Part Two

'Short Distances and Definite Places': Mediterranean Microecologies

It is not the resemblances, but the differences, which resemble each other.
Claude Lévi-Strauss (1963) *Totemism*, 77

Geography, like grace, works through people.
Chris Wickham (1988b) *The Mountain and the City*, 6

Examine this region of short distances and definite places...
W. H. Auden, 'In praise of limestone'

Chapter III

Four Definite Places

'Physically, the country may be divided into four belts', the Arab geographer al-Muqadassi wrote of Syria and the Lebanon.

> The first belt is that on the border of the Mediterranean sea. It is the plain country, the sandy tracts following one another and alternating with the cultivated land ... The second belt is the mountain country, well-wooded and possessing many springs, with frequent villages and cultivated fields ... The third belt is that of the valleys of the Ghaur, wherein are found many villages and streams, also palm trees, well-cultivated fields and indigo plantations ... The fourth belt is that bordering on the desert. The mountains here are high and bleak and the climate resembles that of the waste. But it has many villages, with springs of water and forest trees. (adapted from Miquel 1963, 85)

Coastal plains of intermittent fertility backed by wooded mountains and desert plateaux, mixed cultivation, sporadic settlement – all qualities of Mediterranean landscape as familiar to the traveller as to the geographer. The problem is that even such fastidious generalizations as al-Muqadassi's no more than hint at an infinitely complex local reality. Worse, they give an impression of uniformity, of fundamental resemblance between one region and another, that is disastrously misleading. We can never hope to come to an understanding of what can usefully be said of the Mediterranean-wide human or physical landscape until we are fully sensitive to the enormous variety and diversity of environments within the basin of the sea, not just to the constants that apparently underlie the chaos. For reasons which we began to examine in Part One, the distinctive texture of Mediterranean lands is not to be sought in the listing of typical ingredients of the visible landscape, a strategy in which observation is all too easily overpowered by tradition. It is rather to be found in the phenomenon of 'subdividedness' – or, to paraphrase our epigraph from Lévi-Strauss, in the continuum of discontinuities. How is that continuum to be described and explained?

At the end of the previous chapter we explored the senses in which an ecological approach might be of service to the historian. To the difficulties there seen to arise, we must add further problems that emerge from the examination of particular localities. This enables us to progress towards an exemplification of what the 'historical' in our 'historical ecology' might mean, as we outline the nature of Mediterranean interaction and the character of the microecological regions of which that interaction should be predicated. A properly *historical*

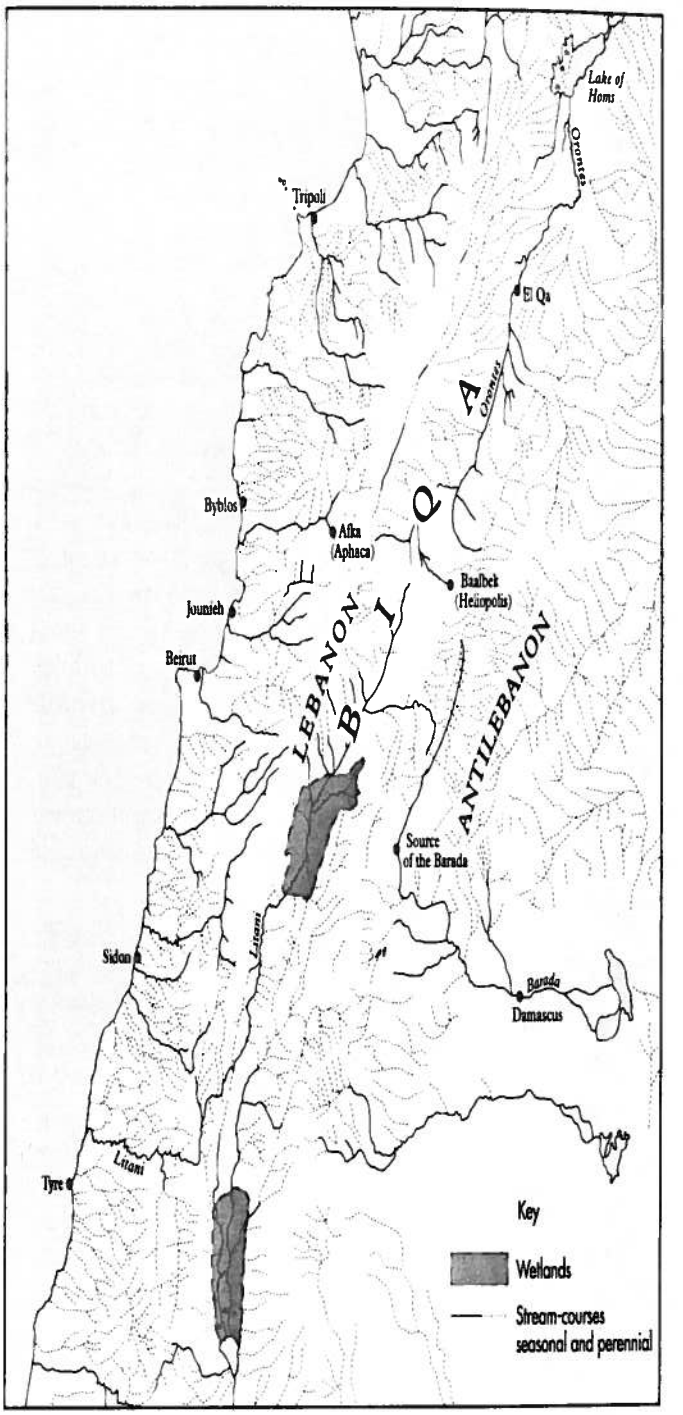
ecology will certainly not be content with either the enumeration or the classification of local features. At the least it will also have to look at the dynamics of their interplay with human and animal populations. But that will only turn it into a *human* ecology – of a kind that may, we have suggested, pay a heavy price for its inclusion of humanity in terms of the biological reductionism and the narrowness of focus that are alike required of it. *History* has to be brought into the ecological picture in two ways: first, most importantly, in the avoidance of reductionism through the invocation of as full a political, social or economic context – spanning as lengthy a period – as the locality seems to require; secondly, in the pursuit of that context, through the 'unbounding' of the systems on which it is to be brought to bear, so that the 'definiteness of places' is always qualified by their 'interdependence'. The image of the fuzzy set, mentioned in II.4 as appropriate to the Mediterranean as a whole, can now, as we hope to show in this Part, be extended to the microecologies of which the region is comprised. They will be seen to have their foci and their margins; but these are always changing, can seldom be easily related to aspects of geography, and are at all times responsive to the pressures of a much larger setting.

Our emphasis in this chapter is thus very different from that of the 'geographical background' that introduces so many historical works. It enables us to step a little aside from what we have broadly identified as the Romantic tradition of Mediterranean description, with its seductive but misleading imagery. It avoids an unprofitable scientism. It begins to close the gap – to which we shall briefly return at the end of the chapter – between the specialized interests of the ecologist and more traditional political, social and economic concerns in the study of the past. And it leads naturally into the subsequent discussion of the degree to which the ecological approach can be extended, first to larger settlements (Chapter IV), then to the region as a whole (Chapter V).

In what follows, then, we approach Mediterranean history by way of its microfoundations – its shortest distances. We look at four localities in the Mediterranean world – to show how complex is the interplay of ecological factors that gives each its apparent identity or definition; and to suggest that the principal elements in a microecology's character derive as much from its changing configuration within the web of interactions around it, across aggregates of 'short distances', as from any long-lasting physical peculiarities.

1. The Biqa

As melancholy political events of our own time have emphasized, one of the principal ingredients of the topography of the Levant is the great valley between the Lebanon and Anti-Lebanon mountains in which the Orontes rises, inland from the south Phoenician coast (Map 2). It is known as the Biqa (or Bekaa), an immemorial name applied also to other abrupt valleys and derived from a Semitic root signifying a split. Aptly; because this great valley, some 100 kilometres long and about 25 kilometres wide, is a great down-faulted trough, part of a tectonic system stretching from the Taurus mountains of Anatolia to the lakes of East Africa by way of the even more pronounced rift valleys of the Jordan, the Red Sea, and of Kenya and Tanzania. On either side the valley is bounded by the steep cliffs of the mountains, which rise from the valley floor at 2,000–3,000



Map 2 The Biqa and its setting

The map is simplified from the magnificent geomorphological cartography of de Vaumas (1954). The effects of the steeply declining rainfall from west to east and from south to north are apparent. In addition there is very marked variability from year to year. In 1878 Beirut received 1,234 mm; in 1933 only 438 (de Vaumas 1954, 224).

feet above sea level to summit levels of more than 12,000 feet in the high Lebanon. For many reasons, this apparently simply bounded geographical region has a bewildering diversity of topography and environment; it represents a degree of fragmentation that makes it an excellent example with which to open our sequence. And, as a further advantage, it has been the object of detailed and provocative academic study (Marfoe 1979).

The complex ecology of this valley is dominated above all by the different influences of the adjacent mountains, which produce varying degrees of rain-shadow and of shelter from prevailing winds, and which each create, by their particular aspect, extremely local climatic conditions. Altitude, exposure and precipitation combine to form a spectrum of microenvironments, ranging from the supposedly classic 'Mediterranean' conditions of the south to the semi-arid plains of the north. Hydrology further complicates the picture. The abundant rainfall of the Lebanon mountains feeds numerous springs, but the bedrock is the limestone which gives rise in so many parts of the Mediterranean to the scenery known as *karst* (VIII.2). The distribution of groundwater and springs in this type of landscape is highly erratic, and there are both waterless areas and oases or marshy bottoms. The streams draining from the mountains have formed terraces and fans of usually fertile alluvium, although in the semi-arid north their valleys are more like wadis. Any list of environments must, however, also include the valleys parallel to the Biqa in the high mountains, the summit plateaux, and the rocky cliffs and slopes of the fault scarps on both sides of the valley. Altogether, climate and geology have produced a dense pattern of extremely local environments. And these offer humanity the widest selection of ecological niches.

A survey of that kind inevitably gives an over-flattering picture of the natural endowments of the region. Modern geographers using average rainfall figures, like their ancient or medieval predecessors (such as Al-Muqaddasi) looking at perennial springs and well-tilled fields, have had no hesitation in labelling the Biqa as fertile. But fertility is not an absolute of scientific measurement; it is an impressionistic, culturally laden, term (VII.1). Moreover, generalizations about regional fertility ignore particular conditions – in this case, not only conditions in the areas where rainfall is consistently well below average, but also those created within the areas of above-average precipitation by immense annual and seasonal variability in the weather. Winter floods and summer droughts are the perennial hazards of a Mediterranean landscape; a village too dry for habitation one year can be almost washed away the next. And the Biqa has extra problems: unusually poor rains in the spring, with consequently low discharge of water sources; strong prevailing winds that erode the soil in areas unsheltered by the mountains; a high carbonate horizon; malarial swamps in the south. The swamps are the remains of a lake artificially drained between 1320 and 1339, a lake whose capricious rise and fall had led to the localization in the vicinity of tales of the Flood and of Noah and his sons (Dussaud 1927, 402).

This valley is not then an area that can readily be irrigated. Even the advent of modern technology – dams, bore-holes, pumps, all the means of soil improvement – has apparently affected no more than a quarter of the total land under cultivation. Systems of the type usually labelled 'dry farming' have always been the norm – in so far as the valley can be said to display a norm. For the catalogue of economic strategies is naturally as diverse as that of the conditions that

necessitate them. Overall only one third of the valley is cultivated; and within each of the many zones into which a geographer or an ecologist divides it, the land under cultivation varies from less than a fifth to barely more than a half of the surface area. The means of livelihood can take the form of highland terrace agriculture, lowland cereal dry farming, or (more rarely) swamp drainage or spring irrigation. Land is productive and profitable only sporadically; and it is these isolated patches that are generally devoted to crops like cereals and legumes.

Irrigation remains so expensive and inefficient that only lucrative cash crops make it worthwhile. The place with which it has been longest associated is Baalbek, the ancient Heliopolis, where prosperity has always depended on a zone of intensive irrigated cultivation. It is from centres like this that irrigation can be extended, and to which it can retract, depending on the circumstances governing the choice of agricultural strategies and the degree of intensification (or abatement) that are appropriate from one period to another (VI.1; VII.4). In the Biqa are prominent centres of horticulture or arboriculture, such as El Qa' at the source of the Orontes – its ancient name, Paradeisos, being an eloquent expression of its fertility. And such environments lend themselves to the highly visible production of specialized cash crops, among them the narcotics for which the region has been notorious in very recent times. But pockets of abundance should not be allowed to determine our estimate of the whole area's potential. The pockets are too isolated; their economic effects do not radiate far enough. Baalbek, it is worth noting, has functioned as a symbolic focus for the area both through the religious importance of its temples, and also because it has been a centre of environmental improvement (two functions that we shall see associated in Part Four below). It does not follow that Baalbek has been decisive in shaping the overall social and economic patterns of the valley's history. Despite having a major 'central place', the Biqa does not behave as the territory, the ecological hinterland, of a city – dispersed or fragmented though we shall find that sort of hinterland to be (IV.8). 'Une civilisation agricole a bien pu s'y dévélopper, celle ci n'est jamais arrivée à donner naissance à une petite région politique comme il existe tant dans le proche-Orient. Fait typique: aucune ville important n'y existe' (Dussaud 1927, 315).

Contrary to what glowing accounts of a Mediterranean region's fertility may thus lead us to expect, agriculture is very often hazardous and yields are low. The twentieth-century alternatives to agriculture have been the usual ones: animal husbandry, migration to the largest settlements, emigration. Until comparatively recently the first alternative has been the predominant recourse. So, to the already long list of types of livelihood, we have to add transhumance and nomadism. These are in effect a low-risk form of capital investment – far less susceptible to annual variation than is dry farming; mobile enough to escape disastrous changes in the local ecology; mobile enough, also, to facilitate tax evasion. That is why the largest concentrations of sheep and goats have been found in what are, in agricultural terms, the poorest, the most risk-laden environments: an intensively cultivated area can still also sustain a small herd.

The Biqa has to be summed up not as one microecology but rather as a collection of microecologies. The best account of these is a modern archaeological field survey (Marfoe 1978). But that too, however nuanced its description, however alive its author to local variation, is necessarily misleading as evidence for the distant past. This is probably not because the character of the environment

has changed so dramatically in historical times. We return to the subject in Chapter VIII below; but it is a fair provisional assumption that neither climate nor any aspect of the geography has altered so markedly that the *range* and *number* of the microecologies would have been very different in Antiquity or the Middle Ages from what is observable today. What has changed, however, and changed repeatedly – so that it could not be accounted for by reference to any single environmental catastrophe or secular evolution – is the subtle interrelation of different means of survival.

These have not, of course, always been internally determined; the direction and nature of the demands made upon the region from outside have also changed frequently. The Biqa is 'le plus beau couloir de circulation entre le Nord et le Sud du Levant' (Dussaud 1927, 315); and the umbilical route across Mount Lebanon to the port of Beirut has been of lasting importance (IX.7). But when, for example, Beirut and Baalbek were part of a single Roman city territory, farmed – at least initially – by veteran soldiers (Millar 1990), the environment had different demands made on it from any that have arisen since (VII.6). Indeed, this example illustrates the important truth that the ways in which microregions interact and cluster in the Mediterranean are as important as their distinctive internal features. Rural communities have frequently maintained a broad continuum of economic activities, shifting from dispersed nomadism on the northern steppes and the piedmont to highly concentrated transhumance around the zones of intense cultivation, altering the balance between pastoral and arable as and where necessary (cf. Section 6). The descendants of those who, a century ago, were among the few cash-crop farmers in the entire region may now be predominantly nomadic – or the reverse. In the central Biqa tribes of bedouin who were once exemplary camel nomads have used their wealth to purchase land – even though their average income must, in the past, have been a good deal higher than that of many farmers.

All this is a clear reflection of an unstable, treacherous ecology. The fittest who survive are those keeping their economic options open and reviewing their portfolios frequently. And that is most probably how it has always been in historical times: immense variation in space, from one microecology to another; equally immense chronological variation, as individual microenvironments alter subtly (or not so subtly) or the human communities associated with each adjust their division of effort. Here, as in Greece, 'each year the farmer may be aiming for a different production target, from a different area of land, with a different labour force and with the cushion of a greater or lesser amount of produce in store' (Halstead 1987, 85). A case like that of the Biqa certainly helps us to understand how it has come about that Mediterranean agricultural geography has been dominated since Antiquity by certain economic labels (*saltus*, high pasture; *silva*, woodland pasture; *arbustum*, productive orchard terrain; *helos*, marsh pasture or water-meadow, and so on). Yet the Biqa shows emphatically that, for all this labelling, what matters is not the static formula but the entire spectrum of available strategies; and not fixed points on the spectrum but movement along it. Flexibility is all.

One case study is obviously not enough to establish our general view of the Mediterranean environment; and the Biqa might after all be dismissed as a marginal area (though cf. VI.3), at the point of transition between the coastland of the Mediterranean sea and the semi-arid regions to the East. But the essential incoherence of its human geography, which seems to have been characteristic of the area in all periods, encourages us to look at other parts of the Mediterranean, asking whether a comparable degree of ecological fragmentation is discernible elsewhere.

2. South Etruria

The major part of the modern Italian province of Lazio, the region of Rome, covering South Etruria and ancient Latium, offers another tempting local case study in Mediterranean ecology (Maps 3 and 4). Indeed, as a constituent of west-central Italy (the other part being Campania, to the south) it features in many regionally based analyses. Part of the appeal of the area to the historian is undoubtedly that it has received a good deal of scholarly attention; and this again includes a particularly thorough and revealing archaeological survey, designed to elucidate the transition from a classical landscape of dispersed dwellings to a medieval one of nucleated, defensive, hilltop settlement – essentially the process known as *incastellamento* (Potter 1979).

The topography of Latium has been described as a recapitulation in miniature of the characteristics of the entire peninsula (Toubert 1973, 137). The region certainly displays a remarkable complexity and diversity of geology, soil and relief. Broadly it comprises two large volcanic complexes that separate the marsh and shingle of the coast from the limestone ranges of the Apennines and their outliers. The more southerly volcanic group, the Alban Hills, forms a conspicuous focal point for much of the region (V.1). The rainfall is abundant, particularly on the higher ground; and the volcanic tuffs are dissected by hundreds of gullies carrying perennial streams, many of which drain into the Tiber, a major river flowing in a wide flood plain between the two clusters of volcanic craters. The summers are dry and very hot, the winters quite cold. The rain, between 700 and 1200 mm *per annum* over the greater part of the region, falls mostly in autumn and early spring. Some of the alluvial and volcanic soils are agriculturally productive, and the area has been intensively farmed since the Bronze Age with a wide range of strategies suggested by the diversity of terrain: vines, olives or fruit trees where the soils are best, cereals everywhere, animals in the waterlogged meadows or the beech, oak and chestnut woods of the steep slopes, transhumance in summer to the high Apennine pastures – all these existing side by side often within the minutest regions.

This local variety, reduplicated across the whole zone, makes it attractive to consider the region as a unit. The environment is not, however, so obliging. The heavy qualifications made above about the fertility of the Biqa are appropriate here too. The volcanic soils are far from uniformly fertile. Many are very thin and unretentive of water; others – and this is also true of the alluvial soils – tend to be too sticky and waterlogged for the light ploughs which have been customary. These difficulties are compounded by hydrology. The rainfall is abundant but varies considerably from year to year in quantity and distribution. It is naturally highest on the mountains where it is least used, and in any case falls most often at the end of the agricultural year in torrents that can be enormously destructive. So the soils which might, with irrigation, be fertile, and the water itself, are both available. But irrigation is extremely difficult. On the ridges the

Map 3 South Etruria and Sabinum: physical structure

soils are too thin and dry; the slopes are too steep; and the valley bottoms are too wet. In addition, the force of the run-off causes soil erosion and maintains the steep sides of the gullies, which separate one locality from another to a surprising extent (cf. VIII.2).

