THE HISTORY OF THE GREEK COUNTRSIDE: AS THE WAVE BREAKS, PROSPECTS FOR FUTURE RESEARCH

RESUME. Cet article présente le progrès qu'on a fait dans la description et la compréhension du paysage de la Grèce ancienne depuis le commencement de l'*intensive survey* archaeologique aux années 1970. Nous discutons, aussi, la méthodologie du *survey*, des approches techniques (géoprospection, GIS) et la collaboration avec les sciences de l'environnement, l'histoire ancienne et l'anthropologie. En dernier lieu nous présentons les problèmes d'interprétation des résultats obtenus, ainsi que des suggestions pour leur résolution.

In the Classical landscape paintings of Poussin and Claude, images of the Greco-Roman countryside and townscapes are created, using an aesthetically-satisfying but unrealistic hybrid of Mediterranean and temperate environments, whilst the built landscape is a juxtaposition of ancient monuments from all around the Mediterranean. It was only in the early 1970s, when a new approach to fieldwork in the Greek landscape was inaugurated [1], that it suddenly and excitingly became possible to envisage that scientific research might in the foreseeable future replace these imaginary approximations with detailed and realistic reconstructions of the ancient Greek countryside.

That methodology was intensive field survey, a combing of the landsurface to an unparalleled degree, on the assumption, immediately justified, that the quality and especially the sheer quantity of surface evidence for ancient settlement and land use were far in excess of anything previously recorded or imagined in landscape exploration in Greek lands. In many separate regions of Southern Greece and the Islands, and increasingly in Central and Northern Greece, hill and plain have been divided into innumerable mosaics of survey transects, each one being scoured by teams of archaeologists recording surface artefacts and building debris. I was privileged as a student to take part in two pioneering enterprises of this "New Wave" of Greek surveys, the Argolid Survey, directed by Michael Jameson [2], and the Ayiofarango Survey, directed by Keith Branigan [3]. Maps where few sites were known soon became filled with settlements of all sizes, whilst the same intensity of study was applied to the internal structure of these surface sites, especially the ubiquitous Classical farmsites and Late Roman villas [4]. Urban sites too, small and large, where excavation reveals tantalizing glimpses of certain public areas and habitation zones, have been put under the survey microscope and the broad lines of their

1. J.F. Cherry, Frogs round the pond: perspectives on current archaeological survey projects in the Mediterranean region, *Archaeological Survey in the Mediterranean Area*, D.R. Keller - D.W. Rupp (eds.), Oxford B.A.R. 1983, 375-416.
2. T.H. Van Andel - C.N. Runnels, *Beyond the Acropolis: A Rural Greek Past*, Stanford University Press 1987.
3. D. Blackman - K. Branigan, An archaeological survey of the Ayiofarango valley, *BSA* 72, 1977, 13-84.
4. J.L. Bintliff - A.M. Snodgrass, The Boeotia survey, a preliminary report: The first four years, *JFA* 12, 1985, 123-161.

millennial history revealed through largescale surface programmes [5]. A challenging example from my own Boeotia Project in its sheer scale was our rapid total surface investigation of the 150 hectare city of Thespiae through a survey mosaic of over 1000 units.

In the early 1990's the final results of the New Wave regional survey projects of the 70s and 80s are becoming published [6]; already the preliminary reports have opened up a totally new understanding of the Greek countryside in the past, and it is safe to say that when in several years' time all these projects have produced definitive publications, our vision of the ancient landscape will be permanently transformed. As a research community we have made massive strides towards replacing Poussin's images with equivalent but accurate detail.

As the new survey wave `breaks' it is timely that we review its achievements and try to outline the pathways forward, for we still have a long journey of scientific elaboration before we can match the dynamics of everyday life depicted in Classical landscape paintings.

