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Landscapes of People at War

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War does not only incur immediate human and material losses; it forces individuals, families, and communities to change their perspectives and ways of life, and it fundamentally alters landscapes. For people who can migrate, war may mean leaving places their families have inhabited over generations and continuing their lives within other societies, often with unfamiliar cultural norms, a lower status, and different social roles. In search for safety, some people arrive in regions with different ecological and physical settings, requiring new approaches to practices, material culture, meanings, and interaction with the environment. For those who do not migrate, war means adapting to a new life—one shaped by fear and possibly scarcity and famine, hard borders, and banned territories—or being subject to practices that would be unacceptable in other situations, such as abuse or loss of freedom.

The scars left by wars go beyond psychological. Conflict, violence, and fear can be fixed and materialized in landscapes. In designing defenses, communities move residences, build fortifications, invest resources, create alliances, and negotiate with human and nonhuman beings for help. The histories of how territories were appropriated and transformed by communities at war offer insight into how built landscapes not only reflect what happened but also influence generations to come. We present in this volume eleven cases of transformed landscapes, of different geographic origin, time depth, social complexity, and historical context.

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This chapter briefly reviews how the main topics of warfare and landscapes have intersected in archaeological literature, how the physical manifestations of violence and conflict have become permanent features in landscapes, and how the chapters in this volume contribute to a better understanding of the topic.

LANDSCAPES

Through archaeological studies of landscapes, we consider a wide range of questions and approaches—from those related to settlement patterns to symbolic and experiential approaches—that have been used in order to understand and explain past human geographies (Anschuetz et al. 2001; Bradley 1998; Knapp and Ashmore 1999; Moore 2005; Parsons 1972; Tilley 1994). These approaches differ in how they view the relationship between people and their social and natural environments. Some archaeological and anthropological approaches have focused on explaining environmental influences on how people obtained food and other resources, how people distributed themselves in a territory, how they organized themselves and interacted with other groups, and even how their religious beliefs were shaped, in adaptive terms, to keep their sociocultural system in balance. Landscapes were modeled in these terms especially but not only during the apogee of the New Archaeology.

The postprocessual critique cast doubt on many of the assumptions that drove archaeological research until the 1970s and promoted a theoretical agenda asking for reflexivity, new epistemologies, individual volition, and practices (Hodder and Hutson 2003; Shanks 2008). Some of these new questions have shaped the way archaeologists understand space and study landscapes today. First, archaeologists were interested in the role of humans as agents of change in opposition to social structure (Dobres and Robb 2000). For instance, people were no longer considered passive beings adapting to predetermined environmental conditions; it was acknowledged that environments were in constant transformation and that people were active agents on it (Blume and Leinweber 2004; Crumley 2017; Hayashida 2005; Roberts et al. 2017). People have contributed to species extinction, transformed species (domestication), and modified environs (niche construction) to fit to their own needs. The view that *most* landscapes are anthropogenic was considered by many researchers for a long time, but during the last few decades this concept has been explicitly stated and even have become a subject of archaeological investigations.

The notion of place—locations meaningful to people due to certain historical, identarian, and experiential circumstances linked to the construction of

individual and/or collective memories and practices—has been used in contrast to the notion of space—an abstract, objective, and quantifiable quality of spatial extension, a set of relationships between the subjects and objects and the positions everyone plays. The concept of place not only represents a location of physical activity; it also refers to the behavioral settings happening on it or in reference to it (Bradley 1998; Tilley 1994; Whitridge 2004).

The landscapes studied by archaeologists are both manifestations of how people interacted with other people and nature, and how they have assigned meanings to these places. In the Central Andes, for instance, Inka landscapes integrated incredible transformed places with meanings linked by mythical stories and a ceremonial system (e.g., Bauer 2000; Kaulicke et al. 2004; Kosiba 2015; Santillana 2012; Taylor 1987) whose details have reached to us through early colonial records. This "reading" of past landscapes has been practiced in some national archaeological traditions since the early twentieth century (e.g., Tello and Miranda 1923) but also in nonwestern views of existing landscapes (Reid et al. 2014; see also Kim and Quick, chapter 6 in this volume).

