

blood of the Leviathan: Western contact and warfare in Amazonia

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This article argues for the importance of a historical perspective in anthropological studies of war, for grounding analyses of nonstate warfare in the actual circumstances in which the fighting occurred. In practice, this usually means attending to the impact of Western European expansionism since the 15th century. Neglecting the fact of Western contact may preclude an understanding of why nonstate peoples fight. Previously, I (Ferguson 1984a) argued this point in regard to warfare among Native peoples of the Pacific Northwest coast. This time, my data come from Amazonia. I will argue that the most general cause of known warfare in Amazonia is Western contact.

The anthropological literature on war has grown markedly in recent decades (Ferguson with Farragher 1988), and there is now a substantial body of evidence from around the world indicating that the war patterns of indigenous peoples are not timeless patterns of culture. They are fully embedded in historical process and are modified, transformed, or generated by the encroachments of an expanding state. The effect of Western contact was a key issue in one of the first bursts of anthropological interest in warfare, that concerning North American Indians (Codere 1950; Ewers 1985[1955]; Hunt 1940; Jablow 1950; Lewis 1942; Secoy 1953). Those debates were soon eclipsed by the shifting of interests and analytical styles in anthropology (Ferguson 1984b:23–24), although questions about contact in relation to Iroquois/Huron warfare have sustained steady research right to the present (Richter 1983; Trigger 1976). More recently, the impact of expanding states has been documented in several theoretically diverse and geographically scattered studies (Boehm 1983; Dobyns 1972; Kiefer 1967; King 1976; Rodman and Cooper 1979; Rosaldo 1980; Vayda 1970); it has been of particular concern in research on warfare in sub-Saharan Africa (Crowder 1971; Gamst 1986; Goody 1980; Law 1986; Mazrui 1977; Peires 1981; Sanders 1979; Wesler 1983). Additionally, benchmark formulations of anthropological theory by Fried (1967, 1975) and Wolf (1982) have emphasized the conflict-generating effects of Western contact (and see Ferguson with Farragher 1988:242–254).

Yet most statements of theory screen out the impact of contact. Contact effects may be recognized as influencing particular cases of war but are considered irrelevant for theory building. Theory typically involves connecting war to some aspect or aspects of indigenous culture (see Ferguson 1984b; Koch 1974; Otterbein 1973; Wolf 1987). Usually, it is claimed that these

This article argues that reported wars among Native peoples of Amazonia are not representative of pre-Columbian warfare. The well-known cases that are the bases for our conceptions of Amazonian warfare, as well as dozens of less prominent instances of war, can be attributed largely to circumstances created by the European intrusion. The broader implication is that anthropological theory and teaching about war are distorted by an unexamined premise that reported cases of war among nonstate or tribal peoples are self-generated phenomena. [warfare, Amazonia, Western contact, anthropology and history, the Columbian encounter]

indigenous factors adequately explain the occurrence of war, with the underlying assumption that recorded warfare is understandable as an expression of local culture. That assumption also characterizes most anthropological textbooks: of 11 introductory texts published in the last four years that include coverage of warfare (Ember and Ember 1988; Harris 1988; Haviland 1987; Howard 1989; Kottak 1987; Murphy 1989; Nanda 1987; Oswalt 1986; Park 1986; Peoples and Bailey 1988; Rosman and Rubel 1989), only one (Howard) contains a substantial discussion about the general impact of Western contact on Native warfare.¹

This discrepancy between evidence and theory is hardly unique to the topic of war. On the contrary, in this the study of war is squarely in the mainstream of anthropology. For ethnology is built upon a paradox. Traditionally, it has sought the Pristine Non—non-Western, nonliterate, noncapitalist, nonstate. Yet the quality of our descriptions of other cultures is generally in direct proportion to the intensity of the Western presence. Literate observers usually arrive rather late in the encounter. The specter haunting anthropology is that culture patterns taken to be pristine may actually have been transformed by Western contact. So it is with warfare in Amazonia.

It is an indisputable fact that warfare existed in Amazonia before the arrival of Europeans. Archaeological data and first contact reports establish that war was practiced by the pre-Columbian chiefdoms of the coasts and major rivers (DeBoer 1981, 1986; Medina 1934; Morey and Marwitt 1975; Myers 1974; Whitehead 1988a; and see Ferguson 1989b; Roosevelt 1980). However, the European impact on these peoples' warfare was almost immediate. As will be shown below, descriptions from even as early as 1550 cannot be taken as representative of pre-Columbian patterns. Information about war prior to Western contact is limited and sometimes questionable, and has played almost no role in the development of anthropological theory on war.

Turning from the coasts and major rivers to the less navigable streams and the interriverine forests and savannahs, we find at present virtually no information on war that can be considered truly precontact. Decades or even centuries would pass between the European arrival along a major water route and the first reports about more remote groups; that was more than enough time for the observers to have been preceded by disease (Dobyns 1983; Ramenofsky 1987), new crops (Crosby 1972), and other factors to be discussed below. First observations, moreover, were frequently recorded by the most disruptive observers imaginable: raiders seeking slaves or mission "converts" (Hemming 1978, 1987). Later descriptions unavoidably incorporated the historical aftereffects of all this. And they were recorded in the context of a frontier situation, which inevitably imparted its own characteristics to the organization and actions of the Native peoples (Henley 1978; Ribeiro 1967, 1970).

This article will show that our images of and theories about indigenous warfare in Amazonia are not based on descriptions of Native societies prior to major Western impact. They are based, instead, on cases that have decades or centuries of contact history behind them. In most of the well-known war patterns, and in a great many other cases, the warfare that we know about is directly attributable in some major way to the circumstances of contact. My point is not that existing theories attributing Native warfare to some aspect of indigenous organization are necessarily wrong or invalid. (Some of these theories are evaluated elsewhere [Ferguson 1988, 1989a, 1989b, 1989c].) The theoretical model I employ (Ferguson 1989d, In press) is multi-causal, built on the premise that there are various questions to be asked about war and that, thus, there can be various complementary explanations; to rule in Western contact is not to rule out other variables. Rather, the point is that any effort to explain the occurrence of war among Native peoples—that is, to explain why war actually happens—must consider how the wars fit into the existing circumstances of the contact situation.

More broadly, I hope to change the image of the contact experience. Contrary to Hobbes (1958[1651]:106–108), the intrusion of the Leviathan of the European state did not suppress a "war of all against all" among Native peoples of Amazonia, but instead fomented warfare (see

Whitehead *In press*). Ultimately, wars have ended through pacification or extinction, but prior to that the general effect of contact has been just the opposite: to intensify or engender warfare. For want of a better word, this process could be called "warrification."

Before starting with the case material, I would like to say a word on the scope of this investigation. Elsewhere (Ferguson 1984b:3-5), I consider some of the problems of defining war and argue that an inclusive approach is best, given our present state of knowledge. The phenomena that should be investigated are organized, purposeful group actions against other groups, involving the actual or potential application of lethal violence. This includes actions that some would classify as feuding or raiding, but which I find impossible, in practice, to distinguish from war. In this article, I will also bring in other political manifestations of conflict, such as factionalism and military alliance, which in context are clearly related to warfare. Altogether, I see this as a general field of social conflict. Neat typologies and subdivisions will be more appropriate once this field is better understood.

The effects of Western contact on social conflict are diverse and overlapping. For expository purposes, I have sorted them into three general categories: European direction of Native warfare, demographic disruption, and conflict over Western manufactures. But these are very artificial categories, and my interest is less with them than with the specific circumstances grouped under them.

