (Histories IV.33) during the Batavian revolt of A.D. 69. Here too an unusual form of temporary camp appears to exist, within the ditches of which have been found the corpses of numerous horses, interpreted as casualties of the battlefield (Paar & Rüger 1971, 242-5, 248-11; 278-82; Rüger 1980, 496-7). Within the camp no less than "27 field bread-ovens of the usual "tabouna" type" were recovered.

Several interesting points emerge from this small body of material. The first is the fact that there appears to be no single set of characteristics by which one might identify field ovens. The Beattock example (Plate 6) is circular and similar in form to those found in permanent establishments, such as for example the fortress at Inchtuthil. The Inveresk examples were pear or dumb-bell shaped. The Kintore example was a stone covered sub-rectangular pit. This evidence could suggest several things: development through time of oven "types", meaning we are seeing examples from a range of periods; a range of features not all of which may be justifiably categorised as ovens; a flexible approach to the construction of ovens where "types" utilised depend upon external factors such as the local availability of construction materials, local geological conditions, etc.; or simply differences representing little more than personal choice.

A second interesting issue concerns the locations of these features relative to the plan of the camp. Frere clearly believed that some of the features visible on aerial photographs at Inchtuthil could be categorised as ovens because of their location, lined along the *intervallum*, since this is the position they conventionally occupy in permanent installations (Frere 1985b, 230). Yet at Inveresk the "ovens" were widely scattered, including one example lying just outside the ditch; at Kintore the "oven" was found some 85 metres south of the north ditch. By contrast, the oven at Carronbridge appears to have been situated on the very edge of the ditch of the so-called annexe, a feature which does not appear to have been contemporary with the 'life' of the camp, meaning the oven lies well outside the camp perimeter. The most obvious solution is probably to dismiss these examples as representing rather less than full blown ovens, though this is by no means the only potential answer. The possibility of later (or earlier) reuse of these sites should not be dismissed simply because currently we have no evidence to demonstrate such activity. At Inchtuthil a line of "ovens" may be seen aligned along the west side of II, and would appear to be "floating" within the larger work if the subdividing ditch had not revealed itself on aerial photographs. The number, character and disposition of camps at Inveresk is far from clear, thus there may be scope in such speculation, though the "ovens" there do seem rather irregularly patterned across the site. Kintore I is certainly large enough to have been reused, though perhaps rather far north for such a situation to be as likely as works in central and southern Scotland.

Finally, at Inchtuthil the presence of features such as rubbish pits and ovens was taken to indicate a greater degree of permanence than might be expected in a camp occupied only for a night or a few nights, hence bolstering the interpretation of this site as a construction camp. To date the permanence, or more accurately the lack of same, of some at least of the works just discussed was not in doubt; they were firmly categorised as true temporary camps. This new evidence suggests either that we need to begin reconsidering the temporary character of these, and presumably other sites, or that we need to reconsider what one might reasonably expect to find in what until now have been happily classified as unquestionably temporary works.

In the meantime the most pressing need is surely to conduct further work, both aerial and terrestrial, to establish with greater accuracy the range of features of this nature we can expect within camps and just how common ovens were within these temporary works. One solution, short of excavation, may be the employment of a programme or programmes of geophysical (magnetometer) survey of camp interiors, beginning with those least likely to have been subject to intensive agricultural land use. This could

provide clearer indications of precise locations and patterning, allowing targeted excavation to advance our current state of knowledge.

One of the most commonly repeated defining characteristics of temporary camps is the virtual guarantee of a lack of finds, especially datable examples, from excavations of their remains. So entrenched has this belief become that it is now commonly bandied around the profession as an article of faith. A survey of camps and the finds from them is therefore called for, to establish the veracity of this claim.

A cursory examination of the evidence does little to dispel this contention; of the four to five hundred potential camps drawn together here in the gazetteer, a mere seven have produced finds from secure contexts which have proved capable of closely dating the camp itself, plus two more where there may be secure dates. Nor, as it happens, does the evidence bear out the popular myth that only Professor St Joseph could find datable pottery in camp ditches; the great man himself lays claim to only three of the nine! The tally is as follows: a sherd of late first century A.D. Samian pottery each from the sites at Abernethy and Dun; a piece of probably first century A.D. glass from the smaller camp at Girvan, fragments of early second century A.D. pottery from the camp at Bishop Rigg; fragments of early second century pottery from Brackenrigg I; fragments of mid-second century A.D. Black Burnished Ware from Dunning, and native Iron Age pottery from Polmont II. All of the foregoing were recovered from the bottom of the perimeter ditch at each site. At Farnsfield, Romano-British pottery is reported as having been recovered from the primary fill, though no date was noted in the published account. At Gogar Green, three coarse ware fragments are noted as having been found at the bottom of the ditch fill , though again no date is provided in print.

To this list one can add a further handful of examples where datable finds have been recovered from less secure contexts. At Lochlands, a mint *as* of Vespasian was recovered from the ditch fill, though too high up within it to be capable of providing a secure date (Frere 1984, 275). The upper ditch fills at Bishop Rigg contained early-mid second century A.D. pottery, and similar material was recovered from the surface of the camp interior. Ardoch III also relinquished fragments of coarse ware and one of mortarium from its ditch fill (St Joseph 1970), while red coarse ware and a piece of slag were retrieved from the ditch at Carronbridge (Johnston 1989). Late third/fourth century pottery was located in the upper ditch fills at the camp at Reycross (Robinson 1990, 64), and second century A.D. pottery was found in a similar context at the camp at Hawford. Amphorae sherds of both first and second century date were found at

Polmont II. At Kirkpatrick Fleming I several sherds of earlier second century A.D. coarse ware were recovered from a ditch of Roman character which may form part of an annexe to this 63 acre series camp, but which may equally belong to an as yet otherwise unrecorded site in the same general area (see further below chapter 7). At Inveresk a sherd of Antonine Samian ware was recovered from the ground surface close to and within the ditch of the camp, while at York I a tiny Samian fragment (undated) and a glass flagon handle were found in similar circumstances, this time just outside the ditch. Finally a probably Trajanic coin was recovered from the interior of the camp at Grassy Walls.

A further small collection of undatable or only broadly datable finds has been recovered from camps, of varying significance. At Annan Hill a glass paste melon bead was discovered from the camp interior, during excavation, just within the entrance gap. From the fill of the perimeter ditch of Bar Hill I some pieces of worked wood have been provisionally identified as tent pegs. The perimeter ditch at Bromfield has produced iron working slag and some indeterminate lumps of the same metal, and similar material was recovered from the ditch at Ythan Wells I. What have been identified as a pair of Roman shears were recovered from the top of the rampart at Haltwhistle Burn III. The pits inside Inchtuthil have, as we have already learned, produced fragments of pottery and animal bone, while the oven at Kintore I contained a single charred grain of oats. Raedykes provided a significant haul of material though sadly none of it datable, comprising two wheel hubs (one from the ditch), a wheel, bronze *hastae*, an iron *hasta* and a "fire dart", and recently metal detecting recovered an enamelled stud and a highly worn disc brooch from the interior of the camps at Durisdeer. A Domitianic *dupondius* found in what is described as a building slot lies within the perimeter of the camp at Inveresk, but may be related to quite separate Roman activity, while at Ystradfellte an antiquarian account records the discovery 'in the vicinity' of a gold coin of Vespasian (RCAHMW 1986, 184).

The overall impression is of a pretty poor haul, yet on reflection perhaps not quite so barren as has sometimes been made out. Certainly, the acceptance of the artefact-free phenomenon as an inevitability of the excavation of temporary camp sites has probably been overstressed. The ephemeral nature of the physical remains and the lack of any structural complexity to either the defences or interior features can clearly be seen as a consequence of the function of these works, to afford short term shelter to a group of soldiers, often for as little as a single evening. In essence, these monuments will have been little more than a bank and ditch at the peak of their existence, and the vagaries of two thousand years of subsequent land use will certainly have removed most, if not

all, above ground traces of most of these slight memorials to past endeavours. We are confronted then with mute and scant remains, with few associated clues, in the form of small finds. However the great paradox of this woeful lack of information is the knowledge that it comes about despite the fact that these sites were undoubtedly the focus of highly concentrated human activity, albeit for relatively brief interludes. Given this intensity of occupation, can we really accept the premise that we should expect small finds to be not merely scarce, but well-nigh non-existent, or is it rather the case that we have become conditioned to believe that the techniques which have been applied to date are adequate when in fact the reverse is true. In other words, datable material in the form of detritus does exist at these sites, though not in the numbers one would expect to encounter on the site of a permanent installation. The problem is that the archaeological world has yet to find an appropriate way of targeting their whereabouts, without recourse to expensive and time consuming excavations. This is not meant to be a criticism of the state of knowledge in archaeological prospection techniques, or of the failure to date to recover greater numbers of small finds, a not unreasonable shortcoming given the scale of the sites with which we are dealing. It is merely an attempt to belay a now established belief that temporary camp sites are as well understood as they can ever be, and that further archaeological investigation of them is no more than a matter of dotting i's and crossing t's.

If one takes the example of Scottish Iron Age domestic sites as a comparison one finds an equally depressing situation with respect to small finds, especially intrinsically datable ones, a factor tied to a lack of detailed excavation of the far from limited remains of the Scottish Iron Age landscape (see, most recently, the survey by Hingley 1992, 7-53). This situation has provoked a call for more and more critical investigation of these sites, in an attempt to provide a more secure and detailed framework upon which further interpretation and the general development of the study of the subject may be based. A similar approach to Roman temporary camp sites would almost certainly produce dividends, and perhaps allow this most valuable of archaeological resources to begin to be properly understood within the historical framework for the Roman occupation of Britain, perhaps even based upon a representative batch of absolute dates. At present there is an understandable tendency for the existing historical narrative to have precedence over everything else; temporary camps must be made to fit within this framework for them to have any real meaning. I would contend that attention needs first to be focused on the camps themselves, concentrating on establishing what they represent, establishing intrinsic dates for the sites and establishing how they relate to one another; in other words give excavation a

chance to provide evidence which will allow the firm location of individual sites (and by extension series of camps) within the chronology for Roman Britain. This effectively repeats the plea of Maxwell (1981, 28) though with a shift in emphasis; his contention was that information on the camps could come from comparison of data achieved through aerial reconnaissance; my contention is that the first step towards confident interpretation should come through excavation.

Finally some attention should be paid to the issue of site abandonment. It is now commonplace to hear or see quoted the notion that the Romans destroyed their encampments, temporary and permanent, prior to their departure, to ensure that they could not be reoccupied and used against them by an enemy force. This belief is rooted in the documentary sources, and in particular the testimony of Josephus who states unequivocally that this was Roman military policy:

"When camp is to be struck, the trumpet sounds and every man springs to his duty. Following the signal huts are instantly dismantled and all preparations are made for departure. The trumpet then sounds 'Stand by to march!'. At once they load the mules and wagons with the baggage and take their places like runners lined up and hardly able to wait for the starter's signal. Then they fire the camp, which they can easily reconstruct if required, lest it might some day be useful to the enemy." (Josephus - *Bellum Judaicum* III.90)

Taking the lead from Josephus, the common belief is that such precautions were taken to ensure the enemy could not reuse the abandoned earthworks in battle against the Romans at a later date. Nor is this belief without substance in the archaeological record. The evidence from the legionary fortress at Inchtuthil, where most famously even the nails used in constructing buildings were securely buried by the Romans before departing, presumably to ensure they could not be reused by the Caledonians, is merely the most celebrated example of many which could be cited to demonstrate the truth of this scenario. Yet were Josephus' picture of Roman military policy accurate, there should be two distinct and archaeologically recoverable consequences of these actions: one, that no camp rampart should survive *in situ*, for presumably the rampart would need to be slighted; and thus two, that all marching camp ditches upon excavation should demonstrate deliberate infill patterning, as opposed to a process of gradual silting commensurate with the site having been left open to the elements. To date, the testimony of the known camp sites paints a rather different picture. In this case, rather than the archaeology contradicting the literary evidence, it is perhaps more likely that the literary evidence has been misinterpreted. For the passage to make

sense, Josephus must surely be talking of permanent rather than temporary works, since it is difficult to understand the point of setting fire to a temporary camp, where anything flammable (such as the tents and even the palisade stakes) would presumably be packed away for reuse at the next stop. It is also interesting that neither Vegetius nor Hyginus mention such a policy, which one might have expected them to do in the context of their works, especially the former.

Nonetheless, the difference of approach of the Roman army to the abandonment of temporary camps which the archaeological evidence testifies to is worth further investigation. What is certainly clear is that these sites were not all slighted upon departure. In the first place, the abundant evidence already detailed above for the embellishment or modification and subsequent reuse of camp sites is a clear demonstration of the fact that not all sites were obliterated upon their abandonment. But there is even more immediate evidence which demonstrates that sites were left undemolished when the army quit camp.

To date the remains of some five hundred temporary camps have been recorded throughout the British Isles (though this figure has several attendant caveats, for which see further below), both complete and incomplete examples, in varying states of survival, and if one were to include examples of less certain provenance, then that figure would be appreciably higher. In 1974 Wilson stated that some one hundred and twenty-six camps survived in Britain, with at least some element of their constituent parts remaining extant as an upstanding monument (Wilson 1974a, 341), altering this the following year to one hundred and twenty-five (Wilson 1976, 19). Since then the situation has scarcely changed; my own independent calculation puts the figure at somewhere between one hundred and twenty and one hundred and thirty, the exact figure depending upon what precisely one is prepared to accept as a temporary camp.

Some of the examples are well known, partially <u>because</u> they survive as upstanding monuments, but partially too because they are in some way intrinsically unusual, having characteristics which distinguish them from classic marching camps: examples of the latter may include the coffin-shaped camp at Cawthorn in North Yorkshire (Richmond 1932), and of the former, the marching camp at Reycross in Co. Durham (Richmond & McIntyre 1934), recently the subject of archaeological investigation ahead of roadworks on the A66 (Robinson 1990, 62-6), the eccentrically planned camp at Raedykes in Grampian (Macdonald 1916), and the two superimposed works at Y Pigwn in Dyfed (Jones 1968). Very small camps, such as practice works, also appear to have a relatively high survival rate, though this is impossible to prove since

we have no idea how many were originally constructed in total. Impressive groups of these works survive at Llandrindod Common (Daniels and Jones 1969) and Gelligaer (RCAHMW 1976, 103) in Wales, while Braich Ddu (Frere & St Joseph 1983, 36-7), also in Wales, represents perhaps the single best preserved instance in the country. A further group of small, in this case probably construction camps, are known along the line of Hadrian's Wall, examples including Abbey Park Wood and Brown Dikes I (Bennett 1980). Once again, it could be argued that the specific purpose and character of these camps means that they may not have been treated in the same way as campaign camps, though if built as training exercises one could equally well argue that it would seem rather surprising for the army not to have conducted such operations "strictly by the book".

Whatever the situation with regard to the preceding examples, there remain many more examples of perfectly straightforward camps where parts of the defences have survived as upstanding features, commonly straight lengths of rampart: good examples include Little Clyde in Strathclyde (RCAHMS 1978, 134-5), Troutbeck in Cumbria (Bellhouse 1957, 28-36), and the complex of works at Pennymuir, near Woden Law in the Scottish borders (RCAHMS 1956, 375-7). The total number of surviving camps is, as already noted, difficult to state precisely, but even taking only very rough figures as a guideline, it would be reasonable to state that approximately 20-25% of known temporary camps in Britain have survived, in part at least, as upstanding earthworks. Clearly deliberate demolition of camps was not practised by the Romans as a matter of course.

Results from excavations may also be pressed into service to illustrate this phenomenon. Of the 100 or so plus camps where evidence of excavation has made it to the printed medium (and there is good reason to believe that excavation has taken place at a good many more sites without the fact ever being made widely known through publication), roughly half are not explicit and/or contain too little information to determine whether or not the ditches could be seen to have been allowed to lie open after abandonment to fill up by natural agencies. Of the remainder, a little over half (i.e. the majority) can be seen to have been left untouched, at least at the points where excavation has taken place.

Below is a list of the camps where excavation is known to have taken place and where it has been possible to establish the silting pattern in the ditches from published accounts. These are split into two distinct groups: those deliberately backfilled and those left open to silt up naturally.

Table 1

| Deliberate backfill | Natural silting |
|---|---|
| Annan Hill (probable) | Abernethy |
| Ardoch II (at points only) | Beattock I |
| Ardoch III | Bishop Rigg |
| Ardoch V | Cardean I |
| Brackenrigg II | Chew Green II |
| Bromfield | Cleghorn I |
| Cardean II | Dullatur I |
| Carpow I | Dun (sic) |
| Carronbridge I | Dunblane I |
| Dalginross I | Dunblane II |
| Dun | Dunning |
| Eskbank I | Durno |
| Eskbank II | Eassie |
| Farnsfield | Garnhall I |
| Finavon | Girvan I |
| Galloberry | Kintore I |
| Inchtuthil I | Oakwood |
| Inchtuthil II | Pathhead III |
| Inchtuthil III | Pennymuir III |
| Inverquharity | Stracathro |
| Kirkpatrick Fleming I | Summerston |
| Lochlands VIII | Troutbeck II |
| Lochlands X | Wandel |
| Marcus | Wooden Home Farm |
| Milton I | Woodhead |
| Pen-y-Gwryd | York I |
| | Ythan Wells I |
| | Ythan Wells II |

How are we to interpret such data? Is it possible to see some pattern in the backfill/natural silting evidence? Does backfilling occur only at oft used sites? Does backfilling occur only in a certain period?

Scrutiny and comparison of the evidence suggests that no obvious pattern appears to link or distinguish these camps. Of the Stracathro-type "series", Dalginross I had its ditch deliberately backfilled (Rogers 1993), while the type site at Stracathro appears to have been left untouched (St Joseph 1970). Of the 63 acre series camps, Marcus and Ardoch II appear to have been deliberately backfilled (Halpin 1992; St Joseph 1970), while Eassie was apparently left open (DES 1970, 4). This tends to suggest that decisions regarding site demolition were not period specific. One might imagine that the most likely places to find camps deliberately backfilled would be those areas commonly used as camping grounds, especially in the vicinity of major forts such as Newstead, Lochlands (near Camelon), Castledykes and Ardoch. Yet this does not appear to have always been the case. At Eskbank for example we do see that the defences of both camps known there were slighted deliberately (Maxfield 1974), but at Ythan Wells, where additionally one might imagine there was real danger of imminent enemy activity, both camps appear to have been left untouched following the army quitting the site (St Joseph 1970). The same situation occurs at regularly used sites such as Beattock, Girvan, Pathhead and Troutbeck, where in each case at least one camp was left open.

It would have been tempting to press the interpretation that camps constructed by the army on active campaign in hostile territory, especially the army in withdrawal, would feel it counterproductive to spend time dismantling something as ephemeral as a marching camp, and that therefore one might observe a pattern whereby camps constructed by the army on the move in pacified or marginal territory would be destroyed, while camps erected well into barbarian lands would be left untouched, even if this does appear to contradict the testimony of Josephus. The evidence however does not sustain such a scenario.

The problem facing archaeologists is clear enough; to find ways of extracting meaningful information from these scant remains. As a potential way forward I would contend that archaeologists must learn two lessons. The first is that the supposed lack of structural and artefactual material, whether intrinsically datable or not, from temporary camp sites is overstated and rooted in the failure of excavation strategies and techniques to deal adequately with the sheer scale and potential complexity of these sites. If one takes a statistical view of previous excavations of temporary camp sites, it is abundantly clear that the work undertaken in almost every case does not constitute anything like a representative sample of the archaeological site under scrutiny. In the increasingly commercialised climate of developer-funded archaeology, more and more attention is being paid to the issue of appropriate methods of

quantifying representative samples, to ensure that sites receive proper attention and do not fall victim to attempts to cut costs in order to win contracts. Several attempts have been made to define and redefine what constitutes an acceptable archaeological sample. Suggestions have varied from source to source, but may be said to range between 1% and 10%. If we then look at the levels of excavation conducted at temporary camp sites, the lack of meaningful information to have emerged to date becomes rather easier to understand.

The number of temporary camps which have had even 1% of their total area excavated is seven out of some four to five hundred, which can scarcely be taken as an acceptable basis for dismissing the class of monument as unrewarding. The real problem is that the sites are not deemed deserving enough of the funding required to inspect them in close enough detail to allow such material to come to light. Only when the issue is treated as of importance, will there be any chance of securing the resources necessary to effect a true evaluation of the potential of these sites. In chapter seven I have set down the results of three case studies which address this particular issue by redressing the balance, and discuss the general matter in more detail.

My second contention is less controversial, but certainly no less important, and that is that despite what may at first seem to be an impossible situation, there is in fact much which can be gained from a close study of individual marching camps, while it would probably be true to say that to date attention has tended to concentrate more on intra-comparative studies, rather than inspection of the individual examples.

## Chapter Seven

## Applied Fieldwork: Three Case Studies

From the evidence presented in the preceding two chapters, two key points should have been made clear. The first is the enormous contribution to the level of our knowledge of the activity of the Roman army in Britain which has been made by aerial reconnaissance, nowhere better illustrated than in the gains in information relating to Roman temporary camps. This fact is widely recognised and appreciated, and in many respects it is extrapolation from evidence known only through this medium that the movements and relative chronology of the Roman army in Britain is currently "known". The second point, outlined in detail in chapters 5 and 6, is that there is still a very significant lack of detailed knowledge of the chronology and character of these works, and that the gaps in knowledge or grey areas can best be filled not by eternal re-examination of literary sources or refinement of aerial photographic evidence but rather by means of the more mundane and traditional approach of excavation. Despite the undoubted and unchallenged academic reasoning, ingenuity and persuasiveness which underlie the way in which these camps have been placed within the known historical narrative of the Roman occupation of Britain, much of the infrastructure continues to depend on inference, extrapolation, supposition and educated guesswork. In this chapter, it will be argued that the potential contribution of excavation has been unfairly undervalued, and the strategy and results of three pieces of fieldwork on temporary camps will be presented, the latter two designed with these considerations firmly in mind, as the beginnings of a test of what larger scale, problem-oriented excavation programmes can realistically hope to offer.

The contention here is that the lack of coherent, large-scale research excavation on temporary camps is in large part due to the way in which the problems relating to temporary camps have been approached. So great has the contribution of aerial reconnaissance been, that it has become accepted as the principal (by some archaeologists virtually the only viable) tool for advancing our knowledge of these sites. Excavation, the archaeologist's normal means of providing solutions to problems, has been demoted to a subservient role, basically used as a means of confirmation of the Roman character of lengths of ditch, or as a terrestrial means of filling in gaps in the aerial record of a camp's perimeter.

This in turn is exacerbated by the results of what little excavation there has been to date. Results have been disappointing, at least by comparison with the structural and artefactual returns normally provided by the excavation of permanent military installations; few absolute dates have been recovered; fewer internal structures have been recorded. This situation in turn leads to a devaluing of the very information recorded during the limited excavation which does take place, though it should be stressed that some archaeologists are guiltless on all the following points. Reports regularly lack full details of results, often saying little more than that a (commonly V-shaped) ditch was found with such and such a width and depth. Section drawings all too often fail to accompany these short notices. Notification of the presence or absence of a ramparts is often not provided and silting patterns recovered from ditches are neither reported nor interpreted. Often work carried out is not even deemed important enough to publish. It is clear, not least from my own research into temporary camps, that a number of sites have in fact been examined by means of trenches across the defences, but this information has never been made publicly known (e.g. the temporary camp at Muiryfold in Grampian Region, where only a CUCAP sketch plan held in the National Monuments Record for Scotland in Edinburgh revealed that excavation was conducted at the defences of this site). Larger scale excavation work, for temporary camps, appears to be seen, at best, as an expensive luxury. Yet there is a strong case to be made for reassessing the tarnished reputation of excavation as applied to these works.

If the evidence for excavation at temporary camp sites is amassed and analysed, the picture which emerges, by comparison with other types of archaeology, both Roman and non-Roman, is of vastly insufficient time, effort and money having been expended on discovering just how useful the excavation of camps might be. A survey of known sites in Britain reveals that only some 30% of all camps have been the subject of any published excavation. Even allowing that some excavation at temporary camps fails, for whatever reason, to be made publicly known, it is unlikely that the figure for excavated camps would rise much beyond one third of the overall total. This may not at first glance seem an unduly worrying figure, but to place it in proper context two further points need to be made.

The first is comparison of this figure with the statistics for Roman forts in Scotland, very few of which have received no excavation of any description. The second and more substantive point concerns the quantity and quality of the excavation represented by the 30% figure. One should be aware, in contemplating this statistic, that excavation here means any form of investigation, including several instances where a

section was seen as a pipe was being laid, often at a wholly inconvenient angle to the archaeology, and was then hastily drawn. Many more examples amount to little more than a trench or two across the perimeter ditch. If one takes as a cut off those sites which have received anything like an area examination - taking an arbitrary figure for "an area" of 100 square metres - the figure drops dramatically to less than 5%, approximately 21 camps in all. In other words, where excavated, the overwhelming majority of camps receive little more than a few trenches across their defences, with perhaps a cursory examination of the interior, the trench used for examination of the defences commonly being extended into the interior. This of course is not a criticism of the individual excavators, most of whom are severely constrained by budgetary, time and workforce constraints and who often perform miracles with grossly insufficient resources. The problem lies in a general, and I would claim as yet unsubstantiated, attitude of mind which exists within the discipline as a whole; the myth of the non-productivity of camps, in terms of concrete finds, leads to the belief that the investment of these resources is not justified. This belief is not borne out by the evidence. The truth instead is that very little attempt has been made to test these sites, to see what they might produce if the resources are devoted to them.

It has already been noted that only some 5%, at best, of temporary camps in the country have received anything more than cursory examination. If we examine the data on these examples in a little more detail, the lack of attention which has been paid to temporary camps becomes even more obvious. For example, if we compile figures for the area investigated in these instances of "area" excavation, and set them against the area of the camp in each case, the percentage for the proportion of the camp examined can be clearly seen.

Table 2

| Site Name | Area Examined | Total area of camp | % excavated |
|---|---|---|---|
| Annan Hill* | 400 sq. m. | 13,720 sq. m. | 3.5% |
| Auchtermuchty* | 160 sq. m. | 234,000 sq. m. | 0.0065% |
| Beattock V[1] | 3425 sq. m. | c. 242, 000 sq. m. | 1.41% |
| Bishop Rigg* | 1165 sq. m. | 4,800 sq. m. | 25.25% |
| Bromfield* | 34 x ? Unclear | 83,334 sq. m. | (?)0.2% |
| Castledykes I | 160 sq. m. | 242,000 sq. m. | 0.0066% |
| Dun* | 120 sq. m. | 35,000 sq. m. | 0.34% |
| Dunning* | 1120 sq. m. | 472,500 sq. m. | 0.23% |
| Eskbank I/II | 800 sq. m. | Unclear | O.33-3.78% |
| Garnhall I* | 570 sq. m. | 45,066 sq. m. | 1.26% |
| Inchtuthil I* | 345 sq. m. | 203,376 sq. m. | 0.16% |
| Inchtuthil II* | 345 sq. m. | 148,506 sq. m. | 0.23% |
| Inveresk I*[2] | 5200 sq. m. | 215,704 sq. m. | 2.41% |
| Inveresk II* | 5200 sq. m. | eSt 80,000 sq. m. | 6.5% |
| Kirkpatrick I*[3] | 1350 sq. m. | 247,500 sq. m. | 0.5% |
| Lochlands III* | 200 sq. m. | Unclear | ? |
| Newton Kyme*[4] | 200 sq. m. | Unclear | ? |
| Reycross | Unclear: 2 areas | 79,750 sq. m. | ? |

* All camps so marked have had sections placed across the defences in addition to the areas noted in the table.

1. In addition to excavation, some 7200 square metres of the camp interior were investigated by means of geophysical survey.
2. The total area opened at Inveresk was in fact c. 6600 square metres, of which some 1400 square metres were outside the perimeter of the camp.
3. The total area opened at Kirkpatrick Fleming was in fact c. 2990 square metres, of which some 1640 square metres were outside the main perimeter of the camp (though possibly at points within an annexe - see further below). In addition to excavation, some 12,000 square metres of the camp interior were investigated by means of geophysical survey.
4. In the report the excavated area at Newton Kyme was 200 square metres, but the scale of the plan would imply nearer 400 square metres. Comparing the measurement quoted in text for features shown on the plan it seems as though the plan scale is wrong.

Several other sites appear to have had some area investigation within their interiors but the published information is not explicit with respect to dimensions. These comprise Blaen-cwm-Bach, where the area is noted as having been small (CBA 1970, 17; 1974, 24-5), Carronbridge, where a concerted programme of trenching over two years in the 1950s has recently been supplemented by two seasons of work in 1989-90 ahead of road construction, but where precise figures of the area opened are not yet available (Clarke & Webster 1954, 9-34; Johnston 1989, 17-20; DES 1989, 12; 1990, 10), Dunblane I and II, where the excavator talks of trenching the defences and "a few trenches carried into the interior" (Robertson 1969, 36), Inveravon III, where "a portion" of the interior was examined (DES 1983, 2-3; Frere 1984, 276), Kintore I, where a watching brief was conducted in the camp interior (Shepherd 1986, 205-9), Lyne II investigated as an offshoot of work on the Neolithic enclosure at Meldon Bridge in Peeblesshire, where a 25 metre stretch of the ditch was examined plus other work (Goodburn 1976, 306; CBA 1977, 27), Upper Affcot, where a watching brief found no trace of either camp ditch or signs of internal occupation (WMANS 1976, 44) and Watchcross, where trenches across the defences to establish the full outline of the camp were supplemented by one placed diagonally across the interior (Richmond and Hodgson 1936, 170-2). At Dalginross, a significant area (1188 square metres) was opened at the east gate of the camp, but has not been included here since the overwhelming majority of that area was located outwith the camp perimeter (Rogers 1993, 277-90). Excavation at Newstead in the early years of this century appears to have involved emptying a significant length of temporary camp ditch, but figures are not presented (Curle 1911). Finally, at the time of writing (March 1995), excavations were due to be or had recently been conducted at the sites at Dalkeith and Longforgan, for which information on the results is not yet available but which may add to the totals listed above.

What this demonstrates is that, with the exception of the small camp at Bishop Rigg, no temporary camp in Britain has had more than 10% of its total area examined, and only one - Inveresk II - has had more than 5% of its total area examined. The correct figure for a representative sample is of course a matter of some contention, though it may be possible to glean some insight from recent developments in the subject in general.

In the last ten years British archaeology has undergone a sea change in the way in which fieldwork is conducted. Earlier than that - in the late sixties and the seventies, priorities were shifted towards a greater effort in rescue archaeology, a move away

from, though not to the exclusion of, research-led excavation. The 1980s and so far the 1990s has seen this emphasis maintained, though with a shift in the emphasis of the funding body; instead of excavation being funded from the public purse, increasingly developers, both public and private, are being expected to shoulder the financial burden of major rescue excavations. Greater emphasis than ever is also placed on protection and preservation. As the climate has become more and more market led, competition between different archaeological groups has developed, and attempts have been made, particularly by those in curatorial roles, to establish what constitutes an academically acceptable sample of any given site. In general, where a site is not known to have significant archaeology present, but there is considered to be a reasonable likelihood of remains, the percentage figure for an acceptable sample is commonly thought to lie somewhere between 1 and 5%, though this is nowhere enshrined in print. For sites of known archaeological importance the figure is considerably higher. Roman temporary camps, despite being self-evidently "known archaeology", appear to date to have been treated more as the former than the latter, based not so much on knowledge but more on assumption; i.e. that there is nothing there bar a set of defences.

Yet even if we allow that such an attitude is fair, it follows that these camps should at least be receiving the minimum acceptable level of inspection to allow judgements on the quality and importance of the whole site to be made. The reality encapsulated in the table is rather different. Of nearly 500 known or possible camps in the country no more than eight (Annan Hill, Beattock V (probably), Bishop Rigg, Eskbank I and II (probably), Garnhall I, and Inveresk I and II (probably) have received the minimum level of investigation required to represent a representative sample. Once again, it is acknowledged that these considerations cannot be used as valid arguments against specific pieces of small scale fieldwork on temporary camps, especially those conducted more than ten years ago. Nor can it be used to negate research excavation conducted at camp sites with very specific goals in mind, such as establishing the relative chronology between two or more overlapping camps; indeed much can be achieved by this approach, as recent investigations over a decade at Lochlands and Dunipace have proved (Rankov 1982, 337; Frere 1983, 287-8; 1984, 275; 1988, 426-7; 1989, 271; Maxwell 1991, 9-11; Burnham, Keppie & Esmonde Cleary 1994, 257). The point is that a certain figure seems now to be accepted as a representative sample of a site, and the amount of excavation conducted on camps virtually never attains even that bare minimum; how then can we credibly reject these sites as unproductive or unworthy of larger scale excavation programmes?

In the light of this figure, it seems rather premature to suggest that temporary camps are unworthy of detailed investigation. Rather, it would appear that there is an urgent need to conduct further and more widespread examination of these sites, both on the defences and in the interiors, before a properly informed opinion on their value as repositories of information can be made. Some of this work can be achieved through developer-funded investigations, but it is also important that other pieces of work be purely research-led, to ensure proper targeting of key sites. Only when we have attained a respectable level of investigation at a respectable number of sites, can we authoritatively draw generalised conclusions about the sorts of results we can expect from the excavation of these sites. More importantly, it is only by the recovery of "hard data" than we can fit these sites with complete confidence within narrative or historical frameworks, whether this be to determine how camps relate to one another, or how they fit within the overall picture of the Roman occupation of Britain.

As a move towards this stated goal, three case studies are now presented of temporary camp sites which have been subjected to at least the current minimum acceptable standard. The first of these, at Inveresk, was examined in advance of major road construction work in 1984, and on which the current author worked as a supervisor. It would be fair to say that the experience of this project, coming as it did at the very beginning of this body of research, had a significant formative experience on my approach to these sites. For that reason and because of the importance of the results, it is included here as case study number one, though the strategy behind it was not of my own making. The latter two fieldwork exercises were planned and directed by the current author and represent attempts, within the commercial climate just outlined, to deal with the problem of appropriate levels of investigation at temporary camp sites.

With the notable exceptions of Eskbank I and II in 1972 and Bishop Rigg in 1974, the latter hardly a major temporary camp site, it was not until the 1980s that a major excavation was focused on the interior of a Roman marching camp (this also discounts Curle's excavations at Newstead in the early years of this century, a seminal undertaking in its time, but one which was conducted well before the questions which now concern students of temporary camps had been properly formulated). This meant that it was impossible to declare with any certainty that ephemeral or other internal features did not exiSt The testimony of aerial photography, while providing the single greatest advance in the study of temporary camps, had never been subjected to close scrutiny. The potential for this prospection technique to fail to tell the whole story remained to be tested. A nagging doubt therefore had always persisted, that evidence, potentially even crucial evidence, could exist at some of these sites, undetected by

remote sensing techniques and unchecked by large scale area excavation. The opportunity to put these techniques and assumptions to the test presented itself in the summer of 1984, at the site of Monktonhall Junction in Lothian Region, where the remains of at least two temporary camps were known to exiSt

Monktonhall Junction: Inveresk I and II (figs.4-5 & plates 2-3)

As has been noted above, with the exceptions of Eskbank I and II and Bishop Rigg, the work on the two temporary camps at Inveresk provided the first opportunity to conduct large-scale excavation incorporating significant proportions of the interiors of installations of this type. The impetus for archaeological investigation was provided by proposals to construct a new by-pass to Musselburgh, linked in to plans for the creation of a larger Edinburgh by-pass road.

The modern village of Inveresk and its immediate environs had long been suspected as the focus for activity during the Roman occupation of northern Britain, antiquarian reports having highlighted discoveries of this date from the area as early as the seventeenth century (Maxwell 1983d). Proof of the existence there of the Roman army finally came following a series of excavations conducted around St Michael's Church in the years immediately following the end of the Second World War by Sir Ian Richmond (Richmond 1980), when remains of an auxiliary fort of second century A.D. date were recorded at the western end of a long ridge, which mirrors the course of the River Esk as it approaches the sea at Musselburgh. Subsequently, both aerial photography and excavation covering the full length and width of this ridge has revealed a complex palimpsest of activity, which includes the fort and its ancillary structures, including a bathhouse, vestiges of a significant civilian settlement to the immediate east of the fort, extensive traces of field systems, in places securely dated to the Roman period, and, at the southern limit of the ridge where the land flattens out, the remains of at least two temporary camps (St Joseph 1965, 80; 1969, 107-8; 1973, 231; 1977, 131; Rankov 1982, 340; Hanson 1984, 251-9; Maxwell and Wilson 1987, 36-7; Thomas 1988, 39-76). It was at this southern extremity of the ridge that the road construction was due to take place.

The opportunity thus created was to examine an area of land the width of a major road-line, which coincided with the interiors of two, as yet improperly understood, temporary camps. It was known that the south-west side of either I or II (or indeed perhaps both) lay at the western end of the area due to be examined. Aerial photographs suggested that little of archaeological significance existed in the interior,

save for a linear parallel triple-ditch system, not believed to be related to the Roman occupation (see Plate 2 & fig. 4). In a different field, on the opposite side of a modern B-road, there was also the opportunity to examine the south-east side of camp I, which aerial photographs intimated intersected at roughly this point with a straight linear feature, tentatively identified at the time as the line of a Roman road (Maxwell 1983d). The entire area, a total of 6,600 square metres, was accordingly stripped by machines, leaving baulks at two points to serve as access routes to the field beyond which still lay in crop (see Plate 3); these were located well inside what would have been the camp interior. Contingency was allowed for the excavation by hand of selected small areas, in order to ascertain what evidence might be preserved in the topsoil covering the site. The excavation lasted for a total of seven weeks, and coincided with one of the driest and hottest summers in Scotland since the Second World War.

It quickly became clear that previous land use in the area had been intensive, as might be expected in a location such as this, on the fertile low-lying east coast of Scotland. The land use pattern was to become of especial significance to a full understanding of the nature of the site and its current condition. Market gardening was known to have been practised within living memory, and excavation soon provided corroboration of this fact. Topsoil cover was extraordinarily deep, the modern ploughsoil comprising a rich, black humic soil littered with modern detritus, a legacy perhaps of night-soiling. This was found to overlie an earlier ploughsoil, rather more sterile though still clearly rich, chocolate-brown in colour and bearing a few sherds of Medieval green-glaze pottery. The combined average depth of the topsoil was thus almost always in excess of 1m. deep and at times closer to 2m. Beneath this lay the truncated remains of negative archaeological features; no upstanding features survived, a legacy of the intensive ploughing activity to which the land had been subjected over the preceding centuries.

The ditch of Inveresk I and/or II was quickly identified, as were a plethora of other, less expected features, none of which had been visible on the available aerial photographs (fig 5). These included presumably prehistoric ring-ditches, the larger examples representing the remains of Iron Age dwellings, very large slate-stepped pits, what appeared to be a small henge-like monument, together with an assortment of linear ditches and pits of indeterminate age and function. Yet more ephemeral features were found to exist, including a shallow grave pit containing the remains of five skeletons of as yet indeterminate age, and a late Neolithic/early Bronze Age cremation. It was therefore perhaps understandable, in the light of this totally unexpected and rich

recovery rate, that little attention focused on the visually unspectacular and relatively few remains of ancillary Roman structures which were also revealed by the large-scale stripping exercise.

Nonetheless this information is potentially of some significance. In addition to the defensive perimeter ditch, a number of keyhole or dumbbell-shaped features, betraying evidence of burning having taken place *in situ* were located. These have been provisionally interpreted as Roman military field ovens, at least one of which was found lying outside the defences of the camp. These particular features have already been noted above in chapter 6, and their possible importance in reaching a fuller understanding of the way in which camps were utilised duly noted. The very presence of such features within what is widely accepted as a temporary work is also of significance, providing ammunition for the argument that such sites are not archaeologically productive. Their very survival, in an area which has been subjected to intensive agricultural activity for a long period of time is equally worthy of note, suggesting that even in arable zones, such sites may have information to impart through excavation on a large scale. The final publication of this work is still awaited, though it is clear that the significance of the presence and positioning of these features will be the subject of close attention.

The camp ditch itself was found to survive to a good depth, being on its south-west side an average of some 2-3m. wide lip to lip, and just over 1m. deep, from the cleaned surface to the base of the "ankle-breaker" slot, and of similar dimensions on the south-east side of I. No traces of the rampart were found to survive *in situ* and there was no evidence of turf having found its way into the ditch, whether accidentally or deliberately. The ditch had apparently been left open upon abandonment and allowed to silt up naturally. There were no securely stratified, datable small finds of Roman date from any of the sections placed through the perimeter ditch, though a sherd of Antonine Samian Ware was recovered from close by the south-west ditch of I and/or II on the old ground surface and may provide a clue as to the date of the work(s).

The subsequent reaction to the results obtained from this piece of work by the wider archaeological community in Scotland is rather interesting. Considerable importance was attached to the discoveries made, though for the most part this was due to the lessons it taught about the potential shortcomings of aerial reconnaissance, as a means of accurately identifying the archaeological potential of this particular site. The discovery of a plethora of prehistoric remains, representing domestic, ritual and

funerary activity on the site over a long time span, came as a complete surprise, none of these features having revealed themselves to the aerial camera. As a consequence the site, even though unpublished, is repeatedly referred to as model for caution in the use of aerial photography to guide excavation, especially in Historic Scotland guideline documents circulated to archaeological units across Scotland (in print, see for example Hanson and Macinnes 1991, 159-60). Yet by contrast, there is a very real sense that the purely Roman results of the project were rather disappointing, because little evidence was recovered, and in the same way the results of this programme of work are pointed up as good reason for not expending such time, effort and money on future investigations of similar sites. There would seem to be a contradiction, indeed a series of contradictions, in this line of argument. In the first place, the very awareness which this site provided of the limitations of aerial photography should warn us against making assumptions about other sites known only or overwhelmingly through aerial photographs; and no sites are more dependent on this medium for our understanding of them than temporary camps. In the second place, the point is surely not that we should expect finds as a consequence of excavation, but that we should find whatever evidence there is, to allow us to better understand these sites. A temporary camp which produces lots of finds is probably not a temporary camp. It may seem like a lot of effort to go to for a few ditch sections and a few ovens, but if this is what a particular camp contained then that in itself is important information. It is by this means that a clear picture of the character of these sites will be established, with significant implications for the issue of the definition of Roman military installations. The issue of financial expenditure is surely mitigated to a considerable degree by the fact that post-excavation costs will be minimal. Excavation of temporary camps can be conducted on a large (or at least larger that previously) scale, without being unreasonably expensive, as the work at Monktonhall Junction demonstrates. It is not suggested that investigations on such a scale are always or forever afterwards necessary, but that where achievable or appropriate should be accepted as an academically-valid approach, geared towards filling gaps in our current levels of understanding.

What is clear is that if this site had been examined by the tried and tested means of a few trenches across the defences and perhaps a cursory examination of the interior, a considerable amount of archaeological information would have been destroyed, unsuspected, beneath the new Musselburgh by-pass. On this occasion the greatest loss would have been to the prehistoric community, but who is to say that in future, at other sites, it might not be the Roman community? Logic demands that we are still a

long way from having the sort of level of knowledge about camps and camp interiors which would allow us to make informed decisions about the fate of such sites.

Equally clear is the lesson regarding aerial photographic evidence; though it is a remarkable and crucial tool for increasing archaeological knowledge, it is not a panacea and cannot replace excavation. One might argue, in defence of the technique, that the unusual depth of topsoil cover found to exist here had served to mask what were in many instances at least rather ephemeral features; some of the ring-ditches for example survived to a depth of barely 0.15m. Yet this caveat may be countered by the observation that the line of massive pits which was uncovered by the excavation had also failed completely to show on the aerial photographs, despite the one partially excavated example attaining a depth in excess of four metres before excavation was halted. The camp ditch, which lay in close proximity to these pits, itself survived to a depth of almost two metres, and had been clearly represented as a cropmark on the available photographs. If it could be seen, then there was no immediately obvious reason why the large pits should not have been visible too.

The open-area approach to the excavation of cropmark sites, as a general rule of thumb, was entirely vindicated by the results obtained at Monktonhall Junction, and has since been widely adopted as an appropriate method of examining such sites. Failure to do so carries with it a considerable risk of failing to exploit fully the potential of the surviving, sub-surface archaeology. On the basis of this one site, one can understand a reluctance to champion the use of open-area excavation specifically for the investigation of temporary camps, but in truth at the very least further experiments in different locations should surely be widely counselled as worthwhile. One final thought is that while such large-scale operations may prove to be of limited value on cropmark temporary camp sites, there is rather more likelihood of a viable return in information should the same approach ever require to be implemented on an upstanding camp site. Though it is to be hoped that excavation of a well-preserved temporary camp never need be required in anything other than a research context, it would be worth bearing the open-area approach in mind should such an eventuality ever come to pass.

It was with the results of this exercise firmly in mind that a strategy for the examination of another large temporary camp was devised, in the summer of 1990 and the early months of 1991.

Kirkpatrick Fleming I (figs. 6-10 & plate 4)

A second excellent opportunity to conduct a large scale examination of a temporary camp interior was presented when it became clear that the plans to upgrade the A74 Carlisle to Glasgow road to motorway standard would involve the destruction of a motorway-wide strip through the putative 63 acre-series camp at Kirkpatrick Fleming in Dumfries and Galloway region, a couple of miles from the Scottish/English border.

Originally discovered in 1951, and subsequently augmented by additional knowledge gained through continual surveillance over the following years by CUCAP, the site received brief inspection and testing from St Joseph, then again from Alan Gibbs in the 1960s, prior to the construction of the A74 (St Joseph 1951, 57; 1958, 89, 93; DES 1968, 14; Wilson 1969, 114, 204; St Joseph 1976, 6, 28). Neither piece of work had strayed far from examining the perimeter ditch, with the consequent recording of the standard information regarding ditch width, depth and filling pattern. The site was intrinsically undated, though St Joseph had assigned it on morphological grounds to his own 63 acre series, which for various reasons (outlined above in Chapter 5) was believed to date to the third century A.D. campaigns in Scotland led personally by the Emperor Septimius Severus.

Still improperly understood by 1990, not all of the perimeter ditch had been located (fig. 6), though enough to establish within reasonable parameters the shape and area of the site. It was also noteworthy that no annexe had been seen attached to the camp, a regular distinguishing characteristic of this "series". In addition, a second much smaller camp had been observed, lying within the western half of the larger camp and on a different alignment. A Roman road (Margery 1967, no. 7A) was believed to run through the north-west quarter of the camp, cutting across the defences at two apparently arbitrary points, intimating that camp and road had not been in use contemporarily.

Two separate field exercises were conducted upon different parts of the site, the first of them in August of 1991. This concentrated attention on the projected line of the new motorway, where it was due to cut obliquely across the north-east quadrant of the large camp (fig. 6). Consequently it proved possible to examine stretches of both the north and the east sides, with the potential for uncovering a gate in each of the lengths exposed. Bearing the Monktonhall Junction excavation firmly in mind, it was clear that an area-stripping approach would run the risk of being more costly, in terms of time, effort and money, than the gains in knowledge would merit. What had not been attempted at this point in time was the examination of a camp interior by another form

of remote sensing: geophysical survey. The intention in using such a method was straightforward: to employ the more rapid and cost effective survey technique to cover a representative sample of the interior, and reveal by means of anomalous readings obtained any potentially connected surviving internal features. This process would be followed up by the machine stripping of selected areas across the camp, to include the ditches marking the two sides available for examination and any area of the interior which the geophysical survey results had flagged up as being of potential archaeological intereSt

The survey techniques available at the time of the operation were resistivity and magnetometry. The latter alone was finally selected on the grounds of the local geological conditions, the greater speed (and thus area) which could be achieved by this means, and the presence across the site of a line of electricity pylons, which it was felt could adversely affect readings obtained utilising the resistivity method. The survey itself took one week to complete and involved the use of a Geoscan fluxgate gradiometer FM36. The ground was systematically covered using a network of twenty by twenty metre grids, ultimately encompassing an area of some 11,800 square metres. Lines were laid out at one metre intervals and readings were taken every metre along each of the lines within the grids. In the end, a swathe some 320 metres long and between 40 and 60 metres wide was surveyed, almost all of it within the limits of the camp as defined by the north and east defences on two sides, and the edge of the field on a third. This amounted to approximately 2% of the total camp interior.

It was hoped that the survey might be able to detect both individual features and patterns indicative of features which related to the Roman occupation of the site. The most likely discovery was felt to be the remains of Roman field ovens, the traces of intensive burning which would have occurred there being the most readily detectable using the magnetometer method of survey. Any patterning observable in the distribution of such features might easily reflect internal organisation of the camp. It was also possible, though less likely, that rows of rubbish pits might be detectable using this method, as had been recovered and excavated at the Inchtuthil camp. Pre-survey test pitting in the field, which at the time of the fieldwork constituted very gently sloping pasture, indicated a modest topsoil cover which was considered unlikely to prove problematic to the geophysical technique.

The results of the survey must be deemed a grave disappointment (see fig.7). Few clear anomalies were observed within the camp interior and even the circuit of the camp ditch itself proved difficult to locate on the final plot. The results were

processed using Geoscan's own Geoplot software programme and have been reproduced here as a dot density plot. Only four discrete locations (other than the perimeter ditch) were deemed worthy of further examination and accordingly these were stripped and inspected during the excavation stage of the fieldwork.

The excavation proper involved the topsoil stripping by a digger/loader of a total of 1350 square metres of land, representing six trenches opened at different points across the field. The two principal trenches were concentrated upon the north and east sides respectively of the camp, their precise location determined in large part by the points deemed most likely to possess entrance gaps in the perimeter. However it was clear even before topsoil stripping began, that the gate in the east side would almost certainly lie outwith the area available for examination. This conviction, based on the reasonable assumption of an approximately centrally-placed gate on this, one of the two shorter sides of the camp, proved to be correct. No entrance gap was encountered in the area stripped and it is most likely that the gate in fact lies more or less beneath the current line of the A74, where it crosses the line of the east defences. This assumption, the modern road, which is commonly believed to mimic the line of the main Roman road through this region, effectively entering the camp by its east gate, could have been seen as a significant component in both the relative and absolute dating of the site. At this point in time though the road was believed to leave the camp on the opposite side at a point close to its angle, suggesting there was no relationship of respect between the two features. The second phase of fieldwork however suggests this may not be the case (see further below).

The four minor trenches, all lying within the camp interior, had areas stripped over the focal point of the anomalies registered during the geophysical survey. In each case the resultant recovery had no obvious relevance to the occupation of the camp: one transpired to be the remains of an old field boundary, demarcated by a bank and associated slight ditch or hollow; a second contained a modern pipe and channel; the remaining two revealed no archaeological features, though may probably be explained by the recovery of indeterminate iron objects from the ploughsoil.

On the north side an irregular area, some 475 square metres in extent, was stripped and cleaned to reveal a length of some 75 metres of the truncated marching camp ditch, including an entrance gap some 15 metres wide (see fig. 8 & plate 4). Due to the close proximity of the field boundary, beyond which the land had been deeply incised in the nineteenth century for a railway cutting, it was impossible to extend the trench any further. Any *titulus* associated with this entrance had thus been lost, in the

ground removed during those engineering operations. It did however seem prudent to test the site for the presence of alternative types of gate arrangement. The possibility existed that the large camp at Kirkpatrick Fleming might represent a large "Stracathro-type" camp, as had been discovered at Beattock (Maxwell & Wilson 1987, 30-2), Castledykes (St Joseph 1958, 89) and Dalswinton (Maxwell & Wilson 1987, 30), though its rectangular shape seemed to militate against this. Accordingly a series of narrow trenches were opened, positioned so as to run out from the main trench to north and south, in order to test for the presence of a *clavicula* or oblique traverse, as might exist at a camp of presumed first-century A.D. date. The results to east of the entrance gap were entirely negative. At the west terminal however excavation revealed what at first appeared to be a squared-off ditch terminal, by contrast with the more common rounded end, as had characterised the east terminal. This effect transpired to have been produced by a small ditch apparently emanating from the very end of the terminal, approximately at right angles to the line of the ditch. The same feature was located in an off-shoot trench, some 12.50 metres inside the camp perimeter, continuing on the same alignment. The relationship between this ditch and the camp ditch terminal proved impossible to establish; no cut was discernible in the temporary section situated at the point where the two ditches met. It is therefore possible that this smaller ditch formed an integral part of the marching camp defences, especially given that the smaller ditch did not emerge on the north side of the camp ditch terminal. However given the fact that the small ditch is known to continue on the same alignment for at least 12.50 metres, with no sign of it beginning to curve eastwards, it seems unlikely that it will have represented a *clavicula* springing inward from the terminal. In addition, drainage channels were present all along the line of the trench, on approximately the same alignment and roughly regularly spaced; many of these also clearly terminated hereabouts, as would be expected given the proximity of the edge of the field. Furthermore the Ordnance Survey first edition map of 1858 illustrates a field boundary running across the field in roughly the same position as the small ditch. A more likely explanation of this feature therefore would be that it represents some relatively recent element of land use or division. Consequently it seems reasonable to suggest that a *titulus*, now destroyed, would have been the most likely method of gate protection employed.