A. Bernard Knapp and Wendy Ashmore (1999) observe that three processes interplay in the conferral of meaning to places in landscapes. Certain locations (including those without human modification) became places of special cultural significance because they are associated with specific social practices and experiences or are articulated within narratives of how people view their world, forming part of what Knapp and Ashmore call conceptual landscapes and ideational landscapes, respectively. Some places perpetuate or fix meanings through the physical transformation of their topography, the third process resulting in constructed landscapes. While some constructions, such as monuments, are highly visible, other subtler modifications can have powerful meanings, too.

Landscapes are not fixed but subject to constant change and reinterpretation, because both natural settings and culture are in constant flux. This flux allows archaeologists and other students of the past to reconstruct ancient landscapes through time; if landscapes were fixed and static, the remains from the past would be indistinguishable from the present. The constant change enables us to consider the historically specific forces, conditions, and contexts through which landscapes have been transformed. In this sense, landscape scale is integrative because it allows us to study human activities within their local historical context (Crumley 2007).

Local history matters also matters because people occupy territories that, most of the time, were already modified by their antecessors. Landscapes are not only the result of people interacting with their social and natural

environment at one moment in time; they are the medium that makes human actions possible (Anschuetz et al. 2001, 161; Giddens 1984), a form of "structure" derived by multiple cumulative past actions that condition the decisions of generations to come (Arkush 2011, 12). In this way, built landscapes reinforce the path dependency in local history and memories of social phenomena (Tilley 1994, 30).

Some postprocessual critiques have also enriched current archaeological studies on settlement patterns. Although not all of these studies have engaged in the symbolic and more experiential approaches, this kind of study forms an important part of the archaeological understanding of ancient built landscapes. For instance, siteless survey (Dunnell 1992; Dunnell and Dancey 1983; Peterson and Drennan 2005) is among the most important methodological developments related to the studies of regions. The use of archaeological sites as bounded units of observation and analysis has been considered a limitation to the consideration of landscapes as spaces where people's movements are fluid and whose activities do not always leave discrete and evident traces such as buildings or high-density clusters of artifacts. Another example of alternative perspectives about landscapes is historical ecology, a framework focused on the interaction between people and environment in historically specific contexts, highlighting human agency, the long-term effects of human actions on the environment, and the need for the collaboration of specialists from multiple disciplines to understand and explain how landscapes are constructed through time (Crumley 2017; Hayashida 2005; Meyer and Crumley 2011).

Despite its obviousness, the common ground of all landscapes studies that is important to emphasize is the presence of people and the effects of their actions on the land, whether we are focused on natural resources, natural features, monuments, or dwellings. The recent renewed interest on demography (Bouquet-Appel and Bar-Yosef 2008; Drennan et al. 2015) is very relevant because it allows archaeologists to understand how changes in population might or might not relate to cultural processes that modified landscapes.

One way to study the relation between people and landscapes has been the economic dimensions of these interactions. From this perspective, the study of landscapes is related to the use, appropriation, and modification of land and its resources by human communities through time (Metheny 1996). People's investment (labor, resources, and social relationships) materializes and accumulates in the form of infrastructure (buildings, agricultural facilities, public spaces, fortifications, etc.), which can be transmitted, inherited, disputed, enhanced, or destroyed over time. Landscapes, then, become a critical resource for the negotiation of power relations in human societies as well as a way for

the archaeologist to approximate to the goals behind each construction (Earle and Doyel 2008).

Landscapes are also physical manifestations of power relations within society. Some places may symbolize the power of specific groups, especially those territorial referents that are involved in the construction, reinforcing, and recreation of social identities. The strategic modification of landscapes can be a medium through which to communicate the importance, influence, strength, and capabilities of some groups to the rest of the society, including enemies, or can modify or reinforce the way in which groups are perceived and conceptualized by others (Branton 2009).