Let us begin with Technologies from *archeological science*, which have already been employed sporadically in landscape analysis. On some settlement sites surface conditions already provide abundant data, but other parts of the same site may be hidden from view, and we know that a major proportion of ancient settlements are partially or entirely invisible on the surface at any one time. Geophysics can be of great assistance here, revealing the hidden subsurface structures, as has been exemplified at the Boeotia Classical farm site PP17, where a two-room farmhouse and putative farmyard enclosures have been interpreted from resistivity survey [7]. The next generation of surveys will hopefully utilize this rapid and inexpensive technique on a wider scale to provide us with a series of architectural plans for varying types of surface site. Another form of Geoprospection that has begun to yield complementary results to those of geophysics and surface archaeology is *geochemical survey* [8]. Human activity concentrated at rural settlements produces inorganic residues that accumulate over time, the so-called "habitation effect", deriving from human and animal waste products. At the same classical farmsite, PP17, soil samples showed a focus of abnormally high trace metal copper and lead values. Future research should adopt geochemistry as a routine aid to settlement analysis; again it is rapid and inexpensive, and because it manifests the scale and intensity of human behaviour may become a key element in understanding the exact functions of rural sites, an issue where ancient historians such as Robin Osborne [9] have raised significant problems. An unexpected by-product of Geochemical Settlement survey is the discovery of a potential application that may prove equally significant in the future: the reconstruction of land use. A zone of landscape in Boeotia running for 4km from ancient Thespiae city out into its immediate countryside, has been covered by soil survey transects for trace metal analysis; this demonstrated a close fit between rising values of surface pottery as one nears the city, due to field manuring with town rubbish, and trace metal values. It is now possible to suggest that by combining the mapping and dating of surface pottery across entire landscapes, and geochemical sampling, we can block out sectors of the landscape farmed intensively at specific periods of the past.

Geographical Information Systems or *GIS* have recently begun to cause a stir in the archaeological community [10]. The remarkable opportunities to bring together every kind of information available concerning a

5. S.E. Alcock, Urban survey and the polis of Phlius, *Hesperia* 60, 1991, 421-463; J.L. Bintliff - A.M. Snodgrass, Mediterranean survey and the city. *Antiquity* 62, 1988, 57-71.
6. For example, J.F. Cherry - J.C. Davis - E. Mantzourani (eds.), *Landscape Archaeology as Long-Term History*, Los Angeles, Institute of Archaeology UCLA 1991.
7. J.L. Bintliff, Appearance and reality: Understanding the buried landscape through new techniques in field survey, *Archeologia del Paesaggio*, M. Bernardi (ed.), Florence Edizioni all'Insegna del Giglio 1992, 89-137.
8. J.L. Bintliff et alii, Trace metal accumulation in soils on and around ancient settlements in Greece, *Man's Role in the Shaping of the Eastern Mediterranean Landscape*, S. Bottema - G. Entjes-Nieborg - W.V. Zeist (eds.), Rotterdam 1990, 159-172.
9. R. Osborne, Buildings and residence on the land in Classical and Hellenistic Greece, *BSA* 80, 1985, 119-128.
10. V. Gaffney - Z. Stancic, *GIS Approaches to Regional Analysis: A Case Study of the Island of Hvar*, Ljubljana Research Institute, Faculty of Arts and Science, Ljubljana University, 1991.

given area of countryside or a specific district within a town, and analyse and correlate these data within the context of computerised maps, will certainly generate radical changes in the way we collect data and what we can hope to do with it. This may well go well beyond preliminary exercises such as that we recently carried out on and around the small ancient city of Hyettos in north Boeotia, to highlight the town manuring zone and those associated with rural sites. We can also note *GIS*'s ability to shift the scale of observation from an entire landscape to a strip across a small rural site, and combine different categories of information (such as surface artefacts, geophysical plots and other complementary data). Probably the most significant future application of *GIS* will however be in town sites such as Thebes, where the display of combined categories of geographical data, archaeological data, archival data and pictorial data should revolutionize urban studies in Greece, particularly for our hard-pressed colleagues in the public service or Ephoreia responsible for contemporary towns with a rich heritage beneath them.

Remote sensing has also only just begun to make significant headway in Greece [11]. Pathfinding research has been carried out on the interpretation of ancient Greek landscapes from aerial photographs, for example by Athanasios Rizakis and our Conference organiser Panayiotis Doukellis, work which we saw illustrated during this colloquium. Satellite images, and alternative forms of energy capture to traditional photography are now revealing ancient fields, paths and other patterns of fossilised human activity across the countryside, even where little is visible on the surface today. A current remote sensing application in Greece is that of a team from Minnesota University working in Messenia, a region where it had applied more traditional forms of fieldwork in the 1960's.

