

POSTGRADUATE RESEARCH at the INSTITUTE of ARCHAEOLOGY

Abstracts of Recently-Awarded Ph.D. Theses

Simon Gibson. *Landscape archaeology and ancient agricultural field systems in Palestine.* Ph.D. 1995.

Ancient agricultural field systems in Palestine (present-day Israel and Jordan) are the subject of this thesis. Hitherto, little archaeological research had been undertaken on ancient field systems, except in the semi-arid and desert regions. A background survey of all the source materials available for the study of ancient field systems opens the thesis. This is followed by a detailed examination of agricultural terraces, which are the best preserved type of ancient and traditional field system in the country. It emerges that small-scale terracing was being practised by farming communities in the central highlands from as early as the Early Bronze I, c. 3200 BC. Extensive terracing, however, only began in the Iron Age II. In the second part of this thesis, it is argued that the history of field systems can only be properly understood if they are investigated as part of the overall pattern of man-made features in entire landscapes. Current methods of archaeological field survey are reviewed but these are not found to be very useful for the study of micro-environments. Hence, a new method of landscape archaeology is proposed, and two test-cases are put forward to demonstrate how this method has been used to reconstruct the history of two agricultural landscapes in the hills around Jerusalem.

Mark Gardiner. *Medieval settlement and society in the eastern Sussex Weald before 1420.* Ph.D. 1995.

The High Weald in south-east England forms a *pays* with a distinctive landscape and settlement history. By far the greater part of that region lies within eastern Sussex, where it comprises a broad tract of wooded countryside with poor soils. The area was exploited during the Anglo-Saxon period by manors on the coastal fringe, which established outlying settlements in the woodland. The land within the valleys of the Weald was divided up at an early date into large areas, but the exposed ridges were avoided by the settlers and largely remained common land throughout the medieval period. The early usage established the pattern for later medieval settlement, land-holding and lordship. Most settlement was dispersed and villages did not develop in the area until the thirteenth century when they emerged as centres for trade and craft-work. Land was held in large free tenements or customary virgates, probably based upon the areas into which the land had been divided in the Anglo-Saxon period. Seigneurial control was generally weak for the scattered lands of many manors made regulation difficult. Villeins were not burdened with onerous work services. During the thirteenth century the custom of partible inheritance was replaced by ultimogeniture. The practice of partibility persisted on some manors, particularly those near the Kent border, where it was found even among free tenants. Various means were devised in the later fourteenth century to avoid customary laws of inheritance. Peasants established close bonds with their near neighbours to whom they were often related. A study of manors in the Wartling area suggests that they often

married neighbours, sold land, and lent money and goods to them. Most peasants before 1350 were smallholders, but plague in the later fourteenth century reduced the level of population and enabled tenants to enlarge their lands by amalgamating holdings. An active landmarket enabled tenants to build up larger consolidated tenements replacing the earlier pattern of smallholdings often comprising only a field or two.

Dorothea Brookes. *The theory and methodology of classifications of the fifth and sixth centuries AD in Anglo-Saxon England with reference to Great Square-Headed brooches.* Ph.D. 1995.

