REFLECTIONS ON NINE YEARS
WITH THE
BRADFORD-CAMBRIDGE BOIOTIA PROJECT

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Since the 1960's Archaeology has been gradually but inexorably transformed by a new emphasis on theory and methodology. The explicit discussion of techniques for data recovery and models for interpretation have created a much-needed self-consciousness about the way we go about comprehending the past, and brought us closer to the desirable goal of a scientific rather than artistic pursuit.

The Boiotia project is fundamentally a field survey consisting essentially of teams of fieldwalkers scouring the landscape for visible surface traces of past human activity of every period. The various research programmes also part of the project are basically ancillary to this fundamental form of exhaustive data collection. So what is so important about this kind of archaeology, without any traditional excavation? Here a little bit of personal history is in order. During the early 1970's my postgraduate research in Greece (cf. Bintliff, 1977) had focussed on the then newly important themes of population history, land use and settlement change. I had been fortunate enough to choose a country where the tradition of "extensive" field survey was strongly embedded since the turn of the century, providing just the right kind of data for preliminary research on these issues. I was additionally fortunate, moreover, to become associated with the "New Wave" of "intensive" surveys in the 1970’s, stimulated by that reorientation towards new approaches mentioned earlier and often termed the New Archaeology, and which was represented in Greece by pioneer research on the Ayiophárango and Argolis Surveys. Thus, beyond the traditional role of Aigaian archaeology, the excavation and interpretation of individual sites as bases for inductive hypotheses about the course of history and prehistory, an increasing emphasis has arisen on the complementary picture obtainable from the regional perspective, from whole patterns of sites of varying sizes and dates, easily available through the rapid and relatively inexpensive method of surface survey. By 1977 I was ready to undertake a field survey of my own, whilst Professor Anthony Snodgrass (Cambridge University) had also become free from field obligations. As is clear from Anthony's writings on Greek archaeology and history (cf. Snodgrass, 1980; 1985), he sees the research frontier of Classical Archaeology as more than ever linked to an
independent and progressive archaeology, and by 1977 he believed that regional survey promised the greatest opportunity for new insights. We joined forces and agreed that the province of Boiotia in Central Greece was the obvious choice. Boiotia offered a rich prehistory and history, and yet it had been neglected in terms of general archaeological and historical treatment, apart from meticulous work on the Classical inscriptions.

From the beginning in 1979 the Boiotia Project was planned as an intensive field survey, i.e. all the landscape would be walked in the chosen areas of Boiotia. All periods would be given equal attention, from Stone Age to Turkish, and, in the image of that pace-setter for largescale regional survey in Greece, the Messenia Survey (McDonald and Rapp, 1972), the fieldwalking would be complemented by ancillary specialist research programmes. So leaving our fieldwalkers strung out across the landscape for a moment, let me say something about our collaborators.

Firstly, with at least a 10-year programme we have encouraged our specialists to publish their findings when ready. We ourselves, to encourage feedback (and our sponsors the British Academy and the British School), have published lengthy preliminary reports of the Project, notably in the Journal of Field Archaeology for 1985 (Bintliff and Snodgrass, 1985; cf. Bintliff, 1985; 1986a).

Fundamental to a regional study is the physical environment. We are preparing a major analysis of the human geography of Boiotia in relation to geology, soils and microclimate. I have been drawing up a total soil map of our survey region at a scale of 1/5000 so as to reveal the microlocational priorities of every settlement discovered by the survey. With the perspective of 8000 years of farming communities in Boiotia we aim to isolate some of the underlying rules in the game of human geography in one major landscape of Greece. Yet, as I have pointed out elsewhere, the analysis of changing settlement patterns from Bronze Age to early modern times was attempted challengingly for Greece by German historical geographers during the first half of this century and has been strangely neglected since then. In the field of Geomorphology Professor Davies and his colleagues in Environmental Sciences at Bradford are studying the processes of erosion and soil development.