European direction of Native warfare

The most obvious instances of contact generating war are those in which Westerners order or incite Native peoples to make war on other Natives. In the first centuries of contact, Europeans regularly directed major military campaigns against Indian settlements or forces, with the bulk of their own fighters drawn from subjugated or allied Natives (Golob 1982; Hemming 1978, 1987; Stocks 1983:84; Whitehead 1988a, 1988b). The objectives varied, from pacifying frontiers to capturing slaves to weakening the allies of rival European powers. Whatever the goal, "no Portuguese [or other European] ever took the field without masses of native auxiliaries" (Hemming 1978:178). Whitehead's (1988a) ethnohistorical study of Guyana from the 16th through the 18th century is the most thorough treatment of this kind of warfare. He describes a process in which Native peoples are drawn into European colonial rivalries much as the Huron and Iroquois were (Jennings 1984; Trigger 1976). He (Whitehead 1988a:111 ff.) also describes a related process, in which independent Native groups, pushed beyond tolerance, attack others who have accepted Western dominion.²

The use of Indian auxiliaries or impressed recruits against other Natives continued well into the 19th century (Hemming 1987; Whitehead 1988a; Wright 1981), but with diminishing prominence as nonsubjugated Indians gradually became less capable of resistance in open battle. At the same time, however, Europeans were also using more independent Native mercenaries against hostile Natives (Balée 1988:158; Nimuendajú 1967:6). One case of mercenary warriors, that of the Mundurucú, has been very important in the development of anthropological theory on war. Murphy (1957, 1960) offers an explanation of Mundurucú warfare that combines social structural and social psychological features; his social structural argument has given rise to a whole field of cross-cultural studies on war and postmarital residence (see Ferguson 1988). Beyond that, the Mundurucú are one of the inspirations for Vayda's (1969) pioneering ecological analysis of war, and more recently, Durham (1976) has reanalyzed Murphy's data to argue for an individual-oriented evolutionary perspective, relating to interests in game. That analysis has been picked up as an illustration of sociobiological principles (Ruse 1979; Wilson 1978).

Historically, the Mundurucú fought because they were paid and directed to do so by the Brazilians (Hemming 1987:24, 218, 236; Murphy 1960:27-38). Independent warfare by the

Mundurucú ceased in 1795, when Europeans began to make gifts of knives, axes, and other Western manufactures to recruit their allegiance (the Mundurucú's previous wars had been aimed, at least in part, at procuring such goods [Murphy 1960:29–30]). Throughout the next century, as the Mundurucú were progressively drawn into the Western orbit, their warriors were sent time and again to eliminate unpacified or rebellious Indians. Coudreau describes how they were sent on one of their last military campaigns, against the Tupi-Kawahib (or Parintintin) in 1895: the Brazilians "spread out the merchandise that they had brought as presents for the Mundurucu, and spoke of a fine harvest of heads to be reaped on the Machado" River (quoted in Hemming 1987:299–300).

Closely related to the use of auxiliaries and mercenaries is the widespread and long-lasting practice of stimulating raiding for slaves. The initial European colonization of the New World was based on the coerced labor of Native peoples. Adult male captives were sought as field laborers, women and children as domestic servants. Royal decrees—which were often circumvented but which still had an impact—allowed two main avenues for enslaving Indians: taking captives in "just wars" against allegedly rebellious Natives or putative cannibals; and "ransoming" captives held by Indians from their own wars (Hemming 1978:150; Simpson 1982:6; Whitehead 1988a:172–174). It was the latter that became the routine source of slaves. (A similar demand for slaves stimulated slave raiding by Native groups in the North American Southwest [Bailey 1966; Kroeber and Fontana 1986] and Southeast [Perdue 1979] and in Central America [Helms 1983]). All over Amazonia, Native peoples raided others for captives to be "ransomed" by the Europeans. Slaving was encouraged by payments in European goods, but raiding was not entirely optional; people who did not produce captives were commonly taken as slaves themselves. Slave raiding was often a constant danger even hundreds of miles from European settlements (DeBoer 1986; Edmundson 1922:49, 64, 91, 103; Golob 1982:20, 172–174, 178; Hemming 1978, 1987; Jackson 1983:157; Morey and Metzger 1974:17–18; Myers 1974:145, 155; Overing Kaplan 1975:20; Roth 1924:290, 584–601; Whitehead 1988a; Wright 1981:119–135).

Probably the most widely known case of Indian slave raiding is that of the Carib. The Caribs' notoriety as cannibal slavers has shaped Western images of Native Amazonian warfare from the time of Columbus through the 1948 *Handbook of South American Indians* (Whitehead 1988a:1, 174; In press). However, Whitehead (1988a) shows that although Caribs were taking war captives at the time of first contact, the practice was quickly and massively accommodated to the service of European economic and political needs:

It is therefore difficult to be certain about the status of [pre-Columbian captives] since European presence drastically changed the situation, by introducing the spectre of unlimited profit into slaving raids, in which case even the earliest chroniclers may have been witnessing an institution already degenerated from the pre-Columbian form. [Whitehead 1988a:182]

Furthermore, although the Carib were indeed cannibals, their cannibalism was a limited and ritualized practice. The lurid accounts of cannibal banquets that have become part of Western mythology were clearly fabrications intended to expand the range of legal slaving by the Spanish. Thus, both in practice and repute, the bloodlust of Caribs is a European creation.

Massive slave raiding is associated with the early colonial period (up to 1755 [see Hemming 1978:475–476]), but a barely concealed traffic in captive workers continued well into this century, with a large increase during the rubber boom of the latter 19th and early 20th centuries (Hemming 1987:271–314; and see Taussig 1987). One later instance involves the Cubeo of the Vaupés River area. In his well-known monograph, Goldman (1963:162) observes that the Cubeo fought wars for revenge, plunder, and the capture of women, and he fits their fighting into a framework of segmentary lineage organization. Recent, more historical work (Chernela 1983:44; Hemming 1987:306, 315–332; Wright 1981:249 ff.) has shown that the raiding among Cubeo and neighboring groups was instigated and actually led by Westerners, who

sought women and children for trade in Manaus as household servants, and, later, sought captive workers for rubber tapping.

Europeans also fomented wars between politically independent Native groups whose cooperation posed a threat to colonial settlements. Westerners deliberately stimulated a quest for revenge, creating conflicts and actively encouraging the torture and eating of enemy captives (Hemming 1978:39, 74, 89). One contemporary commented on this divide-and-rule strategy, circa 1548:

The entire kingdom would then be divided and desolate, and they would destroy one another without our waging war on them. When necessary we would fight, helping the other side. This was always the easiest way to wage war that we Portuguese used in Brazil. [quoted in Hemming 1978:74]

(Of course, Westerners were equally capable of promoting peace between Native groups when that was in their interest.)

One case from this time has assumed major importance in anthropological theory on war, that of the Tupinambá, especially as described circa 1550 in the narrative of the captive Hans Staden. Tupinambá war is the starting point for Lévi-Strauss's (1943) argument that war and exchange are two sides of a social pattern that is fundamentally integrative. Steward (1958) sees it as an outlet for frustrations within society. Vayda (1969) takes the Tupinambá as a case of expanding swidden agriculturalists, while Balée (1984) provides an alternative ecological perspective, arguing that their wars were contests for control of coastal and estuarine resources. Moore (1978) proposes that their fighting served the function of a male initiation rite, and Fernandes discusses it as a virtual type case of revenge war (1949).

For this article, the significant point is that Tupinambá warfare by the time of Staden had already been greatly affected by the European presence. In addition to the Europeans' general practice of stirring up divisions and encouraging cannibalism and revenge, several other factors can be identified. From the 1520s, open war had been waged along the coast between Portuguese and French and the Native allies of both, with the Europeans destroying each other's forts and ships and torturing their captives (Hemming 1978:34–35). These conflicts were compounded by the taking and trading of slaves, which had begun with first contact but escalated in the 1540s as new sugarcane plantations created an increasing demand for field laborers (Hemming 1978:38–40). Staden's (1928:61, 74) captors were thoroughly enmeshed in all this, being repeatedly raided for slaves for the Portuguese and actively allied with the French. Wars over territory took a great leap after colonization started in 1532, with Tupinambá temporarily driving out Portuguese settlers in 1545 (Hemming 1978:36, 78). Training in European military techniques and tactics, very common in later times, may have begun on this part of the coast as early as 1510 (Hemming 1978:29–30, 42). Finally, the acquisition of steel cutting tools no doubt facilitated the construction of the extensive palisades noted by Staden (Staden 1928:132–136).³ So there should be no imagining that the Tupinambá of 1550 represent a pristine case of Native warfare.

demographic disruption

Western contact is generally accompanied by the introduction of epidemic diseases to which Native peoples have little resistance. There are countless reports of massive mortality from epidemics. These illnesses can trigger fighting when illness is interpreted as witchcraft (Chagnon 1966:153; Maybury-Lewis 1974:176, 219; T. Moore 1981:140; Thomas 1982:175–183). For example, in an article exceptional for its combination of ecological and historical perspectives, Bennett Ross (1984:98–105) describes how after more than a century of contact-related warfare (outlined below) and other social stresses, a sudden death from disease provoked killing and counterkilling among the contemporary Achuará Jívaro. Epidemics may also contribute to a practice noted by Oberg (1973:191): raiding to capture women and children to make up for

local demographic imbalances in small populations. (A similar motivation was an important stimulus for warfare by the Iroquois and their neighbors [Richter 1983].) However, it is difficult to gauge the significance of this incentive in Amazonia, because raiding for women is related to other social organizational factors (Ferguson 1988:150–152), and because captured women and children also could be sold to Westerners as household slaves.