This thesis seeks to establish how to set up chronologically reliable classifications of fifth- and sixth-century metalwork, using square-headed brooches as the principal example. The problem arises from the absence in this period of the usual, more reliable, dating tools such as documents, coins and pottery. As a primary dating tool metalwork is therefore unsupported, and it is crucial that classification is carried out with great rigour and objectivity. The first half of this thesis (chapters 2-7) discusses various requirements which need to be met if classification is to be rigorous and objective. The overall conclusions are that existing classifications, not just of square-headed brooches but of all fifth- and sixth-century metalwork, should be suspended for the time being; and the entire system should be re-assessment from first principles. The first stages of such a re-assessment are attempted in the second half of the thesis. Chapter 8 attributes much of the faulty existing methodology to a misunderstanding of the method devised and practised by Montelius in the late nineteenth century, compounded by a false analogy with biological evolution; and in chapter 9 a revised version of Montelius' actual method is proposed as a sound basis for re-assessing early Anglo-Saxon metalwork classifications. Chapters 10 to 12 then exemplify various attempts to classify a corpus of 95 complete great square-headed brooches by rigorous, objective methods. In chapter 13, however, it is shown that further progress is likely to be limited, for the time being, to applying the suggested methods to other artefact-types, thus producing groups of various artefacts all free-floating and awaiting evidence that will tie them down chronologically. Finally, in chapter 14 it is recommended that classifications of early Anglo-Saxon metalwork currently in use should be re-examined and if necessary revised; that (except for tentative dates for the beginning and end of Salin's Style I) the attaching of even suggested dates to artefacts of this period and their find contexts should be suspended; and that archaeologists should make an urgent search for objective methods of demonstrating contemporaneity of objects in addition to decorative similarity, especially toolmark links.

Julia Harvey. *A typological study of Egyptian wooden statues of the Old Kingdom.* Ph.D. 1994.

A corpus of 217 wooden statues dating from the Egyptian Old Kingdom is examined and discussed in detail. 127 statues have been dated to individual reigns within the Old Kingdom and are placed in chronological order (catalogue A). They form the basis of a chronological feature list. Using the dating criteria from the feature list, and by drawing

parallels with catalogue A, a further 75 statues (catalogue B) have been assigned to individual reigns within the Old Kingdom. New features from catalogue B are then added to the chronological feature list. Catalogue C comprised statues which have no parallels in catalogue A, but do sometimes have a parallel in Catalogue B, and which, in the absence so far of evidence to the contrary, may be assigned to the Old Kingdom. Appendix I discusses the texts inscribed on 51 of the statues. These consist of the names and titles of the tomb owner. The texts are usually inscribed on the bases, but in two instances they are on the skirt, and once on the sceptre. The titles are examined in detail to see whether their date range is consistent with the dates suggested in the text. Unfortunately the inscriptions give no further dating assistance. The phrase *im3hw hr* is examined in detail and it emerges that its use changed over time. Appendix II is a discussion of the material of the statues, as far as this is known. Only eight statues have been scientifically analysed, a further four have been identified visually, and another two have unconfirmed analyses. From this meagre information it emerges that indigenous woods were preferred to imported woods. The most popular indigenous woods are sycamore and acacia. Appendix III is a table of the dating features based on Catalogue A which, when applied to statues not in the corpus, can assist in assigning a date to them.

Peter Guest. *A comparative study of coin hoards from the western Roman Empire.* Ph.D. 1994.

The primary aim of the thesis is to interpret the phenomenon of coin hoarding during the Roman period from an archaeological perspective. This requires the collection of a substantial hoard database to act as the basis of the further analysis. A corpus of over 1600 hoards is presented in the appendices. These hoards cover the period from 27 BC to the early fifth century AD and they originate from the area of continental Europe that was included within the frontiers of the empire. After the introductory chapter, two sections survey the previous work undertaken on hoards and the processes involved in hoard formation, burial, loss and eventual discovery. The methodology chapter outlines the techniques that have been specifically designed for this study and which are applied to the hoard database. From this point, the information is analysed both chronologically and spatially - the patterns that the techniques reveal are tested against the various models that have been previously used to interpret hoards. Hoarding is studied at a European-wide scale in chapter five in order to view the phenomenon over the entire area and period of the Roman empire. The next four chapters study hoards in greater detail for the Balkans, the Rhine and upper Danube frontiers, the Celtic West and Italy. Case study I examines the exceptional hoard record from modern Romania, while Case study II attempts to provide a new explanation for those hoards that date to the Marcomannic Wars and the late second century. The final chapter gathers all the regional conclusions together and asks whether the traditional models remain valid as explanations of hoarding. With the exception of a handful of instances, it is concluded that these models do not adequately explain the majority of hoards that have been discovered within the empire. An alternative model of hoarding is proposed and tested, and the archaeological and numismatic implications are discussed.