As the community of field surveyors has operationalized intensive survey in the Greek landscape over the last 20 years, it has confronted problems of application and interpretation. It has made what with hindsight are errors. Despite continual refinement of archaeological methodology, changes will need to be made in future survey programmes to respond to recognisable failings in current procedures. I can suggest a number of specific weaknesses: firstly the distribution of *prehistoric population.*

We may feel secure when facing a reasonably dense site map for prehistory such as the Early Bronze Age distribution from the intensive Melos Survey, but as J. Cherry perceptively pointed out in his analysis of that distribution [12], if we estimate the likely occupation period of each of these essentially small sites, which is brief, and distribute the sites across the very long time period of the Early Bronze Age into which they are datable, then contemporary populations appear suspiciously small. Stepping up our sensitivity to prehistoric surface material, especially lithic sites without ceramics, can improve our resolution of prehistoric activity, as can be illustrated by Cherry's later methodology on the Nemea Project [13]. Yet my own practical experience in Boeotia, and that of survey projects in Italy [14], has convinced me that we only find a small percentage of prehistoric surface sites even using current intensive techniques, and we still lack any true conception of the scale of human occupance in the pre-Classical eras of Greece. Factors that are responsible for this include: site erosion or burial; the destruction by surface weathering of prehistoric finds, especially ceramics; and the extreme difficulty of spotting scanty or prehistoric surface material amongst the far more numerous artefacts of historic eras. A clear mistake by our own Boeotia Project was to assume that fieldwalkers can recognise artefactual clusters of any period; actually the significant level of artefact density for defining a site varies dramatically from phase to phase. In a fertile landscape such as Boeotia, historic period offsite pottery is of such a frequency that it prevents more than occasional, often chance recording of the far less numerous prehistoric lithic and

11. See C. Joyce, Archaeology takes to the skies, *New Scientist* 25, January 1992, 42-46.
12. J.F. Cherry, Four problems in Cycladic prehistory, *Papers in Cycladic Prehistory*, J. Davis - J.F. Cherry (eds.), Los Angeles University of California 1979, 22-47.
13. J.F. Cherry et alii, Archaeological survey in an artifact-rich landscape: A Middle Neolithic example from Nemea, Greece, *AJA* 92, 1988, 159-176.
14. F. di Gennaro - S. Stoddart, A review of the evidence for prehistoric activity in part of South Etruria, *PBSR* 50, 1982, 1-21.

ceramic finds. Thus in a recent experiment with Peter Reynolds in the *chora* of Classical Hyettos city we were able to calculate that the ploughsoil in the adjacent plain contains some 10,000 potsherds per hectare, whilst in the centre of the Lower Town densities rise to 1.5 million sherds per hectare. In 1989 a lithic specialist walked separately behind our field teams, and ignoring the ceramics, found an average of 1 stone artefact per hectare.

How should we change our strategies? Firstly, fieldwalkers must collect all visible artefacts in narrow strips across the landscape, but alongside them, specialists in prehistoric ceramics and lithics must walk parallel transects.

Despite these criticisms, intensive survey has enlarged the number of known prehistoric sites in such a startling fashion that the implications have yet to be absorbed by many Aegean prehistorians. Prehistoric locations known from extensive survey in Boeotia for example, and admirably presented in John Fossey's recent *Topography and Population of Ancient Boeotia* volume [15], number a few score. But if I generalize from the prehistoric density recovered in our intensive survey we may suppose that the true number of prehistoric surface sites locatable today is over 1250. Even with such intensive survey data the recovery difficulties I have just discussed will mean that this far larger figure is a significant underestimate - possibly even a fraction - of the original number.

Another area where intensive survey must make a much greater impact is in *upland Greece*. Small areas of maquis landscapes and rugged country have been included in most projects, and with difficulty have yielded up sites, but almost all regional projects have focussed on those essentially lowland landscapes of South-Central Greece that feature prominently in history and legend. We now need a complementary series of intensive regional surveys both in the extensive uplands of Epiros, Macedonia and Thrace, and in the mountains that ring the lowlands of Southern Greece. I suspect that quite new methodologies will be required to adapt intensive survey to these challenging zones, but the remarkable results of extensive survey by the Aetolia Project show how excitingly different the settlement history of these regions may be [16].

A third area where future regional projects will need to focus on is that of *taphonomic processes*, the unravelling of the dynamic forces that have shaped the survival of historic landscape fragments. Here we must highlight for Greece the major achievements in geomorphological landscape reconstruction by Jerry Van Andel and his students, especially Eberhard Zangger, for a whole series of regional landscapes, beginning with a collaboration in the Argolid with Michael Jameson [17]. From regional reconstructions, these geoarchaeologists have moved to analysing changes in landsurfaces at a much smaller level, appropriate to understanding the factors that have affected the present form of archaeological surface sites, exemplified by Zangger's research on the Berbati Survey [18].