But the most important relationship between disease and war is to be found in the effect of epidemics, in inextricable combination with the effects of warfare and the system of slavery, on regional population densities. Together, they have created a Native American holocaust, one that in some senses continues today (see Davis 1977; Hemming 1978, 1987; Henley 1978; Ribeiro 1967, 1970; and the *Cultural Survival Quarterly* and publications of the International Work Group for Indigenous Affairs). Two general consequences have resulted from this concatenation of catastrophes, consequences that have had a major impact on warfare: depopulation and migration.

A drastic drop in regional populations has the consequence of *reducing* warfare in the area where it occurs. This is most obvious along the coasts and major rivers where, as noted earlier, archaeological and ethnohistorical information show the presence at contact of large, actively warring chiefdoms. The populations of these areas were obliterated with varying rapidity (Hemming 1978:444–445; Whitehead 1988a:28). Here, contact ultimately brought the peace of death.

On the Pacific Northwest coast, wars were brought to an end with far less than total depopulation (Ferguson 1984a), and there are indications that this was also true for parts of Amazonia. The most suggestive case is that of the Upper Xingú region. Inaccessible and so spared the worst ravages of the colonial period (Hemming 1987:416–431), this fertile basin still sustains several small tribal groupings (Oberg 1953). In historical times, there have been no wars among them (although they have fought against encroaching outsiders), and the Upper Xingú has become an important case for understanding the conditions that support peace (Ferguson 1988:141; Gregor *In press*). Carneiro (1978), however, reports what appear to be the remains of defensive trenches, suggesting that this peacefulness was not characteristic of the area when it supported a larger population.

A variation on this theme occurs when depopulation along major rivers provides a “demographic vacuum” for surviving peoples from more remote areas. In the band stretching from the Vaupés River through the middle Orinoco into southern Guyana, disease and raiding to capture workers depopulated areas around many rivers in the late 19th century, reducing the regional population to isolated and mobile refugees in the interior forests. More recently, these former refugees have expanded into the empty river zones (Dumont 1976:19–21; Lapointe 1970:20; Morey and Metzger 1974:21; Yde 1965:3–4). And although they waged war in earlier times, the Panare, Piaroa, Wayana, Yaruro, Pemon, and others have practiced no warfare whatsoever for an extended period (more than a century in some cases), even though they have until recently remained outside the effective control of Western authorities (Henley 1982:10–11, 113; Lapointe 1970:12; Leeds 1961:25; Overing Kaplan 1975:20–26; Thomas 1982:3, 22–24; and see Riviere 1984).

But the catastrophic events that bring depopulation also produce another effect, migration. Native peoples have long understood that, along with the danger of violence, proximity to Europeans brings epidemics, and many have tried to distance themselves from the sources of the plagues (Beckerman 1978:17; Bennett Ross 1984:99; Golob 1982:5; Overing Kaplan 1975:21; Riviere 1969:51, 54; Wright 1981:152). In many cases entire Native societies have fled the advancing tide of genocide, and at least some of these migrations have been marked by wars with the established residents of an area (Arhem 1981:51–52; Balée 1988; Hemming 1978:235; Maybury-Lewis 1974:2–3; Métraux 1927). How early these migrations began and how far they went are illustrated by the instance of some 300 Tupi who arrived in Peru in 1549, after a decade-long flight up the Amazon from the bloody coast of Brazil (Hemming 1978:195).

Whitehead (1989:23) thus has good reason to suggest that some of the scattering of language groups taken to represent ancient migrations may instead have resulted from contact. And this raises the further possibility that some of the wars recorded by very early explorers may have been aftershocks of distant direct contacts.

A more recent illustration of the same general process involves the Sharanahua. Sharanahua warfare is the basis of Siskind's (1973a) model connecting game depletion to fighting over women, and so is the basis of the "protein hypothesis" that has received so much attention in recent years (Ferguson 1989a). Historically, the Sharanahua wars were one small part of the bloodbath accompanying the rubber boom in the Jurua-Purus drainage. Rubber collectors and their Indian allies raided to capture workers and carried out brutal punitive expeditions against Natives who resisted the tappers' encroachments (Hemming 1987:278-79, 303-307). The Sharanahua were one of many groups fighting as they fled these raids and the terrible epidemics that raged through the area (Siskind 1973b:41-43).

Another example of the violence associated with forced displacement is the Kaingáng. The Kaingáng were wracked by internal feuding and war until their settlement in a reserve in 1914. Henry (1964:xvi) and Benedict (1964:xiii) attribute this fighting to an inadequate social order and a suicidal aggressiveness, which Henry links to the Freudian death wish. But the Kaingáng were refugees, driven from their savannah gardens into inhospitable mountain rain forests, unable to clear gardens and forced to keep moving by more than a century of slave raids, territorial encroachments, and epidemics (Hemming 1987:112-115, 444-465, 473). Hunger was a major problem, and the inability to meet conflicting demands for food was a major source of interpersonal hostility (Henry 1964:35, 50).⁴ Any inadequacy of social order must be seen in light of this massive disruption. As for their "suicidal" aggressiveness, it was only their bellicosity that prevented their obliteration by unremitting assaults from outside (Hemming 1987:115).

Displacements may also cause territorial constriction—that is, different groups may be thrown together and forced to compete for a shrinking territory. This happened to the Ka'apor. In another article that is exceptional for its attention to contact, Balée (1988:159-166) reconstructs a history with parallels to the Kaingáng's, but with greater emphasis on external warfare than on internal feuds. Beginning in the 1820s, the Ka'apor were repeatedly driven from their lands by Brazilian attacks. In the latter part of their peregrinations, they found themselves in a cul de sac, surrounded and at war with creole frontiersmen, other Indians, and maroons. The peoples of the central Brazilian *cerrado* have suffered territorial constriction on a still larger scale. I have suggested elsewhere (Ferguson 1989a:182) that there appears to be a better case for war related to subsistence resource territory in central Brazil than in many other parts of Amazonia. This competition may well be a consequence of contact, as the central Brazilians have been pushed out, hemmed in, and invaded (Hemming 1978:382-384, 405-407; 1987:67-80, 181-210, 404-415; Maybury-Lewis 1974:1-12), in a manner inviting comparison with conflict patterns of the North American Great Plains (see Biolsi 1984).

fighting over Western manufactures

From the first explorers to present-day missionaries, government agents, and anthropologists, Westerners have used manufactured goods to attract Indians. Hemming (1978:9) calls the desire for such goods a "fatal fascination, the greatest weakness of Brazilian Indians." Of prime significance are steel cutting tools. Various studies indicate that steel axes are at least three times, and sometimes more than nine times, more efficient than stone axes in time and energy expended (Colchester 1984:294-295; Hames 1979:219-220; Up de Graff 1985; Whitehead 1988a:50). Carneiro's (1979a, 1979b) experiments show that tree diameter and hardness have a great effect on the comparative efficiencies of stone and steel. In the Yanomamö environment he studied, forest clearing is seven to ten times faster with steel (1979b:73). The value of steel

tools may be inferred from reports of relatively isolated people's using small, worn pieces of machetes mounted in wood (Chagnon 1977:34; Holmberg 1969:263-264; Lizot 1985:3; Thomas 1982:38). Dependence on steel tools typically develops years before an anthropologist or any literate observer arrives on the scene, frequently even beyond the memory of the oldest informants (Balée 1988:168; Carneiro 1983:70; Chagnon 1977:33; Dumont 1976:43; Hahn 1981:89; Lapointe 1970:43; Oberem 1985:352; Oberg 1953:17; Thomas 1982:22-24; Yde 1965:24-25). As Carneiro (1979a:21) observes, "the felling of a tree with a stone axe . . . is an event that has rarely been witnessed by ethnologists."⁵