These contrasting approaches are not mutually exclusive; collectively, they provide a more complete understanding of the multiple dimensions in which landscapes evolve *together* with the people on them (Anschuetz et al. 2001; Fisher and Thurston 1999). In this volume we are interested in how landscapes have been appropriated and modified by communities at war. While there is a strong emphasis on the built/constructed aspect, these landscapes were shaped by perceptions of fear and threat, which were influential in the (re)definition of social boundaries and communities' identities. The cases in this volume permit comparison of regions with contrasting ecologies and topographies, of communities with different historical trajectories and at different socioeconomic situations, and, because the contributors were trained in different archaeological traditions, of different ways in which space and landscapes are studied.

LANDSCAPES OF WARFARE

The origins of war, as well as the ultimate and proximate factors that spark violence, have been extensively treated in multiple publications (Allen and Arkush 2006; Arkush 2011; Armit 2011; Chapman 1999; Guilaine and Zammit 2005; Keeley 1996; Kelly 2000, 2005; LeBlanc 2006; Thorpe 2003). In general, war is differentiated from other kinds of violence, such as domestic violence or personal revenge, because it has been defined to signify the exchange of violence between social groups (Kelly 2000; Thorpe 2003). This broad definition of warfare includes a wide range of actions, from small-scale raids of tribal societies to the highly organized, large-scale, and highly destructive encounters of modern armies (Keeley 1996).

Abundant historical, ethnographic, and archaeological evidence has demonstrated that war is more complex than it was initially considered to be in anthropological models (Carneiro 1970, 1998; Wilson 1987). Understanding warfare requires acceptance of the fact that the exchange of violence between

people is intimately related to other aspects of life. Material conditions (such as resources and environment), local and regional politics, social structure and culture—the most common cited causal factors—are not mutually exclusive, but operate together and influence each other, not always in the same way, in each moment of increased conflict (Arkush 2011, 7). In this complex matrix we cannot underestimate the agency of individuals, their personal histories, feelings, perceptions, interests, and goals, which, in certain circumstances, can change history (Flannery 1999). The combination of these factors in a region could determine the ways in which people build, appropriate, and transform their landscapes.

Variation in warfare can be explained by the political systems and aims of the groups in conflict (Arkush 2011). Julie Solometo (2006) categorizes the observed variability into six interrelated dimensions: social distance, social scale, tactics, goals, frequency and predictability of engagements, and duration of war. Social distance affects how destructive war can be; it is expected, for instance, that related communities do not combat until the extermination of the other. The size of warring parties may affect the scale of investment of defending populations: to face large armies, people might build massive defenses such as ramparts and ditches, for instance. The tactics and the technology used in each confrontation are related to the reasons and goals for which wars are waged: territorial expansion, slave raiding, resources control, warlords' competition, and so forth. These elements influence the degree of violence incurred to enemies, how frequent and predictable attacks are, and how people prepare to defend themselves. If attacks are rare and predictable, people may not need strong protections; however, if attacks are frequent and unpredictable, communities might choose to concentrate within fortified settlements. Finally, the duration of violent interaction between groups may be shaped by several other factors, from the impetus of war leaders to live in constant war (benefiting from it, Carneiro 1998) to the capacity of certain polities for supporting long-term investment in the military. Because defensive strategies depend on how a threat is perceived, analyzing how landscapes were fortified allows us to reconstruct how war was waged in specific historical moments. This approach has been used by several authors of the present volume, some more explicitly than others (see Ikehara-Tsukayama, chapter 11 in this volume).

Because the scale of the fighting party could be a strong factor in the success in combat, wars encourage the formation of political factions and alliances (Redmond 1994). These groups can unify groups to face the menace of a large enemy (Ikehara 2016), but they can be also instrumental in breaking the power parity between competing polities in a region (Allen 2008; Arkush

2011). People could have multiple and changing allegiances, which is reflected in the fact that a single region's communities could be involved simultaneously in multiple, nested, and overlapped alliances or coalitions. We cannot study these macrocommunities with a focus solely on sites; we require a multiscalar approach to identify the scale and shapes of these macrocommunities (Arkush 2011).

Built Landscapes

Despite that participation in war is a group activity, there are different impetuses for social cooperating based on whether engagement in warfare is defensive or offensive. Paul Roscoe (2013) argues that when facing a threat, people are more willing to cooperate in defensive strategies than in the organization of attacks. Organization of attacks requires other more powerful motivations or a centralized command, the latter more likely to occur within hierarchical complex societies. It is not surprising, then, that the most prominent and identifiable material evidence of warfare is defensive infrastructure such as fortifications (Arkush and Stanish 2005; Keeley et al. 2007).

