

PATTERN AND PROCESS IN THE CITY LANDSCAPES OF BOEOTIA FROM GEOMETRIC TO LATE ROMAN TIMES

Boeotia is a large and agriculturally fertile region of Central Greece, with a surface area in antiquity of some 2580 sq. km, very close in size to neighbouring Attica. In this paper I wish to discuss the evolution of the Boeotian city landscapes, using the available information from two levels of investigation: firstly for the whole region we can utilise the results of extensive research carried out by numerous investigators over the past two centuries, essentially summarized in the recent publication of John Fossey in his book on the ancient topography of Boeotia¹. Secondly I will use the highly detailed information available from the Boeotia Project, jointly directed by myself and by Anthony Snodgrass of Cambridge University, which since 1978 has carried out intensive archaeological surface survey in two districts, initially in South-Western Boeotia in the territory of the ancient cities of Thespieae and Haliartos, and more recently in the territory of the city of Hyettos on the Northern borders of the province². At Hyettos the entire city site of 26 *ha* has been surface surveyed, as well as several square kilometres of its *chora* or territory. In South-Western Boeotia we have fieldwalked over 40 square kilometres of countryside as well as totally surveying the ancient *komopolis* or urban village of Askra, some 10,5 *ha* in size, the small city of Haliartos at 42 *ha*, and the major city of Thespieae at 104 *ha*.

If we consider the origins of the Classical city landscape we must turn to the picture available for the later Dark Ages or Geometric times. What is striking within our intensively surveyed sector of South-Western Boeotia (**fig. 1**), is that Geometric activity is almost exclusively limited to the three urban sites, despite our discovery of over 200 sites of other periods. The origin communities in the landscape then appear as widely-spaced pioneer settlements with plenty of land around them. Turning to the region of Boeotia as a whole we find (**fig. 2**) exactly the same pattern on a much lar-

1. J. M. FOSSEY, *Topography and Population of Ancient Boeotia* (1988).

2. J. L. BINTLIFF, A. M. SNODGRASS, "The Boeotia Survey. A Preliminary Report: The First Four Years", *JFieldA* 12 (1985), p. 123-161; J. L. BINTLIFF, A. M. SNODGRASS, "Mediterranean Survey and the City", *Antiquity* 62 (1988), p. 57-71.

ger scale; apart from sanctuary sites, there are only two or three Geometric sites which do not develop into either a Classical city or Classical village site, and again we see an almost regular and wide spacing of these pioneer sites across the cultivable sectors of the landscape.

An interpretation based on Human Ecology seems most appropriate for this phenomenon. In the theory of archaeological "catchments" developed by Vita-Finzi and Higgs³, Pre-Industrial human settlements are considered as occupying subsistence territories analogous to those identified in the animal kingdom (an example being bird territories in gardens). Empirical applications of Catchment Analysis in many different archaeological contexts have shown that a commonly-recurring size of territory for a nucleated hamlet or village has a radius of some 2,5 km (for example with early farming villages in Mexico)⁴.

Of course we may expect that continuing research in Boeotia will reveal new sites in less-well researched parts of the landscape, including those of Geometric date, but overall I think we can already say with some certainty that Dark Age settlement is characterised by a relatively even spread of hamlets or villages, from which the Classical settlement pattern of villages and cities grows both by continuity of occupation and the colonising infill of vacant village niches. By Classical times (**fig. 3**) all the fertile zones of Boeotia are likely to have been neatly divided between cities and villages, with the most frequent putative territory size being a circle some 2,5 km radius. In **fig. 3**, I have indicated towns as triangles, villages as circles, and placed a series of hypothetical village territories where the arable land is good but hitherto no significant ancient settlement has been found, despite there often being a village there in recent centuries.

It was Ernst Kirsten who in 1956 answered so well the puzzled question of his teacher Alfred Philippson: why were there so many cities in ancient Greece?⁵ The answer was simple: the average Classical city and its major satellite villages are merely the predecessors of traditional Greek villages in size, location and frequency across the landscape — it is essentially in *political* terms wherein the difference lies.

The Human Ecology model, with its modular territories, seems to account well for the origins and development of nucleated settlements across the Classical landscape, but we need to ask next how there arise those differences of size and status that make some settlements cities, others hamlets, and then make those cities small, medium and large. Again we have good evidence from our detailed survey in South-Western Boeotia; city survey shows us that already in Geometric times the pioneer settlements are not only variable in size, but the size differences reflect the later status of these communities. Thus the later *komopolis* of Askra begins as a small Geometric hamlet, whereas the medium sized city of Haliartos looks like a village in Geometric times; as for the major city of Thespieae, there appear to be several hamlets spread across the later city area in the Geometric period. If we turn to the wider picture for Boeotia as a

3. C. VITA-FINZI, E. S. HIGGS, "Prehistoric Economy in the Mt. Carmel Area of Palestine: Site Catchment Analysis", *ProcPrehistSoc* 36 (1970), p. 1-37.