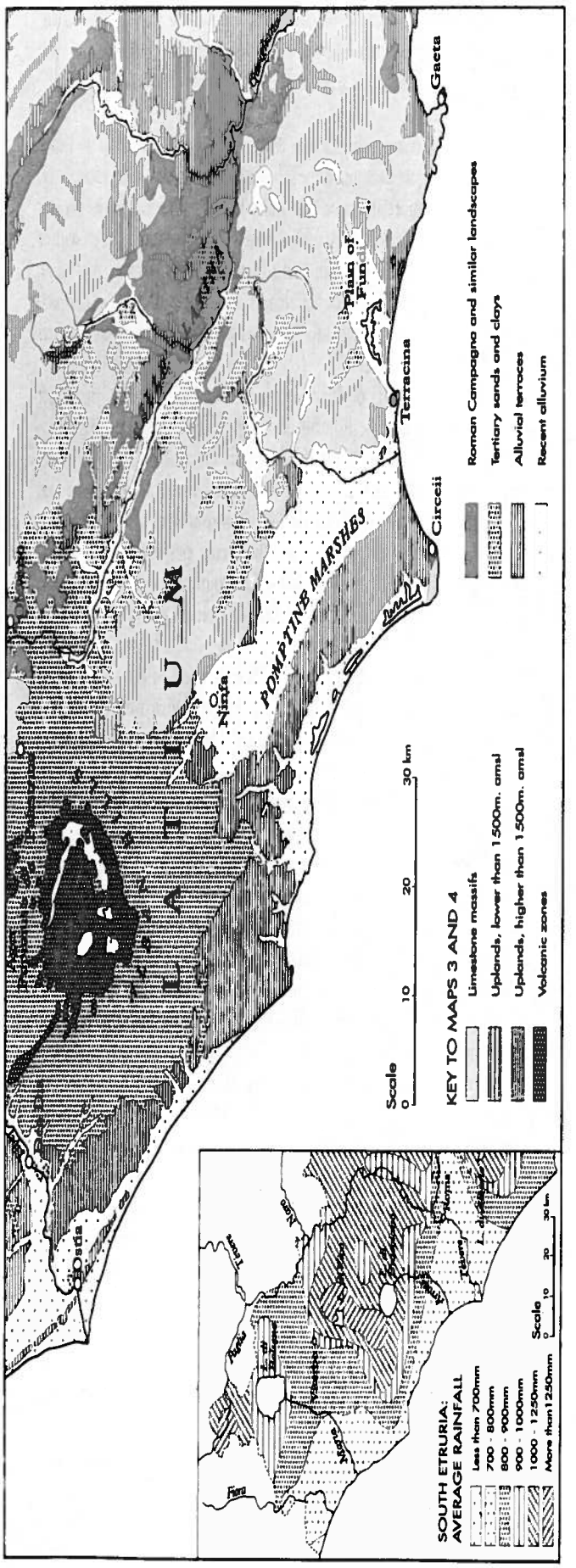
The topographical microecologies thus created may not be as varied as those of the Biqa, but they are each none the less distinct. As in the Biqa, moreover, pastoral can often be more attractive than arable farming. Pigs feed in the woods on the steep slopes; cattle and sheep can be grazed on the wetlands in the winter and the high pastures in the summer. Full advantage is thus taken of the range of environments made available by differences in altitude: the mountain pastures, inaccessible in winter, come into their own when the lowlands are at their driest and most prone to fever.

In Antiquity, certain parts of these terrains were indeed proverbial for their agricultural intransigence. The Romans, invoking the environmental determinism common in ancient cultures, attributed the hardihood of their early generals and soldiers to the difficulties of tracts like the Ager Pupinius, in the plain east of Rome. And at their most extreme, these local disadvantages of arable cultivation even led, between the seventeenth and nineteenth centuries, to the virtual desertion of the relatively flat and dry area to the south and east of Rome, the Campagna (a social, political and geographical development of the highest interest, to which we shall return in Volume 2).

Archaeological work has helped to clarify another aspect of the instability of the landscape: in historical times the rivers have changed their nature and their course along the valleys with surprising frequency. Most of them now flow in steep-sided channels that are deeply cut into a broad, level flood plain. Flooding, always a potential danger with Mediterranean rivers swollen unpredictably by winter rain, is therefore rare in the area today. When in spate the rivers tend to dig a yet deeper channel into their underlying deposit. But conditions have not always been like this. Evidence from excavations has shown both the marked topographical changes resulting from rivers' shifting their channels, and also the alterations in the pattern of erosion and deposition that have affected every stream valley and river flood plain in this deeply dissected area. The potency of erosive damage and of the constant deposition of mud through endlessly repeated flooding is most impressive.

Such environmental mutability is also to be expected – and is increasingly being demonstrated – in other parts of the Mediterranean. It is a forceful reminder that the valley floors and alluvial coastal plains which are today so often the centres of Mediterranean population were virtually unusable until the early modern period – indeed in most cases until the twentieth century – a theme to be considered in much greater detail in Chapter VIII. The geographer Strabo had already noticed in the time of Augustus that Rome was the only city on the Tiber (*Geography*, 5.3.7). And Rome's floods were notorious until the 1890s.

In the case of South Etruria, then, what appeared to be a relatively coherent and comprehensible region, with which the historian or archaeologist could usefully operate, proves disconcertingly subject to environmental mutability. This mutability is, moreover, superimposed on the type of microregional difference that we have already found breaking up the conceptual unity of the Biqa. West-central Italy, too, has developed highly flexible and opportunistic responses to the possibilities of the landscape. Polyculture – mixed farming – is the first



Map 4 Latium: physical structure

ingredient of this response, a predictable reflection of the variety of terrain. The second ingredient is, as we have seen, pastoralism, which because of that variety and its topographical distribution, is closely interwoven with the differing forms of cultivation.

Below the walls of the hill-settlement of Pienza, in the more northerly sector of Etruria, remains of a Neolithic settlement have suggested a precocious origin for pastoralism in the region, and even for the developed form of long-distance environmental exploitation, transhumance (G. W. W. Barker 1975, 146). Grains of emmer, wheat and barley were recovered from a series of occupation sites. The proportions of livestock bones found were: 62 per cent sheep and goats, 16 per cent cattle, 12 per cent pig, 8.5 per cent dog, and 1.5 per cent deer. The minimum number of animals that could have created these remains, and their probable age at death, bears a strong resemblance to the normal requirements of more recent periods: mixed farming; a few cattle for traction; a few sheep grazing round about the settlement and killed when fat; cereal cultivation; sheep and goats for milk and wool – with the emphasis on sheep. Not only that; the sites must, in the Neolithic as now, have been situated well above the winter snowline, and they could not therefore have been permanently inhabited. Intermediate between upland and lowland pastures, they lie pretty much on what would, in the very different conditions of the later Middle Ages, again become an established transhumance route.

The conclusion that the long-term history of pastoralism in Pienza can simply be 'read off' from the topography and a few archaeological finds is none the less to be resisted. There has been a persistent scholarly tendency to lay too much emphasis on a pastoral, pre-agricultural phase in the later prehistory of the Mediterranean – a tendency that perhaps bears the continuing stamp of very ancient notions of human progress (see Section 6 below). Pressure of population is sometimes invoked as the determining factor here, as if the environmental location of animal husbandry were identical to that of cultivation. Growing populations could supposedly not afford the luxury of animals and therefore turned to agriculture. In this complex environment, though, the range of niches for humans and their plants and animals is too broad for that argument to be readily persuasive. As we saw in the previous chapter, the reality of the past defies strictly ecological modelling. When presented with data like those from Pienza, therefore, we should not invoke some familar general image – either of a heroic world of pastoral carnivores or of an 'ur-transhumance' anticipating the Neapolitan Dogana by millennia.

In its simplest form transhumance involves the seasonal movement of animals from lowland to adjacent upland and back; but in many places the distances travelled are far greater, and the routes taken by the herders and their animals sometimes become major thoroughfares that may remain in use for centuries. The similarity of pastoralism in Italy within living memory to the practices that can perhaps be glimpsed in prehistory, and that are relatively well known in ancient times, can naturally suggest that this long-distance form of transhumance has been a constant of Italian life. But our description of the Biqa should prompt extreme caution. The management of relations over even the distance between low water-meadow and snowline pasture is a complex social and political matter, and over long distances it is still more so. In landscapes such as those of South Etruria, *pastoralism* is an obvious ingredient in the range of local

possibilities. *Transhumance*, in so complex an ecology, is a very different matter, requiring particular social and economic – and political – conditions (VI.7). Understanding how the microecologies work enables us to distinguish the two, and to be chary of rash assertions of the continuity or straightforwardness of agrarian response. No strategy can simply be predicated of the landscape.

Each microecology has its physical characteristics, which may be discernible in a number of different periods by means of archaeological or documentary evidence. But their significance can change radically between one period and the next through alterations in the networks that bind the microecology to its neighbours. A pasture in South Etruria may exist for millennia. Its contribution to its locality will, however, vary enormously as the animals on it change from being those of a local proprietor to those of a large-scale investor from the city of Rome whose flocks are scattered across southern Italy; or to those of a Roman veteran soldier with interests in a nearby city; or to those of the dependants of a papal estate. The grass and the goats comprise only a small part of the overall picture.

Pastoralism conceived on the grand scale and managed across the length and breadth of a plurality of microregions is a potentially unifying force in a region as fragmented as South Etruria. Yet it could not have helped to shape the patterns of allegiance and contact across that region in the absence of a strong central authority. In the archaic period, there is a clear difference in settlement geography between the areas to the north and the south of the Tiber, despite the similarities of the landscape. As in the Biqa, settlement history turns out to be a poor reflector of microtopography. Ultimately, it was the rise of Rome, rather than any predominantly economic feature such as pastoralism, that came to weld this area into something approaching a unity. That unity functions on the ideological as much as on the ecological level. In the late nineteenth century the simplistic comparison of past glories with present decay did much to conceal the inherent variety and instability of the landscape: it was politically expedient to believe that human activities bore the sole burden of explanation for post-classical dereliction. Again, the political and cultural facilities of Rome have themselves been responsible for the scholarly work that makes the region feel so much more intelligible than many others. Above all, the fame and success of the inhabitants of Rome the city, whether as conquerors of the world in the late Republic or as spiritual guides in the Middle Ages, have had enormous consequences for expectations about the city's neighbourhood.

It is to those expectations, and to some extent to their economic consequences – the leisure architecture of the elite for instance, its buying in of large quantities of raw materials from far afield (IX.4), and the enhanced attraction of the city for mobile populations (IX.5) – that west-central Italy owes much of its apparent coherence. The management of water in the area shows a further response to Rome's gravitational pull. Although precipitation is so much greater in aggregate, here as in the Biqa, water control represents the way in which humanity can most readily modify the environment so as to intensify production. The hydraulic works of the Etruscan and, still more, the Roman period – for drainage, storage, transportation and irrigation – are eloquent testimony to the power of the centre to subsume a variety of local efforts into a wide-ranging system (VII.2).

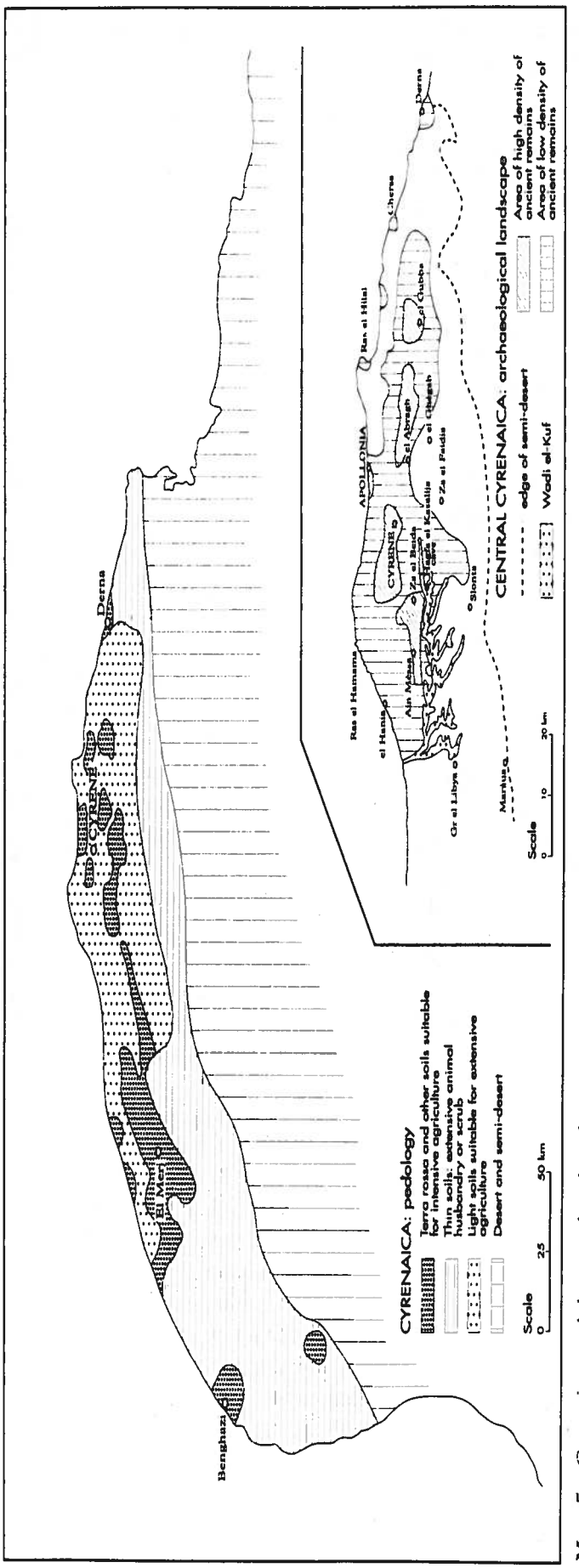
In South Etruria we can, therefore, glimpse the interplay of external and local factors both on the functioning of microecologies and on the way in which they

are perceived. The territory of Tivoli, say, on the border between the limestone mountains and the Roman plain, or that of the Etruscan city of Veii, can only be fully understood in terms of their relationships with influences from altogether outside their own ecologies, as well as on the basis of the local variables that we learned to emphasize in considering the Biqa (IV.8). Of these outside influences, the dominant one has been the privileged access to the sea and its continuum of communications. Both the Etruscan centres and the little settlements of Latium usually each had a *scala*, a beach or landfall-point, perhaps a marshy inlet behind a spit of shingle, where contact with the world of Mediterranean redistribution might be maintained. In the long run, these were overshadowed by the especially privileged route provided by the Tiber and reflected in the status of Rome, the Tiber port (IX.7). But if Rome's network of influences permeates the areas around it, transforming and shaping them in various ways from age to age, that is not to say that these areas can simply be considered as an isolated, readily definable city territory. Nor, in the absence of evidence for interdependence, should we be quick to postulate a primitive autarky (IV.7). To emphasize that point still further, and to show that the pull of Rome is only an extreme version of a more common Mediterranean phenomenon, we turn to two other case studies. In these, isolation – of a kind – is much more apparent. One involves a virtual island, the other a real one.

3. The Green Mountain, Cyrenaica

In *Wanderings in North Africa* (1856) James Hamilton contrasted 'the monumental industry of fallen civilization with the slothful hut of victorious barbarism'. Prior to the discovery of petroleum, bedouin Cyrenaica was a land of tents: these are the slothful huts. As in South Etruria, the fallen civilization is that of classical Antiquity. Ancient remains are a prominent feature of parts of the Cyrenaican landscape (Map 5). Systematic archaeological research has revealed the complexity of production and the density of settlement from the seventh century B.C. onwards: several important cities, many large villages, scattered farmsteads – amounting to a response to the potential of the Green Mountain's environment which was certainly markedly different from anything that succeeded it after the sixth century A.D.

This particular sort of prosperity was, however, fragile. An indigenous plant, local to the region, was for example developed in Antiquity as a highly specialized cash-crop – *silphion*. From the sixth century B.C. this umbelliferous plant was a renowned and valuable commodity. Scarce, distinctive and costly, it had numerous culinary and medical uses. Its identity remains, however, an enigma to modern botanists. The human impact on the landscape of Cyrenaica has combined with the heavy demand for *silphion* to render the plant extinct, though it is not clear precisely when the damage was done. The story is instructive. *Silphion* is in some ways a typical Mediterranean commodity. Accidental speciality of a single set of environments, it offers a highly attractive opportunity to producers with wide horizons who can adapt to the advantages of particular localities. The agriculturalists of Greek Cyrenaica also specialized in cumin: another culinary/medical commodity which, although not botanically so singular as *silphion*, derived its value only from its potential for redistribution. More



Map 5 Cyrenaica: pedology and archaeology

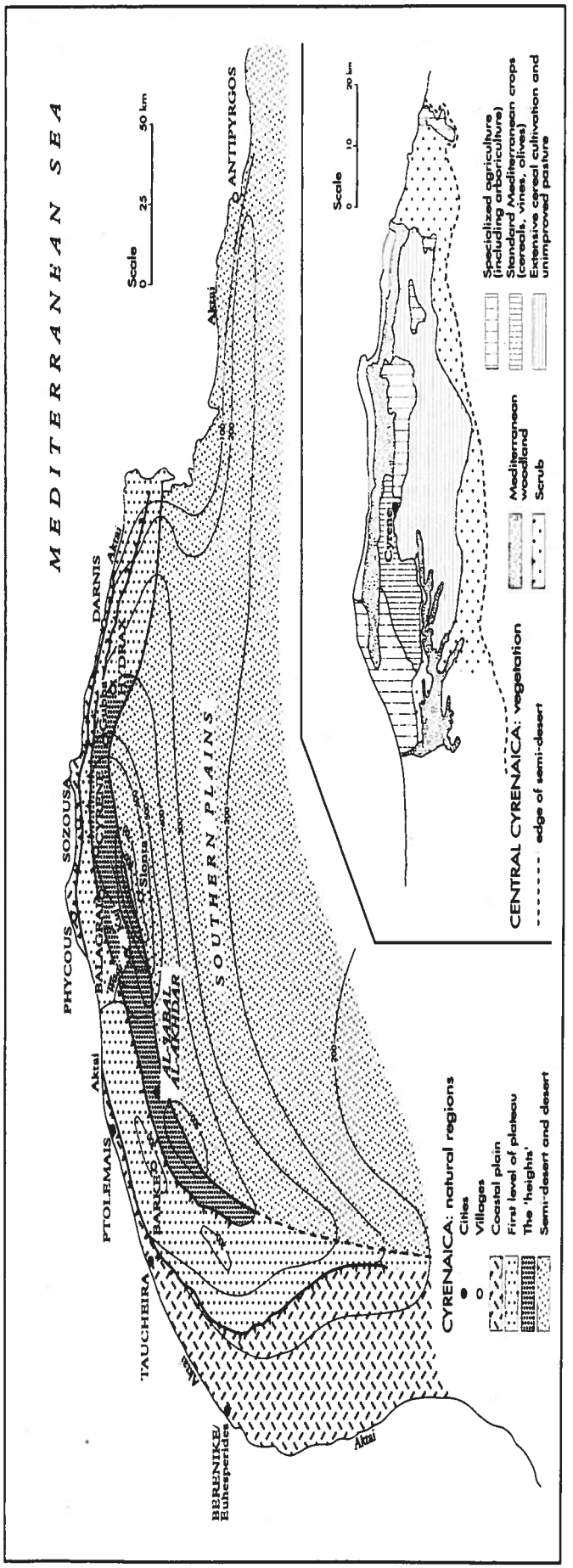
conventionally, ancient Cyrenaica also produced a notable surplus of cereals, whose value depended in part on the precocity of the harvest by comparison with those of the Aegean.

Choices about primary production in this area, then, turn out to have been the result of a combination of very specific local circumstances on one hand, and the changing network of relationships which the area enjoyed with the wider Mediterranean world on the other. Environmental opportunism, moreover, entails a spectrum of responses to environmental variability through space and time. Against this background, major transitions between widespread agriculture and much greater emphases on animal husbandry no longer appear so catastrophic.

Cyrenaica is a striking region, and one which appears to be isolated. Certainly it is separated from its African neighbours by desert: 700 kilometres of it before the Nile delta is reached to the east, the coastal strip being only slightly more hospitable than the interior; and almost as great a distance to the relatively fertile territory of Tripolitania to the west. Otherwise the hinterland is some half a million square kilometres of Sahara. The homogeneity of the desert margin can make Cyrenaica appear a unitary frontier zone. But the appearance misleads. In terms of climate and vegetation, it is as if a fragment of some Mediterranean archipelago had been uneasily wedged against the African continent – Mediterranean not just in its characteristic rainfall and temperature, but in being a tangled and minutely subdivided complex of interdependent environments: plateaux at different altitudes, intermontane basins, deep wadis. Ultimately it owes this intense microfragmentation to its location, which, in the terminology of plate tectonics, is a subduction zone (Bousquet and Péchoux 1983). The sea itself of course provides a ready network of communications: along the coast to east and west, by way of chains of watering-places and small harbours on a proverbially dangerous shore (V.3), and across the relatively narrow seas (almost a strait) to Greece and the Aegean – the island of Crete being less than 300 kilometres away. Indeed, in the Roman period, Cyrenaica formed part of a province with Crete and was governed from Gortys, just inland from the ports of that island's southern shore. Cyrenaica itself, for all that, is in another sense insular in that its coastal zone is unexpectedly inhospitable: the more productive environments are those further south and further inland, where the rainfall is higher.

