



Editorial

Central Place Theory Reloaded and Revised: Political Economy and Landscape Dynamics in the *Longue Durée*

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1. Introduction

The aim of this contribution is to introduce the topic of this volume and briefly measure the evolution and applicability of central place theory in previous and contemporary archaeological practice and thought. Thus, one needs to rethink and reevaluate central place theory in light of contemporary developments in landscape archaeology, by bringing together ‘central places’ and ‘un-central landscapes’ and by grasping diachronically upon the complex relation between town and country, as shaped by political economies and the availability of natural resources.

It is true that 85 years after the publication of Walter Christaller’s seminal monograph *Die zentralen Orte in Süddeutschland* [1], the significance of his theory has been appreciated, modified, elaborated, recycled, criticised, rejected and revised several times. As Peter Taylor and his collaborators [2] (p. 2803) have noted, “nobody has a good word to say about the theory”, while “the influence of a theory is not to be measured purely in terms of its overt applications”. Originally set forth by a German geographer, central place theory, once described as geography’s “finest intellectual product” [3] (p. 129), sought to identify and explicate the number, size, distribution and functional composition of retailing and service centres or ‘central places’ in a microeconomic world [4] (p. 187). A few years later, the German economist and location theorist August Lösch [5] expanded the theory by inverting the system and by bringing lowest-order units (such as self-sufficient farms) to the fore, while illustrating how from small-scale economic activities there derived several central place systems.

The ‘unfashionability’ of central place theory (and of positivist approaches thereafter) in different phases throughout the period of its evolution and evaluation, especially in the 1970s and 1980s [4] (pp. 204–209), is explained by the fact that Christaller perceived central places as uniformly distributed, equally affluent and perfectly competitive spaces. Such central places provided their surrounding areas with goods and services, in an unbounded and isotropic world, where transport costs were proportional to distance from the main market [1] (pp. 28–30), [6] (p. 125), [7] (pp. 7–8). Despite all revisions and adjustment of the theory, however, what remains paramount in archaeological research related to landscape and catchment analysis, settlement hierarchy and economic systems, is the aspect of ‘centrality’. As noted by Ronald Rood [8] (p. 32), the village church, a square and local market are all examples of central places, thus, central place theory has both intra- and inter-site applications.

It is understood that the idea of ‘centrality’ and the creation of ‘central functions’ ultimately result in the creation of a hierarchy of sites [9] (p. 47), such as cities and town-markets, gateway cities, hamlets, farms and the outside world [7] (p. 13). Although Christaller’s economic model basically neglected environmental and cultural considerations [8] (pp. 33–34), [10] (p. 10), settlement hierarchy and the locational relation between settlements and water sources, arable and grazing land, fuel and building material [9] (p. 48), [11] (p. 115) remain of utmost importance in landscape archaeology and spatial analysis to today.

Another German tradition, historical geography [12,13], has shown that microenvironments with natural boundaries (e.g., rivers, mountains and woods) and desirable resources (e.g., water, arable land and minerals) sustained nucleated communities and remained occupied for almost every period. The potential shifting microlocation of settled communities within the same ‘settlement chamber’ or *Siedlungskammer* was “a conjunction of natural geographic opportunities and the specific economic and political context of the culture concerned” [14] (p. 148). It is noteworthy that there is an instinctive association between a hierarchical system of settled spaces, environmental and topographical parameters, the availability of and control over natural resources and the construction of dependent territories around central places within their settlement chambers. On the other hand, ‘central person’ may be as important as ‘central place’ [15] (p. 315), [16] (p. 159) and this is where the concept of ‘political economy’ evolves. As Timothy Earle has eloquently argued in different occasions, economic theories should recognise that, to whatever degree realised, power strategies were built on economic and ideological control over resources [17–19].

Moving away from model-bounded approaches, central place theory is used here more flexibly to include all the places that may have functioned as spaces of economic or ideological centrality (even in a local context) in the past, including urban centres, agro-towns, countryside settlements, burial and ritual topoi. The idea of this volume derives from the methodological and theoretical frameworks we employ when approaching landscape phenomena and archaeological evidence from the Xeros River valley in Cyprus, in the framework of our Settled and Sacred Landscapes of Cyprus (SeSaLaC) archaeological project [20–22]. Given that landscape archaeology and intensive field-survey methodologies have evolved, providing more spatial, functional and chronological detail about the archaeological record for a given region, combined with a constant revision and refinement of ceramic chronologies, settlement archaeology and pottery distributions prove accurate tools for the exploration of landscape transformations and settlement systems. The contextualisation and evaluation of settlement-change diachronically is examined here within a multilayered framework or along five main strands of interrelated approaches: (a) *Siedlungskammer* or ‘settlement chambers’, (b) ‘central place theory’ and settlement hierarchies, (c) ‘ecosystems’ and land-use, (d) ‘sacred landscapes’ and (e) ‘political economy’.

2. Landscape Archaeology, *Siedlungskammer* and Community Area Theory

Landscape archaeology overcomes the conventional boundaries between disciplines such as anthropology, history and geography, and provides a fresh perspective and a powerful investigative tool to address research questions related to the conscious and the unconscious shaping of the land and the processes of organising space, involving interaction between the physical environment and human presence [23] (p. 75). Temporality, spatiality, materiality and site-based analysis are all encompassed in the concept of landscapes, and therefore through its study much can be said about human responses to the changing conditions of life in the *longue durée*. It would not be possible to cite here the vast bibliography on the evolution of landscape archaeology and settlement research, and how developments in those fields (theoretical, technical and epistemological) have contributed to converting earlier ‘traditional’ approaches into a more advanced field of enquiry [14,24–26]. We should note, however, that the spatial interrelationship of artefacts, features and human societies through time, together with a special focus in the study of microlandscapes or microregions [27] (pp. 3–14), all have comprised special areas of research in the field of landscape archaeology since the late 19th century.

As John Bintliff [28] has recently argued, the careful study of the *longue durée* of integral landscapes is the only way to achieve meaningful time-depth. Here the concept of *Siedlungskammer* is fundamental. As noted above, according to the German model of *Siedlungskammer* or ‘settlement chamber theory’ of the *Landeskunde* School (‘landscape-lore’) of historical geography, large areas of land with natural boundaries and desirable resources sustained nucleated communities and remained occupied for almost every period. Landscape archaeology aims at recognising shifts in the location of the main settlements within each ‘settlement chamber’ or microregion, and has verified that

the relocation of habitation sites from one period to another are always detected within the same microregion [14,29]. The diversity of landscapes would have attracted human communities to create nucleated (or other) settlements often in or around certain physical topographies, soil types or natural paths of communication, while settlements would have appeared, disappeared and relocated within the same settlement chamber according to prevailing natural, sociopolitical and economic circumstances [30] (p. 218).

Moving away from typological and chronological questions, the application of settlement chamber theory in the microlandscapes of Crete and the analysis of long-term settlement history on the island by Herbert Lehmann [12], where the concept of a single major settlement and its socioeconomic dimensions within a microregion was first introduced and elaborated, comprises a well-known case study. A couple of decades later, Alfred Philippson [13] investigated the physical and historical landscapes of Greece, focussing on microlandscapes and spatial organisation within them. One of the most representative works, however, following the German geographical tradition of settlement chambers in the era of archaeological intensive surveys or ‘new wave surveys’, is by the Boeotia Project in central Greece. Already in the 1990s, Bintliff [29] discussed the case study of the Valley of the Muses in western Boeotia, a fertile settlement chamber surrounded by mountains on three sides, where just a single nucleated community was located between the Bronze Age and the late Ottoman period. The settlement of Askra was located on the valley bottom until the early 13th century AD, when it was transferred 500 metres east under the command of a feudal lord, and then again in the 17th century AD in its present location on the east edge of the valley, following the breaking-up of villages into serf estates due to the Ottoman economic crisis.

It is true that Bintliff’s approach to settlement chamber theory in the case of the Valley of the Muses is essentially more associated with the Czech School of ‘community area’ theory, initiated by Evžen Neustupný [31]. Neustupný suggested that the remains of settlement activities by individual prehistoric communities accumulated within the original ‘settlement areas’ with various functions [32] (pp. 154–155). The principles that make community area different to settlement chamber theory is that the former relies mostly on environmental factors (e.g., land fertility, water sources and natural paths) to define settlement chambers, while the latter includes historical and social variables to define community areas [27] (pp. 7–8). Thus, landscape is not perceived as “a geographical unit, but the relic of a past social world” [32] (pp. 154–155). This spatial and temporal ‘continuity’ in settlements within the same community area (at or beside the occupation of the previous phase, associated with specific environmental qualities and historical variables) does not necessarily denote ethnic or cultural continuity, which may appear or disappear along with material traces of human activity [14] (pp. 144, 146–147), [27] (p. 9). Despite the relocation of settlements from period to period and the interference of settled communities with landscape transformations, we would agree with Kuna and Dreslerová [32] (p. 149) that “all processes in the landscape relate to the state of the previous period and previous generations of its inhabitants—in this sense landscape has a memory” [33].

Boeotia in the postclassical period (after the middle 7th century AD) comprises a representative example of settlement continuity within the same settlement chamber, the role that memory played in terms of how people may have perceived or remembered previously inhabited neighbouring sites and the role that such sites and sights may have played in peoples’ perception of their community area. In the community area of the ancient city of Tanagra in eastern Boeotia, the naturally defended and walled site of Kastri succeeded the late antique city of Tanagra itself (a couple of kilometres to the northeast) after its abandonment in the 7th century AD. In this transitional period, signifying the passing from Antiquity to the Middle Ages, crises, abandonment, colonisation, relocation, defence-works, proximity to the ruins of the Roman past and the memory of Tanagra’s previous status must have played a crucial role in continuities and transformations within the Byzantine settlement system of this microregion [16] (pp. 128–130).

3. Central Place Theory, Settlement Hierarchies and Central Flow Theory

In the context of historical geography and settlement research, Christaller's central place theory remains oriented around (a) the application of economic spatial theory in the sense of least effort for maximising profit [34,35] and (b) the analysis of settlement hierarchy and the structure of settlement patterns [36] (p. 251). All the aforementioned principles are undoubtedly closely interconnected and cannot be ignored in the context of landscape archaeology, where the interaction of human societies with the natural environment (e.g., topography, geology, soils, vegetation and climate), as well as with the cultural/historical context, informs our reconstruction of past societies and the evolution of *Homo economicus* [37] (p. 548). We should note that an overwhelming focus on central place theory itself, without further research into the local context and the overall settlement structure, may lead to viewing every single settlement as a 'central' one, as previously pointed out by Oliver Nakoinz [36] (p. 251). On the other hand, and despite its 'unfashionability' in the course of the 20th century, central place theory was applied in different archaeological case studies since the 1950s, in the context of locational analysis, settlement hierarchy, central place functions, territoriality and liminality [35,38–41]. A noteworthy attempt to integrate centrality analysis and evaluate central place theory in the light of current trends in network theory was undertaken recently by Daniel Knitter and his collaborators [9], while the idea of central flow theory to complement central place theory was initially put forward by Evert Meijers [42] and followed by other scholars [2].