In some cases, initial Native demand for Western manufactures is limited to steel tools, and so Westerners make deliberate efforts to stimulate new "needs" among the Indians (Gillin 1936:26; Hemming 1978:37-38). Regardless of initial attitude, however, within a few years of obtaining good access to a source, Native peoples of Amazonia generally become dependent on a variety of manufactured goods. In contemporary populations, these include shotguns, ammunition, machetes, axes, knives, fishhooks, manioc griddles, pots, clothing, beads, kerosene, lamps, tobacco, matches, and more (Arhem 1981:53; Arvelo Jiménez 1971:27-29; Gillin 1936:5-17; Goldman 1963:69; Harner 1973:17-31; Jackson 1983:62; Lapointe 1970:20-21; Murphy and Steward 1956; Oberem 1985:352; Riviere 1969:40; Siskind 1973b:33, 170; Smole 1976:28-31; Whitten 1976:13). Typical functional dependence is illustrated by the case of the Wai Wai, who rely on Western manufactures to hunt, to fish, to clear gardens, to cook, to make canoes, and for salt and beads (Yde 1965:24, 34, 38, 102, 143, 158, 239). Western manufactures, in sum, quickly become necessary means of production. Therefore, Native peoples have made great efforts to obtain them, traveling long distances and relocating settlements for better access (Arhem 1981:53; Arvelo Jiménez 1971:18-27; Bamberger 1979:132-133; Chagnon 1974:181; Hemming 1978:6-10, 436-437; Lapointe 1970:20; Maybury-Lewis 1974:52; Myers 1974:153; Oberg 1953:98; Rausch 1984:69; Riviere 1969:15; Smole 1976:51-52, 192-193; Whitehead 1988a:19; Yde 1965:3-4, 14, 238; Yost and Kelly 1983:202). And, more to the point of this article, they have gone to war to get them.

All over Amazonia, in all historical periods, Indians have raided other Indians and Europeans to plunder their steel tools and other desired commodities. Around 1635, for example, the Cocamilla and Cocama "were descending the Huallaga River annually during flood season in squadrons of forty to sixty war canoes to raid the Mainas Indians for tools and to take heads. . . . The Mainas had been acquiring such tools for at least forty-five years" (Stocks 1983:82). Half a century later, a missionary reported that the Peva "kill and destroy one another for the iron goods they have received of me or have carried off by theft from the Omaguas" (Edmundson 1922:100). The Siriono's history of raiding for tools goes back to the early 19th century (Holmberg 1969:14; Isaac 1977:142; Stearman 1984:643-644). According to Holmberg,

they have sporadically killed whites and missionized Guarayos Indians . . . both in retaliation for killings and for the purpose of securing iron tools and food. The warlike reputation of the Siriono, in fact, seems to have grown up as a result of these few isolated and unorganized raids, which reached their peak during the last rubber boom (in the 1920s). [1969:159]

The Sharanahua, circa 1935, "had seen machetes, axe heads, and steel knives before and had seized them from other groups. . . . At Curanja, they killed three Brazilians and a Peruvian trader, partly in revenge and partly to take trade goods" (Siskind 1973b:43). The Ka'apor also have a long history of raiding. "From the 1820s through the 1860s," writes Balée, "the Ka'apor secured steel tools in raids on Luso-Brazilian houses and settlements" (1988:168). In 1874, "some of the Ka'apor were raiding farms . . . killing settlers and stealing goods. . . . By 1912, rubber gatherers . . . had largely evacuated the region, because Ka'apor Indians often 'attacked' and 'robbed' them. . . . By 1918, the Ka'apor raided settlements . . . reportedly after 'iron tools'" (Balée 1988:162-164).⁶ Many different Yanoáma groups at different times have attacked other Indians and Westerners to capture machetes, axes, and other valuables (Arvelo

Jiménez 1971:42, 93; Barandiaran and Walalam 1983:98, 102–103, 191; Cocco 1972:53–54, 64–65, 67, 70, 74, 374, 376; Colchester 1985:47; Peters 1973:155). In one interesting variation, they would capture isolated Westerners and confiscate everything, including their clothes, leaving them to walk out of the jungle naked (Cocco 1972:87).⁷ Many other examples could be described (Hahn 1981:88–89; Kracke 1978:10; Lizot 1985:3–4; Métraux 1963:386; Morey and Marwitt 1975:441, 447; Morey and Metzger 1974:102; Murphy and Quain 1955:14; Nimuendajú 1967:3; Taylor 1981:650–651; Wagley 1983:39; these citations do not include—that is, are in addition to—cases of auxiliaries, mercenaries, or slave raiders fighting for payments of Western goods).

From this widespread pattern of raiding for tools, we can make one obvious but important deduction. While many motivations for warfare in Amazonia have been suggested and debated, we know for certain that many Native peoples have gone to war in order to obtain Western manufactures, particularly steel tools. Throughout virtually all regions and time periods, Native peoples have been willing to kill and risk death to get these precious means of production. That leads to a question: what happens when something this valuable enters Native systems of exchange? The answer, I believe, is that this entry both creates conflicting vital interests and transforms relations of cooperation at all levels of social organization. Furthermore, these conflicting interests, fully embedded in the totality of social relations, shape political alignments and generate social hostilities, up to and including war. These points are supported by a number of cases.

Among the Siriono in 1942, Holmberg conducted a deliberate experiment in culture change. He found a band whose only Western possessions were two machetes “worn to the size of pocket knives” (1969:263–264), these apparently obtained in raids some 15 years earlier. Immediately “bombarded” with requests for tools, especially machetes, he eventually distributed six axes and six machetes. As a result, “the productive capacity of the families receiving tools more than doubled at once” (1969:269). Those who did not receive them complained bitterly, and there was a “noticeable rise in in-group hostility” (1969:269). Among the Yānomamō studied by Chagnon (1974, 1977, 1983:n. 7), the introduction of Western manufactures led to internal hostilities and political polarization. The clearest glimpse of this is provided in Chagnon’s (1974:11, 164–169, 186–193) account of his fieldwork among remote Shamatarí villages, where Western goods were scarce. Conflicting demands for “gifts” and efforts to monopolize Chagnon and his trade goods made his work difficult. Escalating, aggressive demands by a certain Mōawā and his faction made his life miserable. When Chagnon finally refused to distribute his machetes as ordered, Mōawā threatened to kill him on the spot (1974:193).

Such conflicts become more routine as the dependency deepens. The Tukanoans of the Vaupés have long been reliant on imported manufactures. Jackson reports:

Many of the disputes I witnessed arose out of disagreements about objects. The people in a Tuyuka longhouse on the Inambu River were irremediably divided in half over who was the rightful owner of a shotgun. At present, factions and long-term feuds seem to be produced mainly by disagreements over white trade goods. . . . Sadly, one is more likely to obtain them by ignoring rather than maintaining established patterns of obligations to kinsmen. Decisions to take care of one’s own needs rather than one’s obligations to kinsmen not only can result in open quarrels, but more important, can be the source of ongoing and unresolvable negative feelings. . . . This is perhaps the saddest part of living in the Vaupés. [1983:62]

Reports from the Akwē-Shavante (Maybury-Lewis 1974:182–183) and the Mehinaku (Gregor 1977:124–125) also indicate that theft of Western items is treated more seriously than the taking of other things and can become a significant political problem.