Jane Bigham. *The role of theory in archaeology.* Ph.D. 1994.

Archaeology is characterised by confusion and division over the future role of theory. The thesis explores the nature of the discipline; its relationship to the social and natural sciences; the past application of theory; the validity of social theories in their own right and their relevance in application to archaeology. The major theories evaluated are social evolution, functionalism, structuralism, structural Marxism, critical theory, and post-structural theory; and their basis in the philosophy of science is clarified.

The study concludes that archaeology is a social science linked both to history and anthropology. It has unique characteristics which influence the application of theory, particularly its form of data and the political sensitivity of its material linking past and present. The discussion of specific theories and the case histories on Childe and Hodder suggest that archaeology should not look for its own theory, but would benefit more from broad theoretical input. Trends in social theory suggest post-structuralism is a dying force. Many archaeologists are looking for a 'middle way' between post-structuralism and a processual approach. This perhaps reflects a lack of clear direction. Archaeology can only use theory well if it defines clear goals, using it for exploratory, methodological and interpretative purposes and educates archaeologists in a wide ranging and critical approach. The current political situation has exacerbated the divide between theorists and practitioners. It is difficult to view the future development of theory optimistically, in spite of relevant developments in social science particularly in the work of Bourdieu, Giddens and Habermas. Archaeology needs a global approach and a long time span in interpreting the past. The relationship between archaeology and social theory could be mutually beneficial, but not without clear goals, investment in theoretical education, and a higher profile for the discipline in the social sciences.

Christian Tutundjian de Vartavan. *Combined systems analysis for the interpretation of the Tutankhamun plant remains.* Ph.D. 1994.

The unexpected discovery of numerous and diverse contaminant-species within the samples of plant remains from the tomb of Tutankhamun in the possession of the Royal Botanical Gardens, Kew, permitted: 1) the application of Hillman's previously designed interpretive methodology (A to D classification; Hillman 1984, *Plants and Ancient Man.*: 127-54, A.A. Balkema) as concerned with the identification of ancient husbandry practices; 2) the development by the author of new analytical procedures aiming to isolate from all the vegetal remains the true components of the ancient plant diet (level E), as well as identifying the mode of arrival (field or cross-storage contamination) of any contaminant found to infest an ancient crop (levels F to I). Principles of the new interpretive systems as well as the results of a first experiment of the now combined methodologies (levels A to I) on the Tutankhamun plant remains were subsequently published by the author (de Vartavan 1990, *Journal of Archaeological Science* 17: 473-94). Later, permission from the Organisation of Egyptian Antiquities to examine larger contaminated samples from the same tomb in their possession offered broader grounds for the testing of Hillman's and de Vartavan's combined methodologies as well the opportunity to experiment with further interpretive systems concerned with the modelling of ancient ecologies. Thus, following a review of the environmental conditions found in

Egypt and a summary of the essential aspects of the ancient Egyptian agriculture, the present thesis analyses together data obtained both from the Cairo and Kew remains within the framework of a step-by-step procedure relating the different systems just mentioned ('level A to I' and 'ecological modellings') with the new bridge offered by a further analytical step (Level J); the study then proceeds with a critical appraisal of the present possibilities of ecological modelling of ancient Egyptian remains before presenting a small independent analysis concerned with demonstrating evidence of ancient Egyptian storage 'know-how'; it then concludes on the needs for future research and some essential requirements for it.

Luiz Oosterbeek. *Echoes from the east: The western network. North Ribatejo (Portugal): An insight to unequal and combined developments 7000-2000 BC.* Ph.D. 1994.