It goes without saying that the principles of distance and cost (in terms of travel time) between a number of retailing and service centres of different sizes in a microenvironment remain of paramount importance within the framework of Christaller's work. Yet, it has to be pointed out that the spatial organisation of any settlement network, site-hierarchy and the concept of centrality are equally important in central place theory and landscape studies to today. Obviously, environmental considerations play a major role in settlement location, site formation and site-hierarchies, although generally neglected by Christaller's economic model [8] (pp. 33–34). As Knitter and Nakoinz [43] unmistakably note in the present volume, there are three types of settlement hierarchies distinguished by Christaller that correspond to different principles: the market principle, the transportation and the administration principle; such parameters result in distinguishing between higher-order and lower-order centres. Thus, by determining the degree of centrality, the hierarchical function of sites and their interrelationship within specific microregions, different correlations can be made as a measure of the emergence of centralised political authority, centre-periphery relations and the identification of depended territories around such higher-order centres [44] (p. 3).

In this context, the work of the historical geographer Ernst Kirsten [38] on the formation of the Greek *polis* and its extensive dependent hinterland had a profound effect on 'new wave surveys' in Greece during the 1970s and the introduction of the technique of 'site catchment analysis' into the archaeological world [45], [46] (pp. 207–209). Borrowed from geography, the method of building 'Thiessen polygons' was employed to represent catchment areas (dominated by different central places) by drawing boundary lines at right angles to give a series of polygons. Thiessen polygons and the concept of 'territoriality' were widely employed and have had a long history in central place theory and its application in archaeology [36] (pp. 252–256) [39]; a typical example is the territorial analysis of *demes* in early classical Attica, with possible agricultural territories at a 2–3 km radius around community centres [30,46,47]. Further historical and archaeological work in the province of Boeotia in central Greece [14,41,46,48] has demonstrated that key cities were located at 14–15 km radius catchment (or a day return) as predicted by rural marketing theory, while lesser communities of village-hamlet size at 3 km radius within a territory of cultivable zones; according to Bintliff [14], some of these lesser communities may have grown into regional central places, or in periods of growth, some village-sites may have reached urban status. Obviously, landownership, the sense of belonging and the aggressive (in cases) absorption of lower-order centres by higher-order ones to gain access to food surpluses and manpower in a period of city-state formation (such as early classical Greece), testifies to the prominence of formal boundaries and the demarcation of space [41] (p. 33).

A similar approach, using Thiessen polygons, has been undertaken in Cypriot archaeology to suggest a hypothetical model for the territorial expansion of Iron Age polities [49]. As noted by Papantoniou and Vionis [22] in the present volume and in different occasions previously [50] (pp. 549–550), the problem of the Thiessen polygons method is that it is operating on a featureless space, not taking into account topographical parameters, archaeological and textual evidence, while the concept of hierarchy or political dominance expressed by territoriality is predetermined, drawing definite spatial and political boundaries. It has to be born in mind that Thiessen polygons used to be a widely employed tool of locational analysis to graphically present site catchment areas in geography and archaeology on a ‘featureless’ space on the basis of Euclidean distance and gravity based rules [27]. Contemporary tools within Geographic Information Systems (GIS), however, such as ‘cost-surface’ and ‘visibility’ analyses, provide alternative methods that take into account the terrain’s topography, time and energy; combined with the study of detailed archaeological datasets and other cognitive landscape parameters, such digital tools are nowadays widely used in spatial analyses in the field of landscape archaeology.

Numerous examples of spatial analysis and site-hierarchy within the catchment area of different central places can be found in the archaeological literature. Late Minoan Knossos, for example, comprised a ‘real’ central place, hierarchically followed by second-rank towns (such as Phaistos, Malia and others) and surrounded by third-rank satellite settlements at regular short distances [51] (p. 63). In Greco-Roman Boeotia, as mentioned above, a network of lesser hamlets, villa estates and isolated farmsteads infilled territories or ‘settlement chambers’ within an organised settlement system that rose and fell period by period, indicating times of prosperity or stability and contraction in terms of population and economy [14] (p. 148). In Roman Spain, the town or *civitas* has been regarded the paradigm of a central place within its respective territory, filled with villas and other (minor) rural/farming establishments, through which the whole economic network was maintained [52] (p. 83). In medieval Britain and Tuscany, the creation of markets, transport networks and administrative authority have been identified as economic and social elements of central places such as towns, which, deprived of their Roman look, may have comprised ‘weak towns’ but still holding juridical and religious functions, a basic street system, a market place and perhaps a specialised industry [53] (pp. 97–100), [54] (p. 6).

But what defines a central place as such and what parameters can one explore so as to assess the hierarchy of sites within a settlement network? It has been argued [9] (p. 47), [55] (p. 1307) that a central place does not always need to be a settlement but can also be perceived as a cluster of institutions that offers goods and services at local or regional level. It is central functions that determine the degree of centrality at a certain location, creating a hierarchy of sites, thus, the more functions gathered at a site, the higher the level of its centrality at local, regional or supra-regional level [9] (p. 47). Knitter and Nakoinz [43] refer to ten functions that define central places, as previously analysed by Dietrich Denecke [56] (p. 43), i.e., political and administrative, legislative, security, cultic and spiritual, cultural, charity, agricultural/economic, craft production, trade, traffic and transport, while they also summarise five main ones, as further assessed by Eike Gringmuth-Dallmer [57] (pp. 9–11), i.e., administration, security, industry, trade and cult.

Communities have always been interrelating with one another in a variety of ways. The degree of importance of different localities and the functional relationship between them renders each of these sites as central (such as towns and/or cities), non-central places (such as hamlets and minor rural establishments) being served by central ones, and other specialised spaces offering goods and/or services for non-local groups [8] (p. 35), [58] (p. 78). It goes without saying that a central place needs to fulfil an administrative role, serving as a focal point when it comes to territorial control, to provide accommodation to a ruling elite (military, religious or civic) whose needs for luxury goods are met by artisanal production, and to prove economic diversification [52] (p. 85), [59] (p. 13). An exemplary attempt to classify different medieval port towns of the 11th–12th and 13th–14th centuries AD in the Peloponnese in order to reconstruct their hierarchy by identifying the degree of their centrality

is undertaken by Katerina Ragkou [60] in this volume. Corinth, for example, which functioned as the administrative seat of the Peloponnese, comprised one of the oldest ecclesiastical metropolises of the region and had invested on artisanal production while maintaining commercial contacts with other Byzantine provinces, thus, it can be identified as a higher-order central place; on the other hand, Modon and Coron on the western tip of the Peloponnese, comprised lower-order centres, since the functions they gathered were confined to safety, religious and commercial services [60].

Looking at the *longue durée* evolution of settlement systems and hierarchies, it is imperative that we stress, as previously pointed out by John Parr and Kenneth Denike [61] (p. 574), that settled landscapes, territorial formations and site hierarchy do not remain static; historical, environmental, societal and other factors can alter the hierarchical order of a network of special locations from period to period. We may repeat here the example of Greco-Roman Boeotia, where lesser hamlet and village communities may have grown into regional central places in times of growth [14], while in the case of the Byzantine Peloponnese, the port town of Glarentza, established in the 13th century AD, rose in political and commercial importance and quickly emerged as the new focus of the region, having succeeded Corinth in the hierarchy of late medieval port centres [60].

As already noted above, central places may also be localities other than settlements, where centrality can be measured not just by the number of goods or services being offered but, additionally, by the degree of interaction, as originally put forward by Meijers [42]. Meijers' 'network model' was consequently elaborated as 'central flow theory' by Taylor, Hoyler and Verbruggen [2], followed by Nakoinz [62] (p. 219), and Knitter and Nakoinz [43] in this volume, who eloquently defined centrality as the "relative concentration of interaction" and the "location of high density of interaction nodes". While central place theory is related to hierarchies, central flow theory is defined as interlocking networks through which two distinct social spaces can be identified: "spaces of places and spaces of flows" [2] (p. 2805) [63]. Instead of two opposing theoretical approaches, central place theory and central flow theory should be regarded as complementary to each other, leading towards the idea of 'network centrality'. As suggested by Knitter and Nakoinz [43], Christaller's centrality model (concerned with node synergies) can be adjusted and combined with social network theory (concerned with edge synergies) to create an integrated and informed approach.

What is important in this case is not so much whether "places make flows" (as in central place theory) or whether "flows make places" (as in central flow theory) [2] (p. 2815). What is important and what makes it a more holistic and updated approach to centrality, is the combination of both frameworks: interactions are directed towards the closest node to minimise transport costs (according to Christaller's economic model of central places), while time interaction costs can be minimised by promoting interactions along network edges (according to network centrality) [43]. It is also important that in the 'network model', urban services are not concentrated in a single centre/city; they are divided between different cities in a way that they complement each other [42] (p. 257). This network between interacting cities creates a web of interlocking first-, second- and third-rank places, all interacting with their surrounding environment, with one another, as well as with sociopolitical units and economies on larger scales [64] (p. 4), [65] (p. 70).

Obviously, places at strategic positions, even at 'liminal' environments, may acquire a higher centrality factor, simply thanks to their degree of 'betweenness'. This is how 'gateways' were eventually integrated in central flow theory and they should be conceived as playing the role of 'local' central places in 'un-central' landscapes. Gateways occupied liminal positions and emerged at the margins of regions, close to production zones (agricultural or artisanal), at the edge of their tributary areas and along natural passes, gathered products from surrounding settlements, redistributed goods to external or regional trade and functioned as focal points at the intersection between their surrounding region and larger economic networks [7] (p. 13), [66] (p. 4), [67] (pp. 89–90). There are numerous examples one can bring to the fore from across chronological and geographical boundaries. Permanent trading places or *emporía*, for example, were established in early Viking Scandinavia for the promotion of specialised crafts, playing a significant role in long-distance traffic as 'nodal points' [68] (p. 126).

In 7th–9th century AD England, some of the major ports-of-trade (the so-called *wics* or *emporía*), such as Ipswich and other riverine or coastal sites, have been seen as localities with emerging political, economic and ideological central place functions and links with the Anglo-Saxon kingship. Although such places have been characterised as ‘urban’ or ‘proto-urban’, due to evidence for direct exchange contacts with Europe, controlled by and directed towards the elites, they seem to have formed spaces in a non-urban settlement system on the edge of their tributary areas, in which central place functions may have been dispersed between a variety of sites [15] (pp. 312–315). In late antique and early medieval Boeotia in central Greece, ports-of-trade (or *emporía*), such as Delion and Anthedon on the Euboean Gulf, played a major role during the era of urban transformations in the 7th and 8th centuries AD. Both of them comprised seafront sites with a considerable extent of fertile land and a good harbour (where goods were collected, loaded and shipped to various destinations), they were associated with a settlement (having a local market and a Christian basilica), and provided extended marginal/agricultural territories with access to a wide economic exchange network [16] (pp. 144–146) [69].