The Jívaro show how, over time, such conflicts become deeply embedded in the cultural matrix:

A strong rise in interpersonal offences and the application of retaliatory sanctions is reported for the past four or five decades. The increase is particularly strong in cases of adultery and murder by means of witchcraft, physical violence, and poisoning. The increase in shamanistically induced murders is pri-

marily attributed to the growth in numbers of shamans attempting to accumulate wealth in the form of "white man's valuables." The rise in murders or assassinations through shooting or poisoning is seen by the Jívaro partially as a retaliatory response to the growth of fatal bewitchings. The rise in adultery is attributed to the tendency of young men not to work as hard as in former decades and instead to spend their time visiting other households to drink beer, look for sexual partners, and perhaps obtain trade goods through making "friends." [Harner 1973:202–204; also see Burkhalter and Murphy 1989:112]

The Shavante, and particularly the Akwē-Shavante, offer an unusually long historical perspective on variations in access to Western manufactures and on the corresponding patterns of violence. In 1788 some Shavante were induced by offers of Western goods to settle at missions. Soon finding their condition closer to hell than paradise, they returned to the wild and to more than a century and a half of obdurate resistance to white encroachment (Hemming 1987:68, 72–76, 80, 188 ff.). In the 1930s, new efforts were made to entice the Shavante into peaceful settlement, resulting in the deaths of several of those who tried. Only in 1946 was peaceful contact made with Eastern Akwē-Shavante (Maybury-Lewis 1974:2–5, 10–12). This renewed contact with Westerners provoked significant dissension among the Shavante.⁸ In 1950 and 1951, two bands began to visit a small "town" and Indian post located about 100 miles apart, accompanying leaders named Eribiwe and Apewe, respectively. These bands settled near the Westerners in 1953–54. In 1954–56, two missions and another Indian Protection Service post were set up in the area between the two original sites, drawing to them mostly those who had previously set up camp by the town (Maybury-Lewis 1974:5, 21–27).

This concentration of Western outposts began to draw in Shavante from outlying areas, and this in turn led to violence. Eribiwe's group attacked Western Shavante moving toward the town. At Apewe's Indian Protection Service post, the agent had the practice of giving most of his trade goods to the dominant political faction in order to insure his own position. Apewe's dominance, and thus his faction's preferential access to trade goods, was threatened as more people moved in with a rival faction on the site. He and his followers ended that threat by slaughtering eight of their rivals (Maybury-Lewis 1974:18, 21–22, 28, 187–188, 193–194, 197).

After 1956, the problem of supply worsened. The new Indian post had lured Eribiwe's faction from the town with promises of manufactures. But, due to graft and adverse circumstances, there were soon no manufactures to distribute. The Indian agent lived in the town and largely ignored his charges, causing great resentment. A breaking point was reached in 1958, when Eribiwe demanded ammunition from the agent, who tricked Eribiwe and gave him a bag of sweets instead. Eribiwe went to former coresidents, now at one of the missions, exhorting them to join in an attack on the post. But these people still had their own supplier and, instead of joining Eribiwe, they killed him on the spot. That killing set off raid and counterraid, and in the turmoil the mission left. Thus, two out of four sources of Western goods were lost in as many years. Over the next few years, raids, alliances, and group relocations proliferated, as indigenous factional politics articulated with the changing circumstances of the Western presence (Maybury-Lewis 1974:23–27, 209–211).

Among the Achuarã Jívaro, too, an intensification of intergroup raiding followed a sudden reduction in the availability of manufactures. In 1941, trade networks were disrupted by conflict between Peru and Ecuador; Western goods remained scarce until missions were established in the early 1960s (Taylor 1981:649). Coincidentally, "by all native accounts, intergroup warfare and consequent migration between roughly 1940 and 1960 were exceptionally intense" (Taylor 1981:651). As mission penetration proceeded, individual Achuarã leaders built up formidable local power bases by actively monopolizing access to the missions and their goods. This was not a strategy without risks. One "great man" controlled the first airstrip cleared in Achuarã territory—until he and several of his close kin were killed in a raid (Taylor 1981:649–651).

In addition to all these cases in which opposing interests in Western goods have led to conflicts, one particular kind of trade good merits special attention in an article on war: guns. In

recent years, firearms and ammunition have become crucial trade items. In addition to increasing hunting efficiency (Holmberg 1969:275; Thomas 1982:41; Yost and Kelly 1983; cf. Ross 1978), they can provide a crucial advantage for survival in war (Goldman 1963:163; Hames 1979:222; Harner 1973:68, 200; Murphy 1960:43; Oberg 1953:38; Villas Boas and Villas Boas 1973:36–37; Whitehead 1988a:58, 85–86).

In many parts of the world, the introduction of firearms transformed the practice of Native warfare (see Ferguson with Farragher 1988:139–150). On the Pacific Northwest coast, for example, guns were obtained by capturing and trading people as slaves, which of course greatly stimulated raiding (Ferguson 1984a). Little detail is available on the impact of guns on Amazonian warfare, but fortunately, one reasonably documented case happens to be particularly significant: Jívaroan head-hunting. The taking and shrinking of enemies' heads is an ancient practice among Jívaroan peoples, apparently a survival of what was once a widespread pre-Columbian practice among peoples of and around the northern Andes (Stirling 1938:41–43, 61–67). Examples of the shrunken heads (*tsantsas*) began to circulate in Europe and the United States in the 19th century, where they "caught the popular imagination" (Stirling 1938:61). A brisk trade in shrunken heads developed beginning in the 1860s (Harner 1973:29). The Western demand was so great that "counterfeit" *tsantsas* were manufactured (using bodies of paupers) in Ecuador, Colombia, and Panama (Stirling 1938:76), but of course the genuine article could be obtained only from the Jívaro. The fascination with *tsantsas*, combined with the Jívaro's reputation as "without doubt the most warlike group in all South America" (Stirling 1938:41) and their lurid portrayal in popular books (Up de Graff 1923), made the Jívaro a symbol of the ultimate savage, as we like to see him. That representation continues today, with the Jívaro-like warriors in *Raiders of the Lost Ark* and many other films of lesser budgets. Jívaro head-hunting has been the subject of serious study in Harner's (1973) widely used monograph, and Siverts (1975) has interpreted the *tsantsa* as a symbolic means of maintaining ethnic identity.

Jívaroan warfare changed markedly as guns replaced spears. Defensive preparations were accommodated to the new technology (Karsten 1923:4–5), firearms became so vital that men were known to betray their own kin to enemies in return for a gun (Stirling 1938:51), and in long distance head-hunting raids, those who had many guns decimated those who did not (Bennett Ross 1984:90–92). Furthermore, the need for guns fomented this head-hunting. In the *tsantsa* trade, the standard transaction was one shrunken head for one gun (Karsten 1923:6; Stirling 1938:76). Karsten notes that "especially North Americans would offer a rifle for each trophy head" and concludes that this trade contributed significantly to Aguaruna Jívaro raiding from 1916 to 1928 (quoted in Bennett Ross 1984:90). Bennett Ross (1984:90, 92) adduces a similar pattern in Upano Shuarā raids of the late 19th century (and see Bennett Ross 1980:45; Taylor 1981:651). In 1925, two war leaders in one area had taken over 50 heads each in the preceding 10 or 15 years (Stirling 1938:40)—an accomplishment that makes no sense in terms of traditional beliefs, but, sadly, does in terms of the guns-for-heads trade. Local populations were decimated, until finally there were too few left to fight (Stirling 1938:37, 40). Thus, the Jívaro came to be known as "the most warlike." One may note some irony in the possibility that our archetypal head-hunter became such a specialist in his violence because a Western demand for exotica was capitalizing the killers.⁹

In varying ways, then, the introduction of Western manufactured goods into Amazonian systems of exchange fostered hostility, political confrontation, and lethal violence—just as it did on the Pacific Northwest coast (Ferguson 1984a). Other works on North American Indian and African warfare, cited at the start of this article, indicate that conflicting interests in the new technologies brought by Europeans have been a very widespread cause of warfare among non-Western peoples.

conclusions

Clearly, the intrusion of European states has fostered warfare among Native peoples of Amazonia. The arrival of the Leviathan set off crashing waves of violence all around. Europeans ordered or incited Indians to attack other Indians as auxiliaries and as mercenaries, they promoted extensive slave raids, and they deliberately stimulated hostilities between independent groups. Demographic losses resulting from the European presence stimulated some fighting, but in the long run those losses diminished warfare as regional populations declined. On the other hand, population movements related to European expansion were accompanied by much fighting, as migrants tried to carve out new territories in already inhabited areas, were forced into environments that could not support them, or competed with others for progressively diminishing territory. Western manufactured goods, especially steel tools, quickly became necessities even in areas far beyond the frontier, and dependency on them created a major new incentive for fighting. This is most starkly manifested in plunder raids on Indians and Westerners, but it is also evident, though embedded in other culture patterns, in a range of additional political confrontations, including war. "Western contact" is, of course, an abstraction, encompassing a diverse set of tangible circumstances. How these circumstances "cause" war varies greatly, from Indians' being virtually ordered to fight, to the creation of new incentives for raiding, to the transformation of social relations in ways that promote violent confrontations. We are not dealing with a linear chain of discrete variables but a complex and dynamic social field. It is in this field, in this widely ramified process of acculturation, that the genesis of so much warfare can be found.