Multiple interests may converge in the location and design of fortifications. On the one hand, because we can count fortifications among the most expensive communal projects—in terms of resources, labor, and time— people tend not to invest more than needed to protect themselves (Arkush and Stanish 2005). Therefore, the scale of fortifications is a proportional representation of the degree and kind of threat perceived by the builders. These structures, however, not only provide obvious defensive advantages to their occupants, but can be a form of monumentality that conveys signs of community identity, power, and wealth (Arkush and Ikehara 2019; Armit 2007; Lock 2011; O'Driscoll 2017; Trigger 1990). Then, changes in fortification patterns can be used to track transformation in how warfare was conducted and how warfare and power were related over time.

Fortifications, moreover, are likely to be built only once conflict increases in scale, intensity, or frequency. The simplest way to defend a community—clustering people in large settlements—facilitates the rapid organization of defensive parties; also, all other things being equal, a much larger fighting party is the most obvious advantage in a confrontation. Moreover, this unbalance between attacking and defending parties was thought to be enough to discourage the attacks. In part because of this defensive strategy, dense towns are formed and separated by relatively unoccupied zones known as buffer zones or no-man's-lands (Wilcox and Haas 1994). Building up defenses

usually means adding fortifications to already clustered populations. The simplest ones are ditches and palisades, while more complex ones involve nested and overlapping defenses (ramparts, towers, fortresses, etc.), including the formation of regional defensive systems. Additionally, because the organization of defenses are usually aligned with existing sociopolitical formations, the analysis of how people defend themselves can offer insight into how people organize locally and regionally (Arkush 2011; Arkush and Ikehara 2019). The scale of fortifications is, in most cases, directly related to the size of the labor pool. Fortifications reflect the capacity of social institutions to manage and coordinate larger groups of people.

Another important element in the constitution of landscapes during war is battlefields. An substantial number of encounters may occur around fortresses and settlements, but sometimes these combats could occur in battlefields, in which material evidence is less conspicuous, and it is difficult to include them in reconstructions of past warfare landscapes. Written records are an important means of identifying these locations; archaeological data—including the spatial distribution of combat implements (weapons, armors, etc.), trenches, and injured human remains—also afford ways of identifying these important places. However, the mere existence of battlefields is a subject of debate. The battlefield, as well as the idea of armies of professional soldiers, must be understood as the by-product of certain cultural expectations and rules of combat and purposes of wars (Carman 1999).

In contrast with the sporadic nature of combats, defensive infrastructure, once built, becomes a permanent element in landscapes. This observation is especially relevant for those facilities built with very durable materials. That archaeological observation can be made of these facilities, in the present, is a testament to this permanence. These modified spaces restrict the movement of people and their descendants, segregating and stratifying communities, conditioning their options, and affecting their daily lives. The Collas from the Peruvian Titicaca basin (500–950 BP) offer a good example of lifestyles constrained by war infrastructure. It has been noted that the aggregation of Colla communities in *pukaras* (large, fortified settlements) forced the Colla to adopt risky economic strategies (Langlie and Arkush 2016). Fortifications provided such an advantage that conquering neighbors was very difficult, and regional political consolidation was never achieved by local Colla lords. Fortifications perpetuated conflict between neighbors until the Inca conquest of the region (Arkush 2011). Eventually, the Inca Empire forced the Colla to move to the valley bottom, abandoning their ancestral towns (Arkush 2011; Stanish 1997), maybe as a strategy to reduce their independent ethos and bellicosity.

Roads, pathways, and causeways are forms of infrastructure that can have serious impacts in warfare, because they can facilitate communication and the movement of fighting forces. Large empires such as the Inca expanded their road system in each conquest, effectively mobilizing armies and supplies (Hyslop 1984). In smaller-scale societies, causeways were both used to control distant subjugated settlements through the mobilization of military forces (Spencer and Redmond 1998) and for the defense of distant towns against the action of enemies. Checkpoints on roads could be useful for guarding territories and for providing early warnings in case of attacks or invasions. In the Venezuelan lowlands, the Caquetío built large and monumental causeways that radically transformed the natural topography, creating an interconnected landscape of fortified towns, and integrating large polities that controlled hundreds of square kilometers (Spencer 1994). In chapter 7 in this volume, Earley-Spadoni introduces and discusses the role of communication routes in shaping landscapes of the ancient Near East.