For Cyrenaica (Map 6), with all its complexity, is essentially a mountain rising from the steppe-like terrain of the deserts to the plateau of the Jebel Akhdar (sometimes known as *al-ghaba*, the forest, since its vegetation includes patches of evergreen forest and maquis). The plateau is about 400 kilometres long, 150 kilometres from north to south; and it consists of a series of terraces sometimes reaching a height of more than 800 metres above sea level. There is a narrow strip of coastal plain, barely a kilometre wide, from which the first intermediate terrace (to the west) is accessible to animal transport only through a very small number of precipitous ravines. This terrace is a succession of wooded ridges and broad wadis. The main terrace, the tableland, is where the classical ruins, and the deserted farms of early twentieth-century Italian colonists, are to be seen; it rises to a narrow third terrace overlooking the area of former settlement. The plateau then slopes southwards gradually down to the steppe through a belt of juniper trees, a zone of rich vegetation to which the *silphion* may at first have been native.

There are no permanently flowing rivers in this karstic landscape. The only watercourses are seasonal wadis, some of them (notably in the complex of the

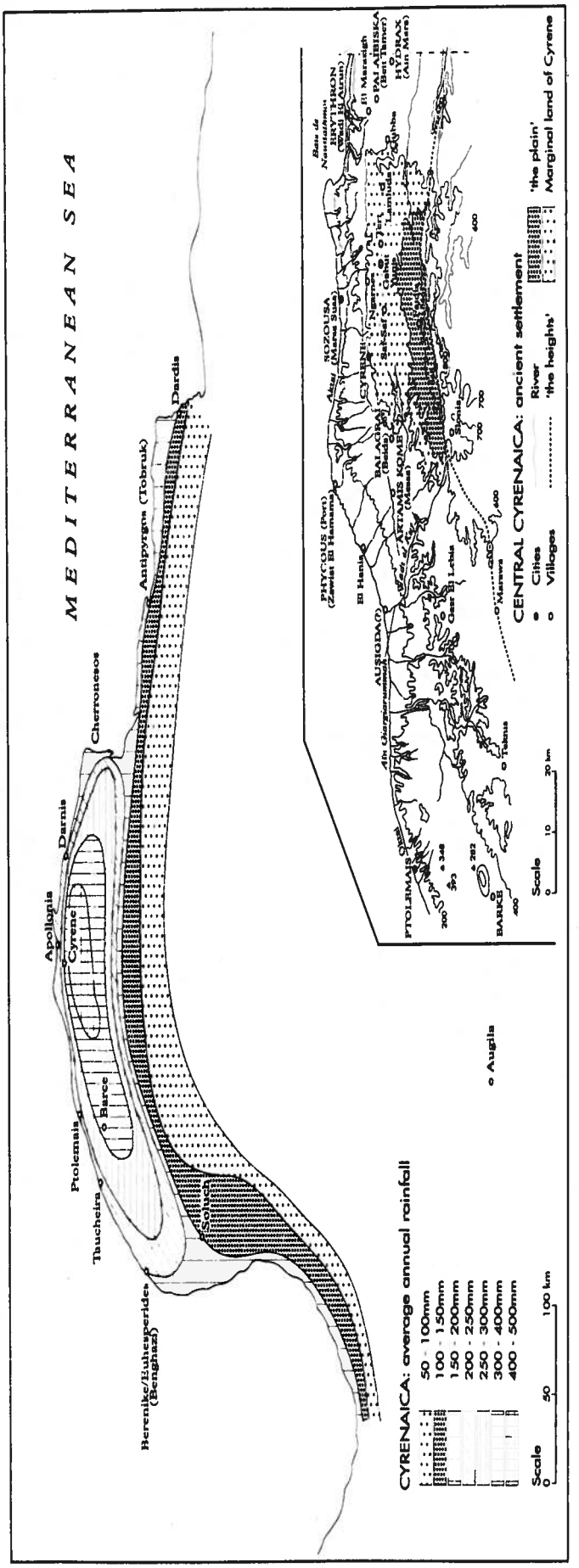


Map 6 Cyrenaica: natural regions and vegetation

Wadi el-Kuf) very deeply incised and favouring north–south over east–west communications. In the margins of the desert steppe, dew is a vital additional source of moisture. On the terraces of the Jebel Akhdar itself, the relatively high rainfall (up to 600 mm per annum) feeds numerous springs. Yet Map 7 shows how limited is the area which benefits from that rainfall. It is also markedly seasonal, in an extreme version of the Mediterranean pattern; and interannual variation is very high (local wisdom predicts one drought year in four). Especially in the less elevated areas where annual average precipitation is lower, the fragmented topography entails that surplus and near-drought can be found only short distances apart. As usual in Mediterranean lands, the pattern of the winds is both distinctive and crucial to each year's production. Winds from the south, laden with Saharan sand (*qibh*, the ancient *notos*: Roques 1987, 70–2) have enriched the mineral content of many local soils (cf. Map 5) – another reason for microenvironmental variability. Yet the sandstorms of spring and autumn can be disastrous if the spring rains have ceased early.

In modern times, bedouin tribes have competed for those north–south 'strips' of the region that will each command the full range of resources to be found, in east–west zones, between high plateau and semi-desert. Most families have mixed agriculture and pastoralism (cattle, goats, sheep, camels). Wheat is grown for family consumption. Barley and straw are fed to cattle: the majority of landowners have in recent times not sold their harvest on the market. But the relation between arable and pastoral is more complex than that, because the ecologies of favoured species are very different, and suitable land for each species is likely to be scattered. Cattle need barley, straw and plentiful supplies of water: the nomadism characteristic of other parts of Africa such as the Sudan is impossible in Cyrenaica. Goats are less particular in their demands, but the juniper forest serves them best. Sheep of course need good pasture, and they must spend the winter on the steppe and the summer on the plateau. Camels want shrub to eat but can easily travel for over a week without taking water.

So how, given this diversity, are animal husbandry and cultivation combined? First, agriculture has been emphatically a subsidiary activity for the Cyrenaican bedouin; its most important tasks can be quite comfortably fitted into even a semi-nomadic pastoralist's schedule. The move southward from plateau to steppe does not take place until December, after ploughing. The sheep may have been moved on ahead with a portion of the workforce; but the majority of people remain in the family tents until the crop has been sown. Secondly, the cereal fields on both steppe and plateau are concentrated near major water supplies, so that even if cattle and goat herders did not have to harvest their fields during summer they would naturally arrive at the same parts of the region in order to water their cattle. Finally, agricultural land can be used as pasture when appropriate. Cattle, goats, sheep and camels will all happily graze field stubble, especially to the north where the alternative flora are (for them) unappetizing. Access to so wide a range of environments has the advantages of resilience to the conditions of a bad year and the possibility of mixed herding. The seasonal movement of the animals, moreover, dovetails unusually neatly with the raising of an arable crop. For the herd's presence in the zone where winter moisture enhances crop yield coincides with the dry summer. The herd thus fertilizes the fields with manure while these are unplanted.



Map 7 Cyrenaica: rainfall and settlement

The later twentieth-century life of the bedouin may hint at the likely means of survival in the past: the combination of strategies, the necessary adaptation of patterns of settlement and migration to a jumbled mosaic of ecologies – these fundamental complexities have apparently not altered greatly since Antiquity, despite the varying portion of land under the plough. In particular, it must be emphasized that agriculture and pastoralism are (here as elsewhere) closely interlocked. The apparently independent pastoralists are part of the society of the cultivators. This is not to say that the two automatically co-operate. In the earlier fourth century A.D. for instance, Roman Cyrenaica was periodically overrun by nomads or semi-nomads from southern Numidia and Tripolitania. But such antagonism is not incompatible with various forms of interdependence, some of them quite subtle. On one occasion the raiders are reported to have deployed 5,000 camels to carry away their booty. Turning from horses to camels may have enhanced the seriousness of their incursions. But the change should also be interpreted as a reflection of the increasing marginality of the land, beyond the range of sheep and goats, to which the nomads had to resort as the frontiers of agriculture were advanced by Roman power (Liebeschuetz 1990, 229). The propagation of new forms of production often involves conflict between the innovators and other groups. The groups may in addition be differentiated along ethnic lines – as in Cyrenaica, at the time of the consolidation of the Greek presence, and again in late Antiquity. The interdependence between the two ecological strategies remains none the less salient.

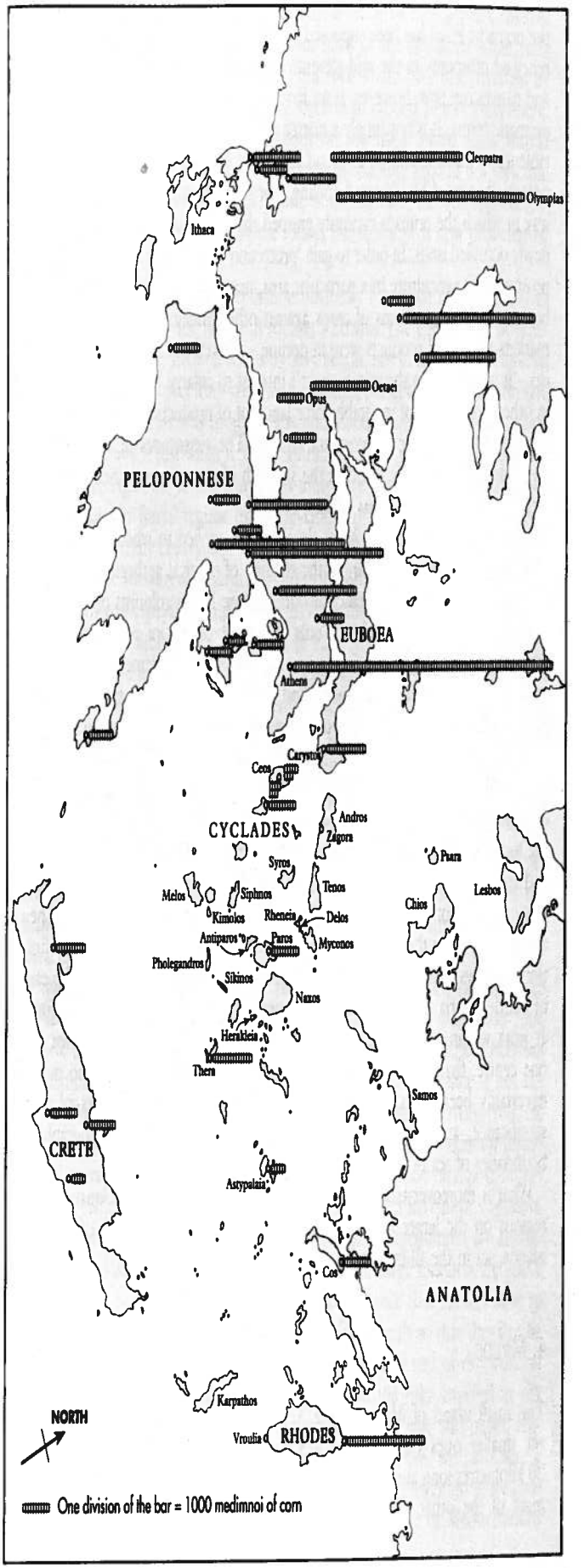
Not only the main features of the environment, but the Roman response to it also, have continued to make their mark on tribesmen of the peninsula. Modern cemeteries still register the geography of classical agriculture. For 'burial' has usually been on the surface, with the body covered by a stone cairn; and ruined farm sites are the best source of loose, easily worked stones with which the cairn can be constructed. Old collapsed cisterns, similarly, can be exploited for their rich soil and made into pear and olive gardens (VI.10); while some of the classical structures (renovated after the oil boom of the 1960s) have again proved capable of proper use. Even if unused, cisterns have remained a valuable guide to navigation in what is otherwise likely to be a featureless landscape. The ancient Greek and Roman roads are still habitually used for seasonal movements of people and animals. Barbarism and civilization are less remote than the antiquarian, and Romantic, contrast of tent and ruined temple suggests.

Indeed, that comparison (with which we began this section) both reflects a procedural error and announces an important theme. If, despite earlier caveats, we take Cyrenaica as a single area – of the order of 2,000 square kilometres of productive land and a much larger extent of marginal terrain – it is easy to say of it that, for instance, it was prosperous under the Battiad kings of the archaic and classical periods in Greece, or during the late Republic and early Empire, and that subsequently it went into decline. Yet the 'prosperity' which that verdict attributes to 'Cyrenaica' in Antiquity is an impressionistic generalization that bears only very inadequately on the region as a whole – the region as it is familar in large-scale maps.

Consider first the outline of the story. The society that emerged during the first two centuries of Greek 'colonialism', with the creation of a new settlement pattern and the introduction of new productive aims and methods, commanded by the end of the fourth century B.C. a surplus equivalent to the yield of several

thousand square kilometres of wheat fields (Map 8). The key to this rapid success appears to have been the early harvest time, a month earlier than that of most of Greece and well before that of the Black Sea, which became another recourse for Greek cities in times of cereal shortage (Brun 1993, 525–6). Over the following centuries, the economy of the productive microregions of Cyrenaica continued to yield surpluses for redistribution, though individually they waxed and waned in prosperity. An aside in a legal text of the Roman imperial period (*Digest*, 19.2.61) thus attests the commercial export of wheat and oil. The images of prosperity still feature in the writings of Bishop Synesius of Cyrene in the early fifth century A.D., but the density of Cyrenaica's ties with the rest of the world was greatly lessened (Roques 1987, 409–31). Synesius could offer as a plausible excuse for non-payment of tribute the lack of ships sailing from Cyrene to Rome. And the bishop reports finding, little more than a day's journey from the Mediterranean, country folk who had never glimpsed the sea and could not believe that it was able to support life: they fled at the sight of fried fish, thinking them serpents (*Letters*, ed. Hercher 1871, nos. 147–8). Towards the end of the millennium, however, the geographer Ibn Hawqal found Barca and its fertile plain prospering from substantial commerce with other areas, but especially Egypt (trans. Kramers and Wiet 1964, 1.62–3). And his testimony is corroborated not only by other Arabic sources, but by archaeology, which reveals a further and previously unsuspected commerce with Sicily from perhaps the late tenth century onward (Kennet 1994). Nor were the significant outside links only the seaborne or coast-wise ones; due attention must be paid to the Saharan ***koine*** and to the distribution of goods – slaves, dates, cloth and the like – across the waste, along the routes to the oasis of Augila or beyond (Stucchi 1989; cf. Brett 1969). Quite rapid fluctuations in economic fortune, depending on connections of varying kinds in a number of different directions, are thus a normal feature of what appeared at first sight to be a region quite separated from the rest of the Mediterranean world and about which generalizations of unambiguous scope could safely be ventured. At the ends of the transects of ecological opportunities are the multiple routes that lead into the desert and the ports which open onto the world of the sea. Both sorts of 'gateway' (IX.7) can be realized more or less vigorously, and the fortunes of the ports of Cyrene, at Apollonia, or the inland basin of Barca, at Ptolemais, have fluctuated with those of the clusters of microregions inland.

The causes of change in such an economy should not be conceived in too straightforward a manner. In part, perhaps, because of Ibn Khaldun's memorable imagery in the ***Muqaddimah*** (trans. Rosenthal 1967, 1.305, 2.289), the transition from prosperity to decline has often been presented in catastrophic terms and attributed simply to the progress of the pastoralist. Advance of transhumants in the wake of the first Arab conquests has been held responsible for the



Map 8 Cyrene deploys its cereal surpluses, 330–26 B.C.

'Those to whom the city gave wheat, when the wheat-shortage occurred in Greece' is the heading of an inscription probably originally from the sanctuary of Cyrene's patron deity Apollo. The wide horizons of the city's generosity are remarkable, and probably reflect the normal distribution patterns of the Cyrenaean cereal surplus. Even if this gift had no strings attached, those who determined the destinations of the fruits of Cyrenaean production, and who could dispose of such influential favours on this scale, stood to gain enormously in diplomatic and political prestige (*SEG*, 9.2).

collapse of the North African export of olive oil (Frend 1955). The invasion of the nomadic Hilali has been supposed to have brought to a sharp end a period of renewed prosperity in the mid-eleventh century. Relations between immigrants and natives can now, however, as we have already suggested, be envisaged in less dramatic terms. It is not simply a matter of shifting the emphasis away from the violence of invasion and on to broad ecological matters, such as the desiccation potentially caused by increased grazing. For doing that still fails to capture the way in which the nomads variously grasped the opportunities provided by their newly occupied lands. In order to gain 'protection money' they might enhance the prospects for agriculture in a particular area, not destroy it. Some groups might be employed as guardians of crops against other immigrant tribes. Where the markets for animal products were in decline – markets sustained by agriculturalists – it was hardly in the transhumant's interest to enlarge his herd. Pastoralists, in other words, do not inevitably force land out of production. They are more a symptom than a cause of economic change. The vicissitudes of agriculture in Cyrenaica have owed as much to the strength of central government as to the activities of camels and goats (Cahen 1973).

The vocabulary of prosperity or desolation as applied to whole geographical regions should be seen as part of the rhetoric of political authority and central management. (It was for instance favoured by the Italian colonists of the Fascist period.) Its proper application is only to specific centres of production (from which, as in the Biqa, expansion is possible) and to the extremes of a spectrum of economic possibilities. To understand how movement along that spectrum is possible, the focus of analysis must be sharpened, and the interrelationship of small-scale phenomena more clearly held in view. It is the frequency of change from year to year, in both production and distribution, that makes Mediterranean history distinctive. That history must therefore be founded on the study of the local, the small-scale – the specific ('definite') wadi, cove or cluster of springs and wells. But in the pursuit of that study it must never be forgotten that such tiny units are not crisply bounded cellular entities with their own destinies. They are not definite in the sense that they have fixed boundaries. Rather, their definition is always changing as their relations with wider wholes mutate. In the case of South Etruria, Rome provided the most obvious example of a unifying force at work within a region. Like the Biqa, Cyrenaica has had its Romes: not just one centre, that is, but several; shifting ecological foci that have by no means necessarily been cities, that may by now have left few visible traces of their significance, and that have not inevitably been constrained by geographical boundaries of sea or desert.

What is moreover true of isolated pockets of landscape, and of quasi-insular regions on the larger scale, such as Cyrenaica, is even more true of genuine islands, set in the all-influencing sea.

4. Melos

The small island of Melos, in the Aegean, lies in a cluster with three other yet smaller ones on the south-western edge of the Cyclades. It is about 20 kilometres long and has a surface area of some 150 square kilometres. Unlike most of the other Cyclades, it sits on one of the two bands of still active

vulcanicity that stretch from the Greek mainland almost to the Turkish coastline. Volcanic rock therefore covers around four-fifths of the island. At some early stage after the end of the last glaciation, this rock would have been overlain by fairly deep soil. But the hill slopes have since been eroded almost everywhere. Sediment has gradually accumulated both on low-lying inland areas and at various coastal sites. At best, all that has remained on high ground is a very thin soil cover or a layer of loose rock. Most often, though, the volcanic rock is completely exposed. Meanwhile in the valleys the sediment is now dissected by streams.

This pattern of erosion and deposition obviously has much in common with the geomorphology of the valleys in southern Etruria. The chronology is, however, wholly different. Erosion seems to have begun, not in late Roman imperial times, as we would expect from the Italian evidence, but at the end of the Bronze Age. And this process was more or less continuous from then on. It ceased around A.D. 500 – just when it was beginning in some other places. Until the early Middle Ages, the lowest-lying areas must have been largely uninhabitable. But a change in fluvial regime from alluviation to incision opened the valleys and plains to steady cultivation. Why this change occurred is obscure. It might conceivably be visualized as having begun when Bronze Age farmers deforested the uplands and cultivated rather too intensively the soil that they exposed, and thus loosened – although we shall later, in Chapter VIII, see that explanations of this kind have to be treated with enormous caution. Periods of heavy rainfall and severe flood did not help matters. Numerous hillside terraces, artificially 'damming' the movement of soil down to the valleys, remain as witnesses to the struggle of early populations to arrest that progress towards apparent disaster. Only after A.D. 500 could the ecology have stabilized; and even in stability it was not altogether easy to manage.

Nowadays 40 per cent of the island's surface is bare rock, and almost 80 per cent of the total is unused. The fertile soil is largely on the eastern half of the island but it is very unevenly distributed there. Widely scattered fields and terraces are the typical modern farm holding – some indication of the scarcity of usable land, and of the difficulty that has perennially faced farmers since erosion on the hills began. In 1975 eighty-nine farmers were asked how long it took them to walk to their most distant plot. The answers ranged between five minutes and six hours; the average was two hours. Yet distance is not the farmer's only problem. Even where there is good soil the underlying volcanic rocks are porous. Nor is the supply of water ideal in any case (maximum winter rainfall averages 450 mm and there is an interannual variation of almost 50 per cent; cf. Table 1). The winter soil is therefore dry by Mediterranean standards.