This article calls attention to the many ways in which Western contact leads to war, and it emphasizes the importance of thoroughly situating any study of warfare in its actual historical circumstances. It stands against the common practice of discussing Native warfare as a timeless cultural pattern and against the common assumption that Native warfare can be adequately explained simply as an expression of indigenous culture. But recognizing the significance of historical change is only a first step. The next is to develop an analytic framework for incorporating history into anthropological studies of war. Work on that task has already begun, as at a recent seminar on "Expanding States and Indigenous Warfare."¹⁰ Participants in that seminar reported effects comparable to those described here to be the result of state expansionism around the globe. But they also went beyond this basic point to delineate the complexities of organization, agency, and process within and between states and tribes (Ferguson and Whitehead 1989; and see Hill 1988).

Because this article has made a rather single-minded effort to demonstrate the significance of Western contact in generating warfare, two clarifications merit emphasis in closing. First, I do not claim that any war pattern can be adequately understood by reference to contact alone. As noted at the start of this article, my theoretical model (Ferguson 1989d, In press) is multi-causal; many factors go into a given war pattern. My hope is that this article will stimulate detailed examinations of particular cases, examinations exploring the multiple interactions between aspects of indigenous culture and the changes wrought by contact. Second, I do not claim that all Amazonian warfare results from Western contact. Emphasis here on factors related to contact in no way implies that other indigenous factors cannot in themselves generate warfare, and it is established that at least some Amazonian peoples were actively waging war before the Europeans arrived. At present, however, we know very little about Amazonian warfare apart from the disruptive elements of contact. Most of the wars for which we have any information can be attributed in some major way to the European presence. This fact has been demonstrated for most of the cases making up the anthropological image of Amazonian warfare—Mundurucú, Carib, Cubeo, Tupinambá, Sharanahua, Kaingáng, Jivaroans, Shavante and, to a limited degree, Yanoáma—as well as for dozens of less widely known instances.¹¹ Whatever theoretical relationships may be divined in the fighting of these peoples, they cannot be

assumed to represent pre-Columbian patterns. And until anthropology is better able to discriminate the effects of intruding state systems, it will be difficult to say much with certainty about "pre-state" warfare.

notes

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¹A few others do note postcontact changes in Native warfare in the Old West, a credit to the 1940s research noted above.

²Similar incidents are reported for other times and places (Balée 1988:159–160; Whiffen 1915:257). These cannot be adequately treated in this article. To do so would involve examining the potent blend of messianism and class struggle that has often erupted into violent revolt, pitting varying ethnic mixes of Amazonian poor against the state and creole elites, as in the Cabanagem and Canudos rebellions (Da Cunha 1944; Hemming 1987).

³In Guyana, village palisades appear to be a postcontact phenomenon (Whitehead 1988a:58–59).

⁴Recent research indicates that hunting and gathering is an extremely difficult subsistence strategy in tropical rain forests (Bailey, Head, Jenike, Owen, Rechtman, and Zechenter 1989; and see Ferguson 1989b).

⁵It is not uncommon to see such situations described as relatively unaffected by Western contact—"only" the technological base has changed. In my opinion, it appears unlikely that a people would undergo a veritable technological (and often commercial) revolution without its provoking major changes in their way of living (see Colchester 1984). But this idea cannot be pursued here.

⁶In these reports, raiding against Westerners is at least as prominent as raids on other Indians. That is to be expected, since Westerners write the reports. But raiding Europeans for steel is especially dangerous, given their firepower and propensity for exterminative retaliation (Balée 1988:168; Stearman 1984:643). (By any behavioral measure, Europeans would have to be considered far more "vengeful" than Native peoples.) It is reasonable to assume that, having the option, raiders would victimize other Indians rather than whites, and that most of those raids would go unrecorded.

⁷The Yanoáma, and especially the Yānomamō studied by Chagnon, are a key case for the Western contact explanation of Amazonian warfare—key because of their notoriety, the abundance of information about them, and the fact that their intervillage raiding is not *obviously* attributable to contact. Because of the importance and complexity of this case, I discuss Yanoáma warfare and its relation to the Western presence in a separate work (Ferguson 1989e). In the present article, I only claim that Yanoáma have been motivated to fight to obtain Western manufactures (other theories on Yanoáma warfare are discussed in Ferguson 1988, 1989a, 1989b, 1989c).

⁸Maybury-Lewis (1974:21) writes: "Between 1945 and 1950 there was apparently a difference of opinion between Eastern Shavante groups as to the desirability of entering into friendly relations with the whites." Some chose contact, while others remained distant. Their ambivalence is easily understood. Westerners were the source of precious steel, but they were also the source of diseases and often brutal exploitation. I believe that the Shavante were not unusual in this, that political disagreements and divisions routinely preceded any effort by Native peoples to establish direct contact with Westerners. I hope to explore this point in future work.

⁹The only Westerner to have actually witnessed and provided a detailed report of a Jívaro raid and the shrinking of heads is Fritz Up de Graff, a college-educated man from upstate New York (Up de Graff 1923; and see Stirling 1938:69–71). He and his four heavily armed adventurer companions accompanied a canoe-borne raid in 1899. Careful reading of his openly racist and colonialist account shows that they encouraged and may even have commissioned this raid. Given the popular image of Jívaro raiders, the incident merits inspection.

When the Jívaro first encountered Up de Graff's party, their stated intent was to convince the whites, with their treasure of trade goods, to come downstream to the Jívaro's own territory. The announcement that they were a war party heading upstream was a "new story," which came to light only after negotiation with the adventurers (Up de Graff 1923:251–252). Up de Graff's claim that his party chose to accompany the raiders only because they wanted to go in that direction (upstream) is not credible, since obviously they would have to turn around and retreat downstream after the raid, which is what eventually happened (1923:252, 270, 284). Up de Graff says he told a "chief" of the Jívaro, "We will help you, then, for they are our common enemy" (1923:252–253). He acknowledges that by painting themselves as warriors and accompanying the raiders—heavily armed—to the unsuspecting victims' settlement, they gave "the

impression . . . that our heart was in the business," but he claims they only did so lest their Jivaro companions think them cowards (Up de Graff 1923:270).

After the slaughter, Up de Graff and company "were anxious to trade the Jivaros out of their trophies—relics of the 'fight' in which we had taken part. . . . After all, it was no fault of ours that their previous owners had been caught napping!" (Up de Graff 1923:285). As it turned out, no trading would be involved. Traveling on the river, Up de Graff and his companions opened fire on their Jivaro companions without warning, continuing to shoot at those who dove into the water until all were dead or had fled into the forest. He claims this was because one of his companions had inappropriately given a prearranged danger signal (Up de Graff 1923:288–289). This "mistake" caused them no remorse: "The climax had come and passed, and there we were in possession of a huge equipment. What was fated to happen had happened and there was nothing to be gained by giving it another thought." So Up de Graff and his companions donned loin cloths, took up spears, and did an "imitation of the Jivaro war dance." Then they gave the *tsantsas* one final smoke curing and stowed them away, glorying in their "precious trophies which no white man had ever brought from the fight before" (Up de Graff 1923:290; emphasis in original).

Who are the savages in this story?

¹⁰"Expanding States and Indigenous Warfare" was the title of an Advanced Seminar held at the School of American Research, Santa Fe, in April 1989. Sponsored by the Harry Frank Guggenheim Foundation, the seminar was co-organized by Neil L. Whitehead and myself. Papers from the seminar are currently being prepared as a volume (see Ferguson and Whitehead 1989).