Places

Landscape transformations during wartimes also involves the articulation of new meanings. Some places can be considered dangerous because of easy exposure to enemies' attacks. These empty areas may be results of the formation of buffer zones or no-man's-lands (see chapters 4 and 10 in this volume the chapter by Williams and Vargas Ruiz), zones that remain "empty, underutilized, or unutilized and fallow" (LeBlanc 2006, 445) because hostilities between two or more groups are concentrated in these locations. These unutilized areas can be reintegrated later into production systems if the region is pacified (Le Blanc 2006). However, some places remain dangerous because they were perceived as enchanted, haunted, or possessed by invisible forces, spirits, and beings allied with current or former enemies.

Production of cultural meaning and symbols associated with specific places can be viewed as an alternative arena for the creation and manipulation of ideological power in the context of war. Religious and war practices converge in certain places, such as the *luakini* (war temples) of Hawaii (Kolb and Dixon 2002) or the ritual structure inside the fortress of Chankillo in coastal Peru (Ghezzi 2006). As Elizabeth Arkush and Charles Stanish (2005) remind us, war and ritual are not exclusive: people carried out rituals seeking to be favored in combats, to express gratitude for victories, to acquire enemies' power, and so on. Moreover, war can be read as a confrontation between nonhuman beings or carried out under nonhuman sponsorship (Nielsen 2009).

The permanence of landscape elements makes them strategic symbolic resources for building and consolidating authority and power, and people competed for them (Snead 2009). The powerful meanings attributed to some places can be reclaimed later, even after the long abandonment of these places. Memories of past confrontations and successes can be instrumental to the legitimization of political discourses and identities (Rowlands 1993). For instance, in chapter 6 in this volume, Kim and Quick describe the reoccupation of Co Loa's fortified capital by later royal dynasties as a way to claim connections to an autochthonous powerful past. War memorials are a different kind of symbol, dedicated not only to mourning warriors and soldier but also to commemorating victors and remembering victims of confrontations. War memorials constitute the historical memory of a community inscribed in landscapes; they embody a force that calls to mind social relationships and that makes visible the richness of warfare and history. These places utilize the memory of the dead for political, social, and moral motivations, and they legitimize the act of war through generations (Clarke 2010).

Unexpected Consequences of War

Many decisions made during periods of warfare have had long-lasting and unexpected consequences for subsequent generations. Some places (ruined towns, battlefields, etc.) can be permanently abandoned because they became places for remembrance of suffering and death or because surviving populations resettled elsewhere in the aftermath of war. Even after war ends, these areas may continue to be considered dangerous places thanks to the memory of threat preserved in stories and myths.

The buffer zones or no-man's-lands created between competing polities often became areas where human activities were reduced, and these became optimal locations for the recovery of wild species, especially those intensively exploited by people, such as game species. This has been observed in the Korean Peninsula's Demilitarized Zone (Brady 2012; Kim 1999), have been interpreted from the Lewis and Clark accounts of nineteenth-century western North America (Martin and Szuter 1999), and may have been common in preindustrial societies at war (see Vargas Ruiz, chapter 10 in this volume).

In the process of the (re)appropriation of landscapes, walls have a special importance. While the abandonment of lands and the aggregation of population can put boundaries on local defensive communities, walls provide tangible evidence of social boundaries and differentiation, and community power and solidarity, as well as segmentation that persists even during more

peaceful times (Arkush 2014; Arkush and Ikehara 2019; Arkush and Stanish 2005; Ikehara and Arkush 2018; Lock 2011). Moreover, walls may form part of the physical structure that shapes social processes. As mentioned by Earley-Spadoni (chapter 7 in this volume), defensive concerns were behind the recurrence of occupation in the same locations of the landscape and the construction of perimetric walls around settlements, both leading to the development of *tells* in the Near East in the past.