There are recognisable differences between central places and gateway-sites: central places are located within homogenous production regions and usually have local trading connections; gateways, on the other hand, are located between different homogenous regions and at the edge of their tributary territories, starring in long-distance trade connections and controlling transportation axes of goods and people [7] (p. 13), [70] (pp. 269–270). As Andrew Burghardt has noted in the past, a central place has a regular, circular or hexagonal service area, resembling “the centre of a bowl”, whereas a gateway has an elongated service area, similar to “a funnel or spout” [70] (p. 270). Thus, even small remote places, such as Lapithos on the northern coast of Cyprus in the Middle Bronze Age, as persuasively argued by Jennifer Webb [71] in this volume, with small but suitable harbours and territorial control over natural communication passes (i.e., the Agirdha and Panagra Passes), were involved in supra-regional interactions as local interaction nodes and points of convergence for commodity flows. This high density of network exchange and interaction equipped such localities with a high degree of network centrality.

Taking the *limes* and the perception of frontiers in the West Roman Empire as an extreme case study example, it is clear that, as Hans-Werner Goetz [72] (pp. 73–74) argues, there was no definite borderline or cultural frontier; rather than hindering, they supported trade and interaction and “dissolved into enclaves of rulers who were heirs of Roman culture”. Along the same line, it has been argued that centrality and liminality are interrelated notions and part of the same structure, since “the most conspicuous part of the centre was the area where it met the periphery” [73] (p. 91). Although the sense of belonging and the formal demarcation of space have been fundamental in centrality theory, as we discussed above, it should also be noted that boundaries sometimes remained notional and fluid, endorsed with legends of heroes or stories of horror. A sense of notional liminality or frontier has been noted in the case of the extra-urban sanctuary sites of Myrtou-Pigadhes and Agia Irini close to the north coast of Cyprus, the former at the entrance of the Panagra Pass and the latter at the edge of the fertile Morphou plain, as analysed by Giorgos Papantoniou and Giorgos Bourogiannis [74] in this volume. As also discussed elsewhere by Papantoniou [23,50,75], extra-urban sanctuaries were located in frontier/liminal zones and served as both contact and confrontation points between the different Iron Age polities of Cyprus, rather than as merely points of symbolic territorial demarcation and definition. Similar conclusions have been drawn in the case of the Etruscan city of Populonia in the early Iron Age by Giorgia Di Paola [76] in this volume, who sees liminality in the context of Populonia’s territory not so much as a ‘marginal’ environment associated with wilderness but as a landscape acquiring new connectivity trajectories through the foundation of hilltop fortresses within a hierarchical settlement network. Jody Gordon [77], following a centrality approach in this volume, investigates how the two major ports of Cyprus, Salamis and Nea Paphos were marked by their liminality and served as gateways that connected their terrestrial hinterlands to international maritime networks, functioned as central places and fostered novel economic and cultural exchanges. Yet, apart

from the location or the number and type of services offered, favourable environmental characteristics played a decisive role in the centrality of a place. Gregory Utz [78] in this volume applies successfully the concept of gateways and centrality in a similar methodological framework, using the main port cities of Marseille and Arles as case studies to illustrate how the natural environment and political control made an effect on the economic development of both cities in Greco-Roman times.

4. Settlement Ecosystems and Land-Use

Having referred to settlement hierarchy, we should note that it is around these main settlements or central places that rural communities in un-central landscapes are organised (always in relation to nearby resources) and it is through central places that rural communities interact with economies on larger scales. It is true that neo-Malthusian population cycles, demographic pressure and the straining of natural resources have long dominated settlement archaeology and economic studies of the pre-modern periods [79–81]. Although such explanations once became unfashionable, with archaeological theory downplaying the role of the physical environment, one cannot underestimate the effect of human interference with the natural environment and its resources [82] (p. 36), [83] (p. 2). Environmental determinism still offers a valid explanatory framework to crisis and resilience for specific parts of the globe [83] (pp. 7–10), such as the drought and famines, accompanied by cold weather conditions, recorded for the period from the later 6th into the 8th centuries AD in the Levant and Asia Minor [84] (pp. 126, 138).

The terms ‘physical environment’, ‘ecosystem’ and ‘landscape’ are often confused and/or interrelated. By investigating concepts of centrality (and marginality/liminality) within settlement systems in the framework of Siedlungsarchäologie (or settlement archaeology) of the German culture-historical and geographical traditions [32] (p. 147) [85], it is anticipated that the natural environment remains of paramount importance in understanding the establishment of central places and in identifying their spatial relationship with satellite establishments and their immediate territories. After all, landscape archaeology has always been defined as the archaeological study of the interaction between humans and land within their environmental context [86] (p. 1), [87] (p. 5). It is this past interaction between humans and the natural environment that has recently come to the fore as a more systematic and holistic approach to the relationship between societies and nature, and it is this meaningful relationship that is embedded in the term ‘landscapes’. Landscape ecology or landscape ecosystems have gradually penetrated the field of landscape archaeology and history; both terms define a heterogeneous area composed of a cluster of repeated ecosystem types, interacting with each other across space and time [87] (p. 5), [88] (pp. 11–13).

Settlement ecology, on the other hand, “emphasises natural environmental variables, including essential subsistence resources, other raw materials needed for physical comfort and health, and items for trade or exchange” [89] (p. 177). It also examines the central issue of dynamic risk management through a community’s deployment of its economic and social technologies. Recent studies have illustrated how the natural environment has influenced or even determined the formation, development and decline of central places, and whether landscape and environmental variables have shaped the relationship between a central place and its hinterland [9]. The decline of Ephesus/Selçuk, for example, has been associated with the silting of its harbour, which eliminated the advantages of the city’s dynamic economic agents and consequently its centrality deteriorated [9] (p. 53). Similarly, at the end of the Late Bronze Age in Cyprus, river silt and coastal changes had made it imperative for Enkomi (Old Salamis) to move and to establish a new harbour at (Nea) Salamis, on the east coast of the island, gradually losing its centrality and transferring to an emerging location nearby [90] (p. 31).

Contemporary landscape archaeology, however, does not deal with the analysis of individual ‘sites’ as such, but, rather, it comprises a multiscale and overarching approach to the study of entire ‘microregions’ or ‘microenvironments’, containing mountains and plains, coasts, ports, rivers and springs. This is also how the term ‘landscape’ has been perceived in the framework of the German school of landscape archaeology or *Landschaftsarchäologie* since the 1990s [32] (p. 150) [91,92] and

how it has been practised in Europe with a long tradition in landscape archaeology and archaeological survey in the quest for the landscapes of Classical Antiquity [93] (p. 318). Indeed, as has been concisely summarised elsewhere [32] (p. 150) [94,95], landscape archaeology encompasses the identification and analysis of settlement densities and the spatial organisation of settled communities (above the level of individual sites or communities), the hierarchy of settlement (or other) sites, demographic trends, primary production and the distribution of raw materials.

We do not wish to argue here that a landscapes approach to settled communities, their spatial distribution or their hierarchical relationship in their environmental context solely denotes ecological or geographical determinism (e.g., distance from a water source, travel time to a community's most remote agricultural land, etc.). Three basic strands of research (such as those posed by the Kiel Graduate School "Human Development in Landscapes"), however, successfully encapsulate the long-term relationship between humans and the natural environment: (a) the way past human societies conceived their natural and cultural environments, (b) the way social space adjusted to changing environmental conditions and (c) the way demographic trends and technological change influenced social groups and landscapes [96] (p. 40). Subsistence and surplus production, distribution and consumption, demographic growth and contraction, population density, carrying capacity, ecological change and climatic and environmental conditions [96] (pp. 40–42) [97] have always comprised crucial elements of investigation in terms of centrality/liminality, economy and society in the framework of landscape archaeology. As shown by Papantoniou and Vionis [22] in this volume in the case of the Xeros River valley in Late Antiquity, the largest settlement of the valley—an 'agro-town' of 13 ha in size with an estimated population of 250 families—played a central role within its catchment area or 'settlement chamber'; it was located at the approximate centre of the region, it had easy access to fresh water sources (the Xeros River) and enough cultivable land to sustain the population of the valley, as well as overwhelming evidence for storage and transport at the central site and for the production of ceramic domestic wares within its catchment area. In a different context, Natalia Poulou and Anastasios Tantsis [98] in this volume argue that the location of bath-houses in eastern Crete in Middle Byzantine times was obviously determined by immediate access to fresh water (e.g., close to ravines), yet, their very existence usually denotes (along with other archaeological, toponymical and textual evidence, if available) their attachment to a nearby settlement of some status in the 8th–12th centuries AD, that being a bishopric, a town or an important rural settlement with certain amenities, playing the role of a local central place. Along the same line of investigation, Lina Diers [99] in this volume uses the exceptional case study of the Roman mining settlement of Timacum Minus in upper Moesia to illustrate how historical realities, the landscape of the Timok valley and the locality of the site played a major role in formulating its 'centrality'.

As already noted above, certain theoretical approaches in landscape archaeology, such as phenomenology, pioneered by Christopher Tilley [25], have been prioritising human experience or intentionality, and have been reluctant in engaging with certain environmental sciences, such as palaeoecology and geoarchaeology [25], [37] (pp. 547–548), [82] (pp. 39–40). However, our ability to reconstruct past landscapes in an efficient and holistic manner requires a more effective collaboration between archaeologists, historians, environmental scientists and theorists [100]: a collaborative and flexible approach that would integrate different types of environmental data and human experience across temporal and spatial scales so as to avoid an artificial separation between environment and culture [37,87]. Rather than separating between the two or denying 'objects' or 'subjects', it would be more enlightening if we examined the dynamic interaction between human and non-human agents and the relative distinction between marginality and centrality [37,101]; central place theory, central flow theory and settlement chamber theory, when applied more flexibly, cannot but be modified to encompass the required balance between the human factor, the natural and cultural environment.

Christy Constantakopoulou [102] offers in this volume a fascinating view of the concept of marginality in the archaic and classical landscapes of Greece, where hunting in uncultivated un-central landscapes, the *eschatia*, comprised a widespread practice and a rite of passage for the young

(amongst the elites), while the hunting ground itself, on the edge of cultivated land, not only allowed access to the market (where game was sold) but also underpinned the complex interplay between humans, animals, economic practices, elite ideologies and the natural environment. It is also in this context that Anna-Katharina Rieger [103] in the present volume examines two arid, un-central and supposedly marginal regions in Greco-Roman Syria and Egypt to understand settlement patterns and economic practices, successfully providing a showcase of resource management (i.e., water) and social organisation. On the other hand, Louise Steel [104] in this volume examines how water shaped people's interaction with the landscape in Bronze Age Cyprus and moves away from 'traditional' approaches to landscape archaeology by emphasising the agency of water and how this shaped people's movement through their landscape.