4. K. V. FLANNERY, *The Early Mesoamerican Village* (1976).

5. E. KIRSTEN, *Die griechische Polis als historisch-geographisches Problem des Mittelmeerraumes* (1956).

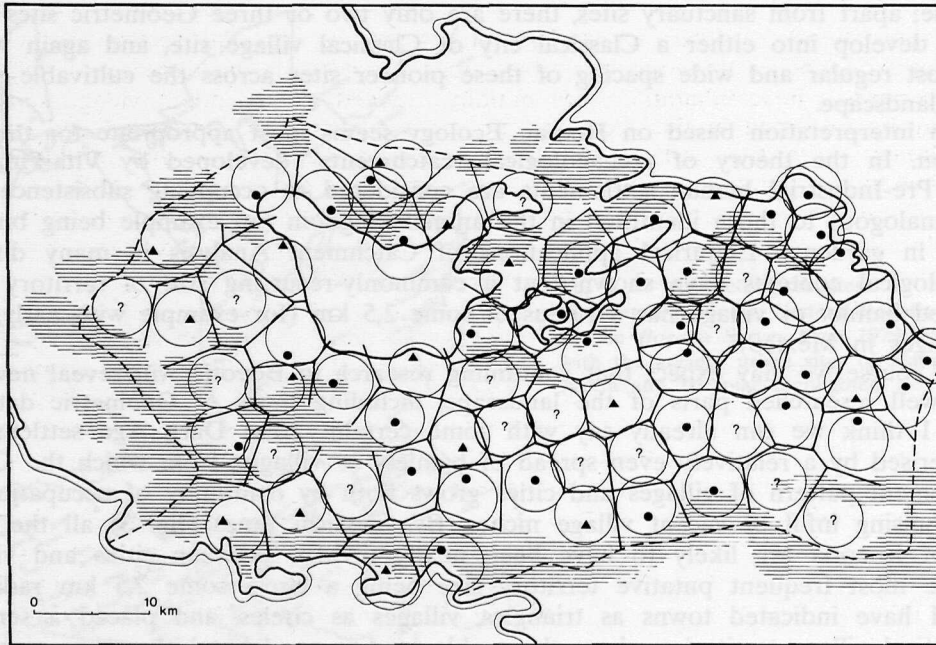


Fig. 3. — Territorial analysis of the town and village network of Classical Boeotia. Known city and village sites shown as black triangles and circles, hypothetical village locations shown as question marks. The territories reconstructed for each settlement have been achieved through a Thiessen Polygon analysis (solid black cell borders). Within each hypothetical territorial cell a modular circle of 2,5 km radius has been fitted to illustrate the comparable size of most putative territories.

whole we find the same story — the city of Thebes⁶ is probably already a multi-hamlet in Protogeometric times and a small town by Geometric times.

There are several possible reasons for the early differentiation in size within the modular village network of Boeotia: variable quality of arable land and other natural resources, the survival of larger populations at Mycenaean central places through the Dark Ages, and the unpredictable consequences of events and personalities that make up day-to-day history — that short term history (*histoire événementielle*) to which I shall return later in this paper.

However, as throughout Southern Mainland Greece, population seems generally to be rising from Geometric times until well into the Classical and Early Hellenistic centuries. The ordered natural ecology of the initial modular settlement territories will be put under strain as the resources of each cell come under stress from such burgeoning populations in the individual settlement foci; and we may expect that the strains will be strongest in the already larger settlements. Such a scenario seems the most plausible explanation for what I might term, to stay with an ecological perspective, the phenomenon of "Predatory Expansion".

6. S. SYMEONOGLOU, *The Topography of Thebes from the Bronze Age to Modern Times* (1985).

From at least final Geometric times into the Hellenistic era, there are constant clashes throughout the Boeotian landscape between the modular settlements, with the clear motivation being the urge to expand one's territory at the expense of neighbouring settlements, whose inhabitants are initially reduced to dependent village status, but later may be relocated in the dominant city or even expelled, massacred and enslaved. Thus already from the end of the 8th C. BC the more powerful settlements are attempting to dominate their neighbours and limit each other's sphere of influence. By the 7th C. the mosaic of originally autonomous modular subsistence cells is becoming politically simplified through the incorporation of smaller units into expanding major state territories. The 6th C. (**fig. 4**) witnesses a peak of such aggression, and is marked archaeologically by the ubiquitous erection of Archaic style walls around all urban settlements, such as the fine example at Hyettos, whose plan and chronology have been studied in an excellent monograph of the French School⁷. The unusual abundance of good arable land in Boeotia provided continued potential for more intensive agriculture, so that the stress of population growth was released into localised land disputes; only one Boeotian involvement in overseas colonisation is recorded, that of Tanagra in 560 and its joint foundation, with Megara, of Heracleia Pontica.

As this almost Darwinian struggle for economic and political power is played out over the Archaic landscape, a parallel may be sought with Colin Renfrew's theoretical model of "Peer Polity Interaction". In this model⁸ a cluster of interacting political units is fused into a larger mosaic where the same process is repeated at ever higher levels of integration.

Thus by the climax of Classical Boeotian population in the 4th C. BC (**fig. 5**), when as we have seen every nucleated settlement niche in the landscape is probably occupied by a village or town, a strong settlement hierarchy has been created over several centuries of struggle, such that the dozen or so independent or semi-independent *poleis* of Boeotia usually control enlarged cells including several village units or even minor towns.

Historical sources claim that the 4th C. was a period of very dense population in Boeotia, a claim which field archaeology abundantly confirms. The urban sites of South-Western Boeotia subjected to surface survey show their greatest extent at this time (the *komopolis* of Askra, Haliartos town, Thespieae city) as does Hyettos town in the North of the region. Territorial aggression may have consumed some of the land pressure emanating from the larger settlements, but yet another mechanism now attested was to intensify rural productivity through residence on the land in extramural farmsteads. Significantly it seems from the archaeological evidence to be the 6th C. BC, the peak of interstate aggression, when there occurs a rapid explosion of rural farmsteads across the Boeotian city *chorai*. In **fig. 6**, we see the remarkable density of new rural settlements in South-Western Boeotia datable to the final Archaic to Early Hellenistic period; these are mainly small farms appropriate to a single family plus a slave or two.

Clearly residence on the land would have increased productivity for a highly-populated landscape, but I also consider that the move out of the traditional nucleated

7. R. ÉTIENNE, D. KNOEPFLER, *Hyettos de Béotie et la chronologie des archontes béotiens*, BCH Suppl. III (1976).

8. C. RENFREW, J. F. CHERRY (eds), *Peer Polity Interaction and Socio-Political Change* (1986).

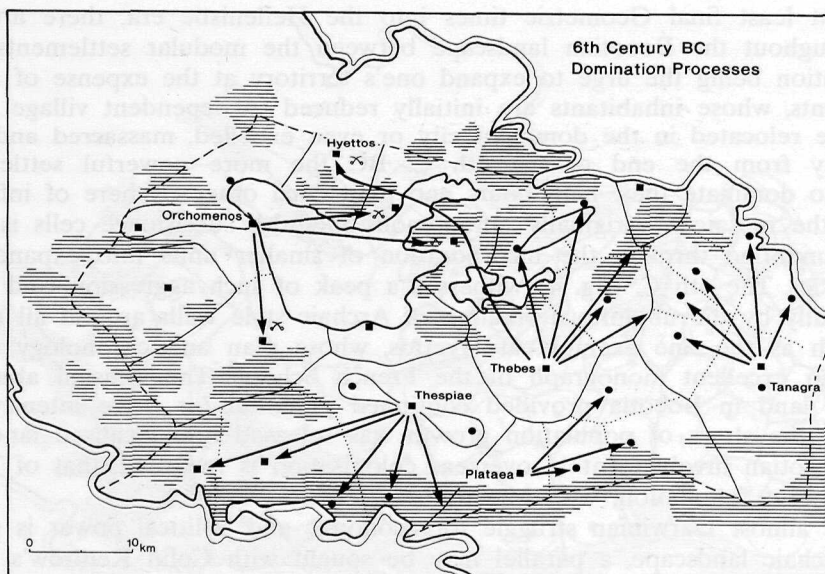


Fig. 4. — Interstate aggression in 6th C. BC Boeotia.