The excavated evidence from this trench was otherwise relatively straightforward. The terminal proper had dimensions of c. 2.30 metres wide and c. 0.60 metres deep, the ditch profile being an irregular U-shape. No trace of the presumably associated rampart survived *in situ*, though quantities of turf were noted in the ditch fill. The section would suggest that the ditch had been deliberately infilled: there was no trace

of silt at the bottom of the ditch, although constant waterlogging made certainty on this point impossible, and the fill comprised two distinct dumps of material, the primary fill being very turfy in nature. There were no small finds.

The east terminal on excavation produced dimensions of c. 2.90 metres wide and c. 0.55 metres deep, the ditch profile being a wide and shallow U-shape, markedly different from its western counterpart. No sign of the presumed associated rampart survived *in situ*, though again traces of turf were discernible within the make-up of the fill. By contrast with the west ditch terminal, there appeared to be evidence for the east ditch terminal having lain open for a period of time before being infilled. A distinct layer of silt, co-mingled with clay and up to 0.12 metres deep, was encountered at the ditch bottom. Dumps of material bearing traces of turf seem to have been used to fill in the ditch. There were no small finds.

Evidence for internal features in this trench was minimal, restricted to three discrete though closely-grouped patches of burning, which lay just within the line of the camp ditch on the west side of the entrance gap. One was excavated and recorded, proving to be both ephemeral and irregular, and bearing a single fill containing some charcoal. There was little clue to suggest function or date, though the presence of charcoal coupled with its location *vis-à-vis* the camp defences might be taken to indicate an association with cooking activity..

On the east side an area of some 555 square metres was stripped and cleaned, exposing a stretch of ditch a little under 50 metres in length. Sectioning proved this to be some 2.30 metres wide and some 0.65 metres deep, with a V-shaped but flat-bottomed profile. No trace of a rampart survived *in situ*, and the patterns of deposition observed suggested that the ditch had been deliberately infilled. The fill comprised two distinct dumps of material, the primary fill having a degraded turf content. There was nothing to indicate that silting had taken place. Nothing of significance was found lying inside the camp ditch, while outside the only feature of potential interest was a small, heavily truncated pit, sub-oval in plan, and with dimensions of perhaps c.0.70 by 0.90 metres. It proved to have a single, shallow fill containing some charcoal. There was little to indicate function or date and nothing to tie it to the occupation of the marching camp, though it is perhaps worth noting that one example of the putative field ovens at Inveresk was located in a similar situation (noted above), just beyond (i.e. outside) the perimeter ditch.

This concluded the first season of work at the large camp at Kirkpatrick Fleming. The second took place in January and February of 1991 in the field immediately to the west of the minor road (the B6357) commonly believed to mark the line of the west ditch of the large camp (fig. 9). Although no first hand evidence existed to suggest the presence of Roman remains in this area, strong circumstantial evidence existed to indicate that both the remains of a Roman road and an annexe to the large camp might be situated there.

Accordingly a machine cut trench, between 6-8 metres wide, was opened running the full length of the field, parallel and adjacent to the B-road and for much of the putative length of the west side of the large camp. An area roughly halfway along this length was left uninvestigated, due to the presence of a vehicular access road.

In all some 1640 square metres were stripped and cleaned, split between two trenches located either side of the access road, and a further dozen small exploratory trenches at various points elsewhere throughout the field.

The northernmost trench stretched for some 110 metres in length, and after cleaning proved to be largely devoid of archaeological features. The anticipated Roman road was not present in the location assigned to it by the most recent Ordnance Survey 1:10,000 map. Instead indications of the true position were found at the very southernmost extremity of the trench. As first encountered only some 0.5 metres in width of this feature were visible, beyond which lay large dumps of excavated soil and road building materials. With some difficulty a further eight metres in length were cleared by machine, up to the very edge of the vehicular access road. The feature clearly continued beneath this point. It also proved well nigh impossible to clean and excavate in this area due to disturbance caused by the workings of heavy vehicles and by flooding caused by a massive drainage system; even the creation of a large makeshift sump failed to drain the area adequately. The following description therefore constitutes an attempt to record the feature in the absence of controlled excavation technique.

The total width of the feature is likely to have been about 9 metres or a little more; it could be detected with certainty for c. 8.50 metres before vanishing beneath the access road. It manifested itself as a concentration of cobbles set within a dark brown, compact soil, distinguishable from both the overlying topsoil and underlying subsoil, each of which was stone-free. At two points in a temporarily-created section, the cobbled area had a depth of c. 0.20 metres, beneath which lay a second layer of light-

grey clay packed with small cobbles and stones. This was very slight, never more than c. 0.10 metres deep, and appeared to be set within a very slight depression. It proved impossible to establish whether or not this latter was a natural feature or deliberately cut. No incontrovertible evidence of date was recovered from this investigation. The only find was a badly abraded sherd of probably Medieval pottery from a disturbed context.

It is possible that this feature represents the remains of the Roman road, perhaps also re-utilised at a later date, in which case its true alignment is some 100 metres south of the Ordnance Survey line. The conditions under which the excavation was undertaken mean that certainty is impossible, though one additional piece of evidence may be cited to add weight to such an identification. In the field to the east, i.e. within the perimeter of the large camp, after several falls of snow it was possible to discern a line running across the field from east to west which, if extended across the B6357 linked up with the position of the feature at the southernmost end of the north trench. This line revealed itself as a strip of grass upon which the lying snow had failed to disperse as readily as elsewhere in the surrounding field. The location of the feature is roughly halfway along the length of the west side of the large camp, that is in a position likely to have been furnished with a gate. The snow line and feature, if both do indeed represent the Roman road, will therefore most likely have been aligned on this gate. The implication from the August fieldwork was that the Roman road entered the camp by its east gate. This now adds a second conjecture, that the road leaves the camp by its west gate. Though caution is required where one conjecture builds on another, the circumstantial evidence now points to the camp having been sited with respect to the road, perhaps intimating that the two were in use contemporarily.

The second trench continued on the same line as the first, on the south side of the access road and parallel with the B-road. It extended for c. 70 metres, averaging 7 metres in width, stopping well before the end of the field where large spoilheaps from the road-building operations had been dumped.

After stripping and cleaning only one feature was revealed within this trench, a linear feature running approximately E-W (fig. 10). Excavation revealed this to be a fairly substantial ditch, c. 1.50 metres wide from lip to lip and c. 0.70 metres deep, with a V-shaped profile flattening towards the bottom. The characteristically Roman shape of the ditch was borne out by the recovery from it of five sherds of pottery, all from the same grey coarse ware vessel (see further below). These came from the securely stratified primary silt at the bottom of the ditch. No trace of an accompanying rampart

was noted, nor were there any obvious traces of turf within the make up of the ditch fill. The silting pattern recorded would suggest that the ditch had lain open for some time, eventually filling up naturally. The primary silt recorded at the base of the ditch attained a depth of some 0.25 metres.

The position of the ditch, running approximately perpendicular to the B6357, which is believed to correspond closely with the line of the west ditch of the large marching camp, together with the discovery of the Roman pottery, suggested that this might represent one of the sides of an annexe, a characteristic feature of the 63 acre series. Accordingly a total of twelve further exploratory trenches were opened in an attempt to trace the course of this ditch.

In the first instance a series of trenches were opened in order to trace the route of the putative annexe ditch. The first three all demonstrated its straight continuation on an east-west alignment. In the fourth however the ditch appeared to be absent.

At this stage it seemed most likely that the visible stretch of ditch would represent the northern side of an annexe; examples identified at other 63-acre series camp sites display a tendency to be positioned towards the ends rather than the middle of the shorter sides of the camps. A long slit trench was thus opened in an attempt to locate the west side of the annexe, working on the assumption that the absence of the ditch in the fourth, fifth and sixth trenches indicated that it had reached a corner and changed direction. However despite extending this trench for a total of 80 metres, no ditch, nor any other features, were encountered. This prompted a return to the fifth and sixth trenches , where the effects of weathering now revealed the faint impression of a ditch. In the fifth and sixth trenches this appeared to be curving round to the north as if at an angle. The contrast between ditch fill and surrounding natural subsoil was much less clear than had been the case in the first three trenches. Excavation of a section at the point of curvature confirmed that the fill here was far closer to the parent subsoil than had been the case elsewhere. The ditch profile recovered was also markedly different from that recorded earlier, here being a shallow bowl shape, some 1.75 metres wide and c. 0.55 metres deep.

Following this discovery another trench was opened in an attempt to establish the continuing presence of the west side. Here the ditch was located in the expected position and again the uppermost fill was found to contain a large proportion of redeposited natural subsoil. Ditch dimensions were recorded as c. 2.30 metres wide and 0.80 metres deep, the profile being a wide V-shape, with a possible ankle-breaker

slot at the bottom, filled with stones. Neither of these latter two sections showed traces of a surviving accompanying rampart, nor produced any small finds. Both bore deposits of silt at their bases, indicative of the ditch having lain open for some time after their creation.

From this point onwards it proved impossible to progress further by means of small closely-spaced trenches. The last trench opened had been located adjacent to the access road and the next available space for an exploratory trench lay some 40 metres distant on the far side of this obstacle. Here, and at two other points on the same alignment further to the north, trenches were opened but failed to find any trace of the continuation of the putative annexe ditch. It seems then that this feature must either stop, or return to the east in the direction of the west ditch of the large marching camp, itself presumably beneath the line of the access road.

One final trench was located between the main southern trench and the B6357, in an attempt to determine the position of the junction point between the south side of the putative annexe ditch and the west side of the large marching camp. The junction point was not located, nor indeed was any trace of the putative annexe ditch, despite its obvious presence in the main trench a mere 5 metres to the weSt An explanation of this occurrence is difficult, if one accepts that this represents the perimeter ditch of a Roman military work of some character, unless the trench was opened at a break in the line of ditch intended to serve as an entrance gap.

The final piece of unexpected information regarding this enigmatic ditch came in the form of the report, prepared by Mr. John Dore, on the grey coarse ware recovered from the putative annexe ditch. These transpired to be two rim sherds and three body sherds from a jar, typical of deposits associated with the initial period of occupation on Hadrian's Wall (e.g. Woodfield 1965, T18b no 1). As a type, it seems to appear first in pre-Hadrianic deposits, e.g. at Vindolanda, unsubdivided period AD 80 - 125 (Birley & Birley 1938, 22) and according to Dore barely reaches deposits on the Antonine Wall, e.g. at Balmuildy (Miller 1922, 4), before being superseded by other grey-ware jar types in darker, harder and more highly-burnished fabrics. Dore concluded that a date range of AD 100 - 150 would seem reasonable for the pieces from Kirkpatrick Fleming.

The fieldwork at Kirkpatrick Fleming can be said to have raised a number of important questions relevant to the understanding both of this specific site and, just possibly, of the Roman occupation of Scotland in general.

If the length of ditch from which the pottery was recovered can be linked to the main camp (Kirkpatrick I) then this could have an immediate and profound impact upon the previous interpretation of the site, as one of the supposedly Severan 63 acre series camps. Based on Dore's identification it is clear that the length of ditch identified cannot be associated with third century A.D. activity. If this should prove to be the annexe of the 63 acre camp, then the Severan date of the series would be in question. On current evidence however we are still a long way from positing such a sea change in the manner in which we think of this site, let alone a whole series. The most likely explanation, without further fieldwork, is perhaps that yet another, currently improperly understood, phase of Roman activity has taken place on the same general site, signifying that the Kirkpatrick area was a favoured one in the Roman period, perhaps from a relatively early date. Not only does the site lie on the main westward route into and out of Scotland, it also lies within a relatively short distance of Hadrian's Wall, and functions related to both of these contexts could well be adduced to explain activity here. One cannot entirely discount the possibility however that the length of ditch may be in some way intimately connected with the large camp, and that its security as a solely Severan installation is not necessarily guaranteed.

Though little evidence of interior activity was recorded during the work at Kirkpatrick Fleming, it should be noted that the failure in this case may be attributed to the geophysical survey. The methodology selected was intended to discern whether or not such prospection techniques might help guide excavation, removing the need for very large scale machine stripping. Due to what appear to have been unfavourable geological conditions however, the experiment was unsuccessful. Excavation thereafter concentrated mainly on the camp perimeter. The wider investigation of the site appears to demonstrate that geophysical survey, in these conditions, is not an appropriate replacement to area stripping, but in no way indicates the inapplicability of the technique in all circumstances. Still less can it be said to negate area stripping of camp interiors as a valid archaeological approach.

Beattock V (figs 11-14 & plates 5-6)

When, in 1994, the opportunity arose to conduct an excavation on the Stracathro-type camp at Beattock, ahead of the construction of a stretch of the new M74 motorway, the strategy was devised mindful of the lessons which had been learned from work at the previous two sites. However it was considered inappropriate to reject either geophysical survey or large-scale excavation as inappropriate methods of investigation

on the basis of the results obtained from two sites in quite different contexts, in line with the argument outlined at the beginning of this chapter. Far more case studies from sites with different characteristics are needed before informed generalised decisions may be made with any degree of confidence. Accordingly it was decided that once again both geophysics and large-scale stripping of topsoil would be employed as the principal means of examining the site, though this time the emphasis was on a combination of the two methods as primary prospection techniques, rather than using the one simply to direct the other.

The projected line of the new road was scheduled to cut across the camp obliquely, entering it at its south-west gateway and crossing the western portion of its interior before departing the camp just west of its north-west gateway. In all, a distance of some 450 metres of the camp interior, including the south-west gate and defences on the north-west side stood to be lost to this development, the road corridor extending for a width of 50 metres for the full duration of its course across the land occupied by the camp.

The Stracathro-type camp at Beattock is one of a complex of Roman military works concentrated in this general area (fig. 11). The main focus of attention lies further to the south-east, where the remains of a two phase fort (both relating to the Flavian period) and two fortlets (one of Antonine date, the other palpably later than the forts), attendant annexes and a small temporary camp have been recorded at Milton Farm (see further below). The main Roman road through Annandale leads through this focus, continuing thereafter on a north-westward trajectory heading for the Lowther Hills. In the flat land to north-west of the fort, either side of the Evan Water, the vestiges of several temporary camps have been recorded over the years since World War II, lying either side of the Roman road, together with traces of what seems to be yet another fortlet.

The density of Roman military works at Beattock demonstrates that it was a favoured location during the campaigning programmes of the Roman army, as well as constituting an important point on the Roman communication network in southern Scotland. It is clearly important in topographical terms and quite possibly for political reasons also. The land here represents the last available expanse of flat, relatively low-lying land prior to entering the Lowther Hills, and is therefore an obvious stopping point on the westward route through south-west Scotland. Its position, capable of controlling passage along the Annan Valley, itself representing good agricultural land, would surely have made it a key area for the indigenous population too. It is perhaps

most likely that the area was controlled by the *Selgovae* (Mann and Breeze 1987, 88-9), though the matter is far from clear (see for example Barrow 1989, 161). It is even possible that the Beattock area represented a critical border zone between clearly defined tribal territories.

Traces of the Roman works at Beattock were first recognised during aerial reconnaissance of the area in 1945, when parts of the ditches representing what may now be recognised as a subdivision of a larger camp, Beattock I, were recorded as cropmarks lying north of the Evan Water and east of the Roman road (St Joseph 1951, 58: 1952, 111). It was not however until 1974 that the fuller picture was established, when lengths of both north and east sides of the largest camp, I, were recorded (St Joseph 1977b, 133), revealing the presence of a large marching camp I, which had undergone at least two separate periods of use in altered form, II and III. The full extent of Beattock I remains unclear, the position of the south side never yet having been established, though the position of the Evan Water would seem to provide a clear boundary; it is possible though that the former course of the river may have been rather different from that which is apparent today. St Joseph, after earlier estimates (St Joseph 1976, 6), would now see the north-south dimension as at least 1700 feet (St Joseph 1977b, 133), and consequently a reasonable estimate of the most likely size for camp I will be in the region of 35 -40 acres (c 15 ha.). In 1992, excavations were conducted here ahead of a pipeline installation, revealing the ditch on the north side as expected but failing to retrieve any trace of internal features or the elusive south side (DES 1992, 20-1).

Before the discovery of the full extent of Beattock I another temporary work had been recorded, again located north of the river but this time west of the Roman road, Beattock IV (St Joseph 1958, 89). Once again a problem attaches to calculations of the full extent of this work, since in this instance the position of the west side has never been recorded. As with I however, the location of the Evan Water would appear to provide a boundary within which the body of the camp must fall; this results in a camp approximately 30 acres (c 12 ha. ) in size. A further component of the Beattock complex is the small, roughly square work situated at the north-east corner of Beattock IV. This has been tentatively identified as a Roman fortlet, though trial trenching at the site failed to provide corroboration (Frere 1985a, 267); it did however establish the putative fortlet to be earlier than the temporary camp.

Following the realisation of the fuller extent of I, a third camp, Beattock V, was recorded by the RCAHMS in 1977 (DES 1977, 53; Goodburn 1978, 418-9; Maxwell

and Wilson 1987, 30-2). Beattock V lies to the south of IV on the south side of the Evan Water and west of the Roman road. Yet again the full extent of the camp is not clear, both north-east and south-east sides remaining elusive, and yet again the position of the river would seem to provide a barrier to the potential size of the camp at least on the north-east side. Estimates of the likely full extent of the camp have varied considerably; Maxwell and Wilson believed it likely to exceed 57 acres (23 ha.), while Hanson classified it with perhaps the minimum dimensions possible at around 40 acres (Hanson 1987, 125).

Mention should also be made of cropmarks recorded by the RCAHMS at the northern end of this complex. These are described only as possible linear cropmarks, their function and date remaining matters of conjecture. However any linear cropmarks located in such close proximity to a welter of Roman military works deserve further consideration, for this reason alone; seemingly stray, unconnected lines of ditch in areas of significant Roman activity have more than once transpired to form parts of Roman camps, most recently and spectacularly at Dunipace, close by the complex of sites focused on the forts at Camelon (Maxwell 1991, 9-11), though only years after they were originally noticed. A similar discovery may yet be made at Beattock. Plenty of flat land exists to the west of the cropmarks here, spreading beneath the line of the A74 and the village itself (a nineteenth century foundation).

For a full understanding of the significance of the site it is necessary to examine the evidence provided by the remains at nearby Milton, outlined above. The Roman character of the site was originally recognised by Roy, who planned the upstanding earthworks present in his time (Roy 1793, pl. viii). Despite doubts about the accuracy of Roy's interpretation from subsequent scholars, in a series of excavations in the late 1930s and 1940s, Clarke proved the Roman character of the site and established that it comprised the following elements: a fort with attendant annexes, occupied on two distinct occasions during the Flavian period; two fortlets, one within the defences of and overlying the Flavian forts, the other to the south, of Antonine date, with two, and possibly even three, phases of occupation; and a small temporary camp, the most southerly element in the group, and which provided no firm dating evidence. Clarke suggested a Flavian date for the latter work. A second camp, partially underlying the forts, is also potentially present (Clarke 1946, 100-10; 1947, 10-26; 1948, 133-49; 1949, 197-201; 1950, 199-221; Miller 1952, 104-10).

Faced with this evidence, the approach to the excavation of the Stracathro-type camp had a number of goals in mind. The first was to establish, if possible, the date of the

camp. The second was to concentrate activity on the entrance way, to retrieve evidence pertaining to site use and reuse, and to retrieve detailed information about the arrangement of the Stracathro-type gate emplacements. The third was to seek information leading to an understanding of the function of the camp, and in particular testing the hypothesis that it represented either a longer term summer campaign base or a construction camp for the fort(s) at Milton. The fourth was to attempt to find evidence for the internal occupation of the camp.

With respect to the date of the camp, it was decided that the excavation should proceed with the working assumption (and very strictly speaking the truth) that the camp was undated, discounting the widely held belief that Stracathro-type camps are of Flavian date. This wilful disregard of the considerable weight of scholarly opinion on the subject was taken as an exercise in attempting to view these sites 'fresh', to see what such an approach might produce in the way of insights. With this in mind, it was clear that the first step involved evaluating the importance to be placed on the close geographical links between the Milton complex and the Beattock complex, the former representing the nearest firmly dated site of Roman date. These were viewed as representing a single unit within the overall Roman network of occupation and control in Scotland, with understanding of any single element being at least partially contingent upon the other constituent parts. Clustering of Roman military works on certain nodal points is a common enough occurrence, especially well documented in southern Scotland. Newstead represents the best known example, though the sites of Dalswinton, Glenlochar and Castledykes all constitute equally valid cases in point. These "marshalling grounds", to borrow Maxwell's phrase (1989a, 81), share the characteristic of displaying complex occupation sequences comprising both permanent and temporary works. Further, it is commonly accepted that four of these sites form an axis across the country from east to west - Newstead, Milton, Dalswinton and Glenlochar. Given these facts it would be expected that Milton would possess a similar range of permanent and temporary sites and that thus the camps at Beattock should be seen as part of the one large grouping. If this connection is accepted, then there is dating evidence from the permanent works at Milton which demonstrates both Flavian and Antonine activity at the site and thus provides a (not necessarily full) chronological framework for the camps. Finally, even though the date of the camp might appear largely unproblematic to most, it remains the case that no Stracathro-type sites have produced artefactual evidence in corroboration; an attempt to provide such a find was therefore included as a worthwhile aim.

The second issue to be addressed by the excavation was the investigation of the south-west gateway. The layout of Stracathro-type gateways has been much discussed, ever since the aerial discovery of the type site at Stracathro (St Joseph 1955, 87; 1958, 92-3), which added to Roy's testimony of a similar gate arrangement still surviving on the ground in the eighteenth century at Dalginross. Subsequently, excavation has taken place at a number of gates of such works, including the north-west gate at Stracathro (St Joseph 1970, 171-5), the west gate at Ythan Wells (St Joseph 1970, 175-7), the north gate at Castledykes (DES 1987, 45) and the east gate at Dalginross (DES 1990, 44; Rogers 1993, 277-90). However of these only the latter two involved anything approaching area excavation, that at Castledykes being able to focus only on one half of the entrance, that at Dalginross focusing largely outside the gate emplacements. The recovery of a full gate plan was thus perceived as an important goal.

Several issues were raised by the above investigations, including the possibility of site reuse at Dalginross. Indeed the positioning of the gates at Beattock V gave some cause for further questioning. In most cases where the gate arrangements are known, Stracathro-type camps have one set of opposing gates centrally placed, and one set of opposing gates located towards one end of the camp, thus indicating in which direction the camp originally faced. At Beattock, the gate in the north-west side lies very close to the end of the known length of ditch, which cannot continue much further because of the presence of the river. This would seem to indicate that the camp faced north-eaSt However the position of the gate in the south-west side is also located towards the end of the known length of that side. Although room exists for the south-west side to extend some distance further to the south than has been seen, this would create an unusually-elongated shape of camp, if the south-west gate is to be centrally placed. It would also mean that the camp faced north-east, but that the head of the camp formed by far the longer axis, suggesting an unusual disposition of troops inside. It is conceivable that Beattock is an unusually-shaped camp of a size suggested by Maxwell and Wilson, since precedents for elongated examples exist at Bochastle (St Joseph 1973, 224) and Malling (St Joseph 1973, 223-4). Other possible explanations for the positioning of the gate do, however, exiSt Excavation at the Stracathro-type camp at Dalginross suggests that reuse of the camp may have taken place, on an as yet unknown scale, as indeed the cropmark evidence indicates at Beattock I, II and III. If such were the case at Beattock V, one of the gates could relate to one phase of use, the other to a later reuse, hence explaining their apparently unusual positioning. Without further aerial discoveries, excavation represents the only way of shedding further light on the matter.

Unfortunately the road line proved to cut through the entrance gap at the south-west gate, leaving the northern half outside the area under immediate threat from road construction. Protracted negotiations with the landowner and tenant failed in the end to reach an acceptable arrangement, with the result that excavation had to be restricted to the south end of the entrance way only.

The third issue surrounded the question of the function of the camp, a matter which, extrapolated to include all camps in the Stracathro-type "series", has also caused a deal of academic debate. Camps furnished with the Stracathro-type gate arrangement are relatively rare (chapter 9 provides an up-to-date list) and it is initially tempting to see them all as part of a coherent group or series. Yet other factors, such as size and geographical distribution, fail to maintain this sense of a unified group and render such a uniform explanation difficult to sustain. The compression of all Stracathro-type camps into a single series has accordingly been rejected by the majority of scholars (St Joseph 1973, 225; Hanson 1987, 123; Maxwell 1989a, 56).

Attempts to explain the phenomenon have more recently concentrated on providing site specific interpretations. With respect to Beattock V, Maxwell and Wilson have drawn attention to the broad similarity in size between it and examples at Dalswinton I and Castledykes I (1987, 30-2). If the projected size of Beattock V is correct at somewhere in excess of 57 acres, then it bears comparison with these two examples, respectively 61.5 and 60.5 acres in extent. Further, all three sites fall within south-west Scotland and might therefore be seen as representing works constructed by the same unit at stages on a route. Equally, they may represent contemporary works housing different units of similar size engaged on the same campaign. This latter scenario is the one most favoured by Maxwell and Wilson.

While one or other of these theories is likely to be correct, the potential for another explanation still exists which should be archaeologically testable. A case could be made for identifying Beattock V, and some other examples of the "series", as construction camps, housing troops engaged in the building of forts, a suggestion which has also been made before (Maxwell 1981, 35). Certainly many are found in association with Flavian fort sites: Castledykes, Beattock and Dalswinton (where two such camps exist) in the south-west, Bochastle, Malling (also with two such camps), Stracathro, Dalginross and Inverquharity north of the Forth-Clyde isthmus and Lochlands on the isthmus itself. Yet unless undiscovered forts exist at the sites of Ythan Wells, Auchinhove and Woodhead, then not all can be labour camps. Equally, it seems unlikely that all of the camps which do sit beside forts can be viewed as

construction camps, since the sheer size of some of the examples would appear to represent far more space for troops than would be required for such a task (St Joseph 1973, 229; Hanson 1987, 123); at a minimum of c. 40 acres, Beattock V might also be considered rather large.

However the theory that Beattock V represents a construction camp should not perhaps be dismissed out of hand. In the first place, the choice of location for the camp is curious since it occupies a sizeable tract of less than perfect land. The large, marshy depressions encompassed by the camp defences would not have been particularly suitable for the siting of rows of tents and one must consequently ask why the site was chosen in the first place, especially given that suitable flat land does exist in the immediate vicinity (e.g. that occupied by camps I-IV). In this regard it is also worth remembering the apparently unusual layout of the camp noted above, which also creates the impression that available space was at a premium. One obvious solution is that the camp builders avoided constructing their temporary work on the best land because it was intended to utilise this for something else, such as a permanent fort. If the fort site had already been chosen, and that site was Milton, then the areas occupied by camps I to IV may have been viewed as too distant for the purpose at hand; both additionally lie on the wrong side of the river. Such a scenario would explain the choice of the site of Beattock V, since the land to west and south of Milton is very boggy and even more unsuitable than the land occupied by Beattock V, while to the east the available space is severely constrained both by the river and by the topography.

The size of the camp need not necessarily be seen as an insurmountable problem either. For one thing, the issue of establishing an appropriate men per acre ratio for soldiers billeted in camp remains a vexed question (Roy 1793, 52-3; Richmond & McIntyre 1934, 50-61; Hanson 1978, 142-3; Maxwell 1982, 110-2; Pitts & St Joseph 1985, 239-44); despite repeated attempts to address this issue, no formula for calculating the ratio of acreage to manpower has yet been found which could be said to have gained universal acceptance. Additionally, these calculations have tended to concentrate on establishing the size of area required to house a legionary force, or the size of force which might be fitted within a particular camp; it remains unclear what size of force would be used for the specific purpose of constructing a fort.

At Beattock V, the large tract of presumably unusable land (or at least of restricted use) would in any case reduce the amount of space available; thus the size of the force encamped there is likely to have been markedly smaller than first appearances might

suggeSt The overall available space at Beattock V, in the end, may not be much different from the space available within Malling I, which St Joseph considered of a size appropriate for a construction camp (1970, 177); the morphological similarities between the larger camp at Malling and Beattock V have already been noted above. Finally, the distance from the camp to the fort at Milton is a mere 500 metres; close enough to render a daily trek to and from the construction site unproblematic, while allowing enough room for the troops engaged in this task and billeted in the camp to assemble outside each morning before setting about their allotted tasks.

If the construction camp theory were true, then clearly the period of occupation involved would be greater than that for a conventional marching camp utilised for an overnight stop or at most a few nights. This fact should then be reflected by the surviving remains, both structural (rubbish pits, latrine arrangements, ovens and other cooking paraphernalia) and portable (pottery and other detritus), even allowing that modern experimentation indicates that fort construction need not be a slow process (Hobley 1971, 21-33). The matter should therefore be archaeologically testable.

The final stated issue relates to the interior of the camp and the potential for survival of internal features of the sort noted in the preceding paragraph. It has already been noted in chapter 6 that the expectation of such material being found within temporary camps is very low, and it has been argued that this need not be the case if enough of the camp were investigated in an appropriate manner.

These matters are all of course conjectural without the evidence of excavation, hence the importance of the opportunity provided by this programme of work. Large scale stripping of camp interiors has been shown to have been only rarely attempted in the past, for obvious reasons connected with the expenditure of money, effort and time. This reluctance has been further strengthened by a perception that returns in terms of information were deemed by many to be unlikely to repay the investment.

The strategy adopted for the investigations at Beattock V involved utilising both area stripping and geophysical survey in tandem. This was in response to the need to cover such a large area, over one kilometre long and between 50 and 100 metres wide, amounting in total to some 85,000 square metres. The initial intention was to open some 8% (6,800 sq. m.) by machine, supplemented by geophysical coverage of a further 21% (16,000 sq. m.): in the end the achievement was rather less, at a little over 6.5% (5,665 sq. m.) and 17.75% (15,200 sq. m.) respectively, of which 7,200 sq. m.

were covered inside the camp perimeter by means of geophysics and 3,425 sq. m. by means of topsoil stripping (fig. 12).

The geophysical survey programme was designed to complement the excavation programme, the full length of the threatened swathe of landscape being investigated by the alternating employment of the two techniques. Key areas of the camp were marked out for machine stripping from the outset, these being the area around the south-west gateway and the stretch of perimeter ditch within the path of the motorway on the north-west side. The interior of the camp to be investigated presented boldly undulating pasture, and each method was employed on both peaks and troughs of this rolling landscape. Machine stripping took the form of a series of 20 x 20 metre trenches.

The geophysical survey employed both resistivity and magnetometry methods, covering the same areas in an attempt to ensure the best possible coverage of the chosen areas. Numerous anomalies were recovered in the course of the fieldwork, though none of these could be deemed diagnostic from the results visible on the plots alone. Consequently a selection of these anomalies were pinpointed in the field and further machine stripping undertaken, to test the efficacy of the survey results. As with Kirkpatrick Fleming the final verdict must be that the process failed to achieve significant results. None of the anomalies subsequently tested by excavation transpired to be of archaeological significance, though it is worth remembering that at Beattock, unlike Kirkpatrick Fleming, the geophysics was not tested against known archaeology; it is therefore possible that no significant material existed in the areas surveyed.

Of the excavation, on the north-west side of the camp, 60 metres of the perimeter ditch were exposed by topsoil stripping, and initially three 1.5m. wide sections were cut across it and excavated by hand. The ditch revealed was relatively slight, V-shaped averaging 0.7m. deep and 1.4m. wide from lip to lip. The pattern of ditch filling observed appeared to be consistent with the ditch having lain open for a period before having turf, presumably from the rampart, deliberately dumped back into the ditch, after which natural processes, followed by ploughing, had served to fill the remaining hollow to surface level. At no point were *in situ* traces of the rampart recorded, though the tip lines recorded in the ditch section faces suggested that most of the material had emanated from the interior of the ditch, where the rampart would have existed. At the end of the excavation, an attempt was made to exploit the full length of the ditch in a search for datable material from the fill. This was achieved in a very rough and ready manner, by removing the ditch fills with the aid of a machine

under archaeological supervision. The process was conducted against the clock and no finds were recovered, though the process was little more than a token effort and should not necessarily be considered an accurate reflection of the ditch contents.

At the south-west gateway, the largest single area of the overall programme was opened, concentrated upon the gate emplacement but incorporating sizeable areas both inside and outside the camp perimeter (see fig. 13 & plate 5). The ditch representing the southern half of the gate emplacement was uncovered, the so-called oblique traverse. Entering from the west of the trench, it ran in a straight line for 19m. before turning sharply to the south-east, continuing on this new course for a further 26m. before leaving the trench toward its south-west corner. Four sections were cut across the exposed ditch, revealing a regular V-shaped profile, varying in depth from 0.6m.-0.9m. and in width between 1.2m.-2.0m. lip to lip (fig.14). A shallow cut was recorded at the foot of the ditch, the so-called "ankle breaker", averaging 0.3m. wide. The ditch fill pattern observed conformed to that noted in the ditch sections across the north-west side, representing a period of natural silting followed by the deliberate infill of material with a high turf content, presumed to have emanated from an accompanying rampart. Once again no *in situ* traces of the rampart were detected. In no section was there any indication of the ditch having been recut or remodelled. Pressure of time prohibited a treatment of the ditch similar to that achieved on the north-west side and the sections cut across the defences produced no datable finds.

To this point then it could be said with some justification that the excavations at Beattock had failed to add significantly to knowledge already discernible through close scrutiny of the aerial photographs and by drawing parallels from other sites. It was with a measure of relief then that towards the end of the excavation trenches opened in the interior of the camp produced unexpected evidence of Roman occupation.

The most significant find of all was located in a 20 x 20m. trench (F) situated toward the north-west defences of the camp, and may be identified with confidence as a Roman military field oven (see fig. 14 & plate 6). The feature revealed (028) comprised two elements: a shallow, U-shaped linear channel, 0.5m. wide and 0.1m. deep, partially filled, at its southern end, with a solid charcoal deposit. This channel led north to a sub-circular area measuring c. 1.3m in diameter and comprised of flagstones bounded except where met by the channel by an arc of cobbles set into the natural subsoil. The overall complex was covered with a clay-sand and stone mix, from which a piece of molten glass and some burnt bone were retrieved. In form, the feature closely resembles the ovens excavated within the legionary fortress at

Inchtuthil (Pitts and St Joseph 1985, 195-200). Elsewhere in the same trench (F), some 7m. away to the SSW, a centrally-waisted, sub-rectangular pit was discovered, cut into the natural subsoil. The northern depression contained a solid charcoal fill, the southern a dump of stones, all partially overlain by a mix of sand-clay comprising c. 5-10% charcoal. A very similar feature to this latter was located in another 20 x 20m. trench (H), located towards the south-west defences of the camp. This too was sub-rectangular, cut into the natural subsoil and contained a charcoal rich fill.

The precise date and function of these latter two features is not clear, though the proximity of the former to the oven, and the similarity of the latter to the former, may indicate they are related to cooking activity within the life of the camp. It is hoped that radiocarbon dates from the respective fills will help to clarify this point. Of the oven however there can be no doubt. Its position, some 40 metres inside the north-west defences (measured from the inner ditch lip), is not entirely inconsistent with the likely location for such activity, as extrapolated from other Roman military sites, though one might have expected it to lie rather closer to the ditch edge. Allowing for the presence of a rampart and a *via sagularis*, the oven at Beattock would seem likely to have lain inside these features, rather than, as is believed more conventional, on the edge of the rampart beyond the encircling road.

True to form, the field oven was only discovered on the final day of excavation and in the corner of the trench (indeed mainly beneath the baulk); this meant that no time remained in which to act upon the discovery and make a search for further associated features. What can be said is that the level of survival of the oven was good, and there is every reason to imagine that other examples, if present, will also have survived. Scrutiny of the plans, and the positions of the opened trenches reveals that a line of ovens running roughly parallel to the north-west defences would have been missed by the strategy employed.

When the results are set against the aims of the project, the overall success rate was limited. No date was established through artefactual association, and no full plan of the gate was established, though the reasons for this were more political than archaeological. On the issues of function and interior occupation evidence however there is at least food for thought. The presence of the oven is a small, but significant addition to knowledge of the interiors of these sites, and in itself begs questions about the function of the site. Either such structures were to be found regularly in temporary camps, or this is a hint at the slightly different status of the sites, perhaps along the lines proposed by Maxwell or indeed the construction camp hypothesis. Above all, it

points out the need for additional information from other sites, in order to help understand the wider as well as the site specific questions concerning these sites which remain to be answered.

## Conclusions

Like Monktonhall Junction before it, the work at Kirkpatrick Fleming was envisaged as breaking new ground in the study of marching camps, by introducing remote sensing techniques on a large scale to address the problems of the intractability of these most sullen remains. This approach was continued, though in a more contained manner, in the examination of the Stracathro-type camp at Beattock. The results obtained at Kirkpatrick Fleming were unquestionably disappointing, though not entirely unexpected. Despite the examination of 11800 square metres, this figure represents a mere 2% of the total available interior at the site, most of which was concentrated on the periphery; though generally considered an acceptable sampling level it is clear enough that this leaves plenty of scope for undiscovered remains. One needs also to contemplate local geological and soil conditions as well as the history of past land use, as far as this can be established, before assessing the real efficacy of the method employed, in just the same way as these and other factors affect the suitability of sites to aerial prospection techniques. At Kirkpatrick Fleming unresponsive geological conditions, coupled with interference from overhead electricity lines, combined to thwart the geophysical prospection techniques. At Beattock the geophysical results were in many ways more disappointing, insofar as there was reason to believe that the chances of survival for internal features such as ovens might be considerably higher, given the nature of past land use and the topographical conditions which prevail on the site. Nonetheless, the results of these two projects should not be treated as a valid reason for ignoring geophysical prospection at other temporary camp sites, especially where local conditions may differ enough to allow more convincing and helpful results.

The returns in information might also at first appearance seem less than spectacular, if anything providing greater ammunition for the sceptics who believe temporary camp interiors to be archaeology-free zones. This attitude has already been enshrined in print (Hanson & Breeze 1991, 70), yet despite these scholars' misgivings, it is surely still the case that too few of these sites have been examined in far too little detail to be dismissed wholesale as unproductive. At each site evidence has been recovered which advances our knowledge beyond that which aerial reconnaissance has provided. And it should be remembered that even negative results, such as the lack of surviving

remains, should be viewed as an increase on knowledge, particularly in a situation such as this, where we begin from a starting point of virtual total ignorance.

I would contend that what is needed now is a close examination of the conditions of each camp, a comprehensive record of on site conditions, levels of survival, geological conditions, measured against representative examples of types of camp, so that a measured programme of research based around terrestrial prospection techniques may be conducted on these sites. Even the sceptics agree that there is scope for examination of the interiors of further camps (Hanson & Breeze 1991, 70), based on issues such as varying land use histories.

There is a justifiable concern with preservation in today's archaeology, but with temporary camps we have surely some scope for properly targeted research programmes. The sheer scale of the sites, while presenting a problem on terms of how much and where to look, also alleviate the guilt which might otherwise be felt at counselling further intrusive investigation. With many temporary camps, very large scale excavation could readily be undertaken without removing the opportunity for future generations of archaeologists to employ as yet unimagined techniques in the investigation of such sites. In the meantime, the current generation of archaeologists must surely be allowed to continue to practise their subject in all its various ways, in the hope of achieving clearer understanding of these still recalcitrant and enigmatic sites.

## Chapter 8

## Towards a New Orthodoxy

Having examined closely the evidence for temporary camps provided to date by excavation and weighed this against the current beliefs regarding these sites, which are argued to stem principally from aerial reconnaissance and the literary sources, it will be instructive to return to the existing models for determining the function of temporary camps and their place within the historical framework for Roman Britain, as outlined in chapter 5 above. The most important questions requiring to be answered are: how justified is our current understanding and how might it be improved?

The answer to the first of these questions is that a series of strong circumstantial cases have been constructed, particularly over the years since the end of the last war, owing much to the advances achieved through the discipline of archaeological aerial photography and the specific contribution of a handful of its main practitioners, which have allowed students of the Roman army in Britain to work within an internally coherent framework. Many of the known camps have been interrelated, function has been ascribed to them and a place has been found for them within the known sequence of historical events. While this work is highly commendable and credible in its own right, it is based largely upon unsubstantiated inferences. The flow of new information, in the form of data retrievable from aerial reconnaissance, seems guaranteed for the foreseeable future, but without assistance from other areas of the discipline, the task of making sense of this material will become increasingly complicated rather than simpler and more importantly will continue to depend upon untested theory and unrigorous and perhaps increasingly unhelpful conceptualisations. It is a matter of some importance then that the discipline acknowledge this danger, and take steps now to at least attempt to provide a few fixed points upon which future theory building can depend. This, I believe, means more terrestrial archaeology, in the form of survey and most importantly excavation, and this latter for the first time on a meaningful scale. This chapter will begin by probing the stability of the current theories regarding temporary camps in Britain, and while not suggesting that these theories are untenable, will suggest that other explanations of the material are possible. The next task will be the deconstruction of these theories, to identify the rump of hard data which does exist with regard to these sites, where it will be suggested there is too little known to allow anything other than the most tentative of interpretations, in stark contrast to the certainty with which many of these ideas are currently expressed.

Finally, it is acknowledged that this process does not lead automatically to the installation of a new, better theoretical framework, but instead illustrates the need for a more stable and dependable base from which to work. It is argued that a clear research agenda for the systematic excavation of representative examples of these sites on a scale commensurate with the size and significance of these works is urgently required, as a means of establishing some basic characteristics which can be used with greater confidence to build models of the various functions and dates of these sites in Britain.

It has already been observed that some of the different series of camps proposed by St Joseph and still in common currency today have had their detractors (outlined above in chapter 5). In the following pages, it will be the intention to examine the basis for these constructs, as well as one or two others, and see how justified they are when subjected to close scrutiny. Most of these have been applied to the material from Scotland, where greater numbers and diversity of camps have been observed, allowing certain generalisations to be attempted. Of these, the first and probably most broadly accepted centres on the Stracathro-type camps, commonly attributed to a first century A.D. context and usually believed to be evidence for the campaigns in Scotland undertaken by Agricola.

It has been seen that the prevailing academic opinion no longer views these works as a coherent series of camps, in the sense that they represent successive stages on a single, or a group of related campaigns. The diversity displayed by the known examples is too great to allow such a theory to be sustained, a fact which has been widely acknowledged (St Joseph 1973, 229; Maxwell 1981, 34; Hanson 1987, 123). As the table of known sites set out below demonstrates, these works cover a wide range of sizes and are found throughout Scotland, from Auchinhove and Muiryfold in the far north, to Dalswinton and Beattock in the south.

Table 3: Stracathro-type camps

| | |
|---|---|
| Auchinhove | 12ha (29.65 acres) |
| Beattock V | 17.25ha (42.5 acres) at least |
| Bochastle | 19.5ha (48 acres) |
| Castledykes I | 24.5ha (60.4 acres) |
| Dalginross I | 9.5ha (23.5 acres) |
| Dalswinton I | 24.8ha (61.3 acres) |
| Dalswinton II | 3ha (7.5 acres) |
| Inverquharity | 2.35ha (5.8 acres) |
| Lochlands | 14ha (35 acres) at least |
| Malling I | 10.5ha (26 acres) |
| Malling II | 4.7ha (11.6 acres) |
| Stracathro | 15.7ha (38.8 acres) |
| Woodhead | 1.5ha (3.7 acres) |
| Ythan Wells II | 13.7ha (33.9 acres) |

Instead, the identification of these sites tends at present to concentrate upon their function, their date normally being taken as unproblematically Flavian. Thus we have the two northernmost examples credited as representing marching camps, being of like size, an appropriate distance apart and of a scale commensurate with a battle group. Small examples, such as Woodhead, Inverquharity and Dalswinton II, are variously perceived as construction camps for troops engaged in fort building activity, or labour camps employed to house troops engaged on other activities, such as timber gathering. The problems of such attributions are hinted at in the fairly wide range of sizes of camp which have been suggested as construction camps. Even the largest examples, of around 60 acres, have been so pigeonholed, though latterly there has been a tendency to perceive these as campaign bases for larger battle groups, engaged on campaign duty in a particular area, in which the suggestion that these must be qualitatively different from straightforward marching camps is at least implicit in the argument and sometimes explicitly stated.

There are therefore two areas of supposition, one relating to the attribution of function, which is site specific, the other to the attribution of date, which is general. There are several reasons for the widespread belief in this attribution of a Flavian, and even at times very specifically Agricolan date to these works, though it should be asserted from the outset that there is no hard evidence to sustain it. Not one of the

above sites has produced artefactual evidence from a secure context for any date whatsoever. The belief rests on three main assumptions. The first is that, since these camps utilise a *clavicula* as part of the diagnostic "Stracathro-type" arrangement, and since the *clavicula* is commonly held to be a later first and early second century phenomenon, at least with respect to Scotland, then the only known historical context which will fit is the Flavian period. The second is based on the observation that many, indeed most, of these camps are located in close proximity to permanent forts with guaranteed evidence of Flavian occupation, some of them exclusively so. The third depends upon the presumed stratigraphic relationship between the camp at Stracathro and the annexe of the permanent fort there; aerial photography shows that the two intersect, and it is widely believed that the former will have predated the latter, where the Flavian date is assured. All of these observations have already been made by Hanson (1987, 123)

While the circumstantial evidence certainly renders it most likely that these sites are Flavian, it seems only reasonable to offer a few caveats, if only as a reminder that the case is still unproven. The argument that a *clavicula* may be taken as evidence of a first or, at latest, early second century A.D. date is addressed in detail below. Here it is enough to note that the hard evidence available suggests a potentially far wider chronological context for this device, though one which most certainly includes the Flavian period. The presence of *claviculae* at Stracathro type camps may thus be said to be not inconsistent with a Flavian date.

The proximity of many of these sites to permanent forts where a Flavian date has been demonstrated has a similar strength to the *clavicula* argument. It has already been observed that camps have a tendency to cluster at particular sites (see chapter 6) and that these often lie in the vicinity of permanent installations. It is also the case however that some of these sites have long sequences of occupation, regularly spanning both Flavian and Antonine periods, and in some cases even with hints of Severan activity. The fact then that a camp sits near a fort is not in itself enough to date that site to the same period, even supposing the fort is of a single period. Though the Flavian character of some of the forts is beyond doubt - e.g. Malling, Bochastle, Inverquharity - at others, such as Lochlands and Castledykes, evidence for activity at other periods is also known. But in conclusion, while offering no definitive proof, the presence of such camps beside forts of Flavian date is not unsupportive of their possessing a Flavian date themselves.

It is the final argument which is the most persuasive, namely the perceptible relationship which exists between the camp at Stracathro and annexe of the permanent fort. While noting that the relationship has not been tested on the ground, the most likely sequence of events is that the camp was erected first, followed by the fort and its annexe. If true then this site, and by extrapolation others of the series, may be assigned a Flavian date with confidence.

This scenario does of course depend upon the Stracathro type camps all being seen as of the same relatively narrow date, another commonly held belief but again one which is not capable of proof beyond doubt. Indeed, one might argue that since there is good reason to believe that these camps do not form part of a coherent series, what are the grounds for assuming that they all fall within a narrow date span, in this case of some five years? This belief rests in part upon the suggestion that the unusual gate form, not mentioned in the pages of Hyginus, has to date been identified only at Scottish sites, a phenomenon which has given rise to speculation that its employment may be the decision of one innovative individual, perhaps even Agricola himself. The latter is a clever and persuasive but ultimately unsubstantiated opinion. Indeed, when one considers that the Stracathro-type gate is itself known in more than one variant form, as for example at Bochastle, the need to see the design as one man's work becomes less pressing. The wide Scottish distribution could also easily sustain the argument that these sites were the work of more than one hand, or mind. While the as yet exclusively Scottish distribution of these sites does point strongly to a late first century A.D. context (otherwise, the argument runs, we would surely by now have found an example in northern England or Wales), there is no essential reason for believing that this gate type did not find favour at least for the better part of the Romans' stay in Scotland, and need not therefore be confined to the campaigns of Agricola alone.

Indeed there is a common tendency in interpreting all camps, not just those of the Stracathro-type series, to see them as part of the outgoing line of march of an army. Presumably though the army utilised camps just as much on their way back from an exploratory expedition or a battle or whatever the purpose of their journey. The only time such a situation has been explicitly acknowledged is with respect to the 63 acre series, where so many examples are known that it seemed the only way to accommodate all the examples within one season of activity. If even a few of the Stracathro-type sites represent a retiring or retreating army force, they could easily date to a time after Agricola's governorship had terminated.

This caveat apart, one would have to conclude that the case for seeing the Stracathro-type camps as an exclusively Flavian phenomenon is circumstantially extremely strong and the potential exists to strengthen it further at the sites of Stracathro and Dalginross. Excavation could be utilised to examine further the hypotheses which currently perceive functional distinctions between different examples of the series, particularly where particular sites are viewed as having performed the role of construction camp or seasonal base camp, the first clues to which may already have been adduced through excavation at the site of Beattock V.

Another category of site commonly ascribed a Flavian date are those furnished with the *clavicula*, a quarter-circle gate arrangement described by Hyginus and witnessed at a significant number of sites across Britain. Indeed the phenomenon is one which, if the Stracathro-type camps be ignored, is least common of all in Scotland, the known examples tending to occur mainly in Wales and northern England, especially Northumberland.

The list of known sites with *claviculae* at their gates is very little enlarged since Lenoir's treatment of the subject nearly twenty years ago (1977, 697-722), what additions there are being most marked in terms of Stracathro-type camps. In his table of camps and forts with *claviculae*, Lenoir appears not to have included the sites at Birdhope I, Buckton, and York I and II; Brampton Bryan, Pen-y-Coedcae and Newton Kyme are all only possible examples; Milrighall and Lochlands represent the only truly new discoveries since that time, and there is some reason to suppose that the latter may eventually transpire to be of Stracathro-type. The following table summarises the currently available evidence.

Table 4: camps with *claviculae* at their gates.

| | | |
|---|---|---|
| Arosfa Gareg | Wales | internal |
| Bellshiel | North Britain | internal, with *tituli* |
| Birdhope I | North Britain | internal |
| Braich Ddu | Wales | internal |
| Brampton Bryan | Wales | internal (possible) |
| Buckton | Wales | internal |
| Caerau I | Wales | internal |
| Cawthorn | Yorkshire | external |
| Chew Green | North Britain | internal, with *tituli* |
| Chapel Rigg | North Britain | internal, with *tituli* |
| Dargues | North Britain | internal |
| Esgairperfedd | Wales | internal |
| Fourlaws | North Britain | internal |
| Gelligaer Common I | Wales | internal (possible) |
| Gelligaer Common II | Wales | internal |
| Gelligaer Common III | Wales | internal |
| Glenwhelt Leazes | North Britain | internal, with *tituli* |
| Llandrindod Common XVI | Wales | internal, (poss. with *tituli*) |
| Lochlands X | Scotland | external |
| Malham | Yorkshire | internal |
| Milrighall | Scotland | internal and external |
| Mynydd Carn Goch I | Wales | internal (possible) |
| Mynydd Carn Goch II | Wales | internal (possible) |
| Newton Kyme | Yorkshire | possible |
| Newton-on-Trent I | Lincolnshire | possible |
| Oakwood | Scotland | internal and external |
| Pen-y-Coedcae | Wales | possible |
| Rhyd Sarn I | Wales | internal |
| Rhyd Sarn II | Wales | internal |
| St Harmon | Wales | internal |
| Sills Burn North | North Britain | internal |
| Sills Burn South | North Britain | internal |
| Troutbeck I | North Britain | internal |
| Troutbeck II | North Britain | internal and external |
| Twyn-y-Briddallt | Wales | internal |
| York I | Yorkshire | internal |
| York II | Yorkshire | internal |
| Y Pigwn I | Wales | internal |
| Y Pigwn II | Wales | internal |
| Ystradfellte | Wales | internal |

What do we learn from this catalogue? That the phenomenon is most commonly recorded in Wales and Northumberland. This is usually taken to indicate an early date for the *clavicula*, since the context for Welsh camps, excepting perhaps practice

works, should be exclusively first century A.D. While an early date for the Welsh camps is entirely likely, what it in fact tells us is that *claviculae* tend only to be recorded where the camp exists as an upstanding monument, and we have already learned that Northumberland and Wales are the two areas in Britain where this most frequently occurs. Many camps which originally had *claviculae* are probably known without knowledge of that particular fact, so the true distribution of this class of monument, even allowing for the general partial picture which available techniques can provide, is surely skewed further from the truth.