Digital analytical approaches, such as GIS, currently provide efficient tools for managing a large and varied databank in order to explore environmental sustainability and its effect on human societies with the aid of archaeological and literary sources (when available), anthropological and paleoenvironmental data, historical maps and digital cartography [105]. This combination of tools and data can prove an invaluable and robust means for the evaluation of central places and their peripheries in their landscape setting. Approaches of this kind, with a strong focus on 'village ecosystems' and a solid theoretical background have been employed on several occasions in the framework of a developed and updated version of settlement archaeology or Siedlungsarchäologie in Germany (with a slight delay in comparison with Britain) to investigate human agency and cultural change [91,92,106,107]: On the basis of historical and ethnographic data, Rainer Schreg [108] (pp. 95–98) summarises three main types of economic systems, previously investigated in the framework of a study on Neolithic cattle husbandry [109], in order to provide a model for the evaluation of economic dynamics of settlements and their associated territories: (a) the 'closed system', associated with a small territory suited for agriculture and an amount of 0.39 ha of farmland available for each person to cultivate; (b) the 'maximum system', with an economy mainly based on livestock and enough land but only part of it potentially arable, with an average of 0.15 ha of land per person to cultivate; and (c) the 'open system', where the amount of land is not limited and village territories can be up to several days walking distance. As Schreg [108] (p. 97) notes himself, the proposed models cannot possibly cover all kinds of village ecosystems there may have existed through time, considering that settled landscapes included also towns, castles and monasteries. The models do provide, however, a convenient means through which one can examine settlement dynamics and demographic trends, carrying capacity, territoriality and settlement hierarchy.

5. Sacred Landscapes

The turnaround of politicoeconomic factors (as we discuss below) and the manifestation of the 'sacred' seem to have played a pivotal role in the expression of power and ideology, shaping settled and sacred landscapes accordingly, as well as determining settlement recovery and resettlement of abandoned or semi-abandoned microregions. Landscape studies have evolved into a significant branch of historical archaeological research in the last four decades, by placing emphasis on the ecological, economic, political and cultural values of pre-modern landscapes. Ever since spatial analysis entered the field of New Archaeology, archaeologists, historians, anthropologists and geographers—working together—have been trying to explain, for example, how and why complex settlement systems developed in the landscape [35,110–112].

Even more interestingly, the study of 'sacred' landscapes has by now become another prominent field of landscape research, mainly in Northwest Europe and North America, by paying attention to the ideational dimensions of sacred mountains and hills, burial monuments and grave markers, sanctuaries, temples and churches [113–115]. As we have explained elsewhere [20], the term 'sacred landscapes' has been chosen in acknowledgement of the inspiration provided by the published work of Susan Alcock [116–118]. By using this term in her examination of the Hellenistic and Roman sacred landscapes of the Greek world, Alcock shows that the relationship between religion, politics,

identity and memory was more intimate and more involved than has often been assumed [118–120]. She regards sacred landscapes emerging:

“... as both culturally constructed and historically sensitive, immensely variable through time and space. Far from being immune to developments in other aspects of human life, they can reflect a very wide cultural and political milieu. Yet they also provide more than a simple mirror of change by their active participation in the conditions of social reproduction” [116] (p. 172).

The investigation of ‘ideational’ or ‘associative’ landscapes, where people associate features in the natural and built landscapes with their own memories, meanings or emotions [118,121], is particularly relevant to sacred landscapes and political economies [122] (p. 18). ‘Ideational’, as Bernard Knapp and Wendy Ashmore [121] argue, is far less linked to an articulated system than the terms ‘ideology’ or ‘ideological’; therefore, it can also be used to embrace sacred as well as other kinds of meanings attached to and embodied in landscapes.

The concept of memory is crucial in the process of socialising landscape and naturalising cultural features in the land. It is created by the repeated movement of the body throughout the landscape. Barbara Bender [123] (p. 3) regards landscape as a process that is “intensely political, a way of perceiving, experiencing, and remembering the world” [124] (p. 240); landscapes not only shape but are shaped by human experience [123]. As we have noted above, Tilley’s [25] influential study is concerned explicitly with phenomenology of landscape as an experience. The experience is synesthetic, “both creating and engaging a narrative linking the body—individual and social group—with the land” [124] (p. 261). The movement of the body through space is crucial as it provides people with a particular way of viewing the world, it has important implications for the maintenance of power relations [25] (pp. 27–33), [125] (p. 47). By controlling the way people move through space, it is possible to reproduce dominant perspectives on the world [25] (p. 204). Robert Johnston [126] (p. 56) sees landscape as existing through two different understandings of ‘perception’: in the first, perception acts as a filter on the real world; in the second, it is a process through which people understand the world. In studying landscapes, perception cannot be ignored and it should be acknowledged that perception is not beyond archaeological analysis [127] (p. 221).

Questions about ascribing meaning to landscapes and issues of social mechanisms by which meaning is attached, as well as the range of meanings that can be encompassed should be raised [124] (pp. 263–265). Meaning is usually attached through memory and ritual. However, memories and meanings are created afresh from generation to generation and differ between individuals. As Ashmore [124] (p. 264) notes, “prominent among the meanings of landscape are power and identity, variously defined and expressed in sundry forms”. As landscape delineates memory and declares identity, the land itself plays a fundamental role in the social and cultural order and in human relations. Further, “as a community merges with its habitus through the actions and activities of its members, the landscape may become a key reference point for expressions of individual as well as group identity” [121] (p. 16). The transformation of landscapes has been associated with the transformation of the social order, coming from short-term events (sociopolitical time) or medium-term cycles (socioeconomic time). As Knapp and Ashmore [121] (p. 18) note, since landscapes embody multiple times as well as multiple places, they consequently materialise not only continuity but also change and transformation. Landscapes are perpetually under construction, which is why an enduring theme in recent archaeological thought has been the ‘reading’ of social power, which includes political economies, from those modified landscapes [128] (p. 271). John Cherry [129] (p. 33) emphasised the need to bring into a closer dialogue the various approaches of landscape archaeology. Survey reports should be combined with excavation reports, political histories (which we would modify to ‘political economies’), and notions of recent “archaeologies of landscape” [121]. Emphasis should be given to “the process of reinterpretation and reworking of dynamic landscapes whose changing appearance communicates cultural values and is charged with meaning” [129] (pp. 32–33).

When it comes to the Christian landscapes of the Mediterranean, for example, monumental/urban and humble/rural churches comprise the most obvious way that the sacred is manifested, exerting an influence over social and cultural experience [130] (p. 42). A number of relatively recent publications have focussed on early Christian monumental basilica churches of the 5th and 6th centuries AD as powerful expressions of Christian ideology in the process of Christianising the late antique landscapes of the Eastern Mediterranean [21,131,132]. The prominent siting of Christian basilicas, chapels and monasteries in Late Antiquity was intended to dominate the religious skyline of cities and their immediate countryside, in the same way that pagan sanctuaries on mountain tops and other prominent sites had done in the past [16,133]. On the other hand, there are diverse ways one can interpret the distribution of early Christian churches, such as the spread of Christianity, pilgrimage and trade and network connections.

A church is not simply a 'sacred space' or a symbolic expression of Christian piety. Depending on their contexts, churches functioned in a variety of ways: as monastic churches, episcopal and 'parish' churches, cemetery churches, private and burial chapels [134] (pp. 93–96), [135] (p. 79), [136]. Their architectural, decorative, archaeological and topographical parameters need to be taken into account in order to contextualise their meaning, ideational or other, and comprehend whether one can distinguish between 'sacred' and 'profane' or how 'profane' space was converted into a 'sacred' one in the landscape. Additionally, senses such as the view of painted icons, the hearing of processional prayers, the movement of sound or the smell of incense and other sensory experiences (e.g., the *proskynesis*, i.e., touching and kissing icons) cannot be ignored in a holistic approach to Byzantine sacred space [137] (pp. 32–33), [138] (p. 406), [139] (p. 76), [140] (p. 322).

As noted above, churches also functioned in a variety of ways, thus, one can explore their particular location and meaning in the landscape through various means. Sharon Gerstel has previously suggested that churches dedicated to Saints and the Virgin were constructed in towns and villages, functioned as 'parish' churches and were perceived as the spiritual, architectural and social centre of settlement communities [141] (p. 166), [142] (p. 338). In a different topographical setting, Veronica Kalas [135] (p. 90) has seen outlying chapels in 10th–11th century Cappadocia as a protective sacred barrier between the outside and inside worlds of the inhabitants. Churches of the period of Latin domination in the 13th–15th centuries AD, located in close proximity to arable fields belonging to small landowners, have also been seen as markers of important resources and property ownership or as entry points to geographical units, like the cases discussed by Lucia Nixon [143] (pp. 23–26) in Crete, or Jim Crow and his collaborators [144] (pp. 130–132) in Naxos.

Nowadays, various GIS analyses (e.g., Viewshed, Cost-Surface and Least Cost Path) comprise a useful means for exploring the spatiality of sites (i.e., the hierarchical arrangement of sites) and their relation with topography and the environment, social and economic variables. The relationship between extra-urban sacred space and the formation of political and cultural identities was recently examined in the context of Iron Age Cyprus by employing a series of GIS analyses [50] (p. 542). An equivalent approach was followed for the first time in the case of the sacred landscapes of late antique Naxos [21] (pp. 265–271). Viewshed and Cost Surface analyses from several late antique basilicas on Naxos have demonstrated that churches functioned as settlement focal points, as economic 'central places' and as notional territory or 'boundary' markers. Site choice, the spatial distribution and the secular dimension of Byzantine churches have also been observed in the case of the region of Tanagra in Boeotia (central Greece). GIS analyses, in combination with archaeological evidence for settlement activity in the area, have revealed the pattern of settlement hierarchy and how village-community 'territorial boundaries' were formed under the protection of the 'sacred' [16] (pp. 166–168). Another fascinating example of sacred or ritual landscapes and centrality is provided by Hamish Forbes [145] (p. 372) for the Methana peninsula in the Peloponnese. There, extramural churches in faraway locations and on 'neutral' ground formed strategic meeting places for family and friends from different villages. The annual celebrations at those churches provided the means by which different communities have been able to express their pan-peninsular identity. In this landscape,

therefore, it was not nucleated communities which have become ‘central places’; rather, it was these isolated structures in the apparently ‘empty’ countryside.

The study of central and un-central landscapes, therefore, within the above framework, may become a significant interlocutor, which stimulates the understanding of the broader political, economic and cultural space. Landscape archaeology has the potential to be truly unifying, bridging the gap between scientific or positivistic archaeologies and those that approach it from the perspective of social theory or the humanities [146]. There is undoubtedly a need for an integrated approach in which all the approaches mentioned above are taken into account.

