# War and Society in the Ancient and Medieval Worlds

Asia, The Mediterranean, Europe, and Mesoamerica

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A Paradigm for the Study of War and Society

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#### Introduction

If most studies of war focus too exclusively on campaign and combat, anthropology tilts in the other direction. Anthropology focuses on the cultural connections of war more than its actual practice, which makes the discipline particularly relevant for this volume. Anthropology's distinctive contribution for understanding war derives from the twin disciplinary pillars of holism and cross-cultural comparison. All aspects of life fit together into sociocultural systems. Contours of pattern integration are relatively clear in the smaller, less complex societies anthropologists typically study, especially if seen in comparison to each other. Because of the scale of the societies considered in this volume and the enormous literature about each, holistic synthesis and comparison are difficult to imagine or attempt. This chapter is an application to the cases presented in this volume of a holistic model of the sociocultural ramifications of war developed through the cross-cultural study of stateless peoples. Not a theory but a framework for theory, it might best be called a paradigm.

This general model or paradigm has been developed in other publications.<sup>1</sup> It categorizes sociocultural phenomena into infrastructure, structure, and super-structure, which are conceptualized together as a complex hierarchy of progressively more limiting constraints. Somewhat simplified, infrastructure is a broad conjuncture of variables involving interaction with the physical environment, population characteristics and trends, technology, and the labor techniques of

applying technology, which affect a people's physical existence and relation to nature. Structure consists of organized social life, patterns of interpersonal connections and divisions sorted into social organization, economics, and politics. Superstructure includes the mental constructs of culture, its belief systems, and patterned emotional dispositions. Each level is hugely complex, and each is equally important for human existence. But they relate to different aspects of the culture of war and can provide answers to different sorts of questions.

As an analytical tool, the paradigm shows how to combine different approaches dealing with different topical questions, with both causes and effects of war, with different time frames and levels of analysis, and with both system and process. It may seem like a catalogue of war-society connections, but one with coherence and a theoretical structure that is capable of generating contrasting hypotheses. It provides a common framework usable for cross-cultural comparison, or for wide-ranging investigation of war-society connections in one case. Prior to this essay, however, generalizations had been derived almost entirely from research into non-state societies, with simple states as the end point in the range. This chapter is a test of the paradigm's applicability to war and society in the ancient and medieval world. Regarding the case material presented here, does it apply, and does it help make sense of the bewildering rush of histories that have preceded?

The paradigm as presented here departs from earlier presentations. Previous discussions were couched in terms of relationships between war andsociety, although "intersocietal" interactions were also discussed (Ferguson 1984a.54). I would now argue that, in developing a holistic perspective on war, it is useful to distinguish explicit relations between war and sociocultural systems-or "society"-that occur within polities (war-making units) from those that occur among polities. This distinction opens up new areas for investigation and makes the paradigm potentially applicable to "international relations" approaches, while drawing attention to the internal-external dialectics that so frequently dominate war politics.

The plan of this presentation is to discuss the interconnections of war and society first within polities, going from infrastructure through structure to superstructure, then to do the same as those interconnections apply to inter- or transpolity relations. Ethnographic citations are of single exemplary cases. As each point is made, I will present applicable information from this volume (parenthetical references by name without year thus concern chapters in this volume). The fit is variable. In some cases, anthropological theory is more extensive and suggests areas where historical research might be pursued. In the other direction, several issues in this volume suggest extension of the paradigm beyond where tribal peoples could take it. The conclusion is a unified summary of points from both parts as they apply to the cases in this volume.

## Sociocultural Ramifications of War within Polities

### Intrapolity Infrastructure

The broad characteristics of physical existence, the practicalities of survival and reproduction in a real world-ever changing but at any moment inescapablesay much about major differences in war from one society to another. That point is illustrated again and again in this volume. Subsistence practice, the way food is extracted from nature, is intertwined with broad features of violent conflict. Hunters can and do use their weapons and skills to hunt men. Although small bands of hunter-gatherers may be least likely to make war (Knauft 1991. 402-3), as illustrated dramatically in the contrast of foraging and agricultural Japan (Farris 49-50), hunting techniques could be called a preadaptation to war (Shang kings sent their soldiers to hunt [Yates 14]). Nomadic pastoralists can strike at distances and are hard to attack, and livestock gives them a built-in incentive for raiding. Empire builders from Shang China (Yates 28, 33) to Imperial Rome (Campbell 219) and Byzantium (Haldon 260) have recognized the value of such life experience, employing archers and riders from their peripheral regions in specialized units. Where peasant farmers make up armies, even farm implements can become weapons (Yates 10).

In the New Guinea highlands, where "pigs are our hearts," pig husbandry permeates the processes of war-thefts and garden damage generate conflicts and grudges, exchanges and debts of pigs knit together allies, the size of herds affects timing of war and return to peace, and so forth (Rappaport 1968. 153-223). When gardening must be nutritionally supplemented by game, as in interriverine Amazonia, extensive uninhabited hunting ranges between villages encourage sneak attacks and ambushes (Ferguson 1995b.46-49), in contrast to the open field fighting that dominates in the more densely settled Grand Valley of New Guinea (Heider 1979.109-12). The productivity of agriculture and its frequent assignment as women's work may free men for extended military operations, sentry duties, and role specialization as warriors, as in the American Southwest (Kroeber and Fontana 1986.169-74). Where men tend the fields, there may be alternating seasonality of cultivation and wars (Trelease 1997.74-76), although neighbors can fight between farming (Meggitt 1977.207).

Seasonality of combat seems more general and pronounced with state armies of cultivators, as with the Aztecs (Hassig 380), in tenth-century Japan (Farris 59), Macedonia (Hamilton 171), and Rome (Rosenstein 201-202). In Sparta, the freeing of hoplites to be full-time warriors after the enslavement of the Messenians was a critical shift, as was the institution of pay for military service in Macedonia and Rome (see also Saggs 1963.146-47). Such moves gave rise to specialized soldier armies, the necessary basis of many technological and organizational developments discussed in this volume. By Hellenistic times, large numbers of men were detached from any means of support except their arms (Hamilton 180-182). Arab soldiers of the conquest period were actually forbidden to engage in agriculture (Crone 313). The intensified and extended production systems of expanding empires are able to generate food surpluses capable of supporting huge armies, reaching 150,000 tons of wheat annually in the second-century Roman Empire (Campbell 224). (The cost of supplying grain was a critical factor affecting the limits of Roman expansion in England [Goldberg and Findlow 1984.374].) As the days of empire waned in medieval western Europe, soldiers went back to being farmers as well, and military aims became much more local (Bachrach 271-280, 285, 291). Thus the organization and capabilities of a military force are closely linked to the societal system of provisioning, in states no less than tribes, but in states an important watershed is passed when soldiers are removed from food production during their time of active duty.

State armies are connected to farming in another way. In Old and Middle Kingdom Egypt, armies were regularly applied to productive labor, including agriculture (Gnirs 78, 81). In China from Shang to late Han, men were called into the army via the same system that drafted men and women for corvée labor (Yates 13, 25). Similar overlap of military and labor drafts are reported for African states, notably the Zulu-where regimented warriors and their female age-mates tended the fields and herds of their king (Guy 1981.40-44)-and elsewhere in the ancient Middle East such as the Assyrian empire (Postgate 1974.226-27). This overlap certainly merits further study, which might ask the question, is it only soldier-food producers who are regularly drafted for mass labor, or do professional soldiers get put to such work too?

In terms of the objectives, tribal wars may be generated by some critical scarcity of subsistence resources, although not as commonly as might be imagined. Scarcity of game animals was argued to be the cause of wars in Amazonia (Harris 1974.100-105), but while specific postulates of that theory have been confirmed, it does not seem capable of explaining war (Ferguson 1989c). Land scarcity was postulated as a major impulse to war among slash-and-burn agriculturalists (Vayda 1961), but this has been seriously challenged (King 1976). Yes, some wars are fought to gain garden land (Brookfield and Brown 1963), especially in situations of extremely restricted availability (Kirch 1997, 33), but in overt form they are unusual (Billman 1997; Sillitoe 1977). Land becomes a more inviting target as production systems develop and invest more labor in it (Wolf 1987.136), especially when political structures are evolved enough to incorporate the bounty of land and its tillers into tribute or tax (Reyna 1994a.49-50). In tightly circumscribed areas such as islands, however, even simple chiefdoms may be separated by clear-cut boundaries, which are defended by force (Bonnemaison 1994.30, 35-36).

When physical space is at issue in war by noncentralized polities, it often involves more concentrated and critical resources than cropland. Competition for limited water sources in arid environments may be the root of collective violence among some simple hunter-gatherers in ancient southern California and northern Australia (Lambert 1997.100-102; Tacon and Chippindale 1994.225-27). Sharp local concentrations of particularly valuable resources, such as mouths of salmon streams with rich marine zones and ample stored food on the Pacific Northwest coast, can invite raids generation after generation (Ferguson 1984b.312). But access to materials such as gems and metal ores is typically dealt with through trade rather than war, even in advanced chiefdoms (Gunawardana 1992.62-63).

In the societies discussed here, acquisition of resource territory is important in various ways. Capture of sources of raw material is noted as a persistent goal only in Egypt's efforts toward gold mines and quarries (Gnirs 77, 84), but Athenians were constantly embroiled in war to control mines and timber in Thrace (Raaflaub, 142-143 and personal communication), and no doubt similar things happened elsewhere. Scarce, precious farmland was contested in ancient Greece, where hoplites "fought on their land for their land" (Raaflaub 134, 137). Shang armies were sent to capture and prepare farm fields (Yates 14). In Romano-German times, the goal of war was to seize control of producing agricultural systems (Bachrach 289). Rewards of farmland were used as an incentive to motivate soldiers in New Kingdom Egypt (Gnirs 87), Republican Rome (Rosenstein 198), Carolingian western Europe (Bachrach 287), and for Japanese samurai (if they could keep hold of it, Farris 62-63)-although if this was itself the reason behind the war, it is only after land availability was filtered through stratification systems.

Having title to land sometimes was linked to an inherited duty of military service (Bachrach 285-286; Haldon 260; Raaflaub 137; Rosenstein 207). The creation of farming military colonies, for strategic defense and to produce a base of recruits, is reported for Egypt from the late second millennium B.C. (Gnirs 90), Seleucid Syria (Hamilton 179), and Rome from the late Republic onward (Campbell 226). A new dimension regarding land is added by the territorial character of states. Among early Greek poleis, constant jostling over land led to development of distinct borders, which of course became subject to military adjudication (Raaflaub 134), as also occurred among Mesoamerican city-states (Hassig 365). With territorial states, such as Egypt, border defense is a primary task of the army (Gnirs 78, 81). All this considered, the war of ancient and medieval states seems much more territorial than that of non-state peoples.

In some situations it is not land or other resources that are scarce, but people (Price 1984.222-23). In Native North America, people were captured to be laborers or marriage partners, or to replace losses (Starna and Watkins 1991).

The history of colonial Ibero-America is a history of forcibly appropriated indigenous labor, and the Atlantic slave trade comes unpleasantly to mind. Outside the European tradition, the nineteenth-century Sulu Sultanate of the Philippines was built on slave labor (Warren 1982). In cases presented here, the capture of large numbers of slaves was common around the eastern Mediterranean. Sparta rose to prominence on the backs of slaves (Raaflaub 137), and the reign of the Abbasids depended on a constant supply of enslaved tribesmenwarriors from their periphery (Crone 319-320). Japan stands out for the extent of violence used to make peasants work the land, probably because epidemics and other disasters led to a series of population crashes from the eighth to the eleventh century (Farris 53, 56-57, 60-63). Old Kingdom Egypt (Gnirs 77-78) and others relocated defeated populations where they would be more useful (Dalley 1995.419). Also worth noting is the fact that Hittites counted as booty the skilled craftsmen of defeated cities (Goetze 1963.129). Thus in both land and people, ancient and medieval states used war to obtain vital resources.

Population numbers determine the maximum size of armed forces. In nonstate situations, full mobilization of autonomous groups and their allies may still produce forces that number only dozens (Ferguson 1995b.48), although armies of a thousand or more can be fielded by large confederacies (Otterbein 1979,146). Small numbers limit the tactics that may be employed (Keeley 1996.42). Cross-cultural statistics show that increasing scale of polities correlates with more sophisticated military practices (Otterbein 1985.75). Here, scale is more grand, with armies starting at several thousand and reaching hundreds of thousands. Advantages of scale are still apparent in the contrast of major imperial centers and local polities. Mesoamerican imperialists and especially the Aztecs created professional armies including a variety of fighters well beyond what any individual city-state could muster (Hassig 367), and it was only the combination of poleis under Athens in the Delian League that provided the resources and manpower to support its famed navy (Raaflaub 142-145). Carolingian imperial expansion was based on its ability to martial overwhelming numbers (Bachrach 282), and the expanded field armies of ninth-century Byzantium revived specialized weapons and tactics dormant since the Arab conquests (Haldon 246).

A long-standing issue in anthropology is the impact of war on population. Theory from the 1960s and 1970s posited that war was an adaptive mechanism, slowing population growth and redistributing people for a sustainable balance with nature. Further consideration called these relationships into question and noted maladaptive effects of war, including forced nucleations, large danger zones that cannot be exploited, and occasionally the breakdown of social structures which contributed to collective provisioning (Ferguson 1989b). Similarly, Adams asserts that the entire history of Mesopotamia demonstrates that military danger leads to nucleation and military security to dispersion of people to farmland (Adams 1981.88). In terms of direct casualties, tribal warfare, where all adult males are mobilized, can produce a very high death rate, exceeding 25 percent of adult males in a number of recently investigated cases. Usually, these add up over time from few individuals lost in any engagement, although slaughter is not rare (Keeley 1996.83-97).

On the impact of war on population, only a few points appear in this book, and as in non-state situations, these suggest mixed effects. No information is provided on casualties as percentage of population, but the report that Chinese Warring States general Bai Qi executed four hundred thousand prisoners (Yates n.97) suggests they could be a major demographic factor. War led to the devastation and abandonment of many cities in Asia Minor after A.D. 640 (Haldon 247) and played a major role in the demographic collapse of some Maya regions after A.D. 700 (Webster 353-354). More indirectly, war may have a negative demographic impact by reducing agricultural production. Under Masakado, Japanese armies practiced a scorched-earth policy against their noble enemies' peasant foot soldiers, which may have contributed to population decline (Farris 59), and a weakened Byzantine Empire fell back on scorched earth as a self-destructive form of defense (Haldon 245). Roman imperial expansion sent up to a fifth of the adult population away for years, although the impact of this back home is debated (Rosenstein 206-208). On the other hand, the Great King of Persia strongly encouraged a high birth rate to produce more soldiers (Briant 109-110). The presence of Imperial Roman armies stimulated agriculture in a region (Campbell 224), and in medieval western Europe the army was used to expand cultivation, and destruction of crops was diligently avoided (Bachrach 287, 289).