¹¹One fairly well known case of war that has not been explained here is that of the Nambicuara, as discussed by Lévi-Strauss (1943). I could not find enough historical detail to explain this fighting, but whatever the causes, it took place in a context of major social change related to contact (Price 1987).

references cited

- Arhem, Kaj
1981 *Makuna Social Organization: A Study in Descent, Alliance and the Formation of Corporate Groups in the North-Western Amazon*. Uppsala Studies in Cultural Anthropology, no. 4. Stockholm: Uppsala University.
- Arvelo Jiménez, Nelly
1971 *Political Relations in a Tribal Society: A Study of Ye'cuana Indians of Venezuela*. Cornell University Latin American Studies Program Dissertation Series, no. 31. Ithaca, NY: Cornell University.
- Bailey, L. R.
1966 *Indian Slave Trade in the Southwest*. Los Angeles: Westernlore Press.
- Bailey, Robert C., Genevieve Head, Mark Jenike, Bruce Owen, Robert Rechtman, and Elzbieta Zechenter
1989 Hunting and Gathering in Tropical Rain Forest: Is It Possible? *American Anthropologist* 91:59–82.
- Balée, William
1984 The Ecology of Ancient Tupi Warfare. In *Warfare, Culture, and Environment*. R. B. Ferguson, ed. pp. 241–265. Orlando: Academic Press.
1988 The Ka'apor Indian Wars of Lower Amazonia, ca. 1825–1928. In *Dialectics and Gender: Anthropological Approaches*. R. Randolph, D. Schneider, and M. Diaz, eds. pp. 155–169. Boulder, CO: Westview Press.
- Bamberger, Joan
1979 Exit and Voice in Central Brazil: The Politics of Flight in Kayapó Society. In *Dialectical Societies: The Gê and Bororo of Central Brazil*. D. Maybury-Lewis, ed. pp. 130–146. Cambridge, MA: Harvard University Press.
- Barandiaran, Daniel de, and Aushi Walalam
1983 *Hijos de la Lunas: Monografía Antropológica sobre los Indios Sanemá-Yanoama*. Caracas: Editorial Arte.
- Beckerman, Stephen
1978 Reply to Ross. *Current Anthropology* 19:17–19.
- Benedict, Ruth
1964 Foreword. In *Jungle People: A Kaingáng Tribe of the Highlands of Brazil* (by Jules Henry). New York: Vintage.
- Bennett Ross, Jane
1980 Ecology and the Problem of Tribe: A Critique of the Hobbesian Model of Preindustrial Warfare. In *Beyond the Myths of Culture: Essays in Cultural Materialism*. E. Ross, ed. pp. 33–60. New York: Academic Press.
1984 Effects of Contact on Revenge Hostilities among the Acharã Jivaro. In *Warfare, Culture, and Environment*. R. B. Ferguson, ed. pp. 83–109. Orlando: Academic Press.
- Biolsi, Thomas
1984 Ecological and Cultural Factors in Plains Indian Warfare. In *Warfare, Culture, and Environment*. R. B. Ferguson, ed. pp. 141–168. Orlando: Academic Press.

- Boehm, Christopher
1983 *Montenegrin Social Organization and Values: Political Ethnography of a Refuge Area Tribal Adaptation*. New York: AMS Press.
- Burkhalter, S. Brian, and Robert F. Murphy
1989 Tappers and Sappers: Rubber, Gold and Money among the Mundurucú. *American Ethnologist* 16:100-116.
- Carneiro, Robert
1978 Some Speculations on the Culture History of the Upper Xingú. MS., files of the author.
1979a Tree Felling with the Stone Ax: An Experiment Carried Out among the Yanomamö Indians of Southern Venezuela. In *Ethnoarchaeology*. C. Kramer, ed. pp. 21-58. New York: Columbia University Press.
1979b Forest Clearance among the Yanomamö, Observations and Implications. *Antropológica* 52:39-76.
1983 The Cultivation of Manioc among the Kuikuru of the Upper Xingú. In *Adaptive Responses of Native Amazonians*. R. Hames and W. Vickers, eds. pp. 65-111. New York: Academic Press.
- Chagnon, Napoleon
1966 Yanomamö Warfare, Social Organization and Marriage Alliances. Ph.D. dissertation. Department of Anthropology, University of Michigan.
1974 *Studying the Yanomamö*. New York: Holt, Rinehart and Winston.
1977 *Yanomamö: The Fierce People*. 2nd ed. New York: Holt, Rinehart and Winston.
1983 *Yanomamö: The Fierce People*. 3rd ed. New York: Holt, Rinehart and Winston.
- Chernela, Janet
1983 *Hierarchy and Economy of the Uanano (Kotiria) Speaking Peoples of the Middle Uaupes Basin*. Ph.D. dissertation. Department of Anthropology, Columbia University.
- Cocco, Luis
1972 *Iyëwei-Teri: Quince Años entre los Yanomamos*. Caracas: Escuela Técnica Popular Don Bosco.
- Codere, Helen
1950 *Fighting with Property: A Study of Kwakiutl Potlatching and Warfare 1792-1930*. Seattle: University of Washington Press.
- Colchester, Marcus
1984 Rethinking Stone Age Economics: Some Speculations Concerning the Pre-Columbian Yanoama Economy. *Human Ecology* 12:291-314.
1985 Medical Aid among the Venezuelan Sanema (Northern Yanoama). In *The Health and Survival of the Venezuelan Yanoama*. M. Colchester, ed. pp. 45-57. Copenhagen: Anthropology Resource Center/The International Work Group for Indigenous Affairs/Survival International.
- Crosby, Alfred
1972 *The Columbian Exchange: Biological and Cultural Consequences of 1492*. Westport, CT: Greenwood Press.
- Crowder, Michael, ed.
1971 *West African Resistance: The Military Response to Colonial Occupation*. London: Hutchinson.
- Da Cunha, Euclides
1944 *Rebellion in the Backlands*. Samuel Putnam, trans. Chicago: University of Chicago Press.
- Davis, Shelton
1977 *Victims of the Miracle: Development and the Indians of Brazil*. New York: Cambridge University Press.
- DeBoer, Warren
1981 Buffer Zones in the Cultural Ecology of Aboriginal Amazonia: An Ethnohistorical Approach. *American Antiquity* 46:364-377.
1986 Pillage and Production in the Amazon: A View through the Conibo of the Ucayali Basin, Eastern Peru. *World Archaeology* 18:231-246.
- Dobyns, Henry
1972 Military Transculturation of Northern Piman Indians, 1782-1821. *Ethnohistory* 19:323-343.
1983 *Their Number Became Thinned*. Knoxville: University of Tennessee Press.
- Dumont, Jean-Paul
1976 *Under the Rainbow: Nature and Supernature among the Panare Indians*. Austin: University of Texas Press.
- Durham, William
1976 Resources, Competition and Human Aggression. Part I: A Review of Primitive War. *Quarterly Review of Biology* 51:385-415.
- Edmundson, George, ed.
1922 *Journal of the Travels and Labours of Father Samuel Fritz in the River of the Amazons between 1686 and 1722*. London: Hakluyt Society.
- Ember, Carol, and Melvin Ember
1988 *Cultural Anthropology*. 5th ed. Englewood Cliffs, NJ: Prentice Hall.
- Ewers, John
1985[1955] *The Horse in Blackfoot Indian Culture: With Comparative Material from Other Western Tribes*. Washington, DC: Smithsonian Institution Press.