6. Political Economy

It is commonplace that Adam Smith is generally regarded as a ‘neoclassical economist’, the founder of ‘political economy’ as a distinct social science and a representative of ‘liberal capitalism’ through his influential work *The Wealth of Nations* [147], originally published in 1776. Amongst other contributions, his work defined better than any time before the role of the state in economy. The concept has been adopted in humanities and used more broadly by anthropological archaeologists [17] (with references). In addition, Smith’s writings have recently generated great interest amongst scholars (ancient historians and classical archaeologists amongst others) in pursuing a more holistic approach to analysing his thought [148] (p. 1). In short, Smith’s approach, at the beginning of the Industrial Revolution, provides the earliest comprehensive account of market society as a decentralised, well-governed system in which prices coordinate the efficient allocation of resources in a competitive economy. He distinguishes four substantive terms: the *nature* and *causes* of the *wealth of nations*, while he defines ‘political economy’ as the medium (a) for the provision of plentiful subsistence for the people and (b) for the supply of the state with a revenue sufficient for public services [148] (pp. 10, 30). His multifaceted monumental work comprises an exceptional account, employing terminology such as productivity, the division of labour, the concepts of price, profits, wages, money and free market (aspects of economic analysis), as well as aspects of specialisation and demand in Europe since the fall of the Roman Empire [149]. Today, Smith is still viewed as a crucial thinker in the field of economics.

The concept of ‘political economy’, however, has been used more broadly (in an attempt to interpret economic life well before the time of Adam Smith) in the writings of ancient philosophers, such as Xenophon, Plato and Aristotle, who represent the first attempts for understanding economy in ancient Greece [150] (pp. 100–101). The ‘laws of state management’, as we would literally translate ‘political economy’ from Greek, first introduced as a term by Antoine de Montchrestien in 1615, defined the means to increase a state’s wealth and run its economy. Political economy became the focus of the work of Karl Marx [151] which defined the means of controlling wealth and creating inequality [152] (p. 204). It was within the work of both Marx and Engels that political economy acquired a ‘proletarian’ value and was defined in terms of labour and exchange relationships to elucidate the role of the state in protecting (and helping to grow) the wealth of the bourgeoisie [150] (pp. 105–108), [152] (p. 204), [153].

When it comes to the application of political economy in archaeology and anthropology, the concept varies accordingly. As Kenneth Hirth [152] (p. 205) points out, anthropological and archaeological analyses focus on the production and exchange of goods, on the function of service centres in both state and non-state societies, emphasising interregional linkages within and between prehistoric and historic societies [154] (p. 43). ‘Political economy’ is contrasted to ‘subsistence economy’, with the former defining the satisfaction of basic everyday household needs (e.g., food, shelter and clothing) and the latter seeking to generate income for a ruling elite, agreeing—in a way—with the Aristotle’s analogy of household economy being in a family, while political economy being in a state [155] (pp. 481–483). Thus, political economy mobilises (or extracts) a surplus from subsistence economy to sustain political, religious and social institutions constituted by a non-food producing group, i.e., the ‘elite’ [156] (p. 13). As a result, the ruling elite administered such institutions in order to own and control productive resources.

As anthropology and archaeology grew in the course of the 20th, with Marxist concepts reviving during the 1960s, 1970s and 1980s, the concept of political economy dominated prehistoric archaeology and cultural materialism [155,157]. Inspired by anthropological political economy in the work of North American anthropologists, Marxist archaeologists discarded basic ideals of Marxist thought by studying such concepts as different facets of the same societal whole [158,159], [160] (p. 133), [161] (pp. 30–31). Contemporary scholarship, however, have questioned in different occasions what role political theory plays in the concept of economic and political life; it seems that both concepts are interdependent [162] (p. 61).

More recently, anthropological archaeologists, with Timothy Earle as a pioneer, have mostly used the concept of ‘political economy’ to distinguish from ‘subsistence’, ‘social’ and ‘ritual’ economies. Political economy, as Earle [17] (p. 13) discusses, “fuels power dynamics in human societies” and “mobilises resources and labour to support frameworks of power, competition, and potential domination”. According to Earle, centralised institutions of control and governance depend systematically on channelled material flows, and, we would, add symbols, iconography and ideology, that can be read in ancient landscapes. The mobilisation of resources, material and iconography can support the economic, military and ideological sources of power [163,164]. Thus, positions of political authority yield many personal benefits in lifestyle, access to mates or personal standing in the community. Because of these advantages, competition for these positions is strong, and success in competition depends on an ability to maximise power to fend off opponents. It is within this framework of power relations and economic interaction in a supra-regional rather than local level that the exchange and cooperation between places led to the theory of ‘central flows’ discussed in above. As already explained, central flow theory refers to city networks that are constituted by the interlocking of cities via specialists in the course of their economic activities: “vibrant, dynamic cities have always been interlocked by ‘foreign’ commerce, and this has been what has made them cosmopolitan” [2] (p. 2814). Rethinking and reevaluating centrality in light of contemporary developments in archaeological thought, and by bringing together ‘central places’ and ‘un-central landscapes’, help us grasp upon the complex relation between ‘vibrant cities’ and their countryside, as shaped by political economies. The diversity of the different disciplinary perspectives and approaches presented in this volume, combined with dialogues, enriches our task of multiple interpretations, and should be seen as a healthy pluralism.

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References

1. Christaller, W. *Die zentralen Orte in Süddeutschland*; G. Fischer: Jena, Germany, 1933.
2. Taylor, P.J.; Hoyler, M.; Verbruggen, R. External urban relational process: Introducing central flow theory to complement central place theory. *Urban Stud.* **2010**, *47*, 2803–2818. [[CrossRef](#)]
3. Bunge, W. *Theoretical Geography*; Lund Studies in Geography Series 100, General and Mathematical Geography 1; C.W.K. Gleerup: Lund, Sweden, 1962; ISSN 00761486.
4. Brown, S. Retail location theory: Evolution and evaluation. *The Int. Rev. Retail, Distrib. Consum. Res.* **1993**, *3*, 185–229. [[CrossRef](#)]

5. Lösch, A. *The Economics of Location*; Woglom, W.H.; Stolper, W.F., Translators; Yale University Press: New Haven, CT, USA, 1940; ISBN 0300007272.
6. Pacione, M. *Urban Geography: A Global Perspective*; Routledge: London, UK, 2009; ISBN 9780415462020.
7. Knitter, D. Central Places and the Environment: Investigations of an Interdependent Relationship. Ph.D. Thesis, Topoi Excellence Cluster, Free University of Berlin, Berlin, Germany, 19 December 2013.
8. Rood, R.J. Spatial analysis in archaeology: Historical developments and modern applications. *Lambda Alpha J. Man* **1982**, *14*, 25–60.
9. Knitter, D.; Blum, H.; Horejs, B.; Nakoinz, O.; Schütt, B.; Meyer, M. Integrated centrality analysis: A diachronic comparison of selected Western Anatolian locations. *Quaternary International* **2013**, *312*, 45–56. [[CrossRef](#)]
10. Wilmsen, E.N. Interaction, spacing behavior and the organization of hunting bands. *J. Anthropol. Res.* **1973**, *29*, 1–31. [[CrossRef](#)]
11. Chisholm, M. *Rural Settlement and Land Use*; Aldine Transaction: Piscataway, NJ, USA, 2007; ISBN 9780202309149.
12. Lehmann, H. Die Siedlungsräume Ostkretas im Wandel der Zeiten. *Geographische Zeitschrift* **1939**, *45*, 212–228.
13. Philippson, A. *Die Griechischen Landschaften. Eine Landeskunde*; Vittorio Klostermann: Frankfurt am Main, Germany, 1950–1959.
14. Bintliff, J. Deconstructing ‘the sense of place’? Settlement systems, field Survey and the historic record: A case-study from central Greece. *Proc. Prehist. Soc.* **2000**, *66*, 123–149. [[CrossRef](#)]
15. Scull, C. Ipswich: Development and contexts of an urban precursor in the seventh century. In *Central Places in the Migration and Merovingian Periods. Papers from the 52nd Sachsensymposium, Lund, August 2001*; Hårdh, B., Larsson, L., Eds.; Acta Archaeologica Lundensia 8.39; Uppåkrastudier: Stockholm, Sweden, 2002; pp. 113–123, ISBN 9122019790.
16. Vionis, A.K. Understanding settlements in Byzantine Greece: New data and approaches for Boeotia, sixth to thirteenth centuries. *Dumbarton Oaks Pap.* **2017**, *71*, 127–173.
17. Earle, T. *An Essay on Political Economies in Prehistory*; Graduiertenkolleg 1878 Beiträge zur Wirtschaftsarchäologie Band 2; Habelt-Verlag: Bonn, Germany, 2017; ISBN 9783774941151.
18. Earle, T.; Beck, J.H.; Kristiansen, K.; Aperlo, P.; Kelertas, K.; Steinberg, J. The political economy of late Neolithic and early Bronze Age society: The Thy Archaeological Project. *Norwegian Archaeol. Rev.* **1998**, *31*, 1–28. [[CrossRef](#)]
19. Earle, T.; Ling, J.; Uhnér, C.; Stos-Gale, Z.; Lelheim, L. The political economy and metal trade in Bronze Age Europe: Understanding regional variability in terms of comparative advantages and articulations. *Eur. J. Archaeol.* **2015**, *18*, 1–25. [[CrossRef](#)]
20. Papantoniou, G.; Vionis, A.K. Landscape archaeology and sacred space in the eastern Mediterranean: A glimpse from Cyprus. *Land* **2017**, *6*, 40. [[CrossRef](#)]
21. Vionis, A.K.; Papantoniou, G. Sacred landscapes as economic ‘central places’ in late antique Naxos and Cyprus. *Antiquité Tardive* **2017**, *25*, 263–286. [[CrossRef](#)]
22. Panantoniou, G.; Vionis, A.K. The river as an economic asset: Settlement and society in the Xeros Valley in Cyprus. *Land* **2018**, *7*, 157. [[CrossRef](#)]
23. Papantoniou, G. *Religion and Social Transformations in Cyprus. From the Cypriot ‘Basileis’ to the Hellenistic ‘Strategos’*; Mnemosyne Supplements 347; Brill: Leiden, The Netherlands, 2012; ISBN 9789004224353.
24. Bintliff, J.L. The contribution of an Analiste/structural history approach to archaeology. In *The Annales School and Archaeology*; Bintliff, J.L., Ed.; Leicester University Press: Leicester, UK, 1991; pp. 1–33, ISBN 0718513541.
25. Tilley, C. *A Phenomenology of Landscape: Places, Paths and Monuments*; Berg: Oxford, UK, 1994; ISBN 1859730760.
26. Cooper, D.E. Archaeology, landscape and aesthetics. *Cogent Arts Hum.* **2015**, *2*, 1077647.
27. Farinetti, E. *Boeotian Landscapes: A GIS-Based Study for the Reconstruction and Interpretation of the Archaeological Datasets of Ancient Boeotia*; British Archaeological Reports International Series 2195; Archaeopress: Oxford, UK, 2011; ISBN 9781407307503.
28. Bintliff, J.L. Agency, structure, and the unconscious in the *longue durée*. In *Eurasia at the Dawn of History: Urbanization and Social Change*; Fernández-Götz, M., Krausse, D., Eds.; Cambridge University Press: Cambridge, UK, 2017; pp. 243–253, ISBN 9781316550328.