Linguistics provides useful insights into the normalization of fortifications as part of settlements and landscapes. Many words for "city" or "town" in modern European languages share similar etymology concerned with defense: Proto-Germanic *burgz* (fortification, stronghold, or fortified city) and Proto-Slavic *gordъ* (enclosure, fortification, or castle), which derived from Proto-Indo-European *bʰerǵʰ* (high/lofty, hill/mountain) and *gʰerdʰ-* (to enclose),[1] respectively. The defensive attribute of settlements described in these words may have emerged during times when warfare was so pervasive that fortifications became a basic element in any town or city. The current usages of these words do not necessarily recall the idea of defensibility, as its original usage fixed, because they have been assigned to places that are not or may have never been fortified in their past. Our current definition of cities and town do not include the idea of protection against the attack of enemies.

The process of association between defenses and towns should be related to the groups speaking these proto-Indo-European languages. Recent advances in prehistoric population genomics support the hypothesis that they were pastoral groups from the Eurasian steppes (Allentoft et al. 2015; Anthony 2007; de Barros Damgaard et al. 2018). In chapter 3 in this volume, Chechushkov explores the historical context of these proto-Indo-European-speaking communities of the Sintashta-Petrovka culture, while Earley-Spadoni examines the use of "city walls" to refer to the Near East city of Uruk in the *Epic of Gilgamesh*. Additionally, Williams, in chapter 4, describes a similar use of the suffix of "wall" as part of the script for "city" during Early Shang times in ancient China.

OVERVIEW OF THIS VOLUME

The chapters within this volume have been organized into two sections: Old World and New World. Despite the problematic assumptions associated

1. See American Heritage Dictionary Info-European Roots Appendix (https://www.ahdictionary.com/word/indoeurop.html) and the Proto-Indo-European Root Extension (https://rex.iling.spb.ru/).

with these terms, we have separated the cases from the Americas because they correspond to social trajectories that developed independently from the rest of the world. In the Old World, there is always the possibility that innovations arrived at specific regions by cultural transmission, exchange, and/or migrations (see discussions in Borzunov, Kim and Quick, chapters 2 and 6 in this volume, respectively). However, similarities in sociopolitical forms, economic institutions, and technology related to warfare between the Old and New Worlds must be considered independent developments, and hence independent subjects of inquiry. Our purpose, however, is both to compare cases or sociopolitical trajectories, and to understand the historical and ecological contexts in which these war landscapes were created, transformed, and made legacy for next generations. For this reason, we invited colleagues specializing in different regions of the world in order to include a variety of cases to help illustrate the many ways in which built landscapes were used to face conflict and violence.

Previously published work on this subject has focused, in some cases more explicitly than others, on fortified landscapes (Arkush 2011; Earley-Spadoni 2015; Hill and Wileman 2002; Kim 2013; Kolb and Dixon 2002). After all, the study of fortifications has been, together with human remains, the most studied archaeological evidence for warfare (Arkush and Stanish 2005; Arkush and Tung 2013; Guilaine and Zammit 2005; Keeley et al. 2007; Vencl 1984; Wilcox and Haas 1994). This volume was created with the clear intention of presenting and discussing cases on how people at war has modified their landscapes in different historical and geographical contexts (figure 1.1 and figure 1.2). We invite the reader to compare the presented cases in several ways:

- *Old World versus New World developments*. Considering that Indigenous societies from the Americas developed almost independently of the Old World since the last glaciation, how do their ways of warfare and their landscapes compare to those of the rest of the world?
- *Different environmental and topographical contexts*. How have the characteristics of the terrain and ecology affected how warfare has been waged, and the kinds of defensive strategies favored by communities? How can optimal defensive locations explain reoccupation of the same places (see Scholtus, chapter 8 in this volume)?
- *Degrees of sociopolitical complexity*. This volume includes cases of simple and relatively small-scale societies (Borzunov), chiefly/ranked societies (Williams, Chechushkov, Scholtus, Vargas Ruiz, Nichols, Ikehara-Tsukayama