Prospects for animal husbandry, just as much as for agriculture, are diminished by all this. The only animals that can be kept in large numbers are goats; transhumance is rare. This is in part because the distance that farmers have to travel to the fields compels them to keep only a few animals so that they can be easily tended close to the farmstead at the beginning and end of the working day. It is also because of the scarcity of pasture and the risks involved in any major shift away from mixed farming (wheat and barley, vine and olives, legumes and gourds, sheep and goats). At first sight, therefore, we have here a simple isolated cluster of niches, exploited with tenacity and ingenuity since time immemorial. Melos might be typical of the precarious nature of Mediterranean

life; it might serve as an example of the most ordinary and obscure backwater, where traditional rhythms and often-repeated patterns are easily discernible.

The difficulty is that the history of Mediterranean islands, marginal environments though in some senses they may contain, confounds expectations of insignificance that an analysis of the environment on its own might raise. The admirable research project on 'the archaeology of exploitation' on Melos (Renfrew and Wagstaff 1982) placed considerable emphasis on the 'intra-systemic relations' of the island, in particular those involved in the prehistoric deployment over a wide area of a scarce local resource, volcanic obsidian. The assumption underlying the project was, none the less, that Melos represented a fundamentally self-sufficient unit, isolated enough from the complexities of mainland systems for the archaeologist to discern the processes of human organization with relative ease. That assumption is revealed in the deployment by Renfrew and Wagstaff of the Melian dialogue of Thucydides (*History*, 5.84–116), which might have been thought tangential to the realities of life on Melos. They implicitly accept the idea that the Melians were naturally autonomous and that Athenian aggression constituted a subversion of that autonomy. Yet the Melians' statement of this case (*History*, 5.112), which serves as an epigraph to the 1982 volume, was intended by its author, Thucydides, not to be self-evident but to form part of a debate in which the Athenians' position – that there is a certain necessity to the accretion of influence by the power that rules the sea – is designed ultimately to achieve a terrifying plausibility.

The findings of the research project itself suggest that the vulnerability of Melos in the late fifth century B.C. has been more typical of its long-term history than has any quiet autarky. In particular the relatively high populations – high in terms of any likely 'carrying capacity' of the environment – speak of a rather different state of affairs, in which Melos is an outpost of the demographic and economic dynamics of a wider world. From the classical period, when they believed themselves offshoots of the mainland peoples, to the early modern era when the population size fluctuated with extreme rapidity (that of mid-eighteenth-century Melos falling from *c.*5,000 to *c.*1,000 in just a few years), the fortunes of the islanders responded to the wider maritime continuum. Melian assertions of political self-determination do not represent the norm. It is rather the conflicting pulls of the various other regions whose meeting-point is the Aegean that have given shape to the island's history. Far from being unusually quiet and remote, an area such as Melos, or one of its component microecologies, is actually more subject to the shifts and shocks of change than many mainland areas. More clearly, even, than the districts of west-central Italy, with their easy interconnections and their privileged access to far-flung networks through the success of their political centre of gravity, Melos owes its distinctive character not to the accidents of its own geology or climate so much as to its relationships, changing over time, with the fluid patterns of communication in the midst of which it is situated.

Islands are places of strikingly enhanced exposure to interaction, and are central to history of the Mediterranean (V.2, VI.11, IX.2–3). But what is required of the Mediterranean historian is the ability to recognize, in places that are not literal islands, the insular quality of being 'in the swim' of communications. It is this recognition that we have now sought to promote in four examples: an inland district that proves less coherent and definite than its physical geography initially suggested; a seemingly natural region that derives its varying ecological responses from places far beyond it; an isolated territory which also reacts to the networks that it belongs to, overcoming still greater barriers of distance and aridity; and a real island, physically cut off and in that sense totally distinct, yet not in the least isolated.

5. 'La trame du monde'

'When I want to understand Italian history,' Arnaldo Momigliano wrote, 'I catch a train and go to Ravenna. There, between the tomb of Theodoric and that of Dante, in the reassuring neighbourhood of the best manuscript of Aristophanes and in the less reassuring one of the best portrait of the Empress Theodora, I can begin to feel what Italian history has really been' (1969a, 181).

Regions like our four 'definite places' are the Ravennas of Mediterranean history. For Momigliano, among the definitive features of Italy's past that Ravenna encapsulates are the presence of a foreign invader, the memory of pagan and imperial Antiquity, and the enduring force of the Catholic tradition. A selective environmental survey does not reveal cultural traits of that order. But our definite places have indeed introduced a number of equally arresting themes, and our examination of these in more detail should begin to reveal what kinds of continuity, similarity, or generality must preoccupy Mediterranean historians. And not just those interested in geographical or environmental history. Properly understood and interpreted, we suggest, these matters which seem so far removed from the associations of Theodoric and Dante may in fact prove to be contiguous to the historian's 'traditional' spheres of interest – church, society, cultural life, politics – and indeed sometimes essential to their proper understanding.

We shall develop that idea at the end of this chapter and in Parts Three and Four. Momigliano's remark, we may at this stage add parenthetically, is itself of considerable historiographical interest. Whether a vivid *façon de parler* or species of genuine Romanticism, his assertion that the particular collocations of historically eloquent monuments have an especial significance for the historian of Italy puts him in a position – odd for a Piedmontese – rather like that of an outsider looking in at the Mediterranean. It aligns him (emphasizing as he does the *process* of travel and the choice of vehicle) with the mobile, touristic tradition in which the particularity of places is so important. As Momigliano was no doubt well aware, his remark also associates him with a notable statement by a much earlier cosmopolite, St Jerome. In the preface to his first translation of 1 Chronicles, he advised that intellectual understanding would come only through physical travel – travel to Athens for Greek history, to the Ionian Islands for the wanderings of Aeneas, to the Holy Land for the Scriptures (*PL*, 29, col. 401A). As we suggested in Chapter II, many aspects of modern Mediterranean historiography have been grounded in the experience of the scholar-explorer-pilgrim.

Our own particular 'tour' of four localities was intended to promote a number of related ideas. The most important by far is that the 'Ravennas' of Mediterranean history are *normal*. History of this region, as we propose it, concerns localities which have experienced the equivalent in social and economic relations of the exquisite particularities of culture and politics that are to be savoured at

Ravenna. Italian history, like Anatolian history or the past of the Maghreb, has indeed 'really been' microlocal. The most perceptive synthesis of Mediterranean geography expresses the fact memorably. The Mediterranean world is 'a mosaic',

> in which the mean size of each homogeneous unity is of the order of ten kilometres. Nowhere else is the weave of the world's surface [*la trame du monde*] so fine – not even on the islands of Japan, where, if the elements of topographical unity are comparable, their content is infinitely less various. (Birot 1964, 3)

Geographical surveys always have to wrestle with complexity. Fragmentation is common enough in landscapes everywhere. But it is the *degree* to which it is subdivided, as Birot pointed out, that distinguishes the Mediterranean world. Indeed, this point may be taken a stage further: the zones and localities that jostle in the Mediterranean can be differentiated in the intensity of their fragmentation (Medeiros 1988). The nature of the diversity itself is diverse. In any given locale, relatively more uniform tracts of plateau or plain may mesh with the almost absurd variability of the broken topography in which every slope or terrace of a valley-side, each hollow, dune and pool of a coastal lowland, may have its own identity.

Ultimately, there are geophysical reasons for the geological variety of the Mediterranean basin and for the violence of its relief. In the layout of the continents, this sea and its immemorial forebear the inland sea Tethys have had a place which is hard to parallel for importance and longevity. Movements of the plates across the surface of the globe have, over geological time, resulted in many subduction zones, which have been replaced with chains of fold mountains. But there are some grounds for the claim that nowhere else in the world's palaeogeography has there been so complex or enduring an example of the process as in the Mediterranean basin and its precursors (VIII.2). The climates that are known around the globe as 'Mediterranean' are also remarkable for their variability year by year and season by season. Hence the extremely local character of the effects – on soils, hydrology, relief – that result from the interplay of tectonic movements such as faulting, earthquake or orogeny, with the 'physico-climatic forces of denudation'. Although there are other combinations of young fold-mountains with climates of this type, it can be argued that the effect of the physical variety of landscape on the already capricious weather is uniquely pronounced across the Mediterranean (Houston 1964). And that must, to an extent, be the result of the strangely fragmented map of the sea itself – as microregional, in many areas, as the adjoining land. Something of a *reductio ad absurdum* of microtopography is consequently to be found among the Mediterranean archipelagos (VI.11).

There is little reason for the earth scientist to go beyond discussing fractured landscapes in convenient macroregional clusters such as the Iberian or Italian peninsulas, or thematically according to one or more of the principal physical variables – mountain terrains, karstic topography, littoral climates, and the like. In investigating *la trame du monde*, however, the historian needs to press further than the physical geographer. The second lesson that our four examples have helped us comprehend is that the historian must examine the texture of the landscape in terms of the attempt to satisfy human needs from the resources of the environment. Study of *la trame* will, like the life of the overwhelming majority of Mediterranean people in the past, be 'close to the soil'. It will involve

minute attention to the varying constraints upon production. Areas where agriculture is at all possible are often limited in their extent and highly fragmented in their disposition.

The constraints are many – pedological, topographical, climatic, botanical – and they are not easy to overcome. Human responses, over history, have been extraordinarily subtle and various, although less comprehensively efficacious than a Romantic optimism might predict. Producers – and agriculture *sensu stricto* is only one element in the portfolio of Mediterranean production – have responded to the fragmented environment with their own 'microstrategies'. It is the kaleidoscopic landscape of production which ultimately constitutes the weave of the world, and although it is shaped by the environmental constraints, it is more pointilliste even than the physical world itself in the specificity and precision of its subdivisions – by field, spring, lane, pasture, garden-ground, pond or copse. One of the most striking botanical microregions of Italy is a hollow of a mere 156 by 188 metres, in which in the nineteenth century a flora of 420 species, many quite alien to the Tyrrhenian coast, was recorded. This is no accident of nature, however, but the cavernous ruins of the Colosseum in Rome – a man-made environment, albeit accidentally so. Where landscape modification has been deliberate, the effects are equally striking. It will be sufficient to cite the example of the control of water, which we saw illustrated in three of our four 'definite places'. In the Mediterranean climate, the single most vital resource for the producer, as well as the most capricious, is water. And water has been managed in a bewildering variety of ways which in themselves offer criteria for a minute subdivision of the landscape in all the periods in which we are interested (VII.2).

The most important way of responding to the constraints of the Mediterranean environment is not to attempt to overcome them, but to adjust to their full intricacy, suiting the means of production to the subtlest complexities of the ecology. By making use of each niche, however small, in minutely subdivided polycultural systems, the environment can be used to its greatest productive capacity. But the subdivision is only part of the story. The third point which we might make after our survey of four representative Mediterranean areas is the paradox that the kaleidoscopic mosaic of the Mediterranean is distinguished by the 'structures' which overcome the fragmentation, and above all by maritime communications. But that is a theme to which we shall return (especially Chapters V, IX).

We are not, therefore, simply offering a revision of Mediterranean regional geography in which the units of study are smaller than has been usual. With the Mediterranean microecologies of this Part's subtitle – the elements of our *trame du monde* – it matters that they are kaleidoscopic; it does not matter what their actual size might be. The fragmentation is more important than the scale. So we shall not attempt to propound a typical size for our microregions, like the 10 kilometres of Birot's rather vague prescription quoted above. We shall, without hesitation, use the term impartially of adjacent fields and of the territories of neighbouring political communities, of individual islands, and of minuscule pockets of intensive cultivation. The underlying concept, rapid variation in the reaction of the producer to the surrounding world in all its complexity (variation which can take place over time as well as over distance), is fluid and inconstant. So it is unreasonable to expect that scale will not be an additional variable, alongside all the others.

Our definition of the microecology, therefore, is a locality (a 'definite place') with a distinctive identity derived from the set of available productive opportunities and the particular interplay of human responses to them found in a given period. It is not the solid geology or the characteristics of the climatic zone, the relief or the drainage, that of themselves define microecologies. It is rather the interaction of opportunities: for animal husbandry, foraging, hunting, intensive agriculture, forest management, horticulture, fishing, or whatever – and, as the final but by no means the least ingredient, for engagement in larger networks of redistribution.

There are two major advantages to this ecological conception of the tessellation of spaces into which the Mediterranean world divides. One is its flexibility over time: it makes change easier to understand. The other is its spatial indeterminacy: it avoids presenting geographical boundaries as permanent or uncrossable. This applies as much to boundaries attributed to the region as a whole as to those presumed to lie within it. It should no longer be a matter of envisaging the Mediterranean in terms of, for instance, Map 1, through the distribution of the olive or a certain climatic regime (definitions that exclude too much territory to be useful or convincing). The Mediterranean of the microecologist is at once more softly edged and less crudely identified.

6. Mountains and Pastures

To test the practicability of this microregional approach, which puts people before physical geography, we may turn to the high mountain zones, 'disadvantaged absolutely in most respects' (Lewthwaite 1981, 60). Mountains have the reputation of being bleak, windy and cold, subject to high precipitation and intense weathering and erosion, dissected and impenetrable, a barrier to communication. Among other forms of marginality, topographic fragmentation in these places is often thought to be so extreme as to prohibit the day-to-day contacts which make production worthwhile (V.1).

Human opportunism and ingenuity have, however, very frequently succeeded in integrating these environments into the productive system. Such integration, while perhaps yielding only a small contribution to the nutritional aggregate, has often had important historical consequences, and helps to show with some clarity the characteristics of environmental opportunism in the system as a whole. Nowhere, in fact, is it easier to see that even the niches with the greatest physical individuality – an isolated upland pasture, a well-watered hollow sheltered by precipitous cliffs – must be understood by the historian not simply in terms of their geomorphological or climatic identity, but as places in which the ecological responses of human populations intersect in a distinctive way. The 'personality of the place' lies not in the bald facts: 'here is a chestnut wood, there a spring, and there a track leading to the summer meadows.' It derives from the presence in this microecology of people engaged in using the spring in agriculture, leading sheep or goats to and from the upland, or exploiting the forest as forage for their pigs.

It derives also from interdependence. Mountain societies can no longer be characterized, as they were by Braudel (1972a, 33), primarily in stark Malthusian terms: of cultural and economic poverty and isolation, with the pressure of

expanding population on scarce, overwhelmingly agrarian, resources being relieved in the last resort only by permanent emigration. Mountain microecologies, like almost all microecologies, are parts of greater ecological networks (as Braudel conceded, but with regard only to transalpine trade routes and to a few other, somewhat picturesque, examples: 1972a, 45–6, 206). This interdependence is, moreover, especially pronounced where the fragmentation is most intense. Mountains can seem hostile and marginal areas; yet they are actually closely integrated into the patterns of production and communication that abut them. That explains why mountain zones unexpectedly – and even paradoxically – become regions with wide internal coherence and close contact and interchange across what appear, to the outsider, to be formidable physical obstacles.

The complexity and unpredictability of, for example, Alpine ecologies has been most forcefully brought out by those anthropologists who can combine ethnography with demographic history. Some villages, such as Törbel in the canton of Valais, seem to have been virtually self-sufficient, economically stable (at a very modest level) and autonomous, from the time that the historical record begins (in the thirteenth century) until the aftermath of World War II (Netting 1981). The isolation emerges from the statistics: 'only three men appear to have settled in Törbel, married and had children there since 1700' (1981, 9). Yet other Alpine communities conform far less to the Braudellian stereotype. On the basis of both local ethnography in Alagna (in the Piedmontese Alps) and a wide command of the secondary sources for the whole area, Viazzo (1989) has emphasized that Alpine environmental diversity – even within a single slope – is too great for any broad generalizations about mountain economies to have much purchase on reality. He has suggested that the impoverishment habitually attributed to Alpine villages may be a property more of the land than of the people and their economy. And he has shown that Törbel is far from typical in its isolation. Not only the long history of transalpine commerce, but also that of seasonal – as distinct from permanent – emigration, shows that Alpine communities have developed very extensive ties with their surrounding plains. Since the middle of the nineteenth century, if not earlier, the major part of Alagna's grain supply was for example purchased from outside the area. A large portion of its cattle herd also had to be stabled in the lowlands throughout the winter (the procedure known as inverse transhumance). Over a still longer period perhaps stretching right back to the Bronze Age, moreover, the mining of precious metals in the Alps has at least periodically been both a stimulus to immigration and a source of market-orientated production (IX.2).

Alongside this perhaps unexpected Alpine panorama could be set vignettes of other mountain societies: that for instance created by Fowden (1988) in his study of the practical role played by Mounts Parnes, Pentelicus and Hymettus in the economy of late antique Athens; or that conjured up by Wickham (1988b) of the complex ties engendered by gifts to churches, by political affiliations, and through landownership, between two Apennine valleys and the cities of Lucca and Arezzo during the earlier Middle Ages. Wickham indeed offers a most telling observation – that the marginality of mountain environments can make them more, not less, sensitive to larger commercial pressures, to such an extent that they are 'capable of altering their very geography to fit them' (359). We should not, however, expect that, in the absence of such pressures, mountains display any inherent tendency towards economic isolation.

Mountain societies may be as closely related with others nearby as they are with the plains. The homogeneity of communications in mountainous regions, the dense net of capillaries that (as it were) ties the individual mountains together, makes of some of these areas a curious analogue of the sea. Points where the mountains debouch into the coastlands can parallel the significance of great gathering ports. The upland economy of the Taurus mountain chains in the southern Anatolian peninsula has often displayed this sort of coherence. An arresting example of a gateway between that area and the world of the coastlands and sea in the third century B.C. has come to light in documents concerning the foundation of a city, Arsinoe, by the Ptolemaic rulers of Egypt. This city would not only provide them with another toehold on the coast of Anatolia. It would also institutionalize the relationship between the new port and the societies of the mountain hinterland, particularly the community of Nagidos and its dependants (Opelt and Kirsten 1989).

The difficulties of communications in the mountains concern armies most of all, and to a lesser extent people involved in the bulk redistribution of materials. Those difficulties have, however, often been exaggerated in the literary record to magnify the endurance of those transcending them. From the thirteenth century at least, large quantities of grain and salt were for instance passing on mule-back from the Romagna to Florence across the Apennines. And by the second half of the fourteenth century there was a large-scale transit trade in Spanish wool from the Tyrrhenian to the Adriatic in the same apparently unpromising area (Larner 1990). The less well documented everyday redistribution of people, animals, materials and foodstuffs, though on an individually small scale, can be still larger in aggregate. It is this above all that binds mountain zones together, just as it does islands and sea coasts.

When we use the label 'mountain' in a Mediterranean context, therefore, we are identifying a visually or geomorphologically distinctive landform. But we must be chary of making assumptions about the ecological or demographic structures to be associated with it: these cannot be taken for granted. Generalizing about mountain economies should therefore be undertaken in terms, not of the intransigent actualities of geomorphology, but of a pattern of productive strategies. Most upland areas will, as we have seen, exhibit a high degree of microenvironmental complexity. As Lucien Febvre long ago asserted, there is no sort of mountain unity, no single human-geographical mountain type (1925, 200).

Pastures

One of the numerous ways in which upland ecologies may have been emphatically patterned is through animal husbandry. Wickham for instance, to remain with medieval Italian evidence, is able to show that horses and cows were being wintered 150 kilometres down the coast from one of his valleys perhaps from the eighth century, with quite extensive transhumance of sheep becoming apparent in the twelfth century (1988b, 24–5). Viazzo (1989, 122–6) can sketch a long-term history of animal husbandry in the Alps that begins at the close of the Neolithic period, as the remains of domesticated animals come to outnumber those of wild ones in the archaeological record, and as the movement of flocks and herds across modest distances presumably took on a seasonal pattern.

Yet in a chronology resembling that of the medieval Apennines, long-distance transhumance does not seem to be attested until the turn of the first millennium A.D. (An inscribed altar discovered in the sand of a lake at Graubünden and dedicated to a group of divinities called simply *Pastores* (*AE* 1966, 272–5, with Frei-Stolba 1988) may suggest a much earlier development of pastoralism – around A.D. 200 – but hardly indicates the scale on which it was being practised.) And the particular combination of pastoralism and intensive agriculture known simply as *Alpwirtschaft*, characteristic of the high valleys in modern times, becomes apparent only in the later Middle Ages.

Transhumant pastoralism is perhaps more often associated with mountains than with any other kind of landscape. The association is based on the juxtaposition of markedly different productive opportunities – fertile valley floors and steep forests or high pastures – and not on the other more specific attributes of mountains. Yet, as we have seen, the coexistence within a single microecology of widely different forms of environmental exploitation is typical of many types of landscape: wetlands, stony plains, oases or sandy heaths all offer comparably long spectra of productive choice (cf. VI.7). And pastoralism in particular, if by that we mean the response to ecological locations where the biomass can be made available to human needs only by way of animal diet, is a strategy common to many microenvironments. It cannot be deterministically linked with a restricted number of physically very distinctive environmental niches, such as mountain pastures.