29. Bintliff, J.L. The archaeological survey of the Valley of the Muses and its significance for Boeotian history. In *La Montagne des Muses*; Hurst, A., Schachter, A., Eds.; Recherches et rencontres, littérature 7; Librairie Droz: Geneva, Switzerland, 1996; pp. 193–224, ISBN 2600001573.
30. Bintliff, J.L. *The Complete Archaeology of Greece: From Hunter-Gatherers to the 20th Century AD*; Wiley-Blackwell: Oxford, UK, 2012; ISBN 9781405154192.
31. Neustupný, E. Community areas of prehistoric farmers in Bohemia. *Antiquity* **1991**, *65*, 326–331. [[CrossRef](#)]
32. Kuna, M.; Dreslerová, D. Landscape archaeology and ‘community areas’ in the archaeology of central Europe. In *Envisioning Landscape: Situations and Standpoints in Archaeology and Heritage*; Hicks, D., McAtackney, L., Fairclough, G., Eds.; One World Archaeology 52; Routledge: New York, NY, USA, 2016; pp. 146–171, ISBN 9781598742824.
33. Holtorf, C.; Williams, H. Landscapes and memories. In *The Cambridge Companion to Historical Archaeology*; Hicks, D., Beaudry, M.C., Eds.; Cambridge University Press: Cambridge, UK, 2006; pp. 235–254, ISBN 139780521619622.
34. Zipf, G.K. *Human Behavior and the Principle of Least Effort: An Introduction to Human Ecology*; Hafner: New York, NY, USA, 1965.
35. Clarke, D.L. Spatial information in archaeology. In *Spatial Archaeology*; Clarke, D.L., Ed.; Academic Press: London, UK, 1977; pp. 1–32, ISBN 9780121757502.
36. Nakoinz, O. Concepts of central place research in archaeology. In *Landscapes and Human Development: The Contribution of European Archaeology. Proceedings of the International Workshop ‘Socio-Environmental Dynamics over the Last 12,000 Years: The Creation of Landscapes (1–4 April 2009)’*; Kiel Graduate School ‘Human Development in Landscapes’, Ed.; Habelt: Bonn, Germany, 2010; pp. 251–264.
37. Walsh, K. Mediterranean landscape archaeology: Marginality and the culture-nature ‘divide’. *Landsc. Res.* **2008**, *33*, 547–564. [[CrossRef](#)]
38. Kirsten, E. *Die griechische Polis als historisch-geographisches Problem des Mittelmeerraumes*; Colloquium Geographicum 5; Dümmler: Bonn, Germany, 1956.
39. Haggett, P. *Locational Analysis in Human Geography*; Arnold: London, UK, 1965; ISBN 9780713151794.
40. Hodder, I. Some new directions in the spatial analysis of archaeological data at the regional scale (Macro). In *Spatial Archaeology*; Clarke, D.L., Ed.; Academic Press: London, UK, 1977; pp. 223–351, ISBN 9780121757502.
41. Bintliff, J.L. Territoriality and politics in the prehistoric and classical Aegean. In *Territoriality in Archaeology*; Osborne, J.F., Van Valkenburgh, P., Eds.; Archaeological Papers of the American Anthropological Association 22(1); Wiley-Blackwell: Chichester, UK, 2013; pp. 28–38, ISBN 9781118871218.
42. Meijers, E. From central place to network model: Theory and evidence of a paradigm change. *Tijdschrift voor Economische en Sociale Geografie* **2007**, *98*, 245–259. [[CrossRef](#)]
43. Knitter, D.; Nakoinz, O. The relative concentration of interaction – A proposal for an integrated understanding of centrality and central places. *Land* **2018**, *7*, 86. [[CrossRef](#)]
44. Champion, T.C. Introduction. In *Centre and Periphery: Comparative Studies in Archaeology*; Champion, T.C., Ed.; One World Archaeology 11; Routledge: London, UK, 1995; pp. 1–20, ISBN 9780415122535.
45. Vita-Vinzi, C.; Higgs, E.S.; Sturdy, D.; Harriss, J.; Legge, A.; Tippet, H. Prehistoric economy in the Mount Carmel area of Palestine: Site catchment analysis. *Proc. Prehist. Soc.* **1970**, *36*, 1–37. [[CrossRef](#)]
46. Bintliff, J.L. Territorial behaviour and the natural history of the Greek polis. In *Stuttgarter Kolloquium zur Historischen Geographie des Altertums*, 4; Olshausen, E., Sonnabend, H., Eds.; Hakkert Verlag: Amsterdam, The Netherlands, 1994; pp. 207–249, ISBN 9789025610715.
47. Traill, J.S. *The Political Organization of Attica: A Study of the Demes, Trittyes, and Phylai, and their Representation in the Athenian Council*; Hesperia Supplement 14; American School of Classical Studies at Athens: Princeton, NJ, USA, 1975; ISBN 9780876615140.
48. Fossey, J.M. *Topography and Population of Ancient Boiotia*; Ares Publishers: Chicago, IL, USA, 1988; ISBN 9780890054826.
49. Rupp, D.W. Vive le roi: The emergence of the state in Iron Age Cyprus. In *Western Cyprus: Connections; Studies in Mediterranean Archaeology 77*; Rupp, D.W., Ed.; Paul Åströms Forlag: Göteborg, Sweden, 1987; pp. 147–161, ISBN 9186098578.
50. Papantoniou, G.; Kyriakou, N. Sacred landscapes and the territoriality of Iron Age Cypriot polities: The applicability of GIS. *Am. J. Archaeol.* **2018**, *122*, 541–577. [[CrossRef](#)]

51. Driessen, J. History and hierarchy. Preliminary observations on the settlement pattern of Minoan Crete. In *Urbanism in the Aegean Bronze Age*; Branigan, K., Ed.; Sheffield Studies in Aegean Archaeology; Sheffield Academic Press: London, UK, 2001; pp. 51–71, ISBN 1841273414.
52. Martínez Jiménez, J.; Tejerizo García, C. Central places in the post-Roman Mediterranean: Regional models for the Iberian Peninsula. *J. Mediterr. Archaeol.* **2015**, *28*, 81–103. [[CrossRef](#)]
53. Austin, D. Central place theory and the Middle Ages. In *Central Places, Archaeology and History*; Grant, E., Ed.; Sheffield University Press: Sheffield, UK, 1986; pp. 95–104, ISBN 0906090253.
54. Citter, C. Central places in un-central landscapes: The Tuscany of ‘weak towns’ between Lombards and Carolingians (AD 600–900). In *Medieval Europe IV. Theme 2: Archaeology and Rural Landscape: Rural Settlements in Their Natural, Economical and Social Environment*; Catteddu, I., De Vingo, P., Nissen Jaubert, A., Eds.; De Ferrari Editore: Genoa, Italy, 2011; pp. 1–8.
55. Blotvogel, H.H. Zentrale Orte. In *Handwörterbuch der Raumordnung*; Ritter, E.-H., Ed.; Akademie für Raumforschung und Landesplanung: Hannover, Germany, 2005; pp. 1307–1315, ISBN 9783888385551.
56. Denecke, D. Der geographische Stadtbegriff und die räumlich-funktionale Betrachtungsweise bei Siedlungstypen mit zentraler Bedeutung in Anwendung auf historische Siedlungsepochen. In *Vor- und Frühformen der Europäischen Stadt im Mittelalter: Bericht über ein Symposium in Reinhausen bei Göttingen in der Zeit vom 18. bis 24. April 1972*; Jankuhn, H., Schlesinger, W., Steuer, H., Eds.; Abhandlungen der Akademie der Wissenschaften in Göttingen 3; Vandenhoeck & Ruprecht: Göttingen, Germany, 1972; pp. 33–55, ISBN 3525823576.
57. Gringmuth-Dallmer, E. Kulturlandschaftsmuster und Siedlungssysteme. *Siedlungsforschung* **1996**, *14*, 7–31.
58. Pollard, H.P. Central places and cities: A consideration of the Protohistoric Tarascan State. *Am. Antiq.* **1980**, *45*, 677–696. [[CrossRef](#)]
59. Wickham, C. Productive forces and the economic logic of the feudal mode of production. *Hist. Mater.* **2008**, *16*, 3–22. [[CrossRef](#)]
60. Ragkou, K. The economic centrality of urban centres in the medieval Peloponnese: Late 11th–mid-14th centuries. *Land* **2018**, *7*, 153. [[CrossRef](#)]
61. Parr, J.B.; Denike, K. Theoretical problems in central place analysis. *Econ. Geogr.* **1970**, *46*, 568–586. [[CrossRef](#)]
62. Nakoinz, O. Models of centrality. *eTopoi. J. Anc. Stud.* **2012**, *3*, 217–223.
63. Castells, M. *The Rise of the Network Society; The Information Age: Economy, Society and Culture 1*; Blackwell: Oxford, UK, 1996; ISBN 1557866171.
64. Hohenberg, P.M.; Hollen Lees, L. *The Making of Urban Europe, 1000–1994*; Harvard University Press: Cambridge, MA, USA, 1995; ISBN 0674543629.
65. Knitter, D.; Nakoinz, O.; Del Fabbro, R.; Kohlmeyer, K.; Meyer, M.; Schütt, B. The centrality of Aleppo and its environs. *eTopoi. J. Anc. Stud.* **2014**, *3*, 107–127.
66. McKenzie, R.D. *The Metropolitan Community*; Russell and Russell: New York, NY, USA, 1967.
67. Hodges, R. *Towns and Trade in the Age of Charlemagne*; Duckworth: London, UK, 2000; ISBN 0715629654.
68. Sindbæk, S.M. Networks and nodal points: the emergence of towns in early Viking Age Scandinavia. *Antiquity* **2007**, *81*, 119–132. [[CrossRef](#)]
69. Hodges, R. The evolution of gateway communities: Their socio-economic implications. In *Ranking, Resource and Exchange: Aspects of the Archaeology of Early European Society*; Renfrew, C., Shennan, S., Eds.; Cambridge University Press: Cambridge, UK, 1982; pp. 117–123, ISBN 0521242827.
70. Burghardt, A.F. A hypothesis about gateway cities. *Ann. Am. Assoc. Geogr.* **1971**, *61*, 269–285. [[CrossRef](#)]
71. Webb, J. Shifting centres: Site location and resource procurement on the north coast of Cyprus over the *longue durée* of the prehistoric Bronze Age. *Land* **2018**, *7*, 64. [[CrossRef](#)]
72. Goetz, H.-W. Concepts of realm and frontiers from Late Antiquity to the Early Middle Ages: Some preliminary remarks. In *The Transformation of Frontiers from Late Antiquity to the Carolingians*; Pohl, W., Wood, I., Reimitz, H., Eds.; Brill: Leiden, The Netherlands, 2001; pp. 73–82, ISBN 9004111158.
73. Harrison, D. Invisible boundaries and places of power: Notions of liminality and centrality in the Early Middle Ages. In *The Transformation of Frontiers from Late Antiquity to the Carolingians*; Pohl, W., Wood, I., Reimitz, H., Eds.; Brill: Leiden, The Netherlands, 2001; pp. 83–93, ISBN 9004111158.
74. Papantoniou, G.; Bourogiannis, G. The Cypriot extra-urban sanctuary as a central place: The case of Agia Irini. *Land* **2018**, *7*, 139. [[CrossRef](#)]