Arrows and enclosing balloons indicate warfare and political incorporation from rising major cities over weaker neighbours. The previous political boundaries are those suggested by dotted lines; the results of aggressive expansion are shown as larger territories bounded by solid lines.

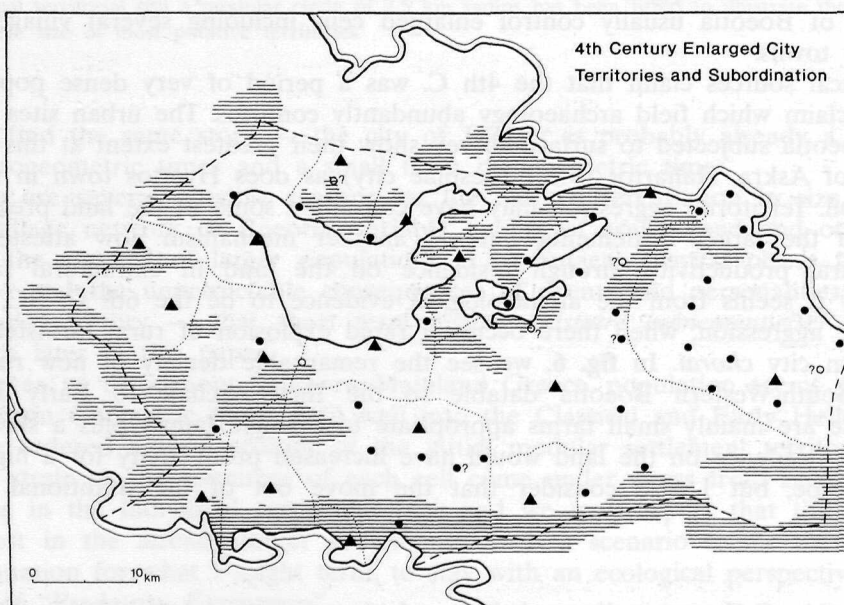


Fig. 5. — The political territories of Boeotia in Late Classical, 4th C. BC times. Cities shown as triangles, villages as circles.

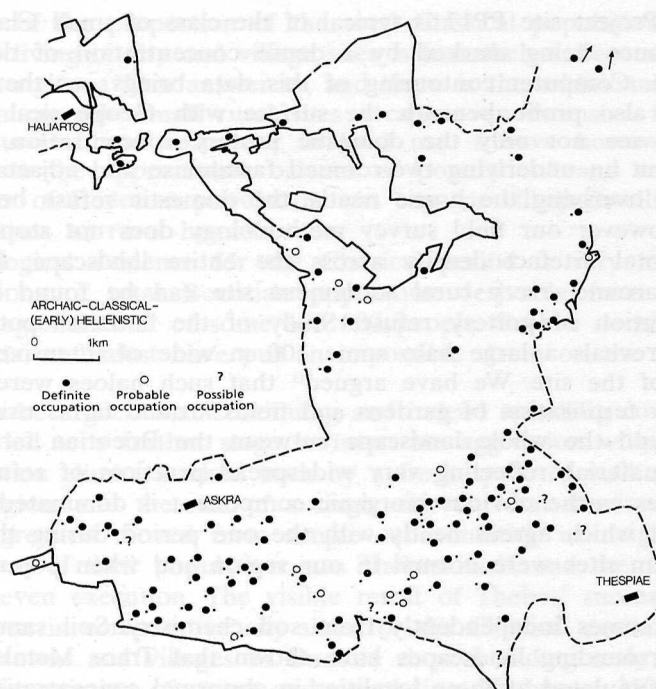


Fig. 6. — Distribution of archaeological sites in South-Western Boeotia discovered by the *Boeotia Project*.

society coincided with the creation of hoplite constitutions in the Boeotian states, of formal rights of *polis* membership (city-state citizenship) for the established landowning classes; residence in the community focus was no longer necessary to secure one's legal rights and military protection.

But can we be sure that these rural sites are indeed residential farms? It has indeed been a member of the Boeotia Project, Robin Osborne of Oxford University, who in several publications⁹ has used inscriptional and other literary sources to suggest that such archaeological sites are more likely to be used on a temporary or seasonal basis by a population essentially resident in the recorded town and village foci (as tool sheds, agricultural processing stations and animal folds). Whilst his evidence does indeed make it likely that some proportion of the small surface sites discovered may be so explained, our detailed investigations suggest that the Osborne thesis is unsatisfactory for the vast majority of such sites, where several distinct forms of information point to prolonged human occupation.

9. R. OSBORNE, "Buildings and Residence on the Land in Classical and Hellenistic Greece", *BSA* 80 (1985), p. 119-128; *id.*, *Classical Landscape with Figures* (1987) and "Is it a Farm? The Definition of Agricultural Sites and Settlements in Ancient Greece", in B. WELLS (ed.), *Agriculture in Ancient Greece* (1992), p. 21-28.

The Boeotia Project site PP17 is typical of the class of small Classical rural sites¹⁰, its surface appearance being marked by a dense concentration of domestic potsherds and glazed rooftile. Computer contouring of this data brings out the pottery accumulation but we can also probe beneath the surface with Geophysical Prospection. This now allows us to see not only the domestic pottery concentration, and an adjacent focus of rooftile, but an underlying two-roomed farmhouse and adjacent small farmyard enclosure (the tile overlying the house neatly, the domestic refuse being spread across the yard area). However our field survey methodology does not stop at site discovery but records the total artefact density across the entire landscape; from this we can demonstrate that around every rural settlement site can be found a "site halo", an enhanced concentration of pottery refuse. Study of the "offsite" pottery density map around site PP17 reveals a large halo some 100 m wide of intensive rubbish disposal around the edge of the site. We have argued¹¹ that such haloes were created by deliberate manuring or fertilisation of gardens and fields around farms using household and animal refuse. Indeed the whole landscape between the Boeotian farms is covered by a carpet of such material, reflecting very widespread practices of refuse manuring. The pottery that survives as the obvious inorganic component is dominated by Classical period material, a fact which agrees neatly with the one period during the last 3000 years when dispersed farm sites were normal in our region and when population reached an unparalleled peak.