Turning to the material technology of war, fortification is in a class by itself. Fortifications are common among non-state peoples (Keeley 1996.55-58), and siege, although unusual, is not unknown (Vayda 1960.76-80). There are interesting variations on fortifications described here. In Mesoamerica, fortifications may be more common than once thought (Hassig 378; Webster 344), but they are surprisingly limited by Old World standards. Middle Kingdom Egypt, in contrast, had "a dense network of forts" across its southern frontier (Gnirs 81; cf. Lawrence 1965). In China, walls appear around villages in the Neolithic, develop as fortifications through the early Bronze Age, and seem proof against rudimentary siege techniques through the Eastern Zhou (Yates 10, 19, 26). The later Roman Empire saw an intensification of fort building as part of a defensein-depth strategy (Campbell 234). Romano-German polities continued this trend, building more and better forts, using engineering that they were unlikely to have developed de novo. The presence of these massive structures was the central reality of all the combat that swirled around them, and the walls necessitated development of the massive logistical systems of siege warfare (Bachrach

276-278, 283, 289-291). Perhaps the relative absence of fortifications in Mesoamerica is related to the fact that even Imperial armies did not have the logistical resources to stick around more than a few days. Or perhaps the spread of walls in the Old World was a reaction to the development of pastoralist raiding (O'Connell 1989).

Weapons technology is both a major determinant of military practice and an expression of overall level of technological development (O'Connell 1989), as is well illustrated by the engineering of siege warfare (Bachrach 290). Although tribal peoples, as noted earlier, may use everyday tools to kill, development of specialized weapons and armor occurs even with relatively simple technologies (Keeley 1996.49-53). Development of technology goes in tandem with changes in combat practices, as visible in the shortening of the Zulu spear to make it work for close fighting infantry (Morris 1965.47). In anthropology, the main illustration of the interaction of weapons and the labor of combat concerns the introduction of guns, which from the early years of European colonialism have transformed the practice of war by indigenous peoples (Ferguson and Whitehead 1992a.20). The varying trajectories of military development on Africa's west coast during the slave trade makes the important point that one weapon can be integrated into very different military structures, to very different effect (Law 1992.104-5).

Changing weapons systems, and the interaction of technology, combat practice, and military organization are prominent themes in these chapters. Japan from the late third through fifth centuries illustrates the evolution of weapons and armor beyond what non-state peoples could attain (Farris 49-50), as illustrated by comparison with the peoples of the Pacific Northwest (Gunther 1972). The long history of Chinese warfare illustrates technological innovation, borrowings and continuities, differentiation of elite and mass arms, the significance of overall technological level as with metallurgy, and the greater importance of troop preparation over sheer technology by itself (Yates 10, 13-14, 18-19, 28-29). The panoply of the Greek hoplite exemplifies the interaction of technological changes with changes in formation and tactics (Raaffaub 132-134). Philip of Macedon equipped the hoplite phalanx with the extraordinarily long sarissa, which, with intensive training and drill, allowed his armies to best more conventionally armed foes (Hamilton 168-170). But the dominance of this system ended when they encountered Roman soldiers armed with short swords, organized into flexible manipular units that could take advantage of broken terrain (Hamilton 184; Rosenstein 202-203). The technological development most extensively discussed here is the Greek trireme, a marvel that required a large and intensively trained crew. The enormous expense of maintaining a fleet of triremes led to intensified efforts to extract revenue within and outside the Delian League, to structural changes and a continuous hegemonic thrust (Raaflaub 142-144).

One obvious but important point is that, with rare exceptions, combat is men's work (Adams 1983). On the gender division of labor in tribal societies, some anthropologists argue that it is tasks that require greater strength and stamina that go to men, others that it is tasks that are incompatible with pregnancy and child rearing. Either way, men get war (Kelekna 1994). Beyond that role foundation, war-making must be made to fit with the other activities of males, and it involves specialized training from an early age (Briant 108, 113-114; Meggitt 1977.61-64), as well as inculcation of appropriate emotional dispositions (Koch 1974b.166). Thus readiness for war may become a central component of male identity and gender relations (Divale and Harris 1976). There are only male warriors in this book, with very few exceptions (Yates 13). Although not discussed here (Cartledge 1981), the interaction of military roles and gender relations is surely an important aspect of society in all cases. A hint of the possible ramifications is the suggestion that late Roman law prohibited inheritance of land by women as a measure to ensure a supply of landed soldiers (Bachrach 286).

## Intrapolity Structure

Institutionalized patterns of personal interaction guide the processes that lead up to and through war, and account for much of military variations during normal historical times. Structure can be divided into social organization, economics, and politics, and each will be considered in turn.

Internal Social Organization Social organization—also called social structure—is broadly equated with kinship in tribal societies; it includes socially defined categories of people and patterned relationships between them. It determines what kind of groupings can become friends or enemies, and how men can be marshaled and sent to fight. Marriage is often discussed in relation to war, although relationships are complicated. Within groups, marriage is a basis for solidarity and cooperation among men-except when marriage is a source of conflict (Brown 1978.167). Postmarital residence has major implications. Virilocality, where men remain at home with fathers, brothers, and uncles, thus creating "fraternal interest groups," is strongly associated with local violence (Otterbein 1977). Uxorilocality, where men move into their wives' homes ar d work with other in-married men there, can create crosscutting ties that reduce local violence, but encourage a broader solidarity good for war over longer distances (Murphy 1957).

Unilineal descent groups provide another form of unification, again in complex variations. Patrilineality is sometimes associated with segmentary systems, where higher levels of organization can come together against collective enemies, to later revert back into autonomous local polities (Sahlins 1961). Matrilineality seems able to join together more permanent tribal unions, such

as the Iroquois (Abler 1992.152). Other structural features, such as non-kin sodalities, age grades, and men's houses, also affect what collectivities of males can be brought together in war parties (Fukui and Turton 1979.5; Maybury-Lewis 1974.306). But it should not be imagined that recruitment follows mechanically along structural lines. Typically, war leaders use all their skills to enlarge their personal following (Langness 1973.308-14). War can have a major effect on social organization, and in one view, fraternal interest groups are the product of local conflict (Ember and Ember 1971). Protracted, intensive war can destroy the complex social structures linking extended networks of peoples (Whitehead 1992,133-39).

In classical theory, states leave kinship behind as class emerges as the main frame of social organization. All the developed social systems described here are stratified, although some only recently. The local elites of the Classic Maya (Webster 340), Shang China (Yates 11), and Fourth Dynasty Egypt (Gnirs 76) were distinctly set apart from the commoners below. By the mid-fifth century B.C. Roman patricians had become a virtual caste (Fosenstein 199). The emergence of stratification has a clear spatial dimension. For the Maya (Webster 335) and Shang (Yates 11), the first population centers that appear, some centuries after the advent of agriculture, were the grandiose homes of the local noble and his retainers, surrounded by his cultivators. This urban social dominance is still apparent after Western Rome fell apart (Bachrach 274-275).

Stratification, however, does not mean that kinship loses all military significance. Among elites, intermarriage is a frequent basis of solidarity and alliance (Webster 340; Yates 16, 31). Descent also continues to play a major role. The early Egyptian state was run by the king's clan (Gnirs 76). Among Shang (Yates 11) and Maya, rule was passed by patrilineal inheritance. In the latter case, cadet lineages branched off to start new centers, and succession disputes, which conferred control over people and resources, may have been a primary reason for war (Webster 340-341, 351-352). An important factor in the development of the Carolingian empire was that there was for a century only one legitimate claimant to rule (Bachrach 279, 281). In developed empires such as the patrilineal Aztecs (Hassig 370-371) and Persians (Briant 113), inherited claims to rule were still crucial but were ratified or overturned by martial prowess. (The ambilineal inheritance of leadership among Japanese [Farris 49] would provide great flexibility, and may be connected to the sometimes difficult demographic situation noted earlier.)

Local social organization continues to play a role in state military mobilizations. Lineage organization is the military order in incipient states (Mair 1977.129-30), and is still apparent here in Maya (Webster 348) and Shang armies. By China's Springs and Autumns periods some thousand years later, the lineage middleman had been eliminated, and the draft was bureaucratized down to five-family units, with local men kept together as soldiers (Yates 13,

23-24). Doubtless they brought along a lot of back-home social relationskinship and everything else. The same is certainly true of Greek hoplites, and probably so of geographically based Aztec units (Hassig 375). The Roman Republican army, in contrast, stands out as operating more along the lines of armies today, bringing together soldiers from all over but giving them a new and enduring social structure in army squadrons (Rosenstein 202-205). When Rome's western successor states were unable to sustain that form, their mobilization of local forces reflected (and probably reinforced) the complex socialinstitutional landscape of medieval society, with urban militias, church forces, slaves, landed estates, and so forth (Bachrach 275, 283-289).

Recognition of the continuing role of "civilian" social organization on military formations does not diminish the overwhelming importance of stratification. Stratification is associated with two tiers (at least) of soldiers, elite and mass. The splendid Maya warrior depicted in art may have done most of the fighting, but he was, we can infer, supported by his peasants (Webster 345). Shang kings had a few hundred elite, specially equipped zhong troops, and maybe three thousand ren from the general population (Yates 13). Japan (Farris 50-59) and Macedonia before Philip (Hamilton 168) both had elite mounted troops and a mass army that would flee at first trouble. Archaic Greeks, too, had a mounted elite and infantry, but this infantry would fight. The shifting balance between archaic "knights" and emergent hoplites is a crucial and controversial issue in the development of Greek democracy (Raaflaub 132-135). Both Macedonians and the Roman Republican army combined a mounted elite and farmer hoplites, with poorer citizens or landless mercenaries as light skirmishers (Hamilton 170; Rosenstein 197). As the empire declined in western Europe, a distinction of elite and mass troops was once again fundamental (Bachrach 275, 286-287). In ascendant Byzantium, the same distinction is evident, although within a more complex diversity of soldiers (Haldon 256-257). Striking for its absence in this volume is any mention of a revolt of the militarized masses against the elite (except perhaps in late Egyptian riots [Gnirs 90-91] and in the murky Maya collapse [Webster 353-354]). It may be that the integration of both strata in armies, with the clear superiority of elite forces, is one thing that kept the masses in line.

Military service worked against revolution in another sense. A striking commonality across these diverse cases is that war offered an avenue of social mobility for men (not women) from lower classes. In a variety of ways, the successful, surviving military man could affect a permanent, often inheritable, elevation of social and material position (Bachrach 287; Briant 109; Campbell 223; Crone 320, 322; Gnirs 79, 87; Haldon 255-258; Hamilton 170-171; Raaflaub, personal communication; Rosenstein 200; Yates 27). A major advantage of the Aztecs against simple city-states is that the latter had a severely limited ability to expand elevated positions, so their serious fighters were restricted to the existing elite (Hassig 372-373). Thus a stratification system itself can provide great motivation for fighters from lower strata, and, conversely, this upward mobility of able men would increase the stability of a stratification system. Beyond the elevation of soldiers, expanding military forces and campaigns underwrote and made necessary the development of a broad literate bureaucracy in New Kingdom Egypt (Gnirs 85), Han China (Yates 35), Carolingian western Europe (Bachrach 281, 290), and no doubt elsewhere. The war machine, then, is part and parcel of the class structure.

Armies are themselves formal institutions, which stand in defined relations to institutions of civil administration and organized religion. The variable interrelationships of these three institutional systems have been crucial determinants of social formations from the first civilizations (Scarre and Fagan 1997), with roots back to the differentiation of headman, shaman, and war leader. Cases here demonstrate both the variability and the social importance of this triadic balance. In Chinese history, the demands of armies fostered growth of governmental institutions that later became "civil-ized," with the military given a subordinate social position (Yates 9, 35). Japan saw the differentiation of a military and civil nobility, with the former kept from the highest decision-making posts (Farris 58). The Abbasids were military rulers of the state, but they left much of civil society to somewhat antimilitary clerics (Crone 322-323). In Sparta and Athens, the military and civilian rule were closely linked because soldier-citizens dominated government (Raaflaub 140-141, 144-148). In post-Roman western Europe, religious and civil institutions were distinct but coordinate, and both doubled as military administrations (Bachrach 274-275, 288-289). Byzantine and Egyptian cases, where sovereigns are closely identified with state religions, demonstrate complexities in changing relations between military and political institutions that are beyond the scope of capsule summary (Gnirs 76-82; Haldon 243, 255-261). Future studies of war and society may identify regularities in this triadic relationship, which is clearly a most important aspect of the social organization of states.

Internal Economics To turn now from social organization to the economics of war within polities, anthropology has had little to say on the relationship of war to the circulation and distribution of goods and services. Still, the patterning of who provides and who receives what will necessarily shape the way that any scarcity is experienced by different categories of people in a society. Closely intertwined with social organization, economics creates specific interests associated with different social positions. In Amazonia, game scarcity is translated through social organization to emerge as hostility between men and women, and sometimes fighting between men over women (Siskind 1973)—although this rarely reaches the level of war (Ferguson 1989c). Economic structure can

generate scarcities and demands beyond subsistence needs that lead to war. The becomes more significant with developing complexity (Ferguson 1990b.48–49 but has been argued for relatively egalitarian people, such as the demands of critical bride price payments among the cattle-raiding Nuer (Kelly 1985.112–18 War can also affect economies. On the Pacific Northwest coast, lineage chie had to spur production, and commoners accept a rather centralized economies because of the need to amass food and wealth to potlatch military alli (Ferguson 1983). Less dramatic feasting is often a prelude to war, which is or reason that Amazonian headmen often maintain larger gardens (Chagne 1983.67).

Similarities are suggested here, although in similarly limited exposition. land is an incentive for landless soldiers, as noted previously, it is because une jual distribution of land rather than any absolute scarcity. In stratified soc eties, scarcities may not be experienced by elite decision makers directly, but the form of political unrest, as Rosenstein (197–199) argues for the Rome expansion. Isocrates described a growing gap between rich and poor that gererated a surfeit of landless mercenaries, and Alexander's thrust through Pers was stimulated by the need to focus these men elsewhere (Hamilton 181–182)

As for impact on the economy, the connection between chronic wa making and the development of taxation has been identified as crucial in the ris of national states in western Europe (Tilly 1975) and is noted in a few cases here The cost of its trireme navy led to the development of Athens's system of publ finance (Raaflaub 143), and tax changes associated with military developmenare noted for Republican, Imperial, and Holy Rome (Rosenstein 202; Campbe 235; Bachrach 290). Tax collection and fighting wars over nonpayment are major responsibilities of the Japanese military in the eighth through eleventh centuris (Farris 57, 65). The enormous expenditures on the military under the Byzantine drove endless efforts to increase state revenue, generating resistance by local elite (Haldon 246-253). Support of the Mamluk institution and other soldiers for th Abbasids (Crone 320) certainly must have stimulated efforts to raise taxes Beyond even taxation, imperial centers transformed the entire system of produc tion and commerce around them to provide both material support for armie and a continuing supply of troops (Bachrach 277, 284-285, 290-291; Campbel 224-228; Haldon 248, 258-259; Hassig 371-372; Yates 26, 34). Such basic eco nomic restructuring well illustrates the power of war.