On a much larger scale I have tried to tackle similar questions of surface site survival using offsite pottery densities: employing a comparative approach, I suggested that climatic and pedological factors can account for systematic trends in the quantity of surface finds from North-West Europe to Arabia [19].

As the New Wave final publications reach a wider audience, I predict a major change in the relationship between the archaeologists of Greece and *ancient history* : some historians have collaborated with regional surveys from the beginning, but most have stayed aloof and some have even expressed reservations about the

15. J.M. Fossey, *Topography and Population of Ancient Boeotia*, Chicago 1988.
16. S. Bommeljé - P.K. Doorn, (eds.), *Aetolia and the Aetolians*, Utrecht Parnassus Press 1987.
17. K.O. Pope - T.H. Van Andel, Late Quaternary alluviation and soil formation in the southern Argolid: Its history, causes, and archaeological implications, *JAS* 11, 1984, 281-306; T.H. Van Andel - E. Zangger, Landscape stability and destabilisation in the prehistory of Greece, *Man's Role in the Shaping of the Eastern Mediterranean Landscape*, S. Bottema - G. Entjes-Nieborg - W.V. Zeist (eds.), Rotterdam 1990, 139-157.
18. B. Wells - C. Runnels - E. Zangger, The Berbati-Limnes archaeological survey. The 1988 season, *Opuscula Atheniensia* 18 (15), 1990, 207-238.
19. J.L. Bintliff - A.M. Snodgrass, Off-site pottery distributions: A regional and interregional perspective, *Current Anthropology* 29, 1988, 506-513.

value of such work. It will now be unavoidable that historians confront the flood of new survey-derived information regarding population, economic change, and urbanism, even if it does not fit well with received wisdom emanating from the ancient texts.

Already a number of such novel insights and historical problems arising from survey can be identified: firstly the unexpectedly severe contrast in many regions between the highly-populous towns and countryside of the Classical period and their impoverished equivalents in the Late Hellenistic and Early Roman period [20]. The impact of Rome in particular deserves major revision, a process already underway in several articles by Sue Alcock [21]. Secondly, we are clearly very poorly informed about the Roman rural economy in Greece and the role of villas, and at least a decade or more behind our colleagues in Italy. Thirdly, around 400 A.D. regional survey has produced a remarkable picture, for which traditional history has left us totally unprepared, a notable flourishing of Late Roman population which lasts for almost 200 years, and seen for the first time in the early results of the Argolid Project. This now provides a suitable starting point for revaluating the energetic conquests of the Emperor Justinian throughout the Mediterranean in the mid-6th A.D. We are also on the verge of getting even closer to comprehending the economic processes involved in this Late Roman Renaissance of the Eastern Empire, through detailed ceramic studies on excavated and survey finds [22]: we can now see the dramatic contrast between the localised, smallscale trade in fineware and amphorae of c. 350 A.D. in the Aegean, and the dramatic upsurge of the pottery trade around 450 A.D. in which the Aegean becomes part of a flourishing international import and export world, a transformation which will reach its peak around 550 A.D. when Aegean and other East Mediterranean products even appear in some frequency on the Atlantic coasts of Dark Age Britain [23] !

Moving on in time, when we began the Boeotia Project in 1978 we saw the Medieval and Early Modern periods as poorly-documented historically and likely to provide little archaeology and that difficult to date. Here perhaps awaited the biggest surprises for both Greek archaeology and history. Medieval standing structures are actually frequently preserved, such as the Frankish knight's residence dominating the deserted medieval village of Panaya on the slope below, in the Valley of the Muses; detailed analysis of a series of such tower sites by Peter Lock [24] has brought a new dimension to the limited chronicles and letters of the period. But far more frequent, indeed ubiquitous, are deserted village sites. Many appear to be unpromising for survey, but usually yield some exposures rich in surface artefacts; our recent studies in Boeotia have shown that an equal number in presently cultivated areas are abundant in diagnostic surface finds. In ideal agricultural conditions, such as at the site of ancient Thespiae, intensive urban survey [25] can indicate the likely continuity of occupation from Classical times into the Frankish-Turkish period and beyond.