75. Papantoniou, G. Cyprus from basileis to strategos: A sacred-landscapes approach. *Am. J. Archaeol.* **2013**, *117*, 33–57. [[CrossRef](#)]
76. Di Paola, G.M.F. Central place and liminal landscape in the territory of Populonia. *Land* **2018**, *7*, 94. [[CrossRef](#)]
77. Gordon, J.M. Transforming culture on an Insula Portunalis: Port cities as central places in Early Roman Cyprus. *Land* **2018**, *7*, 155. [[CrossRef](#)]
78. Utz, G. From contrary to complementary models: Central places and gateways in the south-eastern Provence (Arles and Marseille). *Land* **2018**, *7*, 95. [[CrossRef](#)]
79. Bintliff, J.L. The mountain peoples of ancient Greece: The relevance of World-Systems Theory and Neo-Malthusianism to their development. In *Stuttgarter Kolloquium zur historischen Geographie des Altertums 5, 1993: Gebirgsland als Lebensraum*; Olshausen, E., Sonnabend, H., Eds.; Geographica historica 8; A.M. Hakkert: Amsterdam, The Netherlands, 1996; pp. 105–141, ISBN 9025610935.
80. Le Roy Ladurie, E. L'histoire immobile. *Annales* **1974**, *29*, 673–692. [[CrossRef](#)]
81. Vionis, A.K. A boom-bust cycle in Ottoman Greece and the ceramic legacy of two Boeotian villages. *J. Greek Archaeol.* **2016**, *1*, 353–384.
82. Bintliff, J.L. Recent developments in the social and economic archaeology of the Mediterranean region from a long-term perspective. *J. Mediterr. Archaeol.* **2008**, *40*, 36–47.
83. Curtis, D.R. *Coping with Crisis: The Resilience and Vulnerability of Pre-Industrial Settlements*; Ashgate: Farnham, UK, 2014; ISBN 9781472420046.
84. Haldon, J.; Roberts, N.; Izdebski, A.; Fleitmann, D.; McCormick, M.; Cassis, M.; Doonan, O.; Eastwood, W.; Elton, H.; Ladstätter, S.; et al. The climate and environment of Byzantine Anatolia: Integrating science, history, and archaeology. *J. Interdiscipl. Hist.* **2014**, *45*, 113–161. [[CrossRef](#)]
85. Jankuhn, H. Methoden und Probleme siedlungsarchäologischer Forschung. *Archaeol. Geogr.* **1955**, *4*, 73–84.
86. Barker, G. *Prehistoric Farming in Europe*; Cambridge University Press: Cambridge, UK, 1985; ISBN 0521269695.
87. Walsh, K. Mediterranean landscape archaeology and environmental reconstruction. In *Environmental Reconstruction in Mediterranean Landscape Archaeology*; Leveau, P., Trément, F., Walsh, K., Barker, G., Eds.; Oxbow: Oxford, UK, 1999; pp. 1–8, ISBN 1900188635.
88. Forman, R.T.T.; Godron, M. *Landscape Ecology*; Wiley: New York, NY, USA, 1986; ISBN 9780471870371.
89. Anschuetz, K.F.; Wilshusen, R.H.; Scheick, C.L. An archaeology of landscapes: Perspectives and directions. *J. Archaeol. Res.* **2001**, *9*, 157–211. [[CrossRef](#)]
90. Iacovou, M. Historically elusive and internally fragile island polities: The intricacies of Cyprus' political geography in the Iron Age. *Bull. Am. Sch. Orient. Res.* **2013**, *370*, 15–47. [[CrossRef](#)]
91. Lünig, J. Landschaftsarchäologie in Deutschland, ein Programm. *Archäologisches Nachrichtenblatt* **1997**, *2*, 277–285.
92. Gramsch, A. Landschaftsarchäologie - ein fachgeschichtlicher Überblick und ein theoretisches Konzept. In *Landschaftsarchäologie und geographische Informationssysteme: Prognosekarten, Besiedlungsdynamik, und prähistorische Raumordnungen*; Kunow, J., Müller, J., Eds.; Forschungen zur Archäologie im Land Brandenburg 8; Brandenburgisches Landesamt für Denkmalpflege und Archäologisches Landesmuseum: Wünsdorf, Germany, 2003; pp. 35–56, ISBN 3910011330.
93. Hassan, F.A. Ecology in archaeology: From cognition to action. In *A Companion to Archaeology*; Bintliff, J.L., Ed.; Blackwell Publishing: Oxford, UK, 2006; pp. 311–333, ISBN 9781405149792.
94. Zimmermann, A. Landschaftsarchäologie I. Die Bandkeramik auf der Aldenhovener Platte. *Bericht der Römisch-Germanischen Kommission* **2002**, *83*, 17–38.
95. Zimmermann, A.; Richter, J.; Frank, T.; Wendt, K.P. Landschaftsarchäologie II. – Überlegungen zu Prinzipien einer Landschaftsarchäologie. *Bericht der Römisch-Germanischen Kommission* **2004**, *85*, 37–97.
96. Müller, J. The disentanglement of landscapes: Remarks on concepts of socio-environmental research and landscape archaeology. In *Past Landscapes: The Dynamics of Interaction between Society, Landscape, and Culture*; Haug, A., Käppel, L., Müller, J., Eds.; Sidestone Press: Leiden, The Netherlands, 2018; pp. 39–51, ISBN 9789088907302.
97. Nakoinz, O.; Knitter, D. *Modelling Human Behaviour in Landscapes: Basic Concepts and Modelling Elements*; Springer: Basel, Switzerland, 2016; ISBN 9783319295381.
98. Poulou, N.; Tantsis, A. From town to countryside: Middle-Byzantine bath-houses in eastern Crete and their changing functions. *Land* **2018**, *7*, 107. [[CrossRef](#)]

99. Diers, L. Timacum Minus in Moesia Superior: Centrality and urbanism at a Roman mining settlement. *Land* **2018**, *7*, 126. [[CrossRef](#)]
100. Turner, S.; Bolòs, J.; Kinnaird, T. Changes and continuities in a Mediterranean landscape: A new interdisciplinary approach to understanding historic character in western Catalonia. *Landsc. Res.* **2017**, 1–17. [[CrossRef](#)]
101. Hicks, D. The temporality of the landscape revisited. *Norwegian Archaeol. Rev.* **2016**, *49*, 5–22. [[CrossRef](#)]
102. Constantakopoulou, C. Landscape and hunting. The economy of the *eschatia*. *Land* **2018**, *7*, 89. [[CrossRef](#)]
103. Rieger, A.-K. 'Un-central' landscapes of NE-Africa and W-Asia – Landscape archaeology as a tool for socio-economic history in arid landscapes. *Land* **2019**, *8*, 1. [[CrossRef](#)]
104. Steel, L. Watery entanglements in the Cypriot hinterland. *Land* **2018**, *7*, 104. [[CrossRef](#)]
105. Citter, C. Landscapes, settlements and sustainability. In *Detecting and Understanding Historic Landscapes*; Chavarría Arnau, A., Reynolds, A., Eds.; PCA Studies 2; SAP Società Archeologica S.R.L.: Mantova, Italy, 2015; pp. 253–272, ISBN 9788887115994.
106. Zimmermann, A.; Wendt, K.P.; Frank, T.; Hilpert, J. Landscape archaeology in central Europe. *Proc. Prehist. Soc.* **2009**, *75*, 1–53. [[CrossRef](#)]
107. Schreg, R. Landschaft im Wandel – Perspektiven einer Landschafts- und Umweltarchäologie. In *Landschaft(en). Begriffe–Formen–Implikationen*; Felten, F.J., Müller, H., Ochs, H., Eds.; Geschichtliche Landeskunde 68; Franz Steiner Verlag: Stuttgart, Germany, 2012; pp. 63–86, ISBN 9783515087605.
108. Schreg, R. Ecological approaches in medieval rural archaeology. *Eur. J. Archaeol.* **2014**, *17*, 83–119. [[CrossRef](#)]
109. Ebersbach, R. *Von Bauern und Rindern. Eine Ökosystemanalyse zur Bedeutung der Rinderhaltung in bäuerlichen Gesellschaften als Grundlage zur Modellbildung im Neolithikum*; Basler Beiträge zur Archäologie 15; Schwabe: Basel, Switzerland, 2002; ISBN 9783796518638.
110. Hodder, I.; Orton, C. *Spatial Analysis in Archaeology*; New Studies in Archaeology 1; Cambridge University Press: Cambridge, UK, 1976; ISBN 0521210801.
111. Cavanagh, W.; Crouwel, J.; Catling, R.W.V.; Shipley, G. (Eds.) *Continuity and Change in a Greek Rural Landscape. The Laconia Survey, Volume 1. Methodology and Interpretation*; Annual of the British School at Athens Supplementary Volume 26; British School at Athens: London, UK, 2002; ISBN 0904887227.
112. Bintliff, J.L.; Howard, P.; Snodgrass, A.M. (Eds.) *Testing the Hinterland: The Work of the Boeotia Survey (1989–1991) in the Southern Approaches to the City of Thespiai*; McDonald Institute of Archaeological Research: Cambridge, UK, 2007; ISBN 9781902937373.
113. Turner, S. *Making a Christian Landscape: The Countryside in Early Medieval Cornwall, Devon and Wessex*; University of Exeter Press: Exeter, UK, 2006; ISBN 9780859897853.
114. Bis-Worch, C.; Theune, C. *Religion, Cults and Rituals in the Medieval Rural Environment*; RURALIA 11; Sidestone Press: Leiden, The Netherlands, 2017; ISBN 9789088904868.
115. Biemann, C.; Thomas, B. *Debating Religious Space and Place in the Early Medieval World (c. AD 300–1000)*; Sidestone Press: Leiden, The Netherlands, 2018; ISBN 9789088904189.
116. Alcock, S.E. *Graecia Capta: The Landscapes of Roman Greece*; Cambridge University Press: Cambridge, UK, 1993; ISBN 0521401097.
117. Alcock, S.E. Minding the gap in Hellenistic and Roman Greece. In *Placing the Gods: Sanctuaries and Sacred Space in Ancient Greece*; Alcock, S.E., Osborne, R., Eds.; Clarendon Press: Oxford, UK, 1994; pp. 247–261, ISBN 9780198149477.
118. Alcock, S.E. The reconfiguration of memory in the eastern Roman Empire. In *Empires: Perspectives from Archaeology and History*; Alcock, S.E., D'Altroy, T.N., Morrison, K.D., Sinopoli, C.M., Eds.; Cambridge University Press: Cambridge, UK, 2001; pp. 323–350, ISBN 9780521112345.
119. Alcock, S.E.; Gates, J.E.; Rempel, J.E. Reading the landscape: Survey archaeology and the Hellenistic *Oikoumene*. In *A Companion to the Hellenistic World*; Erskine, A., Ed.; Blackwell: Oxford, UK, 2005; pp. 355–372, ISBN 9781405132787.
120. Van Dyke, R.M.; Alcock, S.E. (Eds.) *Archaeologies of Memory*; Blackwell: Oxford, UK, 2003; ISBN 9780631235842.
121. Knapp, A.B.; Ashmore, W. Archaeological landscapes: Constructed, conceptualized, ideational. In *Archaeologies of Landscape: Contemporary Perspectives*; Ashmore, W., Knapp, A.B., Eds.; Blackwell: Oxford, UK, 1999; pp. 1–30, ISBN 0631211063.
122. Given, M. *The Archaeology of the Colonized*; Routledge: London, UK, 2004; ISBN 9780415369923.