The allocation of a date to the *clavicula* has been a continuing theme in the study of temporary camps, and Lenoir (1977) rehearses all the arguments, now commonly understood, concerning ways of dating these sites. To read some authorities one might believe that the date of these features is uncontentious. St Joseph stated that the *clavicula* was an exclusively first century device (1958, 93), while Hanson has said, speaking of Stracathro-type camps, that we can be quite confident of a Flavian date because the *clavicula* is not usually found in camps later in date than the reign of Trajan (Hanson 1987, 123). These arguments, though St Joseph's was latterly refined and Hanson's is strictly accurate, reflect a general feeling in the subject that this particular feature may be viewed as of broadly late first century date, with perhaps a brief continuation into the second century. Looked at closely however the available evidence for dating *claviculae* is capable of rather wider interpretation than these statements allow.

In favour of the first century A.D. date are a number of points. In the first place, as already noted above, there is the strong representation of the device on camps found in Wales. Since Roman military activity in Wales seems likely to have been predominantly restricted to the first century A.D., ending perhaps with the first year of Agricola's governorship in the late 70s A.D., this would seem to be the best context into which to place these sites. In the second place, the device is described in the pages of Hyginus, and several authorities have placed the writing of the work at the end of the first century A.D. (e.g. Frere (1980), who argues for a Domitianic date) or at the beginning of the second century A.D. (e.g. Lenoir (1977; 1979), who argues for a Trajanic date). The work is seen as reflecting broadly contemporary, though perhaps waning practice, hence its use will have flourished in the Flavian period. In the third place, the device is depicted on Trajan's Column, which most, though not all, commentators believe to be a representation of Trajan's campaigns in Dacia based on real life (Frere & Lepper 1988). Hence its appearance reflects Roman army practice at the very start of the second century A.D. In the fourth place, Lenoir's detailed study

of the device from all sources of information concluded that it should best be seen as having been at its peak in the later years of the first century A.D. (1977).

However against this testimony must be placed an alternative proposition, not that the *clavicula* should not be viewed as having been used in the Flavian period, but rather that it was in common usage for a significantly longer period of time than the previous argument would allow. Several points may be made in support of such a contention. In the first place, very few of these sites have actually produced firm archaeological dating evidence and of those which have, none provide a certain first century A.D. context. The dated examples of camps furnished with *claviculae* is only slightly greater than the nil recorded for absolutely-dated Stracathro-type camps; one of the forts at Cawthorn was found to be of early second century date (Richmond 1932), while Chew Green was shown to be no later than the Antonine period due to its relationship, proved by excavation, with the permanent work there (Richmond & Keeney 1937); it is not necessarily clearly Flavian, as Maxwell (1981, 39) has suggested. This evidence does not seem to constitute a strong case for a mainly Flavian date range.

In the second place, archaeological evidence from sites outside Britain, seems to support a much wider duration of use than simply the later first century A.D. The large camp at Mauchamp in France for example may indicate its use at least as early as Caesar, the common context given to this work and, if correct, proving its existence for well over a century. Even here though the date is disputed, by for example Lenoir who correctly noted that there is no hard evidence to substantiate such an identification (1977). Further afield, the camps at Nahal Hever in Israel are normally associated with the Bar Kochba revolt and dated A.D. 132-5, which if accurate provides the *clavicula* with evidence for use well into the Hadrianic period (Aharoni 1961).

In the third place, when the device is referred to in the pages of Hyginus, there is no sense that he is talking of an ancient or redundant or dying practice. It is simply noted along with the *titulus* as a method employed by the Roman army at camp gates. Since there is no argument that *tituli* should be seen as having a closely restricted date range, there seems little reason to assume such for the *clavicula*. If this is true, then the date of Hyginus' work becomes important. We have already seen above that arguments have been made for seeing it as having been written in either the late first century or the early second century A.D. But equally there is a school of thought which would see the work as significantly later than this (e.g. Birley (1966; 1981), who argues for a

date in the reign of Marcus Aurelius, and Maxwell (1981, 30) who argues for a date a little later than the middle of the second century A.D.) If these latter are correct, and the device is still in current practice at the time, then works so furnished could date much later than is commonly supposed.

Finally, it is worth returning to Lenoir's study noted above. It has already been noted that Lenoir, after due consideration, favoured a period of greatest use in the Flavian period, but he also observed (1977, 717-9) that there was the potential, by study of the available information, for the device to have continued in use even into the third century A.D. (coincidentally the date favoured by Richmond for Hyginus' work).

To recapitulate then, this is not an argument for discounting Flavian contexts for these works, and indeed the circumstantial evidence would certainly support the contention that the Welsh examples are probably of this period, though potentially Julio-Claudian as well. In the area north of Hadrian's Wall however it is quite possible that such works are not exclusively Flavian in origin, but may well fit later contexts too, including the Antonine period (*pace* Maxwell 1981), though probably not, on balance, the Severan. More importantly still, we have become obsessed with fitting these sites within the known historical framework. Why should there not be a Hadrianic context for some of these sites? We do have some inkling of trouble, and thus of possible contexts for Roman army movement, at the beginning of that emperor's reign (*SHA* - Hadrian V.2); could there not be associated camps and could these camps not have *claviculae*? Here the works along Dere Street in Northumberland might be seen as potential examples, as Maxwell has already noted (1981, 30-1).

The discovery of Hadrianic pottery from a Roman-type ditch at Kirkpatrick Fleming (see chapter 7) may be the first whisper of a whole new set of contexts into which the known temporary camps, especially those in southern Scotland, must be fitted. And this must include camps resulting from circumstances beyond the ken of recorded history; there appears to have been a case of out of sight is out of mind at work here, yet this is surely a valid area for study and one which can only be progressed by means of further intrusive terrestrial archaeological enquiry.

In conclusion then, camps furnished with *claviculae* are potentially far wider ranging in date than the Flavian contexts normally accorded them and in this respect excavation may be able to shed further light by providing absolute dating evidence from further examples of this group. In this respect it is especially important to note that clavicular camps are most certainly not a coherent series, and therefore dates

retrieved from one site cannot with confidence be transferred to all others of like type. Much more evidence of dates would be needed before generalisations could even be attempted.

The integrity of St Joseph's 30 acre series has already been well discussed and there is little to add here except to reiterate the point made above about the wide scope of the size range this series exhibits. It is perhaps the least persuasive of all the postulated series of camps, a fact reflected by the levels of critical comment which have been directed towards it (noted in chapter 5). The flabbiness of the size criteria as applied, coupled with morphological differences between the members of the series and the disparate geographical locations of the included sites, all call into question the coherence of this series as a united body of sites. Nonetheless, the Flavian dates attributed to them may yet prove to be correct in many cases. It is clear though that at this level, the evidence can be made to serve more than one master. Consider for example the roughly 30 acre camp at Beattock IV, not included by St Joseph but proposed by Maxwell as possibly Agricolan due to its shape and size (Maxwell 1981, 40); the same author two years later lists the same site as a possible Antonine camp on the grounds of its relationship to the road and the putative fortlet (Hanson & Maxwell 1983, 67), a change of heart brought about in part by excavation. It is of course entirely right that ideas proposed should be capable of alteration as circumstances change, but the example does illustrate the highly malleable nature of the current level of knowledge.

This is equally true of St Joseph's attribution of a Flavian date to the 110 acre series, a designation which has also been challenged on numerous occasions elsewhere (e.g. Maxwell 1981, 40; 1989a, 58-9). Certainly on purely morphological grounds, and to some extent based on the relative geographical distributions of the sites, there is a stronger circumstantial case for linking this group with the allegedly Severan sites which constitute the 63, 130 and perhaps 165 acre series, as indeed St Joseph himself originally believed. St Joseph's later *volte face*, driven mainly it would appear by the need to bolster his ingenious claims for Bennachie-Durno as the site of Mons Graupius, is another excellent example of how capable of manipulation the evidence in its current state is. In this case not even the unusual circumstances which provided a testable relationship between a member of the series and a relatively-safely dated site, at Ythan Wells, has been able to avoid widely differing opinions on the character and date of the camp (St Joseph 1970).

Antonine contexts for temporary camps were for a long time a rarity, save for certain small works congregated along the Forth-Clyde isthmus, and isolated examples such as Lyne and Lochlands, and it is to Hanson and Maxwell's credit that they opened up the period as a possible scenario for many of the camps known in Scotland, especially the southern regions. If we begin with the putative labour camps, once again we are presented with an extremely forceful circumstantial case. This rests upon two assumptions, one regarding date, the other regarding function. The argument depends upon a belief that the size of the camps best reflects specific activity rather than a campaigning force, and that the proximity of these sites, to both one another and to the Antonine Wall, indicates the most likely function; camps housing troops engaged in the building of the Antonine Wall. Taken together, the hypothesis is most appealing and indeed it is interesting that no such argument has yet been attempted to bring understanding to the various works which exist along the line of the other mural barrier in Britain, Hadrian's Wall.

On the question of function, this scenario involves an assumption which should be archaeologically testable. If these sites do indeed represent construction camps, and of all sites so termed, these examples appear to be supported by the strongest case, then we should expect some qualitative difference to exist between them and other types of temporary camp, most especially the marching camp. It is interesting that the grounds for ascribing such function at other such sites - pits visible on APs of the camp interiors, such as for example at Inchtuthil I and II - have not been witnessed to date at any of the Antonine Wall sites. Presumably though, if they served the same function one would expect them to conform broadly to the same characteristics. Though the Antonine Wall cuts through land which has been subjected to fairly intensive arable agricultural activity through the years, there should still be the possibility of recovering evidence supporting the theory of longer duration of occupation which must be anticipated at these sites. This would be a useful role for excavation to attempt to fulfil, and in the process perhaps recover primary dating evidence to help in the confirmatory process. We know from the testimony of Tacitus that the Forth-Clyde isthmus was of importance in the Flavian period too (*Agricola* 23), and it is entirely possible that camps may have existed in this vicinity at this point in time too; Keppie has already wisely drawn attention to this possibility, with particular respect to the works at Dullatur (1974, 154-5). In turn, if a qualitative difference could be established at these sites, this could feed back into the subject as a means of differentiating marching from construction camps, which would be of especial use at other sites latterly designated, where greater doubt over the classification exists. Thus at camps located near forts, often posited as construction camps, the theory could be

tested in the field. This again in turn would help resolve questions concerning the nature of Roman practice in such situations. At many such sites traces of early activity located beneath the occupation levels of permanent forts have been interpreted as the vestiges of labour camps set up to house troops in the early stages of their fort building operations (e.g. Castledykes (Robertson 1964), Loudoun Hill (Miller 1952)). If camps distinct from the main fort site could be demonstrated to have fulfilled this function, then reappraisal of this evidence for early activity would require to be undertaken.

The hypothesis proposed for the identification of Antonine camps located away from the Wall is also, on the face of it, a persuasive one. Maxwell's argument, that these sites may be identified by virtue of their relationship to Roman roads (1989a, 60), is eminently sensible and in the face of no further evidence largely uncontentious. Consequently there is little to add, other than the fairly obvious remark that the sites so classified remain unproven as Antonine, and could equally fit any context between Trajan and Severus, and indeed later; routes such as Dere Street represent principal and natural lines of communication and we might imagine traffic moving along them on many occasions not historically documented, certainly for as long as Hadrian's Wall was in operation There is even the potential for Flavian camps to exist close by but apparently respecting roads, where the relationship is purely fortuitous rather than deliberate, though these are surely likely to be the exception rather than the rule. On balance though, the theory proposed is the best available at present, and it would be churlish to do anything other than accept it gratefully as a valuable working theory.

Finally we come to the groups of camps which have been afforded a Severan date: the 63 acre, 130 acre and 165 acre series. In certain respects there is little to mark these sites apart from many other camps not so dated; the use of *tituli* is not uncommon, nor is a generally rectangular shape and while the provision of six gates is a little more singular, this is probably dictated more by the sheer size of the works than anything else. The key elements which distinguish these sites is their size and their position relative to one another. In this latter respect, they constitute easily the most convincing evidence for the presence of a truly united series of camps, in the sense that they appear to represent successive stages in a line of march by the same army force.

Unlike the Stracathro-type camps, or those with *claviculae*, there does indeed appear to be fairly close conformity between the four members of the 165 acre series, the eight members of the 130 acre series and the fifteen (possibly eighteen) members of

the 63 acre series; tables listing the respective members of these series are provided below.

Table 5: Putative Severan temporary camps

| 165 acre series | 130 acre series | 63 acre series |
|---|---|---|
| Channelkirk | Ardoch I | Ardoch II |
| Newstead | Balmakewan | Auchtermuchty |
| Pathhead | Cardean I | Broomhill |
| St Leonards | Dunipace | Castlecraig (possible) |
| | Grassy Walls | Craigarnhall |
| | Innerpeffray I | Eassie |
| | Kair House | Edenwood |
| | Oathlaw | Eskbank (possible) |
| | | Innerpeffray II |
| | | Keithock |
| | | Kinnell |
| | | Kirkbuddo |
| | | Kirkpatrick Fleming I (possible) |
| | | Lintrose |
| | | Longforgan |
| | | Lunanhead |
| | | Marcus |
| | | Scone |

The main contention here surrounds the attribution of a Severan date, a proposal made by St Joseph which has received little criticism, at least in print, since originally promulgated (e.g. Maxwell 1989a, 65 says the hypothesis is "not entirely susceptible to proof, on way or the other"). The case for the Severan date has already been outlined in chapter 5; here comment is restricted to investigating possible alternative scenarios. Once again there are no absolute dates from any of these sites to help matters. The Hadrianic pottery from Kirkpatrick Fleming, even if it could be linked to the main site, would not negate the application of a Severan date to the 63 acre series, since its isolation from other members of the group has always cast a certain amount of doubt over the appropriateness of its inclusion as part of the same activity. One could add that the size of the work is far from unique; the Stracathro-type camps at Castledykes, Dalswinton and Beattock could all transpire to be of about 60 acres, as

could the site at Lochmaben (St Joseph 1969, 108), while much further afield , the sites at Brampton Bryan (St Joseph 1973, 235, 242) and Blaen-cwm-Bach (RCAHMW 1976, 98-101) have proved to be of similar size. Evidently this size of work was not infrequently employed in wholly different circumstances, for reasons yet obscure.

Relative dating is provided by the sites at Ardoch, where the 63 acre series camp clearly predates the 130 acre series camp, and both can be shown to have followed the 13 acre camp (though strictly speaking not the 30 acre camp), the camp in the *procestrium* and the signal station in the construction sequence on the site (fig. 1)(St Joseph 1970; 1977). Eskbank has been tentatively identified as of the 63 acre series too, but not only is this unsubstantiated, its relationship is with a camp of unknown dimension, which helps little in this particular argument. Equally, the significance of the fact that the polygonal enclosure at Carpow post-dates the large camp there is not necessarily so great as St Joseph would contend, if Wilson's identification of the former as part of the defensive outworks attached to the Severan fortress is accepted (1984). Of all of these relationships, it is that of Ardoch I with the signal station which is potentially of most use. St Joseph is surely correct in assuming a Flavian date the most likely (though not the only) context for this work, indicating that the camps are probably to be viewed as post-Flavian. It is difficult to conceive of a circumstance in the Antonine period which would require such large forces as these camps imply as far north as Ardoch, though it is not impossible; other contexts could be found between the first and the third centuries, but these too seem less likely than the Severan period, in which, we are informed, the size of the expeditionary army assembled by the emperor was enormous (Herodian III.14.3). Thus, the best context available for the 63 and 130 acre series seems to be the early third century A.D., and this could also be true for the 110 acre series, as suggested above, the difference in size perhaps to be explained by the severe losses related by Cassius Dio, even allowing for reduced figures to account for hyperbole. With the 165 acre series the case is slightly less strong, though still perfectly plausible. If the other two (or three) series are accepted as Severan, then separating the 165 acre series leaves a gap between the Tyne-Solway isthmus and the Forth-Clyde isthmus, which is largely devoid of evidence for troop movement on this scale, though one could then fall back on the likes of Kirkpatrick Fleming and Castlecraig to help fill this void. All the same it is worth simply noting that initial Antonine movement to the site of the proposed new frontier might provide a context for troop movement on a significant scale, potentially representing a very large combined force encumbered with significant paraphernalia moving across southern Scotland, the location of this largest series of camps known to date in Britain.

Whatever the truth may finally prove to be, excavation may be able to supply clearer proof to help settle this question, and work at Pathhead (fig. 16), where three camps including one of the 165 acre series and another of postulated Antonine date (see further below) overlap, would allow the very large camp there at least to be allocated a relative date in that sequence. These works represent undoubtedly the finest evidence for chartable lines of march yet found, and the circumstantial case for their representing Severan activity may be adjudged strong; all the more reason for frustration at the lack of a single certain dated example and for a sense of urgency in seeking to rectify this situation.

It was noted in chapter 5 that several other potentially related groups of camps have been noted in more recent years, though by and large the circumstantial evidence is not as strong as that linking the sites just outlined. Nonetheless some attention to them is appropriate at this point. The first of these constitutes the camps of Carlops, Kirkhouse, Cold Chapel and Cornhill I, all of which lie on the route between Clydesdale in the west and the Forth Estuary in the east and all of which cluster around the 40 acre mark (Maxwell & Wilson 1987); the camp at Wandel also fits within this group on grounds of size and general geographical position, but its close proximity to Cold Chapel does suggest that these two camps at least should not be seen as potentially contemporary. Lamington and Glencorse Mains also lie on this route, though the former is half the size of the rest while the latter is only a few acres in extent. If the relationship which Carlops enjoys with the road is any indication, these should represent Flavian troop movement, perhaps best viewed within the framework of Agricola's campaigns.

Equally, on the line of the River Tweed, between Newstead and Berwick, the sites at Maxton, Wooden Home Farm, Carham and Norham appear to mark out a route otherwise unlocated, though the sites do not bear comparison in terms of size and would be difficult to believe as a coherent series. Arguably the most persuasive evidence of all these more recently recognised patterns is a group of six camps, each around 50 acres in extent, which may be picked out along the line of Dere Street (fig. 17), from Pennymuir in the south, via Millside Wood, St Boswells, Blainslie and Pathhead, ending potentially at Inveresk; one obvious gap in the line could be filled by an appropriate sized camp in the vicinity of Channelkirk/Oxton. Using Maxwell's guidelines, these should presumably be candidates for an Antonine date. It is interesting too that all of these sites, bar Blainslie, betray evidence of multiple use, often by small camps, and even at the exception St Joseph reported vague cropmarks which might transpire to represent at least another camp (1973, 216). The regularity

with which these positions have been chosen, on a stretch of road not overly restricted by choice of site (in contrast with the southern stretches of Dere Street in Northumberland where suitable camping ground was often at a premium), gives great hope for the recovery of further groups of overlapping sites which will repay the attention of targeted excavation.

The emergence of these new series or potential series of camps, illustrates the healthy state of the subject and the major contribution which aerial reconnaissance, and crucially its practitioners, continues to make. As more and more sites are discovered though, not only will new lines of march and potential series of camps become apparent, but elsewhere the picture will be in danger of becoming obfuscated by the presence of too many improperly understood sites occupying the same areas. This indeed can already be seen, for example, on Dere Street, where already some fifty camps are known between Risingham and Inveresk (fig. 17), not one of which can have a date applied to it with absolute confidence (though a few of the Redesdale examples are fairly secure). The second question, posed at the start of the chapter, is thus apposite; what can be done to help improve this situation?

We have little more than a handful of securely dated sites, and of these none truly fit within the wider scheme of series of sites which constitute the showpieces of the subject. Abernethy and Dunning are the nearest, and here recent work has demonstrated the dangers of taking too much for granted. For over twenty years now the two sites have been seen as successive stage in a campaign, displaying very similar morphological characteristics. The bonus of a sherd of datable Samian pottery from a primary context in the former seemed to assure a Flavian date for both. Yet work at Dunning has now shown not only was this site used more than once, but also that the second phase of use is to be attributed to the Antonine period. This does not discount the possibility that the two sites were originally constructed in quick succession in the Flavian period, but it does suggest far greater complexity in Roman army practice with regard to these sites than had previously been imagined. How many other sites were reused in this way, and for what reasons?

If we expand the range to include relative dating, the picture is improved, but only slightly. Sterling work has been conducted at the major compex of Lochlands, where a palimpsest of works unparalleled to date in Britain exists (see fig.15), though even after this it would be premature to say the story there was close to a conclusion. We can say with near certainty that the camps at Stracathro and Newstead which underlie the fort annexes are Flavian; so too Blakehope and Silloans which appear to be cut by

Dere Street. Carlops I and Wandel seem to predate the Roman road further to the north, as perhaps does Ystradfellte in Wales, while Abbey Park Wood predates the Vallum of Hadrian's Wall; despite Bennett's contention, Fell End has no relationship with the Stanegate (Welfare, *pers. comm.*). The possible fortlet at Beattock predates the camp (IV) and Glenwhelt Leazes probably predates the Stanegate. At Newstead, Flavian burials recovered from the camp ditch seem to indicate the date of that site. Any other relationships simply establish one camp to be earlier than other, without any indication of what dates any of these works represent. Brackenrigg II predates I, Bochastle II predates I, Dullatur I predates II, Pennymuir I predates II, St Boswells II predates I, Y Pigwn I predates II.

Nor is it a simple case of going into the field to test previously unexplored relationships; the truth is that most have already been excavated. The sequences at Bankhead I and II, Brompton I, II and III, Cardean I and II, Castlecraig I and II, Crawford I and II, Dalswinton I, II and III, Girvan I, II and III, Glenlochar III, IV and V, Greensforge I and II, Grinsdale II and IV, Innerpeffray I and II, Inveravon I and II, Moss-side I and II, North Tawton I and II (probably), Pathhead I, II and III, and Stretford Bridge I and II could all be established by digging, but in most cases (Pathhead being the most outstanding exception) would add very little of consequence to the wider picture, at least as currently understood and interpreted, unless absolute dating evidence were also recovered. The presumed relationships with permanent works evident at Stracathro and Newstead, as well as at Llanfor in Wales, could be tested, providing a fixed relative date for each camp set against a firmly dated permanent work, though as has already been noted above these would surely simply confirm what is already strongly believed. What is really required is a breakthrough in those areas where we are quantitatively rich but qualitatively impoverished.

This returns us to the two main vexed areas, themes to which this thesis has returned recurrently, namely the firmer establishment of both dates for temporary camps and stronger evidence upon which to base the attribution of function. Here excavation may be able to provide truly meaningful information, but not without a change of approach involving an acceptance that more camps need to be examined on a larger scale, to stand any chance of retrieving new information. Such would involve close scrutiny of the existing database, and having delineated the different groups of camps which exist, not forgetting individual camps of potentially equal importance, set about establishing representative examples which might provide the best returns in information through excavation. This in turn would necessitate not simply identifying sites based solely on their perceived significance to the historical framework for

Roman Britain, but also taking into account practical considerations, such as the history of landuse (to determine as far as possible likely returns of information) and the nature of current landuse (to determine whether or not significant excavation would be viable; clearly landowning or tenant farmers will not take kindly to the stripping of large areas of their prime arable topsoil without very good reason or promise of significant financial remuneration. These are major considerations and potentially significant stumbling blocks, but they should not cause us simply to shrug and walk away.

The ensuing excavation programmes should have clearly established goals laid down for them, established after wide consultation with the major figures in the field, which would be widely disseminated within the archaeological community. These could then be used to guide work at sites which became available for investigation through threatened development, ensuring no advantage is given to individual competitors but ensuring that a minimum level of investigation with clear aims consistent with a wider policy of investigation into temporary camps is achieved in all cases. It is after all in the realms of developer-funded archaeology that we are most likely to find the opportunity and the resources to deal with temporary camps on this scale, and if the last few years are indicative we may expect several more such opportunities in the foreseeable future. At the same time, certain key sites should be targeted for research led programmes of excavation, to serve both as models and to ensure that the major sites are dealt with by appropriately qualified teams. These should be on a scale commensurate with the size of the sites and capable of attaining the basic goals of recovering information regarding site date and function. The complaint may be made that destructive excavation should not be conducted on sites not under immediate threat, but in the light of the overweening dearth of knowledge concerning these sites, it is imperative that some steps be taken to try to ameliorate the situation. The investigation, even on a large scale, need not leave these sites exhausted. The excavation of one acre of a 165 acre site represents a very major excavation, but will leave more than enough scope for further work by future generations more numerous than those which separate us from the Romans themselves. Excavation strategy could be informed, in appropriate conditions, by preceding geophysical survey, concentrated in the first instance on the perimeter areas, in an attempt to locate cooking areas; tests of the general efficacy of the technique could be provided in each instance by extending the survey to cover a stretch of perimeter ditch; the results obtained of the latter will help establish the suitability of the survey. Excavations should be undertaken with a view to establishing relationships between potential surviving internal features and not simply their recovery in isolation, thus helping to determine

the likely importance, as a general indicator of single ovens, pits, and the like. It should also be an essential component of the excavation that significant lengths of ditch fill be examined in detail, by onsite sieving programmes if necessary. Such techniques are now commonplace in the investigation of prehistoric sites, particularly those of Mesolithic date where structural evidence is generally found to be minimal. Given the parlous state of knowledge regarding the dates of temporary camps, this does not seem to be an unrealistic approach to adopt, and certainly does not appear to be regarded as wasteful or too labour intensive when applied in other periods, where the return in information is often little greater in bulk terms but equally important for an understanding of the site. In this way, it may be possible to build a body of absolute evidence about these sites which can be fitted back onto the existing picture and help inform the classification and dating of these sites. The benefits could be far reaching, though the sceptics will of course argue that it is not worth the effort. This thesis has attempted to demonstrate that to date there is no good reason for dismissing such an approach based on experience gained to date. Ultimately, even if the final results fulfil the speculation of the doom merchants, the effort will have been made and we will for the first time be able to say with justification that excavation will not answer these questions; this alone would be valuable knowledge. And in the final analysis, if we do not try, we will never know.

## Appendix I

## Roman army tents

Considering the numbers of tents which would be expected to accompany an army on campaign, it is perhaps a little surprising that relatively few traces of them have been recovered from British sites, and none at all from the sites on which they would presumably have been utilised most: temporary camps. Although van Driel Murray has correctly emphasised the high levels of information available to us on tents, from literary, sculptural and archaeological sources (1990, 109), it is nevertheless apparent from the number of camps known in this country, and also from the sizes of many of them, that large quantities of tentage and its associated impedimenta (principally tent pegs and guy ropes) must have been employed over the centuries, and also that the surviving remains do not reflect these quantities. However there are good reasons for this apparent dearth, as will be made clear, and in fact an increasing knowledge of the materials and how they were used.

The classic paper dealing with the subject appeared nearly sixty years ago in the pages of the *Cumberland and Westmoreland Transactions* (McIntyre & Richmond 1934, 62-90). Here evidence from the documentary sources was collated, together with pictorial evidence from Trajan's Column and literary evidence from a variety of ancient authorities, most notably Hyginus, and this information applied to concrete examples of tent pieces from sites in the north of Britain, with special emphasis on remains recovered from the fort at Birdoswald. A brief review of the key points of this study will be in order here.

Richmond and McIntyre identified three "types" of military tent: the *papilio*, utilised by both legionaries and auxiliaries, and thus understandably the most common form; the larger tent (approximately twice the size according to Hyginus (*De munitionibus castrorum*, 1) of the centurions and decurions; and the *augurale*, or senior officer's tent, which was unsurprisingly both the largest of all and the most elaborate (1934, 62-3). Hyginus supplies precise dimensions for the space allotted to these tents within the camp (*ibid.*). The *papilio* occupied an area ten feet square, plus a foot either side across its breadth to allow for the guy ropes (the *incrementum tensurae*). The tents of the centurions and decurions, as noted above, were double the size of the *papiliones*, at twenty feet square. The size of the *augurale* is not specified by Hyginus, though some impression of the difference in scale may be gained by reference to Polybius'

account of the Republican *praetorium*, which he renders as "*tetraplethron*" (VI.27.3), an area equivalent to two hundred feet square, a figure also quoted in relation to the commanding officer's tent by Livy (X.38).

Leather seems clearly to have been the material commonly used in tent construction, as both Richmond and McIntyre (1934, 62) and van Driel Murray (1990, 109) have pointed out; the term *sub pellibus* (under skins), normally applied in describing the conditions under which armies camped while on campaign (Cicero - *Acad. Quaest.* II.2.4; Livy V.2.37-9; Tacitus - *Annales* XIII.35; *ibid.* XIV.38; Ammianus Marcellinus XIX.11.4), in itself indicates that this was the case. Boon (1975, 60) has further clarified the situation by observing that most leatherwork for Roman tents seems to have been derived from sheep/goatskin, rather than calfskin, as was originally suggested by Richmond and McIntyre based on the evidence from Birdoswald and Newstead (1934, 76).

Richmond and McIntyre noted the likely numbers of tents which would have been in use in Britain during the period of the Roman occupation and commented that,

"There is no reason why all these features should not survive, for leather is one of the commonest fabrics preserved since Roman times under suitable conditions, and tents were common since every eight men in the Roman army shared one. Thus, not only should the parts of these tents be sufficiently distinctive to recognise, but any large collection of leather from a frontier fort ought positively to be expected to contain them." (1934, 68).

Hindsight has proved Richmond and McIntyre to be correct in their prognostication, excavations around Britain having now produced a meaningful assemblage of leatherwork related to Roman tentage.

One striking feature of the examples of stitched leather tent panels and offcuts recovered to date is their sites of discovery. Richmond and McIntyre recorded examples from eight sites in Britain: Birdoswald, Newstead, Castlecary, Bar Hill, Balmuildy, Carlisle, Papcastle and Castlesteads (1934, *passim*). All are from the sites of permanent installations, the majority from the two walls, and not from the ditches of temporary camps where they would have been used (though see a potentially dissenting view below). Subsequent discoveries appear to continue this trend: van Driel Murray notes further finds from Vindolanda and Castleford in Britain, as well as significant remains from continental sites such as Valkenburg, Mainz and Bonner Berg

(van Driel Murray 1990, *passim*); and additional examples may be adduced from Hardknott (Charlesworth & Thornton 1973, 149-50, 152), Housesteads (Crow 1988, 115-7), Caernarvon (Boon 1975, 60-1; White 1985, 91-6) and the *colonia* at York (Hassall & Tomlin 1987, 373). The list provided here is indicative rather than exhaustive. Most significant of all to date is probably the assemblage of material from Carlisle, some of which has recently been published (Padley & Winterbottom 1991, 244-328; Caruana 1992, 79-89, 95-8) and some of which has yet to appear in print.

To these finds should also be added the discoveries of tent pegs (*paxilli*); often difficult to identify with certainty, examples are known from Mollins (2) (Hanson & Maxwell 1981, 45-6), Melandra Castle (3) (Wilson 1974, 420) and once again an especially significant assemblage from Carlisle (17 from the annexe, with a further 18 as yet unpublished from the fort, and one from the Castle Street site) (Caruana 1992, 70-2; Padley & Winterbottom 1991, 203). This list too is intended only to be indicative. It is likely too that many more leather tent pieces and wooden tent pegs lie in collections unidentified as such, or worse still may have been ignored, and thus lost, during older excavations. Once again the find spots are all from permanent installations rather than temporary camp sites. Explanation of the phenomenon however is straightforward.

Although there is a growing belief that some "permanent" sites of early date may have utilised tents for the housing of the bulk of the soldiery over relatively long periods of time (Kuhlborn 1982, 501-12; Morel 1991, 376-86), these sites - among them Oberaden, Dangstetten, Rödgen and Friedberg-Rederzhausen - relate to the earliest Imperial movements on the continent under Augustus, at a time when the design of forts had not yet attained the systematic level they were to reach during the latter part of the first century A.D. It is therefore unnecessary to look for tented accommodation within permanent installations; temporary camps are undoubtedly the sites in which tents would have been most commonly used. Three factors determine the findspots of tent paraphernalia.

In the first place, one would not expect a tent, or even a portion of it, to be discarded in the middle of a campaigning season when it represented the sole means of shelter for the *contubernium* allotted it. Presumably even tents nearing the end of their useful life, or requiring major repair, would be retained until the army returned to base, where a new tent could be obtained, or material to mend the damage would be available. It is at this time that material would be discarded or the original article

repaired, and thus where archaeological investigation is most likely to encounter the physical remains.

The evidence available to us at present suggests that as much leatherwork as possible would have been salvaged in the form of offcuts for use in the repair of other leather items. Mould noted knife cut edges on some of the fragments recovered at Housesteads, and interpreted this feature as indicating the salvaging of reusable leather (Crow 1988, 112-22). Boon interpreted the deposit of leather work found in a well just outside the fort at Caernarvon as,

"...material gathered for re-use, or else waste attesting that economical custom." (White 1985, 92).

He in fact pressed his interpretation further, suggesting that the findspot, being outwith the confines of the fort defences, supported the idea that this material represented damaged leatherwork from a military context which had been bought up by a civilian shoemaker/cobbler for use in repairs (White 1985, 94). Whatever the case at Caernarvon, such a scenario is certainly not applicable at the majority of sites where such leatherwork has been found. The general concept of salvage as a regular occurrence in the army is however most persuasive, not least when one considers the amount of leather required to produce a single *papilio*. Several estimates of the numbers of skins required have been proffered (Groenman-van Waateringe 1967; Boon 1975); indeed a recent study has suggested that a little under one and a half million calfskin (despite Boon's contention) panels, representing some three-quarters of a million calves, would have been required to provide tents for the entire standing Roman army in the early Imperial period, this figure representing only the initial investment and taking no account of replacements (Drummond & Nelson 1994, 79-80). Whatever the exact figure, the quantity is high and the need for thrift is clear.

In the second place the history and nature of excavation on Roman military sites in this country shows an understandably heavy bias towards the permanent forts. Excavation at such sites is often extensive, not to say exhaustive, so that every scrap of evidence is recovered. Temporary camps, by contrast, have generally received only cursory examination, as this thesis has sought to demonstrate, often little more than a handful of sections cut across the perimeter ditch. The vast majority of the ditch in any one example remains uninvestigated, also the most likely place for discarded material to accumulate. Interior excavation at camp sites is an even less common practice. We should therefore not expect to find leatherwork at temporary camp sites.

And in the third place, the very materials from which tents were constructed - leather and wood - militates against its survival in anything other than exceptional conditions. The fragments from Vindolanda, for example, have survived only as a consequence of their reuse to line the lower part of a waterlogged pit (van Driel Murray 1990, 110; 1991, 367); the Caernarvon examples were recovered from wells (Boon 1975; White 1985) This combination of factors therefore amply explains the tendency for tent remains to be recovered from contexts associated with permanent rather than temporary quarters.

One final word should be said on the subject of tent pegs, which in common with pieces of surviving leatherwork, have been located principally in the ditches of permanent establishments, the possible examples from the temporary camp at Bar Hill being a notable exception. Unlike leatherwork however it is difficult to understand why this should be the case. A possible solution may be that such items have been misidentified. The specific findspots of many of these finds may provide a critical clue to understanding their true function, in at least some cases. Several have been located in association with collapsed rampart turf in defensive ditches. It seems at least worth consideration that these wooden stakes served to provide stability to the turves during their life as part of the upstanding rampart, operating as a sort of skewer to anchor one turf to another, as has been suggested at Exeter (Frere 1988, 473). The matter is beyond proof, but seems at least a plausible alternative, though no doubt some of the putative tent pegs will transpire to have been just that.

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## Gazetteer of Sites

The following list constitutes a comprehensive gazetteer of Roman temporary camps known at the date of writing (March 1995). It has been sub-divided according to the certainty with which these camps may be classified as such. Thus, the initial and largest group comprises undoubted or at least widely accepted examples of temporary camps; the second group consists of a list of probable camps, where perhaps a very slight element of doubt exists as to the individual site's character; the third group lists possible camps, where the available evidence does not provide enough certainty to provide a definitive identification; the fourth group comprises doubtful camps, sites where the classification temporary camp has been seriously challenged or where the evidence appears likely to lead to a different interpretation but is not yet absolutely certain; the final group lists camps once specified in the literature as temporary camps but which have subsequently been disproved or reclassified in the light of new evidence.

The primary list, of definite temporary camps, provides a short series of categories, each of which provides essential information required to locate and evaluate the camp. In every instance the following categories have been applied to the individual entry; a brief explanation of these headings is provided below.

1. Site name
2. Alternative site names
3. National grid reference
4. County or region
5. Area
6. Condition of the monument
7. Gate type
8. Excavation
9. References

1. The site name selected for inclusion here constitutes either that which is most commonly used in the literature and thus the one by which the site is most readily recognisable, or where more than one name has been assigned to a camp, that which most accurately reflects its location while still being detectable on a standard Ordnance Survey 1:10000 map.

2. Alternative site names are provided in cases where a single camp has been referred to in print by more than one name. The system is cross-referenced, though entries are made only against the principal site name. The cross-referencing is seen as a critical aspect of this gazetteer. During the course of research for this thesis, particularly at the information-gathering stage, one of the greatest causes of confusion and indeed of wasted time was the effort required to resolve the identity of camps where these were allocated names arbitrarily without explicit reference to previous published information regarding the same site. The system adopted here makes no claim to primacy and is intended only to simplify this unnecessary problem.

3. The national grid references provided will relate to a central location within the perimeter of the defences of the individual camp. Where the full perimeter is not known, the reference will be intended to locate the known section of the camp. In the latter circumstances, no attempt has been made to extrapolate the known portions of the camp to its postulated full extent and then provide a central grid reference. When two or more quite separate and widely spatially removed sections presumed to represent a single camp are known, the grid reference supplied will relate to the larger or more diagnostic element.

4. The county or region name supplied relates to the modern administrative boundaries designated in the local government boundary changes instigated in 1975.

5. The area of the camp is provided in both hectares and acres. Where the full perimeter of the camp has not been established the stated area is appropriately qualified. Figures noted as "at least" relate to the smallest likely area enclosed, while "an absolute minimum of" indicates an area calculation based upon the known lengths of side without further extrapolation. Other qualifications should be self explanantory.

6. The condition of the monument will indicate whether or not the site survives as an upstanding monument or as a cropmark, or as a combination of the two. In some circumstances, where the upstanding remains are especially slight or particularly well preserved, this fact is noted.

7. Gate type indicates the particular arrangement noted at the individual site: *clavicula* (internal or external or both), *titulus*, combination of *clavicula* and *titulus*, Stracathro type. In many cases no particular arrangement at the entrances has been noted and these examples are registered as (?) simple gap. This indicates the current state of knowledge while allowing that particular furnishings may yet be seen or once existed but have been destroyed. Where no entrance gaps have been seen the entry reads "no information". Numbers are provided only where the total number of gates in a camp has been identified with confidence. This is strictly adhered to, so that even where a camp is believed to represent a member of a particular series in which the number of gates is known, if the total number of gates ion that particular camp is not known no number is provided.

8. Excavation records whether or not such has been recorded in print and where it has attempts to provide brief details of the date, scale of work and name of director(s). In a few cases, where unpublished excavation is known to have been conducted, this is recorded here.

9. The references supplied are intended to be fairly comprehensive, relating primary work on individual sites (discovery, new AP information, excavation) and also giving due space to theories which have been proposed relating to the sites. It does not however claim to be exhaustive.

The sections on probable, possible, doubtful and disproved or reclassified camps are provided with less formulaic entries, since a greater degree of contention and personal choice has been involved in placing these sites within these categories. Consequently the descriptions which attend these entires attempt to give a brief account of the

arguments which have been published for and against the inclusion of each site as a temporary camp.

## ROMAN TEMPORARY CAMPS

**Abbey Park Wood**
Alternative names -
County - Cumbria
NGR - NY559645
Area - at least 1.5ha (3.7 acres)
Condition - upstanding
Gates - no information
Excavation - none known
References - Bennett 1980, 151-72.

**Abernethy**
Alternative names - Carey
Region - Tayside
NGR - NO174165
Area - 45.87ha (113.5 acres)
Condition - cropmark
Gates - 6, all with *tituli*
Excavation - trenches
References - St Joseph 1973, 219-21, 228-9; DES 1974, 52; Robertson 1976, 6; St Joseph 1976, 27-8; Breeze & Dobson 1976, 125-7; St Joseph 1977, 143; Hanson, 1978, 143-4; Hanson, W.S. 1980, 26; Maxwell, G.S. 1981, 28-9, 37, 39-40; 1989a, 53; 1990a, 18-9, 102.

**Adamslee**
Alternative names - Dryfield Park; Easter Cadder
Region - Strathclyde
NGR - NS644734
Area - 1.4ha (3.5 acres)
Condition - cropmark
Gates - 4, with *tituli*
Excavation - none known
References - Sibbald 1707, 29; DES 1957, 20; St Joseph 1958, 89-90; Richmond & Taylor 1958, 132; RCAHMS 1978, 134; Hanson & Maxwell 1983, 117, 119-20, 127; Sommer 1984, 55-6; Maxwell 1989a, 159.

**Alverdiscott**
Alternative names -
County - Devon
NGR - SS493255
Area - 1.5ha (3.75 acres)
Condition - cropmark
Gates - 4, (?) simple gap

Excavation - section in drainage trench
References - St Joseph 1977, 126; Silvester 1978, 249-5; Maxfield 1980, 300-1.

**Amisfield**
Alternative names - Amisfield Tower
Region - Dumfries & Galloway
NGR - NX996839
Area - 11.4ha (28.2 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Maxwell & Wilson 1987, 40; Frere, Rivet & Sitwell 1987, 2.

**Ancaster**
Alternative names -
County - Lincolnshire
NGR - SK980445
Area - 15ha (37 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1977, 128; Whitwell 1982, 35, 42.

**Annanfoot**
Alternative names -
Region - Dumfries & Galloway
NGR - NY179652
Area - 5.2ha (12.8 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - Jones (n.d.), no page number; Goodburn 1978, 418; DES 1979, 4; Higham & Jones 1985, 23-4; Maxwell & Wilson 1987, 35.

**Annan Hill**
Alternative names -
Region - Dumfries & Galloway
NGR - NY192655
Area - 1.37ha (3.4 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches 1966; small area excavation & trenches 1985-6
References - St Joseph 1961, 122; DES 1966, 20; Jones (n.d.), no page number; Goodburn 1978, 418; DES 1985, 12; Frere 1986, 374; DES 1986, 8; Keppie 1988, 13-21.

**Ardoch I**
Alternative names -
Region - Tayside

NGR - NN842108
Area - 52.25ha (129 acres)
Condition - upstanding & cropmark
Gates - 6, with *tituli*
Excavation - trenches 1969; trenches 1977
References - Sibbald 1707, 37; Pennant 1776, 101-3; Roy 1793, 62-3; Christison 1898, 423-7; Richmond 1936, 311-4; Crawford 1949, 32-5; St Joseph 1951, 62; 1955, 87; 1958, 93-4; 1969, 113-9; 1970, 163-71; Breeze 1970, 126; St Joseph 1973, 231-3; 1976, 14-9; 1977, 135-8; Hanson 1978, 140-50; Goodburn 1978, 410; Maxwell 1989a, 44-5, 63, 65.

**Ardoch II**
Alternative names -
Region - Tayside
NGR - NN839109
Area - 27ha (66.75 acres)
Condition - upstanding & cropmark
Gates - 6, with *tituli*
Excavation - trenches 1969; trenches 1977
References - Sibbald 1707, 37; Pennant 1776, 101-3; Roy 1793, 62-3; Christison 1898, 423-7; Richmond 1936, 311-4; Crawford 1949, 32-5; St Joseph 1951, 62; 1955, 87; 1958, 93; 1965, 81; 1969, 113-9; 1970, 163-71; Breeze 1970, 126; St Joseph 1973, 230-1; 1976, 14-9; 1977, 135-8; Hanson 1978, 140-50; Goodburn 1978, 410; Maxwell 1989a, 44-5, 63, 65.

**Ardoch III**
Alternative names -
Region - Tayside
NGR - NN838105
Area - 5.5ha (13.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches 1969
References - Pennant 1776, 101-3; St Joseph 1951, 62; 1955, 87; 1969, 113-9; 1970, 163-71; St Joseph 1973, 229; 1976, 14-9; 1977, 135-8; Hanson 1978, 144-5; Maxwell 1981, 40-2; Hanson 1987, 121-7; Maxwell 1989a, 55.

**Ardoch IV**
Alternative names -
Region - Tayside
NGR - NN837106
Area - 12ha (29.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - Pennant 1776, 101-3; St Joseph 1951, 62; 1955, 87; 1969, 113-9; 1970, 163-71; St Joseph 1973, 229; 1976, 14-9; 1977, 135-8; Hanson 1978, 144-5; Maxwell 1981, 40-2; Hanson 1987, 121-7; Maxwell 1989a, 55; 1990a, 32.

**Ardoch V**
Alternative names -
Region - Tayside
NGR - NN841102
Area - 4.15ha (10 acres)
Condition - upstanding & cropmark
Gates - (?) simple gap
Excavation - trenches 1975
References - St Joseph 1976, 18-9; 1977, 135-8.

**Arosfa Gareg**
Alternative names - Garreglwyd
County - Dyfed
NGR - SN802263
Area - 18.5ha (45 acres)
Condition - upstanding & cropmark
Gates - 4, with internal *claviculae*
Excavation - trenches 1959 & (?)1964 by Jones
References - St Joseph 1958, 96; Taylor 1960, 213; Jones, J.F. 1961, 134-6; St Joseph 1961, 269; Jones 1966, 174-8; Wilson 1965, 199; Nash-Williams 1969, 124-5.

**Attingham Park I**
Alternative names - Norton
County - Shropshire
NGR - SJ556097
Area - not less than 8.9ha (22 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1977, 145.

**Auchinhove**
Alternative names -
Region - Grampian
NGR - NJ462517
Area - estimted 11.5ha (28.5 acres)
Condition - cropmark
Gates - Stracathro-type
Excavation - trenching, by St Joseph reported in 1958 and 1973
References - St Joseph 1951, 65; Burn 1953, 127-33; St Joseph 1958, 93; 1961, 123; 1973, 226-9; DES 1974, 5; Maxwell 1981, 34-5; Hanson 1987, 124-5, 136; Maxwell 1989a, 56, 59; 1990a, 52, 54, 95-9.

**Auchtermuchty**
Alternative names -
Region - Fife
NGR - NO242118
Area - 24.3ha (60 acres)
Condition - cropmark

Gates - (?) simple gap
Excavation - trenches in 1965 by St Joseph, in 1989 by Duffy, in 1992-3 by SUAT
References - St Joseph 1965, 82; 1973, 230; DES 1989, 17; 1992, 34; Duffy 1992, 183-7; DES 1993, 30.

**Avonbank**
See - Inveravon I and II

**Bagraw I**
Alternative names - Horsley
County - Northumberland
NGR - NY849965
Area - 7.3ha (18 acres)
Condition - partially upstanding
Gates - *tituli*
Excavation - none known
References - MacLauchlan 1852, 32-3; Richmond 1940, 120.

**Bagraw II**
Alternative names - Horsley
County - Northumberland
NGR - NY849965
Area - 3.75ha (9.33 acres)
Condition - partially upstanding
Gates - *tituli*
Excavation - none known
References - MacLauchlan 1852, 32-3; Richmond 1940, 120.

**Balmakewan**
Alternative names -
Region - Grampian
NGR - NO665666
Area - at least 49.8ha (123 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1969, 112, 118-9; 1976, 26; 1977, 143; Maxwell 1989a, 65-6.

**Balmuildy**
See - Buchley

**Bankend**
See - Beattock V

**Bankhead I**
Alternative names - Carnwath
Region - Strathclyde
NGR - NS983450
Area - 20.5ha (50.5 acres)

Condition - cropmark
Gates - *tituli*
Excavation - none known
References - RCAHMS 1978, 160; Hanson & Maxwell 1983, 66-7; Maxwell & Wilson 1987, 41.

**Bankhead II**
Alternative names - Carnwath
Region - Strathclyde
NGR - NS983450
Area - 12.25ha (30.25 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - RCAHMS 1978, 160; Maxwell 1981, 40-1; Hanson & Maxwell 1983, 66-7; Maxwell & Wilson 1987, 41.

**Bargoed**
See - Gelligaer Common I-IV

**Bar Hill I**
Alternative names -
Region - Strathclyde
NGR - NS707757
Area - probably 0.6ha (1.5 acres) or rather more
Condition - cropmark
Gates - not yet clear; (?) simple gap
Excavation - trenches 1982-4 by Keppie
References - DES 1982, 29; Frere 1983, 288; DES 1983, 32; Frere 1984, 276; Frere 1985, 264; Maxwell & Wilson 1987, 28-9; Keppie 1989, 151-3.

**Barnhill**
See - Beattock IV

**Battledykes Keithock**
See - Keithock

**Battledykes Oathlaw**
See - Oathlaw

**Beattock I**
Alternative names -
Region - Dumfries & Galloway
NGR - NT090028
Area - 15ha (37 acres)
Condition - cropmark
Gates - 4, with *tituli*
Excavation - trenches & watching brief, 1992, by CFA

References - St Joseph 1951, 58; 1952, 111; 1976, 6; 1977, 133; Maxwell & Wilson 1987, 31, 40; DES 1992, 20-1; Frere 1992, 266.

**Beattock II**
Alternative names -
Region - Dumfries & Galloway
NGR - NT088026
Area - probably 3.66ha (8.8 acres)
Condition - cropmark
Gates - (?) *tituli*
Excavation - none known
References - St Joseph 1951, 58; 1952, 111; 1977, 133; Maxwell & Wilson 1987, 31, 40.

**Beattock III**
Alternative names -
Region - Dumfries & Galloway
NGR - NT088027
Area - probably 1.33ha (3.25 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 58; 1977, 133; Maxwell & Wilson 1987, 31, 40.

**Beattock IV**
Alternative names - Barnhill
Region - Dumfries & Galloway
NGR - NT084026
Area - probably 11.68ha (29.7 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches in 1984 by Maxwell
References - St Joseph 1958, 89; Maxwell 1981, 40-1; Hanson & Maxwell 1983, 67; DES 1984, 6; Frere 1985, 267; Maxwell & Wilson 1987, 21, 25.

**Beattock V**
Alternative names - Bankend
Region - Dumfries & Galloway
NGR - NT084020
Area - probably 11.68ha (29.7 acres)
Condition - cropmark
Gates - Stracathro-type
Excavation - major excavation in 1994, by Leslie
References - DES 1977, 53; Goodburn 1978, 418-9; Maxwell 1981, 34-6; Maxwell & Wilson 1987, 30-2; Maxwell 1989a, 53.

**Beaumont**
See - Wormanby

**Bellshiel**
Alternative names - High Rochester
County - Northumberland
NGR - NY818998
Area - 16ha (39.5 acres)
Condition - largely upstanding
Gates - *claviculae* and *tituli*
Excavation - none known
References - MacLauchlan 1852, 35-6; St Joseph 1934, 239-40; Richmond 1940, 122; Maxwell 1981, 37, 39.

**Bennachie**
See -Durno

**Beulah**
See - Caerau

**Birdhope I**
Alternative names - High Rochester
County - Northumberland
NGR - NY826988
Area - 11.5ha (28.5 acres)
Condition - partially upstanding
Gates - internal *claviculae*
Excavation - none known
References - Camden 1789, 246; MacLauchlan 1852, 35; St Joseph 1934, 240; Richmond 1940, 120-2; Maxwell 1981, 37, 39.

**Birdhope II**
Alternative names - High Rochester
County - Northumberland
NGR - NY826988
Area - 3.25ha (8 acres)
Condition - partially upstanding
Gates - internal *claviculae*
Excavation - trench, reported by St Joseph as "recently cut" in 1934
References - Camden 1789, 246; MacLauchlan 1852, 35; St Joseph 1934, 240; Richmond 1940, 120-2; Sommer 1984, 56.

**Birrens I**
Alternative names - Broadlee
Region - Dumfries & Galloway
NGR - NY220747
Area - at least 1.3ha (3.25 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 57-8; Robertson 1975, 277; Sommer 1984, 56.

**Birrens II**
Alternative names - Broadlee
Region - Dumfries & Galloway
NGR - NY218748
Area - at least 3.1ha (7.66 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 57-8; Robertson 1975, 277.

**Birrens III**
Alternative names - Johnstonehall Farm
Region - Dumfries & Galloway
NGR - NY225750
Area - at least 7.66ha (19 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 58; Robertson 1975, 277.

**Bishop Rigg**
Alternative names - Corbridge
County - Northumberland
NGR - NY978653
Area - 0.5ha (1.2 acres)
Condition - cropmark
Gates - *tituli*
Excavation - major area excavation in 1974 by Jobey
References - HMSO 1974, 61; Wilson 1975, 230; Jobey 1979, 99-113; Bennett 1980, 154, 169, 171; Sommer 1984, 8, 56.