Confirmation comes independently from soil chemistry. Soil samples taken across these sites and surrounding landscapes have shown that Trace Metals such as Copper and Lead have accumulated at these localities in abnormal concentrations; this is known to occur wherever human occupation has been prolonged or the refuse from habitation is in large quantities — the "Habitation Effect" as it has been dubbed by our soil chemist collaborator Brian Davies of Bradford University. At site PP17 for example, the levels of copper in the soil are way above the regional norm, as are those of lead. A complementary habitation indicator is a high level of magnetic enhancement in the soil across rural sites. At another similar farm site a concentration of magnetic viscosity has been shown to overlie remains of the main farmhouse.

Trace metal analysis can also prove effective across entire landscapes as an indicator of past land use intensity. Professor Davies took a series of soil samples over transects of several kilometres in the countryside around the ancient city of Thespieae. The transects running towards the city passed across increasing densities of offsite or manuring pottery, believed by us to show manuring from the city itself. Remarkably, both lead and copper values in the soil also reveal an overall increase towards the city, signifying an origin in human, animal and other kinds of settlement refuse. In our current work at Hyettos city the two fertile plains immediately outside the city itself reveal an identical city manuring effect in quantified offsite pottery density plots.

10. J. L. BINTLIFF, B. DAVIES, C. GAFFNEY, A. SNODGRASS, A. WATERS, "Trace Metal Accumulation in Soils on and around Ancient Settlements in Greece", in S. BOTTEMA, G. ENTJES-NIEBORG, W. VAN ZEIST (eds), *Man's Role in the Shaping of the Eastern Mediterranean Landscape* (1990), p. 159-172.

11. J. L. BINTLIFF, A. M. SNODGRASS, "Off-Site Pottery Distributions: A Regional and Interregional Perspective", *Current Anthropology* 29 (1988), p. 506-513.

The question of the proportion of the total Classical population living in dispersed farms and that living in city and village sites is nonetheless, because of the "Osborne factor", not easy to give a firm answer to, and there is the additional complication that without doubt innumerable small rural sites escape even intensive field survey owing to accidents of survival and variations in land use. I have however made a recent attempt to calculate the approximate balance of population¹² and concluded that perhaps 70% or more of Boeotian population was city- or village-dwelling, less than 30% living in family farms or rural hamlets.

The archaeological evidence for the Classical period is very much in agreement with the calculations of total Boeotian population derivable from historical sources, which suggest a regional total of some 165 000 people. Such a density has never been equalled in Boeotia, and must have put an impossible strain on the long-term productivity of the land.

Indeed it can be argued that continuing and indeed spiralling competition for diminishing resources led to a further stage in interstate aggression within the region, with the 4th C. population climax marked both by a fresh spate of wall and tower building throughout the region, and the rise of a single city to total dominance — the city of Thebes, whose aggression moved from simple subordination of neighbouring communities, to the removal of their population into Thebes itself, and then to their expulsion, enslavement and even execution. The visible result of Thebes' success in its Darwinian struggle can be seen in comparative city sizes for the Classical period (**fig. 7-9**). Whereas the remaining towns and villages of Boeotia show a sliding scale of size, suggesting a step-by-step differentiation of status and population, Thebes at 350 *ha* is in a totally different category of size, and in terms of urban geography must be recognised as an effective Primate City for the entire province¹³. Thebes was poised to convert Boeotia into a single giant city state, reminding us of another model of Colin Renfrew, the "Early State Module"¹⁴, where major states emerge by fusion of competing mosaics of minor states. Thebes, as the Boeotian state in all but name, was now prepared to enter the stage of interstate competition on a larger mosaic, the pieces of which were entire centralised regions like itself — Athens, Megara, Corinth, Sparta.

In my city size plans I included for comparison the walled area of Classical Athens alongside Thebes, and in response to the request of the organisers of this conference for attempts at comparison and synthesis, I shall briefly suggest that the trajectory of settlement development in Attica exhibits remarkable parallels to that of Boeotia.

12. J. L. BINTLIFF, "Die Polis-Landschaften Griechenlands: Probleme und Aussichten der Bevölkerungsgeschichte", in E. OLSHAUSEN, H. SONNABEND (eds), *Stuttgarter Kolloquium zur historischen Geographie des Altertums* 2 (1984) und 3 (1987) (1991), p. 149-202, revised, with additional data, in J. L. BINTLIFF, « Further Considerations on the Population of Ancient Boeotia », in J. L. BINTLIFF (ed.), *Recent Developments in the History and Archaeology of Central Greece* (1997), p. 231-252.

13. C. A. SMITH, "Introduction: The Regional Approach to Economic Systems", in C. A. SMITH (ed.), *Regional Analysis I, Economic Systems* (1976), p. 3-63.

14. C. RENFREW, "Trade as Action at a Distance: Questions of Integration and Communication", in J. A. SABLOFF, C. C. LAMBERG-KARLOVSKY (eds), *Ancient Civilisation and Trade* (1975), p. 3-59.