123. Bender, B. *Landscape: Politics and Perspectives*; Berg: Oxford, UK, 1993; ISBN 0854963731.
124. Ashmore, W. Social archaeologies of landscape. In *A Companion to Social Archaeology*; Meskell, L., Preucel, R.W., Eds.; Blackwell: Oxford, UK, 2004; pp. 255–266, ISBN 0631225781.
125. Brück, J. Experiencing the past? The development of a phenomenological archaeology in British prehistory. *Archaeol. Dialogues* **2005**, *12*, 45–72. [[CrossRef](#)]
126. Johnston, R. Approaches to the perception of landscape: Philosophy, theory, methodology. *Archaeol. Dialogues* **1998**, *5*, 54–68. [[CrossRef](#)]
127. Finlayson, B.; Dennis, S. Landscape, archaeology and heritage. *Levant* **2002**, *34*, 219–227. [[CrossRef](#)]
128. Crumley, C.L. Sacred landscapes: Constructed and conceptualized. In *Archaeologies of Landscape: Contemporary Perspectives*; Ashmore, W., Knapp, A.B., Eds.; Blackwell: Oxford, UK, 1999; pp. 269–285, ISBN 0631211063.
129. Cherry, J.F. Cyprus, the Mediterranean, and survey: Current issues and future trends. In *Archaeological Field Survey in Cyprus. Past History, Future Potentials. Proceedings of a Conference held by the Archaeological Research Unit of the University of Cyprus, 1–2 December 2000*; Iacovou, M., Ed.; British School at Athens Studies 11; The British School at Athens: London, UK, 2004; pp. 23–35, ISBN 0904887464.
130. Caraher, W.R. Church, Society, and the Sacred in Early Christian Greece. Ph.D. Thesis, The Ohio State University, Columbus, OH, USA, 2003.
131. Caseau, B. Sacred landscapes. In *Interpreting Late Antiquity: Essays on the Postclassical World*; Bowersock, G.W., Brown, P., Grabar, O., Eds.; Belknap Press of Harvard University Press: London, UK, 2001; pp. 21–59, ISBN 9780674005983.
132. Sweetman, R.J. Christianization of the Peloponnese: The topography and function of Late Antique churches. *J. Late Antiq. Stud.* **2010**, *3*, 203–261.
133. Caseau, B. The fate of rural temples in Late Antiquity. In *Recent Research on the Late Antique Countryside*; Bowden, W., Lavan, L., Machado, C., Eds.; Late Antique Archaeology 2; Brill: Leiden, The Netherlands, 2004; pp. 105–144, ISBN 900413607X.
134. Gerstel, S.E.J. Painted sources for female piety in Byzantium. *Dumbarton Oaks Pap.* **1998**, *52*, 89–111. [[CrossRef](#)]
135. Kalas, V. Sacred boundaries and protective borders: Outlying chapels of Middle Byzantine settlements in Cappadocia. In *Sacred Landscapes in Anatolia and Neighboring Regions*; Gates, C., Morin, J., Zimmermann, T., Eds.; Oxford, BAR International Series 2034; Archaeopress: Oxford, UK, 2009; pp. 79–91, ISBN 9781407306117.
136. Vionis, A.K. Sacred townscapes in Late Antique Greece: Christianisation and economic diversity in the Aegean. *J. Mediterr. Archaeol.* **2017**, *30*, 141–165. [[CrossRef](#)]
137. Lidov, A. Hierotopy. The creation of sacred spaces as a form of creativity and subject on cultural history. In *Hierotopy. The Creation of Sacred Spaces in Byzantium and Medieval Russia*; Lidov, A., Ed.; Indrik: Moscow, Russia, 2006; pp. 32–58, ISBN 585759376X.
138. Dale, T.E.A. Sacred space from Constantinople to Venice. In *The Byzantine World*; Stephenson, P., Ed.; Routledge: London, UK, 2010; pp. 406–427, ISBN 9780415440103.
139. Caseau, B. Experiencing the sacred. In *Experiencing Byzantium. Papers from the 44th Spring Symposium of Byzantine Studies, Newcastle and Durham, April 2011*; Nesbitt, C., Jackson, M., Eds.; Society for the Promotion of Byzantine Studies Publications 18; Ashgate: Farnham, UK, 2013; pp. 59–77, ISBN 9781472412294.
140. Antonopoulos, S.; Gerstel, S.E.J.; Kyriakakis, C.; Raptis, K.T.; Donahue, J. Soundscapes of Byzantium. *Speculum* **2017**, *92*, 321–335. [[CrossRef](#)]
141. Gerstel, S.E.J. The Byzantine village church: Observations on its location and on agricultural aspects of its program. In *Les Villages dans l'Empire byzantin, IVe–XVe siècle*; Lefort, J., Morrisson, C., Sodini, J.-P., Eds.; Réalités byzantines 11; Lethielleux: Paris, France, 2005; pp. 165–178, ISBN 2283604613.
142. Vionis, A.K. The archaeology of landscape and material culture in Late Byzantine–Frankish Greece. *Pharos* **2014**, *20*, 313–346.
143. Nixon, L. *Making a Landscape Sacred: Outlying Churches and Icon Stands in Sphakia, Southwestern Crete*; Oxbow: Oxford, UK, 2006; ISBN 1842172069.
144. Crow, J.; Turner, S.; Vionis, A.K. Characterizing the historic landscapes of Naxos. *J. Mediterr. Archaeol.* **2011**, *24*, 111–137. [[CrossRef](#)]
145. Forbes, H. *Meaning and Identity in a Greek Landscape: An Archaeological Ethnography*; Cambridge University Press: Cambridge, UK, 2007; ISBN 9780511720284.

146. Thomas, J. The politics of vision and the archaeologies of landscape. In *Landscape: Politics and Perspectives*; Bender, B., Ed.; Berg: Oxford, UK, 1993; pp. 19–48, ISBN 0854963731.
147. Smith, A. *An Inquiry into the Nature and Causes of the Wealth of Nations*; George Bell: London, UK, 1887; (reprinted from the 6th edition).
148. Aspromourgos, T. *The Science of Wealth. Adam Smith and the Framing of Political Economy*; Routledge: London, UK, 2009; ISBN 9780415463850.
149. Perrotta, C. Economic value and moral value in Aristotle. In *History and Political Economy. Essays in Honour of P.D. Groenewegen*; Aspromourgos, T., Lodewijks, J., Eds.; Routledge Studies in the History of Economics 68; Routledge: London, UK, 2004; pp. 14–25, ISBN 0415327628.
150. Ilyin, S.; Motylev, A. *What Is Political Economy?* Progress Publishers: Moscow, Soviet Union, 1986.
151. Marx, K. *Pre-Capitalist Economic Formations*; Lawrence & Wishart: London, UK, 1964; ISBN 0853151431.
152. Hirth, K.G. Political economy and archaeology: Perspectives on exchange and production. *J. Archaeol. Res.* **1996**, *4*, 203–239. [[CrossRef](#)]
153. Marx, K. *A Contribution to the Critique of Political Economy*; Charles H. Kerr & Company: Chicago, IL, USA, 1904.
154. Cobb, C.R. Archaeological approaches to the political economy of nonstratified societies. *Archaeol. Method Theory* **1993**, *5*, 43–100.
155. Fowler, W.R., Jr. Political economy. In *Encyclopedia of Historical Archaeology*; Orser, C.E., Jr., Ed.; Routledge: London, UK, 2002; pp. 481–483, ISBN 0203461746.
156. Johnson, A.W.; Earle, T.K. *The Evolution of Human Societies: From Foraging Group to Agrarian State*; Stanford University Press: Stanford, CA, USA, 1987; ISBN 0804713391.
157. Moore, J.H. Political economy in anthropology. In *The Political Economy of North American Indians*; Moore, J.H., Ed.; University of Oklahoma Press: Norman, OK, USA, 1993; pp. 3–19, ISBN 0806125055.
158. Diamond, S. *Search of the Primitive: A Critique of Civilisation*; Transaction Books: New Brunswick, NJ, USA, 1981; ISBN 087855582X.
159. Wolf, E.R. *Europe and the People without History*; University of California Press: Berkeley, CA, USA, 1982; ISBN 0520044592.
160. McGuire, R.H. Marxism and capitalism in historical archaeology. In *The Cambridge Companion to Historical Archaeology*; Hicks, D., Beaudry, M.C., Eds.; Cambridge University Press: Cambridge, UK, 2006; pp. 123–142, ISBN 9780521853750.
161. Holschuh, D.L. An Archaeology of Capitalism: Exploring Ideology through Ceramics from the Fort Vancouver and Village Sites. Master's Thesis, Portland State University, Portland, OR, USA, 2013.
162. Milgate, M.; Stimson, S.C. *After Adam Smith. A Century of Transformation in Politics and Political Economy*; Princeton University Press: Princeton, NJ, USA, 2009; ISBN 9780691140377.
163. Earle, T.K. *How Chiefs Come to Power: The Political Economy in Prehistory*; Stanford University Press: Stanford, CA, USA, 1997; ISBN 0804728569.
164. Earle, T.K.; Spriggs, M. Political economy in prehistory: A Marxist approach to Pacific sequences. *Curr. Anthropol.* **2015**, *56*, 515–544. [[CrossRef](#)]