**Black Dikes**
See - Glenwhelt Leazes

**Blaen-cwm-Bach**
Alternative names -
County - West Glamorgan
NGR - SS796987
Area - 26.8ha (66.3 acres)
Condition - upstanding & cropmark
Gates - *tituli*
Excavation - trenches in 1969-70 & 1974, by Chouls & Townsend
References - Richmond & Taylor 1959, 102; St Joseph 1961, 269; 1961, 126; Nash-Williams 1969, 124; CBA 1970, 17; CBA 1974, 24-5; Wilson 1975, 222; RCAHMW 1976, 2, 5, 11, 98-9, 101.

**Blainslie**
Alternative names -
Region - Borders

NGR - NT552442
Area - 18.8ha (46.7 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1973, 216; DES 1974, 61; Hanson & Maxwell 1983, 65-7; Maxwell & Wilson 1987, 38.

**Blakehope**
Alternative names -
County - Northumberland
NGR - NY859945
Area - 6.2ha (15.5 acres)
Condition - partially upstanding
Gates - no information
Excavation - none known
References - MacLauchlan 1852, 30-1; Richmond 1940, 120; St Joseph 1955, 84-5; Wilson 1976, 23; Maxwell 1981, 37, 39, 42; Sommer 1984, 56.

**Bochastle**
Alternative names - Bochastle
Region - Central
NGR - NN611077
Area - 19.5ha (48 acres)
Condition - cropmark
Gates- Stracathro-type (with slight variation)
Excavation - none known
References - Crawford 1949, 28; St Joseph 1951, 64; 1973, 224; DES 1974, 52; Hanson 1978, 142; Maxwell 1981, 31, 33-5, 37; Maxwell & Wilson 1987, 29; Maxwell 1989a, 56; 1990a, 32-3.

**Bo'ness**
See - Kinglass Park

**Bonnytown**
Alternative names -
Region - Fife
NGR - NO 546126
Area - 14.2ha (35 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1965, 82; 1969, 114; Hanson 1987, 126-7; Maxwell 1990a, 32.

**Bootham Stray**
See - York

**Bowness**
See - Knock Cross

**Brackenrigg I**
Alternative names -
County - Cumbria
NGR - NY233614
Area - 3.2ha (8 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches in 1984 by Jones
References - Frere 1985, 274; Higham & Jones 1985, 40; Maxwell & Wilson 1987, 13.

**Brackenrigg II**
Alternative names -
County - Cumbria
NGR - NY233614
Area - 1.2ha (3 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches in 1984 by Jones
References - Frere 1985, 274; Higham & Jones 1985, 40; Maxwell & Wilson 1987, 13.

**Braich Ddu**
Alternative names -
County - Gwynedd
NGR - SH717383
Area - 0.05ha (0.13 acres)
Condition - upstanding
Gates - internal *claviculae*
Excavation - none known
References - St Joseph 1965, 86; Davies 1968, 105, 108, 120; St Joseph 1969, 126-7; Nash-Williams 1969, 127, 130; Frere & St Joseph 1983, 136-7.

**Brampton Bryan**
Alternative names -
County - Hereford & Worcester
NGR - SO379723
Area - 25.9ha (64 acres)
Condition - cropmark
Gates - (?) simple gap (though St Joseph suspects *claviculae*)
Excavation - none known
References - St Joseph 1965, 85; Stanford 1968b, 225; St Joseph 1969, 120; St Joseph 1973, 235, 242; Stanford 1980, 124; Todd 1981, 87; Frere & St Joseph 1983, 20, 98, 100.

**Broadlee**
See - Birrens I & II

**Bromfield**
Alternative names -
County - Shropshire
NGR - SO484775
Area - 8.3ha (20.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, 1955 by Webster; area stripping, 1968 by Stanford, & 1983.
References - St Joseph 1953, 85; Taylor 1956, 130; Webster 1958, 66; St Joseph 1958, 95; Houghton 1964, 185-7; Stanford 1968a, 195-6; Stanford 1968b, 225; WMANS 1968, 216; Wilson 1969, 216; Nash-Williams 1969, 125-6; St Joseph 1973, 242-3; WMANS 1983, 87-8.

**Brompton I**
Alternative names -
County - Shropshire
NGR - SO249935
Area - at least 11.5ha (28.5 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1969, 119-20; 1973, 235-6, 242-3; Webster 1981, 84; Frere & St Joseph 1983, 20.

**Brompton II**
Alternative names -
County - Shropshire
NGR - SO249935
Area - at least 4ha (10 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1969, 119-20; 1973, 235-6, 242-3; Webster 1981, 84; Frere & St Joseph 1983, 20; Sommer 1984, 56.

**Brompton III**
Alternative names -
County - Shropshire
NGR - SO249935
Area - not enough information
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1969, 119-20; 1973, 235-6, 242-3; Webster 1981, 84; Frere & St Joseph 1983, 20.

**Broomhill**
Alternative names - Forteviot
Region - Tayside

NGR - NO039175
Area - 24.9ha (61.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches in 1952 by Aitken
References - Crawford 1949, 59; Feachem 1950, 217; CBA 1953, 10; Taylor 1953, 105-6; St Joseph 1955, 87; 1958, 93; 1965, 82; 1969, 116; 1973, 230; Maxwell 1989a, 56.

**Brougham**
Alternative names -
County - Cumbria
NGR - NY538289
Area - 0.22ha (0.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 53; 1958, 87; Higham & Jones 1985, 17.

**Brown Dikes I**
Alternative names - Brown Moor
County - Northumberland
NGR - NY839703
Area - approximately 0.36ha (0.9 acres)
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - Hodgson 1840, 306; McLauchlan 1858, 35-6; Gibson & Simpson 1909, 261-2; Tait 1949, 50; Collingwood Bruce 1978, 133; Bennett 1980, 151-2, 154, 169.

**Brown Dikes II**
Alternative names - Brown Moor
County - Northumberland
NGR - NY844705
Area - approximately 0.16ha (0.4 acres)
Condition - now destroyed
Gates - no information
Excavation - none known
References - McLauchlan 1858, 36; Tait 1949, 50; Collingwood Bruce 1978, 133; Bennett 1980, 151-2, 154, 169.

**Buchley**
Alternative names - Balmuildy
Region - Strathclyde
NGR - NS587772
Area - 4.9ha (12.1 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known

References - St Joseph 1951, 52; 1955, 86-7; 1976, 12-3; 1977, 134; RCAHMS 1978, 114-9; Hanson & Maxwell 1983, 117-9; Sommer 1984, 55-6.

**Buckton**
Alternative names - Buckton Park
County - Hereford & Worcester
NGR - SO391733
Area - 1.42ha (3.5 acres)
Condition - cropmark
Gates - (?) internal *clavicula*
Excavation - none known
References - Stanford 1960, 210, 258, 261; St Joseph 1961, 124; Taylor & Wilson 1961, 171; Nash-Williams 1969, 93-4, 126; St Joseph 1973, 242; Frere & St Joseph 1983, 98, 100; Sommer 1984, 56.

**Burgh-by-Sands**
See Wormanby

**Burlington I**
Alternative names -
County - Shropshire
NGR - SJ779106
Area - 17.5ha (43 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, reported in 1973
References - St Joseph 1973, 233-4, 242-3; Webster 1975, 28; 1981, 78.

**Burlington II**
Alternative names -
County - Shropshire
NGR - SJ779106
Area - 3ha (7.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, reported in 1973
References - St Joseph 1969, 105; 1973, 233-4, 242; Webster 1975, 28; 1981, 78.

**Burnfield**
Alternative names -
Region - Grampian
NGR - NJ540476
Area - at least 9.72ha (24 acres)
Condition - cropmark
Gates - no information
Excavation - trenches in 1983 by St Joseph & Ralston
References - Frere 1984, 273; Maxwell & Wilson 1987, 34; Maxwell 1990a, 52, 54.

**Caerau I**

Alternative names - Beulah
County - Powys
NGR - SN919507
Area - 14.8ha (36.5 acres)
Condition - cropmark
Gates - 4, with internal *claviculae*
Excavation - none known
References - St Joseph 1969, 123-4; Nash-Williams 1969, 200; St Joseph 1973, 242; RCAHMW 1986, 130, 155.

**Caerau II**
Alternative names - Beulah
County - Powys
NGR - SN920500
Area - 0.275ha (0.65 acres)
Condition - soilmark
Gates - 4, with (?) simple gap
Excavation - none known
References - St Joseph 1958, 96; 1961, 273; Davies 1968, 104, 106, 109; St Joseph 1969, 124; Nash-Williams 1969, 127-8; RCAHMW 1986, 155.

**Caer Gai**
See - Rhyd Sarn

**Callander**
See - Bochastle

**Calverton I**
Alternative names -
County - Nottinghamshire
NGR - SK615509
Area - 8.37ha (20.66 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - Riley 1983, 270-1; Maxwell & Wilson 1987, 9.

**Calverton II**
Alternative names -
County - Nottinghamshire
NGR - SK615509
Area - 1.48ha (3.66 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Riley 1983, 270-1; Maxwell & Wilson 1987, 9.

**Camelon**
See - Lochlands

**Camnant**
See - Coelbren

**Cappuck**
Alternative names -
Region - Borders
NGR - NT698209
Area - at least 4.6ha (11.5 acres), and probably much larger
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1961, 121.

**Cardean I**
Alternative names -
Region - Tayside
NGR - NO299463
Area - 52.4ha (129.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches, reported in 1973 & 1977 by St Joseph
References - St Joseph 1955, 87; 1958, 93; 1969, 116-8; 1973, 224; DES 1974, 7; St Joseph 1977, 140, 43; Maxwell 1989a, 65-6.

**Cardean II**
Alternative names -
Region - Tayside
NGR - NO301463
Area - at least 14.6ha (36 acres)
Condition - cropmark
Gates - no information
Excavation - trenches, reported in 1973 by St Joseph
References - St Joseph 1973, 224, 229; DES 1974, 7; Hanson 1987, 127; Maxwell 1990a, 54.

**Carey**
See - Abernethy

**Carham**
Alternative names -
County - Northumberland
NGR - NT800378
Area - at least 9.7ha (24 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1965, 78.

**Carleton**
Alternative names -
County - Cumbria
NGR - NY44175178
Area - 0.45ha (1.1 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 54

**Carlops I**
Alternative names - Spittal
Region - Lothian
NGR - NT171572
Area - 16.5ha (40.7 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches in 1984-5 by Maxwell
References - Frere 1986, 371; Maxwell & Wilson 1987, 32-3.

**Carmuirs**
See - Lochlands

**Carn Caca**
See - Melin Court

**Carnwath**
See - Bankhead

**Carpow I**
Alternative names -
Region - Tayside
NGR - NO207175
Area - not clear, but perhaps in excess of 38.5ha (95 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, reported in 1973 by St Joseph
References - St Joseph 1973, 220-3, 231-2; DES 1974, 52; Frere, Rivet & Sitwell 1987, 18; Maxwell 1990a, 102, 104.

**Carronbridge**
Alternative names -
Region - Dumfries & Galloway
NGR - NX869978
Area - 0.55ha (1.37 acres)
Condition - cropmark
Gates - (?)4, with *tituli*
Excavation - trenching, by Clarke in 1953-4; area excavation 1989-90 by Johnston

References - St Joseph 1951, 59; Taylor 1954, 86-7; CBA 1954, 8-9; Taylor 1955, 124; CBA 1955, 8; Clarke & Webster 1954, 9-34; DES 1989, 12; Johnston 1989, 17-20; DES 1990, 10.

**Carstairs Mains**
Alternative names -
Region - Strathclyde
NGR - NS947443
Area - 12.4ha (31 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - RCAHMS 1978b, 27; Frere 1984, 276; Maxwell & Wilson 1987, 35-6.

**Carzield**
See - Galloberry

**Castell Collen**
See - Llandrindod Common

**Castlecary**
See - Tollpark

**Castlecraig I**
Alternative names -
Region - Borders
NGR - NT124444
Area - 17.3ha (42.9 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1965, 79; RCAHMS 1967, 365; St Joseph 1969, 108; Hanson & Maxwell 1983, 66-7; Frere, Rivet & Sitwell 1987, 19.

**Castlecraig II**
Alternative names -
Region - Borders
NGR - NT124444
Area - not clear; minimum of 2.1ha (5.2 acres), & probably significantly more
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1969, 108; Frere, Rivet & Sitwell 1987, 19.

**Castledykes I**
Alternative names -
Region - Strathclyde
NGR - NS924446
Area - 24.2ha (59.8 acres)

Condition - cropmark
Gates - Stracathro type
Excavation - 1987, a small area at the north gate, by Keppie
References - St Joseph 1951, 57; Miller 1952, 208; St Joseph 1958, 89; 1964, 257; RCAHMS 1978, 125, 127, 159; Maxwell 1981, 34; Hanson & Maxwell 1983, 20, 118; Maxwell & Wilson 1987, 30; DES 1987, 45; Frere 1988, 429; Maxwell 1989a, 51-3; 1990a, 14, 18-9.

**Castledykes II**
Alternative names -
Region - Strathclyde
NGR - NS924446
Area - 16.6ha (41 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - RCAHMS 1978, 125, 127; Maxwell 1981, 37; Hanson & Maxwell 1983, 20, 118; Maxwell & Wilson 1987, 30.

**Castledykes III**
Alternative names -
Region - Strathclyde
NGR - NS924445
Area - 1ha (2.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation -
References - St Joseph 1958, 89; 1964, 257; RCAHMS 1978, 125, 127-8; Hanson & Maxwell 1983, 20.

**Castledykes IV**
Alternative names -
Region - Strathclyde
NGR - NS927446
Area - 5.35ha (13.6 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1955, 85; 1964, 258; 1965, 80; 1977, 133; RCAHMS 1978, 125, 127; Sommer 1984, 56.

**Castledykes V**
Alternative names -
Region - Strathclyde
NGR - NS927446
Area - 4.2ha (10.75 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known

References - St Joseph 1955, 85; 1964, 258; 1965, 80; 1977, 133; RCAHMS 1978, 125, 127.

**Castledykes VI**
Alternative names -
Region - Strathclyde
NGR - NS931445
Area - at least 19ha (48 acres)
Condition - cropmark
Gates - no information
Excavation - trenching, in 1992 by Maxwell and Keppie
References - Frere 1990, 312; DES 1991, 69; Burnham, Keppie & Esmonde Cleary 1993, 281.

**Catterick**
Alternative names -
Region - North Yorkshire
NGR - SE231991
Area - absolute minimum of 4.25ha (10.5 acres), & probably rather more
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1955, 82; 1973, 214; Hanson & Campbell 1986, 83.

**Cavers Mains**
Alternative names -
Region - Borders
NGR - NT548167
Area - at least 9.75ha (24.1 acres), & probably rather more
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1965, 78; 1969, 107; Frere, Rivet & Sitwell 1987, 107.

**Cawfields I**
Alternative names -
County - Northumberland
NGR - NY714669
Area - 0.63ha (1.55 acres)
Condition - cropmark
Gates - 4, with *tituli*
Excavation - none known
References - Bennett 1980, 151-72.

**Cawfields II**
Alternative names -
County - Northumberland
NGR - NY710669
Area - 2.94ha (7.25 acres)

Condition - upstanding
Gates - no information
Excavation - none known
References - Collingwood Bruce 1978, 176; Bennett 1980, 151-72; Sommer 1984, 56.

**Cawfields III**
Alternative names -
County - Northumberland
NGR - NY706672
Area - 0.65ha (1.6 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Frere 1977, 373; Jones 1977, pl. 22c; Bennett 1980, 151-72; Sommer 1984, 56; Frere, Rivet & Sitwell 1987, 23.

**Cawthorn I**
Alternative names -
County - North Yorkshire
NGR - SE785901
Area -
Condition - upstanding
Gates - 3, with external *claviculae*
Excavation - none known
References - Richmond 1932, 17-78; Frere & St Joseph 1983, 109-10; Frere, Rivet & Sitwell 1987, 21.

**Channelkirk I**
Alternative names -
Region - Borders
NGR - NT474547
Area - as known, 52ha (128.5 acres), though part of St Joseph's 165 acre series
Condition - partially upstanding, partially cropmark
Gates - *tituli*
Excavation - trenches, 1921-2 & 1925 by Hewat Craw, & 1957 by St Joseph
References - Roy 1793, 61; Chalmers 1807, 142, 163; Allan 1900, 642; RCAHMS 1915, 12; Hewat Craw 1930, 321-6; Collingwood & Taylor 1931, 218; St Joseph 1951, 57; 1955, 85; DES 1957, 13; Richmond & Taylor 1958, 132-3; St Joseph 1958, 88; 1961, 121; 1969, 118; 1973, 231-3; 1976, 6, 28; Breeze 1979, 37-8; Maxwell 1989a, 61-2.

**Channelkirk II**
Alternative names - Oxton
Region - Borders
NGR - NT487547
Area - 4ha (9.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known

References - St Joseph 1973, 216; DES 1974, 62; St Joseph 1977, 131; Maxwell & Wilson 1987, 38.

**Channelkirk III**
Alternative names - Oxton
Region - Borders
NGR - NT487547
Area - 1.66ha (4.1 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Maxwell & Wilson 1987, 38.

**Chapel Rigg**
Alternative names -
County - Northumberland
NGR - NY646654
Area - 0.56ha (1.4 acres)
Condition - upstanding
Gates - internal *claviculae & tituli*
Excavation - none known
References - MacLauchlan 1858, 49; Wilson 1974, 344; Collingwood Bruce 1978, 206; Bennett 1980, 151-72.

**Chester**
Alternative names -
County - Cheshire
NGR - no information
Area - no information
Condition - no information
Gates - no information
Excavation - none known
References - Griffith 1990, 25.

**Chesterholm**
See - Seatsides

**Chew Green I**
Alternative names -
County - Northumberland
NGR - NT788084
Area - 7.7ha (19 acres)
Condition - upstanding
Gates - internal *claviculae*
Excavation - trenches, by Richmond & Keeney
References - MacLauchlan 1852, 41-2; Richmond & Keeney 1937, 129-50; Taylor 1937, 228; Richmond 1940, 63-154; Maxwell 1981, 37, 39; Frere & St Joseph 1983, 140-2.

**Chew Green II**
Alternative names -
County - Northumberland
NGR - NT788084
Area - 5.7ha (14 acres)
Condition - upstanding
Gates - *tituli*
Excavation - trenches, by Richmond & Keeney
References - MacLauchlan 1852, 41-2; Richmond & Keeney 1937, 129-50; Taylor 1937, 228; Richmond 1940, 63-154; Frere & St Joseph 1983, 140-2.

**Cleghorn I**
Alternative names -
Region - Strathclyde
NGR - NS910460
Area - 18.8ha (46.7 acres)
Condition - partially upstanding
Gates - *tituli*
Excavation - trenches 1971, 1981
References - Roy 1793, Rankin 1855, 145-8; Crawford 1949, 101; Miller 1952, 68-70; DES 1971, 58-9; Wilson 1972, 304; RCAHMS 1978, 33, 128, 159; Breeze 1979, 38; DES 1981, 36; Hanson & Maxwell 1983, 67; Maxwell 1989a, 45-6.

**Clyro**
Alternative names -
County - Powys
NGR - SO225430
Area - 10ha (24.8 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1969, 123; Nash-Williams 1969, 200.

**Coelbren**
Alternative names - Camnant
County - West Glamorgan
NGR - SN862102
Area - 14ha (34.6 acres)
Condition - upstanding
Gates - no information
Excavation - none known
References - Wilson 1969, 200; Nash-Williams 1969, 124; CBA 1970, 18; RCAHMW 1976, 98-100.

**Coesike**
See - Grindon

**Cold Chapel**
Alternative names -

Region - Strathclyde
NGR - NS935249
Area - absolute minimum 9ha (22.25 acres) but will be rather more
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Maxwell & Wilson 1987, 34.

**Corbridge**
See - Bishop Rigg

**Cornhill I**
Alternative names - Coulter
Region - Strathclyde
NGR - NT022357
Area - 16.9ha (41.7 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1973, 217; DES 1974, 44; St Joseph 1976, 6-7; 1977, 133; RCAHMS 1978, 128-9; Maxwell 1981, 40-1; Hanson & Maxwell 1987, 33-4.

**Cornhill II**
Alternative names - Coulter
Region - Strathclyde
NGR - NT022357
Area - 13ha (32 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1973, 217; DES 1974, 44; St Joseph 1976, 6-7; 1977, 133; RCAHMS 1978, 128-9; Maxwell 1981, 40-1; Hanson & Maxwell 1987, 33-4.

**Coulter**
See - Cornhill

**Crackenthorpe**
Alternative names -
County - Cumbria
NGR - NY650237
Area - 9ha (22.25 acres)
Condition - upstanding
Gates - at least 8, with *tituli*
Excavation - none known
References - Roy 1793, pl. xvii; Ferguson 1890, 312-3; Richmond & McIntyre 1934, 50-61; Taylor 1935, 205; St Joseph 1958, 86; Wilson 1974, 347.

**Craigarnhall**
Alternative names -

Region - Central
NGR - NS756985
Area - 24.5ha (60.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches, reported in 1973 by St Joseph
References - St Joseph 1973, 217-8; DES 1974, 51; RCAHMS 1976, 9; St Joseph 1977, 135; Maxwell 1989a, 63, 65.

**Craven Arms**
Alternative names -
County - Shropshire
NGR - SO430837
Area - at least 1.3ha (3.3 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1961, 125; 1965, 85; Stanford 1968, 225; Nash-Williams 1969, 126.

**Crawford I**
Alternative names -
Region - Strathclyde
NGR - NS957205
Area - at least 6ha (14 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1961, 122; RCAHMS 1978, 129-30, 133, 159.

**Crawford II**
Alternative names -
Region - Strathclyde
NGR - NS957205
Area - at least 1.6ha (4 acres), & probably rather more
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1961, 122; RCAHMS 1978, 129-30, 133, 159; Maxwell & Wilson 1987, 40.

**Crawford III**
Alternative names -
Region - Strathclyde
NGR - NS954217
Area - 3.2ha (8 acres)
Condition - cropmark
Gates - no information
Excavation - none known

References - RCAHMS 1978, 159; Maxwell & Wilson 1987, 40.

**Crawford IV**
Alternative names -
Region - Strathclyde
NGR - NS954217
Area - 0.64ha (1.6 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Maxwell & Wilson 1987, 40.

**Cressage**
See - Leighton

**Crooks**
Alternative names -
County - Northumberland
NGR - NY635656
Area - 1.17ha (2.9 acres)
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - MacLauchlan 1858, 51; Collingwood Bruce 1978, 206; Bennett 1980, 151-72.

**Cupar**
See - Edenwood

**Cwm-is-y-Rhiw**
See - St Harmon

**Cwm-y-Cadno**
See - Y Pigwn III

**Dalginross I**
Alternative names -
Region - Tayside
NGR - NN774208
Area - 9.5ha (23.5 acres)
Condition - cropmark
Gates - Stracathro-type
Excavation - area excavation at east gate, 1990
References - Gordon 1727; Roy 1793, 63, 69, 82, 84, pl. xv; Macdonald 1939, 252-4; Crawford 1949, 41-4; St Joseph 1951, 64; 1958, 92-3; 1965, 81; 1973, 224; Wilson 1974, 344; DES 1974, 52; Wilson 1975, 26-7; Maxwell 1981, 34-5; Frere & St Joseph 1983, 130-1; Maxwell 1989a, 56; 1990a, 32-3, 78-81; DES 1990, 44; Rogers 1993, 277-90.

**Dalginross II**
Alternative names -
Region - Tayside
NGR - NN774212
Area - at least 1.62ha (4 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Crawford 1949, 41; St Joseph 1965, 81; 1969, 109; Wilson 1984, 54-5.

**Dalkeith**
Alternative names - Smeaton
Region - Lothian
NGR - NT345692
Area - at least 5.3ha (13.1 acres)
Condition - cropmark
Gates - *tituli*
Excavation - due to take place in 1994, by CFA; no details at time of writing
References - St Joseph 1965, 80; 1973, 216; DES 1974, 47.

**Dalnair**
Alternative names -
Region - Central
NGR - NS810790
Area - 1.8ha (4.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1958, 89; RCAHMS 1963, 107; Maxwell 1974, 329; Hanson & Maxwell 1983, 119, 128.

**Dalswinton I**
Alternative names -
Region - Dumfries & Galloway
NGR - NX934840
Area - 24.8ha (61.28 acres)
Condition - cropmark
Gates - Stracathro-type
Excavation - none known
References - St Joseph 1951, 58-9; 1958, 89; 1961, 122; 1965, 79; 1973, 217; Wilson 1974, 344; St Joseph 1976, 7-11; Maxwell 1981, 34; Frere & St Joseph 1983, 123-6; Sommer 1984, 56; Maxwell & Wilson 1987, 30; Maxwell 1989a, 51-3; Maxwell 1990a, 14, 18.

**Dalswinton II**
Alternative names -
Region - Dumfries & Galloway
NGR - NX934841
Area - 3ha (7.5 acres)

Condition - cropmark
Gates - Stracathro-type
Excavation - none known
References - St Joseph 1951, 58-9; 1958, 89; 1973, 217; 1976, 7-11; Maxwell 1981, 34; Frere & St Joseph 1983, 123-6; Sommer 1984, 56; Maxwell & Wilson 1987, 30; Maxwell 1989a, 52-3.

**Dalswinton III**
Alternative names -
Region - Dumfries & Galloway
NGR - NX936839
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - Maxwell & Wilson 1987, 30.

**Dalswinton IV & V**
See - Ellisland

**Dargues**
Alternative names -
County - Northumberland
NGR - NY860937
Area - 6.5ha (15.8 acres)
Condition - upstanding
Gates - internal *claviculae*
Excavation - none known
References - MacLauchlan 1852, 29-30; Richmond 1940, 118-20; Maxwell 1981, 37, 39, 42.

**Deer's Den**
See - Kintore

**Denholm**
Alternative names - Eastcote
Region - Borders
NGR - NT543177
Area - 11.1ha (27.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1961, 122; 1965, 78; Maxwell 1981, 40-1.

**Derwydd-Bach**
Alternative names
County - Gwynedd
NGR - SH477454
Area - probably c. 6ha (15 acres)

Condition - partially upstanding, partially cropmark
Gates - no information
Excavation - none known
References - St Joseph 1973, 241; Wilson 1990, 15.

**Dimisdale**
See - Greenlee Lough

**Dinwoodie**
See - Hangingshaw

**Dolau**
See - Nantmel

**Dolddinas I**
Alternative names -
County - Gwynedd
NGR - SH734378
Area - 0.11ha (0.29 acres)
Condition - upstanding
Gates - *tituli*
Excavation - trench in 1959 by Jones & Knowles
References - Jones & Knowles 1960, 397-402; Taylor 1960, 211; St Joseph 1961, 131; Bowen & Gresham 1967, 242-3; Davies 1968, *passim*; Nash-Williams 1969, 113, 123, 127-8, 130.

**Dolddinas II**
Alternative names -
County - Gwynedd
NGR - SH734378
Area - 0.19ha (0.48 acres)
Condition - upstanding
Gates - (?) simple gap
Excavation - trench in 1958 by Jones & Knowles
References - Jones & Knowles 1960, 397-402; Taylor 1960, 211; St Joseph 1961, 131; Bowen & Gresham 1967, 242-3; Davies 1968, *passim*; Nash-Williams 1969, 113, 123, 127-8, 130.

**Dolddinas III**
Alternative names -
County - Gwynedd
NGR - SH734378
Area - 0.19ha (0.48 acres)
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - Jones & Knowles 1960, 397-402; Taylor 1960, 211; St Joseph 1961, 131; Bowen & Gresham 1967, 242-3; Davies 1968, *passim*; Nash-Williams 1969, 113, 123, 127-8, 130.

**Dolddinas IV**
Alternative names -
County - Gwynedd
NGR - SH734378
Area - 0.19ha (0.48 acres)
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - Jones & Knowles 1960, 397-402; Taylor 1960, 211; St Joseph 1961, 131; Bowen & Gresham 1967, 242-3; Davies 1968, *passim*; Nash-Williams 1969, 113, 123, 127-8, 130.

**Dolddinas V**
Alternative names -
County - Gwynedd
NGR - SH734378
Area - 0.05ha (0.12 acres)
Condition - upstanding
Gates - (?) simple gap
Excavation - none known
References - Jones & Knowles 1960, 397-402; Taylor 1960, 211; St Joseph 1961, 131; Bowen & Gresham 1967, 242-3; Davies 1968, *passim*; Nash-Williams 1969, 113, 123, 127-8, 130.

**Dolphinton**
See - Kirkhouse

**Dornock**
Alternative names -
Region - Tayside
NGR - NN878189
Area - 9.6ha (23.7 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, reported in 1969 by St Joseph
References - St Joseph 1965, 81; 1969, 109, 114; Maxwell 1989a, 55; 1990a, 32.

**Drumlanrig**
Alternative names -
Region - Dumfries & Galloway
NGR - NX854989
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - Frere 1985, 267.

**Dryfield Farm**

See - Adamslee

**Drygrange**
Alternative names -
Region - Borders
NGR - NT573353
Area - absolute minimum 9.35ha (23 acres); probably between 12.5-16.5ha
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Maxwell & Wilson 1987, 37.

**Dullatur I**
Alternative names -
Region - Strathclyde
NGR - NS746767
Area - between 3.2-4.14ha (8-10.23 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches in 1975-6 by Keppie & Walker
References - St Joseph 1969, 108-9; Maxwell 1974, 329; DES 1975, 20-1; Goodburn 1976, 301; HMSO 1976, 142; DES 1976, 30; Frere 1977, 64; HMSO 1977, 165; Keppie 1978, 9-18; Hanson & Maxwell 1983, 117, 119, 127-8, 130; Sommer 1984, 55-6; Maxwell 1989a, 155.

**Dullatur II**
Alternative names -
Region - Strathclyde
NGR - NS746767
Area - between 1.54-2.1ha (3.8-5.2 acres)
Condition - cropmark
Gates - no information
Excavation - trenches in 1975-6 by Keppie & Walker
References - St Joseph 1969, 108-9; Maxwell 1974, 329; DES 1975, 20-1; Goodburn 1976, 301; HMSO 1976, 142; DES 1976, 30; Frere 1977, 64; HMSO 1977, 165; Keppie 1978, 9-18; Hanson & Maxwell 1983, 117, 119, 127-8, 130; Maxwell 1989a, 155.

**Dun**
Alternative names -
Region - Tayside
NGR - NO689595
Area - 3.3ha (8.25 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, 1973 by St Joseph; trenches & watching brief, 1990 by Rogers
References - St Joseph 1973, 225-6, 229; DES 1974, 8; Wilson 1974, 345; Maxwell 1981, 45; DES 1990, 40; Maxwell 1990a, 30; Rogers 1993, 277-90.

**Dunblane I**
Alternative names -
Region - Central
NGR - NN776006
Area - 13.2ha (32.6 acres)
Condition - cropmark
Gates - 4, some at least with *tituli*
Excavation - extensive trenching in 1966-7 by Robertson
References - St Joseph 1951a, 62; 1951b, 95-6; DES 1966, 37-8; Wilson 1967, 175; DES 1967, 36; Wilson 1968, 178; Robertson 1969, 35-6; Daniels 1970, 92; Hanson 1978, 142; Maxwell 1981, 40-2; Maxwell 1989a, 55-6; 1990a, 32.

**Dunblane II**
Alternative names -
Region - Central
NGR - NN776006
Area - 5.8ha (14.3 acres)
Condition - cropmark
Gates - 4, some at least with *tituli*
Excavation - extensive trenching in 1966-7 by Robertson
References - St Joseph 1951a, 62; 1951b, 95-6; DES 1966, 37-8; Wilson 1967, 175; DES 1967, 36; Wilson 1968, 178; Robertson 1969, 35-6; Daniels 1970, 92; Hanson 1978, 142; Maxwell 1981, 40-2; Maxwell 1989a, 55-6; 1990a, 32.

**Dunipace**
Alternative names -
Region - Central
NGR - NS842822
Area - 54.2ha (133.9 acres)
Condition - short stretches upstanding, partially cropmark
Gates - *tituli*
Excavation - trenches, 1987-90
References - Frere 1984, 275; Maxwell & Wilson 1987, 37; Frere 1988, 427; 1989, 271; 1990, 312; 1991, 230; Maxwell 1991, 9-11.

**Dunning**
Alternative names -
Region - Tayside
NGR - NO023150
Area - 47.25ha (116.75 acres)
Condition - short stretch upstanding, mainly cropmark
Gates - *tituli*
Excavation - trenches by St Joseph in (?)1970s; trenches by Keppie in 1988; area excavation at west gate by CFA in 1992
References - MacFarlane 1748, 121; Crawford 1949, 59; Feachem 1970, 120-4; Wilson 1970, 274; St Joseph 1973, 218-9, 228; DES 1974, 52; St Joseph 1977, 140, 145; Maxwell 1981, 28-9, 37, 40; Frere 1989, 267-70; Keppie 1988, no page number; Maxwell 1989a, 52-3, 58; 1990a, 18-9, 101-4; DES 1992, 101-2; Burnham, Keppie & Esmonde Cleary 1993, 277.

**Durisdeer I**
Alternative names -
Region - Dumfries & Galloway
NGR - NS892031
Area - an estimated 20.9ha (51.65 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1951, 59-60; DES 1993, 18; Burnham, Keppie & Esmonde Cleary 1994, 259.

**Durisdeer II**
Alternative names -
Region - Dumfries & Galloway
NGR - NS892031
Area - 6.2ha (15.25 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 59-60; Maxwell 1981, 40, 42; DES 1993, 18; Burnham, Keppie & Esmonde Cleary 1994, 259.

**Durno**
Alternative names - Bennachie; Logie Durno
Region - Grampian
NGR - NJ699272
Area - minimum of 57.3ha (141.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches in 1975-7 by St Joseph
References - St Joseph 1977, 141-2, 144; 1978, 271-87; Frere & St Joseph 1983, 30-1; Maxwell 1989a, 58-9; Maxwell 1990a, 52-3, 104-10.

**Eassie**
Alternative names -
Region - Tayside
NGR - NO351466
Area - absolute minimum 23.4ha (57.75 acres); part of the "63 acre series"
Condition - cropmark
Gates - *tituli*
Excavation - trench in 1970 by A.S. Robertson
References - St Joseph 1969, 111; DES 1970, 4; St Joseph 1973, 224; DES 1974, 7.

**Eastcote**
See - Denholm

**Easter Cadder**
See - Adamslee

**East Haven**
Alternative names -
Region - Tayside
NGR - no information
Area - no information ("small")
Condition - no information; presumably cropmark
Gates - no information
Excavation - none known
References - Maxwell 1990a, 30, 122.

**East Learmouth**
See - Learmouth

**Eaton Constantine**
See - Leighton

**Edenwood**
Alternative names - Cupar
Region - Fife
NGR - NO357117
Area - 25.1ha (62 acres)
Condition - partially upstanding, partially cropmark
Gates - *tituli*
Excavation - trenches, 1978-9
References - RCAHMS 1978, 14; DES 1978, 37; Maxwell 1978, 81; Goodburn 1979, 274; RCAHMS 1979, 6; Maxwell & Wilson 1987, 36; Maxwell 1989a, 65.

**Elginhaugh**
See - Lugton

**Ellisland I**
Alternative names - Dalswinton
Region - Dumfries & Galloway
NGR - NX928843
Area - 0.33ha (0.83 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 59; 1955, 85-6; 1973, 17; DES 1974, 32; St Joseph 1976, 10.

**Ellisland II**
Alternative names - Dalswinton
Region - Dumfries & Galloway
NGR - NX928843
Area - 0.78ha (1.94 acres)
Condition - cropmark
Gates - *tituli*

Excavation - none known
References - St Joseph 1951, 59; 1955, 85-6; 1973, 17; DES 1974, 32; St Joseph 1976, 10.

**Esgairperfedd**
Alternative names -
County - Powys
NGR - SN927699
Area - 6.25ha (15.5 acres)
Condition - upstanding
Gates - 4, with internal *claviculae*
Excavation - Allegedly by Crossley in 1966, though possibly only survey has been conducted
References - Hogg & Jones 1967, 274-6; Wilson 1967, 174; St Joseph 1969, 123, 125-6; Nash-Williams 1969, 124-6; St Joseph 1973, 242.

**Eshiels I**
Alternative names -
Region - Borders
NGR - NT281395
Area - 11.2ha (27.7 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1965, 78-9; RCAHMS 1967, 365; 1976, 8; Maxwell 1981, 40.

**Eshiels II**
Alternative names -
Region - Borders
NGR - NT281395
Area - 6.58ha (16.25 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1965, 78-9; RCAHMS 1967, 365; Maxwell 1981, 40.

**Eskbank I**
Alternative names -
Region - Lothian
NGR - NT321668
Area - absolute minimum 4.35ha (10.75 acres)
Condition - cropmark
Gates - *tituli*
Excavation - area excavation, by Maxfield, in 1972; section by Barber in 1981.
References - St Joseph 1965, 80; 1969, 108; DES 1972, 29, 56; HMSO 1972, 15; Wilson 1973, 275; Maxfield 1974, 141-50; Barber 1985, 149-51.

**Eskbank II**
Alternative names -

Region - Lothian
NGR - NT321668
Area - absolute minimum 7.43ha (18.75 acres); posited as one of "63 acre series"
Condition - cropmark
Gates - no information
Excavation - area excavation, by Maxfield, in 1972
References - St Joseph 1965, 80; 1969, 108; DES 1972, 29, 56; HMSO 1972, 15; Wilson 1973, 275; Maxfield 1974, 141-50; Barber 1985, 149-51.

**Fala**
Alternative names - Fala Mill
Region - Lothian
NGR - NT430619
Area - 2.7ha (6.67 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Maxwell & Wilson 1987, 38.

**Farnley I**
Alternative names -
County - Northumberland
NGR - NY995631
Area - 0.38ha (0.95 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 53.

**Farnley II**
Alternative names -
County - Northumberland
NGR - NY996631
Area - minimum of 0.76ha (1.9 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 53.

**Farnley III**
Alternative names -
County - Northumberland
NGR - NY997631
Area - 1.73ha (4.25 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 53.

**Farnsfield**
Alternative names -
County - Nottinghamshire
NGR - SK639558
Area - 4.2ha (10.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, 1978 by Swarbrick & Turner
References - Riley 1977, 189-92; Webster 1981, 99; Swarbrick & Turner 1982, 108-10; Whitwell 1982, 45; Maxwell & Wilson 1987, 8.

**Featherwood I**
Alternative names - Featherwood West; Foulplay; High Rochester
County - Northumberland
NGR - NT813058
Area - 16.4ha (40.4 acres)
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - MacLauchlan 1852, 35-6; Richmond 1940, 124-6; Hanson & Maxwell 1983, 66-7.

**Featherwood II**
Alternative names - Featherwood East; Foulplay; High Rochester
County - Northumberland
NGR - NT813058
Area - 16.6ha (41.15 acres)
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - St Joseph 1934, 242-3; Taylor 1935, 205; Richmond 1940, 124-6.

**Fell End**
Alternative names - Peatsteel Crags
County - Northumberland
NGR - NY685655
Area - 8.05ha (19.9 acres)
Condition - upstanding
Gates - no information
Excavation - none known
References - Collingwood Bruce 1978, 178; Bennett 1980, 151-72.

**Fforest-Gwladys**
See - Gelligaer Common V

**Finavon**
Alternative names -
Region - Tayside
NGR - NO497574

Area - 15ha (37.5 acres) *pace* Halpin
Condition - cropmark
Gates - *tituli*
Excavation - trenches, reported in 1965 and again in 1966; trenches 1987, by Halpin
References - St Joseph 1965, 83; 1969, 111, 114; 1973, 224, 229; DES 1974, 8; St Joseph 1976, 26; 1977, 140; Maxwell 1981, 41; Halpin 1987, 40-5; DES 1987, 58; Frere 1988, 425; Maxwell 1989a, 57-8; Halpin 1992, 171-82.

**Flotterstone**
See - Glencorse Mains

**Ford**
See - Woodhead

**Forteviot**
See - Broomhill

**Foulplay**
See - Featherwood

**Fourlaws**
Alternative names - Swine Hill
County - Northumberland
NGR - NY900822
Area - 2.6ha (6.4 acres)
Condition - upstanding
Gates - internal *claviculae*
Excavation - none known
References - MacLauchlan 1852, 26; Richmond 1940, 117-8; Collingwood Bruce 1978, 288.

**Four Laws**
See - Haltwhistle Common III

**Fourmerkland I**
Alternative names -
Region - Dumfries & Galloway
NGR - NX915800
Area - 5.9ha (14.7 acres)
Condition - cropmark
Gates - 4, with *tituli*
Excavation - none known
References - St Joseph 1951, 60; Maxwell 1981, 40, 42.

**Fourmerkland II**
Alternative names -
Region - Dumfries & Galloway
NGR - NX915800
Area - not clear, though small

Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1951, 60.

**Gagie**
Alternative names -
Region - Tayside
NGR - NO448383
Area - estimated 2-4ha (5-10 acres)
Condition - cropmark
Gates - no information
Excavation - trench, reported in 1973 by St Joseph
References - St Joseph 1973, 224, 229; DES 1974, 8.

**Galloberry**
Alternative names - Carzield; Gallaberry
Region - Dumfries & Galloway
NGR - NX964827
Area - 0.7ha (1.73 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, by St Joseph
References - Crawford 1939, 285; Taylor 1940, 160-2; Miller 1952, 120-2, 197; St Joseph 1976, 7, 28; Sommer 1984, 56.

**Garneddwen**
See - Rhyd Sarn

**Garnhall I**
Alternative names -
Region - Strathclyde
NGR - NS786779
Area - 4.76ha (11.75 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenching, 1989-91, by Keppie; area stripping, 1993, by Speller
References - St Joseph 1955, 86; 1965, 80; Maxwell 1974, 329; Hanson & Maxwell 1983, 118-9; Sommer 1984, 55-6; DES 1989, 59; Frere 1990, 312; DES 1990, 34; Frere 1992, 263-4; DES 1992, 70; Burnham, Keppie & Esmonde Cleary 1994, 255-6.

**Garnhall II**
Alternative names -
Region - Strathclyde
NGR - NS780779
Area - not clear, though absolute minimum of 2.8ha (6.9 acres)
Condition - cropmark
Gates - no information
Excavation - by Woolliscroft, *in litt.*

References - St Joseph 1965, 80; 1976, 12; Hanson & Maxwell 1983, 118; Burnham, Keppie & Esmonde Cleary 1993, 279.

**Garreglwyd**
See - Arosfa Gareg

**Gask House**
Alternative names -
Region - Tayside
NGR - NN991191
Area - 1.97ha (4.88 acres)
Condition - partially upstanding
Gates - *tituli*
Excavation - trenches, late nineteenth century, by Christison
References - Christison 1898, 430-1; 1901, 35-6; Crawford 1949, 53-4; St Joseph 1965, 81-2.

**Gelligaer Common I**
Alternative names - Bargoed
County - Mid-Glamorgan
NGR - ST138992
Area - 39.5 x 36.5m.
Condition - upstanding
Gates - internal *claviculae*
Excavation - none known
References - Taylor 1944, 76; St Joseph 1961, 126; Davies 1968, 105, 109, 119; Nash-Williams 1969, 91, 123, 127-9; RCAHMW 1976, 103.

**Gelligaer Common II**
Alternative names - Bargoed
County - Mid-Glamorgan
NGR - ST138992
Area - 24.4 x 20.7m.
Gates - internal *claviculae*
Excavation - none known
References - Taylor 1944, 76; St Joseph 1961, 126; Davies 1968, 105, 109, 119; Nash-Williams 1969, 91, 123, 127-9; RCAHMW 1976, 103, 105.

**Gelligaer Common III**
Alternative names - Bargoed
County - Mid-Glamorgan
NGR - ST131991
Area - 25 x 20.7m.
Condition - upstanding
Gates - internal *claviculae*
Excavation - none known
References - St Joseph 1961, 126; Davies 1968, 105, 109, 119; Nash-Williams 1969, 91, 123, 127-9; RCAHMW 1976, 103.

**Gelligaer Common IV**
Alternative names - Bargoed; Ty'r Mynydd
County - Mid-Glamorgan
NGR - ST116986
Area - 22 x 20m.
Condition - upstanding
Gates - (?) simple gap
Excavation - section revealed by a modern drain
References - St Joseph 1961, 126; Davies 1968, 105, 109, 119; Nash-Williams 1969, 91, 123, 127-9; RCAHMW 1976, 103.

**Gelligaer Common V**
Alternative names - Fforest Gwladys
County - Mid-Glamorgan
NGR - ST129994
Area - 22 x 25m.
Condition - upstanding (very slight)
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1969, 126; RCAHMW 1976, 103.

**Gilnockie**
Alternative names -
Region - Dumfries & Galloway
NGR - NY389792
Area - 10.1ha (25 acres)
Condition - partially upstanding
Gates - *tituli*
Excavation - none known
References - RCAHMS 1920, 27-8; Feachem 1950, 188-9; Taylor 1951, 122; St Joseph 1967, 114; Breeze 1979, 43; Maxwell 1989a, 46-7.

**Girvan I**
Alternative names -
Region - Strathclyde
NGR - NX193990
Area - (?) 21ha (51.9 acres)
Condition - cropmark
Gates - no information
Excavation - trenches, over 5 years in 1970s & 1980s
References - St Joseph 1978, 397-401; DES 1982, 29; Frere 1983, 289; 1984, 276; Maxwell & Wilson 1987, 34-5; DES 1993, 86.

**Girvan II**
Alternative names -
Region - Strathclyde
NGR - NX188991
Area - at least 6ha (15 acres)
Condition - cropmark

Gates - (?) simple gap
Excavation - trenches, 1980s
References - Rankov 1982, 339; Frere 1983, 289; 1984, 276; Maxwell & Wilson 1987, 34-5; Frere 1991, 230; DES 1993, 86; Burnham, Keppie & Esmonde Cleary 1994, 257, 259.

**Glanmiheli**
Alternative names -
County - Powys
NGR - SO157901
Area - estimated 4-5.25ha (10-13 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trench, reported in 1973 by St Joseph
References - St Joseph 1973, 235, 242; Webster 1981, 84.

**Glencorse Mains**
Alternative names - Flotterstone
Region - Lothian
NGR - NT233627
Area - 1.2ha (3 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - RCAHMS 1976, 25; Maxwell & Wilson 1987, 41.

**Glenlochar I**
Alternative names -
Region - Dumfries & Galloway
NGR - NX739642
Area - 13.5ha (33.3 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 60-1; Miller 1952, viii-ix; St Joseph 1958, 89; 1965, 79-80; Wilson 1975, 15, 19, 27; St Joseph 1976, 11-2, 28; Maxwell 1981, 52; Frere & St Joseph 1983, 27-9; Hanson & Maxwell 1983, 67.

**Glenlochar II**
Alternative names -
Region - Dumfries & Galloway
NGR - NX738645
Area - 9.8ha (24.25 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 60-1; Miller 1952, viii-ix; St Joseph 1958, 89; 1965, 79-80; Wilson 1975, 15, 19; St Joseph 1976, 11-2, 28; Maxwell 1981, 40-1; Frere & St Joseph 1983, 27-9.

**Glenlochar III**
Alternative names -
Region - Dumfries & Galloway
NGR - NX735645
Area - 6ha (15 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 60-1; Miller 1952, viii-ix; St Joseph 1958, 89; 1965, 79-80; Wilson 1975, 15, 19; St Joseph 1976, 11-2, 28; Frere & St Joseph 1983, 27-9; Sommer 1984, 56.

**Glenlochar IV**
Alternative names -
Region - Dumfries & Galloway
NGR - NX735645
Area - absolute minimum 6.4ha (15.8 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 60-1; Miller 1952, viii-ix; St Joseph 1958, 89; 1965, 79-80; Wilson 1975, 15, 19, 27; St Joseph 1976, 11-2, 28; Frere & St Joseph 1983, 27-9.

**GlenlocharV**
Alternative names -
Region - Dumfries & Galloway
NGR - NX735645
Area - absolute minimum 3.8ha (9.4 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1951, 60-1; Miller 1952, viii-ix; St Joseph 1958, 89; 1965, 79-80; Wilson 1975, 15, 19, 27; St Joseph 1976, 11-2, 28; Frere & St Joseph 1983, 27-9.

**Glenlochar VI**
Alternative names -
Region - Dumfries & Galloway
NGR - NX735645
Area - 0.37ha (0.92 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1951, 60-1; Miller 1952, viii-ix; St Joseph 1958, 89; 1965, 79-80; Wilson 1975, 15, 19, 27; St Joseph 1976, 11-2, 28; Frere & St Joseph 1983, 27-9.

**Glenlochar VII**
Alternative names -
Region - Dumfries & Galloway

NGR - NX735645
Area - 0.13ha (0.3 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1951, 60-1; Miller 1952, viii-ix; St Joseph 1958, 89; 1965, 79-80; Wilson 1975, 15, 19, 27; St Joseph 1976, 11-2, 28; Frere & St Joseph 1983, 27-9.

**Glenluce**
Alternative names -
Region - Dumfries & Galloway
NGR - NX196566
Area - perhaps 16ha (40 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - DES 1992, 90; Burnham, Keppie & Esmonde Cleary 1993, 281.

**Glenmailen**
See - Ythan Wells

**Glenwhelt Leazes**
Alternative names - Black Dikes
County - Northumberland
NGR - NY656655
Area - 1.2ha (3 acres)
Condition - cropmark
Gates - internal *claviculae & tituli*
Excavation - none known
References - Maclauchlan 1858, 49; Wilson 1974, 344; Lenoir 1977, 704, 711-2; Collingwood Bruce 1978, 206; Bennett 1980, 151-72.

**Gogar**
See - Millburn Tower

**Gogar Green**
Alternative names - Gogar
Region - Lothian
NGR - NT176718
Area - 7.5ha (18.5 acres)
Condition - cropmark
Gates - no information
Excavation - trenches, 1984, by Maxwell, and perhaps previously
References - RCAHMS 1980, 11; Rankov 1982, 340; Maxwell 1983d, 382; Maxwell & Wilson 1987, 38-9; Maxwell 1989a, 73.

**Gourdie**
Alternative names - Steed Stalls
Region - Tayside

NGR - NO115427
Area - 1.44ha (3.55 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Richmond 1943, 47-9; Crawford 1949, 75-6; St Joseph 1951, 64; Wilson 1974, 344; St Joseph 1976, 26; Maxwell 1981, 44; Maxwell 1989a, 102, 106-7.

**Grange**
See - Muiryfold

**Grassy Walls**
Alternative names -
Region - Tayside
NGR - NO105280
Area - 52.25ha (129 acres)
Condition - partially upstanding, partially cropmark
Gates - *tituli*
Excavation - none known
References - Roy 1793, 65-6, 85; Macdonald 1918, 232-3; Callander 1919, 137-45; Crawford 1949, 64-7; St Joseph 1951, 63; 1958, 91, 93; 1969, 118; 1973, 231; 1977, 143.

**Greatchesters**
See - Cawfields

**Greenlee Lough**
Alternative names - Dimisdale; West Hotbank
County - Northumberland
NGR - NY775695
Area - 1.46ha (3.6 acres)
Condition - upstanding
Gates - internal *claviculae*
Excavation - trenches, in 1983, by Adam Welfare
References - St Joseph 1955, 84; Collingwood Bruce 1978, 166; Bennett 1980, 154, 170; Frere 1984, 279-80.

**Greensforge I**
Alternative names -
County - Staffordshire
NGR - SO864884
Area - 0.34ha (0.83 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1966, 300-4; 1969, 104-5; 1973, 242-3.

**Greensforge II**
Alternative names -

County - Staffordshire
NGR - SO864884
Area - absolute minimum 0.42ha (1 acre)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1966, 300-4; 1969, 104-5; 1973, 242-3.

**Greensforge III**
Alternative names - Swindon
County - Staffordshire
NGR - SO856904
Area - 14.8ha (36.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - section revealed in roadside cutting
References - St Joseph 1969, 104-5; 1973, 233, 242-3.

**Greensforge IV**
Alternative names -
County - Staffordshire
NGR - SO858880
Area - 8ha (19.75 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1973, 233, 242-3.

**Greensforge V**
Alternative names -
County - Staffordshire
NGR - SO856885
Area - at least 11.34ha (28 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1973, 233, 242-3.

**Greensforge VI**
Alternative names -
County - Staffordshire
NGR - SO866891
Area - not clear, absolute minimum 2ha (4.95 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1973, 233, 242-3.

**Grey Havens**

See - Knock Cross

**Grindon I**
Alternative names - Coesike; Grindon School
County - Northumberland
NGR - NY818702
Area - 0.36ha (0.89 acres)
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - MacLauchlan 1858, 86; Collingwood Bruce 1978, 134; Bennett 1980, 151-4, 169; Wilson 1983, 35.