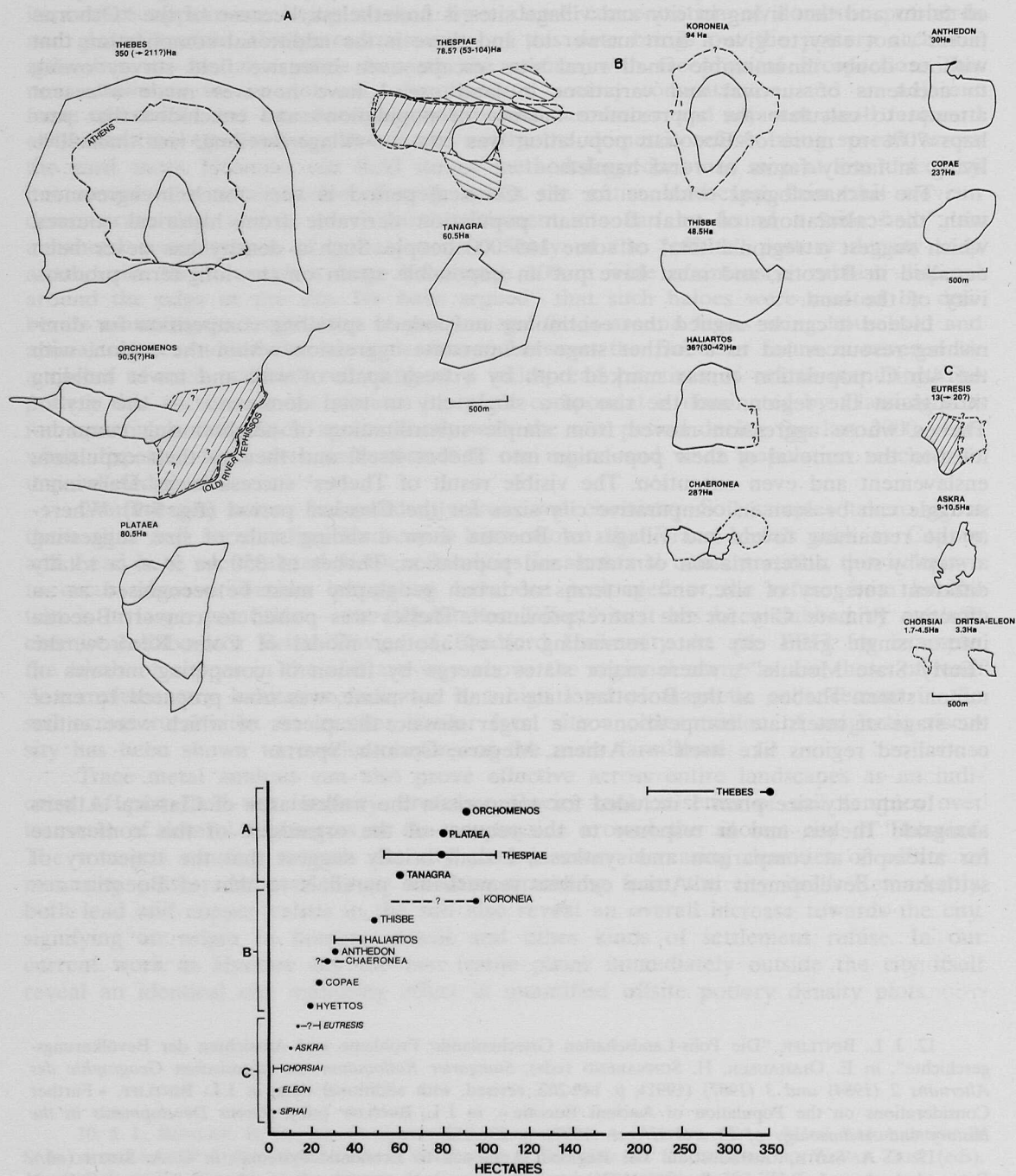


Fig. 7, 8, 9. — Plans of the main urban sites of Classical Boeotia drawn to the same scale, grouped into three major size and status classes (A, B, C) and graphed.

Dark Age archaeology¹⁵ shows us the progressive colonisation of the Attic landscape by a modular network of settlements (**fig. 10**), which by the end of the Archaic period (according to the Kleisthenic deme or parish system) are discrete village communities whose putative territorial space in the truly rural areas, as shown in **fig. 11**, is of the order of a circle of 2,5 km radius. The city of Athens and its immediate rural hinterland show however a far higher density of population both from archaeology and the evidence of the Kleisthenic deme records, with much smaller settlement cells, so small I have not indicated their likely territories. A similar concentration of small village cells is also apparent from the figure for those demes still close to the city and lying to its North.

The deme records also accord with the earliest history and legend in indicating a small number of major communities in the Attic countryside that may formerly have disputed power with the nascent city of Athens, rather like the competing city states of Boeotia. For reasons still to be explained, however, although Thebes and Athens were both already abnormally large in Geometric times, only Athens succeeded by Archaic times in unifying the Early State Module of Attic communities into a single centralised state.

Athens city was described by contemporaries in Classical times as equal in population to the city of Thebes; in plan however, Athens within its "Themistoclean" walls at 211 *ha* is only two-thirds the size of Thebes. Perhaps we should look again at that dense cluster of demes around Athens and ask ourselves if Greater Athens is really far older than 1922?

A more distant parallel to Thebes has recently been discussed by Berger in his study of the rise of the great city of Syracuse¹⁶, which grew like Thebes on a policy of destroying its neighbours and removing their populations within its walls. Its maximum size of settled area, according to Drögemüller¹⁷, at 325 *ha* is intriguingly close to Thebes.

To support the same process of logarithmic population growth from Late Geometric times into the 5th C. BC, just as in Boeotia, we can observe in Attica a stage at the end of the 6th C., when population not only rises steeply in the urban site of Athens but also moves out from the modular village settlements, where it had hitherto been confined, into innumerable dispersed rural farms. We know most about these from the excellent archaeological survey of Hans Lohmann and colleagues from the German School¹⁸.

Attica, as Peter Garnsey has recently argued at length¹⁹, is nowhere near as infertile as often depicted, but is nonetheless far from having Boeotia's fertility. Thus he calculates that the Athenian population climax of Classical times required on average an importation of some 20% of its food supply, compared to Boeotia where such provision was usually unnecessary at this time.

15. I. MORRIS, *Burial and Ancient Society. The Rise of the Greek City-State* (1987).

16. S. BERGER, "Great and Small Poleis in Sicily: Syracuse and Leontinoi", *Historia* 40 (1991), p. 129-142.

17. H.-P. DRÖGEMÜLLER, "Syrakusai", *RE Suppl.* XIII (1973), p. 815-835.

18. H. LOHMANN, "Landleben im klassischen Attika", *Jhb. Ruhr-Universität Bochum* (1985), p. 71-96; *id.*, *Atene, Forschungen zu Siedlungs- und Wirtschaftsstruktur des klassischen Attika* (1993).

19. P. GARNSEY, *Famine and Food Supply in the Graeco-Roman World* (1988).

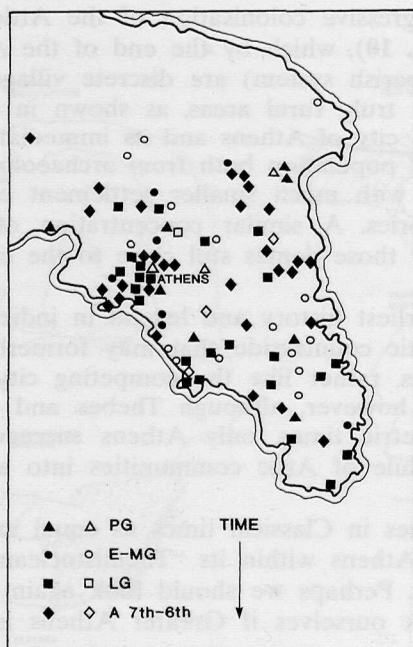


Fig. 10. — Development of rural settlements in the Attic countryside from Proto-Geometric to Archaic times (data from I. MORRIS, *Burial and Ancient Society* [1987]).