A topic where work is largely complete is that of the vegetational history of Boiotia. For several years Dr. Oliver Rackham, familiar to many for his vegetational studies in Crete and the Aigaean islands in collaboration with archaeologists, carried out an intensive survey of the presentday vegetational communities in Boiotia, with the assistance of Dr. Margaret Atherden. Their results were published in the British School Annual for 1983, in a long and insightful paper that not only provides a meticulously researched framework for reconstructing Boiotian natural vegetation for any phase in the last 5 millennia, but is of considerable interest for anyone interested in the historical ecology of the Mediterranean lands. Working from three basic categories of machie, garigue and steppe, these authors show with clarity the extreme degree to which Boiotian vegetation is a product of the changing nature of human exploitation, and thereby allow us to infer what the botanical environment would have been like, given what we can demonstrate about the fluctuating human impact since the Bronze Age. Indeed, from a preliminary analysis of
Classical and Mediaeval to early modern literary references, as well as limited pollen cores, Rackham and Atherden have begun the process of historical comparison which we will be able to refine from the distribution of archaeological traces of human activity. That Classical Boiotia looked essentially as today we shall find to be closely in tune with our knowledge of its settlement patterns.

Turning in detail to the historical sources, it is a pleasure for a prehistorian such as myself to be able to compare and contrast autonomous archaeological data and contemporary accounts of events and lifestyles. The early literary sources, from the Archaic to Hellenistic period, are being analysed by Anthony Snodgrass and the inscriptions by Dr. Robin Osborne. Apart from important insights into the social and political development of the Boiotian states, of which there were some 14-15 at a time, especial interest attaches to detailed information available for some time periods regarding landholding patterns and population size. Robin’s prior work largely on Attic rural life has appeared in book form and in the pages of the British School Annual (Osborne, 1985a; 1985b), and his insights have already caused us to look more carefully at the interpretation of rural farmsites discovered by our survey. The use of population information from Classical sources has a long history from Victorian times, and here again the fruitful comparison with demographic inferences obtained from field survey raises vital issues of site survival and the degree of human overexploitation of the Boiotian landscape in ancient times. The Roman sources will be looked at by Tony Spawforth, although a preliminary study by Frank Trombley has found prosperity during the Late Roman era of the 5th-7th centuries A.D. which harmonizes with our data from site survey. For Mediaeval times, the British Academy provided us with a Research Assistantship for Archie Dunn, whose detailed study of all the Byzantine sources and contemporary Western documents is shortly to become available for comparison with the settlement picture obtained archaeologically. A special research programme has been completed by Dr. Peter Lock, on the remarkable series of Frankish towers in Central Greece. Dr. Lock’s work is to appear in the latest British School Annual, and consists of a careful (architectural) survey of each tower leading into an analysis of the function of the towers and their likely occupants. As residences of a minor feudal gentry and their men at arms, perched generally near contemporary native villages, they are an essential piece in the jigsaw of Mediaeval Greece.

In the post-Mediaeval period we hope to produce some of the biggest surprises. True to the spirit of total survey we are just as intrigued by the origins of the modern village network as by the Mykenaian settlement pattern or the pattern of town and country in ancient Greece. Work began with a preliminary study of several traditional villages by Nancy Stedman, isolating the major types of pre-modern house and attempting to relate surviving examples to evolving settlement plans from core growth areas. Information for the late Turkish period and early Independence period illustrating Boiotian life is abundant in the Western travellers, but a veritable goldmine of unexpected quality has now become available from the Imperial Ottoman archives in Istanbul. With the assistance of extra funds from the British Academy we will eventually have at our disposal a complete record for some 200 villages of Boiotia, itemising by community the human population, the animal population, crop yields and other details of a
taxable kind. Census years available begin in the mid-15th century and are highly detailed till the 17th century, when a more superficial tax census became operative. The change in approach typifies the highly organised and flourishing Golden Age of the Early Empire and the increasingly decrepit Late Empire. There are startling first results from the study of these records, particularly regarding the questions of population and ethnic composition, and it will be clear how exciting it will be to fit a particular census to Mediaeval villages studied by our field survey, and to see how the picture of Boiotia at a particular point in time fits into the long-term evolution of the post-Roman settled landscape.