Several regional survey projects have collaborated with medieval and post-medieval historians in obtaining new kinds of data from *archives*, especially records of population and economic production, or cadasters of land use, data particularly appropriate for the approaches and concerns of field survey [26]. In Boeotia for example, we have so far been able to locate some 100 villages listed in the Ottoman Imperial archives of the

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20. J.L. Bintliff, The Roman countryside in Central Greece: observations and theories from the Boeotia Survey (1978-1987), *Roman Landscapes. Archaeological Survey in the Mediterranean Region*, G. Barker - J. Lloyd (eds.), London 1991, 122-132; J.L. Bintliff - A.M. Snodgrass. The Boeotia survey, *(supra* n. 4).
21. S.E. Alcock, Archaeology and imperialism: Roman expansion and the Greek city, *JMA* 2(1), 1989, 87-135; *idem* Roman imperialism in the Greek landscape, *JRA* 2, 1989, 5-34.
22. C. Abadie-Reynal, Céramique et commerce dans le bassin égéen du IVe au VIIe siècle, *Hommes et Richesses dans l'Empire Byzantine, IVe-VIIe siècle* C. Morrisson - J. Lefort (eds.), Paris 1989, 143-159.
23. M.G. Fulford, Byzantium and Britain: a Mediterranean perspective on Post-Roman Mediterranean imports in Western Britain and Ireland, *Medieval Archaeology*, 1989, 1-6.
24. P. Lock, The Frankish towers of Central Greece, *BSA* 81, 1986, 101-123.
25. J.L. Bintliff - A.M. Snodgrass, Mediterranean survey *(supra* n. 5).
26. *Cf.* J.C. Davis, Contributions to a Mediterranean rural archaeology: Historical case study from the Ottoman Cyclades, *JMA* 4, 1991, 131-215.

15th-17th centuries A.D.; of these a third are now deserted, the rest are the ancestors of modern villages. The Turkish village censusses, studied for us by Dr..Machiel Kiel, show two remarkable things: firstly, when we compare the distribution of Greek villages of the late medieval era to that of ancient times, we see that the Greek population had been almost entirely driven out of Eastern Boeotia as a result of warfare in the Middle Ages between the Franks, the Byzantines and the Turks: but in Western Boeotia Greek villages were still residing on or beside ancient city and village sites, probably a continuous occupation since ancient times. Secondly, the earliest preserved Ottoman census, that of 1466, also illustrates clearly how the Frankish Dukes had achieved a successful recolonisation of that empty eastern landscape by bringing in numerous small Albanian communities, semi-nomadic shepherds with some cereal cultivation (the records emphasize high sheep numbers in the Albanian villages). Each new Albanian hamlet was under a clan chief, who often gave his name to the village: our Project base, Mavrommati, began life as a group of 7 families in 1466 under its leader Gjin Mavrommati - John the Black-Eyed. Contrary to traditional history, both the Ottoman Imperial archives and our archaeological survey of deserted villages show that the Early Turkish period was one of rising populations and growing prosperity in both town and country (with a clear growth trend in successive censusses of 1506, 1540 and 1570). It is only during the 17th century that in common with many countries of Europe, population stagnation and contraction become evident, marking the onset of the prolonged decline of the Ottoman Empire [27] and the beginning of an historical situation which created the popular image of Turkish Greece as a single phase of unrelieved misery and depopulation.

We can look forward to seeing similar kinds of maps for almost every region of Greece, hopefully linked not only to field survey but also to the recording of *standing buildings* that in some cases go back to the 17th century or earlier, such as the traditional form of central Greek longhouse. Detailed study of the pictorial record [28] and early photographs should be integrated into such future programmes.

Greek archaeology's relations with *anthropology* have already been changing significantly in the 20 years since intensive regional survey took off. From providing helpful analogues from modern villages for ancient life, the focus has shifted, towards approaching ancient societies with anthropological attitudes, yet allowing for the fruitful differences and contrasts as well as possible parallels to recent ethnography. Notable examples of these new approaches can be seen in recent studies by Lynn Foxhall, Hamish Forbes [29], Glynis Jones and Paul Halstead [30], and in Ian Morris'book on Dark Age Attica [31], as well as in ethnoarchaeological research such as that of Todd Whitelaw [32] which was also presented in this colloquium. The increasing availability of very detailed archaeological evidence for ancient rural life is stimulating much new work on family economics and land use, utilizing this form of historical anthropology. Amongst the finest illustrations of this new level of rural archaeological detail are the remarkable Classical farm landscape of Southern Attica researched by Hans Lohmann and German colleagues [33], which Dr. Goette discussed at this colloquium, and the farms and associated landholdings studied by Michèle Brunet and French colleagues on Delos [34].