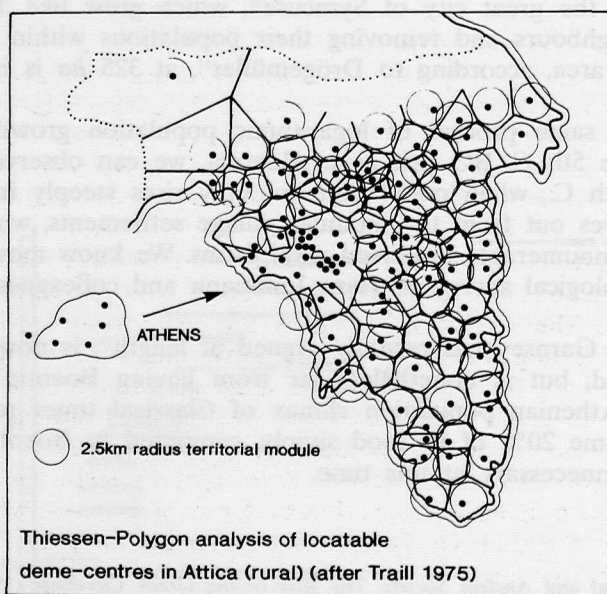


Fig. 11. — Territorial analysis of the Classical village network of Attica (data from J. S. TRAILL, *The Political Organisation of Attica*, *Hesperia Suppl.* 14 [1975]). Hypothetical territories for the villages of Attica are reconstructed using Thiessen polygon analysis (borders of resultant cells shown as dark lines). Within these cells a standard modular circle of 2.5 km radius is placed.

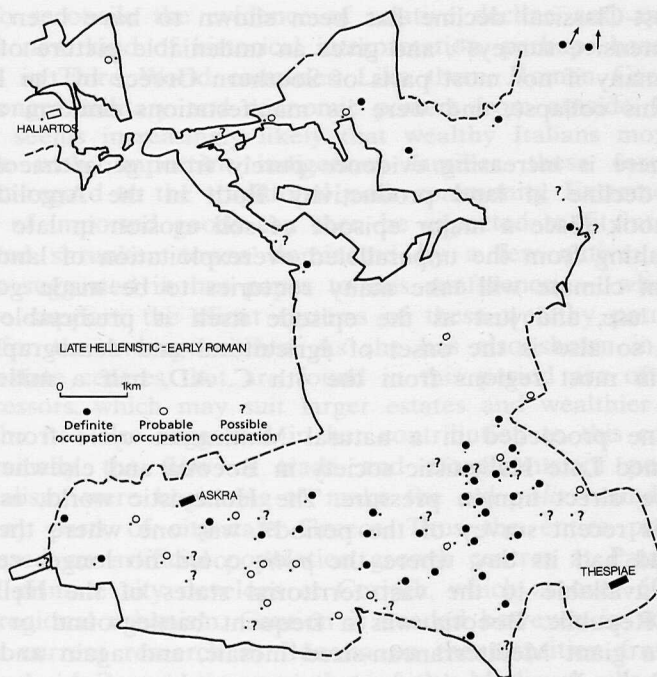


Fig. 12. — Distribution of archaeological sites in South-Western Boeotia discovered by the *Boeotia Project* and datable to the Late Hellenistic and Early Roman era.

The Classical florescence in Boeotia is followed by an equally spectacular collapse, and here survey archaeology (fig. 12) is totally in accord with ancient historians, geographers and travellers such as Polybius, Strabo and Pausanias. Rural farms of the entire period of Late Hellenistic and Early Roman times (*i.e.* 200 BC to 300 AD) are very few in number in the intensively surveyed South-Western Boeotia district. Moreover the towns suffer shrinkage (Askra, Thespieae and Hyettos) or even disappear (Haliartos destroyed and not reoccupied till medieval times). In the summer of 1991 in our surface survey of Hyettos and its *chora* we made what may be a symbolic discovery: on a Roman *villa* site some distance from the town remains of an olive press form a prominent surface trace. The largest fragment is the giant stone press weight itself, its uppermost surface revealing the beam slot. However the base of the block shows that this is a secondary reuse, for the pattern of large and small circular fitting slots discovered there proves that this enormous stone was hauled from the ancient city, where a series of similar blocks, some *in situ*, have been interpreted by Étienne and Knoepfler as bases for major civic monuments²⁰. It is hard to resist the interpretation that the Western and Eastern suburbs of the Lower Town of Hyettos, which appear to have been abandoned after the Classical period, were available for pillage. Hyettos, like most other Boeotian cities, provides evidence in its inscriptions for Hellenistic population decline (the later Hellenistic ephebic lists from the acropolis wall), and financial and economic crises.

20. R. ÉTIENNE, D. KNOEPFLER, *op. cit.* (*supra*, n. 7).

This phenomenon of post-Classical decline has been shown to have been widespread through other recent intensive surveys²¹, and gives an undeniable picture of social and economic breakdown in many if not most parts of Southern Greece by the Roman takeover. But what caused this collapse, and were its manifestations uniform and its long-term effects general?

One factor for which there is increasing evidence purely from geoarchaeology is soil erosion and associated decline in land productivity. Both in the Argolid²² and Attica²³, as elsewhere, there took place a major episode of soil erosion in late Classical and Hellenistic times, resulting from the unparalleled overexploitation of land. Such soil loss in the Mediterranean climate will take many centuries to be made good by less intensive forms of land use, and just as the episode itself is predictable given contemporary overpopulation, so also is the onset of agricultural and demographic recovery which is so marked in most regions from the 4th C. AD, half a millennium later.

But if agricultural decline proceeded in a natural Malthusian cycle from overpopulation, an already weakened Late Hellenistic society in Boeotia and elsewhere was brought to its knees by more direct human pressure. The Hellenistic world, as Peter Green has reminded us in his recent survey of the period²⁴, was one where the small city state of village origin had had its day, where the *polis* could no longer compete with the immense resources available to the vast territorial states of the Hellenistic monarchies and the Roman Republic. Boeotia was a frequent battleground or route-way for power struggles on a giant Mediterranean-sized mosaic, and again and again in the final two centuries BC the Boeotian cities were given crushing war indemnities, recurrent demands for men, food and equipment, or even destroyed. Plutarch's story of his great-grandfather, who with other citizens of Chaeronea was able to save their city from starvation only by rescuing provisions meant for Anthony's forces at Actium, serves as a potent image for these strains.

A seemingly contradictory picture though emerges from the evidence in literary and inscriptional sources for wealthy families and numerous Italian *negotiatores* or businessmen in Early Imperial Boeotia²⁵. The cities of Tanagra and Thespieae appeared prosperous to travellers, even if the other Boeotian cities are described as depopulated or ruinous. And those cities that survived through the period and where surface survey has been carried out — like Thespieae and Hyettos, exhibit abundant trade ceramics, yet within indisputably much smaller occupied areas.