The subject of the thesis is an area of central Portugal, the North Ribatejo, defined as a meeting area of the three main Iberian geomorphological units. The purpose is to understand the meaning of the Neolithic as a process, from the late Mesolithic communities, dated from the seventh millennium (calendar dates) to the late third millennium BC. The research suggests the area must be understood in its interaction with the West Mediterranean, as part of a single, but unequal, process. It is argued that the transition from the hunting-gathering mode to the agro-pastoralist mode of production was not achieved until the third millennium, and cannot be separated from the social changes that occurred meanwhile. It also argues that both economic modes coexisted, and may have even co-operated, throughout all the transition period. Environmental conditions are considered secondary in this process. The area contains over a hundred sites within the defined time span, of which a significant proportion have been excavated. Out of these, seven have been excavated by the author. Most of the others, stored in museums at Tomar, Lisbon, Torres Novas, Soudos, Barquinha and Abrantes, have also been studied by the author.

The study has four main parts. The first sets the problems to be discussed, and reviews the evidence for all the periods under research in the West Mediterranean. The second defines the region and the research methods specifically developed for this project. The third analyses the evidence from the points of view of the stratigraphy, artifacts typology, settlement patterns, symbolic traditions and absolute chronology. It also relates the conclusions to the rest of the West Mediterranean. The fourth part deals with the conclusions from the previous part, relating them to the hypothesis and problems raised in the first. It then proposes different explanatory models, concluding by raising a new set of questions for further research.

Sue Scott. *Terracotta figurines from ancient Teotihuacan: typology and iconographic themes.* Ph.D. 1994.

The ancient city of Teotihuacan, Mexico, was the largest and most important urban centre in Mesoamerica during some seven hundred years, beginning with this millennium. A large population left its mark archaeologically, attested by monumental pyramids and some 4000 building complexes, 2000 of which are thought to have been residences. The

social structure of Teotihuacan must have been organised and controlled by a powerful hierarchy, passing its authority from one generation to the next. The time span that encompasses Mesoamerica's urbanisation phenomenon is referred to as the Classic period, when Mesoamerica's cities were connected through trade, as redistribution centres, and certainly through social networks although that archaeological evidence is less obvious. Scholars dispute whether the collapse of Teotihuacan was abrupt or gradual, but it is clear that the demographic profile dropped from perhaps 200,000 to tens of thousands by the eighth century.

Teotihuacan is unique for the lack of historical personages depicted in monumental or ceremonial art forms. Unlike messages carried on stone carvings, decorated pottery, murals and even painted books of other urban centres, Teotihuacan seems to have been reluctant to picture or name those people who controlled this most visible city. The human form is portrayed, but in anonymous contexts. It occurs in overwhelmingly large numbers in the artifact category known as the terracotta figurine, modest in size, usually broken and carelessly manufactured. Occasionally figurines have analogues in ceremonial art forms, but the fragmentary nature of the material allows for only general interpretations of their significance. They are recovered in residential, not temple, contexts, and must have played a role in small group or individual rituals.

This thesis is a systematic analysis of approximately 2000 figurines based almost entirely on material from controlled excavations at Teotihuacan by the Swedish archaeologist Sigvald Linne. Further stylistic comparisons are drawn from 4000 figurines from excavations or in museum collections. The first part examines a relatively small number of figurines from the period after the collapse of Teotihuacan. A single ceramic statue was recovered in the same strata. The combined iconography has analogues with another figurine complex as well as ceremonial art forms, providing stylistic evidence of a social bond with distant Oaxaca, which had not been recognised previously. Once the methodical patterning of images has been established, it is shown that stylistic design and motif on figurines were abbreviations of more completely developed iconographic themes in ceremonial format. Figurines bear short-hand messages that would have been understood by the ancients of Teotihuacan. The second part describes a much larger corpus of figurines from Preclassic and Classic periods. The figurines are organised into three large groups based on previous chronologies, technique of manufacture and formal morphological properties. Moulded figurines are particularly interesting for their clothing and headgear. The long-held idea that figurines represented gods and goddesses is refuted. This is the first study to bring terracotta figurines central stage in an analysis of iconographic themes, with some 1500 figurine illustrations.

Dominique de Moulins. *Agricultural changes at Euphrates and steppe sites in the mid-eighth to the sixth millennium bc.* Ph.D. 1994.