The development of Boiotian rural society since the Greek War of Independence has been the object of special study by Cliff Slaughter and a team of Greek social science research students. A detailed report appears in Byzantine and Modern Greek Studies for 1986 by Slaughter and Dr. Kasímis of Patras University. Not only is this a well-analysed body of statistics on the economic and demographic development of villages in our survey area over the last century, an ideal complement and completion to our archaeological researches into village origins; Slaughter and Kasímis also bring out powerfully the various forces at work moulding community life, not least at the present day. It is chastening to be shown in definitive fashion how much in error has been the traditional habit of viewing the Greek peasantry as an unchanging society mirroring their Mediaeval and Classical forebears in the same landscapes. Having a sociological perspective to bring our survey into the Boiotia of today reminds us, furthermore, that we are trying not only to reveal for modern Boiotians how their society has evolved, but also to show our interest and, at times, concern for their future.

Let us now return to our patient line of fieldwalkers and say something further about methods of fieldwalking. Within the area selected for intensive survey from 1979-1986, a series of modern parishes centring on the village of Mavrommáti in South West Boiotia, a continuous block of land has been completely fieldwalked by teams of staff and students. Here a tribute is in order to the enthusiasm of the undergraduates and graduates of Bradford and Cambridge Universities, because the mesmeric beauty of kilometre upon kilometre of olive groves has often been followed by painful treks through scree-covered slopes dense with sharp prickly oak. In order not to miss any activity focus or settlement, each walker is spaced at 15m from his neighbour, and teams proceed along contiguous rectangular transects directly plotted onto 1/5000 maps. The entire landsurface of Greece is carpeted with artefacts, essentially pottery, of every period, and our strategy, in order to identify concentrations of activity or sites, is to quantify potsherd density along each transect using a manual counter or "clicker", enabling us to focus upon peaks of surface finds for detailed site strategy.

So far we have fieldwalked a continuous bloc of over 40km². Clearly in contrast to the far more superficial but infinitely more extensive older surveys such as the Messenia Survey, we face the problem of having eventually to extrapolate from a small percentage of Boiotia (perhaps 3% at the most by the end of the Project). Such a small sample is inevitable if we wish to study the reality of site density; the Messenia Survey, or U.M.M.E., covered in the same time period an area 1 1/2 times that of all
Boiotia, yet their catalogue numbers only 312 sites; in some 2% of their survey area we expect to find almost as many sites, having recorded 146 already. The likely total of presently visible surface sites in Boiotia should be upwards of 10,000.

The first way we can make the most of our small sample is to select two diverse regions for comparison. Until 1986 we walked a large block around Mavrommáti; in the final 3 summers we are opening up a second region in the remote upland plain of Pávlos, North of the Kopaïs Basin. These two areas include a representative cross-section of all the main rock, soil and topographic variations within Boiotia. Secondly, we will have surveyed large areas of landscape belonging to at least 3 ancient cities, of differing political and economic importance: Thespiai, Haliartos and Hyetos. Thirdly, on the basis of the very detailed field-by-field analysis of our 2 sample districts we will compare our trends with those detectable from the totality of evidence for the remaining areas of Boiotia from traditional approaches, such as excavation reports, and from the historical sources. For example, recently Professor Schachter, on the basis of historical and archaeological evidence throughout Boiotia, suggested that the great Classical upsurge of population and civilisation occurred later in Boiotia than elsewhere, from the 6th century B.C. (unpublished paper at the Munich Boiotian Congress, 1986). This is totally in tune with the results of our localised field survey.