21. S. E. ALCOCK, "Archaeology and Imperialism: Roman Expansion and the Greek City", *JMedA* 2 (1989), p. 87-135.

22. K. O. POPE, T. H. VAN ANDEL, "Late Quaternary Alluviation and Soil Formation in the Southern Argolid: Its History, Causes, and Archaeological Implications", *JASc* 11 (1984), p. 281-306.

23. R. PAEPE, M. E. HATZIOTIS, J. THOREZ, *Geomorphological Evolution in the Eastern Mediterranean Belt and Mesopotamian Plain* (1980); H. BRÜCKNER, "Changes in the Mediterranean Ecosystem during Antiquity. A Geomorphological Approach as Seen in Two Examples", in *Man's Role in the Shaping of the Eastern Mediterranean Landscape*, *op. cit.* (*supra*, n. 10), p. 127-133.

24. P. GREEN, *From Alexander to Actium: The Historical Evolution of the Hellenistic Age* (1990).

25. Anthony Spawforth, personal communication.

To reconcile the evidence of relative decline and apparent prosperity I think we need a new kind of historical interpretation, perhaps based more on modern-day experiences in Third World countries. Like them, Roman Greece was ripe for exploitation by stronger military and economic powers from outside. Land and labour were cheap, and it seems increasingly likely that wealthy Italians moved in; together with, and in alliance with, important indigenous families, these foreigners created large estates without regard to the traditional *polis* community. Extremes of wealth and poverty, and plenty of imported goods can then be expected to fit into a thinly populated countryside and shrunken towns dominated by a few native and foreign families. As Sue Alcock suggested in her paper to this conference, — where the *polis* could no longer provide support, the client systems of these wealthy patrons may have formed a key focus for the average citizen. As she has also shown in a recent study²⁶, those rarer rural estate centres that are found in this period are often larger than their Classical predecessors, which may suit larger estates and wealthier owners.

She has also suggested in her contribution to this conference that it may be that economically, the flow of trade and movements of population inspired by Roman imperialism, were beginning to make the old *polis* boundaries and civic life redundant in many parts of city-state Greece. Thus the entire province of Achaea is forcibly refocused on artificial population growth centres at Patrae and Nicopolis, and a provincial primate city develops at Corinth, which at over 600 *ha*, reaches a new level of macroregional urbanism. Caution is needed however, in accepting this view, in the light of our current research in Boeotia on the transition from the town, village and *villa* landscape of Roman times to that of the Medieval villages. It does seem the case for Boeotia that the town and village network of antiquity provided an unexpectedly strong structure of continuity into the high Middle Ages.

Around the late 4th C. AD, a radical change occurs in those parts of Boeotia for which we have the best information, the survey zones (**fig. 13**). Population rises again, dramatically, and there is a proliferation of Roman *villa* and hamlet sites. Some sectors of the landscape do not participate in this spectacular recovery, particularly the *chora* of former Haliartos city, whilst there is a stronger density of rural sites round the *komopolis* of Askra than around Thespieae city itself. Yet since the average *villa* of this period is much larger than a typical Classical farm, it is quite possible that overall rural densities were equal to, or even surpassed, those of the Classical era.

Urban life on the other hand changes much less. In the preceding Middle Roman period, faced with barbarian incursions in the 3rd and 4th C. AD, the generally shrunken cities of Greece had often erected new wall circuits²⁷. Their small diameters in comparison to Classical predecessors surely reflect the greatly reduced populations of these towns, although parts of these communities are known to lie outside the defences, for example at Corinth. Thespieae was given such a circuit, surviving till I must confess its demolition by members of the French School at the turn of this century! Even including the settled zone outside and mainly East of this small Roman circuit, the overall

26. S. E. ALCOCK, *loc. cit.* (*supra*, n. 21); *ead.*, *Graecia Capta. The Landscapes of Roman Greece* (1993).

27. T. GREGORY, "The Fortified Cities of Byzantine Greece", *Archaeology* 35/1 (1982), p. 14-21.

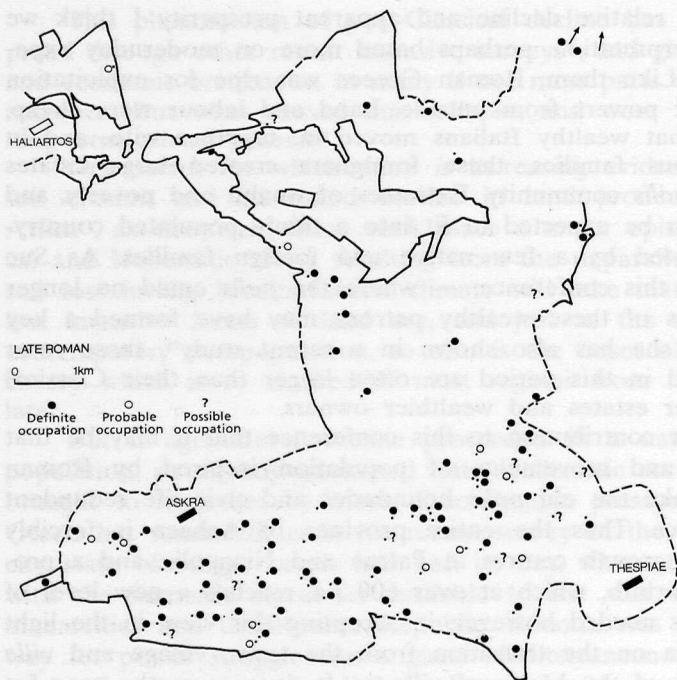


Fig. 13. — Distribution of archaeological sites in South-Western Boeotia discovered by the *Boeotia Project* and datable to the Late Roman era.

settled area of Thespieae at this time, from surface ceramic evidence, is far smaller than Classical Thespieae. Significantly, there is little obvious expansion of the town subsequently, in the Late Roman era of the 5th-7th C. AD, when as we have seen, population in the open countryside increases dramatically. Haliartos remains unoccupied, and Hyettos does not see noticeable urban expansion either. Only at the *komopolis* of Askra do we see the settled area expand back to Classical levels. Despite this it is noteworthy that at all the settled urban sites and in every rural *villa* the pottery finds reveal an unparalleled level of regional and interregional trade.