**Grindon II**
Alternative names - Coesike; Grindon School
County - Northumberland
NGR - NY819703
Area - 0.16ha (0.4 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Collingwood Bruce 1978, 134; Bennett 1980, 151-4, 169; Wilson 1983, 35.

**Grindon III**
Alternative names - Coesike; Grindon School
County - Northumberland
NGR - NY815698
Area - 0.16ha (0.4 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Collingwood Bruce 1978, 134; Bennett 1980, 151-4, 169.

**Grindon IV**
Alternative names -
County - Northumberland
NGR - NY818702
Area - not clear, but within 0.36ha (0.89 acres)
Condition - upstanding (very slight)
Gates - internal *claviculae* (possible)
Excavation - none known
References - Wilson 1983, 35.

**Grindon Hill**
See - Ladyshield I

**Grinsdale I**
Alternative names - Nowtler Hill

County - Cumbria
NGR - NY364570
Area - 0.54ha (1.32 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - MacLauchlan 1858, 79; St Joseph 1951, 55; Collingwood Bruce 1978, 244; Bennett 1980, 151-4, 170.

**Grinsdale II**
Alternative names - Nowtler Hill
County - Cumbria
NGR - NY360568
Area - 0.15ha (0.37 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - MacLauchlan 1858, 79; St Joseph 1951, 55; Collingwood Bruce 1978, 244; Bennett 1980, 151-4, 170.

**Grinsdale III**
Alternative names -
County - Cumbria
NGR - NY369575
Area - 0.66ha (1.23 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1958, 87; Maxwell & Wilson 1987, 14.

**Grinsdale IV**
Alternative names -
County - Cumbria
NGR - NY368574
Area - 2.25ha (5.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Maxwell & Wilson 1987, 14.

**Groat Haugh**
See - Norham

**Hafod Fawr**
See - Y Pigwn III

**Haltwhistle Burn I**
Alternative names -
County - Northumberland

NGR - NY716664
Area - 0.74ha (1.82 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenching, early twentieth century, by Gibson & Simpson
References - Gibson & Simpson 1909, 259-63; Collingwood Bruce 1978, 178; Bennett 1980, 151-2, 154, 158-9, 170; Frere & St Joseph 1983, 61-2; Higham 1986, 166.

**Haltwhistle Burn II**
Alternative names -
County - Northumberland
NGR - NY716664
Area - 0.35ha (0.87 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenching, early twentieth century, by Gibson & Simpson
References - Gibson & Simpson 1909, 259-63; Collingwood Bruce 1978, 178; Bennett 1980, 151-2, 154, 158-9, 170; Frere & St Joseph 1983, 61-2; Higham 1986, 166.

**Haltwhistle Burn III**
Alternative names -
County - Northumberland
NGR - NY714663
Area - 1.12ha (2.77 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenching, early twentieth century, by Gibson & Simpson
References - Gibson & Simpson 1909, 259-63; Collingwood Bruce 1978, 178; Bennett 1980, 154, 157-9, 170; Frere & St Joseph 1983, 61-2; Sommer 1984, 56; Higham 1986, 166.

**Haltwhistle Burn IV**
Alternative names - Haltwhistle Common
County - Northumberland
NGR - NY716665
Area - 0.09ha (0.23 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1969, 105; Collingwood Bruce 1978, 178; Bennett 1980, 151-4, 158-9, 170; Frere & St Joseph 1983, 61-2; Higham 1986, 166.

**Haltwhistle Common I**
Alternative names -
County - Northumberland
NGR - NY709663
Area - 15.05ha (37.2 acres)

Condition - partially upstanding, partially cropmark
Gates - no information
Excavation - none known
References - Collingwood Bruce 1978, 178; Bennett 1980, 160, 165, 168, 170.

**Haltwhistle Common II**
Alternative names -
County - Northumberland
NGR - NY708662
Area - 1.34ha (3.31 acres)
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - Collingwood Bruce 1978, 178; Bennett 1980, 154, 157, 160, 168, 170.

**Haltwhistle Common III**
Alternative names - Four Laws
County - Northumberland
NGR - NY705657
Area - 1.9ha (4.8 acres)
Condition - upstanding
Gates - (?) simple gap
Excavation - watching brief on trenches for field drains, by Austen in 1976
References - Frere 1977, 373; HMSO 1977, 39; Collingwood Bruce 1978, 178; Bennett 1980, 154, 157, 160, 170; Sommer 1984, 56.

**Haltwhistle Common IV**
Alternative names - Sunny Rigg
County - Northumberland
NGR - NY701659
Area - 0.16ha (0.4 acres)
Condition - upstanding
Gates - no information
Excavation - (?) watching brief, by Paul Austen
References - Frere 1977, 373; HMSO 1977, 39; Collingwood Bruce 1978, 178; Bennett 1980, 152, 154, 170.

**Haltwhistle Common V**
Alternative names - Sunny Rigg
County - Northumberland
NGR - NY699659
Area - 0.16ha (0.4 acres)
Condition - cropmark
Gates - no information
Excavation - (?) watching brief, by Paul Austen
References - Frere 1977, 373; HMSO 1977, 39; Collingwood Bruce 1978, 178; Bennett 1980, 152, 154, 170.

**Haltwhistle Common VI**

Alternative names - Sunny Rigg
County - Northumberland
NGR - NY698657
Area - 0.54ha (1.33 acres)
Condition - cropmark
Gates - 4, with *tituli*
Excavation - (?) watching brief, by Paul Austen
References - Frere 1977, 373; HMSO 1977, 39; Collingwood Bruce 1978, 178; Bennett 1980, 152, 154, 170.

**Hangingshaw**
Alternative names - Dinwoodie
Region - Dumfries & Galloway
NGR - NY097897
Area - not clear; absolute minimum 1.62ha (4 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1969, 108.

**Harefaulds**
See - Kirkbuddo

**Henshaw**
See - Seatsides

**High Cauldcoats**
Alternative names -
Region - Strathclyde
NGR - NS691414
Area - at least 5.3ha (13 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Frere 1990, 312.

**High Rochester**
See - Bellshiel, Birdhope I & II, Featherwood I & II, Sills Burn North, Sills Burn South

**Holme**
Alternative names
County - Nottinghamshire
NGR - SK810591
Area - not clear, absolute minimum 5.6ha (13.85 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1961, 120; McWhirr 1970, 12; Whitwell 1982, 35-6.

**Horsley**
See - Bagraw

**Horstead**
Alternative names -
County - Norfolk
NGR - TG257193
Area - 8.88ha (21.95 acres)
Condition - cropmark
Gates - 4, (?) simple gap
Excavation - none known
References - Wilson 1975, 261-3; Edwards 1976, 261-3; 1977, 225; 1978, 89, 100; Webster 1978, 106; Goodburn 1979, 307; Maxwell & Wilson 1987, 6.

**Inchtuthil I**
Alternative names -
Region - Tayside
NGR - NO120394
Area - 19.91ha (49.2 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - numerous trenches on defences and interior, by St Joseph
References - St Joseph 1958, 91; Richmond 1959, 104; DES 1960, 31; St Joseph 1961, 123; Wilson 1963, 127; St Joseph 1965, 82-3; Maxwell 1981, 37, 50-3; Maxwell 1982, 105-13; Frere & St Joseph 1983, 39-43; Pitts & St Joseph 1985, *passim*, but esp. 223-9, 239-44; Frere 1985b, 229-39.

**Inchtuthil II**
Alternative names -
Region - Tayside
NGR - NO120394
Area - 14ha (35 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - numerous trenches on defences and interior by St Joseph
References - St Joseph 1958, 91; Richmond 1959, 104; DES 1960, 31; St Joseph 1961, 123; Wilson 1963, 127; St Joseph 1965, 82-3; Maxwell 1981, 37, 50-3; Maxwell 1982, 105-13; Frere & St Joseph 1983, 39-43; Pitts & St Joseph 1985, *passim*, but esp. 223-9, 239-44; Frere 1985b, 229-39.

**Inchtuthil III**
Alternative names -
Region - Tayside
NGR - NO116393
Area - 0.94ha (2.33 acres)
Condition - cropmark
Gates - no information
Excavation - numerous trenches on defences, by St Joseph

References - St Joseph 1965, 82-3; Pitts & St Joseph 1985, *passim*, but esp. 223-9, 239-44.

**Innerfield**
See - Lochmaben

**Innerleithen**
Alternative names -
Region - Borders
NGR - NT330361
Area - not clear, absolute minimum 2.57ha (6.35 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 57; RCAHMS 1967, 171.

**Innerpeffray I**
Alternative names - Strageath
Region - Tayside
NGR - NN916182
Area - 54ha (133.5 acres)
Condition - partially upstanding, partially cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 63; 1955, 87; 1958, 90; 1973, 231; 1976, 22, 26, 28; 1977, 143; Maxwell 1989a, 65.

**Innerpeffray II**
Alternative names - Strageath
Region - Tayside
NGR - NN907182
Area - 27.33ha (67.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 63; 1958, 90, 93; 1969, 114; 1973, 230; 1976, 22, 26, 28; Maxwell 1989a, 65.

**Inveravon I**
Alternative names - Avonbank
Region - Central
NGR - NS961793
Area - 2.87ha (7.1 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1958, 89; 1965, 80; Maxwell 1974, 329; Hanson & Maxwell 1983, 117, 119.

**Inveravon II**
Alternative names - Avonbank
Region - Central
NGR - NS961793
Area - 0.47ha (1.16 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1958, 89; 1965, 80; Hanson & Maxwell 1983, 117, 119.

**Inveravon III**
Alternative names - Avonbank
Region - Central
NGR - NS957797
Area - 2.82ha (6.94 acres)
Condition - cropmark
Gates - *tituli*
Excavation - small area trench in 1983, by Lawrence Keppie
References - St Joseph 1961, 122; 1965, 80; Maxwell 1974, 329; Hanson & Maxwell 1983, 119; DES 1983, 2-3; Frere 1984, 276.

**Inveresk I**
Alternative names -
Region - Lothian
NGR - NT349711
Area - 21ha (53 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches, by St Joseph reported 1969 & 1981; major excavation by Hanson in 1984
References - St Joseph 1965, 80; 1969, 107-8; 1973, 231; 1977, 131; Rankov 1982, 340; Hanson & Maxwell 1983, 66-7; Hanson 1984; DES 1985, 30-1; Frere 1985, 265; Maxwell & Wilson 1987, 36-7.

**Inveresk II**
Alternative names -
Region - Lothian
NGR - NT348711
Area - perhaps 8.1ha (20 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches, by St Joseph reported 1969 & 1981; major excavation by Hanson in 1984
References - St Joseph 1965, 80; 1969, 107-8; Rankov 1982, 340; Hanson 1984; DES 1985, 30-1; Frere 1985, 265; Maxwell & Wilson 1987, 36-7.

**Invergowrie**
Alternative names -
Region - Tayside

NGR - NO345300
Area - perhaps 12ha (29.65 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Frere 1991, 228.

**Inverquharity**
Alternative names -
Region - Tayside
NGR - NO406580
Area - at least 2.35ha (5.8 acres)
Condition - cropmark
Gates - Stracathro-type
Excavation - trenches in 1984, by Maxwell & St Joseph
References - DES 1983, 32-3; Frere 1984, 274; DES 1984, 35; Frere 1985, 263; Maxwell & Wilson 1987, 16, 29; Maxwell 1989a, 56-7; 1990a, 54.

**Johnstonehall Farm**
See - Birrens III

**Kaimhouse**
Alternative names -
Region - Borders
NGR - NT167497
Area - probably in excess of 14ha (34 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Burnham, Keppie & Esmonde Cleary 1993, 284.

**Kair House**
Alternative names -
Region - Grampian
NGR - NO767766
Area - 52.5ha (129 acres)
Condition - partially upstanding, partially cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 65; 1958, 92-3; DES 1959, 25; St Joseph 1965, 83; 1973, 231, 233; 1976, 26; 1978, 279; Maxwell 1981, 40; 1989a, 65-6; 1990a, 84, 120-2.

**Kedslie**
Alternative names -
Region - Borders
NGR - NT556401
Area - 7.2ha (18.5 acres)
Condition - cropmark

Gates - 4, with *tituli*
Excavation - none known
References - Maxwell & Wilson 1987, 37-8.

**Keithock**
Alternative names - Battledykes Keithock
Region - Tayside
NGR - NO610640
Area - 25.6ha (63.25 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Roy 1793, 67; Old Statistical Account 1799, 123-4; Chalmers 1807, 176; Knox 1831, 90; Crawford 1949, 100-2; St Joseph 1951, 64-5; DES 1955, 5; St Joseph 1958, 92; 1961, 123; 1965, 83; 1969, 116-8; Maxwell 1989a, 43-4, 65.

**Kinglass Park**
Alternative names - Bo'ness
Region - Central
NGR - NT003810
Area - 2.22ha (5.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 62; 1955, 86; Feachem 1956, 333-6; Maxwell 1974, 329; Hanson & Maxwell 1983, 117, 119.

**Kinnell**
Alternative names -
Region - Tayside
NGR - NO614505
Area - 25.4ha (62.75 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches, in 1970, presumably by St Joseph
References - St Joseph 1969, 111-2; DES 1970, 4; St Joseph 1973, 224-5; DES 1974, 8; St Joseph 1977, 140; Maxwell 1989, 65.

**Kintore I**
Alternative names - Deer's Den
Region - Grampian
NGR - NJ787166
Area - 44.55ha (110 acres)
Condition - cropmark
Gates - *tituli*
Excavation - ditch section and watching brief in 1984 by Shepherd
References - Courtney 1868, 387-94; Crawford 1949, 112-5; St Joseph 1951, 65; 1958, 93; 1973, 231-2; DES 1984, 11-2; Shepherd 1986, 205-9; Frere 1988, 425; Maxwell 1990, 52.

**Kintore II**
Alternative names -
Region - Grampian
NGR - NJ784175
Area - not clear, probably not more than 12.15ha (30 acres)
Condition - cropmark
Gates - no information
Excavation - trenches, reported in 1976 by St Joseph
References - St Joseph 1977, 140.

**Kirkbuddo**
Alternative names - Harefaulds
Region - Tayside
NGR - NO491442
Area - 24ha (59.3 acres)
Condition - partially upstanding, partially cropmark
Gates - 6, with *tituli*
Excavation - none known
References - Roy 1793; Crawford 1949, 97-101; St Joseph 1958, 92; 1965; 83; 1973, 230; Breeze 1979, 45.

**Kirkby Thore I**
Alternative names -
Region - Cumbria
NGR - NY626252
Area - at least 4.95ha (12.2 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Goodburn 1979, 283; Shotter 1984, 13-4; Higham & Jones 1985, 17; Maxwell & Wilson 1987, 12.

**Kirkby Thore II**
Alternative names -
Region - Cumbria
NGR - NY626252
Area - at least 1.68ha (4.15 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Goodburn 1979, 283; Higham & Jones 1985, 17; Maxwell & Wilson 1987, 12.

**Kirkhouse**
Alternative names - Dolphinton
Region - Strathclyde
NGR - NT097462
Area - 15.66ha (38.7 acres)

Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, by Maxwell in 1985
References - Frere 1984, 276; 1986, 371, 374; Maxwell & Wilson 1987, 33.

**Kirkpatrick Fleming I**
Alternative names - Kirkpatrick
Region - Dumfries & Galloway
NGR - NY279702
Area - 25.5ha (63.1 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, 1968 by Gibbs; area excavations 1990-1, by Leslie
References - St Joseph 1951, 57; 1958, 89, 93; DES 1968, 14; Wilson 1969, 114, 204; St Joseph 1976, 6, 28; DES 1991, 12-3; Frere 1992, 266.

**Kirkpatrick Fleming II**
Alternative names - Kirkpatrick
Region - Dumfries & Galloway
NGR - NY278702
Area - 5.65ha (13.95 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1961, 122.

**Knock Cross**
Alternative names - Bowness; Grey Havens; Old Police House
County - Cumbria
NGR - NY230627
Area - 0.56ha (1.38 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 55; Bennett 1980, 152; Jones 1982, 296; Sommer 1984, 56; Jones 1992, 230-1.

**Ladyshield I**
Alternative names - Grindon Hill
County - Northumberland
NGR - NY824679
Area - 0.18ha (0.45 acres)
Condition - partially upstanding
Gates - no information
Excavation - none known
References - Taylor 1940, 165; Collingwood Bruce 1978, 132; Bennett 1980, 151-4, 169.

**Ladyshield II**

Alternative names - Sandyford; Seldom Seen
County - Northumberland
NGR - NY819678
Area - 0.62ha (1.5 acres)
Condition - cropmark
Gates - 4, with *tituli*
Excavation - none known
References - Taylor 1940, 165; Collingwood Bruce 1978, 132; Bennett 1980, 151-4, 169.

**Lamington**
Alternative names -
Region - Strathclyde
NGR - NS978309
Area - probably 9ha (22.5 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - DES 1977, 53; Goodburn 1978, 416; RCAHMS 1978, 160; Maxwell 1981, 40-1; Maxwell & Wilson 1987, 40-1.

**Learmouth**
Alternative names - East Learmouth
County - Northumberland
NGR - NT868370
Area - 13.95ha (34.4 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1961, 120; 1973, 215.

**Leighton I**
Alternative names - Cressage; Eaton Constantine
County - Shropshire
NGR - SJ597050
Area - at least 2.1ha (5.2 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1973, 234-5; Webster 1975, 26; St Joseph 1977, 146; Stanford 1980, 118, 124, 140; Webster 1981, 51; Todd 1981, 87.

**Leighton II**
Alternative names - Cressage; Eaton Constantine
County - Shropshire
NGR - SJ597050
Area - at least 0.27ha (0.67 acres)
Condition - cropmark
Gates - no information

Excavation - none known
References - St Joseph 1973, 234-5; Webster 1975, 26; St Joseph 1977, 146; Stanford 1980, 118, 124, 140; Webster 1981, 51; Todd 1981, 87.

**Limestone Corner**
See - Teppermoor Hill

**Lintrose**
Alternative names -
Region - Tayside
NGR - NO220376
Area - 24.2ha (59.7 acres)
Condition - partially upstanding, partially cropmark
Gates - *tituli*
Excavation - none known
References - Roy 1793; Crawford 1949, 84-6; St Joseph 1955, 87; 1958, 93; 1969, 116; Maxwell 1989a, 44.

**Little Clyde**
Alternative names -
Region - Strathclyde
NGR - NS994159
Area - 12.76ha (31.5 acres)
Condition - partially upstanding
Gates - *tituli*
Excavation - none known, though trenching nearby in 1992, by CFA
References - Christison 1890, 289-91; Collingwood & Taylor 1924, 207; Miller 1952, 112-3; RCAHMS 1978, 134-5; Maxwell 1989a, 46; DES 1992, 67.

**Little Kerse**
See - Polmont II

**Llandovery I**
Alternative names -
Region - Dyfed
NGR - SN807393
Area - no information, though very small
Condition - cropmark
Gates - no information
Excavation - none known
References - Davies 1968, 106, 119; Nash-Williams 1969, 130.

**Llandovery II**
See - Y Pigwn III

**Llandovery III**
See - Y Pigwn IV

**Llandrindod Common I**

Alternative names - Castell Collen
Region - Powys
NGR - SO055615
Area - 26 x 26 metres
Condition - now destroyed
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common II**
Alternative names - Castell Collen
Region - Powys
NGR - SO057613
Area - 26 x 26 metres
Condition - very slight remains exist
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common III**
Alternative names - Castell Collen
Region - Powys
NGR - SO058614
Area - 26 x 26 metres
Condition - now destroyed
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common IV**
Alternative names - Castell Collen
Region - Powys
NGR - SO056608
Area - 14 x 14 metres
Condition - now destroyed
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common V**
Alternative names - Castell Collen

Region - Powys
NGR - SO057608
Area - 20 x 20 metres
Condition - upstanding
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common VI**
Alternative names - Castell Collen
Region - Powys
NGR - SO056605
Area - 19 x 19 metres
Condition - cropmark
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common VII**
Alternative names - Castell Collen
Region - Powys
NGR - SO056604
Area - 29 x 29 metres
Condition - upstanding, as platform
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common VIII**
Alternative names - Castell Collen
Region - Powys
NGR - SO055602
Area - 27 x 27 metres
Condition - cropmark
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common IX**
Alternative names - Castell Collen
Region - Powys

NGR - SO055602
Area - 35 x 32 metres
Condition - upstanding
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common X**
Alternative names - Castell Collen
Region - Powys
NGR - SO056602
Area - 26 x 26 metres
Condition - partially cropmark, partially destroyed
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common XI**
Alternative names - Castell Collen
Region - Powys
NGR - SO054602
Area - 28 x 30 metres
Condition - cropmark
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common XII**
Alternative names - Castell Collen
Region - Powys
NGR - SO054601
Area - 18 x 18 metres
Condition - partially upstanding, partially cropmark
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common XIII**
Alternative names - Castell Collen
Region - Powys
NGR - SO053601

Area - 25 x 27 metres
Condition - upstanding
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common XIV**
Alternative names - Castell Collen
Region - Powys
NGR - SO053600
Area - 25 x 25 metres
Condition - now destroyed
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common XV**
Alternative names - Castell Collen
Region - Powys
NGR - SO052596
Area - 26 x 26 metres
Condition - partially upstanding
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common XVI**
Alternative names - Castell Collen
Region - Powys
NGR - SO051594
Area - 30 x 31 metres
Condition - upstanding
Gates - 4, with *claviculae* (allegedly also with *tituli*)
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common XVII**
Alternative names - Castell Collen
Region - Powys
NGR - SO051593
Area - 24 x 24 metres

Condition - cropmark
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common XVIII**
Alternative names - Castell Collen
Region - Powys
NGR - SO061603
Area - 32 x 17 metres
Condition - partially upstanding
Gates - 4, with *tituli*
Excavation - none known
References - Price 1814, 168-72; RCAHMW 1913, 80; Birley 1936, 69-73; St Joseph 1953, 86; 1955, 88; 1958, 96; 1961a, 272-3; Davies 1968a, 104-5, 109-10, 119; Daniels & Jones 1969, 124-33; Nash-Williams 1969, 127, 129.

**Llandrindod Common XIX**
Alternative names - Castell Collen
Region - Powys
NGR - SO049585
Area - no information, except of a similar scale to the others
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - Maxwell & Wilson 1987, 11; Wilson 1990, 16.

**Llanfor**
Alternative names -
Region - Gwynedd
NGR - SH938363
Area - at least 11.62ha (28.7 acres)
Condition - cropmark
Gates - no information
Excavation - trench in 1977, presumably by St Joseph
References - St Joseph 1977, 149-50; Goodburn 1978, 406; Frere & St Joseph 1983, 104-6; Maxwell & Wilson 1987, 11.

**Llwyn-crwn**
Alternative names -
Region - Gwynedd
NGR - SH713382
Area - 37 x 34 metres
Condition - partially upstanding, partially destroyed
Gates - no information
Excavation - none known

References - Bowen & Gresham 1967, 244; Davies 1968a, 105, 109-10, 120; Nash-Williams 1969, 130.

**Lochlands I**
Alternative names - Camelon; Carmuirs; Wester Carmuirs
Region - Central
NGR - NS851805
Area - 5.1ha (12.7 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1958, 89; 1961, 122-3; RCAHMS 1963, 108, 112; Maxwell 1981, 40-2; Hanson & Maxwell 1983, 117-9.

**Lochlands II**
Alternative names - Camelon; East Carmuirs
Region - Central
NGR - NS858806
Area - 2.1ha (5.1 acres)
Condition - cropmark (now destroyed by housing development)
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 62; Feachem 1956, 336-7; RCAHMS 1963, 108, 111-2; Hanson & Maxwell 1983, 119.

**Lochlands III**
Alternative names - Camelon
Region - Central
NGR - NS857810
Area - unclear, but probably not much less than 17.8ha (44 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - RCAHMS 1963, 108, 111; DES 1987, 2; Frere 1988, 426-7; DES 1993, 11; Burnham, Keppie & Esmonde Cleary 1994, 257.

**Lochlands IV**
Alternative names - Camelon
Region - Central
NGR - NS857808
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - Maxwell 1991, 10.

**Lochlands V**
Alternative names - Camelon
Region - Central

NGR - NS858810
Area - at least 1.25ha (3.1 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - RCAHMS 1963, 108, 111.

**Lochlands VI**
Alternative names - Camelon
Region - Central
NGR - NS858810
Area - at least 0.65ha (1.6 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - RCAHMS 1963, 108, 111.

**Lochlands VII**
Alternative names - Camelon
Region - Central
NGR - NS854812
Area - an absolute minimum of 0.93ha (2.3 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1977, 135; DES 1977, 34; Goodburn 1978, 413; Maxwell & Wilson 1987, 39.

**Lochlands VIII**
Alternative names - Camelon
Region - Central
NGR - NS856817
Area - 14.8ha (36.6 acres)
Condition - cropmark
Gates - *tituli* (though known example may be linked more to XI)
Excavation - trenches, 1981-3 by St Joseph & Maxwell
References - St Joseph 1951, 62; Feachem 1956, 336-9; RCAHMS 1963, 108, 111; St Joseph 1976, 27; DES 1982, 5; Frere 1983, 287-8; DES 1983, 2; Frere 1984, 275; Hanson & Maxwell 1983, 64-5, 67; Maxwell & Wislon 1987, 39; Frere 1989, 27.

**Lochlands IX**
Alternative names - Camelon
Region - Central
NGR - NS853819
Area - probably about 9.6ha (23.7 acres), though Maxwell 1989 - over 14ha (35 acres)
Condition - cropmark
Gates - Stracathro-type
Excavation - trenches, 1980-4 by St Joseph & Maxwell

References - DES 1981, 87; Rankov 1982, 337; Hanson & Maxwell 1983, 65; Frere & St Joseph 1983, 129; Maxwell & Wilson 1987, 29-30; Hanson 1987, 112, 125; Maxwell 1989a, 56; 1990a, 32-3.

**Lochlands X**
Alternative names - Camelon
Region - Central
NGR - NS852817
Area - at least 5.2ha (12.8 acres)
Condition - cropmark
Gates - external *clavicula* (potentially Stracathro-type)
Excavation - trenches, by St Joseph & Maxwell
References - DES 1981, 87; Rankov 1982, 337; Hanson & Maxwell 1983, 65; Frere & St Joseph 1983, 129; Maxwell & Wilson 1987, 32; Hanson 1987, 112; Maxwell 1990a, 32-3.

**Lochlands XI**
Alternative names - Camelon
Region - Central
NGR - NS853814
Area - at least 2.4ha (5.9 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches, by St Joseph & Maxwell
References - Maxwell & Wilson 1987, 39.

**Lochmaben**
Alternative names - Innerfield
Region - Dumfries & Galloway
NGR - NY092823
Area - at least 24.45ha (60.4 acres)
Condition - cropmark
Gates - no information
Excavation - trenches, in 1985, presumably by St Joseph
References - St Joseph 1969, 108; Frere 1986, 374.

**Longforgan**
Alternative names -
Region - Tayside
NGR - NO297300
Area - estimated 26.62ha (65.78 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches, reported by St Joseph; excavation scheduled for 1994, though no information available at time of writing
References - St Joseph 1969, 111; 1977, 140; Burnham, Keppie & Esmonde Cleary 1993, 277-8.

**Loughor**

See - Mynydd Carn Goch

**Lugton**
Alternative names - Elginhaugh
Region - Lothian
NGR - NT325674
Area - 0.64ha (1.58 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Sommer 1984, 56; Frere 1985, 265; Maxwell & Wilson 1987, 38.

**Lunanhead**
Alternative names -
Region - Tayside
NGR - NO468521
Area - not clear; probably of the 63 acre series
Condition - cropmark
Gates - no information
Excavation - trenches, reported by St Joseph in 1973
References - Crawford 1949, 136-7; St Joseph 1973, 224, 230; DES 1974, 7.

**Lyne I**
Alternative names -
Region - Borders
NGR - NT200410
Area - 19.75ha (48.8 acres)
Condition - cropmark
Gates - (?) *tituli*
Excavation - none known
References - St Joseph 1951, 57; 1955, 85; 1961, 121; Steer & Feachem 1962, 209, 215-7; St Joseph 1965, 79; RCAHMS 1967, 171-5; St Joseph 1973, 230; Hanson & Maxwell 1983, 67.

**Lyne II**
Alternative names -
Region - Borders
NGR - NT204405
Area - 10.92ha (27.1 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - by Colin Burgess, in 1975 and 1977
References - St Joseph 1973, 216-7; DES 1974, 49; 1975, 38; Goodburn 1976, 306; DES 1977, 27; Goodburn 1978, 418; Maxwell 1981, 40-1; Hanson & Maxwell 1983, 67.

**Mains of Strageath**
See - Strageath Cottage

**Malham**
Alternative names - Mastiles Lane
County - North Yorkshire
NGR - SD913655
Area - 8.2ha (20.25 acres)
Condition - cropmark
Gates - 4, with internal *claviculae*
Excavation - none known
References - St Joseph 1958, 97; Frere & St Joseph 1983, 22-3.

**Malling I**
Alternative names - Menteith
Region - Central
NGR - NN560000
Area - 10.4ha (25.7 acres)
Condition - partially upstanding, partially cropmark
Gates - Stracathro-type
Excavation - none known
References - St Joseph 1973, 223-4; DES 1973, 41; 1974, 52; St Joseph 1976, 23; Maxwell 1981, 33-5; Frere 1984, 275; Maxwell 1989a, 56; 1990a, 32-3.

**Malling II**
Alternative names - Menteith
Region - Central
NGR - NN560000
Area - 4.7ha (11.6 acres)
Condition - cropmark
Gates - Stracathro-type
Excavation - none known
References - DES 1977, 53; Goodburn 1978, 410; Maxwell 1981, 33-5; Frere 1984, 275; Maxwell & Wilson 1987, 29; Maxwell 1990a, 32-3.

**Marcus**
Alternative names -
Region - Tayside
NGR - NO511580
Area - at least 22.75ha (56.25 acres), probably 26ha (64.25 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trench, by John Sherriff in 1982; trenches by Eoin Halpin in 1987
References - St Joseph 1969, 111, 116; 1973, 230; DES 1982, 31; 1987, 58; Halpin 1987, 40-5; Frere 1988, 425-6; Maxwell 1989, 65; Halpin 1992, 171-82.

**Mastiles Lane**
See - Malham

**Maxton**
Alternative names -
Region - Borders

NGR - NT614304
Area - not clear, absolute minimum 2.36ha (5.8 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1965, 78.

**Melin Court**
Alternative names - Carn Caca
Region - West Glamorgan
NGR - SN837001
Area - 4.8ha (11.8 acres)
Condition - partially upstanding
Gates - no information
Excavation - section by means of agricultural drainage channel, 1985
References - DES 1974, 25-6; Wilson 1975, 223; DES 1985, 30; Frere 1986, 366.

**Menteith**
See - Malling

**Mertoun Bridge**
See - St Boswells

**Middlebie Hill I**
Alternative names -
Region - Dumfries & Galloway
NGR - NY208764
Area - not less than 12.75ha (31.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 58; 1955, 85; 1965, 79.

**Middlebie Hill II**
Alternative names -
Region - Dumfries & Galloway
NGR - NY208764
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1973, 217; DES 1974, 31.

**Milestone House**
Alternative names -
County - Northumberland
NGR - NY724661
Area - 12ha (29.65 acres)
Condition - upstanding

Gates - *tituli*
Excavation - none known
References - Collingwood Bruce 1978, 163; Bennett 1980, 157-60, 165, 170.

**Millburn Tower**
Alternative names - Gogar
Region - Lothian
NGR - NT173718
Area - not more than 10ha (24.7 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - Rankov 1982, 340; Maxwell 1983, 382; Maxwell & Wilson 1987, 38-9; Maxwell 1989a, 73.

**Millside Wood I**
Alternative names - Ulston Moor III
Region - Borders
NGR - NT690220
Area - 19.1ha (47.35 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1973, 216; DES 1974, 61; 1976, 84; St Joseph 1977, 131; Hanson & Maxwell 1983, 65-7.

**Millside Wood II**
Alternative names - Ulston Moor III
Region - Borders
NGR - NT690220
Area - 2.1ha (5.1 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1977, 131.

**Milnquarter**
Alternative names -
Region - Central
NGR - NS825793
Area - 2.1ha (5.2 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1955, 86; Feachem 1956, 329-32, 335-6; RCAHMS 1963, 119; Maxwell 1974, 329; Hanson & Maxwell 1983, 117, 119, 128.

**Milrighall**
Alternative names -

Region - Borders
NGR - NT536268
Area - 14.43ha (35.6 acres)
Condition - cropmark
Gates - external *claviculae*
Excavation - none known
References - DES 1977, 53; Goodburn 1978, 418; Maxwell & Wilson 1987, 32-3.

**Milton I**
Alternative names - Tassiesholm
Region - Dumfries & Galloway
NGR - NT092011
Area - 2.17ha (5.37 acres)
Condition - cropmark
Gates - 4, with *tituli*
Excavation - trenches, by Clarke, in 1950
References - Clarke 1950, 201, 214; St Joseph 1951, 58; Taylor 1951, 122-3; St Joseph 1955, 85; Sommer 1984, 56.

**Moss Side I**
Alternative names -
Region - Cumbria
NGR - NY457604
Area - 4.91ha (12.12 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 55; 1965, 78; Collingwood Bruce 1978, 234; Bennett 1980, 160, 170.

**Moss Side II**
Alternative names -
Region - Cumbria
NGR - NY457604
Area - 0.9ha (2.23 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 55; 1965, 78; Collingwood Bruce 1978, 234; Bennett 1980, 154, 170.

**Moss Side III**
Alternative names -
Region - Cumbria
NGR - no information
Area - no information
Condition - no information
Gates - no information
Excavation - none known

References - Bennett 1980, 172.

**Muirhouses**
Alternative names - Bo'ness
Region - Central
NGR - NT016807
Area - 1.7ha (4.1 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - DES 1960, 40; St Joseph 1961, 122; Taylor & Wilson 1961, 160-1; Maxwell 1974, 329; Hanson & Maxwell 1983, 119; Sommer 1984, 55-6; Bailey & Devereux 1987, 101.

**Muiryfold**
Alternative names - Grange
Region - Grampian
NGR - NJ489521
Area - 44.1ha (109 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trenches, by St Joseph, unpublished
References - St Joseph 1961, 123; 1965, 84; 1973, 231-2; Hanson 1987, 132-4, 136; Maxwell 1989a, 58; 1990a, 52, 99, 108.

**Mynydd Carn Goch I**
Alternative names - Loughor; Pen-y Waun
Region - Glamorgan
NGR - SS608971
Area - 25 x 25 metres
Condition - upstanding
Gates - (?) simple gap (St Joseph noted internal *claviculae*)
Excavation - none known
References - Carlisle 1811, s.v. Loughor; Lewis 1838, s.v. Loughor; Anon. 1886, 343; St Joseph 1958, 97; 1961a, 273; 1961b, 126-7; Davies 1968a, 105, 108-10, 119; Nash-Williams 1969, 128-9; RCAHMW 1976, 101, 103; Lenoir 1977, 704, 706, 710, 718.

**Mynydd Carn Goch II**
Alternative names - Loughor; Pen-y-Waun
Region - Glamorgan
NGR - SS607971
Area - 23 x 23 metres
Condition - upstanding
Gates - 4, with internal *claviculae*
Excavation - none known
References - Carlisle 1811, s.v. Loughor; Lewis 1838, s.v. Loughor; Anon. 1886, 343; St Joseph 1958, 97; 1961a, 273; 1961b, 126-7; Davies 1968a, 105, 108-10, 119;

Nash-Williams 1969, 128-9; RCAHMW 1976, 101, 103, 105; Lenoir 1977, 704, 706, 710, 718.

**Nantmel**
Alternative names - Dolau
Region - Powys
NGR - no information
Area - no information
Condition - cropmark
Gates - no information
Excavation - none known
References - Browne & Hogg 1987, 23; Burnham & Davies 1990, 3.

**Newstead I**
Alternative names -
Region - Borders
NGR - NT574342
Area - 19.8ha (49 acres)
Condition - cropmark
Gates - 4, with *tituli*
Excavation - 1906-7, 1909, by Curle
References - Curle 1911, 15-20; RCAHMS 1956, 316, 320; St Joseph 1958, 87-8; 1969, 119; Wilson 1974, 18-9; Maxwell 1981, 37-8, 41, 43.

**Newstead II**
Alternative names -
Region - Borders
NGR - NT574342
Area - unclear, but probably at least 20ha (50 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - RCAHMS 1956, 316, 320; St Joseph 1969, 119; Wilson 1974, 18-9.

**Newstead III**
Alternative names -
Region - Borders
NGR - NT574342
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - RCAHMS 1956, 316, 320; St Joseph 1969, 119; Wilson 1974, 18-9.

**Newstead IV**
Alternative names -
Region - Borders
NGR - NT570337
Area - 16.6ha (41 acres)

Condition - cropmark
Gates - (?) *tituli*
Excavation - none known
References - St Joseph 1951, 57; RCAHMS 1956, 316, 320; Wilson 1974, 18-9;n Maxwell 1981, 37-8, 41, 43.

**Newstead V**
Alternative names -
Region - Borders
NGR - NT563330
Area - 60.6ha (149.7 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - RCAHMS 1956, 316, 320; St Joseph 1958, 787-8; 1961, 121; 1969, 118-9; 1973, 216; Wilson 1974, 18-9; DES 1974, 61; Frere 1989, 272; 1990, 313.

**Newstead VI**
Alternative names -
Region - Borders
NGR - NT574342
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1958, 87-8; 1969, 118-9; Wilson 1974, 18-9; Frere & St Joseph 1983, 120-2.

**Newstead VII**
Alternative names -
Region - Borders
NGR - NT578341
Area - 1.62ha (4 acres)
Condition - cropmark
Gates - no information
Excavation - trenches, in 1991 & 1993, by St Joseph
References - St Joseph 1992; Burnham, Keppie & Esmonde Cleary 1994, 261.

**Newton Kyme**
Alternative names -
County - Yorkshire
NGR - no information
Area - 1.6ha (3.95 acres)
Condition - cropmark
Gates - (?) allegedly *claviculae*, though the published data hardly supports this
Excavation - small area excavation in 1979, by McCullagh & Crone
References - Monaghan 1991, 51-8.

**Newton-on-Trent I**

Alternative names -
County - Lincolnshire
NGR - SK825733
Area - not clear
Condition - cropmark
Gates - *claviculae*
Excavation - none known
References - St Joseph 1969, 104; Webster 1981, 98.

**Newton-on-Trent II**
Alternative names -
County - Lincolnshire
NGR - SK825733
Area - not clear, but absolute minimum of 4.25 (10.5 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1969, 128; Whitwell 1982, 35.

**Norham**
Alternative names - Groat Haugh
County - Northumberland
NGR - NT889454
Area - 0.6ha (1.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1973, 215.

**Normandykes**
Alternative names - Peterculter
Region - Grampian
NGR - NO829993
Area - 42.6ha (105.2 acres)
Condition - partially upstanding, partially cropmark
Gates - *tituli*
Excavation - trenches in 1935, by Richmond & McIntyre
References - OSA 1795, 380; Chalmers 1807, 125; Taylor 1936, 237; Simpson 1943, 57-8; Crawford 1949, 110-2; St Joseph 1951, 65; 1969, 118; 1973, 231; Maxwell 1990a, 52, 92.

**North Tawton I**
Alternative names -
County - Devon
NGR - SS662005
Area - perhaps 15.35ha (38 acres)
Condition - cropmark
Gates - no information
Excavation - none known

References - St Joseph 1977, 125-6; Silvester 1978, 249-54; Maxfield 1980, 297-9; Sommer 1984, 57; Maxwell & Wilson 1987, 3-4.

**North Tawton II**
Alternative names -
County - Devon
NGR - SS663006
Area - absolute minimum 0.63ha (1.55 acres), and probably significantly larger
Condition - cropmark
Gates - no information
Excavation - none known
References - Frere 1985, 305; Maxwell & Wilson 1987, 3-4.

**Norton I**
See - Wroxeter II

**Norton II**
See - Attingham Park I

**Nowtler Hill**
See - Grinsdale I & II

**Nyadd**
See - Ochtertyre

**Oakwood**
Alternative names -
Region - Borders
NGR - NT425255
Area - 16ha (40 acres)
Condition - partially upstanding
Gates - 4, with double *claviculae*
Excavation - trenches, 1951-2, by Steer and Feachem
References - CBA 1949, 11; Taylor 1950, 95; Steer & Feachem 1952, 81-6, 105; CBA 1953, 15-6; Taylor 1953, 110; RCAHMS 1957, 99-102; Lenoir 1977, 705, 713-4; Maxwell 1981, 37; 1989a, 50-1.

**Oathlaw**
Alternative names - Battledykes Oathlaw
Region - Tayside
NGR - NO458555
Area - maximum of 53ha (130.9 acres)
Condition - barely upstanding
Gates - 6, with *tituli*
Excavation - none known
References - Maitland 1757, 200; Roy 1793, 66; NSA 1845, 297; Crawford 1949, 93-7; St Joseph 1951, 64; 1969, 118; Maxwell 1989a, 44; 1990a, 82.

**Ochtertyre**

Alternative names - Nyadd
Region - Central
NGR - NS746981
Area - probably no more than 6ha (15 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Frere 1983, 288; Maxwell & Wilson 1987, 39-40; Maxwell 1990a, 32-3.

**Old Penrith I**
Alternative names -
County - Cumbria
NGR - NY493384
Area - 1.3ha (3.2 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 54; Poulter 1982, 51-65.

**Old Police House**
See - Knock Cross

**Oxton**
See - Channelkirk II & III

**Pathhead I**
Alternative names -
Region - Lothian
NGR - NT396636
Area - 20.4ha (50.42 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1958, 88; 1961, 121; Wilson 1975, 14; St Joseph 1976, 6; Hanson & Maxwell 1983, 65, 67.

**Pathhead II**
Alternative names -
Region - Lothian
NGR - NT396636
Area - 5.26ha (13 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1958, 88.

**Pathhead III**
Alternative names -
Region - Lothian

NGR - NT399632
Area - not clear, but assigned to the (67ha) 165 acre series
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, reported by St Joseph in 1973
References - St Joseph 1969, 107; 1973, 216; DES 1974, 47; Maxwell 1989a, 60-1.

**Peatsteel Crags**
See - Fell End

**Pennymuir I**
Alternative names -
Region - Borders
NGR - NT755139
Area - 17.4ha (42.9 acres)
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - St Joseph 1936, 107-12; Taylor 1936, 238; RCAHMS 1956, 375-7; Frere & St Joseph 1983, 29-30; Hanson & Maxwell 1983, 65-7; Maxwell 1989a, 46-7.

**Pennymuir II**
Alternative names -
Region - Borders
NGR - NT755139
Area - 3.67ha (9.05 acres)
Condition - largely upstanding
Gates - *tituli*
Excavation - none known
References - St Joseph 1936, 107-12; Taylor 1936, 238; RCAHMS 1956, 375-7; Frere & St Joseph 1983, 29-30; Maxwell 1989a, 46-7.

**Pennymuir III**
Alternative names -
Region - Borders
NGR - NT755147
Area - 6ha (15 acres)
Condition - partially upstanding
Gates - *tituli*
Excavation - trench, by Aitchison in 1949; also sections seen by means of field drains
References - Taylor 1948, 83; RCAHMS 1956, 375-7; Frere & St Joseph 1983, 29-30; Maxwell 1989a, 47.

**Pennymuir IV**
Alternative names -
Region - Borders
NGR - NT755147
Area - not clear
Condition - upstanding

Gates - no information
Excavation - none known
References - RCAHMS 1956, 375-7; Frere & St Joseph 1983, 29-30; Maxwell 1989a, 47.

**Penrhos**
Alternative names -
Region - Clwyd
NGR - SJ042427
Area - 16.8ha (41.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1973, 237, 242-4; Wilson 1990, 15.

**Pen-y-Coedcae**
Alternative names -
Region - Mid-Glamorgan
NGR - ST067088
Area - 15.2ha (37.5 acres)
Condition - partially upstanding
Gates - possible internal *claviculae*
Excavation - none known
References - Richmond 1959, 102; St Joseph 1961a, 269; Nash-Williams 1969, 124; RCAHMW 1976, 98-9, 102.

**Pen-y-Gwryd**
Alternative names -
Region - Gwynedd
NGR - SH660557
Area - 4ha (9.9 acres)
Condition - partially upstanding
Gates - (?) simple gap
Excavation - trenches, J.E. Jones in 1960-2; makeshift section during roadworks, 1968
References - Taylor 1955, 121; CBA 1963, 10; Wilson 1964, 152; Webster 1970, 184-6; RCAHMW 1976, 31-2.

**Pen-y-Waun**
See - Mynydd Carn Goch

**Peterculter**
See - Normandykes

**Plumpton Head**
Alternative names -
County - Cumbria
NGR - NY500354
Area - estimated 11.1ha (27.5 acres)
Condition - slight upstanding remains, mainly cropmark

Gates - 11, with *tituli*
Excavation - none known
References - St Joseph 1951, 54; 1955, 83; Wilson 1974, 347; 1975, 232-3; Maxwell 1981, 37, 39; Maxwell & Wilson 1987, 12.

**Polmont I**
Alternative names - Polmonthill
Region - Central
NGR - NS947789
Area - 1.15ha (2.85 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 62; RCAHMS 1963, 449; St Joseph 1965, 80; Hanson & Maxwell 1983, 119; Maxwell 1989a, 155.

**Polmont II**
Alternative names - Little Kerse
Region - Central
NGR - NS943788
Area - 2.2ha (5.4 acres)
Condition - cropmark
Gates - *tituli*
Excavation - by McCord and Tait in 1963
References - St Joseph 1951, 62; Feachem 1956, 332-4; DES 1963, 59; RCAHMS 1963, 106-7; McCord & Tait 1978, 368-72; Hanson & Maxwell 1983, 117, 119; Maxwell 1989a, 155.

**Pont Rhyd Sarn**
See - Rhyd Sarn

**Quatt**
Alternative names -
County - Shropshire
NGR - SO738890
Area - 1.2ha (3 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - Maxwell & Wilson 1987, 9.

**Raedykes**
Alternative names -
Region - Grampian
NGR - NO842902
Area - 37.5ha (92.7 acres)
Condition - upstanding
Gates - 6, with *tituli*
Excavation - by Macdonald, in 1914

References - Maitland 1757, 202; Roy 1793, pl. 50; Macdonald 1916, 317-48; 1939, 250-2; Crawford 1949, 108-10, 128-33; St Joseph 1977, 143-4; 1978, 277-8; Maxwell 1989a, 44-5; 1990a, 52-3, 84-5, 92-6, 109.

**Reycross**
Alternative names -
County - Durham
NGR - NY900123
Area - 8ha (20.1 acres)
Condition - upstanding
Gates - 11, with *tituli*
Excavation - in 1990, by Robinson
References - Roy 1793; Simpson 1881, 69-75; Richmond & McIntyre 1934, 50-8; Taylor 1935, 205; Richmond 1955, 298; Ogilvie & Richmond 1967, 62; Collingwood & Richmond 1969, 10-11; Wilson 1974, 347; Hanson 1978, 142; Maxwell 1981, 37, 39, 46; Frere & St Joseph 1983, 23-5; Shotter 1984, 13-4; Higham & Jones 1985, 15-6; Robinson 1990, 64-5; Frere 1991, 237-8.

**Rhyd Sarn I**
Alternative names - Caer Gai; Garneddwen; Pont Rhyd Sarn
Region - Gwynedd
NGR - SH858278
Area - 0.2ha (0.5 acres)
Condition - destroyed by forestry plantation
Gates - 2, with internal *claviculae*
Excavation - none known
References - Taylor & Wilson 1961, 157; Jones 1962, 254-5; Bowen & Gresham 1967, 243; Davies 1968, 106, 109-10, 119; Nash-Williams 1969, 127-8.

**Rhyd Sarn II**
Alternative names - Caer Gai; Garneddwen; Pont Rhyd Sarn
Region - Gwynedd
NGR - SH860278
Area - 0.4ha (0.95 acres)
Condition - upstanding
Gates - 2, with internal *claviculae*
Excavation - none known
References - St Joseph 1965, 86; Davies 1968, 106, 109-10, 119; Nash-Williams 1969, 127-8.

**Ruthwell**
Alternative names -
Region - Dumfries & Galloway
NGR - NY102677
Area - at least 2.23ha (5.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - DES 1969, 4; Maxwell & Wilson 1987, 40.

**St Boswells I**
Alternative names - Mertoun Bridge
Region - Borders
NGR - NT605317
Area - 5.5ha (13.5 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1965, 78; 1969, 107.

**St Boswells II**
Alternative names - Mertoun Bridge
Region - Borders
NGR - NT604316
Area - 21.7ha (53.7 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1969, 107; Hanson & Maxwell 1983, 65-7.

**St Harmon**
Alternative names - Cwm-is-y-Rhiw
Region - Powys
NGR - SN985717
Area - 7.74ha (19.1 acres)
Condition - partially upstanding, partially cropmark
Gates - internal *claviculae*
Excavation - none known
References - St Joseph 1969, 123, 125; Nash-Williams 1969, 126, 200; St Joseph 1973, 242.

**St Leonards**
Alternative names - St Leonard's Hill
Region - Borders
NGR - NT548455
Area - 66.72ha (164.74 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - St Joseph 1951, 57; 1955, 85; RCAHMS 1956, 312; St Joseph 1958, 88; 1961, 121; 1965, 78; Maxwell 1989a, 60-2.

**St Madoes**
Alternative names -
Region - Tayside
NGR - NO209196
Area - not clear
Condition - cropmark

Gates - *tituli*
Excavation - none known
References - St Joseph 1969, 110-1; Maxwell 1989a, 65; 1990, 122.

**Sandyford**
See - Ladyshield II

**Scaftworth**
Alternative names -
County - Nottinghamshire
NGR - no information
Area - no information
Condition - cropmark
Gates - no information
Excavation - none known
References - Griffith 1990, 25.

**Scone**
Alternative names - Scone Park
Region - Tayside
NGR - NO105272
Area - at least 21.6ha (53.3 acres); part of St Joseph's 63 acre series
Condition - cropmark
Gates - *tituli*
Excavation - trenches
References - St Joseph 1955, 87; 1969, 111; Maxwell 1989a, 65.

**Seatsides I**
Alternative names - Chesterholm; Henshaw
County - Northumberland
NGR - NY757661
Area - 0.32ha (0.8 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 55; Collingwood Bruce 1978, 162; Bennett 1980, 151, 154, 161, 170.

**Seatsides II**
Alternative names - Chesterholm; Henshaw
County - Northumberland
NGR - NY755660
Area - 0.16ha (0.4 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - no information
References - Collingwood Bruce 1978, 162; Bennett 1980, 151, 154, 161, 170.

**Seatsides III**

Alternative names - Henshaw
County - Northumberland
NGR - NY753664
Area - 3.53ha (8.72 acres)
Condition - cropmark
Gates - 4, with *tituli*
Excavation - none known
References - Taylor 1939, 202; Collingwood Bruce 1978, 162; Bennett 1980, 160-3, 170.

**Seatsides IV**
Alternative names - Henshaw
County - Northumberland
NGR - NY752662
Area - 4.76ha (11.76 acres)
Condition - Partially upstanding, partially cropmark
Gates - 4, with *tituli*
Excavation - none known
References - Taylor 1939, 202; Collingwood Bruce 1978, 162; Bennett 1980, 160-3, 170.

**Seatsides V**
Alternative names - Henshaw
County - Northumberland
NGR - NY751668
Area - 1.08ha (2.67 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - Collingwood Bruce 1978, 162; Bennett 1980, 154, 160-3, 170.

**Seldom Seen**
See - Ladyshield II

**Shawhead I**
Alternative names -
Region - Dumfries & Galloway
NGR - NX878762
Area - not enough information
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1961, 122.

**Shawhead II**
Alternative names -
Region - Dumfries & Galloway
NGR - NX878762
Area - not enough information

Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1961, 122.

**Silloans**
Alternative names -
County - Northumberland
NGR - NT822007
Area - 18.8ha (46.45 acres)
Condition - upstanding
Gates - 4, 2 with *tituli*
Excavation - none known
References - Richmond 1940, 124-5; Maxwell 1981, 37, 39; 1990a, 16.

**Sills Burn North**
Alternative names - High Rochester
County - Northumberland
NGR - NT826999
Area - 1.93ha (4.78 acres)
Condition - upstanding
Gates - 4, with internal *claviculae*
Excavation - none known
References - St Joseph 1934, 241-2; Taylor 1935, 205; Richmond 1940, 117, 124.

**Sills Burn South**
Alternative names - High Rochester
County - Northumberland
NGR - NT826996
Area - 2.1ha (5.16 acres)
Condition - upstanding
Gates - internal *claviculae*
Excavation - none known
References - St Joseph 1934, 241; Taylor 1935, 205; Richmond 1940, 117, 124.