The context of mountain environments provides, none the less, a suitable opportunity at which to summarize observations about pastoralism that were included at various stages in the treatment of four exemplary places. It is also an opportunity to stress again the diversity, extreme mutability, and pervasive interdependence of Mediterranean microecologies.

Modern historiography and archaeology have made it overwhelmingly clear that the image of the pastoralist as a primitive and alien figure must be decisively rejected. A very ancient set of preconceptions will otherwise continue to exercise a damaging influence on our thinking. Although they were originally elaborated with reference to fully nomadic peoples, these preconceptions have proved easily extensible to pastoralists of all kinds. Indeed, they can sustain prejudices against those 'on the move' quite generally, disguising a good deal of what we shall (in IX.5–6) find to have been a perennial instability of Mediterranean populations.

A powerful set of stereotypes dates from the time of the early Greek ethnographer-historians (to look no further than the classical tradition). First, the agriculturalist and the pastoralist each represent pure and unmixed ethnic types, with whole peoples neatly classifiable as either one or the other. Secondly, these unmixed types are polar opposites, with the agriculturalist as superior in virtue of being civilized and the pastoralist as barbarian, although perhaps possessed of a certain noble purity (cf. Jeremiah 35) or even more than that (as with Abel). Thirdly, hardly surprisingly, pastoralism is more ancient than agriculture and in some sense primeval. Even Ibn Khaldun, much the most subtle and penetrating of pre-Enlightenment social analysts, took nomadic society as the starting point for his history, as the 'fertile soil' from which sprang every subsequent form of society. For him, nomads were virtuous. They had the power to generate and, when necessary, regenerate agricultural society. But there was no possibility of

their being integrated into it. They still emerge from the *Muqaddimah* (1.2) as distinct in society and economy – and as primitive. This enduring typology was revised in the eighteenth century. The hunter-gatherer displaced the pastoralist as the practitioner of the earliest form of economy. Yet pastoralism had still not 'caught up' with agriculture: it remained a humble forerunner. The image of the pastoralist as lawless and uncouth is perpetuated in the complaints of Mediterranean farmers about the depredation wrought by flocks and herds.

Against these nicely discrete and hierarchical images, whose tenacious history has been traced by B. D. Shaw (1982–3), can now be set, in the form of eight points, a modern vision of the comparable sophistication and essential interconnectedness of pastoralism and agriculture in the Mediterranean. That is, pastoralism and agriculture must, *first* of all, be envisaged as far more likely to have functioned in symbiosis than in isolation. The purely pastoral societies of ancient Greek thought are extremely rare. Moreover they are not to be found within the Mediterranean region: one has to look to the inhabitants of Viking Greenland, or the modern Inuit or Masai, to find groups whose diet and other everyday needs have been derived overwhelmingly from their animals. *Second*, pastoralism is if anything a more complex form of economy than agriculture, not an underdeveloped substitute for it in areas too poor for cultivation. Since it can rarely exist in isolation, it must involve quite sophisticated connections with its surrounding worlds of production and exchange. Some of those connections may involve the pastoralist in violence and predation; yet it should be remembered that accusations on that score may be less a reflection of actual provocation than of the agriculturalist's view of the pastoralist's place in the social hierarchy (Koster and Koster 1976, 283). *Third*, following on from that, there is nothing in any sense of the word primitive about pastoralism. It is subsequent to agriculture on any evolutionary time-scale: the agriculturalist was the first to domesticate animals.

To these refutations of the classical stereotype of the backward alien can be added other points that may bring out more clearly the characteristic forms of Mediterranean pastoralism. *Fourth* then, the close integration of pastoralism and agriculture should be envisaged across a very wide range of functions. Pastoralists must either rely on agriculturalists for a substantial portion of their necessities or engage in some agriculture themselves (a possibility even for fully nomadic peoples). Agriculturalists look to livestock – pigs, oxen and cattle as well as ovicaprids – for manure, traction and threshing as much as for wool, cheese or meat. *Fifth*, as the four definite places have between them already implied, this symbiosis should be recognized as extremely responsive to changing economic opportunities. The sense of cultural difference and the bitterness that cultivator and herder have so often aroused in one another, and that underpin the classical stereotype, should not be allowed to conceal the ease with which even the extreme specialists on either 'side' have partaken of the 'opposing' form of livelihood: 'the herder whose flocks damage crops is a neighbour and rival, a temporary apostate from the settled misery; the irate farmer is a renegade who last year saw no harm in allowing his herds on to other men's fields' (J. Davis 1977, 21).

To sum up this degree of interdependence we might consider the emblematic significance of porridge. It has long been a feature of Mediterranean pastoralists to process cereal products into a hard, durable form which will keep, and which can be rendered edible by soaking or boiling. This preparation, known under

many names of which the Greek *trachana* may be the most familiar, makes available the staples of the arable world to the transhumant shepherd when he has to leave the world of agriculture behind (Bryer 1985). Something similar may lie behind the origins of pasta. There is always a symbiosis between animal husbandry and other forms of environmental management.

Sixth: suppose we divide the continuum of Mediterranean pastoral practices roughly into four parts. These correspond to (a) small-scale husbandry where the few animals in question remain on the farm all year round, (b) 'vertical' transhumance, by which herds of only moderate size move seasonally to nearby upland pastures, (c) the far grander 'horizontal' transhumance associated with the Spanish Mesta or the Neapolitan Dogana, involving at the extreme the seasonal movement of millions of sheep over several hundred miles, and finally (d) the less predictable movements of fully nomadic groups, mostly on the Mediterranean's eastern fringes. Of these four, at least since the beginning of historical times the distinctively Mediterranean form of pastoralism has been the second: vertical transhumance between upland and adjacent plain.

That conclusion differs slightly from the one implied in much modern discussion. Most attention has usually been given to (c) – not so much its more spectacular manifestations in the Mesta and Dogana as the generality of large-scale transhumance. This type has seemed to reflect the potential of the Mediterranean environment more closely than do other forms of pastoralism, and thus to offer (according to taste) either an attractive picture of a 'natural' and long-lasting economic practice, or the opportunity for an attack on environmental determinism. Interest has also been focused on its 'high-profile' Roman precursors in the Italy of the late Republic and early Empire. One landowner, an ex-slave called Caecilius Isidorus, is reported to have had 257,000 sheep and goats (Brunt 1975). There is relatively abundant evidence for the maintenance of drove roads and the extension of a lucrative ovicaprine pastoralism deep into the recesses of the Apennines.

It has become customary to distinguish a 'Mediterranean' transhumance of more or less this kind from the vertical 'Alpine' variety, in which animals move to high ground during the summer to free the low-lying fields for the production of the winter fodder that will be consumed in the stable. We prefer to emphasize the variety of Alpine as well as of more obviously intra-Mediterranean pastoral strategies, not drawing too sharp a distinction between them. We prefer also, of course, to direct attention to the 'short distances', the highly local forms of livelihood which both unite microecologies and bind them to their neighbours. In contrast, then, to a body of modern scholarship that tends to be preoccupied with the largest pastoral networks and to glance occasionally 'down' the scale, we would place the centre of interest at the humbler end of the continuum. It remains debatable just how far highly localized animal husbandry was part of the Mediterranean small farmer's basic means of support in Antiquity (BE VI.7). But the practice has a clear enough history from the early Middle Ages onward, although it would require a vastly extensive survey of the documentary and archaeological record to yield any worthwhile generalizations about regional and chronological patterns (cf. Chapter VI). Problems of evidence notwithstanding, it is this history, especially the circumstances in which it has included some form of transhumance, rather than the history of the Mesta and Dogana, that should provide the starting point for analysis.

Seventh, no form of husbandry can simplistically be related to the pressures of the environment. Each has to be conceived within a far richer context, as 'overdetermined' as a Freudian neurotic symptom. No pastoral strategy, we have said, can be simply predicated of the landscape. Therefore no such strategy can be seen as 'natural'. The mountain summer pasture, for example, which is at the heart of transhumance is itself by no means always part of the 'given' environment. It may have to be created by deforestation. Nor can transhumance be interpreted as a straightforward function of any other environmental feature. Predictions about where transhumance will have been most suited to the environment, for example in the comparison of Sardinia and Corsica (Lewthwaite 1981), are nearly always confounded by the historical or archaeological evidence. (Although Sardinia seems much the less well fitted for pastoralism, large-scale sheep grazing and movement have been considerably more prevalent there than in Corsica.) Climatic determinism is a particularly vulnerable type of analysis in this context. The rationale of the transfer of animals to the uplands during the hot, dry, Mediterranean summer may certainly lie in the need to escape the aridity of the plains. But as Wickham (1983–5, 442) has pointed out, 'almost all transhumant systems englobe small groups of non-transhumant stock-raisers, with stock capable of staying in the same place all year.'

Simple determinism must be replaced by a far more complex explanatory setting. The generalization that 'mediterranean pastoralists are constrained as much by government as by grass' (J. Davis 1977, 21) should be extended to political conditions in the broadest sense. These have already emerged as crucially important in the ecological histories of South Etruria and Cyrenaica (Laronde 1996b). The fortunes of pastoralists have been to some degree connected with levels of security and governmental ability to regulate – and, above all, tax – in most other parts of the region as well. The proximity of markets is another part of the scene that deserves just as much emphasis as any environmental feature: pastoralists flourish where they can exchange, not just where they can find grazing. Finally, at the humbler end of the continuum the pattern of human settlement may have a powerful effect. Nucleated settlement associated with extensive farming can make it very hard for individual farmers to look after more than a few animals locally, partly because they cannot devote enough time to them and partly because bare fallowing drastically reduces the availability of fodder. Farmers may thus resort to communal herding, sharing the labour or jointly employing specialists, in order to remove their animals to summer pasture. Conversely, dispersed settlement with intensive farming of immediately adjacent land enables farmers to maintain their animals nearby.

The relative significance of these factors will of course vary with the wealth and location of the pastoralist. And it would be fair to suggest that, on the whole, the rise to prominence of large-scale pastoral systems in particular periods, such as the central Middle Ages in both the Alps and the Tuscan Apennines, reflects a more thorough 'overdetermination' than do the smaller-scale operations of a group of poor farmers. Yet the features of the latter's husbandry are far from easy to explain: we dare not assume that the political and economic conditions sustaining the flocks of an aristocrat are inherently more complex than the combination of tenurial obligation, field system, settlement pattern, market geography, and soil chemistry that might impinge on the decision-taking of the lowly. Our *eighth* and last point is therefore that, if we wish to gauge the sophistication

of even quite tiny systems of animal husbandry, we should allow the largest systems their say. The archival detail upon which a study of the Neapolitan *Dogana delle pecore* may for instance depend (Marino 1988), the variety of political and economic topics upon which it must dwell, the way in which the pastoral regime of the early modern kingdom of Naples may be found to provide a possible solution to the question of southern backwardness that has so vexed historians of modern Italy – all this can be taken to signal not just the ramifications of the Dogana but the centrality of pastoralism in some form to Mediterranean history quite generally, and the sophistication of its workings across the *entire* spectrum of pastoral practices. In that sense, the spectrum is not as broad as might have been imagined, the two extremes not so far removed:

> from its foundations in the mid fifteenth century, the system of transhumance in southern Italy was a large-scale cash-cropping enterprise dependent upon private wealth (capitalist graziers, capitalist merchants, capitalist agriculturalists) and public patronage (royal management, royal demesne, and royal justice). In controlling the movement of sheep from summer to winter pasture, the state placed itself in the center of a timeless tradition that amalgamated the realities of capitalist agriculture with the rationale of Arcadian pastoralism. (Marino 1988, 7)

7. Theodoric and Dante

The conception of Mediterranean history initially derived from a selection of 'definite places' and elaborated under the sign of *la trame du monde* has now been applied to mountain economies and to the broader phenomenon of pastoralism. It was described at the outset as an approach to the Mediterranean past by way of its microfoundations. It was not intended to encompass directly the likes of Theodoric and Dante, between whose tombs Momigliano could begin to feel what Italian history had really been. An approach that is broadly ecological, but that does not aspire to produce an all-embracing model on the basis of inadequate data, is not going to explain the collapse of the Roman Empire, or the policies of Philip II of Spain, solely in ecological terms. Nor, as was stressed in Chapter II, will it pay lip-service to what would bulk large in any other form of history merely by leaving a vacant space in the model for 'mental factors' – when what this phrase usually means is the entirety of human culture.

None the less, the wider political context has had to be invoked on a number of occasions: the imperial powers of Athens and Rome; major, if transient, cities such as ancient Cyrene; the political structures that underpinned the (to much more than the accepted degree) exemplary Neapolitan Dogana. We begin to see the possible extent of the connections between the narrative historian's concern with the rise and fall of complex societies and, at the microecological level, a change in the balance of productive strategies, between arable cultivation or arboriculture and pastoralism. Let us return for a moment to the Lebanese valley described at the beginning of the chapter. Here the social and political history of the area is complicated: space would have to be found, in a narrative of successive Hellenistic, Roman and Islamic hegemonies, for a pattern of local politics as complex and unstable as that so cruelly evident at the end of the twentieth century. The various partitions of Syria – between Egyptians and

Hittites in the Bronze Age; between Seleucids and Ptolemies in Hellenistic times; between Fatimids and Hamdanids in the earlier Middle Ages; between Seljuks, Western Crusaders, and Ayyubids – may all be seen as the outcome of political competition, across the centuries, for broadly unchanging human resources: for the allegiance of small, highly elastic local familial and political groups who managed the diverse microecologies, pastoral or agricultural, upon which any larger power ultimately depended.

> The Biqa was thus a political no-man's-land, characterized by a diffuse assortment of political leaders and allegiances, ethnic identities, economic relations, and socio-cultural syncretisms ... In effect, each rival nullified any degree of administrative or economic integration achieved by the other – and, considering the intrinsic socio-economic disequilibrium of the lowlands, this was seldom difficult. Thus the penetration of bedouin tribes ... into the settled zone is explained not so much by aggression on their part as by the absence of local authority and the decline of rural settlements. (Marfoe 1979, 18)

Such an interpretation (that echoes in its closing lines the analysis of the Hilali invasions offered in Section 3 above) can only tentatively link the political instability of the Biqa lowlands with the intense local variability of the micro-ecologies there. It is not a basis for generalization across other less fragmented parts of Syria – still less across other parts of the Mediterranean world. But it does, once again, point to the ways in which political and ecological change can be bound up with each other; and it emphasizes the contribution that a study of microenvironments might make to the broader understanding of Mediterranean history. Appreciation of *la trame du monde* offers the possibility of a systematic approach to the task of relating the mutable patterns of productive choices and the formation of networks of power, cooperation, allegiance and dependence. In the chapters that follow we plan to test the concept further. And we start in the world in which Theodoric and Dante must be primarily located – although with some words of Dante that immediately project the topic in an unfamiliar but, to us, congenial light.

Chapter IV

Ecology and the Larger Settlement

sempre la confusione delle persone
principio fu del mal delle cittade
come del corpo il cibo che s'appone ...

Se tu riguardi Luni e Orbisaglia
come sono ite, e come se ne vanno
di retro ad esse Chiusi e Sinigaglia

udir come le schiatte si disfanno
non ti parrà nova cosa né forte
poscia che le cittadi termine hanno.

[it is always the mingling of people that has been the beginning of evil for cities, as, for the body, it is the food that is set before it ... If you look at Luni or Urbisaglia, and at the way that they have gone, and at the way that Chiusi and Senigallia are following behind them on the same path, then hearing how families disintegrate will appear neither new nor remarkable, inasmuch as cities themselves come to an end.]

Dante, *Paradiso*, 16.67–9, 73–8

... fragilités des cités, peuplées d'une masse mobile, vagabonde, mal fixée.

Henri Bresc (1986b) *Monde méditerranéen*, 66

'Routes et Villes, Villes et Routes.' Such was Lucien Febvre's comment on first reading the chapter in Braudel's *Mediterranean* discussing the region as a human unit (Braudel 1972a, 277 n.1). As we began to see in Chapter II, much of the most significant – and romantic – Mediterranean scholarship has been devoted to the region's economic history, and in particular to its towns and their communications. With them, it has seemed to leading representatives of the Romantic tradition, lies the essence of the Mediterranean past and the source of Mediterranean unity. Both *routes* and *villes* have, moreover, been conceived above all in terms of high commerce. Towns and communications are, then, topics on which our overall interpretation of Mediterranean history must clearly be brought to bear. Do towns, in all their seeming solidity, resist consideration in the fluid microecological terms that have been espoused by preceding chapters and will be developed in later ones (VI–IX), or can they fruitfully be embraced by them? How are communications between microecologies best understood (V)?

Our reference in the previous chapter to the worlds of Theodoric and Dante was intended, at the least, to suggest ramifications of our own microscopic approach for the more usual stuff of political and social narrative. In turning to urban and economic history we cannot be so tentative. We shall adopt a stance diametrically opposed to that of (among others) our 'four men in a boat' (II.2). Rather than merely seek points of contact between microregions and the larger world of towns and trade routes, we shall argue that all these subjects can profitably be accommodated within a single analytical framework – much as Dante accommodates cities, families and bodies in the lines quoted above. We place no special emphasis on *routes* conceived as grand commercial links that can be mapped with clear sweeping lines – ribbons laid over sea or landscape (Braudel 1972a, 277; Chapter V). Nor do we give particular, separate, attention to *villes* conceived either as the nodal points of such lines or as the fixed centres of simply determinable hinterlands.

For our immediate purpose, indeed, neither route nor town is a particularly helpful category. Both can be 'dissolved' into less readily mappable kinds of microecological functioning and interaction. Like the special case of ports to which we come later (IX.7), towns can be seen as 'epiphenomenal' to larger ecological processes. Similarly, in the next chapter we shall suggest that the Mediterranean region derives unity and cohesion less from its network of routes in the Braudellian sense than from the more general *connectivity* of its microregions. Here, we begin the process of dissolving Febvre's categories by considering towns. We argue that towns require an ecological history, but not one of a special kind. There is no particular quality of urban space that automatically colours belief and action within it. For our present project, a town is an address, an arena, an architectonic agglomeration: distinctive – sometimes – for the volume and density of its buildings, or the bustle and variety of its population, but not, we propose, for the way in which its microregions work.

1. An Urban Tradition

Carthage, Athens, Rome, Alexandria, Antioch, Constantinople, Marseille, Córdoba, Barcelona, Pisa, Florence, Venice . . . the list could be extended a long way, and its items could be so ordered as to stand for a quite effective summary of many aspects of the Mediterranean past. After all, the Mediterranean has probably been the most durably and densely urbanized region in world history. No other comparable area can boast so many towns and cities of such antiquity. The major cities have, moreover, been the sites (or addresses) in which the fortunes of its populations have principally been determined. Power, civilization and prosperity seem always to have radiated from them. This is the world evoked at the close of the previous chapter. It is also the historiographical world inhabited by the 'four men' of Chapter II.

First there was Rostovtzeff's bourgeoisie and its role in an ancient economy that spanned the Mediterranean and Asia. Then there were Pirenne's early medieval merchants, who virtually made and unmade clusters of cities as their long-distance trading connections flourished or foundered. It was in the nature of things, thirdly, that Goitein's Geniza documents should represent 'an intrinsically urban population' (1967–88, 4.1). Its horizons could almost be defined

in terms of a list of cities whose names recur frequently in the texts – from Samarkand to Narbonne. Braudel's purview, finally, was of course hardly so narrow. Yet towns and cities remained at the very centre of his vision, colouring his perception of what lay beyond. In the first volume of *Civilization and Capitalism* (1981–4) towns were portrayed as 'electric transformers', 'watersheds of human history' (479). Yet the conviction that they had been the driving force in not only the industrial, but also the preindustrial, world economy derived from work done on the Mediterranean decades previously:

> The prevailing human order in the Mediterranean has been one dictated primarily by towns and communications, subordinating everything else to their needs. Agriculture, even on a very modest scale, is dictated by and directed towards the town . . . It is because of the towns that man's life has taken on a faster rhythm than it would under natural conditions. (1972a, 278)

The historiographical tradition of the Mediterranean town is weighty, then. And its weight is provided not just by the four men who dominate modern thinking about the Mediterranean but also by other 'stars' in the firmament of social and economic thought whose interests were far from bearing directly upon the region: Smith, Marx and Weber to name only three. This tradition elevates towns into a highly distinctive and supremely significant historical category, precisely because they have become increasingly set apart from the countryside. It implies forcefully that our introduction to the Mediterranean past through a description of rural microecologies – four 'definite places' – was literally eccentric.