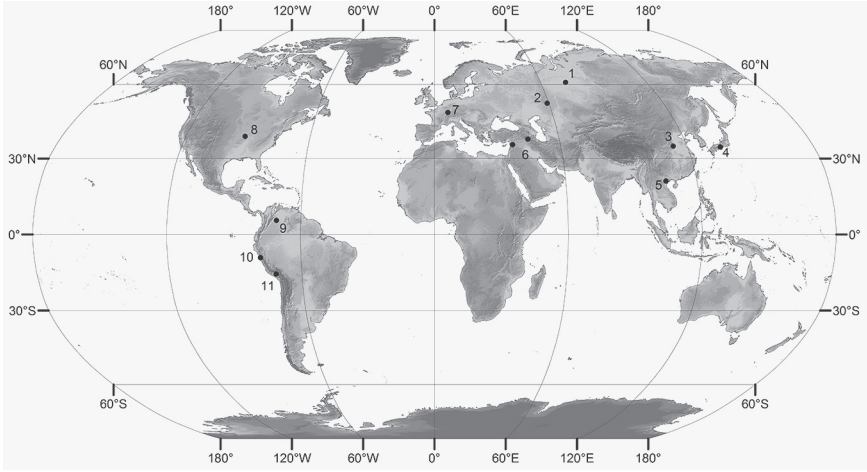

Figure 1.1. *Location of the cases presented by authors in this volume: (1) Borzunov; (2) Chechushkov; (3) Williams; (4) Matsugi; (5) Kim and Quick; (6) Earley-Spadoni; (7) Scholtus; (8) Nichols; (9) Vargas Ruiz; (10) Ikehara-Tsukayama; (11) Kohut.*

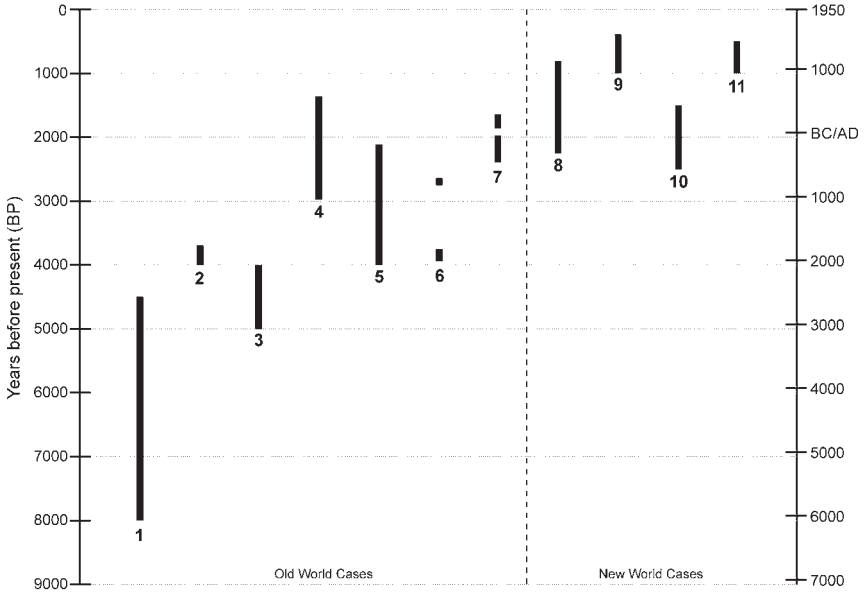

Figure 1.2. *Comparison of the time depth of the cases presented by authors in this volume: (1) Borzunov; (2) Chechushkov; (3) Williams; (4) Matsugi; (5) Kim and Quick; (6) Earley-Spadoni; (7) Scholtus; (8) Nichols; (9) Vargas Ruiz; (10) Ikehara-Tsukayama; (11) Kohut.*

and Kohut), and states and empires (Matsugi, Kim and Quick, and Earley-Spadoni).

- *Different approaches to the study of landscapes, including differing graphic visualizations*. For instance, Borzunov's maps shows a clear influence from traditional cartography, while other contributors reveal the impact of Geographic Information System (GIS) tools in describing, modeling, and interpreting spatial data.