Internal Politics In contrast to economics, internal political dimensions of war are well studied in anthropology.<sup>3</sup> In relatively egalitarian societies, most mer make up their own mind about participating in an attack, and leaders can only manipulate deliberations (Sillitoe 1978.253–54). (Women play varying but lesser roles in decision making, both public and "backstage" at all levels of complexity

War is, after all, men's work.) More prominent leaders in non-state societies, such as big men and chiefs, often meeting in counsels, have considerable influence among their followers but are usually bound by consensus (Hulme and Whitehead 1992.124). All leadership will be tied to those aspects of social organization and economic circumstances that create groups to be led. Koch (1974a) emphasizes that it is the absence of authoritative third parties that enables dyadic conflicts to escalate into war-which is another way of saying that development of more expansive and cohesive polities cuts down on localized fighting (Cooney 1997).

The role of leadership increases in times of war. Even in relatively egalitarian societies, once war is on, leaders are given more latitude to "call the shots" (Chagnon 1974.162). Often considerable authority is handed over to more aggressive men (Kracke 1978.76-79) or recognized war chiefs (Moore 1990.323-24). In situations of endemic conflict, war leaders may act arbitrarily, even despotically (Feil 1987.103-11). Leaders during war must carefully evaluate and navigate a course balancing internal factional alignments and oppositions with external alliances and conflicts (Ferguson 1995b.295-305). Critical matters of internal and external support are bound up with specific individuals, and may die with them. For all these reasons, a common tactic is to target the enemy leader because his death will disrupt and immobilize his forces (Chagnon 1983.179). But if leaders take special risks in war, they also get special benefits. New Guinea big men, although tightly bound by demands of public consensus, consider the ramifications of war for themselves and use all their influence to promote self-beneficial courses of action (Sillitoe 1978, 253-54). Success in war can often be an avenue to wealth, status, and influer ce (Brown 1978.197), and so we see the emergence of military entrepreneurs. Although simple war leaders' influence typically recedes with the restoration of peace, self-aggrandizing men may stir up trouble to generate continuing support and use periods of war to modify political structures to their own lasting benefit (Kracke 1978.77-80).

Thus war can act as an evolutionary ratchet, a factor that, in combination with all others, promotes incremental elaboration of centralization and hierarchy (Ferguson 1994.102). With the development of chiefly hierarchies comes the possibility of violent conflict over succession to high-status offices (Ferdon 1981.255). With incipient states, internal political determination of military policy reaches new heights (Cohen 1984.344-51). Rulers may even send an ambitious rising star off to a battle likely to prove fatal, as Saul did with David against the Philistines (Old Testament, Samuel 18: 20-29). With development of tribute, prominent even in some tribes and chiefdoms (Pershits 1979), leaders may require successful wars just to remain in power (Wolf 1987.141-44).

Cases collected here show great variation in centralization of decision making. Early Maya may have retained elements of the vertical integration of pre-

state days, but this appears to be a vestigial check, if that, on the rule of elite: (Webster 348). Homeric groups may have been chiefdoms, where the mixture of hierarchy and consensus in decision making is normal (Raaflaub 129, 139) What is remarkable, of course, is the development of democracy in classica times, through which decisions on war were made by those who would go to fight-although that may not have seemed so wonderful to the slaves. The conquering Muslim armies began as relatively egalitarian tribal forces, but withir half a century rule by a consensus of chiefs gave way to centralized coercive rule over a demilitarized population (Crone 313-314, 316-317). Before Philip II, the command of Macedonian kings was tempered by close noble "companions." Alexander's rolling conquests-over lands previously assembled into an empire by Cyrus (Briant 105)-demonstrate the degree to which decision-making power could concentrate in one charismatic leader, although even Alexander's officers would not follow him into India (Hamilton 167, 173). Major imperial expansions typically are associated with powerful individual rulers (Sinopoli 1994.163), yet the "routine" autocrats of Imperial Rome generally eschewed grand adventures for more conservative military policies (Campbell 218, 229-230).

External military affairs have a major impact on the internal political position of military leaders. War enabled Egyptian military men to advance in position and esteem, as individuals and as a class (Gnirs 79, 85-86, 90-91). Ambitious men of Achaemenid Persia and Rome went to war to elevate their political status (Briant 115-116; Rosenstein 200, 205, 210). A major cause of Maya war was the rivalry of different contenders to the high positions that gave control over land and labor (Webster 350-352), The Roman emperor Claudius invaded Britain to prop himself up at home, and Severus attacked Parthia to restore unity after the civil war that brought him to power (Campbell 229-230). Conversely, an external defeat could fuel internal political divisions, as in the political scheming of the Aztec court (Hassig 372-374) or the factional fighting of Byzantium (Haldon 246). The threat of far-flung enemies enabled Athens's leaders to convert the Delian League from a voluntary confederacy to a centrally convrolled empire (Raaflaub 131-132, 144-145). Lord Shang used a permanent state of war to destroy his rivals and establish an empire (Yates 26-27). Political stability within Ramesside Egypt depended on continuing military victories over its neighbors (Gnirs 88-90), and Aztec kings would not last long without constant infusions of tribute (Hassig 373). On the other hand, it was the critical military participation of archaic Greek citizens that made possible the institutionalization of egalitarian structures (Raaflaub 140).

Interpolity or external dimensions of war will be discussed later in this chapter. But as the previous paragraphs suggest, there is a complex dialectic between internal and external politics in war. Moreover, internal and external

become relative terms within nested arenas of political organization, from local community to political universe, each with its own relationships and rules. Political interests in any situation reflect this vertical integration, as well as more obvious horizontal, interpolity relations. Conflict can lead to either fusion or fission of polities along a variety of social organizational lines, making internal into external or vice versa. Sovereignty-a major element in political ideologies, especially of states-may be qualified, contingent, and contested, within networks of political relationships.

Other aspects of war-society connections have not been well explored in anthropology because they are more particular to state-level polities. Three aspects of state-level military force can be noted. A hallmark of a state is the ability to compel men to fight, even on pain of death. States are also distinctive in the ability to suppress independent military initiatives by local forces—although the state's monopoly on legitimate force may be more complete in ideology than in practice. Finally, state armies often act as highly coercive internal police.

The state's ability to compel men to fight is taken for granted here. Governments in Warring States China combined detailed population records and harsh punishments in a system that called on all men from age sixteen to sixty (Yates 25). Japanese district magistrates used wide powers to compel peasants to serve in armies from the eighth century into the more centralized Masakado period (Farris 54-56, 59). Although Egypt relied heavily on Nubian troops, mass recruitment was also practiced, and frequent desertion was countered with devastation of deserters' families (Gnirs 87). Despite Persia's heavy valorization of the warrior life, it still used drastic measures against parents who tried to keep their sons out of the army (Briant 115). The Roman Empire and its Romano-German successors grappled with problems of mass mobilization (Campbell 235; Bachrach 281). Conference discussions touched on the Roman army's (rare) practice of decimation-killing one in ten of a cohort that did not fight effectively (Watson 1969.119). Whatever incentives were offered to soldiers, their very lives depended on military obedience, and this is one of the most significant differences between state and non-state societies.

On a polity's ability to suppress independent war-making by local strong men, again there is great variation. Homeric groups, in typical non-state fashion, could not suppress raids by ambitious individuals, and the fighting such men started could spread to involve entire groups, as in the Trojan War. Later poleis suppressed private wars only with great difficulty (Raaflaub 131, 134, personal communication). Muslim rulers did not claim a monopoly on violence, and their subjects often resorted to arms in their own interests (Crone 32:i-327). Egyptian pharaohs claimed sole prerogative to use violence, but control collapsed in intermediate periods, and was hard won back (Gnirs 78, 83, 85). The Western Zhou king claimed the exclusive right to raise an army, but many local elites did so anyway.

Later Han imperialists eliminated local military powers, only to lose control again later (Yates 23, 31, 34). In Japan after 791, the Chinese-style state attempted to centralize military control, but it could not sustain the costs and reverted to more localized forces (Farris 53-54). The government of the early Roman Empire had a true monopoly on force, with independent local powers eliminated (Campbell 221). Byzantine and Romano-German successors of the western Roman Empire both sew localization of forces followed by recentralization (Haldon 244, 250-254; Bachrach 274-275, 279-280, 283-285, 291-292). One of the central historical dynamics throughout the chapters of this book is the changing balance between central and local control of war-making, a tension that may be related to declining marginal returns for investment with increasing complexity (Tainter 1988).

It is often assumed, without much discussion, that ancient armies also served as internal police. Again, structural variations appear here. The Spartan hoplite assembly developed in response to the existential threat posed by so many slaves (Raaflaub 139). Japanese military were used to keep the peasants working in fear and prevent their flight (Farris 55-59). Ramesside army units were posted at important civil institutions to maintain order and suppress riots (Gnirs 90). Arab regional armies became local gendarmes, and the central army shifted attention from conquest to maintenance of internal order (Crone 318). The Imperial Roman Army had urban police units, and its garrisons rested heavily on occupied lands (Campbell 219, 228; Nippel 1995). In the early Middle Ages, elite-led rural forces defended not only against barbarian invaders but also against local brigands (Bachrach 284; Haldon 251-252); (Perhaps an internal policing role is part of the answer to the question why post-Roman states maintained seemingly inefficient mounted soldiers [Bachrach 292-294].) Warring States China may have had the most elaborate system of militarized policing, with the administrative structure used to draft soldiers and corvée laborers, also operating as a structure for compulsory self-policing (Yates 28). Much work needs to be done on internal policing by armies.4

## Intrapolity Superstructure

If infrastructure encompasses physical existence, and structure the social order, superstructure deals with the mental world, with cultural psychology. Probably more anthropological attention has gone to this area than to any other in the study of war, from early works that regularly explained war as an expression of cultural values (Turney-High 1971.141-68), to very current hermeneutic studies that detail the local logics of war (Viveiros de Castro 1992)-which is why the two other anthropologists in this volume take pains to dispute ritualreligious explanations of war (Hassig 367-370; Webster 349-350).5 Compared with anthropology, superstructural variables receive little attention in the papers collected here. The references that do occur, however, suggest strong

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parallels to findings from non-state peoples, in terms of the inculcation of martial values, the development of justifying political ideologies, and the harnessing of spiritual beliefs to the idol of war.

Ethnographically, it is frequently although far from universally reported that chronic warfare is accompanied by belligerent, aggressive male personalities (Koch 1974b.166), although the hottest heads are oftentimes excluded from actual decisions to fight (Fadiman 1976.23-24). Child-rearing patterns of close association of boys with their mother, followed by a harsh switch to expectations of manliness, are correlated with an adult tendency toward violent "acting out" (Ross 1986.444-49). Children may be trained directly in hostility, encouraged to give tit for tat (Chagnon 1983.114-15; Ember and Ember 1992), although there are cases that combine a strict internal peaceability with extreme external aggressiveness (Murphy 1957). Rites of passage link coming of age and the assumption of warrior status (Fadiman 1982.63-75). Value systems will conform to war, honoring the warrior and shaming those who will not fight (Voget 1964). Social rewards of prestige, and even marriage partners, may flow to the brave (Goldschmidt 1986.6-8). In many cultures, being a man means going to war (Rosaldo 1983.144-46). As noted earlier, the addition of warrior to the male role set has repercussions for gender relations6 associated with ideologies of male supremacy and other male-centered values and institutions (Divale and Harris 1976; Whiting 1965). It must be stressed, however, that gender relations among warring peoples vary considerably, linked to other factors, such as the importance of intragender cooperation in critical labor (Ferguson 1988). The Iroquois, as warlike as they come, accorded substantial respect and political power to women (Turney-High 1971.157).

In highly militarized medieval western Europe, military skills were taught in rigid education "from the cradle" (Bachrach, personal communication). In Warring States China, boys became men by dorning a sword (Yates 29). Achaemenid Persia started military education at age five, ritually marked the passage to warrior status, and bestowed great honors on those who demonstrated bravery in battle (Briant 114-115). In archaic and classical Greece, the true citizen was a farmer-soldier, with great emphasis on martial valor (Raaflaub 137). Sparta especially is famous for its extremely militarized child rearing (Nigel 1995). With military specialization, warrior classes develop an elaborate warrior ethos, as in tenth-century Japan (Farris, personal communication). Writing provides an entirely new medium for valorization of war and warriors, as shown here for Egypt (Gnirs 82, 84, 85-86). As written traditions evolve, they acquire more complex perspectives, as in propagandist accounts reflecting Persian dynastic struggles (Briant 113). War literatures become important sources of information about military practice, as in the case of the Trojan war, and of course become subject to all the inherent issues of textual interpretation.

What distinguishes murder from killing in war is that the latter is provid ed with social justification. Every polity at war has a pattern of beliefs tha accomplishes this vital task. Beliefs involving witchcraft and revenge are ofter taken as hallmarks of savagery, but they can also be seen as expressions o extremely widespread psychological exercises that precede war, given form in beliefs that carry strong meanings and values (Ferguson 1992.223-25). The make killing moral, can be used to persuade others or oneself of the legitimac of an attack, and bolster the resolve of men who face death. Witchcraft i invoked to blame others for problems afflicting a group, and the culprits are divined by specialists who invariably identify a source that is already known to be antagonistic, where bad blood already exists (Marwick 1970). Identified witches stand morally condemned, fit subjects for severe punishment or elimi nation. We all know that in war the enemy is often demonized-a witch accusation is a literal illustration of that principle. In a highly charged atmosphere a public accusation of witchcraft may be tantamount to a declaration of was (Maybury-Lewis 1974.185).

Revenge is invoked to do two things. First, it means "they started it"-ir one way or another the intended victims of an attack brought it on themselves Second, it taps into emotional responses inculcated from childhood on. But revenge motivation is not the driving force it is often portrayed to be. Revengetaking is rarely, if ever, automatic. When a true retaliatory strike occurs, it is most often for appreciable tactical reasons. Otherwise, reasons for revenge are constructed, overlooked, raised, dropped, or negotiated out of existence as circumstances dictate-yet every raid that does occur will somehow be justified as revenge. Taken all together, these "primitive" constructs provide a neat system for translating systemic pressures into personal motivations, for providing moral justification for the very antisocial activity of war, and powerful symbols for focusing and mobilizing opinion.7 Beyond that, among warring people, the largest conceptual schema accommodates and encourages conflict. History and myth--often indistinguishable--project war through the immediate political past all the way to the dawn of humanity. Worldviews make war seem inherent in life (Ferguson 1992.224). Recent hermeneutic studies provide finely textured insights into how thoroughly war is woven through spiritual and cosmological beliefs (Viveiros de Castro 1992)-and vice versa (Lan 1985)-and the perceptions and dispositions those evoke. That is also true with ancient states such as the Inca (Bauer 1996).