The eccentricity was calculated and now needs defending. As we indicated in the previous chapter, we do not wish to create the impression that the Mediterranean past is somehow divisible into two, with microecologies in one category and the rest of 'the historical process' – so much of it created in towns – in the other. A microecological approach, we suggested, reaches out into the more usual domains of research. Urban history should certainly be reckoned one of these domains. And yet we shall not be particularly concerned to establish interdisciplinary connections with it. Indeed, in the full discussion of Mediterranean settlement patterns reserved for Volume 2, towns will not be allocated a particular subsection to themselves; nor, after this chapter in the present volume, will the words 'town' or 'urban' be used with reference to anything more than their architectonic distinctiveness or their legal status. This strategy, paradoxically, is not designed to show that town life is here somehow of only marginal interest. On the contrary: urban history is far from being mere 'superstructure' on a microecological base. The point is precisely that it is indivisible from the broader canvas. In that case, should a town, or a part of a town, not have been included among our examples in Chapter III?

A partial response to the question might be to assert that there is at least scope for a history of the region which starts from its countryside and, as it were, looks inwards to the town – as against one which, in Braudellian fashion, implicitly surveys the area from the vantage point of a city wall. Towns have perhaps dominated the historiography of the Mediterranean – as they are supposed to have dominated its landscape – for too long. The 'ruralization' of European history referred to in our earlier discussion of the *Annales* school (II.3) could, for all the field surveys and village studies now available (BE III, BE VI.2), be prosecuted still more vigorously in a Mediterranean setting.

Further response to the question thus requires something stronger than a mere shift of emphasis. First of all it must involve recalling the number of areas and periods that cast doubt on the degree of urban orientation typical of the Mediterranean past. There were, for instance, few towns in the extensive regions of classical Greece that were classified as *ethne* (peoples). Again, since Antiquity, much of Mediterranean Africa or Spain has been only barely urbanized for quite long stretches of time. The same could be said of central Anatolia. Counter-examples such as these could still, however, be dismissed as peripheral – to an urban 'core'; they evade the question of whether the prominence traditionally allowed to the urban history of the Mediterranean can be accepted, even in modified form. An alternative, but still 'ruralizing', approach might take its cue from the estimated proportion of Mediterranean populations that did not reside in towns. That would necessitate more than just a shift of emphasis, or an attentiveness to non-urbanized areas and periods. But speculating about this extra-urban proportion of course raises another large question: one of definition. Our estimate of the characteristic urban population of the preindustrial Mediterranean – 3, 5, 10 per cent: a figure of that order – will naturally depend on the kinds of settlement that we are prepared to count as towns and the number of them that we thus identify. But what is a town?

2. Definitions

Urban geographers and historians have typically sought a definition in terms of concentration of population and diversity of non-agricultural pursuits. To qualify as a town, that is, a settlement must have reached a certain size and density; it must include a substantial number of people not primarily engaged in producing their own food; and the occupations of the latter must be sufficiently various – aristocratic leisure, government, administration, religion, trade, manufacture, service, and so forth. The great difficulty is of course that these four criteria – population size and density, size and diversity of non-agricultural sector – each refer to a continuum. There is no readily agreed size or proportion that will distinguish a town from, say, a large village, a royal manor, a self-sufficient temple-complex, a 'mega-monastery' (e.g. San Vincenzo al Volturno: Hodges 1997). Indeed it is a commonplace of urban history that many settlements usually identified as towns have been smaller than large villages of the same period, and that the greatest diversity of occupation may be regularly exhibited in a rural market or coastal emporium. No exquisitely extended catalogue of possible urban functions – and some of them contain as many as a hundred – can dispel the unease created by such awkward cases. Any definition of a town is bound to contain arbitrary elements.

These difficulties have, however, usually not been allowed to call into question the validity of urban studies (historical, sociological, geographical, or whatever) as a distinctive branch of scholarship. Reassurance has been sought in the simple – and, so far as it goes, quite compelling – argument that it is possible to distinguish most towns from most other forms of settlement without being able to decide all hard cases. In other words, the extremes of the continuum can clearly be differentiated from one another even if its middle range is ambiguous. But this argument, though persuasive, is generally confounded by lack of evidence.

Since reliable statistics about population density and occupational structure in the preindustrial past are usually lacking, studies of urban systems have tended to invoke a crude demographic criterion: only settlements of more than 10,000 people – or a figure of that order – qualify for discussion. This strategy has the clear advantage of eliminating a good many potentially difficult cases. But numerous smaller settlements, many of which might well in other circumstances have been categorized as towns, are also excluded. And that exclusion is particularly unwelcome so far as the Mediterranean is concerned. So many of the settlements on which its reputation as a highly urbanized region must largely depend have sheltered no more than one or two thousand people – 'small towns' on certain definitions but towns none the less. Moreover, some densely packed villages, for instance the 'agro-towns' of southern Italy, remain within the terms of reference despite their inhabitants' narrow range of occupations, and despite the uncertainty about their status expressed in that ungainly label.

Political, legal, social or architectural criteria have also frequently been advocated by students of urbanism. One possible advantage of this strategy is that it in effect shifts responsibility for definition onto the past: it substitutes indigenous for modern analytic categories. A town is what each age takes it to be. Each town becomes, as the title of a stimulating monograph has it, an 'argument in stone', a statement of civilized values, a declaration of the local nature of urbanism (Carver 1993). It 'constructs', some might be tempted to say, a particular kind of space (H. Lefebvre 1991). But this approach is ultimately no less troublesome. First, it leaves out settlements that would normally qualify as towns in social or economic terms but which did not frame their arguments in the expected way, lacking the requisite status or the appropriate buildings (such as, in pagan Antiquity, temples and baths); or conversely, it uncomfortably includes very minor settlements which resembled the larger towns only in that – to take a medieval example – they were the seats of bishops. Secondly, when essentially historical criteria are invoked, there is a danger that historians may carry over one particular age's or culture's 'construction' into other periods for which it may well be unsuitable. If that particular anachronism is avoided, then we are still left with urban history as a kind of fashion parade, in which one urban 'style' succeeds another for no deeper reason than changing taste. Long-range comparisons of the type that we attempt in this book become very hard. The circuit of walls, the public amenities, the charter in the archive: these tell us about inflections in the history of values more than about the history of settlement – which is more to our purpose here. The early medieval village huddling beneath the still imposing defences of an otherwise derelict ancient city, and still 'hiding' behind its name, furnishes the clearest reminder that neither location nor nomenclature confer uncontroversial urbanity on a site. Classical criteria have bedevilled the evaluation of early medieval settlements (B. Ward-Perkins 1997). Such criteria create the impression that specific architectural styles and forms are diagnostic of true urbanism. Yet architecture is not that reliable a guide. With respect to early medieval Rome, for example, it emerges that the apparent caesuras in architectural activity which seemed quite nicely to reflect phases of extreme political turbulence were in fact almost as full of building projects as was the 'Carolingian Renaissance'. Ecclesiastical patronage of church construction proves to have been no respecter of Dark Ages (Coates-Stephens 1997; cf. Krautheimer 1980, ch. 4;). Quite generally, moreover – not just with regard to the early Middle

Ages – adopting a historicist definition can tend to promote exaggerated interest in simple continuity or discontinuity from one period to another: more subtle alterations in the character of settlements are overlooked in favour of a simplistic answer to the question of whether or not one particular feature survived (e.g. a regular street plan: but cf. B. Ward-Perkins 1995). And the corollary is that insufficient attention may be given to new settlements of urban character that lacked the appropriate rank and appearance.

Definition in historical (indigenous) terms is thus no more satisfactory than reliance on an arbitrary demographic threshold. A fault more evident in the historical approach but actually common to both definitions – and one that deserves emphasis in the present context – is the insufficient attention paid to variety and change. *Geographical* variety first of all: subtly differing kinds of settlement have coexisted within a very short distance of one another. But this is partly because of *chronological* variety: settlements in the Mediterranean, many of them extremely small, have slipped in and out of whatever category may be established to contain them – and it would be rash to assume that, in doing so, they have necessarily undergone some important transformation – across a qualitative frontier from, say, urban to non-urban. We should imagine them as being in flux from year to year, even from day to day – just like other microregions made by mobile Mediterranean people (IX.5–6). They may evolve at a very great pace, exhibiting frequent changes of population density and disposition, social institution or economic function – all perhaps beneath a relatively immutable architectural carapace. They are indeed, we suggest, the ultimate microenvironments, taking anthropogene effects on the landscape to their extreme conclusion, while remaining as fickle in their forms as any of the ecologies already encountered.

Relatively short-term variations in the number and hierarchy of urban settlements within any given region can be quite striking in scale. The processes of *synoicism* and *dioicism* (by which villages respectively aggregate into a city or emerge from its fragmentation) are well known to ancient historians. A celebrated example is provided by Mantinea in the centre of the Peloponnese (Hodkinson and Hodkinson 1981). During the sixth century B.C. a city developed there out of a conglomeration of small agricultural settlements that supported a previously dispersed elite. Yet in 386 B.C. – Xenophon (*Hellenica*, 5.2.6–7) gives a vivid account – an alien political force, finding this arrangement unsatisfactory, arbitrarily abolished that city and at a single stroke returned the region to a village settlement pattern. Mantinea the town is a precarious conceptual tool.

So much for the ancient world. It may less often be appreciated that urban settlements have been comparably fluid in later periods of Mediterranean history (though cf. Bintliff 1998). Terranova, in Sicily's Val di Noto, is for instance listed as having over 4,000 hearths in the tax return of 1276–7; 'by the late fourteenth century, Saracen attacks and the plague had reduced it to little more than a hamlet' (S. R. Epstein 1991, 24). During roughly the same period Prato lost over 75 per cent of its population (Herlihy and Klapisch-Zuber 1985, 62). It would be unwise to assume that the various visitations of the Black Death render these demographic losses utterly exceptional. Anatolia supplies several telling examples. In the twelfth century the small settlements of the Menderes valley were regularly evacuated as Greeks, Turks or Western Crusaders began their campaigning season: the population simply removed to the surrounding hills (Whittow n.d.). Of course, not all demographic fluctuations were so rapid. A place such as

Erzurum required about a century to empty and fill up again during the early modern period (Faroqhi 1984, 73). In rather less time, between about 1560 and 1610, the seaport of Izmir (ancient Smyrna) changed from a sluggish harbour peopled only by a few Turks into one of the most significant of Levantine emporia. The transformation was brought about by enterprising local officials, who took advantage of slackening Ottoman control to break Istanbul's commercial monopoly (Goffman 1990). A final example: the gateway city, Šaltiš, which processed and exported the fabulous metal resources of south-west Spain, bloomed and withered within a few generations (Bazzana and Trauth 1997; IX.2).

Simple enumeration of the central places of past landscapes can thus be very hard. Because of their *fragilité*, locations of great social or economic significance may for one thing be invisible to the source tradition, whether juridical, archaeological or descriptive. The demographic graph of secular fall and increase moreover tells nothing like the whole story. Some communities for instance create an architectural façade for their shared activities which can look like that of a town even though it reflects no lasting social life or economic function: except on a few special occasions the population lives elsewhere. In the eleventh century for example, according to its bishop, John Mauropous, the Anatolian city of Euchaita was transformed from a wasteland into a populous market centre by the great feast of St Theodore (Haldon 1990, 117; X.10). It would have reverted to waste once the fair was over: 'le cittadi termine hanno.'

A more complex instance of labile 'urbanism' – from the Roman imperial period – is provided by Oenoanda in the mountains of Lycia. Although not particularly grand, its remains are well preserved; and it is clear that, as a nucleated settlement, it did not have a large permanent population. Its inscriptions are unique, however; they show how the self-expression of a local elite could flourish even in the absence of the economic and social institutions of a city. The discovery of the longest known ancient genealogy, of a complete philosophical text, and of a great dossier of regulations for a festival – all of them inscribed on stone – make the workings of this apparently insignificant centre visible to us with an unusual clarity. Here are some of the festival regulations.

> The following will process through the theatre and will sacrifice together for the days of the festival . . . The Organizer of the Festival, one bull; the priest of Zeus, one bull; the three festival supervisors, one bull; the secretary of the council and the five magistrates, two bulls; the two market-supervisors of the city, one bull; the two officials in charge of the gymnasium, one bull, the four treasurers, one bull; the two rural police officers, one bull; . . . of the villages, Thersenos with Armadu, Arissos, Merlakanda, Big Mountain, [ ]lai, Kirbu, Euporoi, Oroata, [ ]rake, Valo and Yskapha, with their associated farmsteads, two bulls; Orpenna Sielia with associated farmsteads, one bull; Ogarsan [ ]ake with Lakistaunda and Kakasboi Killu . . . (trans. [slightly adapted] Mitchell 1990, 185–6; cf. Wörrle 1988)

A city that had seemed little more than a symbolic focus, the setting of elite display, is now revealed in the full complexity of its relations with the countryside where its population resided for most of the time – a hinterland of some thirty distinct settlements, no doubt in at least as many separate microecologies, with names redolent of a non-Greek past. And all this in a mountain environment that can hardly be regarded as one of the most productive in the Mediterranean (cf. III.6).

Such shifting and paradoxical forms of settlement might of course be more effectively categorized by reverting to the criterion of occupational diversity, than by considering only size and status. Yet even if, in any given case, the details of occupational structure could be known, the percentages that they comprised would often create an entirely misleading impression of stability – stability of occupation, in a world in which the maxim of survival is 'diversify' (Chapter VI); stability of people, second, who are actually very likely to be 'on the move' (Chapter IX). Worse, to look at occupational structure would still be to underwrite an attempt to separate towns from other kinds of settlement by establishing a different, yet no less arbitrary, threshold. The criterion of diversity does not therefore respond to what, in looking at its economic aspect in Chapter III and its demographic aspect just now, we have already identified as the 'fluidity' of Mediterranean forms of habitation. The mobility that we shall see to have been common among Mediterranean populations undermines all attempts at clearly distinguishing settlement types.

3. The Urban Variable

Given such problems of definition, it is worth asking the obvious yet rather neglected question of why it is important sharply to differentiate towns and cities from the remainder of the continuum. There seem to be only two plausible and intellectually respectable answers to that. One of them depends on a simple matter of heuristic convenience. For the historian at least, many settlements are extremely poorly documented, and for practitioners of any relevant discipline the total number may be too large to be manageable; it is therefore sensible, if arbitrary, to restrict study to the 'upper reaches' of the hierarchy: the larger, denser, more diverse instances. In that case, a synoptic account of Mediterranean habitation (such as we propose for Volume 2) can ignore the restriction and attempt to embrace the entire range of settlement types.

Mere heuristic convenience is, however, not likely to be the sole or even the principal reason for attempting to exclude many sites from discussion. The major objective – common to urban historians and social scientists of all kinds – is surely to register the conviction that, despite its obscurity, there really is some distinctive urban variable, some feature of town life that makes it qualitatively, and not just quantitatively, different from that of other settlements. If this variable is known, the value of urban studies as a separate discipline will be self-evident. If the variable has yet to be identified, then (so it might be argued) a narrow focus will be necessary to isolate and display it.

We must, however, ask whether there is indeed such an urban variable. What is achieved by predicating of a given instance of social or economic behaviour that it happened in a town? 'A town is a town wherever it is', Braudel famously wrote (1973, 373). And a great deal of urban sociology and history has rested on the assumption that the town does constitute a kind of space, a generic social entity. After all, population densities are likely to be higher in towns than elsewhere; more urban dwellers depend on the market for food than would the inhabitants of other settlements; economic activity, because confined within a smaller area, is likely to be more intense; levels of social interaction generally are likely to be much higher and (perhaps) less bound by tradition; urban demography – and even psychology – are likely to be distinctive, the former dominated by immigration, the latter by the supposed effects of social atomism, the 'lonely crowd'.

Yet once the analysis is pressed beyond the enumeration of such basic, and far from inevitable, features, it is hard to avoid the conclusion that the urban variable has still not been defined with any rigour. Grant that the town's properties include concentration and intensification (cf. H. Lefebvre 1991, 101). If the question be raised of *what* is concentrated, and by *whom*, then the town immediately becomes too large a unit of analysis: the discussion must turn to particular social groups (burghers, entrepreneurs, aristocratic financiers, artisans, unskilled labourers, visiting smallholders, and so forth) and to particular forms of action (bureaucracy, conspicuous consumption, investment, manufacture, migration . . .). The supposed generic social entity disappears and something much more particular and various takes its place.

In another sense, however, the town is too *small* a category. Description of the forms of interaction observable within it must inevitably draw on the terminology and conclusions of a wider social history: it will not be claimed by even the most radical urbanist that towns provide the setting for unique, uncontaminated, forms of life. No longer seen by medievalists as 'islands in a feudal sea', towns should perhaps not be conceived in insular terms at all (any more, we argue, than real islands should: V.2, VI.11, IX.2–3). Artisan manufacture, for instance, has hardly been a purely urban activity. It certainly was not so in Antiquity (V.4); nor, it seems, for much of the Middle Ages. In any case, in order to characterize its urban peculiarities, if it has any, extra-urban comparisons would have to be drawn; there could be no other way to bring the peculiarities into focus. And to establish its sources of material and manpower and the extent of its markets, the historian would have to range well beyond the urban scene. In short, nothing is achieved by considering urban-based activity in isolation from the wider economic world. If the town is too big a unit of analysis it is also, for different reasons, not nearly large enough.

Empirical support for that paradoxical contention can be found in the direction taken by the historiography of the origins of capitalism, industrialization or modernity (all variously defined) in late medieval to early modern Europe. This historiography reflects a debate that is tangential to the study of the ancient or medieval Mediterranean, but that has, none the less, gained considerable influence over the way in which the region's towns have been conceived. Three traditions of research can be loosely discriminated – and, in Hegelian spirit, we can identify them as thesis, antithesis, and synthesis. Each of the three can conveniently be associated with a different 'star' name. Adherents of the *thesis*, who may count Pirenne among their number, take as starting point the apparently close correlation in Europe between levels of urbanization and economic precocity (*vide* northern Italy and the Low Countries). They emphasize the 'heterogeneity' of urban social and economic life, its detachment from that of the surrounding countryside (supposedly the crucial division of labour), and its consequent potential for self-transformation. According to this tradition the rural economy has nothing progressive to contribute. It can only respond passively to the electric shocks aimed at it by nascent capitalists in the towns.

> The modern capitalist economy, with its motivation of investment, bourgeois and proletarian classes, the penetration of production by machines and of exchange by

> price-fixing markets, developed from and in the autonomous economic systems of the towns. The rebirth and extension of Classical property rights and money, and the exchange relationships which they encouraged . . . could only develop in urban enclaves where the needs and will of merchants prevailed. This renaissance was, therefore, necessarily an urban phenomenon: the capitalist economy of the modern world could only be born, expand and ramify in the towns of western Europe. (Langton and Hoppe 1983, 13)

What is significant about those ideas, there presented in the inevitably bare summary of a survey article (and by no means representative of its authors' own opinions), is how few of them can still be accepted. There is no need here to rehearse the terms and vicissitudes of what has come to be called 'the Brenner debate' about the agrarian origins of capitalism (Aston and Philpin 1985; cf. VII.4). The mere mention of its subject matter is sufficient to indicate a radical alteration of emphasis in the search for the beginnings of modernity – from the towns to the countryside.

That is the *antithesis* in the Hegelian triad. Although its representatives have gained the advantage only comparatively recently, in this second tradition Marx (that is, the Marx of *Kapital*, vol. 1) might replace Pirenne as symbolic luminary because so much of the discussion concerns the consequences of the end of feudalism (Holton 1986, 41–8). Yet it is of no particular significance in the present context whether the terms of any agreed conclusions bear interpretation in Marxist terms; whether the genesis of rural capitalism be ascribed to certain English landlords or, in an alternative proposal mainly associated with the term 'proto-industrialization', to small farmers in pastoral areas: for us, the salient feature of this line of enquiry is that it effectively dispels the notion of towns as the only begetters of the modern European economy. Their creative heterogeneity can no longer be upheld.

Even so, neither Brenner nor his critics have really arrived at a durable solution to the problem of origins. The third of the three traditions referred to therefore offers something like a *synthesis* of the opposing schools of Pirenne and Marx (cf. Holton 1986). The presiding deity is now, perhaps unexpectedly, Weber. In his long, posthumously published, essay on the city (1958) he was not, in the end, seduced by the idea of the town as a distinct empirical entity or analytical construct. Instead, he offered a comparative account of the social structures to be found *within* cities, locating these where necessary in the far more ample historical setting of the development of capitalism. In Weber's own projected outline for Part 2 of *Economy and Society*, the substance of the essay was to bear the significantly longer title 'Non-legitimate domination. (The typology of cities)', and it was to be only one section of a much larger portion of the text devoted to 'domination' (1968, 1.lx). Weber's interest lay in the particular form of power, not in the city as a *Ding an sich* (cf. Finley 1981, 16).

Towns, as we have said, taking our cue from Weber and applying this lesson of historiography to the matter of urbanism as a whole, are arenas, addresses. And addresses, in themselves, make nothing happen. Rather than stress either urban or rural dynamism, therefore, locating the first stirrings of transformation in one or other sector, the adherents of the synthesis tend to dispense with the urban–rural dichotomy altogether. What matter are social institutions or processes (or, we add, ecologies) – on which town walls do not necessarily impinge.