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27. H. Inalcik, The Ottoman decline and its effect upon the Reaya, *Aspects of the Balkans, Continuity and Change*, H. Birnbaum - S. Vryonis (eds.), The Hague Mouton 1972, 338-354.
28. F.M. Tsigakou, *The Rediscovery of Greece*, London 1981.
29. L. Foxhall - H. Forbes, Σιτομετρεία: the role of grains as a staple food in classical antiquity, *Chiron* 12, 1982, 41-90.
30. P. Halstead, Traditional and ancient rural economy in Mediterranean Europe: Plus ça change?, *JHS* 107, 1987, 77-87 ; P. Halstead - G. Jones, Agrarian ecology in the Greek Islands: time stress, scale and risk, *JHS* 109, 1989, 41-55.
31. I. Morris, *Burial and Ancient Society. The Rise of the Greek City-State*, Cambridge University Press 1987.
32. T.M. Whitelaw, The ethnoarchaeology of recent rural settlement and land use in Northwest Keos, *Landscape Archaeology as Long-Term History*, J.F. Cherry - J.L. Davis - E. Mantzourani (eds.), Los Angeles, Institute of Archaeology UCLA 1991, 403-454.
33. H. Lohmann, Landleben im klassischen Attika, *Jahrbuch Ruhr-Universität Bochum*, 1985, 71-96.
34. M. Brunet, Contribution à l'histoire rurale de Délos aux époques classique et hellénistique, *BCH* 114, 1990, 669-682; *Idem*, Terrasses de cultures antiques : l'exemple de Délos, Cyclades, *Méditerranée* 3, 1990, 5-11.

As regional survey after regional survey produces its results, we will see with greater clarity what the overall trends are over time across the settled Greek landscape, as well as which regions stand apart from the rest in their developmental trajectory. We are already also at the point where fruitful comparisons and contrasts may be drawn with contemporary trends in neighbouring parts of the Mediterranean [35], especially for countries where intensive survey began earlier and is a maturer discipline; the evidence from Israel, North Africa (especially Cyrenaica) and Italy are obvious starting points.

In comparing the record of one region of Greece with another, or with regional developments in other countries, I have suggested that the following model (Fig. 1) may prove helpful, an elaboration of one developed by the historian Chris Wickham [36].

1. Local Agricultural - Demographic Cycles; Local Human Ecology or "Health".
2. Model(s) of Production Operated at Local Level.
3. Model(s) of Production Operated at Macroregion Level *e.g.* by the State.

Fig. 1. Region - Macroregion Model

Perhaps the greatest current challenge in interpreting the data revolution of the New Wave surveys, is in trying to mesh together the different rhythms of development over time: from landscape change across the entire Holocene, to demographic trends over millennia, to political change over the lifetime of historical individuals, and even to the dramatic effects of events within single years. In a recent edited volume [37], I proposed that an appropriate methodology for this problem lay ready to hand in the *structural history* of the French *Annales* School, focussing as it does on processes operating in parallel at three major time levels (Fig. 2). Another relevant insight from *Annales'* history is the prominence given to integrating human cultural practices and worldviews, or *mentalités*, into any interpretation of past behaviour, an area where we who work in Greece are privileged with an abundance of data in the form of literary and artistic products.

Applying French Structural History to the accumulating regional stories from all over Greece will allow us to separate out those features of Greek landscape history which are uniquely special to particular areas and periods, and those where continuities, or merely the recurrence of similar factors, have created comparable forms of settlement or lifeways in many eras of the Greek past.

One final example will suffice to illustrate this analytical process: the special nature, or otherwise, of the Greek *polis* or city-state. In tune with the recent flourishing of landscape archaeology and history in Greece, there has been an equivalent revival of interest in the origins and nature of the *Polis.* Central Place models and Ecological Models have appeared from the Lyon School [38] and in my own work on the evolution of early historic village settlement in Boeotia and Attica [39]; and sophisticated dynamic models comparing the organisation of space in the same landscape at different periods, such as work done by the French School on Thasos [40].