In Egyptian political ideology, war was always seen as a response to enemy provocations (Gnirs 73–74). In Byzantium, it was important for the image of the state that it wreak punishment on outside troublemakers (Haldon 245). When Caesar led his army against Rome, setting off the civil war that ended in the empire, he claimed to be doing it in defense of the ancestral constitution of

the Republic (Rosenstein 210). But to speak of political and moral justification for war in ancient and medieval states quickly leads us to organized religious

It has long been understood that certain areas or aspects of human existent are strongly connected to religion: matters central to societal well-being, as the ties fraught with uncertainty and danger, problems in understanding pain, and injustice. All apply dramatically to war, so it is entirely expectable that should be drenched in religion, and that religion makes war right. Myther ters for war are reported here among Aztecs (Hassig 367–368) and Pentago (Briant 114–115), and in Shinto beliefs (Farris 52). From Zhou to Qin Canatimes, it was part of divine order for the state to make war, and conquest will legitimated by Heaven (Yates 12, 15, 30). Religions of Greece and Rome was thoroughly intertwined with war (Raaflaub, personal communication).

State ideologies often-not always-fuse military leadership, the sacced and the right to rule. Ritually couched histories of war and corresponding dynastic claims were literally carved in stone by Mayan and others Mesoamerican elites (Webster 336-337). In the Egyptian cosmos, the king was divine, but legitimacy was demonstrated-in practice and in monumental art-by victory in war (Gnirs 76, 80, 83-84). Gods of Persia assigned the king the duty of protecting his subjects from outside enemies (Briant 111). The Yamato dynasty developed lineages that intertwined conquest and division (Farris 51), and Macedonian kings before Philip II were both war leaders and representatives to the gods (Hamilton 167-168). In late Western Rome and after, military leaders were representatives of god, and it is no surprise that a Christian just-war doctrine developed in a context of extraordinarily pervasive militarism (Bachrach 274-275). On the other hand, Hassig (368-369) sees religion as manipulated by Aztec elites and wonders how deeply these ideas penel trated in the general population. One might also question the depth of medieval Islamic commitment to holy war when it was waged by non-Muslims imported ed and converted for that purpose, and initiated by state officials who were often at odds with the clerics (Crone 322).

Religion goes right along into battle, although war is so thoroughly ritualized (Kennedy 1971.48) that it is sometimes hard to say what is religion (or magical and what is not. Collective ceremonies precede, accompany, and follow war expenditions, both to bolster resolve and to mark off and so segregate violent ways from routine daily life (Chagnon 1983.181–86). The Shinto priests who traveled with invading forces fit in well with this pattern (Farris 51). Various supernatural means are used to foresee results—as with Greek oracles—and the spirits are usually quite canny. Shamans spy on the enemy and use their skills to weaken or constuse him (Turney-High 1971.109–110). Something similar occurred in OM. Kingdom Egypt (Gnirs 76). Shang armies were guided by consultation of oracle bones and accompanied by warring spirits. By the time of Confucius and Sun

Tzu, divination had faded before more practical considerations, but ancestral spirits still watched over expeditions (Yates 11, 14, 25). In some cultures, oaths of blood brotherhood are used to maintain alliances (Fadiman 1976.12–15). In Macedonia and early medieval western Europe, military men took oaths of loyalty to their sovereign (Hamilton 167; Bachrach 273, 289), as Tutmosis III took an oath to go in front of his army (Gnirs 85–86). War captives faced ritual sacrifice by Huron (Trigger 1987.73–75) as by Aztecs (Hassig 368–369) and Chinese (Yates n.97), not to mention the Assyrians (Saggs 1963.149–54). In many cultures, military success is thought to bring major spiritual benefits (Needham 1976). Certainly this has been so among Christians and Muslims.

This section has traced war and society connections within a polity from subsistence to divinity. It has attempted to establish that war is totally a product of its culture and that the existence of war is in turn a major factor shaping that culture. The next section makes a similar argument regarding the social space between war-making polities, which is anything but empty.

## Interpolity Sociocultural Ramifications of War

Any polity exists within a broader field, interacting with other polities, each characterized by the manifold military connections outlined earlier in this chapter. Their juxtaposition gives character to this field. Dyadic relations between polities are the building blocks of a system that has its own emergent qualities, endemic warfare being a big one. Of course, what is intra- or inter- is not always clear, may vary by issue, and can rapidly shift as more extensive polities come and go. Nevertheless, it is useful to divide the two levels conceptually to focus attention on properties of larger systems, and to relate to various international relations approaches to war—although unlike much "realist" international relations theory (Levy n.d.), polities are not seen here as unitary, independent actors but as potentially divided congeries of people, dialectically interacting with the larger social system. Dimensions of systems will depend on the analyst's choice of analytic scale and time frame: from one defined locale to an expansive geographic region to a major hunk of the world system; from a point in time to a century to millennia.

## Interpolity Infrastructure

Environmental variations pattern broad outlines of systemic conflict. Geographic circums:ription (Carneiro 1970.733–36)—sharp ecological divides that restrict populations to one place—are important contributing factors to both war and political evolution. Fighting may involve clusters of peer polities (Tainter 1988.261; Price 1977), with equivalent subsistence systems (Morren 1984), or may include adversaries with different ecologies (Keeley 1996.132–36)—

although those may establish symbiotic relationships as well (Bamforth 1994.100). Groups with less secure provisions may raid those with better supplies (Cannon 1992.511-15); or relatively mobile groups from one niche may attack settled agriculturalists (Barfield 1994.164-66), a pattern that has been suggested as representing the origin of institutionalized warfare (O'Connell 1995.75).

The Nile Valley is a classic illustration of circumscription (Gnirs 73). Many cases in this volume illustrate peer-polity interactions, such as the Maya, with their unusually uniform ecology (Webster 337-338, 339-340), archaic Greek poleis (Raaflaub 131), and the Nile Valley during the First Intermediate Period (Gnirs 79). Chinese political history begins with wars between comparable centers, but the later, larger polities of the Western Zhou clashed with non-state peoples from other zones, most notably horsemen of the steppes (Yates 16, 18), Generally, state armies do less well against scattered, mobile, autonomous groupings than against more dense and centralized polities (Goldberg and Findlow 1984.376-78). When the Japanese adopted Chinese army styles, they were sorely tested by mounted barbarians who fought guerrilla-style (Farris 53). Seleucid Syria was harried by people of the mountains (Hamilton 179), pastoralists occupied large parts of the Byzantine Empire (Haldon 246), development of early Rome's flexible manipular legions was influenced by confrontations with southern tribesmen (Hamilton 184), and water-borne Vikings played havoc with medieval Europe (Bachrach 282). On the other hand, the mobility of surrounding barbarians did not always work in their favor. In medieval western Europe, it meant they could not effectively lay siege to fortified towns of warring civitates (Bachrach 277, 280).

Regional population characteristics may affect war, but relationships are complicated-nothing so simple as "more people, more war." Cross-cultural statistics have failed to establish any correlation between regional population density and intensity of warfare, although connections are apparent in particular cases (Keeley 1996.117-21). (It may well be that a relationship exists but is obscured by the failure of past statistical investigations to consider the war-generating impact of Western contact-see later discussion.) Theoretically, regional population-to-resource balances affect whether war embodies the politics of exclusion or aims to garner people (Price 1984). Empirically, war is often avoided or exited when local groups have the option of relocating to unoccupied lands (Ferguson 1989c.195-96). In some parts of Amazonia, New Guinea, and Polynesia, war seems to propel people outward from areas of high productivity and population growth, ultimately displacing some into ecologically marginal areas that act as population sinks (Ferguson 1989b.255-58; Morren 1984.179-80; Sahlins 1958.59). In areas where politically and militarily dominant urban zones experience higher mortality (Knauft 1987.97-105), a reverse movement might occur, either forcible importation of populations or a cycle of

external invasion and takeover, perhaps as in Mesopotamia (Adams 1981.135 Population crashes associated with Western contact can lead to open and abur dant lands that can, other conditions being right, make subsequent war unlike ly, as in the remarkably peaceful Guyana region (Ferguson 1990a.242).

This volume suggests but does not establish connections between overs population density and war. The population explosion that followed the intra duction of wet-rice agriculture and metal in Japan is accompanied by abundaosteological evidence of war (Farris 49). After the demographic collapse Dark Age Greece, growing populations led to increasing territorial conflicts ar war (Raaflaub 129-131, 134). Population growth in Mesoamerica was reflecte in larger armies and more expansive wars (Hassig 363). The highly structure political universe encountered by New Kingdom Egypt (Gnirs 86) arose on tl great populations of the eastern Mediterranean of the late Bronze Age. Tl Japanese case shows that when states experience sharp population losses, how ever, the result may be intensified violence aimed at securing exploitable worl ers (and secure taxes), not peace (Farris 60).

Population pressure exists only in relation to some specific environmer Anthropologists no longer see ecosystems as stable, and they look to chang both gradual and sudden, natural and anthropogenic (Balee 1998; Crumi-1994). Deterioration of a resource base as a source of war is best understood n in the impact on one group but on the larger system of groups. Simultaneo threats to different subsistence bases, and to the total societies that rest on their can cause major disruption and forced migrations, which leads to massive coflict throughout the system. Thus the protracted desiccation in the two-ce turies bracketing A.D. 1250 witnessed population shifts and unprecedent war are throughout much of North America (Ferguson 1997.341). Epidemi of introduced diseases can also alter regional power balances by hitting diffe ent populations differently, as with the destruction of the urban (vers nomadic) peoples of the Great Plains (Bamforth 1994,100). In this volume, to ecological crises lead to massive war. The bloody southern Maya collapse w fueled by anthropogenic environmental degradation (Webster 335, 354). The fueled by anthropogenic environmental degradation (Webster 335, 354). · Toltec empire fell when desiccation undermined their agricultural base as drove nomadic peoples across essential trade routes (Hassig 363-364). Ear Rome was forced to contract when mountain people migrated in, probab pushed on by famine (Rosenstein 195). Of course, whatever combination ecology, population, and climate might be involved, barbarian migrations ha played a major role in ancient histories.

System infrastructure includes geography. In most situations, non-state state, threats are geographically specific. This point may seem too obvious mention, unless strikingly patterned as in Egypt (Gnirs 83, 89), but it is obously important for those who live with war. System infrastructure also include e space between groups and the ability to traverse it. Distance, ease of moveent over terrain, and the ability to live off the land limit the kinds of attacks at can be mounted. Technology of movement plays a major role in determing what kind of wars will be fought. Mounted tribal warriors are famous the orld over. Water transport can multiply striking distances, solve logistical probms, and enable much looting, as with the long canoes of the Pacific Northwest. opography structures travel and trade routes, and their location and charactertics can be major features in regional war systems (Ferguson 1984b.296, 313). oads increase range and rate of march (D'Altroy 1992.81-90). But beyond such cattered observations, anthropology has relatively little to say about the social eography of war.

By the time of Tsun Tzu, if not long before, Chinese tacticians fully appreiated the importance of terrain, hence the injunction to study maps (Yates 5-16). Philip V of Macedon was vanquished when his army fought on terrain nore suited to Roman flexibility (Hamilton 184). Man-made features such as ities, roads, and fortifications are essential considerations in planning and exeuting any expedition, and the construction or maintenance of all of these for nilitary purposes also illustrates how great an impact war can have on the envionment (Bachrach 278, 290-291; Haldon 247; Yates 15-16). Most Mesomerican army marches were constricted to short campaigns by topography and the lack of roads and wheeled vehicles, eliminating the possibility of siege or surprise. The ability of the Aztec empire to secure provisions from tributaries dong main routes greatly expanded its range of military action (Hassig 376; Nebster 338-339, 347-348). Variations in logistics need more comparative tudy, in history as well as in anthropology. Persian soldiers, for example, seem particularly trained for living off the land (Briant 115, 121). The importance of ogistics is well illustrated by the logistical revolution of the Athenian navy. Supply by sea lifted the limitations of previous hoplite warfare, leading to more sieges and the ability to exercise control over widely scattered populations (Raaflaub 141-142). Something similar is observed for the Carolingian empire (Bachrach 290). Taken together, topography and logistics, if not theoretically "sexy," are important keys to victory on the battlefield.

The diffusion of military technology and accompanying techniques is a subject rarely observed by anthropologists, with the exception of firearms. An inferential case may be made that the spread of the bow and arrow in prehistoric North America was followed by a new form of more deadly warfare (Maschner 1997.277). Hassig's study of Mesoamerican warfare is unusual in discussing the relative effectiveness of weapons and changes over time (Hassig 1992). Differential access to important military technology has obvious implications, as noted earlier regarding guns. The introduction of such powerful weapons may lead to more war. So the Coast Salish of Vancouver Island became

slavers to buy guns to defend themselves from other slave raiders (Ferguson 1984b.299-300), and South American "Jivaro" mass-produced shrunken heads once each head became worth a rifle (Ferguson 1990a.247). War practices also spread from group to group. Headhunting (Vayda 1969.218-20) and torture of prisoners (Knowles 1940.190-91) were adopted by those who were at first only victims of those practices. In situations of Western contact, new ways to do the work of war spread outward from states in a process dubbed "military transculturation" (Ferguson and Whitehead 1992a.26). These acquired formations and techniques became so integral to some groups' practice that they sometimes were taken to be entirely indigenous (Fathauer 1954).

This volume illustrates several variations on diffusion. Western Zhou kings passed along military technology in ceremonialized exchange with allies and dependencies (Yates 17). The Eastern Roman state exercised a monopoly on the production and issue of weapons of war (Haldon 253). Markets for weaponry in Mesoamerica made anything available, but, as in diffusionist theory, an item was incorporated only if a people had the need and necessary social foundations to make it worthwhile (Hassig 367). Thus Western barbarians were able to construct the machines of siege warfare, but maintaining the thousands of troops to use them was generally beyond their capacity (Bachrach 277, 290). Briant (122-124) stresses a broader cultural compatibility between donor and receiver as a necessary prerequisite for the transfer of major institutional systems, such as mechanisms of soldier recruitment and training. On the other hand, Muslim warriors readily adopted foreign innovations regardless of ... denouncements from religious scholars (Crone 311). However it occurs, major weapons systems do spread. Lamellar armor and later the crossbow passed from Korea to Japan (Farris 50, 54). Bronze Age China (Yates 11) and New Kingdom Egypt (Gnirs 87) illustrate one of the most dramatic military diffusions in history, the spread of light chariots as mobile firing platforms after 2000 B.C (Moorey 1986).

The techno-organizational innovations discussed in the previous section also spread. First hoplite-style fighting, then Macedonian phalanxes with their eighteen-foot sarissas came to dominate political fields. The three Hellenistic kingdoms all relied on a core army, which, if not Macedonian by blood, fought Macedonian-style (Hamilton 180). Perhaps the most general medium of military diffusion, noted again and again in this volume, is the development of rootless mercenaries who carry their way of fighting and often their weapons with them (Bachrach 285-286; Campbell 235-236; Haldon 258-259; Gnirs 90-91; Hamilton 180-183; Yates 26). Although mercenaries grade imperceptibly into other forms of enlistment, clearly there are major differences in how much states rely on professional soldiers-for-hire. This is another area ripe for comparative study and generalization. Altogether, the chapters in this volume suggest that the spread of

technology and technique leads to spheres of military interaction, alternative military universes where foes meet for battle in distinctive and standardized ways. "Byzantine armies and Arab armies looked very much the same" (Haldon 245).