Concerning a conference on 'towns and economic growth' held in the mid-

1970s, the implications of which have still to be fully assimilated, it was concluded, optimistically, that the papers revealed 'a new sense of how urban history might proceed'.

> And it was one which involved a quite radical redefinition of the town as an object of study; a redefinition which sought to undo the conceptual separation of town and country and re-unite the town with its larger social environment . . . The debates of the previous decade . . . and the accompanying concern to tease out an 'urban factor' in economic and social history seemed to have lost their momentum – at least in their familiar terms. The tendency, rather, was to move away from any attempt to treat towns as variables in themselves – whether dependent, independent or merely intervening – and also from the attempt to regard the town as a generic social reality, and to see cities and towns instead as fields of action integral to some larger world and within which the interactions and contradictions of that larger world are displayed with special clarity . . . The town, then, is an *explanandum*, not an *explanans*. Within the analysis of a chosen social system the relationships concentrated spatially within towns present themselves for explanation. But . . . they should present themselves specifically in relation to our understanding of the system in which they occur and not as exemplars of an autonomous urban reality. (Abrams 1978, 2–3, 30)

Fields of action integral to a larger world: it is instructive to note the extent to which that way of conceiving towns has come to be applied even to the most dominant or dynamic of great cities. A London or a Madrid must be viewed in the same systemic terms as should the average 'small town'. 'London, a mighty beating heart, causing everything to move at its own rhythm, capable of creating chaos or calm by turns' (Braudel 1981–4, 1.528). And yet, as it turns out, the stimulus given to the demography and economy of seventeenth- to early eighteenth-century England by the most rapidly growing major city in Europe cannot be analysed in terms of any discrete metropolitan variable. Its only convincing interpretation derives, on one hand, from the general context of state and society in England under the Tudors and Stuarts and, on the other, from an awareness of particular changes within the city, for instance among its merchant classes (Campbell et al. 1993; Wrigley 1978a; 1987, 190; Morley 1996, 28). As for the succeeding period: Daniel Defoe's observation in his *Tour through England and Wales* (1724–6) that all the gentlemen of the Vale of Aylesbury were graziers, but not all the graziers were gentlemen, shows something of the economic changes wrought by Georgian Londoners' demand for boots and shoes (Reed 1996, 66). Their manufacture would have been carried out on a small domestic scale, 'as likely to be found in the country as in the town', and their marketing, before being transported to the capital, would have occurred in a shifting variety of settings, from markets in the small 'feeder cities' of London's immediate hinterland to inns and private shops (1996, 68–9).

A comparable degree of influence, but of a less beneficial kind, has been ascribed to a leading city of the Mediterranean world during a slightly earlier period:

> In the sixteenth century Madrid undermined the economic position and central-place functions of the manufacturing towns of the Spanish interior. In the seventeenth, Madrid encouraged the development of a rural society based on local power, low-order central places, and markets and land usage that left few incentives for the peasant to increase productivity . . . The capital city extracted resources

> from all over the interior, both by subsidizing its own urban market and by administratively redirecting regional commodity flows . . . In brief, the rise of Madrid between 1560 and 1630 contributed to the decline of the Castilian economy. (Ringrose 1983, 14–15)

That seems overwhelmingly to make the 'urbanist's' case. Madrid's impact must, however, also be estimated with reference to a considerable number of other factors contributing to the area's stagnation: imperial policy, weight of taxation, the virtual disappearance of the Castilian textile industry, and suchlike. And to embark on such a catalogue is, once again, to broaden the analysis well beyond Madrid towards an investigation of the entire regional economy, and to conceive the city as the point at which the frictions and failures of the whole system are best revealed (contrast Morley 1996, 30). Moreover, the appropriate complement to this approach must surely be an examination, perhaps through Weberian lenses, of particular intra-urban 'modes of domination' – the complex of political, administrative and social institutions for which the name 'Madrid' is such inadequate shorthand.

We cannot generalize in *economic* terms from Madrid to other Mediterranean capitals: by the later eighteenth century, for instance, the hinterland of Naples presents a far less dispiriting picture (Marin 1996, 160–1). But, at the *conceptual* level, Madrid is exemplary. For it can be said that, if a damagingly dominant early modern city such as Madrid has to be treated in the way just outlined – at once set in the widest possible context and conceptually dismantled into its socio-economic components – then it is unlikely that *any* preindustrial Mediterranean town is rightly understood as an independent variable. To take two obvious examples from earlier periods, the cities of Rome and Constantinople undoubtedly constituted extremely important elements in the economies of their respective empires: their populations' food requirements necessitated far-reaching governmental schemes for extraction and transport which have seemed to some to form the armature of the Mediterranean economy (BE V.4). And these will have been an important stimulus to production and settlement in particular areas such as Italy or North Africa or north-western Anatolia. But it cannot be said that either of the two great cities, or indeed the ensemble of towns in their successive empires, was responsible for empire-wide economic development (Hopkins 1978a). Like Madrid or London, they can be analysed only as parts of a system – a system in which, it increasingly seems, the distinction between town and countryside is not an important one to make:

> The phenomenon of urbanism cannot be separted from its historical context; it is not an independent cross-cultural variable . . . The growth of the city of Rome and the changes which it brought about in the economy of the peninsula must be seen in the context of changing structures of power in Italian society . . . (Morley 1996, 185)

Our microecological model answers, then, to the direction that some urban economic historiography has hesitantly taken. It encourages us to conceive towns less as separate and clearly definable entities and more as loci of contact or overlap between different ecologies. Towns are settings in which ecological processes may be intense, and in which the anthropogene effect is at its most pronounced. But they are not – or not simply by definition – more than that. And they should not be presented as conceptually detachable from the remainder of

the spectrum of settlement types. Towns, it would not be entirely fanciful to suggest, are rather like mountains (III.6). The distinction between mountains and hills and downs must be essentially arbitrary, and the range of ecologies to be associated with them is very much less narrow and predictable than might have been expected.

Agreement on that cannot, of course, resolve all the conceptual difficulties attendant upon the project to 'ecologize' towns. The larger framework within which they should be set needs more exact delineation. There are, moreover, other bodies of urban theory that must briefly be confronted and, so far as this project is concerned, either modified or explicitly rejected.

4. Types and Theories

Since this chapter is 'against *villes*', the gist of our argument at this point might described as 'against typologies'. The most enticing typology would be that which differentiated Mediterranean towns from those in northern Europe or the non-Mediterranean Middle East. But if we are not here concerned with towns as such, we shall not *a fortiori* hope to be able to identify the essence of Mediterranean urbanism. We plan, rather, to indicate some characteristic features of Mediterranean *settlement*. It is worth remarking that not even Braudel ventured to pronounce on '*the* Mediterranean town'. He reasonably contented himself with sketching the common demographic and political fortunes of Mediterranean towns in the age of Philip II (1972a, 326). Even at the most elementary topographical or architectonic level, there are no specifically Mediterranean urban forms. Only under the Romans, after all, did larger settlements around the sea even begin to approximate to uniformity of architecture and status, let alone to socio-economic function. And they shared that uniformity with provinces remote from the Mediterranean, such as Britain. Moreover, the classical pattern of regular street plans and open spaces surrounded by public buildings was not extraordinarily durable: in some places, it may, on one influential appraisal, already have begun to be eroded in the later Roman period before the Arab conquests (Kennedy 1985a, 12; though cf. B. Ward-Perkins 1996, 150–1). Thereafter, for the historian of urban form, all is divergence. Even where medieval European towns lay on classical sites, they departed from the ancient norm in an immense variety of ways, none of them peculiar to the Mediterranean or indeed especially noticeable in the region. Few would want to draw close parallels between prehistoric Boğazköy, one of the first 'cities' of the region, where public access to premises took place over the roofs of the neighbouring buildings, and classical Athens. But the topographical and functional differences between major settlements in *post-classical* times are scarcely less far-reaching.

It is therefore no surprise that the often-vaunted 'Islamic city' – supposedly common in, but of course not peculiar to, southern Mediterranean lands – seems to have proved a chimaera (Eickelman 1998, 96–110). The debate on it is in any case repetitive, ambiguous in its terms, and limited in scope to architecture and forms of association – bazaars, street plans, artisan quarters, guilds, and so forth. The first Islamic cities retained, as neighbourhoods, the identities of the villages from which their inhabitants came; what first united them was little more than their address. Even in a developed form, the Islamic city as a type

has little to contribute to an ecological approach. A study entitled *Muslim Cities in the Later Middle Ages* is to be read, its author tells us 'less in terms of "urban" history, a case examination of the functioning of cities, and more as a partial contribution to the study of a wider history of Islamic societies . . .' (Lapidus 1984, xvi). The same should be said of works invoking typologies of European cities. Weber's patrician and plebeian cities (1958); Braudel's bureaucratic, clerical, commercial, and industrial towns (1972a, 323) or his later, still essentially Weberian, political distinction between open (ancient), closed (medieval), and subject (early modern) towns (1981–4, 1.507–20) – these and equivalent taxonomies have the merit of directing attention away from the idea of the town as a unitary thing in itself (an idea to which Braudel none the less committed himself when he wrote that 'a town is a town'); they nudge our attention towards the processes at work within specific social settings. They help to bring out something of the distinctive sociological features of different periods in the history of settlement: for instance, the absence of clear *political* and *cultural* separation between city and countryside during much of Antiquity (Wallace-Hadrill 1991; Purcell 1995c). But their ecological correlates remain to be demonstrated. Deployment of their component terms achieves very little on its own.

A similar criticism might be levelled at two other theoretical approaches to urbanization that ought to be considered here. Both are of increasing interest to historians as well as to geographers and economists. Both have implications for the future study of settlement distribution. And yet neither can be pressed into service on this occasion. We do not presume to contribute to the general debate about their progress and prospects; we simply need to indicate why their usefulness is, for present purposes, limited. They do not meet the criteria of applicability to the microecological model already set out: they are not fluid enough; they yield notions of the historical landscape that are too easy to represent graphically.

The first of these bodies of thought is *central place theory*. This has the distinct merit in the present context of relating smaller 'places' to their hinterlands and larger ones to subordinate (or 'tributary') settlements. That is, it sees each settlement as part of a system. The system is interpreted as hierarchical, and the degree of centrality achieved by a place is defined in terms of the goods and services that it offers and its role as a mediator between tributaries and larger system. Thus any given place (or node) will be included in a number of overlaid – nested – larger regions. The model is indeed theoretically susceptible of global extension.

Now there are clear reasons why settlements might become loosely arranged in such a hierarchy. Larger settlements will meet a wider range of needs than smaller ones and therefore be more widely spaced: their services will be required both by the local population and by those who have travelled from parts of the surrounding region. Most villages need a baker but only more substantial places can support a tailor (Wrigley 1991, 10). Yet, if the model be considered at a less abstract level, then its usefulness to the historian of the preindustrial past is not immediately striking.

There obtrudes, first of all, the basic difficulty of finding sufficient evidence about the functions of particular settlements to specify their position in the presumed hierarchy. We have already seen how plastic any functional definition of a Mediterranean site must be. Secondly, consequent upon that, there is the difficulty of defining the regions within which centrality is to be measured. Such

definition should be the goal of enquiry, not its starting point. Thirdly, even were the right evidence about functions and regions apparently available it would, we contend, be the wrong way to envisage the Mediterranean landscape. Our arguments to be presented in following chapters (especially V and IX) about the wide horizons and mobility of Mediterranean 'settlers', together with our earlier adumbration of the essential mutability and rapidly shifting contours of microregions and the links between them (Chapter III and Section 2 above), imply that central place theory offers an image of settlement patterns that is too narrowly, and too statically, conceived. Despite attempts to embody it in arithmetic rather than geometry, the theory usually resolves itself into a diagram of nodes surrounded by polygons (representing hinterlands) and connected by simple lines (representing communications). Space is assumed to be uniform and simply divisible. This is 'Routes et Villes' by other means: quite different from the image of the Mediterranean that we wish to convey.

A fourth source of concern is the origins of the model in the study of modern, integrated, industrial economies. This is the domain to which it seems most suited, either as analytical tool or as means of predicting where new services should be located. Yet even here its proponents are often hard-pressed to account for empirical departures from the 'norms' that the model specifies. And historians of the comparatively recent past and of industrialized areas have also found it at best incomplete, and at worst wrong, as an explanation for the geography of habitation and function.

Finally, the model in any event ought to be evaluated in the light of the second, associated, body of ideas which students of urbanism have found attractive yet which we must also sidestep. This again deals with the spatial distribution and systemic interrelation of settlements, but (usually) in terms of population rather than goods and services (or at least with crude aggregates, the number rather than the variety of services offered). An obvious feature of settlements in a particular territory is that those of largest population size are fewest in number and that, conversely, for any given population size the smaller it is the more numerous are the settlements that correspond to it. The simplest form of the relationship that can thus be detected between towns and cities when ranked in order of size is that the second largest city will be half as big as the largest, the tenth largest one tenth as big, and so forth. More generally, if the sizes of settlements in a modern urban system are plotted logarithmically against their rank they are often found to adhere more or less closely to a straight line. They are then said to obey the *rank-size rule*, evincing 'lognormal distribution'.

Like central place theory, this analytical technique has the merit of treating individual settlements as part of a larger whole, and of emphasizing the continuum of settlement types. Applied to urban systems of the last few centuries it has yielded some highly significant results. These systems are shown to have been surprisingly regular. Beneath the apex formed by the great cities there lay 'a pyramid, rather than a mound of variable and indeterminate shape' (Wrigley 1991, 110). Regional differences in the shape and slope of the logarithmic graph have also been demonstrated – differences between, for example, North and South in western Europe during the early modern period (de Vries 1984, ch. 6).

Grave difficulties none the less attend the analysis of rank-size distribution in earlier centuries. Quite apart from problems of counting posed by mobility (IX.5), the population of ancient and medieval settlements is impossible to

estimate with enough exactitude. Equally damaging, the boundaries of the regions in question are once again impossible to specify. Modern national ones are unlikely to be appropriate (though historians have often failed to acknowledge the fact); geographical ones will not necessarily be any better; and if the specification be left to intuitive judgement as to what is to count as a single system, then the results will have no independent force because the curve of the graph is bound to reflect the size and shape of region that the analyst has chosen. The model becomes feebly self-validating.

It might further be questioned whether size of population is the best indicator of a city's importance within its system. Populations may concentrate in particular settings for any combination of a variety of reasons – and, around the Mediterranean at least, sometimes very ephemerally. The selection of a different criterion of rank, such as the scale on which some economic or cultural function is fulfilled, can produce a graph of far different curve or gradient from that obtained by the usual demographic measure. Worse, the whole theory is coloured by a teleology which sets up as the goal of all economic development a lognormal distribution with a particular slope (in demographic terms, when the tenth largest city is one tenth the size of the very largest: a slope of −1). All other curves are implicitly held to be departures from, or anticipations of, this norm – which is, significantly, that of modern, integrated, industrial society. Thus a premodern slope may be adjudged 'immature' if its slope is less than −1. Cities represented on it are 'too small' or 'too large'. And yet, although the goal has been stipulated, the variety of paths towards it remain to be disentangled. And the reasons for recurrent forms of 'deviation' – such as that of *primacy*, where the metropolis is larger than the rank-size rule predicts – remain to be clearly established.

Given these problems of evidence, definition and explanation, our particular reservations about the heuristic usefulness of invoking the rule in the study of Mediterranean settlement may seem relatively trivial. From our point of view, an initial problem is that too much attention is in practice given to the upper reaches of the settlement hierarchy, and that an arbitrary demographic threshold is usually required to make the calculations manageable. The pronounced downward turn occasionally taken by an otherwise lognormal graph when it reaches a certain low rank has been held by some analysts to be an indication of the transition from urban to rural settlement. But it is salutary (and, for us, comforting) to find that no full and acceptable explanation of the phenomenon seems to have been provided. The relatively smooth continuum that we should prefer to envisage between megalopolis and hamlet remains, from this point of view, theoretically intact.

The image of a settlement system associated with that continuum is, nevertheless, for us an inappropriate one. It is again static, incapable of responding to a Mantinea as in a very short time it jumps from the top of the rank order to the bottom. It brings us back – disadvantageously – to nodes and their linear connections: drawing pins of different sizes, as it were, stretching ribbons between them. That is not ecology as we have defined it. Towns are not singularities, routes are not ribbons; a proper conception of both will resist the kind of systemic and mathematical approach that is as fundamental to rank-size analysis as it is to central place theory.

Rank-size theory does have one advantage for us. The analyses that have been produced of modern settlement systems strengthen our suspicions about the usefulness of *cultural* and *political* typologies as indicators of ecological difference:

> Since the existence of an urban hierarchy obeying the rank-size rule appears to be so widespread, it follows that it is compatible with a wide range of different political, social, economic and other characteristics, and this has important implications for some long-running debates about the city and its functions . . . (Wrigley 1991, 111)

A certain form of *economic* typology must now also be placed under suspicion. One of the long-running debates to which Wrigley refers has focused on a simple and apparently clear-cut distinction between cities that promote economic development and those that do not.

In one influential formulation this is a distinction between 'generative' and 'parasitic' cities (Hoselitz 1954–5). But the dichotomy takes several forms. It underpins Sjoberg's (1960) characterization of the preindustrial city (generally parasitic) and thereby gains a chronological dimension. More specifically, and of greater significance for our project, it resolves into an implied contrast within an earlier age: between the 'consumption city' of Antiquity and its more productive medieval successors.

5. Consumption

'By a consumption city', Werner Sombart famously wrote in *Der moderne Kapitalismus* (1916–27, 1.142–3), 'I mean one which pays for its maintenance . . . not with its own products, because it does not need to. It derives its maintenance rather on the basis of a legal claim, such as taxes or rents, without having to deliver return values' (trans. Finley 1981, 13).

In an obvious sense all cities are centres of consumption: civilization (in the strict sense) is possible only where the urban few can live on the surplus produced by the rural many. But Sombart was making a stronger point. On his definition the consumption city is a centre of consumption above all else. It does not reciprocate its economic 'debt' to the countryside in production or services. Naturally, these are available within it; but they are brought into being and principally maintained by the spending power of those in receipt of taxes and rents. Great city-based consumers dominate economically as well as politically. The countryman can buy produce and services from the city with the profits of selling his surplus grain in its market. But the effect of such transactions will still, at best, be no more than to return to him some of the wealth that he has already given up in rent or tax: a rebate, not a reciprocation. This model of urban society, refined and given prominence by Weber as an 'ideal type' most applicable to Antiquity, was revived by Finley and has often seemed so persuasive that 'consumption city' and 'ancient city' have been treated as virtually synonymous.

It is, of course, widely acknowledged that there have also been medieval or early modern cities that could be taken as satisfying Sombart's definition; Madrid provides a good example. The implied distinction between the ancient world

and subsequent periods is therefore not a hard and fast one. It is also – less often – acknowledged that neither Sombart's nor Weber's writings about cities merit the selective and simplifying accounts of them that have formed the basis of much subsequent discussion. For example, both men rested as much analytical weight on the *origins* of urban societies as on their mature configurations, which could be very different. Weber's ideal types, more particularly, were attempts to isolate, in pure form, select features of a complex social reality. They are heuristic devices: we should not expect them to have been empirically exemplified in full. In that sense, Weber did not intend us to think that consumption cities actually existed. (It has none the less been held (cf. Finley 1981, 20–1) that Mantinea in the Peloponnese was, unusually, a genuine instance because of the ease with which its inhabitants could be dispersed into villages. By contrast, we take Mantinea to instantiate a more widespread phenomenon: the blurring of categories through the mutability of settlement.) Nor did Weber neglect the similarities between ancient and medieval cities in his attempt to isolate their differences (Capogrossi Colognesi 1995, 36).

Yet, if any generalization can be hazarded about the city in Antiquity as a juridical, architectural and sociological category, it is after all that it was primarily the home of a governing class living off rents, taxes and agricultural yields. Manufacturing and commercial sectors were subsidiary, and relatively small. Sombart's model seemingly conforms to the contours of ancient cities so nicely. We are urged to contrast the medieval city in its most memorable form: 'the excavators of Tarsus have found no Cloth Hall . . . ancient cities lacked the Guildhalls and Bourses which, next to the cathedrals, are to this day the architectural glories of the great medieval cities . . .' (Finley 1985a, 137, pardonably overlooking the fact that Tarsus has not been excavated). The medieval city, it is there implied, was a 'production city'. For Finley, as for Weber and others before him, the immediate value of the consumption city was that it contrasted so well with medieval urban dynamism.