**Smeaton**
See - Dalkeith

**Spittal**
See - Carlops

**Stafford Common**
Alternative names -
Region - West Glamorgan
NGR - SS591973
Area - 53 x 46 metres
Condition - upstanding
Gates - none detected
Excavation - none known

References - St Joseph 1961a, 273; 1961b, 127; Davies 1968, 105-6, 108-9, 120; Nash-Williams 1969, 129; RCAHMW 1976, 101.

**Steed Stalls**
See - Gourdie

**Stracathro**
Alternative names -
Region - Tayside
NGR - NO614656
Area - 15.7ha (38.8 acres)
Condition - cropmark
Gates - Stracathro-type
Excavation - trenches, by St Joseph in 1967
References - St Joseph 1955, 87; DES 1955, 5; St Joseph 1958, 92-3; 1961, 123; St Joseph 1970, 171-5; Wilson 1974, 344; Maxwell 1981, 32, 34; 1989a, 50, 56; 1990a, 16, 18-9, 52, 54, 118.

**Strageath**
See - Innerpeffray

**Strageath Cottage**
Alternative names - Mains of Strageath
Region - Tayside
NGR - NN890181
Area - 13.63ha (33.67 acres)
Condition - cropmark
Gates - no information
Excavation - trenches, in 1979, reported by Maxwell
References - Maxwell 1981, 41; Maxwell & Wilson 1987, 36; Maxwell 1990a, 32.

**Stretford Bridge I**
Alternative names -
Region - Shropshire
NGR - SO429842
Area - at least 14ha (35 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1965, 85; Stanford 1968, 225; St Joseph 1973, 242.

**Stretford Bridge II**
Alternative names -
Region - Shropshire
NGR - SO431839
Area - not clear, but no more than a few acres
Condition - cropmark
Gates - no information
Excavation - none known

References - St Joseph 1973, 242.

**Summerston**
Alternative names - Temple of Boclair
Region - Strathclyde
NGR - NS574723
Area - 2.3ha (5.7 acres)
Condition - cropmark
Gates - no information
Excavation - trench, in 1980 by Hanson & Maxwell
References - DES 1977, 53; Goodburn 1978, 413; DES 1981, 87; Grew 1981, 320; Hanson & Maxwell 1983, 118-20; Maxwell & Wilson 1987, 28.

**Sunny Rigg**
See - Haltwhistle Common IV - VII

**Swindon**
See - Greensforge III

**Swine Hill**
See - Four Laws

**Tamfourhill**
Alternative names -
Region - Central
NGR - NS859794
Area - 2.77ha (6.85 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - DES 1977, 53; Goodburn 1978, 413; Hanson & Maxwell 1983, 117-9; Maxwell & Wilson 1987, 29; Maxwell 1989a, 157.

**Tassiesholm**
See - Milton

**Temple of Boclair**
See - Summerston

**Teppermoor Hill**
Alternative names - Limestone Corner; Walwick Fell II
County - Northumberland
NGR - NY877714
Area - 0.25ha (0.63 acres)
Condition - upstanding
Gates - *tituli*
Excavation - in 1912, by Philip Newbold
References - MacLauchlan 1858, 33; Newbold 1913, 71-4; Collingwood Bruce 1978, 124; Bennett 1980, 151-2, 154, 169.

**Tollpark**
Alternative names - Castlecary (N.B. Garnhall camps have also been called Tollpark)
Region - Strathclyde
NGR - NS778775
Area - 2.1ha (5.2 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1951, 62; 1955, 86; Feachem 1956, 329-30, 335-6; Maxwell 1974, 329; Hanson & Maxwell 1983, 117, 119; Maxwell 1989a, 157.

**Tomen-y-Mur I**
Alternative names -
Region - Gwynedd
NGR - SH704387
Area - 17 x 17 metres
Condition - upstanding
Gates - 2, with *tituli*
Excavation - none known
References - St Joseph 1951, 130-1; 1961a, 273; Bowen & Gresham 1967, 243-4; Davies 1968a, 105, 109-10, 120; Nash-Williams 1969, 130.

**Torwood**
Alternative names -
Region - Dumfries & Galloway
NGR - NY120818
Area - 13.9ha (34.4 acres)
Condition - upstanding
Gates - *tituli*
Excavation - none known
References - Taylor 1939, 200; Crawford 1939, 284; St Joseph 1951, 58; Miller 1952, 101; St Joseph 1965, 79; Hanson & Maxwell 1983, 67.

**Tower Tye**
See - Walwick Fell I

**Trailflat**
Alternative names -
Region - Dumfries & Galloway
NGR - NY049850
Area - 1.6ha (3.9 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - Frere 1984, 276; Maxwell & Wilson 1987, 40.

**Troutbeck I**
Alternative names -

County - Cumbria
NGR - NY378273
Area - 4ha (10 acres)
Condition - upstanding
Gates - 4, with internal *claviculae*
Excavation - trenches, in 1955 by Bellhouse and in 1973 by Charlesworth
References - St Joseph 1955, 84; Bellhouse 1957, 28-36; Richmond & Taylor 1958, 135; St Joseph 1973, 215; Wilson 1974, 412-3; Lenoir 1977, 707; Frere & St Joseph 1983, 24-7; Sommer 1984, 56; Higham & Jones 1985, 18-9; Higham 1986, 174.

**Troutbeck II**
Alternative names -
County - Cumbria
NGR - NY387273
Area - 16.2ha (40 acres)
Condition - upstanding
Gates - 4, with internal and external *claviculae*
Excavation - none known
References - St Joseph 1955, 84; Bellhouse 1957, 28-36; Richmond & Taylor 1958, 135; Lenoir 1977, 707; Maxwell 1981, 37, 39; Frere & St Joseph 1983, 24-7; Higham & Jones 1985, 18-9; Higham 1986, 174.

**Twechar**
Alternative names -
Region - Strathclyde
NGR - NS697754
Area - 1.5ha (3.76 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - DES 1977, 53; Goodburn 1978, 416; Hanson & Maxwell 1983, 119; Maxwell & Wilson 1987, 28.

**Twyn-y-Briddallt**
Alternative names -
Region - Mid-Glamorgan
NGR - ST002982
Area - 7.3ha (18.2 acres)
Condition - partially upstanding
Gates - internal *claviculae*
Excavation - none known
References - Richmond 1959, 102; St Joseph 1961, 269; 1965, 86; Nash-Williams 1969, 126; RCAHMW 1976, 98-9, 101-2.

**Ty'r Mynydd**
See Gelligaer Common IV

**Uffington I**
Alternative names -

County - Shropshire
NGR - SJ524128
Area - 15.4ha (38 acres)
Condition - cropmarks
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1977, 145, 147.

**Uffington II**
Alternative names -
County - Shropshire
NGR - SJ524128
Area - 16.9ha (41.75 acres)
Condition - cropmarks
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1977, 145, 147.

**Ulston Moor I**
Alternative names -
Region - Borders
NGR - NT687217
Area - 7.8ha (19.3 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1955, 85; DES 1955, 27; St Joseph 1958, 87; 1961, 121; Hanson & Maxwell 1983, 67.

**Ulston Moor II**
Alternative names -
Region - Borders
NGR - NT687217
Area - 5.44ha (13.43 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1961, 121.

**Ulston Moor III & IV**
See - Millside Wood

**Upper Affcot**
Alternative names -
County - Shropshire
NGR - SO444864
Area - absolute minimum 1.3ha (3.4 acres)
Condition - cropmark
Gates - no information

Excavation - watching brief within interior in 1976
References - Webster 1958, 66; St Joseph 1961, 125; Houghton 1964, 188; Stanford 1968, 225; Nash-Williams 1969, 126; CBA 1976, 44.

**Walford**
Alternative names -
County - Hereford & Worcester
NGR - SO393722
Area - 10.37ha (25.62 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1961, 124-5; 1965, 85; Stanford 1968, 225; Nash-Williams 1969, 126; Frere & St Joseph 1983, 98, 100.

**Wall I**
Alternative names -
County - Staffordshire
NGR - SK092067
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1973, 233.

**Wall II**
Alternative names -
County - Staffordshire
NGR - SK090066
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1961, 123; 1973, 233.

**Wall III**
Alternative names -
County - Staffordshire
NGR - SK099064
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1973, 233.

**Walton I**
Alternative names -
Region - Powys
NGR - SO253599

Area - 2.4ha (5.9 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1969, 121; Nash-Williams 1969, 200; St Joseph 1973, 239-40; Wilson 1974, 345; St Joseph 1980, 47-51; Webster 1981, 85; Sommer 1984, 57; Wilson 1990, 10-8.

**Walton II**
Alternative names -
Region - Powys
NGR - SO253599
Area - 3.13ha (7.74 acres)
Condition - cropmark
Gates - 4, (?) simple gap
Excavation - none known
References - St Joseph 1969, 121; Nash-Williams 1969, 200; St Joseph 1973, 239-40; Wilson 1974, 345; St Joseph 1980, 47-51; Webster 1981, 85; Sommer 1984, 57; Wilson 1990, 10-8.

**Walton III**
Alternative names -
Region - Powys
NGR - SO253599
Area - 2.1ha (5.2 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1969, 121; Nash-Williams 1969, 200; St Joseph 1973, 239-40; Wilson 1974, 345; St Joseph 1980, 47-51; Webster 1981, 85; Sommer 1984, 57; Wilson 1990, 10-8.

**Walton IV**
Alternative names -
Region - Powys
NGR - SO253599
Area - 17.7ha (43.7 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1973, 239-40; Webster 1981, 85; Wilson 1990, 10-8.

**Walwick Fell I**
Alternative names - Tower Tye
County - Northumberland
NGR - NY886708
Area - 0.64ha (1.6 acres)
Condition - upstanding
Gates - *tituli*

Excavation - none known
References - MacLauchlan 1858, 33; Collingwood Bruce 1978, 122; Bennett 1980, 151-2, 154, 169.

**Walwick Fell II**
See - Teppermoor Hill

**Wandel**
Alternative names -
Region - Strathclyde
NGR - NS944265
Area - 14.7ha (36.3 acres)
Condition - partially upstanding, partially cropmark
Gates - no information
Excavation - trench, by RCAHMS in 1970
References - St Joseph 1961, 122; DES 1970, 65; Wilson 1971, 249; RCAHMS 1978, 136; Maxwell & Wilson 1987, 34.

**Warsop**
Alternative names -
County - Nottinghamshire
NGR - SK595704
Area - 3.1ha (7.66 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - Riley 1979, 105; 1980a, 332-4; 1980b, 58, 139; Webster 1981, 99-100;

**Watchclose**
See - Watchcross

**Watchcross**
Alternative names -
County - Cuumbria
NGR - NY476602
Area - 0.72ha (1.78 acres)
Condition - cropmark
Gates - 3, with *tituli*
Excavation - trenching, in 1935 by Richmond and Hodgson
References - MacLauchlan 1858, 71-2; Richmond & Hodgson 1936, 170-2; Taylor 1936, 241; Collingwood Bruce 1978, 233; Bennett 1980, 170.

**Water Eaton I**
Alternative names -
County - Staffordshire
NGR - SJ904114
Area - 1.2ha (3 acres)
Condition - cropmark
Gates - no information

Excavation - none known
References - St Joseph 1965, 77; CBA 1981, 95; Sommer 1984, 56.

**Water Eaton II**
Alternative names -
County - Staffordshire
NGR - SJ904111
Area - at least 3.44ha (8.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1973, 233; 1977, 120; CBA 1981, 95.

**Waterside Mains**
Alternative names -
Region - Dumfries & Galloway
NGR - NX869968
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - DES 1977, 53; Goodburn 1978, 410.

**Wath**
Alternative names -
County - North Yorkshire
NGR - SE674745
Area - 4.45ha (11 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - St Joseph 1977, 130-1; Hanson & Campbell 1986, 83.

**West Hotbank**
See - Greenlee Lough

**Whittington**
Alternative names -
County - Shropshire
NGR - SJ351303
Area - 15.5ha (38.25 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - none known
References - Baker 1969, 13; St Joseph 1973, 236, 242-4.

**Willowford**
Alternative names -
County - Cumbria

NGR - NY625661
Area - 0.8ha (1.97 acres)
Condition - cropmark
Gates - *tituli*
Excavation - none known
References - MacLauchlan 1858, 52; Gibson & Simpson 1909, 262; Collingwood Bruce 1978, 194; Bennett 1980, 154, 170.

**Wooden Home Farm**
Alternative names -
Region - Borders
NGR - NT742334
Area - not more than 16.4ha (40.6 acres)
Condition - cropmark
Gates - *tituli*
Excavation - trench, in 1982
References - DES 1982, 3; Frere 1983, 289; Maxwell & Wilson 1987, 32.

**Woodhead**
Alternative names - Ford
Region - Lothian
NGR - NT384638
Area - 1.54ha (3.8 acres)
Condition - cropmark
Gates - Stracathro-type
Excavation - trenches, in 1978 by Gordon Maxwell
References - DES 1976, 84; Maxwell 1981, 34, 44-5; Maxwell 1983, 177-81; Maxwell & Wilson 1987, 30; Maxwell 1989a, 50-1; 1990a, 19, 21.

**Wormanby**
Alternative names - Beaumont; Burgh-by-Sands
County - Cumbria
NGR - NY338591
Area - 1.3ha (3.2 acres)
Condition - cropmark
Gates - none known
Excavation - none known
References - St Joseph 1965, 78; Bennett 1980, 151-72.

**Wreay Hall**
Alternative names - Wreay
County - Cumbria
NGR - NY448484
Area - 0.28ha (0.7 acres)
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1961, 120-1; Farrar 1980, 213, 215; Sommer 1984, 102.

**Wroxeter I**
Alternative names -
County - Shropshire
NGR - SJ563077
Area - not clear
Condition - cropmark
Gates - no information
Excavation - none known
References - St Joseph 1958, 95; Dudley & Webster 1965, 142-3, 145; Webster 1966, 34; 1981, 51.

**Wroxeter II**
Alternative names - Norton
County - Shropshire
NGR - SJ563095
Area - at least 13.95ha (34.5 acres)
Condition - cropmark
Gates - (?) simple gap
Excavation - trenches, reported by Dudley and Webster
References - Dudley & Webster 1965, 142-3, 145; Webster 1966, 34; St Joseph 1973, 234; Webster 1981, 51.

**Yardhope**
Alternative names -
County - Northumberland
NGR - NT909009
Area - 2.06ha (5.1 acres)
Condition - upstanding
Gates - *tituli*
Excavation - survey is recorded, but note is made of paving in a trench at south gate
References - Frere 1977, 378.

**York I**
Alternative names - Bootham Stray
County - North Yorkshire
NGR - SE598549
Area - 1.1ha (2.63 acres)
Condition - upstanding
Gates - internal *claviculae*
Excavation - trench, in 1952 by Ramm
References - Drake 1736, 37; Anon 1952; Ramm 1953, 15-20; Taylor 1953, 112, 115; RCHME 1962, 46.

**York II**
Alternative names - Bootham Stray
County - North Yorkshire
NGR - SE598549
Area - 0.83ha (2.06 acres)
Condition - very slightly upstanding

Gates - internal *claviculae*
Excavation - none known
References - Drake 1736, 37; Anon 1952; Ramm 1953, 15-20; Taylor 1953, 112, 115; RCHME 1962, 46.

**Y Pigwn I**
Alternative names -
Region - Dyfed
NGR - SN827313
Area - 15.2ha (37.5 acres)
Condition - upstanding
Gates - 4, with internal *claviculae*
Excavation - none known
References - Wheeler 1925, 219-20; St Joseph 1953, 86; Jones 1968, 100-3; Nash-Williams 1969, 124-5; Frere & St Joseph 1983, 20-2; RCAHMW 1986, 150-3.

**Y Pigwn II**
Alternative names -
Region - Dyfed
NGR - SN827313
Area - 10.3ha (25.5 acres)
Condition - upstanding
Gates - 4, with internal *claviculae*
Excavation - none known
References - Wheeler 1925, 219-20; St Joseph 1953, 86; Jones 1968, 100-3; Nash-Williams 1969, 124-5; Frere & St Joseph 1983, 20-2; RCAHMW 1986, 150-3.

**Y Pigwn III**
Alternative names -
Region - Dyfed
NGR - SN814313
Area - 0.12ha (0.3 acres)
Condition - barely upstanding
Gates - 4, with *tituli*
Excavation - none known
References - St Joseph 1958, 96; Jones 1961, 126; Jones 1968, 100-3; Davies 1968a, 106, 119; Nash-Williams 1969, 130.

**Ystradfellte**
Alternative names -
Region - Powys
NGR - SN924164
Area - 8.4ha (21 acres)
Condition - partially upstanding, partially cropmark
Gates - internal *claviculae*
Excavation - trenches, in 1960 by Jones
References - St Joseph 1958, 96; Taylor 1960, 213; St Joseph 1961, 269; Wilson 1965, 199; Jones 1966, 174-6, 178; Nash-Williams 1969, 125-6; RCAHMW 1986, 153-4.

**Ythan Wells I**
Alternative names - Glenmailen
Region - Grampian
NGR - NJ655383
Area - 44.9ha (111 acres)
Condition -
Gates - *tituli*
Excavation - trenches, by Macdonald in 1913 and by St Joseph in 1968
References - Macdonald 1916, 348-59; Crawford 1949, 116-20; St Joseph 1951, 65; 1958, 93; 1969, 112-3; 1970, 174-7; 1973, 231; 1977, 143; Hanson 1987, 131-5; Maxwell 1989a, 45; 1990a, 104-5.

**Ythan Wells II**
Alternative names - Glenmailen
Region - Grampian
NGR - NJ661385
Area - 14ha (34.6 acres)
Condition - cropmark
Gates - Stracathro-type
Excavation - trenches, by St Joseph in 1968
References - St Joseph 1969, 112-3; 1970, 174-7; 1973, 226; 1977, 143-4; Maxwell 1981, 34; Hanson 1987, 125, 135; Maxwell 1989a, 56-9; 1990a, 52-4.

## PROBABLE CAMPS

**Caerau III**
Alternative names - Beulah
Region - Powys
NGR - SN920501
Area - 0.19ha (0.46 acres)
Situated some 600 feet west of the fort, having been discovered on APs as a grassmark, this site is probably to be identified as a practice camp, similar to two other examples already noted in the vicinity. Visibility of the feature is obscured by a second enclosure, which partially overlies it, though St Joseph felt it was "very probably" a small temporary camp. Webster has cast doubt on the provenance of the work, suggesting that it may instead be a signal station, though this seems highly unlikely. Frere, Rivet and Sitwell say this equals Davies' camp at Caerau, but this is not the case, III only having been discovered in 1977, nearly a decade after the publication of Davies' paper. RCAHMW follow St Joseph in seeing it as a practice camp.
References - St Joseph 1977, 151; Webster 1981, 118; Frere, Rivet & Sitwell 1987; RCAHMW 1986, 155-6.

**Carlops II**
Alternative names - Spittal
Region - Lothian
NGR - NT171572
Area - 12.5ha (30.8ha)
Faint traces recorded as cropmarks within the certain temporary camp site at Carlops, seem likely to represent ditches effecting a second use of this site at a reduced level. As yet however classified as unproven.
References - Frere 1986, 371; Maxwell & Wilson 1987, 32-3.

**Dupplin**
Alternative names -
Region - Tayside
NGR - NO046192
Discovered on RAF APs by Feachem lying roughly halfway along the Gask Ridge, the site was noted by St Joseph and thereafter appears to have been ignored.
References - St Joseph 1958, 90.

**Easter Powside**
Alternative names -
Region - Tayside
NGR - NO056245
Described, in the RCAHMS catalogue as a probable camp.
References - RCAHMS 1979, 22.

**Lochlands XII**
Alternative names - Camelon
Region - Central
NGR - not specified

A small, elongated work, depicted on Maxwell's plan but not otherwise referred to in print, lying adjacent to, if not overlapping, and on the same alignment as V and VI, immediately to the south.
References - Maxwell 1991, 10.

**Lochlands XIII**
Alternative names - Camelon
Region - Central
NGR - not specified
This entry may in fact cover anything up to an additional four camps. Situated either side of the south-west corner of VIII, Maxwell and Wilson record a ditch, which was tested by excavation, lying immediately inside the west ditch of VIII and refer to it as the earliest of the three ditches (VIII's ditch having been recut). This could represent a separate camp. In addition, Maxwell and Wilson draw attention to three further short lengths of cropmark, aligned on the west defences of VIII, noting that these too may represent further camps. Maxwell 1990 suggests VIII may in fact mask anything up to six camps (VIII, XI, the earliest of the three ditches, and the three lengths of cropmark).
References - DES 1983, 2; Frere 1984, 275; Maxwell & Wilson 1987, 39; Maxwell 1990a, 33.

**Sandford**
Alternative names - Warcop
County - Cumbria
NGR - NY741167
Situated some 3.5 miles from Brough, and initially recorded by CUCAP, RCHME say this site is probably acceptable as temporary camp (Welfare, pers. comm.).
References - St Joseph 1951, 54.

**Warcop**
See - Sandford

## POSSIBLE CAMPS

**Abertanat IV**
Alternative names -
Region - Powys
NGR - SJ248214
Parts of two sides of an enclosure together with the intervening angle are represented as a cropmark on the west side of the River Tanat, opposite I, II and III. The character of this site remains unclear.
References - Frere 1991, 223-4; 1992, 257.

**Acomb**
Alternative names -
County - Northumberland
NGR - not clear

An enclosure, some 0.78 acres in extent, located 4 miles west of Corbridge, classified as a possible camp. The character of the site remains unclear.
References - St Joseph 1951, 55.

**Attingham Park II**
Alternative names -
County - Shropshire
NGR - SJ556093
Area - probably not more than a few acres
Part of an enclosure seen as cropmarks to south of I, the character of which remains unclear.
References - St Joseph 1977, 145.

**Bellie**
Alternative names - Fochabers
Region - Grampian
NGR - NJ359618
Described by Crawford as "a problematic site", the description still fits today. Indeed it may transpire that scholars working on this site have been at cross-purposes, dealing in fact with two separate entities, both or neither of which may turn out to represent Roman temporary camps. Part of the contention surrounds the fact that accepting it as a Roman camp will render this the most northerly example yet attested, being some 9-10 miles north-west of the camps at Auchinhove and Muiryfold.

The traditional site of Bellie is noted by various antiquarian writers, all of which are given due attention in Crawford's account. This site lies near the old church of Bellie, some 100 metres to the north east, on the east side of the River Spey, some two miles from its mouth on the Moray CoaSt The site constitutes flat, undulating land and if correctly located the north-west side may have been eroded away by the steep 50 foot cliff which forms the east side of the Spey Valley. Certain features of the camp seem always to have provoked doubts in the minds of commentators. Crawford, while seeing it as the most promising of all putative Roman temporary camp sites in his day, was worried by the apparent lack of gates. Crawford refers to aerial photographs of the site, taken by R.F. Jessup in 1943, which although broadly commensurate with Crawford's description do not entirely match up with the perimeter as plotted on the OS map. Later, St Joseph records cropmarks having been seen at Bellie (again referring to their proximity to the old church), specifically a straight length of ditch running for some 975 feet on a north-south alignment. He implies excavation having been conducted on this ditch revealing a V-shaped profile and suggests this will represent the east side of an enclosure, centred at NJ355613; this reference indicates that it is not the same place remarked on by Crawford. In 1983, Jones and Keillor reported having seen a long linear cropmark running north-east - south-west and furnished at one end by a rounded angle, thereby fitting the alignment noted by Crawford. Jones later states that comparison of his cropmark evidence with eighteenth century maps illustrates that the OS map correctly displays the outline of the camp, suggesting in passing that St Joseph's cropmark is "possibly to be connected with an eighteenth century road". Neither body of evidence is yet enough to allow the definite identification of a Roman temporary camp here, and it is just possible that two separate sites may exiSt

References - MacFarlane 1726, 242; Chalmers 1807, 129; Stuart 1852, 218-9; Crawford 1949, 122-5; Burn 1953, 128; St Joseph 1969, 113-4; DES 1984, 12; Frere 1986, 370; Hanson 1987, 126-7; Maxwell 1989, 59.

**Blacon**
Alternative names -
County - Cheshire
NGR - not known
Described only as a possible Roman camp at Blacon, near Chester
References - Petch 1987, 120.

**Blaenos**
Alternative names
Region - Dyfed
NGR - SN754342
Area - 0.22ha (0.55 acres)
Situated c. 1.7 km. south-west of Llandovery fort, there is debate over the provenance of this site, it being variously perceived as a practice camp and a fortlet. Several other sites identified as practice camps exist in the vicinity of the fort, including the groups noted under Llandovery (I and II) and Y Pigwn (III & IV), though doubt has been expressed regarding the provenance of them all.
References - CBA 1983, 32-3; Frere 1984, 267.

**Boyndie**
Alternative names -
Region - Grampian
NGR - NJ654636
Area - 1.3ha (3.1 acres)
Described by Jones as having straight sides and rounded angles, he draws a distinction between the form of this sites and others, commonly ascribed as 'native', known in the area. Geophysical survey located the ditch, which was subsequently excavated, though no details are provided in the published accounts.
References - DES 1989, 20; Frere 1991, 226.

**Brecon Gaer**
Alternative names -
Region - Powys
NGR - SO000298
Area - 30 x 30 metres
The only possible practice camp known to date in the vicinity of the fort at Brecon Gaer, revealed as a parchmark in grass, some 300 metres to the weSt
References - Briggs 1981, 3; CBA 1981, 37; Frere 1983, 280; Wilson 1990, 16.

**Butleigh**
Alternative names -
County - Somerset
NGR - ST506317
Identified, through cropmarks, by Roger Leech as a possible camp, though never referred to thereafter in print.

References - Goodburn 1976, 357.

**Buttknowe**
Alternative names -
Region - Dumfries & Galloway
NGR - NS724130
Discovered by Clarke on RAF APs of the area, this site was revealed as 'faint indications' in a field on the farm of Buttknowe, c. 0.5 miles north-west of the village of Kirkconnel and just over a mile north-west of the alleged fortlet and temporary camp. Clarke was convinced of the sites' identification as a temporary camp, following excavation of sections across its ditch, though no corroborative or dismissive statement has appeared elsewhere in print.
References - Clarke 1952, 118-9; Clarke & Wilson 1959, 152.

**Carpow II**
Alternative names -
Region - Tayside
NGR - NO208176
Area - 26-28ha (64.5-70 acres)
Better known as "the polygonal enclosure", this site is a lynch-pin in St Joseph's interpretation of Severan troop movement in Scotland. Its place in the sequence of allegedly temporary works at Carpow has been established by trenching, demonstrating the large temporary camp, I, to be the earlier of the two. St Joseph believes the site to represent the assembly point for Severus' army, as revealed by the 63 acre series, prior to making a crossing of the Tay, and to be closely linked to the camp at St Madoes on the opposite bank, which he describes as a bridgehead. Wilson has however cast doubt on this interpretation, suggesting that the remains, a length of ditch in three parts furnished with two gates protected by *tituli*, may just as readily represent the defensive outworks associated with the permanent Severan fortress. St Joseph had earlier rejected any link between the fortress and II, on the grounds that the gates in the latter do not correspond to the position of the south gate in the former, but Wilson has countered this by saying that one would not expect such correspondence between fortress and outwork.
References - St Joseph 1969, 110-1, 116-8; 1973, 220-2, 230; Frere & St Joseph 1983, 4-5; Wilson 1984, 55, 57.

**Carrawburgh**
Alternative names -
County - Northumberland
NGR - NY859711
Evidence for this site stems wholly from excavation and takes the form of a ditch, detected beneath rooms II - V in the *principia* of the fort and again beneath the south mound of the Vallum. Enough was recovered for Breeze to say the ditch represented the north side and north-west angle of an enclosure. Although never formally sectioned, excavation in the strong room pit did provide a convenient profile, revealing the ditch bottom to be virtually devoid of silt accumulation. Breeze thought four potential explanations for the ditch could be adduced: temporary camp, fortlet, native enclosure or Celtic temple. He clearly most favoured the former, seeing the remains as possibly belonging to a construction camp utilised by troops engaged in Wall building

activity, though he was aware of problems in this interpretation. Sommer's subsequent suggestion that it might represent a labour camp for the troops building the fort is unpersuasive.
References - Wilson 1969, 204; Breeze 1972, 81, 87-9; Sommer 1984, 56.

**Castledykes VII**
Alternative names -
Region - Strathclyde
NGR - NS925443
A very small enclosure lying to west of the fort and apparently cut by the Roman road. St Joseph recorded it as a possible temporary camp.
References - St Joseph 1965, 80; RCAHMS 1978, 125, 128.

**Clawdd Coch I**
Alternative names -
Region - Powys
NGR - SJ252198
The more southerly of two possible camps, identified by Jones, lying to the south of the group of sites at Abertanat. Allegedly evidence of three phases of occupation, traces of burnt clay behind the position identified as the rampart are interpreted by Jones as possible field ovens. Some doubt on the temporary character of the site must however be cast by Jones' description of front and rear timber verticals in the rampart.
References - Frere 1992, 256-8; Burnham, Keppie and Esmonde Cleary 1993, 271-2.

**Clawdd Coch II**
Alternative names -
Region - Powys
NGR - SJ246202
The more northerly of two possible camps, identified by Jones, lying to the south of the group of sites at Abertanat. Jones describes excavation of W-shaped ditches and a timber box rampart, as well as a pear-shaped field oven. Again some doubt on the temporary character of the site seems to be cast by nature of the rampart.
References - Frere 1992, 256-8; Burnham, Keppie and Esmonde Cleary 1993, 271-2; Burnham, Keppie and Esmonde Cleary 1994, 246.

**Cleasby**
Alternative names -
County - Durham
NGR - NZ255127
Noted by St Joseph as a possible camp, but largely ignored since then, this rectangular enclosure shows no signs of entrances and has no diagnostically Roman features, suggesting that it may equally transpire to represent a native site (Welfare - pers. comm.)
References - St Joseph 1951, 53.

**Cleghorn II**
Alternative names -
Region - Strathclyde
NGR - NS904454

Described by RCAHMS as a linear cropmark, recorded by CUCAP, which may represent a second marching camp at the site.
References - RCAHMS 1978, 159.

**Cound**
Alternative names -
County - Shropshire
NGR - SJ562050
Situated on the south side of the River Severn, 2 miles south of Wroxeter, Baker noted its discovery in 1971 but supplied no details. Attitudes towards the evidence have been mixed; Stanford believed it to be a *bona fide* temporary camp, though the site has not been mentioned by St Joseph and Webster refers to it only as a possible site.
References - Baker 1971, no page number; Stanford 1980, 118, 124; Webster 1981, 51.

**Cradley**
Alternative names -
County - Hereford & Worcester
NGR - SO714479
Described as a large, single-ditched, playing-card shaped enclosure, perhaps representing a Roman marching camp.
References - Frere 1992, 283.

**Craigton**
Alternative names - Winchburgh
Region - Lothian
NGR - NT073761
An as yet unpublished site, CUCAP photographs taken in the mid 1970s recorded three sides of an enclosure which may transpire to be a temporary camp. One of the most interesting aspects of the site is the evidence it would provide, if genuine, for the possible position of Dere Street in a location where its course is as yet unknown, beyond the position extrapolated from the discovery of the camps at Gogar Green and Millburn Tower.
References - All data unpublished.

**Dalbeattie**
Alternative names -
Region - Dumfries & Galloway
NGR - NX826608
Identified by a Mr. & Mrs. Andrews some half a mile south-west of Dalbeattie, subsequent trial trenching by St Joseph failed to establish the character of the site with any certainty.
References - DES 1982, 9; Frere 1983, 289; DES 1983, 6.

**Dolau I**
Alternative names - Dolau Gaer; Nantmel
Region - Powys
NGR - SO017666

Situated well away from any known Roman road and some 5 km. NNW of Castell Collen fort, this site has been long known, though the degree of permanence of the occupation appears to have caused some problems of interpretations. Lewis thought the discovery of dressed stone at the site might point to its having been less temporary than previously supposed, though RCAHMW criticised his reasons for proffering a Roman identification. Trenching by Jarrett and Jones led them to state that it was undoubtedly Roman, and Jarrett later described it as "less permanent than a fort, less temporary than a camp". St Joseph elected to include it in his review of Welsh temporary camps, adding the caveat that its degree of permanence remained to be determined.
References - Lewis 1912, 118; RCAHMW 1913, 117; Wilson 1966, 196; Nash-Williams 1969, 123, 138-40; St Joseph 1973, 242.

**Dorking**
Alternative names -
County - Surrey
NGR - TQ143492
One of the few possible temporary camps in the south of England, St Joseph suggested that the provenance of this small site should be deferred until excavation had taken place.
References - St Joseph 1953, 82.

**Droitwich**
Alternative names -
Region - Hereford & Worcester
NGR - SO904638
Excavation in 1985 revealed a ditch described as having the form and location befitting a temporary camp. The ditch was possibly recut several times and contained few finds.
References - CBA 1985, 41.

**Dumfries**
Alternative names -
Region - Dumfries & Galloway
NGR - NX995735
Described by St Joseph simply as a small camp south of Dumfries, the site has been conspicuous only by its absence from any other published source. It does not appear on the fourth edition of the *Ordnance Survey Map of Roman Britain*, for which St Joseph was advisor, nor does it appear in the same author's *Journal of Roman Studies* articles, in the RCAHMS catalogues of aerial photographs, in any edition of DES or in Jones' Solway Survey results.
References - St Joseph 1976, 7.

**Easter Happrew**
Alternative names -
Region - Borders
Sommer records having seen what may be a construction camp to the east of the fort on CUCAP APs K17 AS 128-30.
References - Sommer 1984, 56.

**Fochabers**
See - Bellie

**Fordoun**
Alternative names -
Region - Grampian
NGR - NO730770
Crawford suggested that there was good reason to believe that the earthworks recorded here in the eighteenth century represented the remains of a Roman camp. No supporting evidence since then, though linear cropmarks have been recorded to south of Fordoun House.
References - Crawford 1949, 103-4.

**Hoel-y-Gaer**
Alternative names -
Region - Powys
NGR - SO188392
Recorded by Jones some 5 miles from Clyro and noted as around 25 acres in extent and partially upstanding, this site appears not to have been mentioned in print since.
References - Richmond & Taylor 1958, 130-1.

**Kirkconnel**
Alternative names -
Region - Dumfries & Galloway
NGR - NS747122
Originally discovered by St Joseph in 1952 at the same time as a putative fortlet, this site was not published until 1959. It was at this date that a trench was cut across the defences, which Clarke and Wilson opined was enough to indicate that the identification of the site as a camp was accurate. However some doubt attaches to the site since it appears not to have attracted any attention in print subsequently.
References - DES 1959, 20; Clarke & Wilson 1959, 136-7; Taylor 1960, 214.

**Langton**
Alternative names -
Region - Central
NGR - not specified
Listed by Maxwell as a possible camp, resurrecting an antiquarian account of a 'great fort', which sits in a likely position for a construction camp. References - Sibbald 1707, 30; Hanson & Maxwell 1983, 120, 128; Maxwell 1989, 157.

**Linlithgow**
Alternative names -
Region - Lothian
NGR - NT001773
Situated on the lawns to south-west of the Palace, a single ditched rectangular enclosure has been recorded, which is described as a site which "would not be out of place in a Roman context".
References - Frere 1990, 312.

**Longshaws**
Alternative names -
County - Northumberland
NGR - NZ135885
Originally recorded by St Joseph, and situated beside what was identified as a small fort, both sites have come in for some scepticism since then, as expressed for example by Hanson. Recent unpublished work at the site by RCHME however has vindicated the Roman attribution to the permanent work, though the character of the alleged camp remains in some doubt (Welfare, pers. comm.).
References - St Joseph 1969, 105-7; Hanson 1987, 102.

**Millmount**
Alternative names -
Region - Borders
NGR - NT558345
Situated some three-quarters of a mile west of the fort of Newstead, St Joseph describes what may be a temporary camp.
References - St Joseph 1961, 121.

**Newbrough**
Alternative names -
County - Northumberland
NGR - NY877677
This site has been known of and photographed for some fifteen years but still defies certain identification; may be a temporary camp or perhaps a missing Stanegate fort, some 1 km. from the known fort of the same name.
References - Maxwell & Wilson 1987, 14-5; Frere 1990, 316.

**Newstead VIII**
Alternative names -
Region - Borders
NGR - not known
There is no direct published evidence for this site; its presence here relies entirely on Frere and St Joseph's remark in 1983 that there were seven camps at Newstead (now eight). All other sources - Maxwell, Wilson and Breeze - noted only six, though the former two were judicious enough to leave scope for a seventh. St Joseph had hinted at this in 1958, when he remarked on the possibility of a fifth camp to east of the fort (IV and V lying to the south). The character of this site remains in some doubt however until concrete evidence is made available.
References - St Joseph 1958, 87-8; Wilson 1974, 18-9; Maxwell 1981, 37, 39; Frere & St Joseph 1983, 120-2.

**Old Penrith II**
Alternative names -
County - Cumbria
NGR - NY495387
One of a group of three possible small camps originally located by St Joseph. Excavation of II by Poulter allowed that site to be discounted as a Roman temporary

camp, and Poulter has suggested that by analogy the lack of characteristic gate emplacements at I should discount its claim too. Sommer has suggested the site may be a construction camp for the nearby fort.
References - St Joseph 1951, 54; Poulter 1982, 51-65; Sommer 1984, 56.

**Old Penrith III**
Alternative names -
County - Cumbria
NGR - NY490389
One of a group of three possible small camps originally located by St Joseph. Excavation by Poulter led him to believe that the site was not a temporary camp, though his reasons (mainly the lack of a titulus at the gate, but also the construction style of the "rampart") are not entirely convincing. Dating evidence recovered from primary contexts in the ditch fill suggests a mid second century date. The true character of this work remains unclear.
References - St Joseph 1951, 54; Goodburn 1978, 425; Poulter 1982, 51-65.

**Portrack House**
Alternative names -
Region - Dumfries & Galloway
NGR - NX941832
Situated a little upriver from the camps at Ellisland, the RCAHMS catalogue of APs describes this as a possible camp.
References - RCAHMS 1983, 19.

**Ruthin**
Alternative names -
Region - Clwyd
NGR - SJ130581
Proposed by the Waddeloves, the site lies south of what they contend is a fort. They describe having seen two lengths of ditch in contractors trenches, one with a *clavicula*, the other with a *titulus*.
References - Frere 1992, 256.

**Saham Toney**
Alternative names -
County - Norfolk
NGR - TF895009
Situated near the site of a suspected Roman fort, Maxwell and Wilson display some scepticism towards this site, noting the presence of many cropmarks in the area and calling for better evidence.
References - Maxwell & Wilson 1987, 6.

**South Blainslie**
Alternative names -
Region - Borders
NGR - NT545427
A rectilinear enclosure located by RCAHMS which may transpire to be a temporary camp.

References - Frere 1987, 315.

**Stuston**
Alternative names -
County - Suffolk
NGR - TM144785
Identified by the Norfolk Archaeological Unit and by CUCAP, this site was originally described as a possible camp by Edwards, though later appeared as definite, a gate with internal *clavicula* having allegedly been identified. Maxwell and Wilson have however cast some doubt on their provenance of the site, disputing the alleged *clavicula* and being unconvinced as yet of the attribution of temporary camp to the site, claiming no clear entrances have been found and the angles are irregular.
References - Edwards 1976, 5; 1977, 230, 236-7; 1978, 89; Webster 1978, 106; Edwards *et. al.* 1979, 23; Maxwell and Wilson 1987, 6.

**Tomen-y-Mur II**
Alternative names -
Region - Gwynedd
NGR - SH704387
Initially published by St Joseph as a possible practice camp, Bowen and Gresham dissented from this view suggesting the site was too small even for a practice work and noting its strong strategic position overlooking a stretch of road invisible from the fort opined that it should be viewed as permanent (presumably a watch tower).
References - St Joseph 1961a, 273; 1961b, 130-1; Bowen & Gresham 1967, 243-4; Davies 1968a, 105, 109-10, 120; Nash-Williams 1969, 130.

**Tomen-y-Mur III**
Alternative names -
Region - Gwynedd
NGR - not specified
Described simply as one of two possibly conjoined camps, which might also be interpreted as possible cemetery enclosures, located south-east of the fort.
References - Burnham & Davies 1990, 3.

**Tomen-y-Mur IV**
Alternative names -
Region - Gwynedd
NGR - not specified
Described simply as one of two possibly conjoined camps, which might also be interpreted as possible cemetery enclosures, located south-east of the fort.
References - Burnham & Davies 1990, 3.

**Troutbeck III**
Alternative names -
County - Cumbria
NGR - NY383273
The provenance of this site seems to fluctuate between those who believe it to be a fortlet and those who see it as a camp. St Joseph's original account favoured the permanent explanation, though following excavations there the director, Bellhouse,

pronounced the site a camp. This seems not to have impressed St Joseph who, in 1973, still referred to the work as a fortlet, but he in turn was challenged in this identification by Wilson who stated that the presence of internal and external *claviculae* at the gates demonstrated the site could not be permanent since it could not have had gatehouses. Further excavation at the site in 1973 by Charlesworth saw the director on this occasion agreeing with St Joseph, calling the site a fortlet. By 1983 the polarised opinions still existed. Wilson reiterated his stance classifying the site as a labour camp, while Frere and St Joseph continued to insist that the site be seen as a fortlet, acknowledging the problem of the *claviculae*. Sommer also sees the site as a labour camp.

References - St Joseph 1955, 84; Bellhouse 1957, 28-36; Richmond & Taylor 1958, 135; St Joseph 1973, 215; Wilson 1974, 412-3; 1974, 344; Lenoir 1977, 707; Frere & St Joseph 1983, 24-7; Sommer 1984, 56; Higham & Jones 1985, 18-9; Higham 1986, 174.

**Wighton**
Alternative names -
County - Norfolk
NGR - TF956392
When published by St Joseph he suggested that this possible camp would require excavation before its true character could be determined. The site appears not to have been discussed in print since.
References - St Joseph 1953, 82.

**Winchburgh**
See - Craigton

**Y Pigwn IV**
Alternative names - Llandovery
Region - Dyfed
NGR - SN810318
The only guide to this site is Davies' paper and it is not clear whether or not this is a separate camp or not. He noted three camps at the fort at Llandovery, newly discovered by Hogg, but provided only their map references. This example appears to be close to III, and may even be III, though another of Davies' camps seems to fit that bill rather better. Even if a discrete work, it is of a size which may indicate it is other than a Roman temporary camp. Very unclear.
References - Davies 1968, 106, 117, 119.

## DOUBTFUL CAMPS

**Abertanat III**
Alternative names - Abertanat West
Region - Powys
NGR - SJ248214

Circumstances regarding this site are not clear, though reference to Jones' plan seems to indicate that this site, presumably marked as 'C', will also represent part of an outwork to the fort, II.
References - Frere 1989, 259-60.

**Ancrum**
Alternative names -
Region - Borders
NGR - not specified
Provenance for this site originates in the *Old Statistical Account*, and was subsequently recorded, with query, by RCAHMS. Further enquiries have been unable to locate the site.
References - OSA 1794, X, 294; RCAHMS 1956, 469.

**Ardoch VI**
Alternative names -
Region - Tayside
NGR - NN842100
This parallelogram shaped site, some 1.75ha (4.3 acres) in extent lies north-east of the forts at Ardoch. Debate over the character of this site has existed since it was first identified, though St Joseph appears to have favoured seeing it either as another fort or as a labour camp for the known permanent sites. The definite identification of double ditches surrounding the work, coupled with its "massive turf rampart", seems finally to have persuaded St Joseph of its permanent nature, representing either a fort or a stores depot. Without excavation though the true character of the site remains unclear.
References - St Joseph 1951, 62; 1976, 14; Frere & St Joseph 1983, 131-3.

**Arduthie**
Alternative names -
Region - Grampian
NGR - not specified
A long antiquarian tradition places a Roman camp at Arduthie, near Stonehaven, though in this century both MacDonald and Crawford have considered and rejected the site, which was later recalled without comment by Maxwell.
References - Gibson 1722, 1257; MacFarlane 1722, I, 250 & III, 237; Barclay 1792, 565-6; OSA 1794, 215; Stuart 1822, 300; Thomson 1831, 46; NSA 1845, 249; MacDonald 1916, 320, 322; Crawford 1949, 104-5, 111; Maxwell 1990, 85, 92.

**Astbury**
Alternative names -
County - Cheshire
NGR - SJ837620
Originally recorded in the early eighteenth century, Jones re-examined the work in the late 1960s, initially describing it as a "presumed temporary camp". Part of the reason for this attribution lay in its alleged size of c. 60 acres, though this remains unsubstantiated. Excavation revealed a V-shaped ditch but also internal traces of timber buildings, casting doubt on its temporary provenance, as Petch noted. Jones concluded that without further excavation "the site must remain uncertain".

References - Watkin 1886, 298-9; Jones 1968, 3-4, 26; Wilson 1974, 255; Jones 1974, 2; Petch 1987, 119.

**Auchterderran**
Alternative names -
Region - Fife
NGR - not specified
Reference to this site is found in a manuscript account of General Melville's search for Roman camps in Scotland, within which Macdonald noted was found a coin of Pertinax. This link to a late date led Reed to resurrect the site in his paper on the campaigns of Severus, suggesting it and Auchtermuchty could represent a route through Fife following a crossing of the Forth at North Queensferry and heading for a crossing of the Tay at Carpow.
References - MacDonald 1918, 238; Crawford 1949, 58, 146; Reed 1976, 95.

**Avisyard Hill**
Alternative names -
Region - Strathclyde
NGR - NS609181
Noted in the nineteenth century as a spot with a tradition of a Roman camp, the site was resurrected by Clarke and Wilson in a paper attempting to trace the route of a putative Roman road into Ayrshire. It is interesting however that the sense of Wilson's argument suggests he is using the term 'camp' in its broad sense, thinking rather of a fortlet.
References - Paterson 1847, 9; Clarke & Wilson 1959, 153, 157.

**Baginton**
Alternative names -
County - Warwickshire
NGR - not supplied
Excavation conducted 550 metres south-east of the fort revealed a ditched enclosure within which were found six rubbish pits and a small timber building; dating evidence suggests occupation in the first and second century A.D. Sommer noted this as a possible fort construction camp.
References - Grew 1981, 339; Sommer 1984, 27, 57.

**Barbury Castle**
Alternative names -
County - Wiltshire
NGR - SU147768
Wilson noted a possible Roman camp, furnished with one external clavicula, looking south towards the Iron Age hillfort of Barbury Castle. No mention has been made of the site since in print, and personal scrutiny of aerial photographs held by the RCHME in Salisbury suggests that the alleged *clavicula* may in fact be part of an earlier ring ditch overlapping a linear cropmark.
References - Wilson 1970, 299.

**Bar Hill II**
Alternative names -

Region - Strathclyde
NGR - NS708759
This site has been provided with a rich variety of interpretations since its original discovery during excavations by MacDonald and Park at the beginning of the century. In form the main enclosure is rectangular possessing a single entrance, with an irregular outer ditch and an annexe appended. The ditch was between 8 - 11 feet wide and 3.5 - 4.5 feet deep, almost entirely filled with well cut turves at one point sectioned, having almost 2 feet of silt accumulation at others. The only find recovered was an old shoe. The excavators' identification of the site as a permanent but short lived fort was later developed by MacDonald, suggesting that it should be seen as one of Agricola's *praesidia*. Later still Steer, challenging MacDonald's general argument for the archaeological identification of Agricola's line of consolidation, argued that the site, which he describes as being commonly thought of as a temporary work, should be seen as a fortlet. Feachem preferred to the see the site as a native construction, with strong ritual connotations, to be linked with the earliest deposits found in the fort well and perhaps with pits found during the original excavations. Latterly Keppie reiterated the fortlet theory, dismissing Feachem's theory as having "little to commend it". In so doing he favoured MacDonald's Flavian date for the construction of the site, but argued convincingly that the evidence pointed to the ditches having been filled in the Antonine period, to allow the construction of the fort. Re-excavation of the site in the early 1980s however led to a further reinterpretation. Sections through the main perimeter ditch once again retrieved evidence for deliberate filling with turf and brushwood, though at one point associated with a low clay rampart and footings for stone buildings. At this time Keppie suggested the site would be better viewed as a temporary structure of Antonine date. Yet further sections, across both inner and outer ditches, encountered locations already emptied by MacDonald and Park, though within the enclosure several "cooking areas", a stone-built hearth and a timber beam slot were found; "native" pottery was also recovered (Keppie - pers.comm.). Keppie's final suggestion was that the site might be interpreted as a marching camp built atop a native steading, or the result of indigenous peoples making use of an abandoned temporary camp. Hanson & Maxwell in turn took issue with this picture of the events which the archaeology at Bar Hill II might represent. Describing it as "what appears to be a semi-permanent work of probable Antonine date", they noted the hints at rather more permanence than might be expected in a temporary camp, and finally suggested that it might be seen as housing the garrison of the fortlet during its construction. The true nature of this site remains enigmatic, though the notion that this is a temporary camp akin to previously noted sites of this character certainly appears to have, in Keppie's words, little to commend it.
References - MacDonald & Park 1906, 413-7; MacDonald 1934, 272-4, 466; Steer 1960, 89-90; Feachem 1969, 212-6; Keppie 1975, 6-9; DES 1979, 40; Grew 1980, 353; DES 1980, 36-7; Grew 1981, 320; DES 1981, 40-1; Rankov 1982, 339; Hanson & Maxwell 1983, 106, 120; Keppie 1985, 49-81.

**Beeston St Andrews**
Alternative names -
County - Norfolk
NGR - TG251146

Described simply as an enclosure with rounded corners, the provenance of this site remains unclear, though there is no explicit mention of a military connection in the published account.
References - Frere 1984, 305.

**Bexley**
See - Joyden's Wood

**Birdoswald**
Alternative names -
County - Cumbria
NGR - not specified
Jones refers to this site as a "small, parallelogram-shaped camp", located close to the fort at Birdoswald. However in Collingwood Bruce it is described as a small rectangular Roman post, while Frere, Rivet and Sitwell note it as a small Roman fortlet. Excavations at the site in the 1930s found no rampart, cobbling in part of the internal area and early second century A.D. pottery and window glass from the ditch.
References - Simpson & Richmond 1933, 247; 1934, 120; Jones 1976, 26; Collingwood Bruce 1978, 200, 204; Frere, Rivet & Sitwell 1987, 8.

**Birrens IV**
Alternative names -
Region - Dumfries & Galloway
NGR - not specified
Originally identified by St Joseph in 1951 as lines of ditch to north of the fort which he felt must represent either an annexe to the fort or a temporary camp. Little mention has been made of the features since then, though Frere and St Joseph do remark upon them suggesting only that the cropmarks probably represent another annexe.
References - St Joseph 1951, 57-8; Frere & St Joseph 1983, 122-3.

**Birrens V**
Alternative names -
Region - Dumfries & Galloway
NGR - not specified
Discovered during excavations at Birrens fort by Robertson, the evidence for this site amounts to a ditch lying beneath the permanent work at its south end and on a slightly different alignment. As found, the ditch was 7 feet wide and 3 feet deep, with initial silting to a depth of 1-2 feet, after which it was filled with hard packed earth and stones. Associated with it were the remains of what may have been a rampart, of turf and upcast subsoil. Pits, hollows and slots located 'inside' the 'camp' may be associated too. Various finds were recovered, consistent with a first century A.D. date and included nails, daub and charred wood. Robertson considered the work permanent or semi-permanent, an attribution which has not met with universal acceptance. Hanson suggested the nature of the work was obscure, and Frere and St Joseph, placing the size of the work at perhaps 0.53ha (1.32 acres) stated that the site could just as easily be interpreted as a temporary camp as a fortlet or small fort.
References - Robertson 1975, 73-5; Frere & St Joseph 1983, 123; Hanson 1987, 102.

**Brough-on-Humber**

Alternative names -
County - Humberside
NGR - SE939264
Based upon the observation, during excavation, of a ditch with indications of a possible accompanying rampart, this feature equals Wacher's period IIA, lying behind the period IIB rampart and close to the *porta decumana*. Evidence for the rampart amounts to a low bank of clean sand, underlying the intervallum road; no such evidence was found beneath the road at any other point where it as examined. It is possible that later excavation at the site, by Peter Armstrong, located the putative rampart at another point on its circuit; this too had a sand core, though on this occasion was discovered to have a clay face. Significant quantities of pottery were found, not only in the ditch fill but also both sealed beneath and within the make up of the rampart. All the datable material attested a Flavian date, or possibly even late Neronian, in the case of coarse ware fragments recovered from the ditch. Note that this feature does not equal the 'camp' identified by Corder and Richmond, which is in fact a fort. Subsequently, this putative temporary camp has been pressed into service by such as Hanson and Campbell, though its provenance remains unproven.
References - Corder & Richmond 1942, 5-8; Wacher 1969, 5-8; Moorhouse 1979, 4; Goodburn 1979, 287; Hanson & Campbell 1986, 83.