In the first chapter of this volume, chapter 2, Viktor A. Borzunov presents a unique case: very old (8000–4500 BP) fortified settlements built by nonagricultural groups living in very high latitudes, in the middle of the Taiga zone. Some explanatory models of the origin of war consider the adoption of agriculture and subsequent population increase as causes for competition for lands and catalyzers of violence; however, Borzunov suggests that despite farming life's incomplete adoption by local populations of northwestern Russia by the end of the Neolithic period, competition for resources arose as the result of the influx of foreign groups. An interesting observation by Borzunov is the shift between a settlement pattern based on fortified hamlets (with several houses each) to a landscape in which the larger houses were specially fortified, occurring in the Neolithic-Chalcolithic transition. Did this shift signal the rise of war leaders during the Chalcolithic? This case has seldom been described outside of Russian academic literature and presents an interesting contrast to the cases in the other chapters of this book.

In chapter 3, Igor V. Chechushkov questions the defensive nature of the Sintatshta-Petrovka settlements (4000–3700 BP), proposing that fully understanding these enclosed settlements means considering the multiple environmental challenges people have and had in the Eurasian steppes. Contrary to traditional interpretations that consider the Sintashta-Petrovka settlements forts or defensive villages, Chechushkov argues that enclosed compact settlements may have been a strategy to protect people and their herds from such environmental hazards as freezing winds and river floods. He makes intensive use of GIS tools, including specialized software to analyze wind patterns.

Chapter 4, by James T. Williams, focuses on war landscapes formed between 5000 and 4000 BP in Central China, during the Longshan period. If warfare was widespread during this time, Williams inquires, why were only a fraction of the settlements properly fortified with walls, leaving the rest of the population exposed to attacks? By using GIS tools, he tests and disproves several (mostly ecological) hypotheses. He suggests that violence was intricately tied to the formation of political and elite identities in the region. Leaders

consolidated their power by providing defense against raids in this tumultuous period.

In chapter 5, Takehiko Matsugi analyzes how the rise and fall of fortified landscapes related to the consolidation of political authority in Early Japan (2960–1350 BP). He argues that the popularization and later decline of fortified settlements correspond to a transition between communal identities to a more individualized one. During the Yayoi era, fortified villages were the materialization and symbolic representation of collective identity and power, in a political landscape of competing chiefdoms. The regional domination by a powerful chiefdom first, and a mature state later, was characterized by the consolidation of a political hierarchy. Rulers became the symbol of the whole community. The communal use of labor and resources was reallocated from village defenses to the monumental royal burials of the Kofun era. Comparing this activity to what was occurring in adjacent regions, Matsugi argues that this political process was spatially constrained.

In chapter 6, Nam C. Kim and Russel Quick's introduce a case from the tropical Co Loa polity of Southeast Asia. They relate the emergence of the Co Loa polity to a massive modification of the landscape. A large city, with Indigenous and foreign (Chinese) architectural features, was founded in the Red River Delta (Vietnam). Cosmological elements are also present in the constitution of the city: the elevated terrains resemble the domed shell of a turtle out of legend. In chapter 5, Matsugi argues that Chinese influence in Kofun Japan helped to consolidate power under a religious and legal system, reducing conflict; by contrast, Kim and Quick argue that Chinese influence was felt in northern Vietnam as the influx of refugees and the threat of invasion. These factors, combined with the pressure of local competitors, may have pushed local groups to create a heavily fortified landscape in the polity's capital. Matsugi's and Kim and Quick's chapters are helpful contemporaneous examples of the ways in which Early China imperialism influenced local developments in its periphery and how landscapes can be reconceptualized during times of drastic sociopolitical and ideological transitions.

Moving westward, in chapter 7 Tiffany Earley-Spadoni contributes two cases from the Near East: Bronze Age Syria (3950–3750 BP) and Iron Age Assyria (2750–2650 BP). Drawing from multiple historical and archaeological sources, she argues that warfare and communication routes were intimately related, both shaping how landscapes evolved through time. In Syria, landscapes were dominated by fortified city states; fortresses, forts, and towers were built as components of warning systems against attacks. Earley-Spadoni also examines Neo-Assyrian road systems designed to boost imperial expansion