## Interpolity Structure

Developing on interpolity infrastructure as just described, interpolity structure is the social universe, the patterned interactions between potentially war-making groups. Interpolity structure has various dimensions, presented here as economics, social organization, and politics, but in life, different dimensions combine into whole, complex relationships. Anthropology in the past has not appreciated the extent and strength of networks involving scattered indigenous people (Lightfoot and Martinez 1995), but now it must avoid swinging too far the other way. That some of the "simplest" people were bound into larger systems does not mean everyone was in a significant way (Martin 1997; Solway and Lee 1990), and the corrosive effects of Western contact could quickly destroy elaborate networks, creating isolation (Whitehead 1992.139). But it is probably safe to say that all states are bound into vital networks with neighboring and more distant polities (Mann 1986.1-32). The varying character and combination of ties create social constellations that provide the form and guide the process of military action.

External Economics Intergroup economic organization involves trade and tribute. Anthropologists give far more attention to kinship than trade as a form of intergroup relation, but research on the Yanomami leads me to conclude that exchange of goods is stronger cement, without which even kin ties fade. Trade goods include both utilitarian and sumptuary goods-the latter playing an important role in the development of inequality (Schneider 1977.23). McNeil argues that up until the development of iron tools, trade remained of interest primarily to elites (McNeil n.d.). Yanomami middlemen illustrate the benefits of controlling trade in highly desired goods (Western manufactures), obtaining relative abundance for their own use, numerous labor-intensive local manufactures in exchange, brides and protracted bride service from other villages wanting to open channels of trade, political support from clients, and prestige on top of it all. Yanomami use force to preserve, break, or replace middleman control (Ferguson 1995b.345-48). Collective violence is very well suited to influence the movement of people through space, and efforts to improve one's position within regional trade systems are a common cause of war (Jablow 1994).

Efforts to protect or interdict trade appear frequently in this volume. The fact that Maya trade was confined primarily to elite goods (Webster 338) would not lessen the elite's efforts to acquire these markers of their status, as confirmed by the Shang elite's ritual dependence on prestige imports (Yates 14-15). Olmecs,

Toltecs, and Aztecs all had wars involving trade (Hassig 361-363), although this has not been demonstrated for the Maya (Webster 350). One of the principa assignments of Egyptian armies was protecting trade channels and expeditions (Gnirs 77-78, 81). Han emperor Wu expended enormous resources projecting force along trade routes (Yates 31-32). Imperial Rome constructed forts at key geographic points for trade (Campbell 224), a policy that was continued during medieval times (Bachrach 277; and see Hamilton 175-176). But forts do not work on water, and pirates preyed on shipping in tenth-century Japan (Farris 57).

Modalities of exchange are inherently social (Sahlins 1972.185-86) and reflect military considerations. Balanced trade is powered by mutual interest and is often opposed to war (Lévi-Strauss 1943). But mutual interest may not be strong enough for peace, and trade sometimes alternates with or exists within war (Keeley 1996.122). On Brazil's Upper Xingu River, trade based on artificial monopolies of goods anyone could make are the foundation of a remarkable system of regional peace among various ethnies (Gregor, 1990.111).9 On the Pacific Northwest coast, intergroup sharing through redistributions at periodic gatherings is encouraged by a climate of war, as redistributors lose potential enemies and gain friends against outside adversaries. But in the sarr e area, ritualized exchange between military superiors and subordinates can be "unbalanced"-goods from above are accorded more value in exchange because they come with attached status-as reciprocity verges into tribute (Ferguson 1983; Ferguson 1984b.287-88). With developing sociospatial power hierarchies, extraction of tribute may become the primary form of interpolity relations (Wolf 1987.141-44), and war to secure tribute may become a constitutive force actively transforming regional social relations (Reyna 1994a).

When Yates (17) notes the similarity of ceremonialized exchange between Western Zhou kings and local rulers to practices in Pacific cultures, it suggests something between trade and tribute. Certainly tribute is a major concern in ancient states. Tribute is strongly implicated as a major goal in Maya and Aztec warfare (Webster 350; Hassig 366). New Kingdom Egypt had tributaries in Africa and the Near East (Gnirs 84). Athens had to collect tribute to pay for its triremes (Raaflaub 143). Tenth- and eleventh-century tax wars in Japan (Farris 57) and the forcible appropriation of tax payments by Arab conquerors (Crone 311-312) make the point that what is tax and what is tribute may be a matter of degree and perspective.

External Social Organization Connections between non-state groups are given some permanence through the exchange of people in marriage. Intermarriage facilitates peaceable interactions (Brown 1978.167), although, as noted earlier, it is no guarantee of peace (Vayda 1960.120-22). Given deteriorating trade, marriage relationships can turn to especially bitter animosity, poisoned by

feeling that contracted in-law obligations have not been fulfilled (Ferguson 1995b.288-89). As military decision making becomes more centralized and hierarchical, marriages of political importance increasingly are those that connect emerging regional elites (Ferguson 1984b.288-89). Intermarriage can be based anced or lopsided (women going in only one direction) depending on relative power, and as a form of connection can embody all the goodwill or tensions of the total relationship. Other social organizational unifiers already noted applying within a group (e.g., lineages) also extend outward, sometimes assect continuum from family to regional network (Sahlins 1961), sometimes with status ranking of separate divisions (Chernela 1993.xi-xiii).

As noted in discussing internal structure, among Maya, Aztecs, and ancient. Chinese and Egyptians, marriage ties united the elite, and these were as impustant between as within groups (Gnirs 89; Webster 340; Yates 11, 16; Hassig 1992a.93–95). At the other end of the spectrum, where military victory led to tentional incorporation, kinship took on a new role, as in Persia, the Macedonian kingdoms, and Roman and Byzantine Empires, where intermarriage of more-states permanent occupation forces with local peoples was an important means of integration (Briant 116; Hamilton 173; Campbell 223–224; Haldon 253, 258)...

External Politics Political issues take more space than the previous two discussions of external structure. War-society connections are extensive and involve a variety of external political relationships, some common to all societies, some associated primarily with states. This discussion will cover alliance and domination, hegemonic versus territorial incorporation, and political-military interactions at the fringes of state control.

Trade and intermarriage are common bases of political alliance, but it is such alliances themselves that provide the immediate structure of war. Alliance is not war's opposite but its accompaniment. It is in war that allies are needed, to provide assistance in combat, information, material support, refuge, and second flanks. In this area, the Yanomami are probably typical (Ferguson 1995b). Assistance are firmly structured by economic and social connections, these are always options. Actualizing potential alliances is one of the major military roles of leaders. Alliance building is a continuous process, always in need of real-firmation or renegotiation. Skillful leadership requires considering the ramifications for alliance of every proposed action. The existing structure of alliances plays a key role in determining the initiation, spread, and cessation of hostilities although war, of course, can tear apart old allies and make strange new ones.

Alliances vary in their durability. Among Yanomami, they shift with same prising rapidity. In some more densely populated areas of New Guinea, they tend to persist along with structured oppositions for years (Kabesara 1973.63–68). As alliances become more fixed and more the basis of organization

war and other political projects, autonomous local groups form into confederacies and sometimes tribes, although tribalization is always a matter of degree (Heider 1970.77–81). Theorists on the subject of tribe, although disagreeing on much else, concur that to the degree tribes are bounded and coordinated, it is a result of warfare with similar units (Fried 1967.164–66; Haas 1982.9).

Maya centers had long-term enemies and went to war in alliances, although how structured is debated (Webster 346-347). The expansion of Republican Rome depended on its allies, who provided half or more of its legions (Rosenstein 203). Yamato monarchs were first among equals in a confederacy of autonomous groups (Farris 51). By the age of Athens's glory, wars between individual poleis had given way to wars between alliances of poleis, and Athens's rise itself involved the transformation, in the face of far-flung wars, of a voluntury confederacy into a centralized empire (Raaflaub 144, 147). Thus alliance can grade into more fixed, hierarchical, and coercive political forms.

In some combinations, non-state peoples do conquer and exploit other nonstate peoples, as mobile pastoralists have often done (Barfield 1993). But it is more simple dominance and extraction than incorporation. I argue that hegemony military and political dominance—combined with some form of tribute is common among chiefdoms and may play an important role in the evolution of states (Ferguson 1994.104–5). But it is only with the development of a government that centralized administration of conquered peoples becomes a regular possibility. Hassig (3?4–375) discusses the difference between territorial conquest, where local rulers are replaced and occupying garrisons installed, and hegemony, where local rulers are left in place. This distinction had been elevated in theoretical importance by Luttwak (1976), who contrasted the expanding hegemony of Republican Rome—which developed via its regular call-up of allies' military forces (Rosenstein 198)—to the fort-building territorial consolidation of the later empire.

Although this often-useful distinction directs our attention to variations in political dominance, its theoretical significance is clouded by the very diversity of that variation. Among the Maya, with no standing armies to occupy anything, a hegemonic state is the *most* cohesive structure that most scholars imagine (Webster 346), but more consolidating conquests might be apparent with greater historical detail (Demarest 1996). Sparta reversed Rome's sequence, with territorial conquest and enslavement followed by hegemonic expansion of the Peloponnesian League. Hegemonic control remained the rule until the conquests of territorial empires in the fourth century, most decisively that of Philip II (Raaflaub 131–132), but even under Philip and Alexander, some hegemonic dominance remained (Hamilton 175). The Arab conquests—where military garrisons were inserted across a complex political landscape, and self-rule was allowed as long as taxes were paid (Crone 311–312)—would be hard to categorize as either territorial or hegemonic.

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The territorial-hegemonic contrast may be too neat even for the type case of Rome (Mattingly 1992.42-43), and in many situations it is of limited utility. Virtually all early civilizations consisted of a number of basically similar centralized polities, city-states, or nearly such, exhibiting shifting degrees of independence or cohesion, and of equality or dominance.10 Egypt has been cited as the only exception, being a territorial state (Yoffee 1995.299-302), but it was not so exceptional in predynastic times (Scarre and Fagan 1997.93-96) or during intermediate periods (Gnirs 79). Western Europe reverted to this form after the fall of Rome (Bachrach 279-280), and it can be seen underlying the complex Byzantine state (Haldon 241-243). City-state systems are characterized by alternating periods of consolidation and independence, and in agglutinating times, there is constant jockeying among potential regional centers. In such polycentric systems, there may be no clear division between hegemonic and territorial rule, as smaller, weaker polities closer to an emergent center undergo political assimilation (Vansina 1971.136, 145). At the peripheries of expanding states, some combination of direct and indirect control is the rule, in endless variations of central and local political agents (Ferguson and Whitehead 1992a.7, 11). Even within territorially consolidated states, as noted earlier, a weakening center may be matched by increasing local autonomy, to the point of independence (Bachrach 279-280; Farris 52-53; Haldon 244, 250; Yates 14, 16). In sum, the hegemonic-territorial distinction, although often descriptively useful and good for problematizing forms of military-backed control, seems inadequate for theoretically conceptualizing the variation that exists. We need better concepts.11

When state polities—territorial, hegemonic, whatever—abut on lands inhabited by non-state peoples, other dynamics ensue that feed back to affect military practice by state neighbors. Archaeological research on ancient states, inspired by Wallerstein's work on the modern world system, documents socioeconomic transformation of extensive regions around political centers (Champion 1989; Rowlands, Larsen, and Kristiansen 1987). World system theory, however, has suffered from neglect of the military interactions that accompany and often make possible economic penetration (Ferguson and Whitehead 1992a.4). There is ethnohistoric evidence that the military dimension of state interaction with non-state peoples produces equally momentous change (Ferguson and Whitehead 1992b). This is especially well documented for the unusually disruptive expansion of the West since 1500, but it is probably true—although not so extreme (Ferguson 1993)—for any situation where state-level systems arise, collapse, intrude, or retract. The interaction of polities of different scale, power, and complexity has major ramifications throughout system politics (Y. Ferguson 1991).

Whitehead and I call regions near to but not administered by states "tribal zones" because of the propensity for states to seek and/or create defined polities—tribes—out of the more acephalous and fluid political fields they com-

monly encounter (Ferguson and Whitehead 1992a.12–16). Tribes can evolve without states, but states make a lot of tribes, and most named tribes in the ethnographic record exist under the spell of states. Related processes create discrete ethnic groups, generating cultural categorizations along major contours of interaction with state agents (Hill 1996). These new social constructions go hand in hand with many other significant changes linked to state proximity, to transform and commonly intensify militarism among the non-state peoples. This is especially true for the expansion of the Eurocentric world system over the past five hundred years, which has contributed in Western culture to a misleadingly bloodthirsty image of "savages."

War by states with tribal peoples around their peripheries was noted earlier in this volume. Otherwise, there is little discussion of processes within those peripheries, although the gradual emergence of the Nubian kingdom of Kerma is noted south of Egypt's Middle Kingdom as well as the Hyksos kingdom in the north (Gnirs 81, 83), and the ethnogenesis of Clovis's Salian Franks is attributed to Roman policies of a century earlier (Bachrach 286). But tribalization and ethnogenesis are normal, and presumably occurred around these ancient and medieval states. Whether such state expansion led to intensified warfare among polities of their peripheries is a more open question, and one that is not addressed here at all. Increased fighting seems likely, however, since so many states encouraged the military prowess of peripheral peoples, institutionalizing them as units of "ethnic soldiers"—another normal accompaniment of state expansion (Ferguson and Whitehead 1992a.21–23).

Ethnic units within Mesoamerican armies are not explicitly discussed here; but they did exist (Hassig 1992b.49-52). Dominant polities regularly incorporated units from subordinate city-states that, although sharing language and customs, maintained different traditions of origins—an ethnic divide instantly recognized and used by the Spanish (Webster, personal communication). Western Zhou and Han mustered forces from numerous chiefdoms and tribes (Yates 17-18, 33-34). Ninth-century Japanese armies had ethnic units (Farris, personal communication). Egypt had Nubian troops from early on, and by the time of the Rammeside period, ethnic minorities settled within the kingdom dominated the military and eventually politics (Gnirs 77-78, 81, 87, 90-91). Thousands of Greek mercenaries were the main forces in Persia and elsewhere in the Hellenistic world, joined by units of Illyrians, Thracians, and Gauls (Hamilton 179-183). In the later Western Roman Empire, more and more of the army consisted of units of martial peoples from the periphery (Campbell 235), a practice that continued in medieval times (Bachrach 282, 285-286). Mid-eleventh-century Byzantium also relied heavily on ethnic soldiers (Haldon 246), in an area that had been transformed into an ethnic mosaic by the time of the Seleucids (Hamilton 178). The Arab conquests illustrate a pattern that had become common in the world by then: the takeover of governmental apparatus by ethnically distinctive invaders. They also show how complex cultural identity had become. Arabs lost much of their distinctive ethnic character, while Islam provided a new basis of assimilation. Over time, armies were constructed of shifting mixes of outside peoples until settling, in the Mamluk institution, on enslaved and converted Turkish tribals (Crone 314, 318–319).