**Camps Bank**
Alternative names -
Region - Fife
NGR - NT045885
Strong antiquarian tradition recommends this site as the location for two Roman camps, though neither RCAHMS nor Crawford could detect any trace of any Roman installation here.
References - Chalmers 1807, 110; RCAHMS 1933, 50; Crawford 1949, 146.

**Carronbridge II**
Alternative names -
Region - Dumfries & Galloway
NGR - NX869978
Noted as 'D' on Clarke and Webster's interpretation of an aerial photograph, this length of ditch was believed by them to impinge upon I at various points, and also to curve round as if at corners at either end. The writers state that there is reason to believe a gate existed in this length of ditch, though do not state the reason. Their final word is that 'D' could be a temporary camp. In the interim reports of more recent work at the site Johnston is unforthcoming on the subject of II.
References - St Joseph 1951, 59; Taylor 1954, 86-7; CBA 1954, 8-9; Clarke & Webster 1954, 9-34; Taylor 1955, 124; CBA 1955, 8; Johnston 1989, 17-20.

**Castledykes VIII**
Alternative names -
Region - Strathclyde
NGR - NS930442
First recorded by St Joseph, this site lies to east of the fort and is described as the southern half of a rectangular enclosure partially obscured by a belt of trees. Mentioned again in 1964, the site thereafter appears to have been investigated

inadvertently by Robertson. The precise position of the work is difficult to pinpoint; it does not appear to have been recorded on the RCAHMS plan, unless it has subsequently been viewed as part of IX. Even if a genuinely separate work, its provenance remains unclear.
References - Taylor 1957, 200; St Joseph 1958, 89; Robertson 1964, 135, 258.

**Castledykes IX**
Alternative names -
Region - Strathclyde
NGR - not specified
The "east enclosure", this site was excavated at various points by Robertson and shown to have had more than one phase of occupation. The later use appears to have been intensive and 'permanent', though some doubt persists over the nature of the initial occupation. Robertson believed it to have been constructed in the Antonine period as a discrete monument, subsequently being adapted to form a fort annexe. RCAHMS thought the original use may have been temporary, though nothing more specific than this is ever postulated, except for Sommer who suggests it may have been a construction camp for the fort.
References - Taylor 1955, 123; 1956, 123; Robertson 1964, *passim*; RCAHMS 1978, 125, 127; Sommer 1984, 56.

**Castledykes X**
Alternative names -
Region - Strathclyde
NGR - NS928443
Discovered during excavation underlying the permanent forts, Robertson described this feature as a temporary enclosure of probably Agricolan and definitely Flavian date. Later she expands on this, referring to it as a semi-permanent bivouac, housing troops engaged in campaigning in the area. Frere however was highly critical of this identification, casting doubt on the veracity of the feature as a site at all. RCAHMS were happy enough with the existence of the site and suggested that it might represent a labour camp. Frere's final suggestion was later taken up by Wilson, namely that the site should be viewed as an outwork to the permanent Flavian fort. Jones meanwhile, thought the site might be seen as an outer enclosure housing animals or baggage. Ultimately Wilson changed his interpretation, agreeing with RCAHMS and perceiving the site as a labour camp.
References - Taylor 1951, 120; Miller 1952, 127-71; Taylor 1954, 86; Robertson 1964, *passim*; Frere 1966, 269-70; Jones 1975, 139; Wilson 1976, 22-3; RCAHMS 1978, 124-6; Wilson 1984, 57-61..

**Chew Green III**
Alternative names -
County - Northumberland
NGR - NT781080
Described by Richmond and Keeney as a semi-permanent camp, the discovery of metalled streets and other internal features, coupled with the magnitude of the defences, has led most commentators now to see this as a permanent work, probably a fort, including the RCHME after their recent resurvey (Welfare, pers. comm.).

References - MacLauchlan 1852, 41-2; Richmond & Keeney 1937, 129-50; Taylor 1937, 228; Richmond 1940, 63-154; Wilson 1974, 343; Frere & St Joseph 1983, 140-2.

**Colchester**
Alternative names -
County - Essex
NGR - not specified
A series of military ditches discovered during excavation by Hawkes and Hull, just south of Sheepen Farm, and described as possibly representing a series of temporary camps. At one point an accompanying rampart, comprised of ditch upcast was found, within which was found a wide midden and cooking hearth belt. Inside this, and beyond the postulated *intervallum* road, a timber-framed, wattle-and-daub barrack building was located, flanked by a metalled road with drain, all lying at an oblique angle to the defences. This building appears to have continued in use after the deliberate levelling of the defences. Worth noting too Wacher's illustration of a possible practice camp on his plan of the Colchester area, well to the south of the location noted above.
References - Collingwood & Taylor 1931, 235-6; Taylor 1932, 210-2; Wheeler 1932, 119; Taylor 1933, 202-3; Wacher 1975, 108.

**Dubmill Point**
Alternative names -
County - Cumbria
NGR - NY077456
Situated intercutting the ditch of presumed Milefortlet 17, Jones believed this site predated the milefortlet and might be seen as part of pre or early Hadrianic coastal watch system. This would also include the sites at Silloth, which Jones calls a camp, and that at Knock Cross, long believed to be a small temporary camp. Jones nowhere specifically state how he would interpret Dubmill Point, but the comparisons seem to suggest that he thinks of them as temporary works, though how such would work in a static (and presumably relatively permanent) watch system is unclear.
References - Jones 1982, 295-6.

**Duncot**
Alternative names -
County - Shropshire
NGR - SJ576117
When first noted this site was identified as a fort, though of unusual shape, though in his mention of the site St Joseph thought the site less conclusively Roman and incapable of resolution without excavation; he did however postulate that it might be a Celtic precinct, recollecting the example at Gosbecks Farm. Webster subsequently suggested that it might be a double-ditched camp, based on excavations by Houghton which found absolutely no pottery on the site. Later excavation by the same director found early second century A.D. sherds in the upper fills; the function of the site he still deemed to be obscure. Jones believed it most likely to be fort, though noted that the ditches were of marching camp size. General opinion therefore seems to favour its identification as a fort, though this seems to depend largely on the presence of double ditches.

References - Webster & Stanley 1963, 112; Dudley & Webster 1965, 143, 145; St Joseph 1965, 87; Webster 1970, 189; Wilson 1975, 247; Jones 1975, 185-6; Houghton 1975, 43-4; Stanford 1980, 118; Webster 1981, 51.

**Gloster Hill**
Alternative names -
County - Northumberland
A purely hypothetical camp, posited by Davies to explain the discovery here of an altar.
References - Davies 1968b, 73-5; 1974, 22.

**Golden Mile**
Alternative names -
Region - Glamorgan
Two enclosures once existed here, classified as Roman camps by antiquarian writers. RCAHMW resurrected the sites, opining that the designation is possible, the sites having been subsequently destroyed, but ultimately postulate that they should not be so viewed.
References - RCAHMW 1976, 104.

**Hawford**
Alternative names -
County - Hereford & Worcester
NGR - SO845604
First recorded by St Joseph as a possible camp or fort, later excavation by Webster led the latter to contend that the site was not military in character, having a U-shaped ditch of excessively large proportions (c. 11 feet wide) and containing second century A.D. pottery.
References - St Joseph 1955, 87-8; Taylor 1956, 129-30.

**Joyden's Wood**
Alternative names - Bexley
County - Kent
NGR - TQ509719
For long believed to be a Roman site, and by many an early Roman camp, one commentator specifically records the discovery of Roman pottery here. Later survey by Hogg led him to state that there was nothing diagnostically Roman about the surviving earthworks and he opined that it was post-Roman in date. Subsequent excavation by Tester and Caiger adds weight to the non-Roman case by the discovery of medieval buildings in the interior.
References - Erwood 1928, 171-9; Hogg 1941, 10-27; Tester & Caiger 1957, 233; 1958, 18-40.

**Kilmarnock**
Alternative names -
Region - Strathclyde
NGR - no information
This site appears to have been resurrected, without much supporting evidence, by Clarke in an attempt to bolster his theory about a Roman road into Ayrshire. He cites

Mackay and Paterson in defence of his suggestion. Paterson makes no such statement, while Mackay is clear that the idea is based, even in his day, on tradition only.
References - Mackay 1848, 26; Clarke & Wilson 1959, 156.

**Lamberkine**
Alternative names -
Region - Tayside
NGR - NO074226
Originally identified by St Joseph as a small rectangular enclosure, possibly representing a temporary camp, this site remained undiscussed in print until very recently. The National Monuments Record for Scotland contains reference to a piece of private correspondence from St Joseph, dated to 1976, which states that further investigation of the site showed that it was not a Roman temporary camp. It is interesting then to note King's report of a photograph taken of the site in 1992, allegedly revealing a gateway with external *clavicula* on the north side.
References - St Joseph 1955, 87; DES 1992, 79.

**Llanio**
See - Pant teg Uchaf

**Loudoun Hill**
Alternative names -
Region - Strathclyde
NGR - not specified
Excavation at the forts here recovered evidence for five phases of occupation, the final three of which represent undoubted permanent forts. The first two phases, both of Flavian date, are described respectively as a "temporary fort" and an "enclosure". Of uncertain provenance.
References - Taylor 1939, 201; 1947, 165; 1949, 98; Miller 1952, 188-91; St Joseph 1955, 86; Jones 1975.

**Malton**
Alternative names -
County - Yorkshire
NGR - SE792716
First described by Corder as a pre-fort camp of not less than 22 acres, the association of the site with wooden buildings, coupled with significant quantities of pottery and coins, suggests it is not a temporary camp. Rather surprisingly however, excavations in the 1960s, by Manby and Wenham, led to their postulation that the site was a temporary camp attributable to the governorship of Vettius Bolanus.
References - Collingwood & Taylor 1928, 197-8; Corder & Kirk 1928, 69-82; Taylor & Collingwood 1929, 186; Corder 1930, 55-64; Taylor 1932, 203; 1951, 126; HMSO 1969, 62-3; 1970, 75; Wilson 1971, 252-3; Wenham 1974, 11-3.

**Metchley**
Alternative names -
County - Warwickshire
NGR - not specified

Recorded by St Joseph & Shotton in the 1930s as camps, excavation by Rowley in the 1960s appeared to have demonstrated these sites to represent forts, an interpretation followed by Jones. Some doubt though appears to persist as to their precise provenance, exemplified by Breeze.
References - Taylor 1934, 205-6; 1936, 256; 1937, 236-7; Jones 1975; Breeze 1983.

**Milton II**
Alternative names - Tassiesholm
Region - Dumfries & Galloway
NGR - NT092014
Discovered during excavations by Clarke, this putative camp took the form of a line of ditch located beneath the *intervallum* road of the fort, purportedly displaying an inverted *clavicula* at its terminal. Otherwise unsubstantiated.
References - Clarke 1946, 106, 109; 1950, 199.

**Mumrills**
Alternative names -
Region - Central
NGR - NS920793
First noted by St Joseph lying 500 feet from the fort, the site was subsequently excavated by Robertson, confirming its Roman date. Steer claimed the results also bore out the identification of the site as temporary, though the irregular nature of the site, the evidence for internal structures and the relatively high level of small finds recovery seems to cast some doubt on this attribution, a point of view clearly shared by Hanson and Maxwell.
References - St Joseph 1958, 89; Steer 1961, 96; Taylor & Wilson 1961, 160; Hanson & Maxwell 1983, 120.

**Pant teg Uchaf I and II**
Alternative names - Llanio
Region - Dyfed
NGR - not specified
Two sites exist here, both of which have been proposed as practice works. The first was recorded by St Joseph and described by him as a fortlet, followed by Jones and Frere. The subsequent discovery of a second work nearby, described as unfinished, led others to record both as practice works, including Davies and Jarrett. Wilson, commenting on APs of the second work, said it was clearly not a camp and that the former site should revert to a fortlet. Nonetheless the practice camp designation persists, as for example on the OS Map of Roman Britain, where one site is shown here, and in CBA 1983, where a newly discovered watchtower is described as near the unfinished practice work.
References - St Joseph 1961b, 127-8; Jones 1961, 136-7; Frere 1967, 183; Davies 1968a, 106, 119; Nash-Williams 1969, 127, 129-30; Wilson 1974, 345; OS 1978; CBA 1983, 32.

**Roggerham**
Alternative names -
County - Lancashire
NGR - not specified

Located near Burnley, this site was once regarded as a Roman camp, but excavation by Atkinson and Richmond proved it was not Roman.
References - Taylor & Collingwood 1929, 192.

**Silloth**
Alternative names -
County - Cumbria
NGR - NY115537
Suggested by Jones to be part of a pre- or early Hadrianic coastal watch system, this very small site is compared and included by him along with Knock Cross and Dubmill Point. Such a system though is difficult to envisage utilising truly temporary camps. What is not clear is whether this is a camp dubiously attributed to a permanent system, or part of a permanent system dubiously classified as a camp.
References - Jones 1982, 294, 296; Higham & Jones 1983, 57; 1986, 33.

**Syndale**
Alternative names -
County - Kent
NGR - not specified
This alleged camp was excavated by Whiting and Crawford and shown in fact to represent lynchets.
References - JRS 1923, 275.

**Tyn-y-Wern Farm**
Alternative names -
Region - Clwyd
NGR - SJ126567
An irregular, trapezoidal-shaped enclosure seems unlikely on the grounds of shape and lack of discernible entrances, though the shape may just be dictated by the local topography.
References - Frere 1983, 280.

**Wall Houses**
Alternative names -
County - Northumberland
NGR - not specified
Long suggested as a possible camp, Bennett revealed this site to be known now as a post-Medieval enclosure.
References - Bennett 1980.

**Water Newton**
Alternative names - Chesterton
County - Cambridgeshire
NGR - TL116973
Military works were originally seen from the air by Crawford in 1930, but APs were only taken in 1939. Hawkes interpretation of this latter noted three "camps", the main one being in fact a fort (Hawkes' 'C'). Problems revolve around the fact that this is the only photograph on which evidence for the other two ditches has ever been recorded, and the quality of this unique source is not the beSt The works seen could equally be

annexes (though one does appear to underlie the fort and the other is on a different alignment).
References - Crawford 1930, 274-5; Collingwood & Taylor 1931, 224-5; Taylor 1939, 208-9; Hawkes 1939, 178-90; Margary 1939, 455-8; St Joseph 1953, 82-3.

**Wickford**
Alternative names-
Region - Essex
NGR - TQ762937
Excavation at a farmstead at Beachamps near Wickford discovered a ditch in the final season described as belonging to a first century A.D. marching camp. The ditch was traced for 50 metres, to a butt end, and produced finds, including a military trumpet mouth piece. No further information available.
References - HMSO 1971, 58; Wilson 1972, 335.

## DISPROVED or RECLASSIFIED CAMPS

**Abertanat I**
Alternative names -
Region - Powys
NGR - SJ248214
Originally identified by Jones as one of two camps set on the floodplain beside the River Tanat, this 'camp' now appears to be a running fortification, associated with II.
References - Frere 1988, 417; 1989, 259-60; 1991, 223-4; 1992, 256-7.

**Abertanat II**
Alternative names -
Region - Powys
NGR - SJ248214
Originally identified by Jones as one of two camps set on the floodplain beside the River Tanat, this 'camp' later appears in print as a fort, an identification apparently borne out by the discovery of internal buildings.
References - Frere 1988, 417; 1989, 259-60; 1991, 223-4; 1992, 256-7.

**Alice Hill**
Alternative names -
Region - Strathclyde
NGR - NS828662
Originally noted by Stuart in the nineteenth century as a possible Roman camp, subsequent examination by Davidson, initially believing it to be a reasonable candidate, found no corroborative evidence. Now interpreted as likely to have been an early stock enclosure, now ploughed out.
References - Stuart 1852, 240; Groome 1888, 350; Davidson 1952, 83-4.

**Balnageith**
Alternative names -
Region - Grampian

NGR - NJ024578
Area - perhaps as much as 4ha (10 acres)
A rectangular enclosure, situated west of Forres, on which aerial reconnaissance, geophysical survey and trial excavation have all taken place. Apparently double ditched, the excavators, Jones and Keillor, seem to favour identification of the site as a fort.
References - Frere 1990, 310; DES 1990, 21; Frere 1991, 226, 229.

**Bombie**
Alternative names -
Region - Dumfries & Galloway
NGR - not specified
Originally noted by antiquarian writers as a possible Roman camp, this identification was queried by the RCAHMS and disproved following excavation in the 1940s, when its irregular plan and drystone construction was demonstrated.
References - Stuart 1847, 232; RCAHMS 1914, 118; Anderson 1947, 27-35.

**Brancaster**
Alternative names -
County - Norfolk
NGR - not specified
Located immediately north of the Saxon Shore fort, this roughly square, double-ditched feature of c. 0.64ha (1.5 acres) also displays evidence of reuse, in the form of a subdividing ditch. Surface finds do not suggest particularly intensive internal occupation. Popular opinion would see this as an earlier fort, especially since, unlike the later work, it is aligned with the surrounding *vicus*, though there are dissenting voices, such as Hinchcliffe. Sommer specifically suggests it might be a construction camp.
References - Edwards 1976, 258-9; Edwards & Green 1977, 24-5, 27; Sommer 1984, 27, 57; Hinchcliffe 1985, 1, 3, 179.

**Broxtowe**
Alternative names -
County - Nottinghamshire
NGR - not specified
Excavations in the 1930s at this site produced a series of finds not initially understood, though subsequent research by Webster led to the suggestion that it must be a fort. Further work led to the discovery that the site, at one point must have been of considerable size, one side at least 1400 feet long, though it continued to be referred to as a fort in most sources (Webster interestingly calls it a fortlet, in 1981). Whitwell suggested that the site could be viewed as a camp, on the grounds of its size, though it is now commonly accepted as an example of the class of monument known as a vexillation fortress.
References - Taylor 1938, 182-3; 1939, 207; Oswald 1939; Webster 1958, 55, 69-73; Webster 1980, 120-1; 1981, 92-3; Todd 1981, 96; Whitwell 1982, 45; Hanson & Campbell 1986, 80-2.

**Burnswark I & II**
Alternative names -

Region - Dumfries & Galloway
NGR - NY188785 & NY185791
Although incontrovertibly Roman in character, it is argued in chapter 4 of this thesis that siege works, even if for training as has been suggested for these two works, should not be classified along with temporary camps, hence their inclusion in this section.
References - Christison, Barbour & Anderson 1899, 198-249; Barbour 1900, 42-63; Schulten 1914, 607-17; MacDonald 1918, 216-7; RCAHMS 1920, 94-101; Taylor & Collingwood 1925, 223; Collingwood 1926, 46-58; Anon 1926, 83-4; Collingwood & Taylor 1931, 217-8; Birley 1939, 315-7; Crawford 1939, 286; Taylor 1940, 160; St Joseph 1952, 97-8; Birley 1958, 234-6; DES 1966, 21-2; 1967, 23; Wilson 1968, 178; DES 1968, 20; Wilson 1969, 204; 1970, 274; DES 1970, 21; Wilson 1971, 249; Davies 1972, 99-113; Jobey 1978, 57-104; Breeze & Dobson 1978, 107; Breeze 1982, 144-5; Frere & St Joseph 1983, 32-5; Hanson & Maxwell 1983, 25-7; Keppie 1986, 74-9; Frere 1987, 136-7, 215; Hanson 1987, 168; Maxwell 1989, 13-4.

**Caersws**
Alternative names -
Region - Powys
NGR - not specified
Initially listed as a camp, the subsequent discovery of a permanent fort here allowed the site to be reinterpreted as the eastern annexe of that work.
References - St Joseph 1958, 97; 1961a, 269; 1969, 121.

**Carrs Fell**
Alternative names -
County - Northumberland
NGR - not specified
Originally listed as a camp by St Joseph, subsequent research and fieldwork by RCHME led to the reinterpretation of this site as a nineteenth century enclosure, later followed by Bennett.
References - St Joseph 1969, 105; Wilson 1974b, 408; Bennett 1980.

**Cawdor**
See - Easter Galcantray

**Cawthorn II**
Alternative names -
County - North Yorkshire
NGR - SE785901
Richmond's 'D', originally classified as a camp, is now widely regarded as a permanent fort.
References - Richmond 1932, 17-78; Frere & St Joseph 1983, 109-10; Frere, Rivet & Sitwell 1987, 21.

**Cawthorn III**
Alternative names -
County - North Yorkshire
NGR - SE785901

Richmond's 'A', again originally classified as a camp, and again now commonly viewed as a permanent fort, though Sommer records it as a possible construction camp.
References - Richmond 1932, 17-78; Frere & St Joseph 1983, 109-10; Sommer 1984, 56; Frere, Rivet & Sitwell 1987, 21..

**Cawthorn IV**
Alternative names -
County - North Yorkshire
NGR - SE785901
Richmond's 'B', originally classified as an enlargement of A, and of temporary status, now seen as an enlargement of the permanent fort 'A'.
References - Richmond 1932, 17-78; Frere & St Joseph 1983, 109-10; Frere, Rivet & Sitwell 1987, 21.

**Cefn Hirgoed**
Alternative names -
Region - Mid Glamorgan
NGR - SS922827
Originally listed as a possible practice camp, the isolation of the site from any known Roman fort, or other practice work, always cast doubt on its provenance. In the light of excavation of the site, which recovered a clay tobacco pipe from the primary ditch deposits, this site cannot now be considered Roman.
References - RCAHMW 1976, 103; CBA 1977, 33; Goodburn 1978, 408.

**Cefn Morfudd**
Alternative names -
Region - Mid Glamorgan
NGR - not specified
RCAHMW record thirteen small, squarish earthworks here, which they describe as superficially reminiscent of practice works, but which on closer inspection have angular corners and no entrances.
References - RCAHMW 1976, 103-4.

**Easter Galcantray**
Alternative names - Cawdor
Region - Grampian
NGR - NH808483
Originally described as temporary camp, the excavators now refer to the site as a fort, while others believe it to be of native origin.
References - DES 1984, 14; 1985, 27; Jones 1986, 13-6; Frere 1986, 370; DES 1986, 18; Maxwell & Wilson 1987, 34; Frere 1987, 309; DES 1987, 27; 1989, 29; 1990, 24; Hanson & Breeze 1991, 70..

**Gelligaer**
Alternative names -
Region - Mid-Glamorgan
NGR - not specified
Distinct from the group of practice works at this site, mention is made of excavation here within the south angle of the 'camp', to north-west of the Trajanic fort,

presumably equating with Richmond's "possible labour camp. This revealed evidence of two phases of timber buildings and thus removes the site from the list of temporary sites.
References - Richmond 1955, 300; St Joseph 1961, 126; Wilson 1964, 152.

**Gelligaer Common**
Alternative names -
Region - Mid-Glamorgan
NGR - not specified
RCAHMW note a potential unfinished practice camp just west of V, though its strange shape and sharp angles militate against such an interpretation.
References - RCAHMW 1976, 104.

**Gold Castle**
Alternative names -
Region - Tayside
NGR - not specified
Crawford remarked on this site, interpreting it as a "Roman fort of the semi-permanent kind", though St Joseph later rejected this suggestion and declared it unlikely even to be Roman, due to its sharp angles and unparallel sides.
References - Crawford 1949, 62-4; St Joseph 1951, 63.

**Greensforge**
Alternative names -
County - Staffordshire
NGR - not specified
The camp referred to by St Joseph in 1958 ultimately transpired to be a second fort.
References - St Joseph 1958, 95; Wilson 1963, 132; St Joseph 1965, 84.

**Haltwhistle Common VII**
Alternative names - Sunny Rigg
County - Northumberland
NGR - NY698657
Long accepted as a small camp, this site has subsequently been shown to represent a pot-medieval structure (Welfare, pers. comm.)
References - Frere 1977, 373; HMSO 1977, 39; Collingwood Bruce 1978, 178; Bennett 1980, 152, 154, 170.

**Holme House Farm**
Alternative names -
County - Durham
NGR - not specified
Listed originally by St Joseph as a semi-permanent work, though probably more fort than camp, this site was later recognised to be the defensive enclosure for a villa.
References - St Joseph 1951, 52; Salway 1965, 147; Wilson 1970, 279-80; 1971, 251-2.

**Innerpeffray III & IV**
Alternative names -

Region - Tayside
NGR - not specified
Originally described as two small camps, each with a side in common with the 63 acre camp here, these sites turn out to be the annexe and a native enclosure respectively, though St Joseph never corrects the initial misinterpretation in print.
References - Taylor 1957, 200; St Joseph 1958, 90.

**Kelvedon**
Alternative names -
County - Essex
NGR - not specified
The site believed in the early 1970s to be a camp or possible camp, is now generally recognised as a permanent fort.
References- Wilson 1971, 273; 1972, 333; 1973, 205; 1974, 442-4; Jones 1975; Webster 1980, 129.

**Laleham**
Alternative names -
County - Surrey
NGR - TQ053707
A double ditched site, originally scheduled as a Roman marching camp, subsequently proved through excavation to be of Medieval date.
References - Crawford 1933, 290-2; Frere 1990, 358.

**Llandeilo**
Alternative names -
Region - Dyfed
NGR - SN632221
Initially reported as a possible fort, Webster suggested the site more likely to represent a camp on the grounds of its size, but both have now been superseded following recognition of the site as parts of early nineteenth century field boundaries.
References - Grew 1980, 348; Webster 1981, 118; Frere 1984, 267.

**Logie**
Alternative names -
Region - Tayside
NGR - NO699629
Reported by St Joseph in 1973 as a cropmark of a ditch, which after testing by excavation proved to have a characteristic Roman V-shaped profile. He suggested that this seemed to represent the north side of a large temporary camp, of at least 50 acres and potentially a member of the 63 acre series. In 1978, after further excavation however, St Joseph stated that the apparent lack of gates and the sharp angle found indicated that this site should now be viewed not as Roman but as early modern boundary ditches associated with plantation belts. Recounted by Maxwell, without comment on the provenance of the site.
References - St Joseph 1973, 226, 231-2; 1977, 140; 1978, 279; Maxwell 1990, 104.

**Lothersdale**
Alternative names -

County - Yorkshire
NGR - not specified
A site reported as having a clavicular gate, excavation by St Joseph dismissed the clavicula and suggested the site would be better perceived as of Medieval date, having angular corners, a very wide ditch and at least one side with no entrance.
References - Rankov 1982, 348; Frere 1983, 293-4; Frere & St Joseph 1983, 23.

**Marden**
See - Preston

**Middleton on the Wolds**
Alternative names -
County - Yorkshire
NGR - not specified
When a grave was found in 1921 cut into a ditch, the latter was believed likely to represent the defences of a camp. But the overall shape, the right-angle noted the following year and the vast quantities of material recovered, show this is not a temporary camp.
References - JRS 1921, 204; 1922, 248.

**Monkhill**
Alternative names -
County - Cumbria
NGR - NY343583
The one and only reference to this site is St Joseph, who believed it to be a small camp located half a mile south of Hadrian's Wall. However recent work by RCHME has led to the rejection of this site as a Roman camp, it now being seen as a native enclosure (Welfare, pers. comm.).
References - St Joseph 1955, 84.

**Newton-on-Trent**
Alternative names -
County - Lincolnshire
NGR - not specified
The work noted in 1965 as a camp should now be deemed a defensive outwork to the fort.
References - Frere 1966; Frere & St Joseph 1983; Wilson 1984.

**Orsett Cock**
Alternative names -
County - Essex
NGR - not specified
A first-century A.D. marching camp is how the site is described following its discovery in 1968, a rhomboidal, double-ditched enclosure subsequently found on RAF APs of 1946. Later, excavation led to the tempering of this description to an "early Roman defensive enclosure", after which both Dunnett and Edwards referred to it as a fort and a temporary camp respectively. Further excavation by Toller however established beyond doubt that the site was not Roman military in character.

References - Rodwell 1974, 13-39; Dunnett 1975, 41; Edwards *et al.* 1979, 15; Toller 1980, 5-42.

**Petteril Green**
Alternative names -
County - Cumbria
NGR - NY477421
A confusing site which may transpire to be two separate sites. The original alleged temporary camp of this name was reported by Spence, first noted on APs by Insall, and having double ditches. Subsequent excavation and the discovery there of walls and paving showed this site to be other than a Roman camp, as Farrar confirmed in print. However Higham and Jones have resurrected the name of Petteril Green, describing it as one of two camps lying north of the fort at Old Penrith. Since they have already mentioned Brougham in the text it cannot be this site, and the only other possible candidate (of sites in print at least) is Old Penrith, which could be construed as one, two or three sites. It is therefore unclear what exactly Higham and Jones mean by Petteril Green.
References - Spence 1933, 227-32; Farrar 1980; Higham & Jones 1986, 17.

**Preston**
Alternative names - Marden
County - Northumberland
NGR - NZ354705
Located at the east end of Hadrian's Wall, work by Jobey has led to the reclassification of the site as a native work.
References - St Joseph 1958, 87; Jobey 1963, 19.

**Sutton Cross**
Alternative names - Upton
County - Cambridgeshire
NGR - TL107991
Discovered on APs by Margary and located near the site at Water Newton, this site was initially believed to represent a small temporary camp, an identification to which St Joseph later lent his support. Whitwell was less certain, saying doubt had been expressed with regard to its character since then and latterly excavation by Challands has demonstrated the site is not Roman and more likely prehistoric in date.
References - Margary 1935, 113; Hawkes 1939; St Joseph 1953, 83; Whitwell 1982, 41-2; Frere 1991, 257.

**Swanton Morley**
Alternative names -
County - Norfolk
NGR - TG012192
Originally published as a possible marching camp, evidence from subsequent APs have led to the reclassification of this site as a permanent fort.
References - Edwards & Hartwell 1981, 45; Edwards 1981, 40; Wade-Martins 1982, 3-4; Frere 1984, 305; Maxwell & Wilson 1987, 8.

**Swinburn**

Alternative names -
County - Northumberland
NGR - NY951742
Initially published as a possible small camp by St Joseph, subsequent work by RCHME indicates that this site should instead be seen as a rectilinear native site (Welfare, pers. comm.).
References - St Joseph 1958, 87.

**Tiverton**
Alternative names - Bolham
County - Devon
NGR - not specified
When first identified on APs this site was interpreted as a camp, but subsequent excavation by Maxfield revealed the site was in fact a permanent fort.
References - Proc. Devon Arch. Soc. 1978, 254-6; Maxfield 1980, 300-1; Frere 1983, 323; Maxfield 1991, 25-98.

**Upton**
See - Sutton Cross

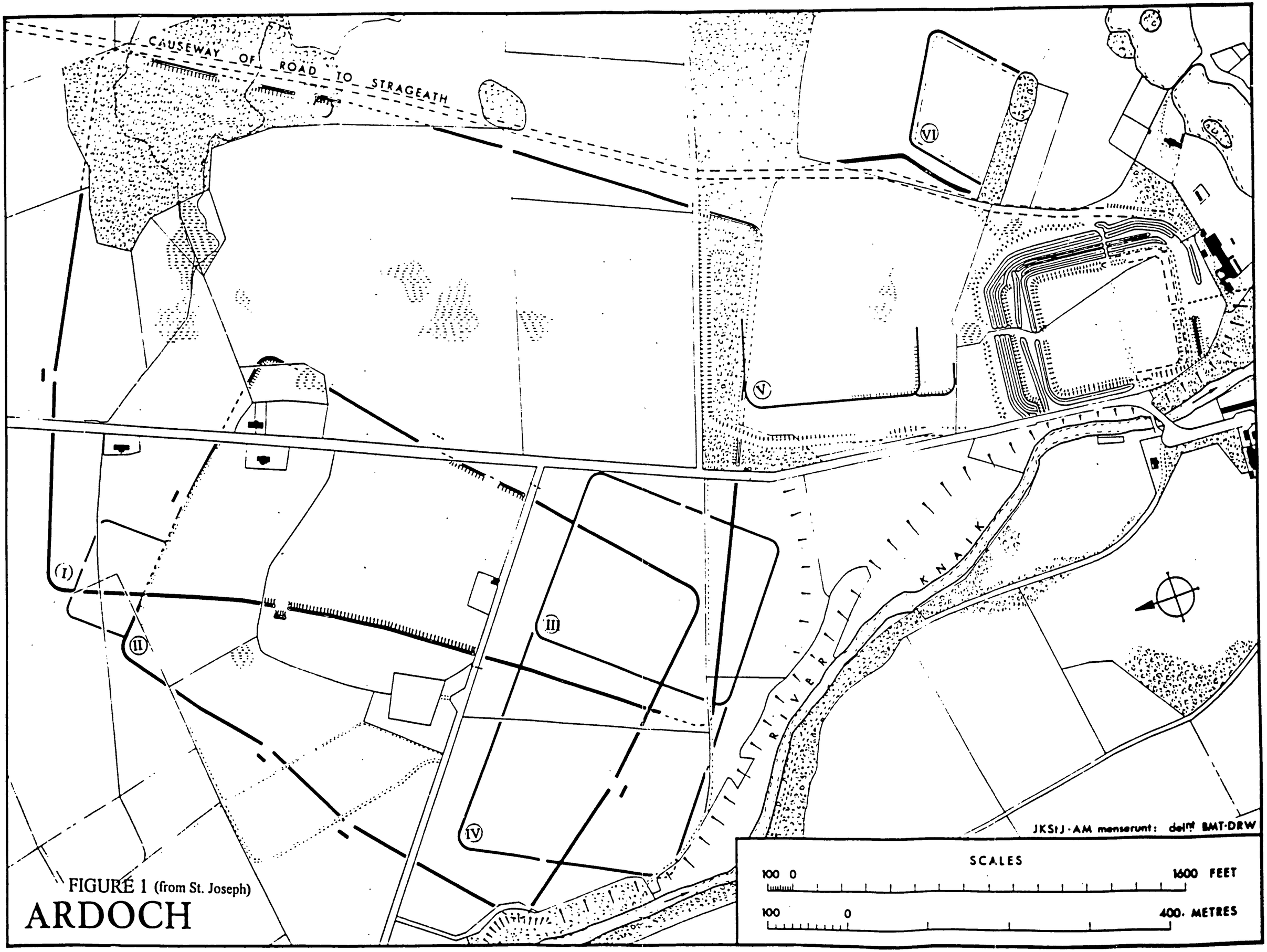



FIGURE 1 (from St. Joseph)

# ARDOCH

# INCHTUTHIL ~ The Labour Camp

FIGURE 2

(from Pitts & St. Joseph)

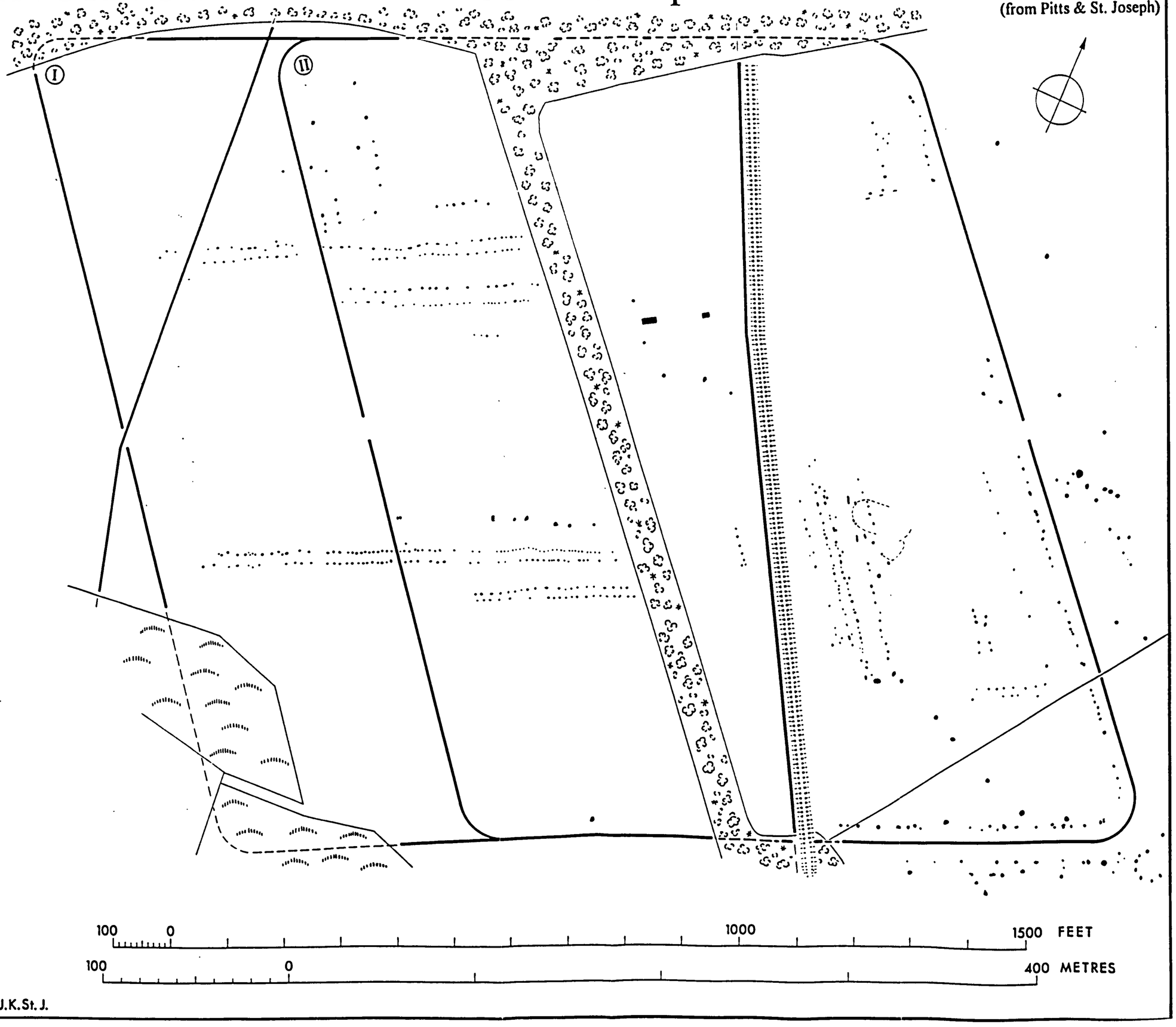


FIGURE 3 (from Jobey 1979)

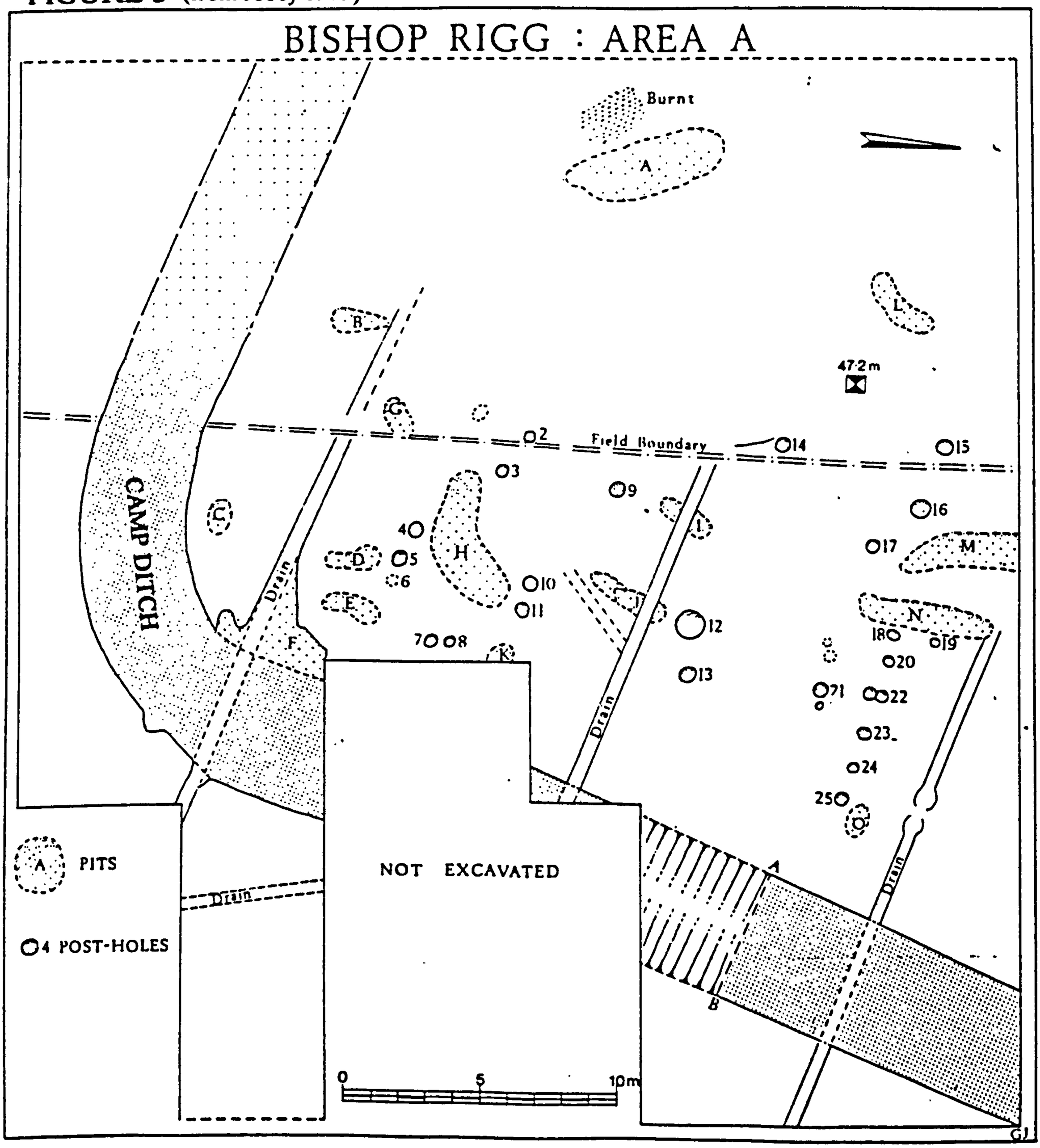
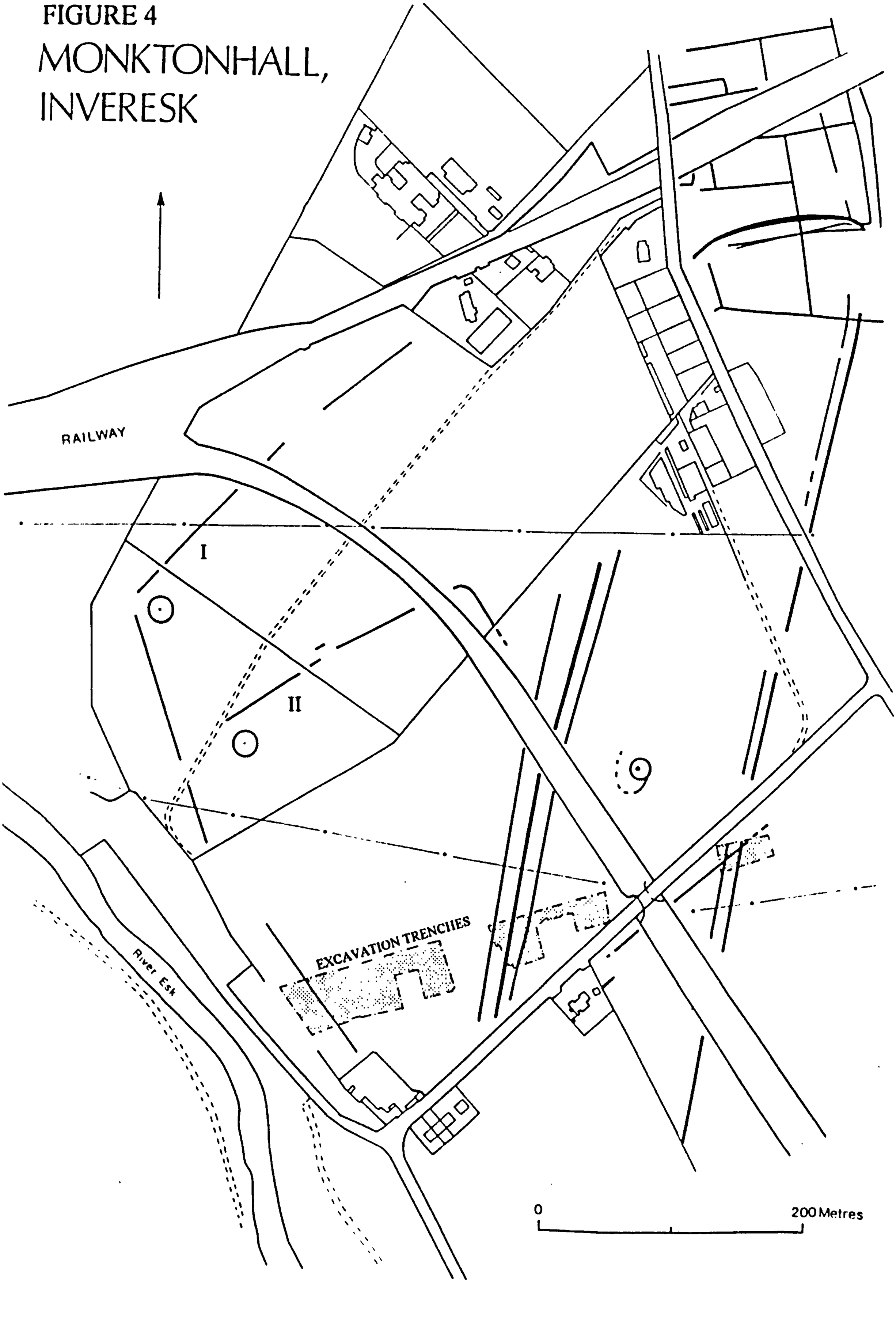
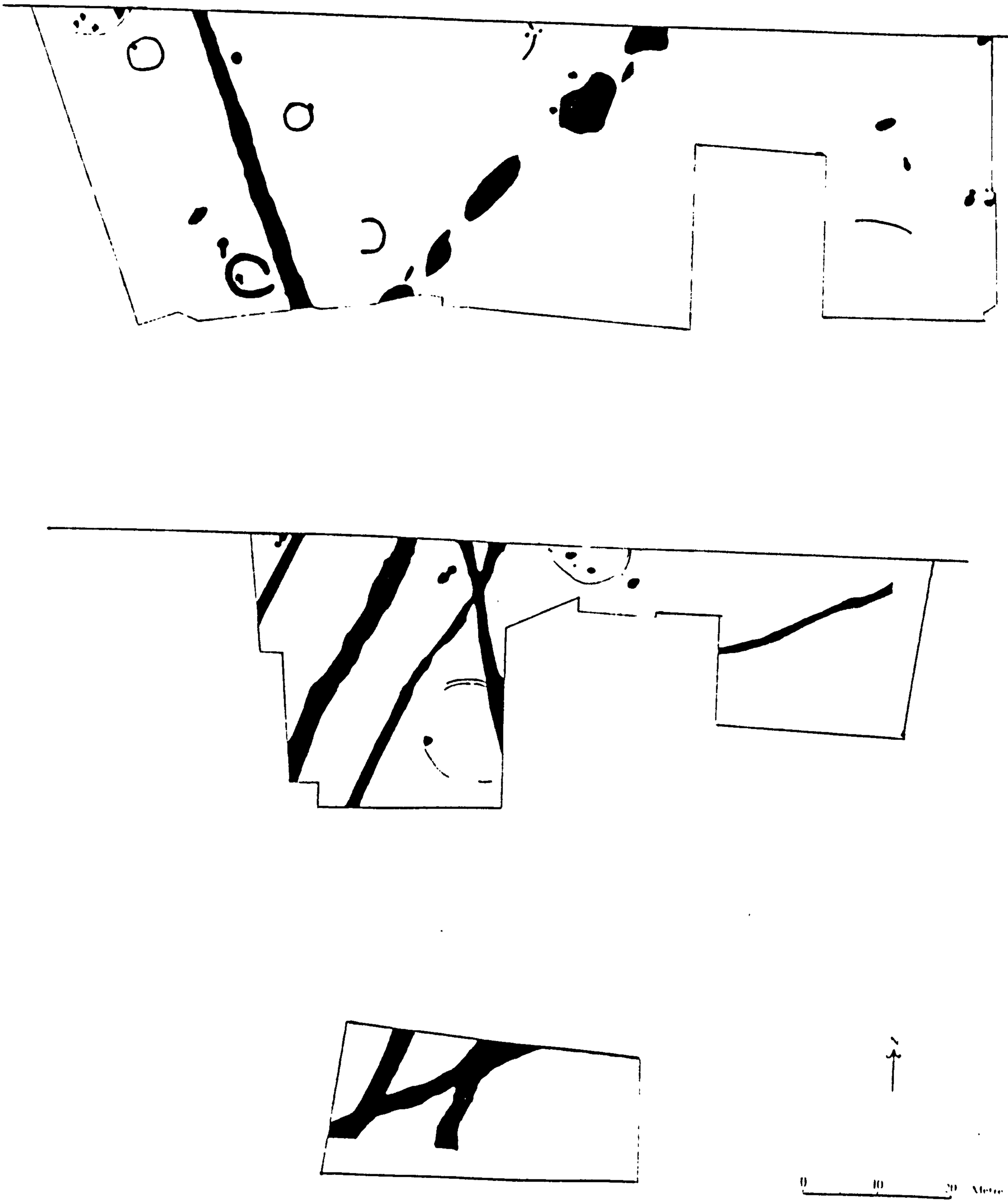