The study focuses on the plant remains from the Pre-Pottery Neolithic B period (mid-eighth to sixth millennia bc uncalibrated) in order to answer questions about early agriculture. The area of study is the northern part of the Euphrates where the site of Cafer Höyük in present day Turkey and Abu Hureyra in northern Syria are situated and includes the steppe site El Kowm II-Caracol (Syria) in the El Kowm basin. These sites are compared with published sites from the area and the results from this region are

considered in the light of evidence from other regions of the same period in the southern Levant, northern Iraq and central Turkey.

Change during the period is studied through the plant remains. Two of the sites studied had a good stratigraphy and were thoroughly sampled. An attempt is made to study change in the light of intensification and the background to this concept is investigated. Recent attempts at finding indicators of intensification from plant remains are reviewed. Other indicators such as the evidence from bone analyses are used where available: thus a crucial change in the faunal assemblages at Abu Hureyra has been noted in the mid- to end of the seventh millennium and a parallel change in the plant assemblages might have been expected. Other elements such as the human bones and teeth, architecture and artefacts of the sites are included to support or enlighten the interpretation. Archaeological and archaeobotanical backgrounds to the study are reviewed with a special emphasis on problems of dating, taphonomy, sampling and ecology.

Diana Howell. *Aquileia and its territory in the Republican and Early Imperial eras.* Ph.D. 1994.

This thesis aims to examine the early socio-economic growth of Aquileia in the context of the developing Roman Empire itself. It uses literary, epigraphic and artefactual source material, and, in its preparation, the writer has traversed most of the land trade routes throughout Northern Italy, Istria and the neighbouring provinces.

The study is in five parts. The first (chapters 1-3), after a brief review of the early second century BC situation in Northern Italy, and the perceived need for a defensive colonia in the northeast, considers the topography and pre-existing conditions in Friuli-Venezia-Giulia, the social structure of the new colonia, the needs of the colonists and the military and finally the road system in the second century BC. In the second part (chapters 4-9), information about trade contacts offered by the presence at Aquileia of pottery and of coins from the second century BC and earlier, together with brief comment on the prevailing exchange systems, is analysed and assessed. This is followed by accounts of the beginnings of trade and subsequent commercial links with the Danubian (Noricum and W. Pannonia) and the Adriatic (Istria and Dalmatia) regions. The third part (chapters 10-12) considers evidence for the concomitant urban development of Republican Aquileia in terms of the available natural resources and craftsmen, and the ability of the citizenry to fund both public and private architecture and sculpture. It concludes with a general survey of the Aquileian situation by the end of the Republican era. The fourth part (chapters 13-14) examines the evidence for Aquileia, in the early Imperial era, as a continuing producer of terracotta work and, more importantly, its emergence as a producer and exporter of highly specialised 'luxury' goods. In the fifth part (chapters 14-17) is attested the further strengthening of Aquileia's links with the Danubian and Adriatic areas. The final chapter reviews the evidence for the earliest development of Aquileia's commercial contact with North Africa and the Eastern Mediterranean: from this contact in particular, Aquileia, with its '*portus celeberrimus*' (Ausonius XI.ix) would become '*nona inter claras urbes*'.

Sheila Girardon. *Italic votive terracotta heads from the British Museum: a stylistic appraisal in their religious and historic settings.* Ph.D. 1995.

The thesis aims to examine a collection of Italic votive terracotta heads, dated between the early fourth and the late second centuries BC, in the British Museum.