Briant (116-122) problematizes the way ethnic soldiers are integrated into state armies, distinguishing autonomous native levies from ethnics fully integrated and trained as regular soldiers. Ethnic soldiers do come in many forms, from units of independent allies under their own command, to largely "deculturated" lower classes disproportionately drafted into state armies (Enloe 1980), and it is impossible to draw a line between ethnic soldiers and mercenaries. Briant's view, that ethnically heterogeneous forces must be militarily ineffective, and that the extensive native levies noted under Xerxes were more symbolic than functional, would, if accurate, suggest a need to reevaluate the countless situations where ethnic fighters have been reported. Clearly, this is an important topic that requires more theoretical attention than it has received.

#### Superstructure

Interpolity aspects of war-related beliefs and dispositions appear in rules of war. War has its conventions, shared expectations among opponents about how the fighting will go (Keeley 1996.60–63). This is part of the general ritualization of war (Kennedy 1971.48), although anthropology has sometimes exaggerated the compelling character of these rules, which often 30 little beyond mutual self-interest and are frequently violated as circumstances allow or dictate. Rules may be especially apparent when hostilities involve opponents at different degrees of social distance (Netting 1974.159–61). Pressure on both sides may keep tactics to minimally damaging levels in temporary flare-ups against neighbors with continuing connections, while encouraging lethality against unrelated peoples (Meggitt 1977.16–43).

Contests between Maya nobles may have approached choreography, but they still aimed at capture, public humiliation, and ritual sacrifice (Webster 345–347, 349–350). Aztecs also fought some highly ritualized combats in the flower wars, which Hassig sees as an attritional strategy to grind down powerful but less populous adversaries. Their full-scale assaults produced captives for ritual sacrifice, up to (could it be true?) eighty thousand at one time when recalcitrant tributaries needed to be intimidated (Hassig 369, 379–380). Early Chinese warfare was thoroughly ritualized but also produced thousands of sacrificial victims (Yates 14, 20–21), so no one should think that "ritualistic" means little bloodshed. Samurai combat etiquette was so elaborate that their opening rituals sent the assembied Mongol force (from a different military universe) into paroxysms of laughter

(Farris 64). Hoplite battle had a strong ritualistic aspect, making it a test of strength not designed to kill many, although it sometimes did (Raaflaub 133). In Warring States China, however, ritual faded before considerations of economics and terrain (Yates 25–30). New Kingdom Egypt expected a somewhat ritualistic initial campaign from a new king but otherwise practiced total war (Gnirs 74). The duels of champions that appear in Persia, on closer inspection, occur in the contexts of full combat between armies (Briant 111). Discussion of rules of war is notably absent in other cases, with the exception of medieval generals' sensible agreement not to destroy the material and resources base that everyone was fighting to control (Bachrach 289). Certainly all war has ritual and involves mutual understandings between adversaries, but ritual considerations appear to fade in contrast to practicalities after centuries of conquest warfare.

A few other aspects of interpolity superstructure are noted in this volume. The role of religion in forging the political and military unification of disparate local groups is well known, from twentieth-century Amazonia and Melanesia (Brown and Fernandez 1992; Worsley 1968.227) to rebellions in first-century Roman Africa (Mattingly 1992.35–38). Two millennial uprisings brought down the Han dynasty, thus opening the door to nomadic conquest (Yates 34). Religion also may accompany and encourage imperial expansion (Reyna 1994b), as "heathens" the world over learned about Christianity. If the Aztecs were not going to war to spread their religion, the fact that the god Huitzilopochtli demanded blood (Hassig 367–368) surely must have seemed significant to those captives whose hearts were ripped out. Islam, of course, welded autonomous tribal groups into a coordinated conquering force, for a while (Crone 309).

Polities exist within a cognized and moralized systemic map, affirming distinctions that reflect and influence military action (Whitehead 1992.133), as dramatically illustrated in varying perspectives on headhunting practices in Southeast Asia (Hoskins 1996). The Yanomami case reveals some of the more general dimensions of this mapping (Ferguson 1992.221–24). Status ranking of polities reflects many things besides war, but military superiority is one important basis for deference, and relative status strongly affects what behavior constitutes a politically serious insult. Grounds for revenge and suspicions of malevolent acts (witchcraft), keying into the symbolic and emotional complexes discussed earlier, ideologically demarcate political fields. Past injuries are interpreted according to current relationships, but actual history is a very real structuring force. A past war may leave little basis for communication, while a long-standing alliance may bear much stress before cracking. A history of violence contributes to expectations that violence will be used, which may become a self-fulfilling prophecy.

Such fine-grained, situation-specific mapping is not noted in cases presented here. What does appear in Chinese, Japanese, and Egyptian states is an eological map of a civilization surrounded by barbarians, who deserved smitg (Farris 65–66; Gnirs 73–76; Yates 29–33). Persia had a similar self-image
riant 107, 116), although hostile relations with barbarians are not specified.
medieval western Europe, it was the ability to lay siege that separated the civzed from the barbarians (Bachrach 277). Worldview also extends inward to
snceptions of self, which in some cultures may only be fulfilled in violent
sposition to foreign others (Viveiros de Castro 1992.1–4). There are at least
hoes of this in some parts of the Persian kingdom (Briant 115). Mental
hages of political universes will exist in very different versions, reflecting difrent positions within the political system. These solidly grounded yet cultur-

ly constructed political maps frame decisions for military action. They are here materialist can meet symbolist perspectives as part of one analysis.

Another area where interpolity superstructure is important is in the dyadic sychodynamic process that leads up to war. Again, these fall below the resolution of chapters in this volume, but they seem to be general enough in princile so they may be expected to apply (Gluckman 1963; Coser 1956; Simmel 964). Adversaries become more clearly defined and polarized. People in etween are compelled to choose sides or withdraw from active roles. A develping rift colors all evaluations, until nothing those others do is good, everyhing gives more grounds for hostility and mistrust. It becomes "us" or "them," is extremely negative images of the enemy are generated and backed by peer ressure.

The Yanomami case, again, provides texture (Ferguson 1995b.11-12, 15-46). As relationships deteriorate, any aspect of the worsening interactions nay stand for the whole. Thus, seemingly trivial slights can ignite violence secause they symbolize all that has gone bad. Once war begins, the state of war ncludes an expectation of lethal violence from the enemy that will shape decisions and actions. Informational limitations are sharpened—the notorious fog of war-so that belligerents must make decisions based on misinformation and speculation. Prisoners' dilemmas encourage preemptive strikes. And if revenge is manipulated like history, while a group is actively taking casualties it certainly can motivate further attacks. But over time the will to war fades. The costs mount; people get tired of living in fear. If an initial consequence of war is to unify the group against an enemy, protracted war leads to internal division. Some start to seek a path to peace. Peace frequently comes through exit—one side leaves the field. But often a negotiated settlement is reached. This involves reactivation of latent crosscutting ties, sending protected emissaries, and diplomacy that, although little studied (Numelin 1950), shows many characteristics comparable to modern practice. There are specialized conventions for receiving emissaries and specialized language for diplomatic discussion that reduces the possibility of confrontation. Reestablishment of peace involves not just

working out new ties of trade, marriage, and support but jointly reconstructing the history of relationships to defuse revenge, and jointly participating in rituals of solidarity.

## Summary and Conclusions

Previous discussions separated intra- from interpolity connections between war in society, to call attention to the larger political fields that encompass any war-making group. In this conclusion, both will be merged for a unified presentation of infrastructural, structural, and superstructural connections between war and society in ancient and medieval states, as exemplified by cases described in this volume.

Agriculture is the foundation of state armies. Where soldiers must return to work the fields, war is seasonal and close to home. Sometimes these men are also drafted for other mass labor tasks. A Rubicon is crossed when the production system can sustain professional standing armies. Even professional soldiers, however, often are motivated by rewards of land, the possession of which may in turn obligate military service. Military force also brings land into cultivation as estates or via colonies of warriors. States place increased emphasis on land issue; and territory, as borders firm up and are contested. In addition to land, capture of people to do both farm and other labor is a goal of many campaigns, sometimes the lifeblood of a regime. Broad ecological variation determines what basic types of societies will clash-peer polities rising on similar subsistence strategies, or radically different formations, adapted to differing niches. Hunting, riding, and other subsistence-related techniques can be put to important military use, and more mobile tribal peoples often force the ponderous armies of expanding states to adapt themselves to new fields of battle. If you can't lick them, have them join you, and imperial armies regularly incorporate units of ecologically specific adepts.

Major population growth over time is connected to increased territorial issues and war. Larger polities can have not only quantitative but also sometimes qualitative advantages over smaller polities in forces fielded and tactics employed. High population densities support more complex political systems, and that affects armies. Anthropogenic ecological degradation can lead to a population crash, which may intensify warfare as elites compete harder for whatever remains. Climatic fluctuations can shift ecological niches and impel migrations, leading to major military outbursts. The possibility has been suggested that war is the means by which people move from areas of positive to negative population growth. The impact of war itself on population levels is ambiguous. Although the armies that march across these pages sustain massive losses, war casualties seem to put little crimp in regional numbers. Yes, war

destroys factors of production, limits the ability to exploit nature, and can feed into a process of demographic collapse, but on the other hand military need can stimulate production of food and babies.

Geography structures potential threats, allies, and trade routes. Terrain is often crucial in the course of campaigns. Transport technology, including roads, sets limits of campaigning, and good ships greatly expand military range and possibilities of siege. A developed system of fortifications affects what and how wars are fought. Advances in military technology are sometimes key to imperial expansion, although weapons become lethal only in use-in specific and trained labor of combat. Combat is men's work, and expectably that has an impact on gender relations. Spread of military technology, like all diffusion, requires an existing need and socioeconomic base supportive of the innovation. How diffusion occurs ranges from ritualized exchange, to markets, to government provisioning. Mercenaries become major carriers of military innovation. Where comparable military organizations face off, important advances in technique and technology will be adopted generally. Development of a navy stands out as a major watershed in military capacities, but at a major social and political cost, including reorganization of the collection of wealth.

Turning to structure, in what for want of a better term I will call "archaic" states (Maya, Shang, early Egypt), the kinship cement of affinity and descent provides some cohesion among elites, and transmits rights to property, rule, and status. Lineage organization may still be used to mobilize fighters. If blood and marriage can unify, they also structure fission in polycentric states, where claims to rule are routinely challenged by semiautonomous subordinates. But later states discount kinship for military accomplishment (within a tightly restricted group) as basis for rule, and shift to neighborhoods or institutions as bases for military drafts-although both bring along some back-home structure. Rome and perhaps Persia and Macedonia stand out for armies where unit cohesion was developed purely within the units. On the other hand, all three secured their conquests, in part, through soldier-marrying local communities.

In all cases, a critical dimension of social organization is stratification, which is geographically expressed in elite centers that eventually become urban. Most armies have some variation of elite and mass troops, with the elite on horse or chariot except in the New World. Complex social systems may have more than two layers of soldiers. Professionalization of any stratum of soldier, how well and how much each fights, is variable, and all that is connected to the position of their respective social classes. Success in battle is often a vehicle for upward mobility, a fact that provides a crucial incentive for soldiers in successfully expanding states. Armies are formal institutions with manifold connections to other institutions, and their relationship to ecclesiastical and civil administrative bureaucracies affects how militaristic a polity may seem.

In stratified economies, scarcity and how it is experienced vary by structural position, and that affects which scarcities become grounds for war. Tensions within a class structure may promote external military adventures. Different classes participate differently in the benefits of trade, but in general it is more attuned to elites than masses. Not surprisingly, trade is the basis of much warfare, in efforts to protect or tap into it. Trade can be converted through war or threat of war into tribute, and intermediate forms of unbalanced exchange are possible. Tribute is what sustains many systems of rule, although the line between tribute and tax may be ambiguous and contested. Taxation is a more secure and productive means of revenue, if the system can sustain the costs of such control; and intensified taxation-and the institutions of control that go along with it--may be necessary to pay for expanded military forces.

Regarding the political structure of decision making, some states' roots go back to (more) consensual forms-early Maya (perhaps), Dark Age Greece, tribal Arabs. But even with extremely centralized decision making, military policy usually (not always) involves conservative appraisal of circumstances. States have and use the power to compel subject-citizens to fight. The central government's ability to control independent military actions varies, from substantial autonomy to virtual elimination of locally controlled forces. Also highly variable is the manner in which armies act as internal police. The threats of war may compel a unity of purpose that, if sustained, allows those in power to extend and elaborate structures of control. War provides avenues for elite to vie with each other for wealth, power, and status-all interrelated, of course.

Internal politics thus plays a major role in shaping external policies; indeed, the boundary between the two may fluctuate. On the other hand, internal politics is conditioned by a structured external field of oppositions and alliances. Allies are crucial for success and war, and alliance making intensifies alongside war. Seen comparatively, using cases in this volume, alliance appears to be the end of a continuum that reaches to territorial conquest and incorporation. Alliances or somewhat more permanent confederacies tip from equality to hegemony, and from hegemony to empire, as hegemony grades into conquest and incorporation. In the other direction, regional autonomy can grow within territorial states to the point of independence. In sum, what often exists is a complex and fluid political field, involving varied political relations between varied types of polities. Strong dominance by a central power leads to regional and broader economic reorganizations, but that dominance depends largely on military force, and much of the restructuring is intended to meet specific military demands.

There are suggestions here (and strong evidence elsewhere) that most expanding states generate "tribal zone" effects of tribalization and ethnogenesis in areas beyond their administrative control. One standing question is whether

ancient states had the effect of intensifying war and militarism among non-state people at the periphery. The cultivation of warlike ethnic soldiers suggests they did, to some degree. For their skills and martial attitude, the culturally distinctive fighters from imperial peripheries grew increasingly prominent in armies, to the point of taking them over. Ethnic soldiers grade into paid professional mercenaries. In the complex cultural tapestries of some of the later social worlds, after so many invasions, migrations, and administrations, every soldier was an ethnic.

Boys are raised for war, soldiering becomes part of adult male identity, and bravery is lauded. Political ideology and religion both provide moral justification for war, although there is significant variation in how tightly the two intertwine on this point. In many cases, religion refracts conquest into legitimacy. Religion is carried into war, preparing, guiding, and urging on combatants. Religion may impel imperial expansion, but it may also unite resistance to the same. There are always rules and rituals of combat, as sanguinary as they may be, but overt ritualisms seem to fade out over centuries of internecine war. Finally, a cognitive and moral mapping of the peoples of a social universe informs military thinking and action.

This chapter has presented a paradigm for the study of relationships between war and society, intended as an orienting framework for observation and theory, usable for comparison or in-depth case study. In closing, two general points can be made. First, at the start of this chapter, I asked whether a general model developed with reference to non-state people could apply to war-society relationships in ancient and medieval states. The fit has been variable. Authors here deal much more with politics of control, for instance, while anthropologists have paid greater attention to psychological dimensions of war. Nevertheless, this extended comparison has demonstrated extensive similarities-relationships between war and society are comparable for non-state and state-level societies. I cite this in support of a point I have argued for some time (Ferguson 1984a.26), but never with such extensive evidence, that the venerable distinction of "primitive" from "civilized" war obscures a fundamental similarity. War is war.