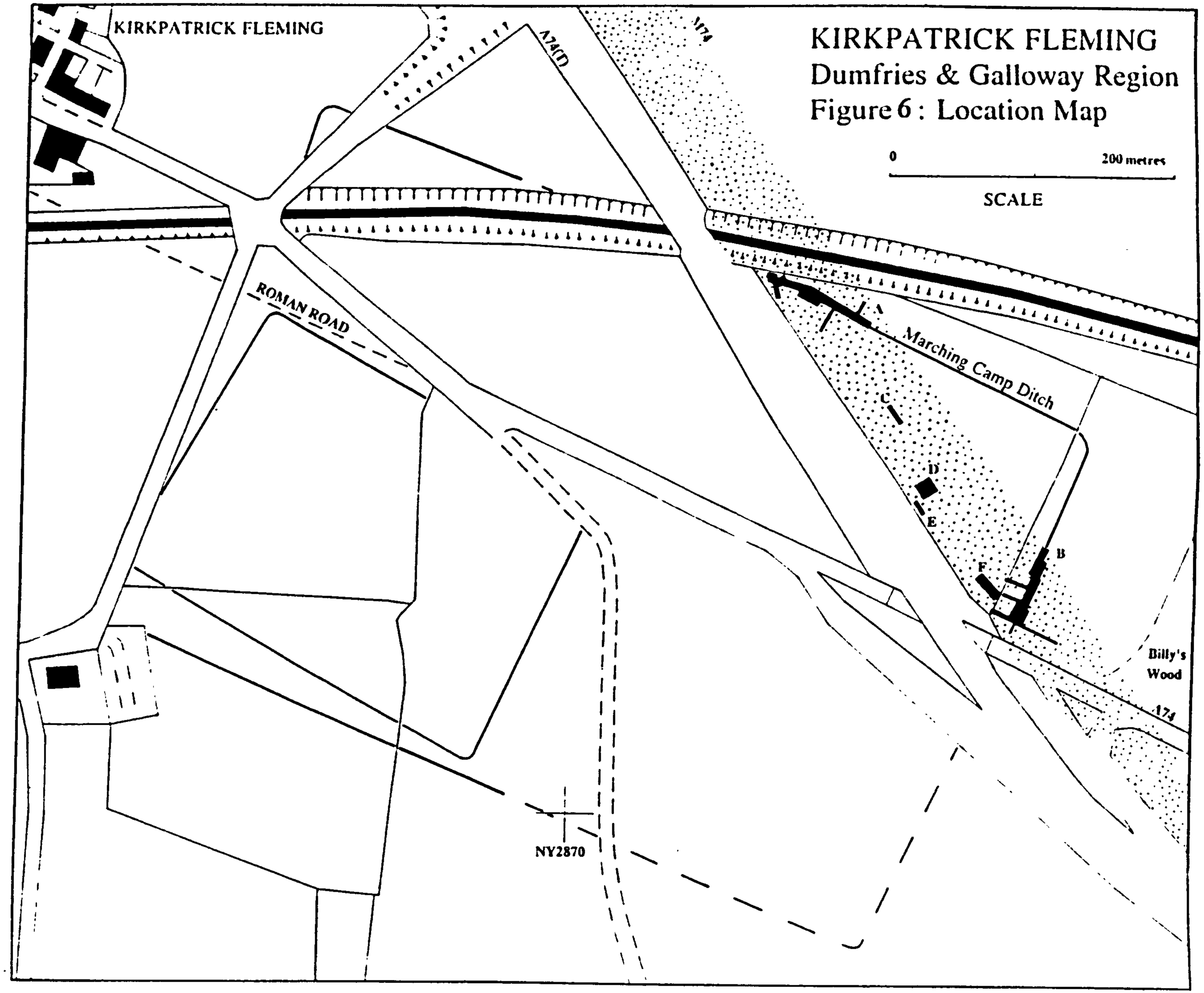
FIGURE 4

# MONKTONHALL, INVERESK

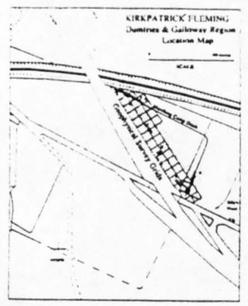


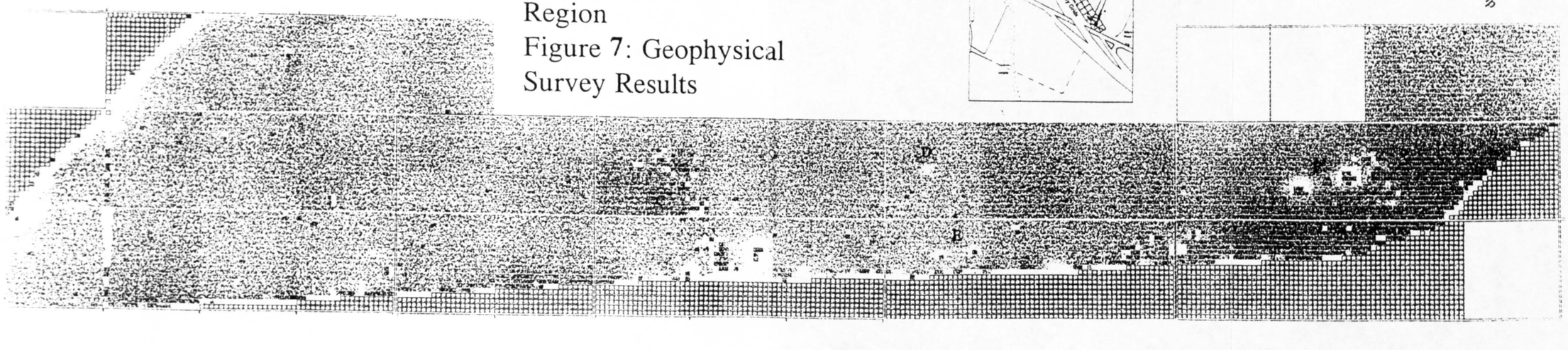


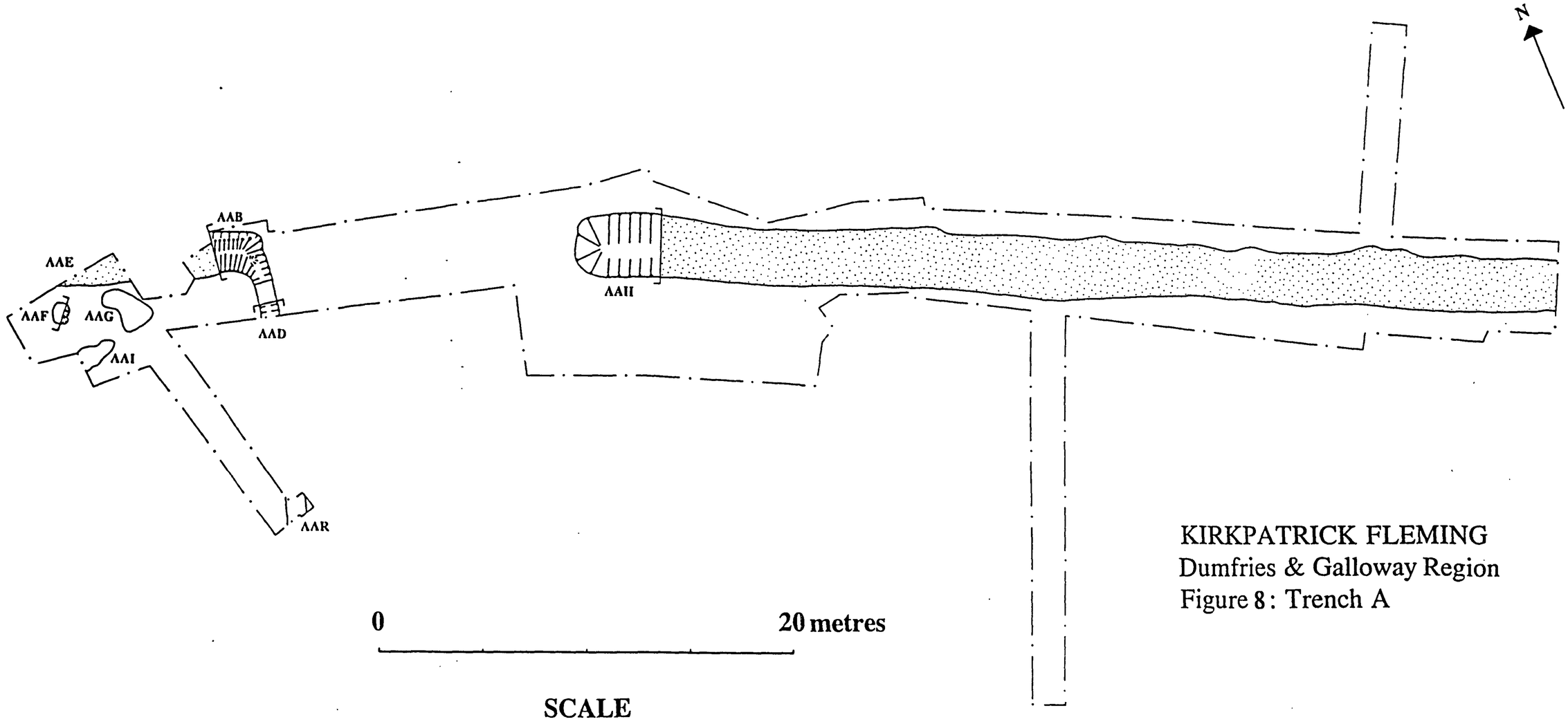

**MONKTONHALL JUNCTION: EXCAVATED AREA**
**FIGURE 5**


KIRKPATRICK FLEMING
Dumfries & Galloway Region
Figure 6 : Location Map
0
200 metres
SCALE
KIRKPATRICK FLEMING
A74(T)
A74
ROMAN ROAD
Marching Camp Ditch
C
D
E
F
B
Billy's
Wood
A74
NY2870

KIRKPATRICK
FLEMING
Dumfries & Galloway
Region
Figure 7: Geophysical
Survey Results






KIRKPATRICK FLEMING
Dumfries & Galloway Region
Figure 8 : Trench A

site of old quarry

supposed line of Roman road

A74

snow line

trenches

c

Kirkpatrick House

NY 278 702

NY 276 701

church

large marching camp

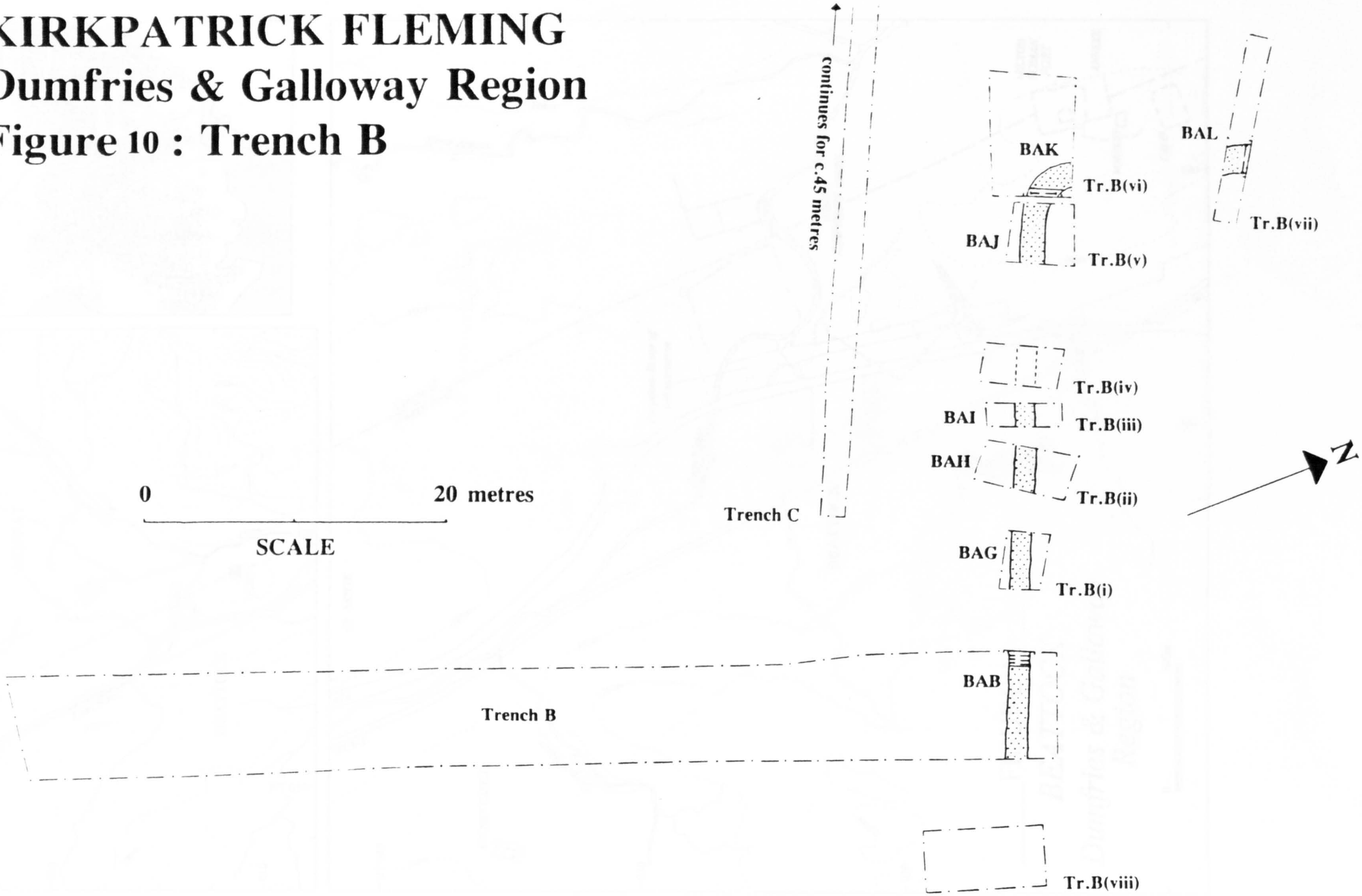
small marching camp

area unavailable for investigation

B6357

**KIRKPATRICK FLEMING**
**Dumfries & Galloway Region**
**Figure 9 : Location Map**

# KIRKPATRICK FLEMING
# Dumfries & Galloway Region
# Figure 10 : Trench B



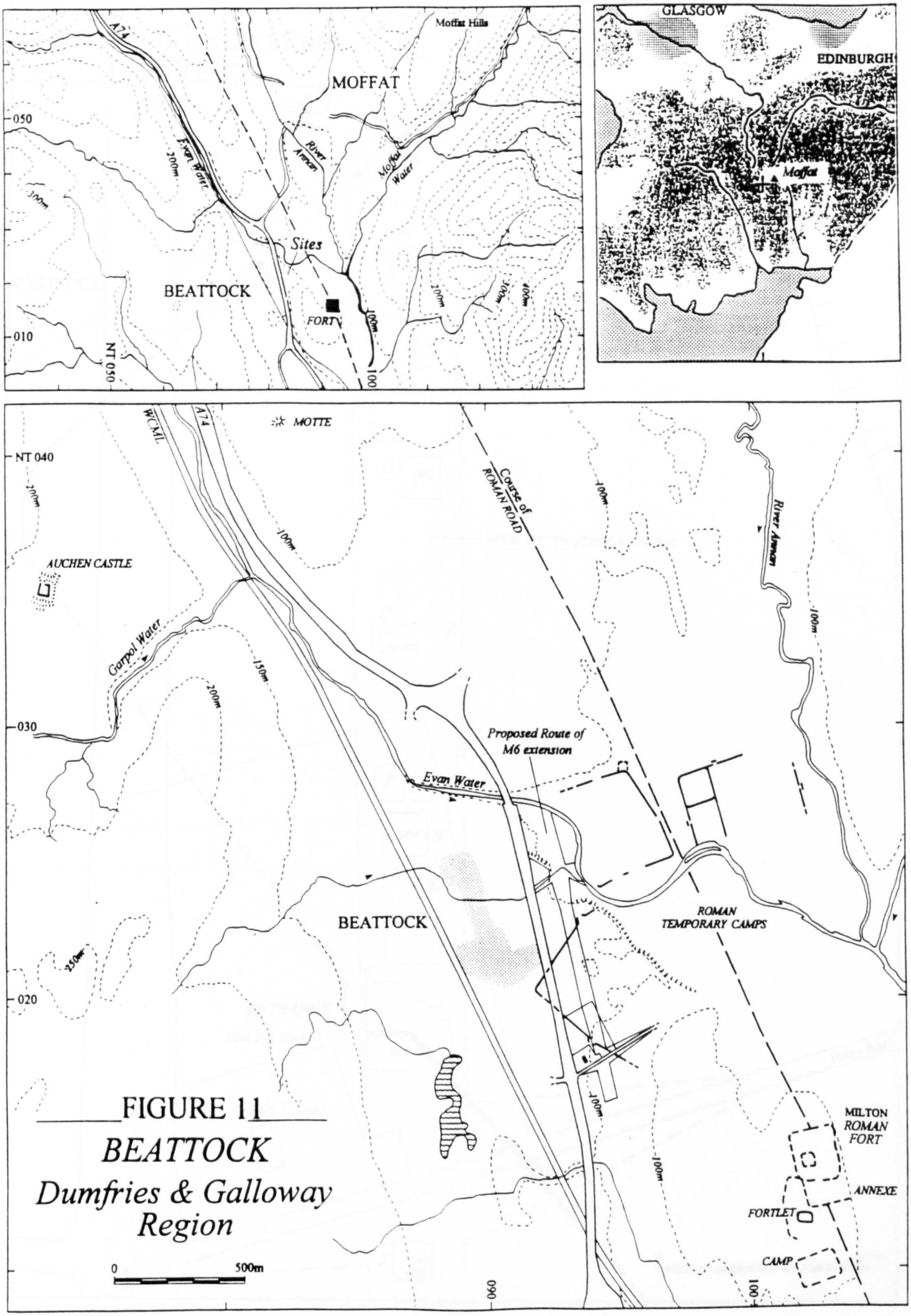
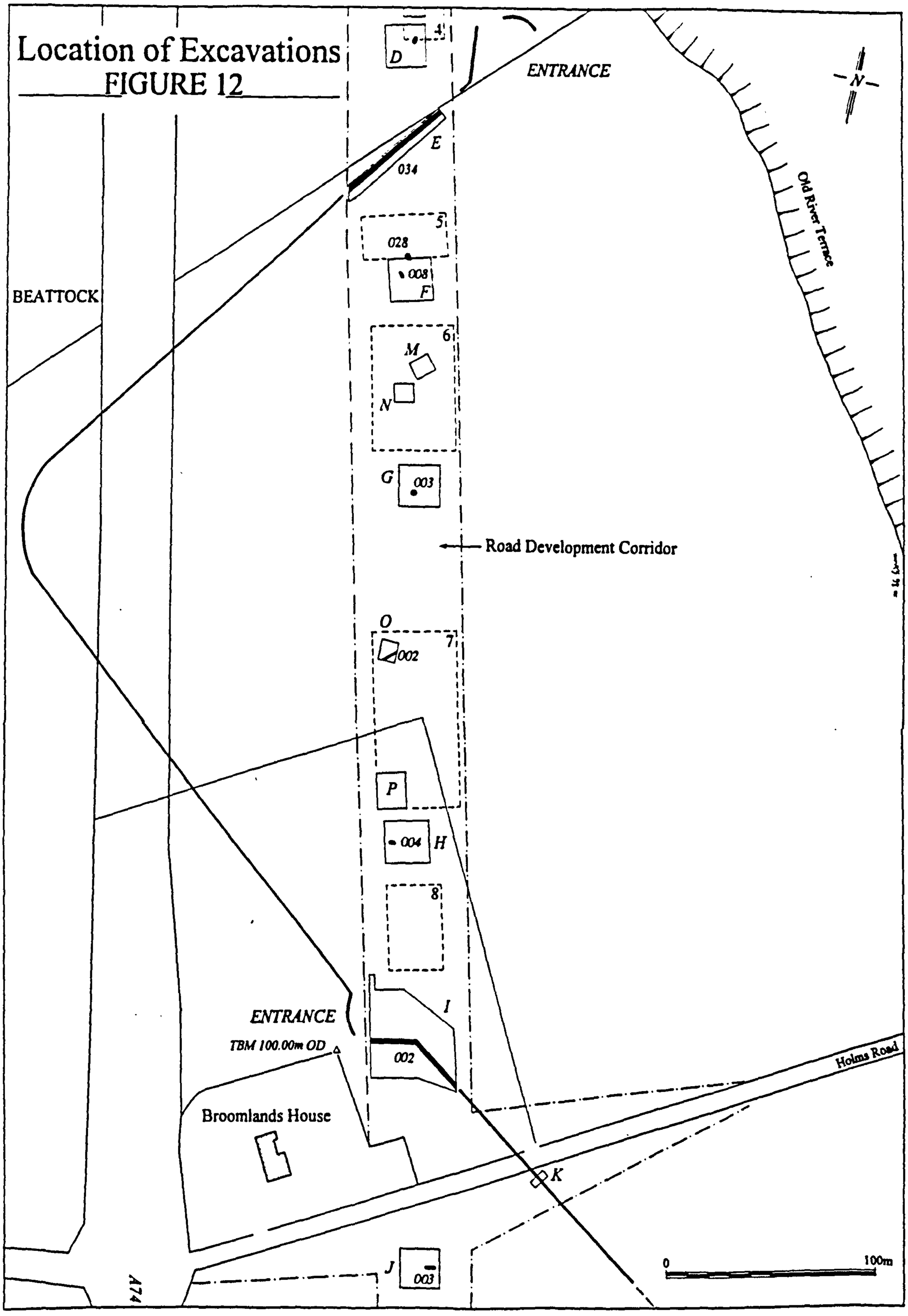



FIGURE 11

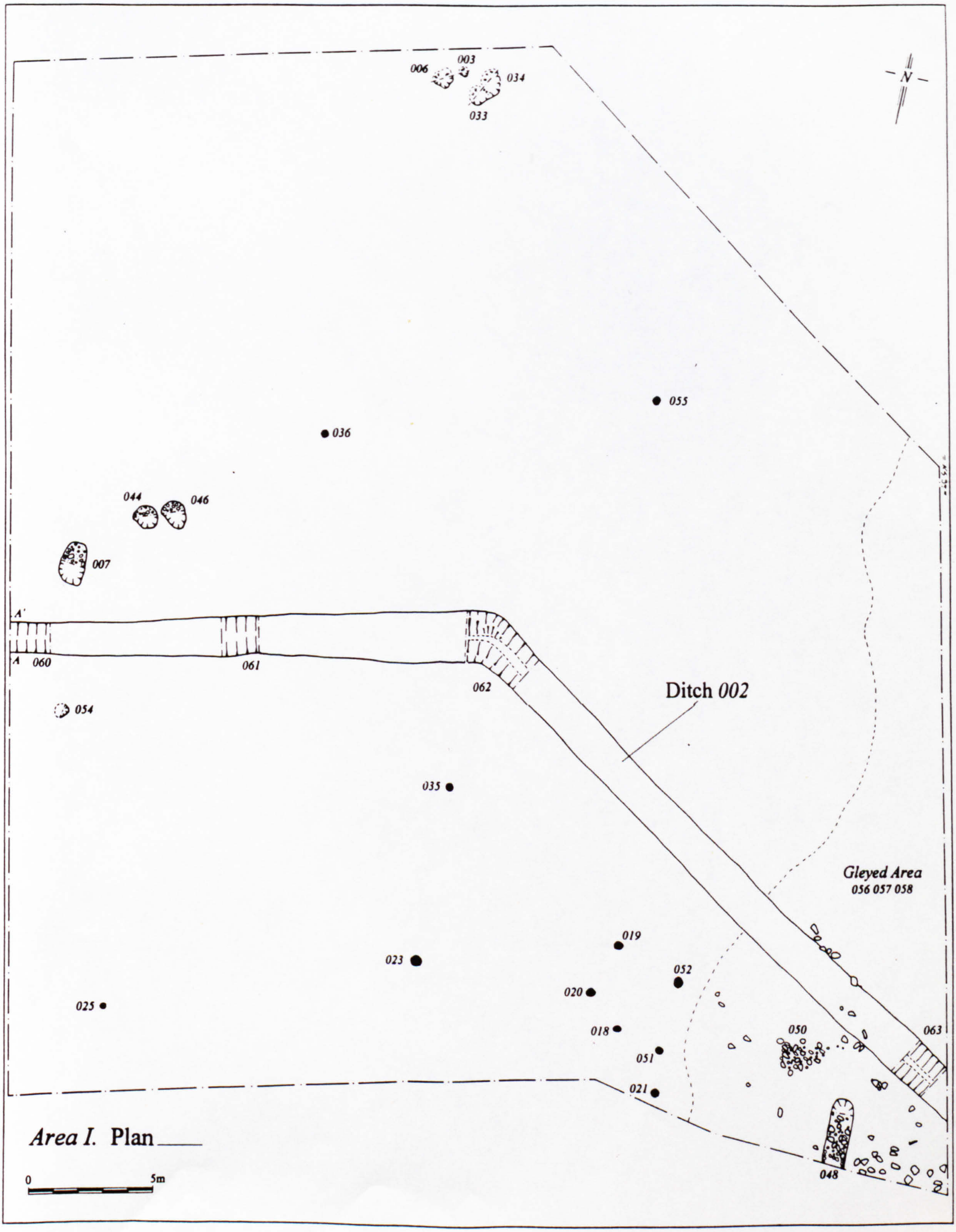
*BEATTOCK*

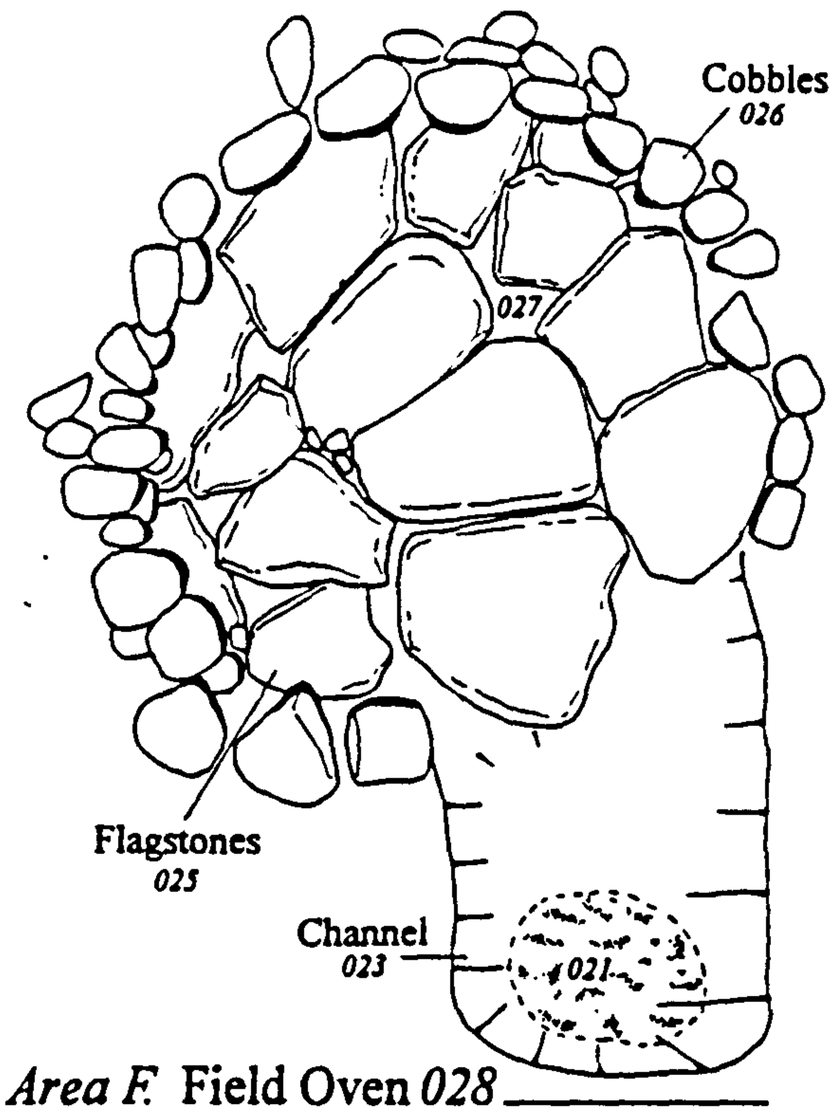
*Dumfries & Galloway Region*

# Location of Excavations
## FIGURE 12



# FIGURE 13: PLAN OF EXCAVATIONAT SOUTH-WEST GATE

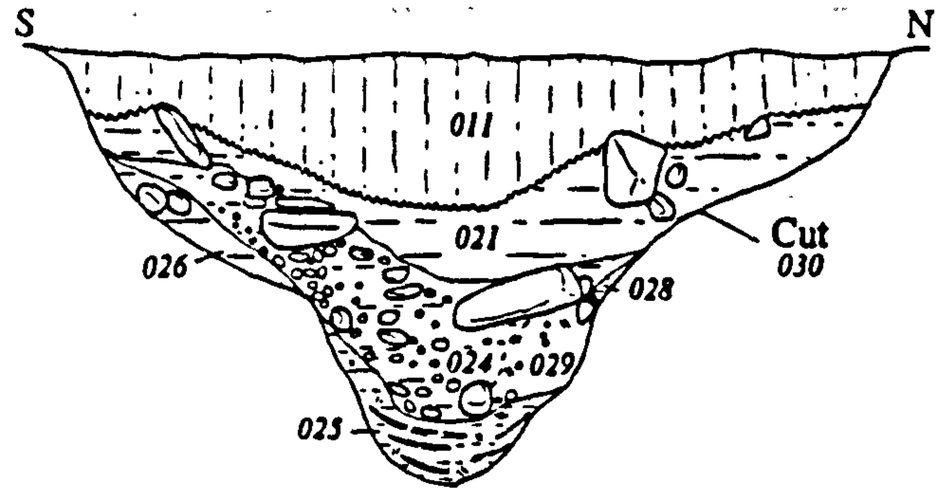





*Area F.* Field Oven *028*

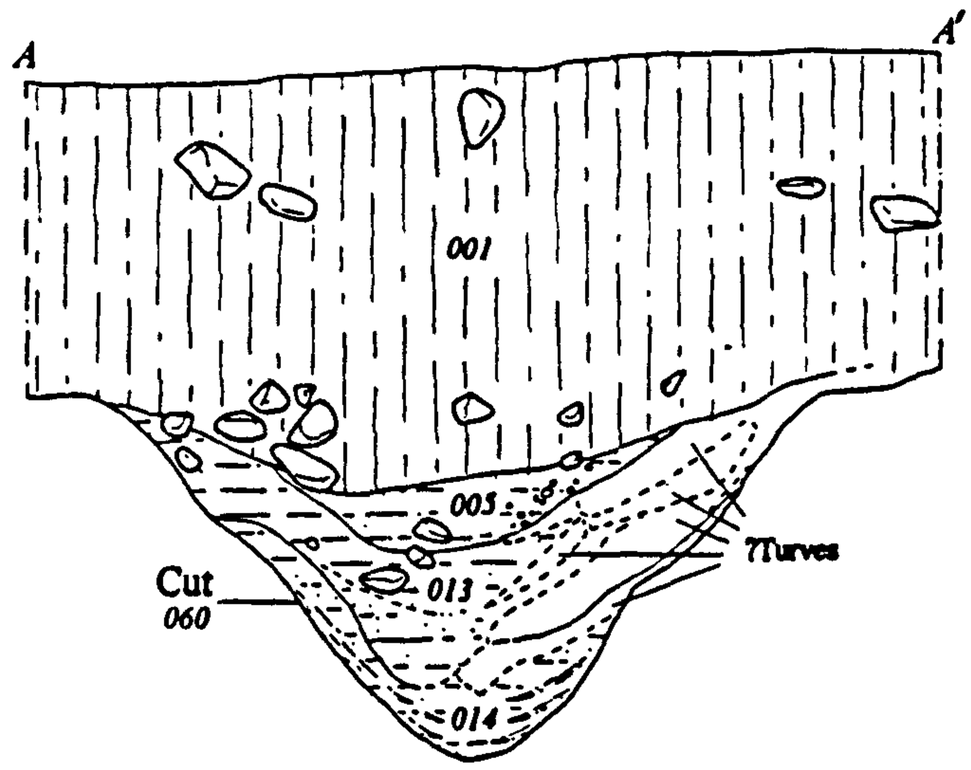
*Key*

Loam
Sand
Clay
Charcoal
Silt
Iron Pan




0 50cms

*Area E.* Camp Ditch Section *030*




*Area I.* Camp Ditch Section *060*

FIGURE 14: ROMAN MILITARY FIELD OVEN AT BEATTOCK

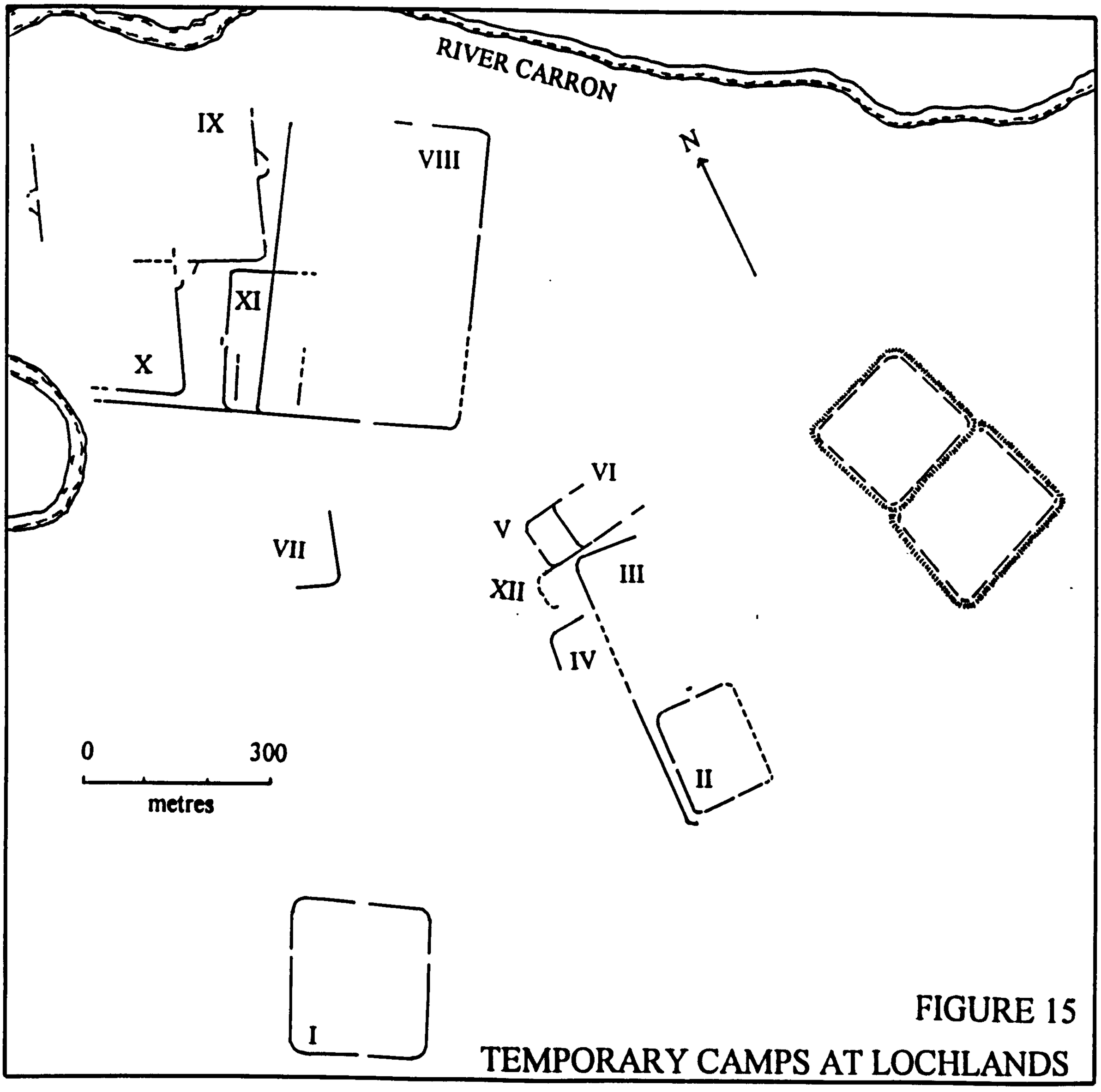



FIGURE 15

TEMPORARY CAMPS AT LOCHLANDS

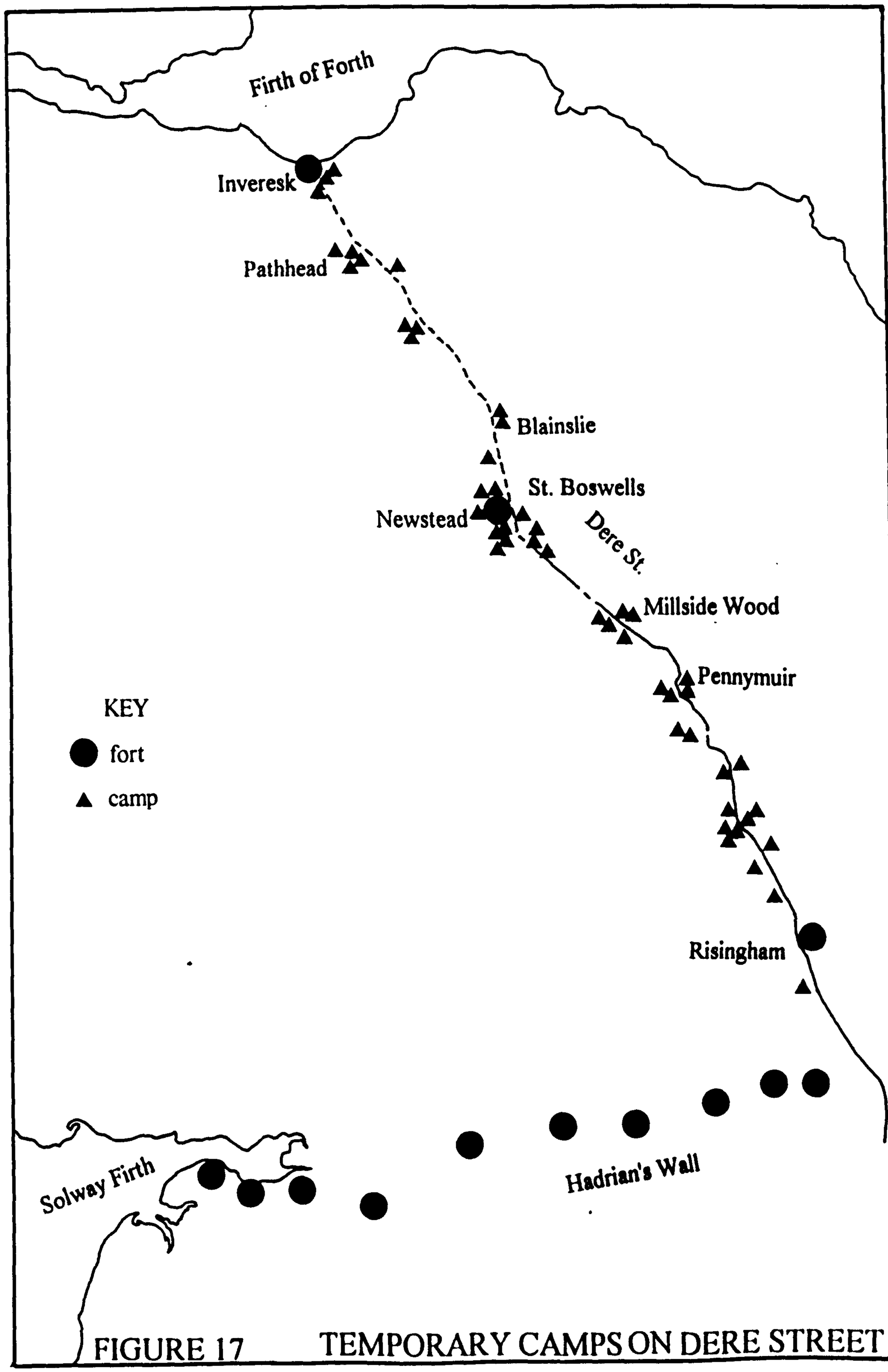



FIGURE 17 TEMPORARY CAMPS ON DERE STREET

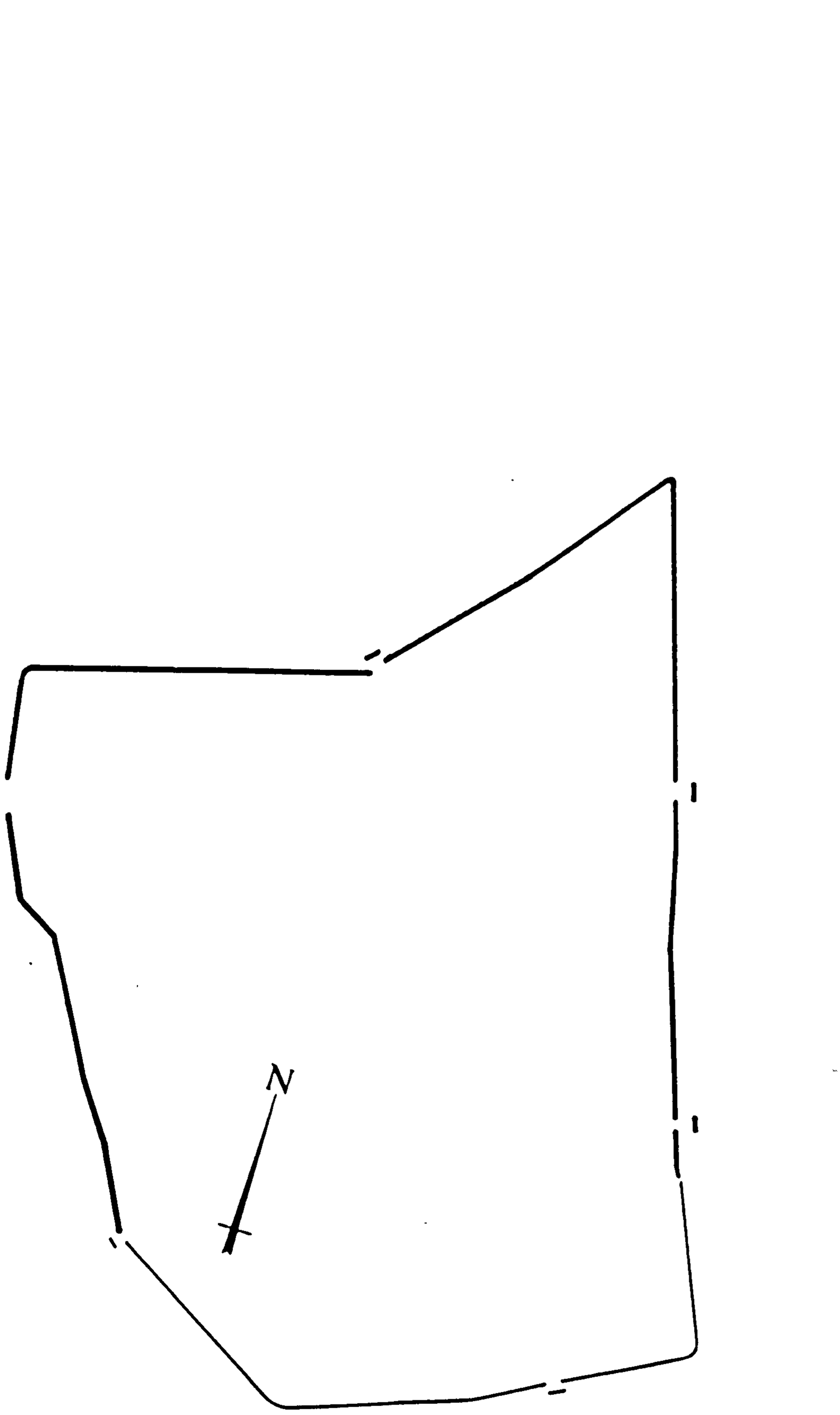



FIGURE 18: RAEDYKES TEMPORARY CAMP

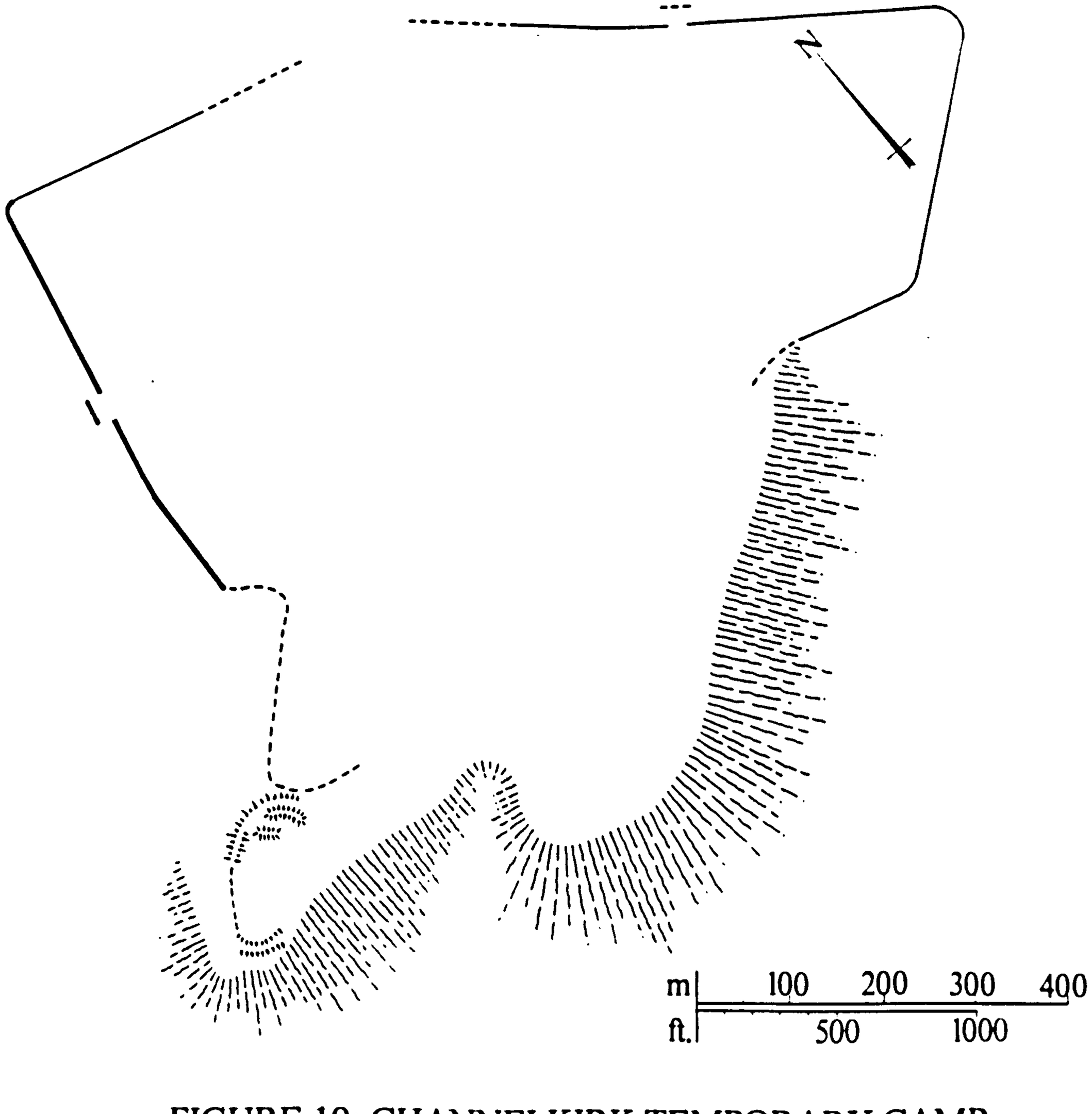



FIGURE 19: CHANNELKIRK TEMPORARY CAMP

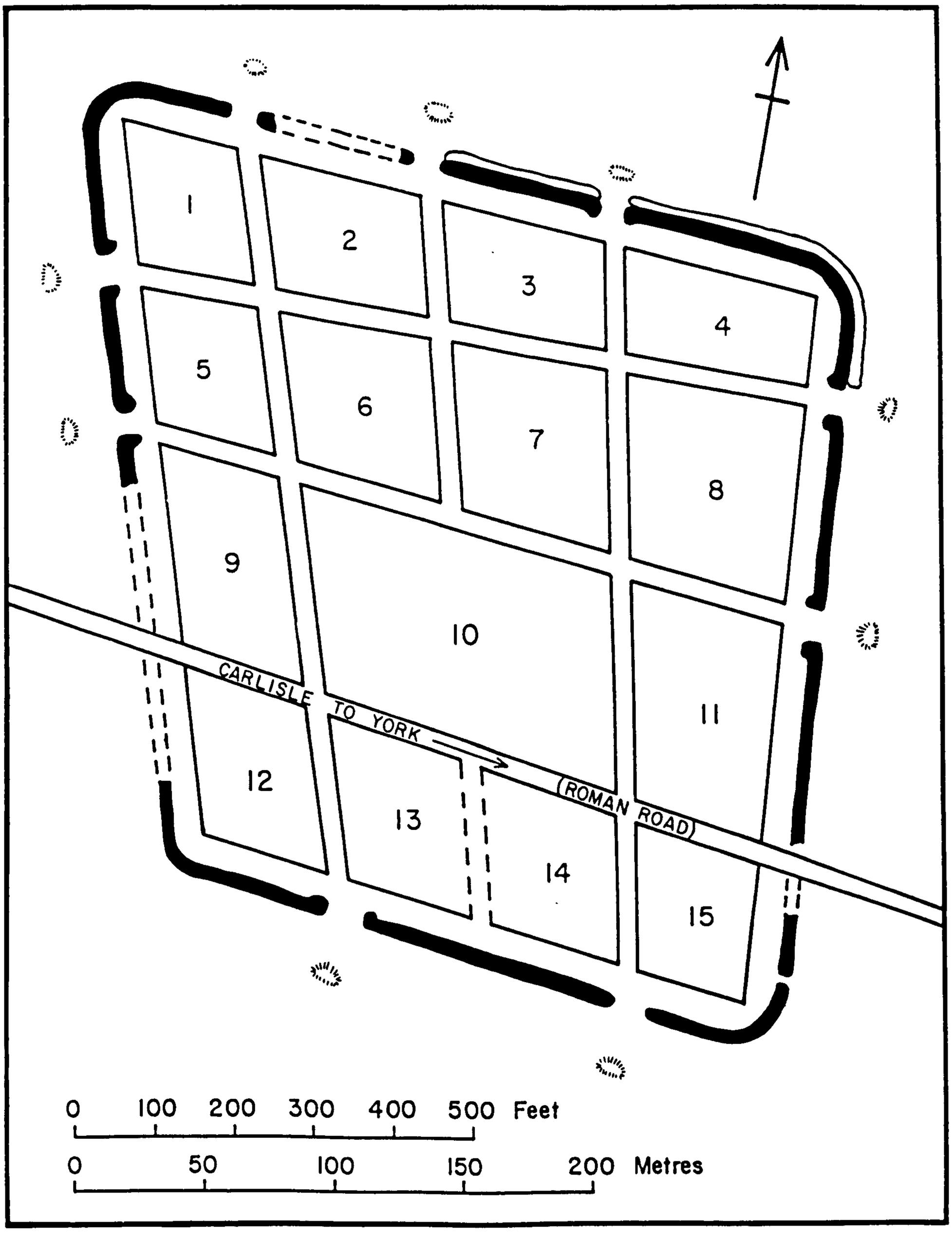



FIGURE 20: REYCROSS TEMPORARY CAMP

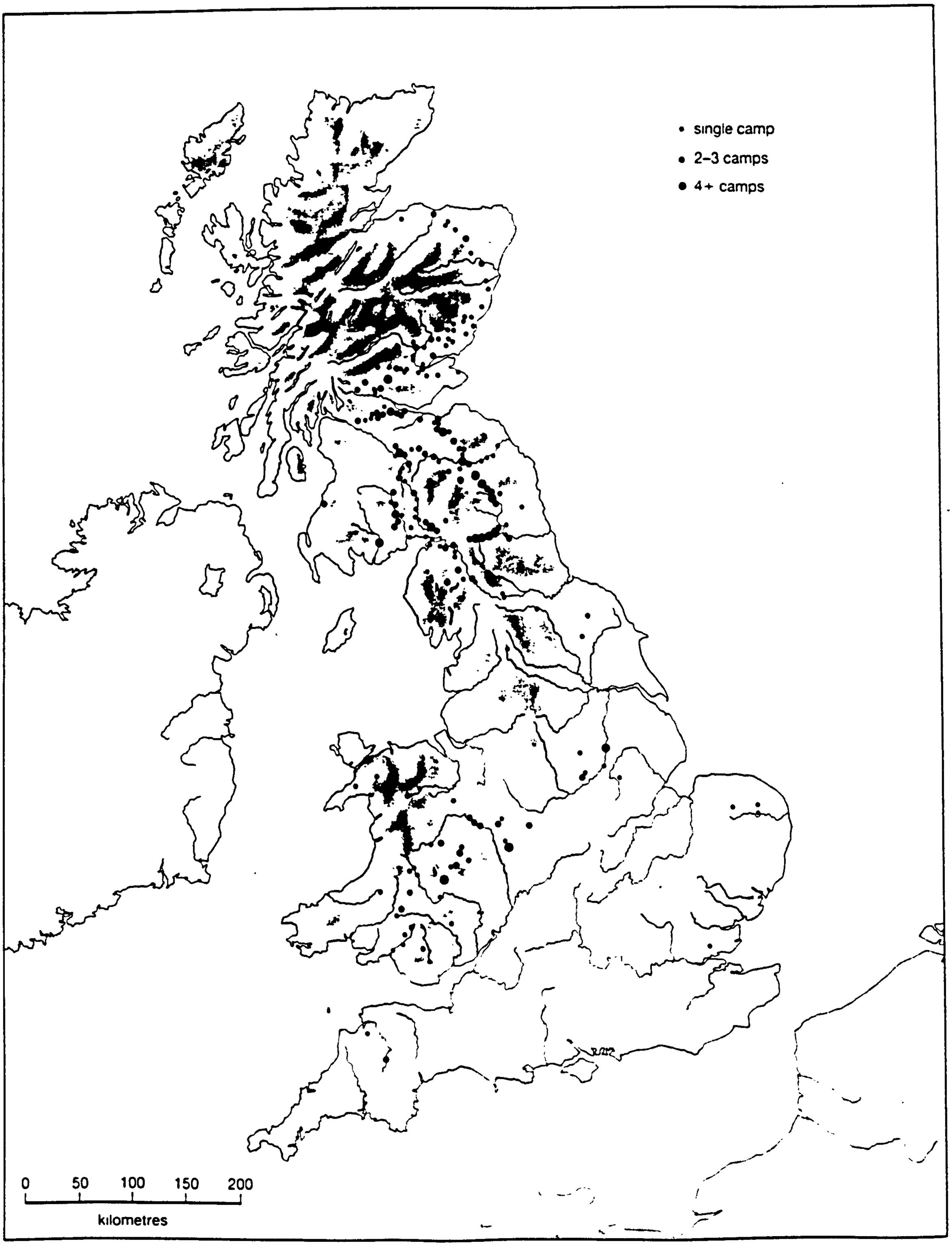



FIGURE 21: ROMAN TEMPORARY CAMPS IN BRITAIN

**Plate 1: Aerial view of Construction camp at Gourdie, displaying perimeter ditch enclosing and respecting probable Roman lime kilns (photograph by Colin Martin, St. Andrews University)**

**Plate 3: Area excavation (looking east) of the interior of the temporary camps at Inveresk (photograph by William Hanson, Glasgow University)**

**Plate 4: The north-east ditch of the temporary camp at Kirkpatrick Fleming after topsoil stripping: the butt end of the ditch at an entrance gap is visible in the foreground (photograph by the author)**

**Plate 5: Area excavation at the south-west gate of the Stracathro-type camp at Beattock (photograph by author)**

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**Plate 6: Roman field oven from the interior of the Stracathro-type camp at Beattock (photograph by the author)**