Similar evidence of rural recovery is recorded from most other surveys in Southern Greece, but like Haliartos, there are prominent exceptions: in the South Attica area for example²⁸, after Early Roman abandonment, the survey area is reused in Late Roman times, but by pastoralists, perhaps as part of large estates. The general picture however, of striking recovery of agriculture at a new level of intensity, gives a fascinating insight into the resources in manpower and economic surplus that became available in Late Roman times to support the ambitious reconquests of Justinian in the 6th C. AD. Predictably, a contemporary demographic and economic florescence has likewise been observed in the archaeological record in Asia Minor, Syria and Palestine²⁹.

This flourishing, and in Greece very poorly documented, society lasted into the 7th C. AD in Boeotia, after which a new economic and political collapse occurs, usher-

28. H. LOHMANN, *op. cit.* (*supra*, n. 18).

29. J. L. BINTLIFF, "The Roman Countryside in Central Greece: Observations and Theories from the Boeotia Survey (1978-1987)", in G. BARKER, J. LLOYD (eds), *Roman Landscapes. Archaeological Survey in the Mediterranean Region* (1991), p. 122-132.

ing in a Dark Age (the Early Byzantine era) which lasts for several centuries. A renewal of the erosion process, brought on by overcultivation may well be a major factor, combined with barbarian invasions and plague.

But the famous transition from Antiquity to the Middle Ages, or from *Polis* (city-state) to *Chorion* (traditional Greek village) may already have taken place. There is growing doubt amongst Roman specialists as to whether in the Late Roman period the model of ancient city landscapes with a major urban site dominating smaller satellites still has relevance. It is most likely the *komopolis* of Askra, with its unusually favourable growth in the 5th-7th C. AD, where the Byzantine bishop of this district will come to reside³⁰. Thespieae seems to carry on as a village into the Medieval period, and at Hyettos the Late Roman population probably moved a mere 500 m to a successor Byzantine village. Perhaps in the Late Roman centuries the landscape was already returning to its form in the pre-Classical Dark Ages of Geometric times, with modular small nucleated communities dispersed across the arable land of the province.

Hitherto I have interpreted the Boeotian and related sequences in terms of a Human Ecology which operates on increasing spatial scales from the pioneer subsistence village to the entire Mediterranean Basin. Such an approach does open up the possibility of synthesis and the identification of central recurrent processes. Thus it would be worthwhile to consider the Malthusian population wave of Archaic-Classical Southern Greece as peaking earlier than one developing in the tribal regions of Aetolia, Epiros and Macedonia, where the aggressive externally-directed population climax occurs during the Hellenistic era, from the late 4th to the 2nd C. BC. On a larger scale the peak of Italian peninsular rural prosperity, as in most of the Western Provinces, is reached later again, in the 1st C. AD. The decline of the Western European Roman economy by the 3rd C. AD is matched by the florescence, first of North Africa, then in the 5th-6th C. AD of the Eastern Provinces including Greece.

Attractive as this simple Neo-Malthusian model seems, and I think it is very plausible for the data available, we are only looking at one kind of temporal trend, ignoring the details and the variability, indeed perhaps ignoring the real historical complexity behind such useful descriptions of observable processes. It is for this reason that, very appropriately for this gathering at the French School of Archaeology in Athens, I have recently advocated³¹ rethinking archaeological interpretations following the methodology of that illustrious body of French historians known collectively as the "*Annales* School of History" (fig. 14), the doyen of whom was the late Fernand Braudel.

The Structural History approach of the *Annalistes* emphasizes the fact that any historical sequence is created by the interaction of processes occurring at different wavelengths of time. Firstly there is the "*longue durée*", the Long Term, when for example we can document for Boeotia the progressive rise in human population and the accompanying development of more productive economies from the hunter-gatherer bands of the Late Palaeolithic to the complex economies of the Classical city states. Secondly, and at a more detailed level we observe as archaeologists those characteristic cyclical fluc-

30. Peter Lock, personal communication.

31. J. L. BINTLIFF (ed.), *The Annales School and Archaeology* (1991). See also J. L. BINTLIFF, "Regional Survey, Demography, and the Rise of Complex Sociétés in the Ancient Aegean", *JFieldA* 24 (1997), p. 1-38.

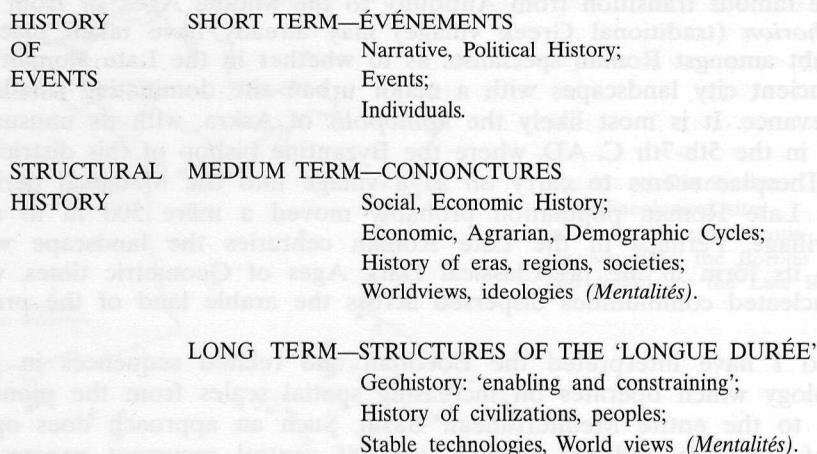


Fig. 14. — Braudel's model of historical time or "Structural History".

tuations of demography and prosperity whose wavelength of growth and decay is the "moyenne durée", the Medium Term of the order of half a millennium. Here we see most clearly the ecological cycles of Malthusian type and the erection and dismantling of sophisticated urban, political and cultural structures that grow and decay with them.

Yet both Long and Medium Term wavelengths are normally beyond the cognizance of contemporaries, the human actors whose decisions we have yet to create space for. Here lies the necessity for the wavelength of the Short Term, the world of "événements", events and personalities, and unpredictable chance. As that master of the Longest Term, the palaeontologist Stephen Jay Gould has put it, we cannot predict history, we can only postdict it³².

Thus in the Boeotian Geometric to Roman sequence the role of the short term can be seen to be crucial to the way each city reacts to general trends in the medium term. From the very beginning the role of chance and individual personalities may have influenced the way that some pioneer villages rose to power over their neighbours, even if others, like Thebes, had inbuilt geographic and historic advantages from the start. Tanagra and Thespieae had good fortune in recurrently backing the winning side in the conflicts of the Late Republic, and escaped the fate of most other towns in the region

32. S. J. GOULD, "Evolution and the Triumph of Homology", *American Science* 74 (1986), p. 60-69.