Second, this volume is about war and society. Recently anthropologists have begun exploring connections between peace and society (Gregor 1996; Howell and Willis 1989; Sponsel and Gregor 1994). There are non-state peoples with hiptle or very limited war. While the great majority of ethnographically known societies practice war, often of an extremely intense character, archaeology strongly indicates that war did not become a regular practice until some time-often a very long time-after the transition to settled village life (Ferguson 1997). Moreover, a recent compilation of ethnographic cases where war is reported to be absent or mainly defensive indicates that peaceable peoples are not as rarees has been thought (Van der Dennen 1995,595-674). I doubt that there was any

ancient or medieval state free of war. The idea is almost a contradiction in terms. with killing and taxing being the main thing many states did. But even states, like warring non-state peoples, vary in the frequency of warfare (Ember and Ember 1997). In an earlier work, I suggested that there may be alternative social trajectories, warlike or peaceable (Ferguson 1994.103). Of course a great many cases would not be easily pigeonholed, falling in the range between. But I suspect that protracted war or protracted peace contribute to their self-perpetuation. This chapter has shown how, in myriad ways, war reshapes society in its own image. A society in a system evolved for war is ready, even waiting, for war. Of course a bad thing can be pushed too far, as when a system of government is brought down by military defeat or the crushing burden of military expenses. But short of that, as these chapters show, in many cases war is so woven into the fabric of social life that a given polity could not survive without it. Often, war has been likened to an infectious disease. In some cases, it may be more apt to think of war as a societal addiction.

#### Notes

- 1. This paradigm, previously referred to as a synthetic or holistic model, is the subject of theoretical works that elaborate it in general terms (Ferguson 1990b) and discuss its theoretical underpinnings (1995a). In other articles, it is applied to the sometimes intense warfare of Venezuelan-Brazilian Yanomami in a situation of Western contact (1992), to the role of war in the process of sociocultural evolution (1994), and to anthropology's possible relevance for addressing the cold war of the late -1980s (1989a).
- 2. The absence of such histories of chronic war-making, and consequently the lack of adequate public finance instruments, is one reason for the weakness of postcolonial states in contemporary Africa (Herbst 1990).
- 3. In my own efforts to explain the actual occurrence of war in specific cultural and historical contexts, I apply the premise that war occurs when those who decide military policy believe war is in their material self-interest, considered from the perspective of their position within social and economic organization. This directs attention to the structure of decision making regarding war and peace: What kinds of people are involved, what are their interests in possible outcomes of potential conflicts, and in what ways are they able to influence direction of policy?
- 4. My own recent research on the history of the New York City police suggests that police forces need to be backed up by a military, but that men trained as soldiers make lousy cops.
- 5. Unlike many anthropologists, I (as in Ferguson 1995b.365-66; and see note 3) argue for the existence of a phylogenetically evolved, panhuman, cross-culturally similar motivation to maintain or improve material well-being. It is these interests as they apply collectively to decision makers that structure decisions for war. But these

- 6. Enloe's (1995) discussion of war and genocide in contemporary Rwanda is a succinct and incisive presentation of the ways war can enter into gender relations (and see Sutton 1995).
- 7. Ferguson 1995b.353-54. In many ways, these constructs find parallels in the moralizing and antagonistic constructions of histories noted in many recent "ethnic conflicts."
- 8. Here I see a parallel to modern intelligence services, for which the term "spook" may be more appropriate than imagined.
- 9. "Ethnie" is a term recently come into use in anthropology. It designates a culturally distinctive group, without the implications associated with "ethnic group," which to most people indicates a subordinate grouping within a state system.
- 10. The concept of a "segmentary state" has been applied to several situations with multiple local polities linked as subordinates to some center (Southall 1988), as illustrated here regarding the Maya (Webster 341). This concept, however, emphasizes "ritual suzerainty" as the primary means of integration, where it may be more useful to consider perceived military superiority.
- 11. Another often useful distinction, that of territorial state versus empire, also becomes problematic under inspection. Sinopoli (1994,160) defines "empire as a territorially expansive and incorporative kind of state, involving relationships in which one state exercises control over other sociopolitical entities." Although huge expansions over previous systems are instantly recognizable as empires, at the other end there is no clear distinction separating empires from expansive local states.

## Bibliography

- Abler, Thomas S. 1992. "Beavers and Muskets: Iroquois Military Fortunes in the Face of European Colonization." In Ferguson and Whitehead 1992b.151-74.
- Adams, D. 1983. "Why There Are so Few Women Warriors." Behavior Science Research 18, 196-212.
- Adams, Robert McC. 1981. Heartland of Cities: Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates. Chicago: University of Chicago Press.
- 3alée, William, ed. 1998. Advances in Historical Ecology. New York: Columbia University Press.
- 3amforth, Douglas, 1994. "Indigenous People, Indigenous Violence: Precontact Warfare on the North American Plains." Man 29, 95-115.
- 3arfield, Thomas. 1993. The Nomadic Alternative. Englewood Cliffs, N.J.: Prentice-Hall.
- -. 1994. "The Devil's Horsemen: Steppe Nomadic Warfare in Historical Perspective." In Reyna and Downs 1994.157-82.

- Bauer, Brian S. 1996. "Legitimization of the State in Inca Myth and Ritual." American Anthropologist 98.2, 327-37.
- Berndt, Ronald, and Peter Lawrence, eds. 1973. Politics in New Guinea: Traditional and in the Context of Change, Some Anthropological Perspectives. Seattle: University of Washington Press.
- Billman, Brian R. 1997. "Population Pressure and the Origins of Warfare in the Moche Valley, Peru." In Integrating Archaeological Demography: Multidisciplinary Approaches to Prehistoric Population, edited by Richard Paine. Southern Illinois University Center for Archaeological Investigations, Occasional Paper No. 24. Carbondale, Ill.: Southern Illinois University.
- Bonnemaison, Joel. 1994. The Tree and the Canoe: History and Ethnography of Tanna. Translated by Josee Penot-Demetry. Honolulu: University of Hawaii Press.
- Brookfield, H. C., and Paula Brown. 1963. Struggle for Land: Agricultural and Group Territories among the Chimbu of the New Guinea Highlands. Melbourne: Oxford University Press.
- Brown, Michael, and Eduardo Fernandez. 1992. "Tribe and State in a Frontier Mosaic: The Ashaninka of Eastern Peru," in Ferguson and Whitehead 1992b,175-97.
- Brown, Paula. 1964. "Enemies and Affines." Ethnology 3, 335-56.
- —. 1978. Highland Peoples of New Guinea. Cambridge: Cambridge University Press. Cannon, Aubrey. 1992. "Conflict and Salmon on the Interior Plateau of British Columbia." In A Complex Culture of the British Columbia Plateau, edited by Brian Hayden, 506-24. Vancouver: University of British Columbia Press.
- Carneiro, Robert. 1970. "A Theory of the Origin of the State." Science 169, 733-38.
- Cartledge, Paul. 1981. "Spartan Wives: Liberation or Licence?" Classical Quarterly 31,
- Chagnon, Napoleon. 1974. Studying the Yanomamo. New York: Holt, Rinehart and
- Champion, T. C., ed. 1989. Centre and Periphery: Comparative Studies in Archaeology. London: Unwin Hyman.
- Chang, Kwang-chih. 1986. The Archaeology of Ancient China. New Haven, Conn.: Yale University Press.
- Chernela, Janet. 1993. The Wanano Indians of the Brazilian Amazon: A Sense of Space. Austin: University of Texas Press.
- Cohen, Ronald. 1984. "Warfare and State Formation: Wars Make States and States Make Wars." In Ferguson 1984c.329-58.
- Cooney, Mark. 1997. "From Warre to Tyranny: Lethal Conflict and the State." American Sociological Review 62, 316-338.
- Coser, Lewis. 1956. The Functions of Social Conflict. New York: Free Press.
- Crumley, Carole L., ed. 1994. Historical Ecology: Cultural Knowledge and Changing Landscapes. Santa Fe, N.M.: School of American Research Press.
- Dalley, Stephanie. 1995. "Ancient Mesopotamian Military Organization." In Civilizations of the Ancient Near East, edited by Jack M. Sasson, Vol. 1, 413-22. New York: Scribner's.

- Altroy, Terence N. 1992. Provincial Power in the Inka Empire. Washington, D.C.: Smithsonian Institution Press.
- marest, Arthur A. 1996. "Closing Comment: The Maya State: Centralized or Segmentary." Current Anthropology 37, 821-24.
- vale, William, and Marvin Harris. 1976. "Population, Warfare, and the Male Supremacist Complex." American Anthropologist 78, 521-38.
- vall, Robert. 1961. "The Nomadic Pattern of Living among the Tibetans as Preparation for War." American Anthropologist 63, 1250-63.
- iber, Carol R., and Melvin Ember. 1992. "Resource Unpredictability, Mistrust, and War: A Cross-Cultural Study." Journal of Conflict Resolution 36, 242-62.
- ----. 1997. "Violence in the Ethnographic Record: Results of Cross-Cultural Research on War and Aggression." In Frayer and Martin 1997.1-20.
- iber, Melvin, and Carol Ember. 1971. "The Conditions Favoring Matrilocal versus Patrilocal Residence." American Anthropologist 73, 571-94.
- loe, Cynthia. 1980. Ethnic Soldiers: State Security in Divided Societies. Athens, Ga.: University of Georgia Press.
- ---. 1995. "When Feminists Think about Rwanda." Cultural Survival 19.1, 26-29.
- liman, Jeffrey. 1976. Mountain Warriors: The Pre-Colonial Meru of Mt. Kenya. Papers in International Studies, Africa Series, No. 27. Athens, Ohio: Ohio University Center for International Studies.
- . 1982. An Oral History of Tribal Warfare: The Meru of Mt. Kenya. Athens, Ohio: Ohio University Press.
- hauer, George. 1954. "The Structure and Causation of Mohave Warfare." Southwestern Journal of Anthropology 10, 97-118.
- , D. K. 1987. The Evolution of Highland Papua New Guinea Societies. Cambridge: Cambridge University Press.
- don, Edwin N. 1981. Early Tahiti: As the Explorers Saw 1t, 1767-1797. Tucson: University of Arizona Press.
- guson, R. Brian. 1983. "Warfare and Redistributive Exchange on the Northwest Coast." In The Development of Political Organization in Native North America: 1979 Proceedings of the American Ethnological Society, edited by Elizabeth Tooker, 133-47. Washington, D.C.: American Ethnological Society.
- ---. 1984a. "Introduction: Studying War." In Ferguson 1984:.1-81.
- 1984b. "A Re-examination of the Causes of Northwest Coast Warfare." In Ferguson 1984c.267-328.
- -, ed. 1984c. Warfare, Culture, and Environment. Orlando, Fla.: Academic Press.
- -. 1988. "War and the Sexes in Amazonia." In Dialectics and Gender: Anthropological Approaches, edited by Richard R. Randolph, David M. Schneider, and May N. Diaz, 136-54. Boulder, Colo.: Westview Press.
- ----. 1989a. "Anthropology and War: Theory, Politics, Ethics." In The Anthropology of War and Peace: Perspectives on the Nuclear Age, edited by David Pitt and Paul Turner, 141-59. South Hadley, Mass.: Bergin and Garvey.
- —, 1989b. "Ecological Consequences of Amazonian Warfare." Ethnology 28, 249–64.

- -. 1989c. "Game Wars? Ecology and Conflict in Amazonia." Journal of Anthropological Research 45, 179-206.
- American Ethnologist 17.2, 237-57.
- ———. 1990b. "Explaining War." In Haas 1990.26-55.
- Complex." In Ferguson and Whitehead 1992b.199-227.
- Perspective." Human Peace 10.1, 8-10.
- Reyna and Downs 1994.85-111.
- —. 1995a. "Infrastructural Determinism." In Science, Materialism, and the Study of Culture, edited by Martin F. Murphy and Maxine L. Margolis, 21-38. Gainesville: University of Florida Press.
- American Research Press.
- —. 1997. "Violence and War in Prehistory." In Frayer and Martin 1997.321–55.
- Ferguson, R. Brian, and Neil L. Whitehead. 1992a. "The Violent Edge of Empire." In Ferguson and Whitehead 1992b.1-30.
- , eds. 1992b. War in the Tribal Zone: Expanding States and Indigenous Warfare. Santa Fe, N.M.: School of American Research Press.
- Ferguson, Yale H. 1991. "Chiefdoms to City States: The Greek Experience." In Chiefdoms: Economy, Power, and Ideology, edited by Timothy Earle, 169-92. Cambridge: Cambridge University Press.
- Frayer, David W., and Debra L. Martin, eds. 1997. Troubled Times: Violence and Waffare in the Past. Langhorne, Pa.: Gordon and Breach.
- Fried, Morton: 1967. The Evolution of Political Society: An Essay in Political Anthropology. New York: Random House.
- Fukui, Katsuyoshi, and David Turton. 1979. "Introduction." In Warfare among East African Herders, edited by Katsuyoshi Fukui and David Turton, 1-13. Osaka: Senri Ethnological Studies, National Museum of Ethnology.
- Gluckman, Max. 1963. "Gossip and Scandal." Current Anthropology 4, 307-16.
- Goetze, Albrecht. 1963. "Warfare in Asia Minor." Iraq 25.2, 124-30.
- Goldberg, Neil J., and Frank J. Findlow. 1984. "A Quantitative Analysis of Roman Military Aggression in Britain, circa A.D. 43-238." In Ferguson 1984c.359-85.
- Goldschmidt, Walter. 1986. "Personal Motivation and Institutionalized Conflict." In Peace and War: Cross-Cultural Perspectives, edited by Mary LeCron Foster and Robert A. Rubenstein, 3-14. New Brunswick, N.J.: Transaction.
- Golob, Ann. 1982. "The Upper Amazon in Historical Perspective." Ph.D. diss., City University of New York.
- Gregor, Thomas. 1990. "Uneasy Peace: Intertribal Relations in Brazil's Upper Xingu." In Haas 1990.105-24.
- , ed. 1996. A Natural History of Peace. Nashville, Tenn.: Vanderbilt University Press.