When a site is recognised our fieldwalkers operate a scaled-down version of our ordinary transecting: each site is traversed in a continuous grid, for each unit of which we count visible pottery and collect a sample for dating purposes. Contouring of surface pottery variation is proceeding with computer assistance. Thus 100% of each rural site can be studied with relative rapidity. Each site is also given a traditional contour survey.

In 1985-86 we turned our attention to the three town sites in our sample region: the polis of Thespiai, its satellite town of Askra, and the polis of Haliartos. The quantities of surface pottery on these sites were prodigious and the following collection strategies were employed:

At ASKRA we used the large fields of the site as individual sample units, measuring their sherd densities and collecting dating samples; within each field mini-samples of 30 x 10m were set up for fine control over the field samples, as similar amounts of pottery were gathered from both types. At HALIARTOS a regular grid was established, with again large samples, this time 50 x 60m, and "nested" mini control samples. These two cities are approximately 20-25ha at their Classical climax. A more mammoth task awaited us at THESPIAI, one of the top 4 cities of Boiotia: at its Classical florescence the city covered some 125ha, involving us in setting up a grid of 50 x 60m town samples to the number of 598, possibly the largest exercise of this kind on an ancient Greek city. The number of sherds had to be kept rigorously down because of the limited processing time available in Greece, and the time generously given us by our master pottery specialist, Dr. John Hayes (Royal Ontario Museum), whose knowledge of ceramics from Archaic to Late Turkish is probably without parallel in the Mediterranean. Our debt to John is inestimable.
Now the range of techniques available to study surface sites goes beyond the detailed recording of pottery. A series of sites has been subjected to geophysical survey, to detect building structures or pits lying below ground. In our work so far on several examples of rural farm sites of the Greco-Roman period, pottery concentrations are actually separate from the location of the farm building, which does, however, coincide with rooftop concentrations; arguably the pottery emanates from rubbish disposal zones. Magnetic susceptibility measurements are a complementary guide to activity remains, marking the remnants of kilns, hearths or industrial debris. The combination of these techniques in Boiotia is in the hands of an SERC research student, Chris Gaffney, whose preliminary results have appeared in the journal *Prospezioni* (Gaffney and Gaffney, 1986). Experiments with trace metals across surface sites will be referred to shortly.

Near the beginning of this paper I mentioned that the whole landsurface of Greece is littered with ancient artefacts. Our quantitative mapping reveals clear patterning of this so-called "off-site" or background scatter of pottery. The phenomenon is the subject of a forthcoming paper by myself and Professor Snodgrass. In it we suggest that Boiotian off-site scatters are primarily the result of millennia of agricultural manuring, and reveal information about the localisation and intensity of farming over time. Central Greek off-site densities fit neatly, moreover, into a cline of densities ranging from much lower figures for Britain to far higher figures for the Middle East. We argue that this cline is the result of variation in humus development, soil microfaunal activity and rates of surface erosion. A complementary perspective under investigation by Professor Davies is the distribution of trace metals in the subsoil, both across sites and across the intervening countryside. The hope is to distinguish different kinds of past human activity from soil residues, including industrial waste and night-soil disposal.

Finally I would like to broach two problem areas in the interpretation of archaeological field surveys such as ours:

A. Although one could cover a large area of Boiotia by surveying a series of thin transects or dispersed quadrats at wide intervals, we simply do not know enough about the underlying pattern of sites we are looking for to feel confident that such samples could accurately reflect integrated settlement systems; geographical units may in the future offer a more reliable sampling approach. A more intractable difficulty is the relationship between today's visible surface sites and the original number of sites. In contradiction to our colleagues on the Argolis Survey we believe even a 100% surface survey discovers only a proportion of the settlements once occupied; here we are in agreement with points forcefully put in print by that doyen of Greek survey, Richard Hope Simpson (1984; 1985). Our site distributions are merely minima, although, with geomorphological studies, we can try to argue that those sites that survive to view indicate where population was thickly or thinly scattered. My initial hopes, however, that the spacing of Classical farms could be used to study farm holdings, despite the attractive neatness of a holding module of 5.4ha, as argued by Jameson to be a hoplite farm, cannot now be sustained. As an alternative, and admittedly speculative, step I
have tried to compare population densities inferred from Classical army rolls such as preserved in the invaluable Oxyrhynchus papyrus, with the populations inferred from archaeological site densities. The exercise suggested that some 57% of sites of the Classical epoch are visible to surface survey, the rest being eroded away or buried. Adopting Keith Hopkins' "guesstimate" approach I have experimented with extrapolating this rate of site loss for previous time blocs of 2 1/2 millennia. The resultant graph suggests what may be already known to some from empirical observation: the increasing difficulty of identifying series of sites for the earlier prehistoric periods in Greece, unless they are located in convenient time capsules such as tell mounds; what of the first two millennia of the Neolithic in Crete, or of the Mesolithic for anywhere in Greece?

A problem of broader import relates to the current theoretical crux in Archaeology, and indeed much of History and Geography: the relationship between largescale historical trends and the scale of the individual. In the 60's and 70's, the limitations of traditional text-orientated archaeology with its overemphasis on great men and battles, were broken through into a new systemic methodology stressing forces at work on whole societies and over centuries, and expressed in climatic fluctuations, demographic cycles, the rise and fall of hierarchical polities. Now scholars are reasserting traditional values of the Humanities and criticising these forays into social science with their deterministic overtones (Bintliff, 1986b). The role both of free-willed individual actors in the past and of quite unique events is coming to the fore once more, perfectly in tune with the centrality in Classical archaeology of the narrative history of the ancient authorities. Our attitude on the Boiotia Project is to welcome the return of people and history, but without sacrificing one jot of the largescale perspective typical of the New Archaeology. For the events of history and the fates of individuals are just as much the result of long-term, generally veiled forces as they are of short-term, essentially conscious individual decisions by recognisable historical actors. Here our guiding light through the current debate is surely the late Fernand Braudel. In his Structural History, illustrated in his classic study of the 16th century A.D. Mediterranean (Braudel, 1972), the texture of the past is created by the constant interaction between historical forces operating on different timescales. Firstly we witness the short-term events (événements) that dominate conventional history, and in which we may identify actions and persons; these interact with influential views about the world shared by social groups or even whole societies, so-called mentalités (here a bridge to Symbolic, Structuralist and Cognitive Archaeology may be made) and the invaluable information from art works and literature invoked into the analysis. Next, permeating past societies are medium-term pressures of which most contemporaries are inadequately, if at all aware, the upward and downward trends of population cycles, agricultural cycles, climatic perturbations, core-periphery effects in political and economic macro-systems: these phenomena, operating over timescales of several centuries, are termed "conjunctures" and are the kind of recurrent phenomena "New" archaeologists pick up from their excavations and surveys; we have detected clear examples from the medium-term development of Boiotian society. Finally comes Braudel's famous
long-term perspective or longue durée where operate the almost timeless constraints on human behaviour set by landscapes such as the Mediterranean lowlands or by slowly changing technologies and ideological worldviews.

In our application of Braudelian structural history to Boiotia exciting perspectives are opening up; already we can identify obvious points of intersection between different temporal forces: in Slaughter and Kasimis' analysis of the modern Boiotian village we witness how its inhabitants are sharing in attitudes, ideologies, economic pressures and opportunities evolving at different timescales from the 14th A.D. to the events of the last ten years. Again, when we read Polybios' explanation for apparent population decline in 3rd-2nd B.C. Boiotia, stressing a collapse of morale and political errors, we are able to set this contemporary observation into the opening phase of one of Boiotia's recurrent demographic cycles operational at wavelengths of several centuries.

Our final challenge is to question to what extent the landscape of Boiotia has moulded the evolution of its human settlement systems in the long-term, that longue durée which is the framework for the Boiotia project, a landscape and its people over some 12,000 years.
REFERENCES