35. *Cf.* G. Barker - J. Lloyd (eds.), *Roman Landscapes. Archaeological Survey in the Mediterranean Region*, London 1991.
36. J.L. Bintliff - A.M. Snodgrass, The end of the Roman countryside: A view from the East, *First Millennium Papers: Western Europe in the First Millennium A.D.*, R.F.J. Jones et alii (eds.), Oxford B.A.R., 1988, 175-217.
37. J.L. Bintliff, The contribution of an Annaliste/Structural History approach to Archaeology, *The Annales School and Archaeology*, J.L. Bintliff (ed.), Leicester University Press 1991, 1-33.
38. Y. Auda et alii, Espace géographique et géographie historique en Thessalie, *Archéologie et Espaces, Xe Rencontres Internationales d'Archéologie et d'Histoire*, Antibes 1989, Juan-Les-Pins Editions APDCA 1990, 87-126.
39. J.L. Bintliff, Die *Polis*-Landschaften Griechenlands: Probleme und Aussichten der Bevölkerungsgeschichte, *Stuttgarter Kolloquium zur Historischen Geographie des Altertums*, E. Olshausen - H. Sonnabend (eds.), 2, 1984 and 3, 1987, Bonn Rudolf Habelt GMBH, 1991, 149-202; *Idem*, Territorial behaviour and the natural history of the Greek *polis.*, *Proceedings of the Stuttgart 'Grenzen' Conference*, E. Olshausen - H. Sonnabend (eds.), in press.
40. Z. Bonias - M. Brunet - G. Sintes, Organisation des espaces et cheminements antiques à Thasos, *Archéologie et Espaces. Xe Rencontres Internationales d'Archéologie et d'Histoire*, Antibes 1989, Juan-les-Pins Editions APDCA, 1990, 71-86.

Much of this however was anticipated in neglected works of historical settlement geography published decades ago, and even in the interwar years; suffice to mention the series of microlandscape studies in Crete published by Lehmann [1]. Potentially the most influential of these forgotten contributions is the vast and brilliant study of the geography of the ancient Greek *Polis* published by Ernst Kirsten almost 40 years ago [2]. It was Kirsten who argued at length and to my mind convincingly, especially when we look at all the new information on the rise of the *Polis* unavailable to him, that in essence and in origin the typical ancient Greek *polis* is simply a variant on the traditional Greek nucleated village: he called this the *Dorfstadt* model (village-town), and its applicability can be shown in ideal fashion by modern Kastro village in Boeotia overlying the ancient city of Copai.

HISTORY OF EVENTS	SHORT TERM / EVENEMENTS	Narrative, Political History; Events; Individuals.
STRUCTURAL HISTORY	MEDIUM TERM / CONJONCTURES	Social, Economic History; Economic, Agrarian Demographic Cycles; History of eras, regions, societies World views, ideologies (*Mentalités*)
	LONG TERM / STRUCTURES OF THE "LONGUE DUREE"	Geohistory: "enabling and constraining" History of civilisations, peoples Stable technologies, world views (*Mentalités*)

Fig. 2. Braudel's model of historical time.

Due to differing environmental advantages, in soils, communications, or the heritage of preceding history, according to Kirsten, villages vary in size, and through competition the stronger villages rise to dominance over others, taking on wider servicing functions - becoming mature *poleis* ; yet these *poleis* and their now subordinate villages or *komai* usually remain closely tied to their original village *chora* or territory and hence retain *Dorfstadt* or village character. In contrast, a small number of village-towns or *poleis* grow inordinately large through largescale conquest or more peaceable forms of domination over their neighbours, or through unparalleled expansion in overseas commerce; the scale of the landscapes they control goes far beyond those associated with traditional forms of exploitation from the original village; thus is born what Kirsten calls the *Megalopolis*, whose parallel is the true town or *Stadtstadt* of the Middle Ages.

The city plans of Classical cities in Boeotia fit nearly into Kirsten's model, with small *komai* at one end of the size scale, once independent, followed by a sliding scale of *poleis* exercising different degrees of

1. H. Lehmann, Die Siedlungsräume Ostkretas, *Geographische Zeitschrift* 45, 1939, 212-228.
2. E. Kirsten, *Die Griechische Polis als historisch-geographisches Problem des Mittelmeerraumes*, Bonn Colloquium Geographicum 5, 1956.

dominance over each other according to their size; then on another scale of size altogether, the *Megalopolis* of Thebes dominating the entire region and at one time much of Southern Greece.

In conclusion, as the "new wave" of regional survey breaks, we have exciting results to absorb, new and better surveys to plan, but also the need to rediscover the heritage of previous research on the Greek landscape.

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