The study proposes a stylistic appraisal of the terracotta heads in their religious and historical settings divided into two parts: a background survey and a catalogue. The first part includes ten chapters and 23 sub-sections. Chapter 1 is the introduction to the votive heads. In the second chapter is discussed the religious background: Greek healing goods; Italic and Roman healing cults and Aesculapios. The third chapter regards the religiosity of the Italic peoples. Chapter 4 deals with the notion of votive offering in the ancient world. In chapter 5 are considered the sanctuary and the worshippers: the types of sanctuaries; the identification and location of sanctuaries; the evidence for healing cults; the appearance and disappearance of anatomical votive terracottas; the historical background. Chapter 6 deals with ancient medicine and the anatomical votives. Chapter 7 considers the various stylistic influences: in pre-Roman Etruria; in central and southern Italy; the Roman influence; copies of famous sculptures and their relationship with votive terracottas. Chapter 8 examines the technique of manufacture of the votive heads: the problems of mass-production; the workshops and the artisans; the specific heads in the British Museum. Chapter 9 is a survey of the jewellery displayed on the female heads: crowns; diadems; earrings; necklaces. Chapter 10 is a survey of the hairstyles displayed on both female and male heads.

The second part of this survey includes an extensive catalogue of the female and male heads divided into groups according to their stylistic affinities. The catalogue is introduced by a summary of the focal points of part 1 integrated by the observations on the groups of heads in the catalogue, and by a section of the classification and terminology of the catalogue.

Maria del Carmen Vida Navarro. *Forerunners of urbanism: a comparative study of settlement organisation in western Veneto and south Etruria from the Middle Bronze Age to the end of the Final Bronze Age.* Ph.D. 1995.

The Ph.D. studies the settlement trends of two areas in Italy - western Veneto and south Etruria - for which there is clear evidence of increasing complexity during the Bronze Age. The developments which took place in both areas are compared to monitor wider social and historical issues, namely the possible factors and causes behind the processes leading to settlement nucleation and the later emergence of urban forms in Italy. The two areas provide an outstanding opportunity for this, because their trajectories appear similar yet diverge in the final stages: southern Etruria to undertake a leap in complexity which led to the emergence of its Iron Age protourban groups; western Veneto to face a halt and apparent reversal of trends, and the virtual collapse of the area as a focus for settlement. Both areas have also been the object of field survey campaigns, which have contributed to a better knowledge of the overall settlement distribution of the regions. The approach adopted is a novel one in that it oversteps local and regional boundaries to compare the various trends affecting the two regions, in so far as the data allows it, on the same footing, as a way of assessing the extent of their impact on settlement.

An explanation of the methodology employed is followed by the historical background to the research which underlines some of the problems with the data. After this introduction a series of variables are studied, and their impact in the settlement histories of the two regions is assessed: the environmental conditions, traditional and absolute chronological spans and settlement continuity, economic trends and resources (subsistence and technology), and social involvement. Finally the extent to which each of these variables promoted settlement trends of a pre-urban nature is analysed.

Michelle Brown. *Cambridge, University Library, MS.LL.1.10. The Book of Cerne.* Ph.D. 1995.

This thesis aims to provide the first full examination of the decoration, palaeography and codicology of the Insular Latin prayerbook known as the Book of Cerne (Cambridge, University Library, MS. LL.1.10). This includes a discussion of its distinctive evangelist miniatures and an examination of their place in the Insular tradition of depicting the evangelists, accompanied by a catalogue of all such images. This thesis does not aim to provide a full discussion of the texts contained in the Book of Cerne, but in order to attempt to understand the way in which this complex volume works, and the relationship of its decoration, script and codicology, it has been necessary to discuss its textual components. It is suggested that the 'Communion of Saints' may have been seen as a major unifying theme behind the textual compilation and its images. The relationship of Cerne to a contemporary group of Southumbrian prayerbooks (London, British Library MSS Harley 7653 and 2965, and Royal MS.2.A.XX) is explored. Together, these books are proposed as later representatives of the *Tiberius* group of southern English manuscripts.

A chronology within the first half of the ninth century is proposed for the later members of this group, and a broad regional distribution within a Mercian script province, or *Schriftprovinz*, is outlined. A western Mercian origin for a Cerne Abbas provenance for the ninth century core of the manuscript are shown to be largely unfounded and evidence is advanced which suggests an early Worcester or Winchester provenance.