The major part of our response to the model, as to the distinction between ancient and medieval that it entails, will be set out in V.4. There, we consider the 'primitivist' or 'minimalist' conception of the ancient economy as a whole (a conception of which the consumption model has been a close ally) and we attempt to show why ancient and medieval economies can more profitably be compared rather than compartmentalized. The argument of Chapter V, however, makes no great distinction between urban and non-urban forms of economic production, organization or exchange, and presupposes the relinquishing of towns as a separate category. Here, then, we have to confront the model more explicitly.

It is worth observing, first, that this characterization of the ancient city is quite ancient itself. Indeed, with age, it has become a rather blunt instrument. It was first elaborated, with slightly differing emphases, during the decades round 1900, not only by Weber and Sombart but also by Karl Bücher (Morley 1996, 14–21). Its scope has varied. Sombart, reacting to Pirenne's optimistic assessment of the trading capacities of earlier medieval cities, invoked it to contrast the Dark and the later Middle Ages. Bücher used it for a broader distinction between ancient and medieval. In this he was followed by Weber, and much later (in the 1970s) by Finley, who was himself partly reacting to a *bourgeois* vision of cities, this time Rostovtzeff's, when he gave the model new life, with reference especially to the Greek *polis* (Lomas 1995, 1).

Such divergences notwithstanding, what these scholars all had in common, and what now above all 'dates' the model, is the explanatory task that they set it. The point of their respective typologies of cities was to account for capitalism. The underlying argument seems to have been of this order: capitalism originated in the (later) Middle Ages, not in Antiquity (or the early Middle Ages). Its cradle was the producer city. Capitalism is economic growth, and the opposite of growth is stagnation. The ancient economy was non-capitalist; therefore it must have been stagnant. The source of this inertia was the cities. Ancient cities must have been the opposite of producers, i.e. consumers. So we arrive at a pleasing symmetry: consumption cities were the cause of economic failure in Antiquity, just as medieval producer cities were later the cause of capitalism.

The primary objection is an obvious one. As we have seen above, when medieval historians now try to explain the genesis of capitalism – which is not that often – they no longer do so by exclusive reference to cities. Nor (as we shall see in the next chapter) is it any longer thought profitable to evaluate the ancient economy in terms of its presumed failure to be exactly like the later Middle Ages – that is, according to what it was *not*. Between capitalism and stagnation, there are other possible kinds of productive development, and at least some of these can be discerned in Antiquity. The example of that arch-consumer, imperial Rome, shows that a city of this kind can interact with regional economies in ways that are far more thoroughgoing than Sombart, Weber or Finley would have allowed. 'Its [Rome's] effects on the economy of its hinterland were far-reaching, and can indeed be described as progressive . . . The city of Rome . . . became a driving force in the development of the Italian economy' (Morley 1996, 185). No stagnation there; and even if the conclusion needs qualifying (Section 3), it is hard to imagine that the older Finleyan view could ever be reinstated.

Cities will be 'brakes' or 'accelerators' of the economy (Wrigley 1990) according to individual circumstances, not simply according to the historical period in which they belong – this is what accounts for the contrast between London and Madrid. But one general way to assess whether the consumption could ever have had the deleterious effects ascribed to it is to ask what difference its sudden disappearance would have made. Put another way: if nothing like a consumption city had ever existed in Antiquity, would it have been useful to invent it? Without the city nearby, the taxpayers would still have had to pay in cash or kind for the single greatest charge on the state, its army. They would also still have had to support the aristocracy in its rural residences: ancient *rentiers* 'consumed' everywhere, not just in cities. On the other hand those same taxpayers would probably have lacked the convenience of a large and regular market and a point of contact with long-distance trade. Their roads would have been neither so numerous nor so well maintained. And they would have had to cope with the presence among them of those who might have otherwise migrated to the city, thus potentially depressing *per capita* income. Even the pure consumption city would have had some advantages for those compelled to feed it.

If the consumer city model is robbed of its explanatory force, however, there is not much else that can be said in favour of its retention. For our purposes, it rests too heavily, and by no means appositely, on a few major examples – for instance ancient Rome as against medieval Genoa – to make its point (Finley 1985a, 125). It fails, that is, to evoke the full range of settlement types. And

although Sombart predicated his original analysis on the activities of a specific class of people, his model encourages reification of what should have remained abstract. It turns 'the consumption city' into an entity seemingly capable of independent action. It tries to reduce what in the ancient world, let alone the medieval one, were multifarious civic *economies* to a single balance sheet (cf. Osborne 1991a, 119).

The model is also usually taken to exclude non-economic benefits from its calculus. Yet if we must think of relations between city and countryside in terms of debt or reciprocation, then the religious, legal, military, administrative, sexual and medical services to be found within the city ought to be included in the reckoning. The emphasis would thereby be shifted away from what cities supposedly failed to do, and on to what their inhabitants actually did.

We prefer to conceive of settlements (rather than cities) as the sites of shifting, overlapping ecologies. So we question whether it is possible, or indeed desirable, to calculate and compare the net productivity of particular sites or categories of site. The rank-size regularity displayed by supposed consumption cities in modern times has already suggested that Sombart's model may embody a distinction without a significant difference. Further, the economic functions that inhabitants of ancient cities did in fact provide for their surrounding countryside may be found less wanting when weighed in a balance not prejudicially tipped by Bourses and Cloth Halls, a very culturally specific expression of economic dominance (V.4). Processing of raw materials, artisan manufacture, regular markets in which money could be earned to pay taxes as well as goods purchased, casual employment in building or carrying, servicing the survival strategies of storage and redistribution which we explore further in Chapter VI – these sectors of ancient civic economies were not as meagre as devotees of the consumption city have liked to suppose. Nor, as archaeology increasingly shows, did they minister so overwhelmingly to the demands of a civic aristocracy and its rural tenantry. Goods from some cities and from 'small towns' or *vici* are being found quite literally far afield, too much so to have been the effects of a 'rebate' (cf. Whittaker 1990; Barker and Lloyd 1991).

For all its faults, the consumer city as a type may well capture more of how flows of goods within cities were engendered and directed than do any of its more recent rivals, such as the 'processor city' or the 'service city'. Whether it any longer prompts scholars to ask important questions is another matter. We may remark in concluding this section that even the consumer city's most subtle and astute defender since Finley ends his defence on a truly Weberian note, with an admission that the framework that the model provides is not quite the right one: 'the study of cities is only an imperfect way of studying the operations of power in society' (Whittaker 1995, 22).

6. Settlement Ecology

To venture such criticism of the consumption city as a model is not to assert that ancient and medieval towns were in all crucial respects similar. It is rather to suggest that differences between settlements cannot helpfully be conceptualized in this grand manner and that close comparisons across the supposed ancient/medieval divide really are possible. The essence of urbanism in any particular

period – let alone in those larger historiographical constructs, 'Antiquity' and 'the Middle Ages' – is not indeed something that we shall be concerned to discover. We want instead to see what results may be obtained when the town is dissolved as a category and the full range of Mediterranean settlement is approached from an ecological standpoint and viewed in its entirety. So far the present chapter has of necessity been mainly devoted to 'clearing the ground' for that project. It has therefore had less to do with specific examples than with general theories, and it has rejected many more of these than it has endorsed. That emphasis seems appropriate. If we are intent on abandoning 'the town' as a distinct settlement type, we should not reasonably be expected to produce an urban theory of our own. Some more positive indication of the direction in which we shall later proceed should, however, now be added – in a way which may for convenience refer to cities as legal entities, or to towns as useful shorthand for architectonic agglomerations, but otherwise avoids discriminating too sharply among concentrations of people.

To proceed outwards from the centre of what has been at issue, it would be helpful first of all if the processes of microecological interaction and overlap *within* major settlements could be displayed. These processes are hard to bring into focus, partly because of lack of specific evidence. Something of them can perhaps be seized, if only in passing, in examples of the phenomenon of *dioicism* referred to earlier, when a 'town' such as Mantinea begins to reveal the component 'villages' into which it is to be split; but even records like those from Oenoanda (Section 2 above) give no more than an inkling of the complexity of the process of dispersal. To refer to the geography of markets and occupations or the delineation of residential quarters, of networks of reciprocity among kin and neighbours is to point towards the sort of information required but does not really tell us enough about the communities (defined in ecological terms) that made up the larger conglomeration.

Archaeology can sometimes be suggestive. The internal connectivity (on which see Chapter V) of Pompeii, as well as its permeability to 'outsiders', has for example been given imaginative archaeological definition by Laurence (1995). The 'syntax' of the city is defined in terms of its doorways and its graffiti:

> The highest occurrence of doorways and street messages [graffiti and dipinti] were to be found along the through routes from the city gates into the centre of the city. This implies that the social relationship between the inhabitant and the visitor was strong in Pompeii. In other words interaction with the city's hinterland or even other cities is stressed in the spatial structure of Pompeii. (1995, 72)

Much of what is lacking even from such ingenious archaeology can be made good only in imagination. Consider a deed of sale of a share in a house, drawn up in 1009/10, that survives among the earliest deposits in the Cairo Geniza (cf. Chapter II). The house lay in a neighbourhood known as the Wool Hall (which would have pleased Finley), and it was flanked by properties named after a wax maker, a raisin seller, a belt maker and a glass manufacturer. It had three small inner courts which are likely to have been used for further commercial or artisan undertakings. The man who bought the shares was a money changer (Goitein 1967–88, 4.16). Could it ever be reconstructed, the scale and complexity of the ecological history of that cluster of dwellings – the local contacts and wider sources of supply and demand of its changing population – would

surely be daunting. And yet that is one of the kinds of history to which we should, however unsuccessfully, aspire.

Another kind would give proper emphasis to the 'agricultural' sector within Mediterranean settlements of every type and size, not just those that have been classified as villages or agro-towns. *Rus in urbe* – the countryside within the city – was, possibly to a greater degree than in adjacent regions, prominent within major settlements right across the ancient and medieval Mediterranean, even during times of relatively high population density. *Rus* in two senses: first, open land devoted to primary production; and second, the living space of those who worked in the countryside. There were large open spaces – uncultivated, agricultural land, or orchards – in even the largest and apparently most crowded of Mediterranean cities: Pompeii, Rome, Barcelona, Milan, Cairo, to name only some.

> The land which lies about the Church is not only fitted for the growing of plants, and for the sowing of seed, but you may see in it trees growing to a great height and laden with fruit and with the vines which climb up in them, and crops growing under the trees; for all the land around this Church is full of strength and rich in wheat.

No minor church or settlement described there but the sanctuary of the Holy Apostles in the heart of Constantinople; and not Constantinople ravaged by the Black Death but the City of the early 1200s, at hardly less than the height of its medieval prosperity (Downey 1957, 863, 897–8).

Rus in urbe implied the presence of cultivators as well as the availability of space. Yet the number of agriculturalists was often larger than the intra-mural space would support and their land, to which they commuted, often lay at some distance from the city. In such cases, a city address became the equivalent of a farmstead at the focus of a collection of scattered holdings. According to the Tuscan census of 1427 for instance (Herlihy and Klapisch-Zuber 1985, 128), among those who declared an occupation, small-scale agricultural proprietors were the third most common in Pisa (6 per 1,000 households), the second most common in Pistoia (10.9 per 1,000), and the commonest of all in Prato, Volterra and Cortona (12.2, 34.7 and 13.8 per 1,000 respectively). The distribution of their holdings is not recorded. But it is reasonable to presume that a substantial portion of them were extra-mural. And this has been a feature of Mediterranean settlements into comparatively recent times – from which, inevitably, the only relatively precise statistics derive. In the Cairo of 1877, for example, 57 per cent of the economically active resident citizens reportedly cultivated fields outside the city (Abu-Lughod 1969, 164).

Insecurity naturally played some part in concentrating sizeable proportions of the agricultural population within the defensive networks of cities; but in the Mediterranean world as elsewhere, it was also common for cities to be flanked by extensive suburbs, often stretching so far as to provide a very gradual topographical transition from city centre to more open countryside. And attention to this kind of settlement should form yet another strand in the ecological history that might, we suggest, replace that of too great a concentration on towns.

In Athens of the fifth and fourth centuries B.C. for instance, as one moved outwards from the political centre of the *agora* into the fertile surrounding plain, the density of settlement declined relatively evenly. The coastal strip that ran in both directions away from Hellenistic and Roman Alexandria was comparably inhabited. In the case of Rome itself this 'suburban' belt extended over a very wide area indeed, and joined Rome to its satellite settlements ten and fifteen miles away. Here is how it seemed to Dionysius of Halicarnassus, a learned Greek antiquarian of the age of Augustus:

> the districts around the city, numerous and extensive as they are, are all built up, despite the fact that an enemy could easily occupy them because they are exposed and unwalled. Suppose that you want a general notion of the size of Rome. Confusion is unavoidable – you will not even have any idea of how far the city extends or when it leaves off being a city. It is the fact that town is so interwoven with country which gives the observer some idea of the endless urban sprawl. (*Roman Antiquities*, 4.13)

It would, moreover, be a mistake to assume that a sprawl of this kind constituted a simple ecology focused within the enceinte. Antioch of the fourth century A.D., with a population estimated at as many as 300,000 people, had spread across an area some 300 times greater than that enclosed by its circuit of walls. The resulting settlements were more like large independent villages than suburbs; and, as the contemporary orator Libanius explained, if perhaps with some exaggeration, their inhabitants had little need for the city, thanks to exchange among themselves (*Oration* 11.230; cf. Kaplan 1992, 94–5). In other words, although the city could hardly be said to have been redundant (Garnsey and Whittaker 1998, 333), the ecology was decentralized.

What flows of goods would help make up such an ecology? A prime instance of the limitations of conventional urban history is the extent to which, in answering that question, it has concentrated on foodstuffs, and especially on supplies of grain. But settlements depend on many other things too, and a properly ecological approach should make at least some attempt to bring them into the account (VI.4, VIII.5). It has for instance been claimed (Bairoch 1990, 145) that each city-dweller in preindustrial Europe consumed between 1 and 1.6 tons of firewood per annum. A settlement of 10,000 inhabitants would thus require the daily arrival of between 30 and 50 cartloads, each cart carrying one ton of wood. (A more specific estimate: around 1300, Londoners were consuming more than 386 tonnes of fuel per day, of which a quarter went on brewing and baking: Galloway et al. 1996; Murphy 1998, 122; VI.4.) By contrast, assuming a daily intake of one kilogram of grain per head per day – a quite generous allowance by historical standards – then a settlement of 10,000 would expect the daily arrival of only ten one-ton cartloads of grain (van der Woude et al. (eds) 1990, 8). In a Mediterranean environment, average needs would of course have been less, perhaps substantially so; and materials other than firewood – for example dung and straw – would be burnt for winter warmth. But neither the statistics of demand nor the geography of supply are likely to be available for very much of the preindustrial Mediterranean. A thirteenth-century eulogist of Milan asserted that the city consumed more than 150,000 cartloads of firewood annually (Lopez and Raymond 1955, 68). Such figures are hardly to be relied on. The importance of fuel to an ecology should be appreciated none the less, the more so because it helps to show the connections between the wilder, uncultivated parts of a locality and its principal settlements (VI.6). In default of more precise sources, anecdotal evidence must be pressed into service. The sixteenth-century traveller Reinhold Lubenau has for instance left a vivid description of villagers gathering firewood from nearby mountains for transport by boat

to Istanbul, where the sultan extracted substantial profits from its sale. Indeed, so expensive was it there that, in many thousands of households, no fire was lit. All cooking would be taken to one of the city's 2,276 bake-houses and shops; for these had cauldrons or pans embedded in brick and therefore needed only a minimal fire (Koder 1988, 146).

7. Autarky

The workings of ecologies at the very centre of settlement; *rus in urbe*; extramural sprawl; the variety of goods whose movement helps make up an ecology – these are four topics considered so far, the study of which may contribute to the dissolution of 'the town' into a less arbitrarily bounded, and rapidly mutable, area of enquiry. The principal task will, however, be to identify the characteristic scale of the ecology of Mediterranean settlement. Exact or unchanging frontiers are not of course to be expected; evidence is too sparse for that – and ecologies too fluid. Towns are no more 'definite' than the places surveyed in Chapter III. Indeed, the thrust of the argument will be that it is a mistake to expect larger settlements to have been dependent for supplies on a distinct area such as a subject territory or a 'natural' hinterland. If the term hinterland is to be retained, then the presumption should be that what is in question is fragmented, not a compact domain that can be mathematically modelled and limned on a map, a 'zone d'approvisionnement' (Grantham 1997). The *dispersed*, changeable, hinterland has, we suggest, been the Mediterranean norm.

Now if we were restricting discussion to certain extreme cases that assertion would hardly be controversial. As for extremes of *size*, first of all, it is freely acknowledged that an Alexandria or a Constantinople has to draw its essential supplies from far afield and from a number of different directions. Take once more the outstanding example of Rome. With around one million inhabitants in the time of Augustus, Rome was – and, until the nineteenth century, remained – the largest city in Mediterranean history. Under the early Empire its inhabitants' food came, in varying proportions, from Gaul, Spain, North Africa, Sicily, Sardinia, Egypt, Cyprus and the Chersonese, as well as Italy (Garnsey and Saller 1987, 95; Morley 1996).

Secondly, for all our cavils at the consumption city, it is beyond dispute that the productive wealth and purchasing power of what can be called the extreme of *society* – the aristocracy or the religious or mercantile elite – added a special dimension to the hinterland of its civic residences. This dimension was perhaps of greatest significance under the Romans, when the wealthiest citizens consumed in the countryside as well as the city, and might own estates scattered right across the empire and thus all round the Mediterranean. Yet in the thirteenth century too,

> nobles who were at home in Rome . . . had major holdings and palazzi in smaller towns, and they had great country estates and fiefs throughout central Italy in places like Palombara, Palestrina, Terracina, and Ninfa . . . *So, in a way, a realistic map of Rome would not be bounded by the walls, but rather it would stretch out into the surrounding provinces in a series of superimposed networks following personal connection and the interests of real property.* (Brentano 1974, 17, italics added)

The special hinterland created by a city's merchants might enlarge its ecologies in other, more startling ways. That of the circulation of coinage is one. Describing his city's fiscal resources, the Renaissance Florentine Gregorio Dati asserts that between 1375 and 1405 the civic government disbursed 11.5 million florins on its major wars alone – an average of 380,000 per war. In response to the incredulous, Dati reports that, although such a vast sum could not be found within the city at any one time, the continuous circulation of its gold allowed the government to spend the same coinage over and over again. It was the exports of Florentine merchants that brought the gold back. 'The florins which are spent in one year', Gregorio explains in nicely ecological fashion, 'return in large part the next or following year, as does the water which the sea scatters through clouds upon the earth by rain, and which by rivers returns to the sea' (Herlihy 1978, 142–3).

Thirdly, it is acknowledged that the extent of the hinterland brought into play by governments and merchants will be at its highest during extremes of *scarcity*. Faced with the prospect of famine the efforts of the grain officers of Mediterranean cities knew no bounds, whether of ethics or of geography. Braudel nicely pictures the desperate piracy of some early modern cities (1972a, 331). But their anxieties were hardly novel. Let us add, as a medieval example, the Florentine import of grain from Apulia in 1329, a year when many parts of Italy were stricken by famine, yet when the starving Apulians would even so have been able to feed themselves had not their surplus been stored away ready for shipment north (Abulafia 1981, 381–2, 387; cf. VI.8).

Our source for grain prices and policies in that year is a contemporary Florentine corn-chandler. In his memoir he remarks that Florence could usually feed itself from the produce of its own *contado* for five months a year (Pinto 1978, 317). Even in the context of the high population levels prevalent in Europe on the eve of the Black Death, that information is striking: it aligns early Renaissance Florence with imperial Rome, placing it among the settlements that could not expect to support themselves from a nearby hinterland. Does it also take us from the realm of extremes into that of the usual? Florence was certainly not alone among Italian cities in its periodic reliance on imported grain (Section 8 below). Lucca was better able to support itself from its hinterland than was Florence. Yet even in good years it still had to import. The demographic disaster of the Black Death made little difference: between 1369 and 1376 and again between 1380 and 1385, there was some shortage or difficulty of supply in every year (Meek 1978, 97). Were such statistics indeed close to the norm? Addressing that question brings us up against what we shall provocatively label 'the myth of autarky' (cf. VII.5).

Writing in the time of Augustus, the great architectural theorist Vitruvius includes in his *On Architecture* (bk 2, preface) a report of a conversation between Alexander the Great and Deinocrates of Rhodes, who had designed the Egyptian city which still bears Alexander's name. He suggests to Alexander the founding of a magnificent city on Mount Athos in Greece. Alexander immediately asks whether there are fields round about which could provide the city with its food supply. Deinocrates replies that the new foundation would have to be supplied from a distance, using sea transport. Alexander therefore rejects his proposal out of hand. Just as a child needs milk, he says, so a city without fields and abundant produce from them cannot grow, or maintain a large population.