- iunawardana, R. A. L. H. 1992. "Conquest and Resistance: Pre-State and State Expansionism in Early Sri Lankan History." In Ferguson and Whitehead 1992b.61-82.
- unther, Erna. 1972. Indian Life on the Northwest Coast of North America: As Seen by the Early Explorers and Fur Traders during the Last Decades of the Eighteenth Century. Chicago: University of Chicago Press.
- iuy, J. J. 1981. "Production and Exchange in the Zulu Kingdom." In Before and After Shaka: Papers in Nguni History, edited by J. B. Peires, 33–48. Grahamstown, South Africa: Institute of Social and Economic Research, Rhodes University.
- Iaas, Jonathan. 1982. The Evolution of the Prehistoric State. New York: Columbia University Press.
- farris, Marvin. 1974. Cows, Pigs, Wars and Witches: The Ridales of Culture. New York: Vintage.
- fassig, Ross. 1992a. "Aztec and Spanish Conquest in Mesoamerica." In Ferguson and Whitehead 1992b.83–102.
- ——. 1992b. War and Society in Ancient Mesoamerica. Burkeley and Los Angeles: University of California Press.
- Ieider, Karl G. 1970. The Dugum Dani: A Papuan Culture in the Highlands of West New Guinea. Chicago: Aldine.
- —. 1979. Grand Valley Dani: Peaceful Warriors. New York: Holt, Rinehart, and Winston. Ierbst, Jeffrey. 1990. "War and the State in Africa." International Security 14.4, 117–39.
- 4ill, Jonathan D., ed. 1996. History, Power, and Identity: Ethnogenesis in the Americas, 1492–1992. Iowa City: University of Iowa Press.
- Hoskins, Janet, ed. 1996. Headhunting in the Social Imagination of Southeast Asia. Stanford, Calif.: Stanford University Press.
- Howell, Signe, and Roy Willis, eds. 1989. Societies at Peace: Anthropological Perspectives. London: Routledge.
- Hulme, Peter, and Neil L. Whitehead, eds. 1992. Wild Majesty: Encounters with Caribs from Columbus to the Present Day. Oxford: Clarendon Press.
- lablow, Joseph. 1994. The Cheyenne in Plains Indian Trade Relations, 1795–1840.
  Lincoln: University of Nebraska Press.
- Kaberry, Phyllis. 1973. "Political Organization among the Northern Abelam." In Berndt and Lawrence 1973.35–73.
- Keeley, Lawrence H. 1996. War before Civilization: The Myth of the Peaceful Savage. New York: Oxford University Press.
- Kelekna, Pita. 1994. "Farming, Feuding, and Female Status: The Achuar Case." In Amazonian Indians: From Prehistory to the Present, edited by Anna Roosevelt, 225–48. Tucson: University of Arizona Press.
- Kelly, Raymond C. 1985. The Nuer Conquest: The Structure and Development of an Expansionist System. Ann Arbor: University of Michigan Press.
- Kennedy, John. 1971. "Ritual and Intergroup Murder: Comments on War, Primitive and Modern." In War and the Human Race, edited by M. Walsh, 40–61. New York: Elsevier.

King, Victor. 1976. "Migration, Warfare, and Culture Contact in Borneo: A Critique of Ecological Analysis." Oceania 46, 306–27.

- Kirch, Patrick V. 1997. "Microcosmic Histories: Island Perspectives on 'Global' Change." American Anthropologist 99.1, 30–42.
- Knauft, Bruce M. 1987. "Divergence between Cultural Success and Reproductive Fitness in Preindustrial Cities." Cultural Anthropology 2.1, 94–114.
- ——. 1991. "Violence and Sociality in Human Evolution." Current Anthropology 32.4, 391–428.
- Knowles, Nathaniel. 1940. "The Torture of Captives by the Indians of Eastern North America." Proceedings of the American Philosophical Society 82.2, 151–225.
- Koch, Klaus-Friedrich. 1974a. "The Anthropology of Warfare." Addison-Wesley Modules in Anthropology, No. 52. Reading, Mass.: Addison-Wesley.
- ——. 1974b. War and Peace in Jalemo: The Management of Conflict in Highland New Guina. Cambridge, Mass.: Harvard University Press.
- Kracke, Waud. 1978. Force and Persuasion: Leadership in an Amazonian Society. Chicago: University of Chicago Press.
- Kroeber, Clifton, and Bernard Fontana. 1986. Massacre on the Gila: An Account of the Last Major Battle between American Indians, with Reflections on the Origin of War. Tucson: University of Arizona Press.
- Lambert, Patricia M. 1997. "Patterns of Violence in Prehistoric Hunter-Gatherer Societies of Coastal Southern California." In Frayer and Martin 1997.77–109.
- Lan, David. 1985. Guns and Rain: Guerrillas and Spirit Mediums in Zimbabwe. Berkeley and Los Angeles: University of California Press.
- Langness, L. L. 1973. "Bena Bena Political Organization." In Berndt and Lawrence 1973.298–316.
- Law, Robin. 1992. "Warfare on the West African Slave Coast, 1650–1850." In Ferguson and Whitehead 1992b.103–26.
- Lawrence, A.W. 1965. "Ancient Egyptian Fortifications." Journal of Egyptian Archaeology 51, 69–94.
- Levy, Jack S. n.d. "The Study of War in Political Science." Paper presented at the Summary Conference, The Study of War Project, Cantigny, Ill., June 1997.
- Lévi-Strauss, Claude. 1943. "Guerre et Commerce chez les Indiens de l'Amérique du Sud." Renaissance 1, 122–39.
- Lightfoor, Kent G., and Antoinette Martinez. 1995. "Frontiers and Boundaries in Archaeological Perspective." Annual Review of Anthropology 24, 471-92.
- Luttwak, Edward. 1976. The Grand Strategy of the Roman Empire: From the First Century A.D. to the Third. Baltimore, Md.: Johns Hopkins University Press.
- Mait, Lucy. 1977. Primitive Government: A Study of Traditional Political Systems in Eastern Africa. Bloomington: Indiana University Press.
- Mann, Michael. 1986. The Sources of Social Power, Vol. 1, A History of Power from the Beginning to A.D. 1760. Cambridge: Cambridge University Press.
- Martin, Debra L. 1997. "Violence against Women in the La Plata Valley (A.D. 1000-1300)." In Frayer and Martin 1997.45-75.

- Aarwick, Max. 1970. "Witchcraft as a Social Strain-Gauge." In Witchcraft and Sorted edited by Max Marwick, 280-95. Harmondsworth, England: Penguin.
- Aaschner, Herbert D. G. 1997, "The Evolution of Northwest Coast Warfare," In Pravil and Martin 1997.267-302.
- Aattingly, D. J. 1992. "War and Peace in Roman North Africa: Observations and Model of State-Tribe Interaction." In Ferguson and Whitehead 1992b.31-60.
- flaybury-Lewis, David. 1974. Akwe-Shavante Society. New York: Oxford University Press.
- AcNeill, William H. n.d. "The Human Experience of War and Violence." Paper presented at the Summary Conference, The Study of War Project, Cantigny, Ill., June 1992
- Aeggitt, Mervyn. 1977. Blood Is Their Argument: Warfare among the Mae Engage Tribesmen of the New Guinea Highlands. Palo Alto, Calif.: Mayfield.
- Aoore, John H. 1990. "The Reproductive Success of Cheyenne War Chiefs: A Contrary." Case to Chagnon's Yanomamo." Current Anthropology 31, 322-30.
- Acorey, P. R. S. 1986. "The Emergence of the Light, Horse-Drawn Chariot in the Next East c. 2000-1500 B.C." World Archaeology 18.2, 196-215.
- Aorren, George E. B. 1984. "Warfare on the Highland Fringe of New Guinea: The Case." of the Mountain Ok." In Ferguson 1984c.169-207.
- Aorris, Donald R. 1965. The Washing of the Spears: The Rise and Fall of the Zulu Nation. New York: Simon and Schuster.
- Aurphy, Robert. 1957. "Intergroup Hostility and Social Cohesion." American Anthropologist 59, 1018-35.
- Needham, Rodney. 1976. "Skulls and Causality." Man 11.1, 71-88.
- Netting, Robert McC. 1974. "Kofyar Armed Conflict: Social Causes and Consequences?" Journal of Anthropological Research 30.3, 139-63.
- Nigel, Kenneth M. 1995. The Gymnasium of Virtue: Education and Culture in Ancient Sparta. Chapel Hill: University of North Carolina Press.
- Vippel, Wilfried. 1995. Public Order in Ancient Rome. Cambridge: Cambridge University
- Numelin, Ragnar. 1950. The Beginnings of Diplomacy: A Sociological Study of Intertribal and International Relations. London: Oxford University Press.
- D'Connell, Robert L. 1989. Of Arms and Men: A History of War, Weapons, Aggression. New York: Oxford University Press.
- ----. 1995. Ride of the Second Horseman: The Birth and Death of War. New York: Oxford University Press.
- Otterbein, Keith. 1977. "Warfare: A Hitherto Unrecognized Critical Variable." American Behavioral Scientist 20, 693-710.
- -----. 1979. "Huron vs. Iroquois: A Case Study in Inter-Tribal Warfare." Ethnohistory
- HRAF Press.
- Pershits, Abraham. 1979. "Tribute Relations." In Political Anthropology: The State of the Art, edited by S. L. Seaton and H. Claessen, 149-56. New York: Mouton.

- Postgate, J. N. 1974. Taxation and Conscription in the Assyrian Empire. Rome: Biblical Institute Press.
- Price, Barbara I. 1977, "Shifts of Production and Organization: A Cluster Interaction Model." Current Anthropology 18, 209-34.
- -. 1984. "Competition, Productive Intensification, and Ranked Society: Speculations from Evolutionary Theory." In Ferguson 1984c.209-40.
- Rappaport, Roy A. 1968. Pigs for the Ancestors: Ritual in the Ecology of a New Guinea People. New Haven, Conn.: Yale University Press.
- Revna, S. P. 1994a, "A Mode of Domination Approach to Organized Violence." In Reyna and Downs 1994,29-65.
- -. 1994b. "Predatory Accumulation and Religious Conflict in the Early 19th Century Chad Basin." In Reyna and Downs 1994.127-55.
- . and R. E. Downs, ed. 1994. Studying War: Anthropological Perspectives. Langhorne, Pa.: Gordon and Breach.
- Rosaldo, Michelle Z. 1983. "The Shame of Headhunters and the Autonomy of Self." Ethos 11.3, 135-51.
- Ross, Marc Howard. 1986. "A Cross-Cultural Theory of Political Conflict and Violence." Political Psychology 7, 427-69.
- Rowlands, M chael, Mogens Larsen, and Kristian Kristiansen, eds. 1987. Centre and Periphery in the Ancient World. Cambridge: Cambridge University Press.
- Saggs, H. W. F. 1963, "Assyrian Warfare in the Sargonid Period." Iraq 25.2, 145-54.
- Sahlins, Marshall. 1958. Social Stratification in Polynesia. Seattle: University of Washington Press.
- \_\_\_\_\_\_\_ 1961. "The Segmentary Lineage: An Organization of Predatory Expansion." American Anthropologist 63, 322-45.
- -----. 1972 Stone Age Economics. Chicago: Aldine.
- Scarre, Christopher, and Brian Fagan. 1997. Ancient Civilizations. New York: Longman. Schneider, Jane. 1977. "Was There a Pre-capitalist World System?" Peasant Studies 6,
- Sillitoe, Paul. 1977. "Land Shortage and War in New Guinea." Ethnology 16, 71-81.
- -----. 1978. "Big Men and War in New Guinea." Man 13, 252-71.
- Simmel, Georg. 1964. "Conflict" and "The Web of Group-Affiliations." New York: Free Press.
- Sinopoli, Carla M. 1994. "The Archaeology of Empires." Annual Review of Anthropology 23, 159-80.
- Siskind, Jane:. 1973. "Tropical Forest Hunters and the Economy of Sex." In Peoples and Cultures of Native South America, edited by Daniel R. Gross, 226-40. Garden City, N.Y.: Natural History Press.
- Solway, Jacqueline S., and Richard B. Lee. 1990. "Foragers, Genuine or Spurious: Situating the Kalahari San in History." Current Anthropology 31, 109-46.
- Southall, Aiden. 1988. "The Segmentary State in Africa and Asia." Comparative Studies in History and Society 30, 52-82.
- Sponsel, Leslie E., and Thomas Gregor, eds. 1994. The Anthropology of Peace and Nonviolence. Boulder, Colo.: Lynne Rienner.

- rna, William A., and Ralph Watkins. 1991. "Northern Iroquoian Slavery." Ethnohistory 38.1, 34-57.
- ton, Constance R., ed. 1995. Feminism, Nationalism, and Militarism. Arlington, Va.: American Anthropological Association.
- :on, Paul, and Christopher Chippindale. 1994. "Australia's Ancient Warriors: Changing Depictions of Fighting in the Rock Art of Arnhem Land, N.T." Cambridge Archaeological Journal 4.2, 211–48.
- nter, Joseph A. 1988. The Collapse of Complex Societies. Cambridge: Cambridge University Press.
- ly, Charles, ed. 1975. The Formation of National States in Western Europe. Princeton, N.L. Princeton University Press.
- elease, Allen W. 1997. Indian Affairs in Colonial New York: The Seventeenth Century. Lincoln: University of Nebraska Press.
- igger, Bruce G. 1987. The Children of Aataentsic: A History of the Huron People to 1660. Montreal: McGill University Press.
- rney-High, Harry H. 1971. Primitive War: Its Practice and Concepts. 2d ed. Columbia: University of South Carolina Press.
- n der Dennen, J. M. G. 1995. The Origin of War. 2 vols. Groningen: Origin Press.
- nsina, Jan. 1971. "A Traditional Legal System: The Kuba." In Man in Adaptation: The Institutional Framework, edited by Yehudi A. Cohen, 135–48. Chicago: Aldine.
- yda, Andrew P. 1960. Maori Warfare. Polynesian Society, Maori Monographs, No. 2. Wellington, New Zealand: Polynesian Society.
- ——. 1961. "Expansion and Warfare among Swidden Agriculturalists." American Anthropologist 63, 346–58.
- —. 1969. "The Study of the Causes of War, with Special Reference to Head-Hunting Raids in Borneo." Ethnohistory 16, 211-24.
- iveiros de Castro, Eduardo. 1992. From the Enemy's Point of View: Humanity and Divinity in an Amazonian Society. Translated by Catherine V. Howard. Chicago: University of Chicago Press.
- oget, Fred W. 1964. "Warfare and the Integration of Crow Culture." In Explorations in Cultural Anthropology, edited by Ward Goodenough, 483–509. New York: McGraw-Hill.
- /arren, James. 1982. "Slavery and the Impact of External Trade: The Sulu Sultanate in the 19th Century." In Philippine Social History: Global Trade and Local Transformations, edited by Alfred McCoy and C. de Jesus, 414–44. Quezon City: Manila University Press.
- Vatson, G. R. 1969. The Roman Soldier. Ithaca, N.Y.: Cornell University Press.
- Vhitehead, Neil L. 1992. "Tribes Make States and States Make Tribes: Warfare and the Creation of Colonial Tribes and States in Northeastern South America." In Ferguson and Whitehead 1992b.127–50.
- Whiting, Beatrice. 1965. "Sex Identity Conflict and Physical Violence: A Comparative Study." American Anthropologist 67, 123–40.
- Nolf, Eric R. 1987. "Cycles of Violence: The Anthropology of War and Peace." In Waymarks: The Notre Dame Inaugural Lectures in Anthropology, edited by K. Moore, 127–50. Notre Dame, Ind.: University of Notre Dame.

- Worsley, Peter. 1968. The Trumpet Shall Sound: A Study of "Cargo" Cults in Melanesia. New York: Schocken Books.
- Yoffee, Norman. 1995. "Political Economy in Early Mesopotamian States." Annual Review of Anthropology 24, 281-311.