- Ferguson, R. Brian
 1984a A Re-Examination of the Causes of Northwest Coast Warfare. *In Warfare, Culture, and Environment*. R. B. Ferguson, ed. pp. 267–328. Orlando: Academic Press.
 1984b Introduction: Studying War. *In Warfare, Culture, and Environment*. R. B. Ferguson, ed. pp. 1–81. Orlando: Academic Press.
 1988 War and the Sexes in Amazonia. *In Dialectics and Gender: Anthropological Approaches*. R. Randolph, D. Schneider, and M. Diaz, eds. pp. 136–154. Boulder, CO: Westview Press.
 1989a Game Wars? Ecology and Conflict in Amazonia. *Journal of Anthropological Research* 45:179–206.
 1989b Ecological Consequences of Amazonian Warfare. *Ethnology* 28:249–264.
 1989c Do Yanomamo Killers Have More Kids? *American Ethnologist* 16:564–565.
 1989d Anthropology and War: Theory, Politics, Ethics. *In The Anthropology of War and Peace: Perspectives on the Nuclear Age*. P. Turner and D. Pitt, eds. pp. 141–159. South Hadley, MA: Bergin and Garvey.
 1989e A Savage Encounter: Western Contact and the Yanomama War Complex. Paper presented at the Advanced Seminar on Expanding States and Indigenous Warfare, School of American Research, Santa Fe, April.
 In press Explaining War. *In The Anthropology of War*. J. Haas, ed. Cambridge: Cambridge University Press.
- Ferguson, R. Brian, with Leslie Farragher
 1988 *The Anthropology of War: A Bibliography*. New York: The Harry Frank Guggenheim Foundation.
- Ferguson, R. Brian, and Neil L. Whitehead
 1989 Warfare in the Tribal Zone: Report on the School of American Research Advanced Seminar on Expanding States and Indigenous Warfare. Ms., files of the authors.
- Fernandes, Florestan
 1949 A Análise Funcionalista da Guerra: Possibilidades de Aplicação à Sociedade Tupinambá. *Revista do Museu Paulista (n.s.)* 3:7–128.
- Fried, Morton
 1967 *The Evolution of Political Society: An Essay in Political Anthropology*. New York: Random House.
 1975 *The Notion of Tribe*. New York: Random House.
- Gamst, Frederick
 1986 Conflict in the Horn of Africa. *In Peace and War: Cross-Cultural Perspectives*. M. Lecron Foster and R. Rubinstein, eds. pp. 133–151. New Brunswick, NJ: Transaction Books.
- Gillin, John
 1936 The Barama River Caribs of British Guiana. *Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University*, vol. 14. Cambridge, MA: Harvard University.
- Goldman, Irving
 1963 *The Cubeo: Indians of the Northwest Amazon*. Urbana: University of Illinois Press.
- Golob, Ann
 1982 *The Upper Amazon in Historical Perspective*. Ph.D. dissertation. Department of Anthropology, City University of New York.
- Goody, Jack
 1980 *Technology, Tradition, and the State in Africa*. New York: Cambridge University Press.
- Gregor, Thomas
 1977 *Mehinaku: The Drama of Daily Life in a Brazilian Indian Village*. Chicago: University of Chicago Press.
 In press Uneasy Peace: Why Xinguanos Don't Make War. *In The Anthropology of War*. J. Haas, ed. Cambridge: Cambridge University Press.
- Hahn, Robert
 1981 Missionaries and Frontiersmen as Agents of Social Change among the Rikbakca. *In Is God an American? An Anthropological Perspective on the Missionary Work of the Summer Institute of Linguistics*. S. Hvalkof and P. Aaby, eds. pp. 85–107. Copenhagen: International Work Group for Indigenous Affairs.
- Hames, Raymond
 1979 A Comparison of the Efficiencies of the Shotgun and the Bow in Neotropical Forest Hunting. *Human Ecology* 7:219–252.
- Harner, Michael
 1973 *The Jívaro: People of the Sacred Waterfalls*. Garden City, NY: Anchor Books.
- Harris, Marvin
 1988 *Culture, People, Nature: An Introduction to General Anthropology*. 5th ed. New York: Harper and Row.
- Haviland, William
 1987 *Cultural Anthropology*. 5th ed. New York: Holt, Rinehart and Winston.
- Helms, Mary
 1983 Miskito Slaving and Culture Contact: Ethnicity and Opportunity in an Expanding Population. *Journal of Anthropological Research* 39:179–197.

- Hemming, John
 1978 *Red Gold: The Conquest of the Brazilian Indians*. Cambridge, MA: Harvard University Press.
 1987 *Amazon Frontier: The Defeat of the Brazilian Indians*. Cambridge, MA: Harvard University Press.
- Henley, Paul
 1978 *Os Índios e a Civilização: A Critical Appreciation*. *Cambridge Anthropology* 4(3):88-111.
 1982 *The Panare: Tradition and Change on the Amazonian Frontier*. New Haven, CT: Yale University Press.
- Henry, Jules
 1964 *Jungle People: A Kaingáng Tribe of the Highlands of Brazil*. New York: Vintage Books.
- Hill, Jonathan, ed.
 1988 *Rethinking History and Myth: Indigenous South American Perspectives on the Past*. Urbana: University of Illinois Press.
- Hobbes, Thomas
 1958[1651] *Leviathan, Parts I and II*. New York: Bobbs-Merrill.
- Holmberg, Allan
 1969 *Nomads of the Long Bow: The Siriono of Eastern Bolivia*. Garden City, NY: Natural History Press.
- Howard, Michael
 1989 *Contemporary Cultural Anthropology*. 3rd ed. Glenview, IL: Scott, Foresman and Co.
- Hunt, George
 1940 *The Wars of the Iroquois: A Study of Intertribal Trade Relations*. Madison: University of Wisconsin Press.
- Isaac, Barry
 1977 *The Siriono of Eastern Bolivia: A Reexamination*. *Human Ecology* 5:137-154.
- Jablow, Joseph
 1950 *The Cheyenne in Plains Indian Trade Relations*. American Ethnological Society Monograph no. 19. Seattle: University of Washington Press.
- Jackson, Jean
 1983 *The Fish People: Linguistic Exogamy and Tukanoan Identity in Northwest Amazonia*. New York: Cambridge University Press.
- Jennings, Francis
 1984 *The Ambiguous Iroquois Empire: The Covenant Chain Confederation of Indian Tribes from Its Beginnings to the Lancaster Treaty of 1744*. New York: Norton.
- Karsten, Rafael
 1923 *Blood Revenge, War and Victory Feasts among the Jibaro Indians of Eastern Ecuador*. Smithsonian Institution, Bureau of American Ethnology, Bulletin 79. Washington, DC: U.S. Government Printing Office.
- Kiefer, Thomas
 1967 *Power, Politics and Guns in Jolo: The Influence of Modern Weapons on Tao-sug Legal and Economic Institutions*. *Philippine Sociological Review* 15(1-2):21-29.
- King, Victor
 1976 *Migration, Warfare, and Culture Contact in Borneo: A Critique of Ecological Analysis*. *Oceania* 46:306-327.
- Koch, Klaus-Friedrich
 1974 *The Anthropology of Warfare*. Addison-Wesley Modules in Anthropology, no. 52. Reading, MA: Addison-Wesley.
- Kottak, Konrad
 1987 *Cultural Anthropology*. 4th ed. New York: Random House.
- 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*. Tucson: University of Arizona Press.
- Lapointe, Jean
 1970 *Residence Patterns and Wayana Social Organization*. Ph.D. dissertation. Department of Anthropology, Columbia University.
- Law, Robin
 1986 *Dahomey and the Slave Trade: Reflections on the Historiography of the Rise of Dahomey*. *Journal of African History* 27:237-267.
- Leeds, Anthony
 1961 *Yaruro Incipient Tropical Forest Horticulture*. In *The Evolution of Horticultural Systems in Native South America: Causes and Consequences*. J. Wilbert, ed. pp. 13-46. Caracas: Sociedad de Ciencias Naturales la Salle.
- Lévi-Strauss, Claude
 1943 *Guerre et Commerce chez les Indiens de l'Amérique du Sud*. *Renaissance* 1:122-139.
- Lewis, Oscar
 1942 *The Effects of White Contact on Blackfoot Culture*. American Ethnological Society Monograph no. 6. Seattle: University of Washington Press.

- Lizot, Jacques
1985 *Tales of the Yanomami: Daily Life in the Venezuelan Forest*. New York: Cambridge University Press.
- Maybury-Lewis, David
1974 *Akwẽ-Shavante Society*. New York: Oxford University Press.
- Mazrui, Ali, ed.
1977 *The Warrior Tradition in Modern Africa*. *International Studies in Sociology and Social Anthropology* 23. Leiden: E. J. Brill.
- Medina, Jose
1934 *The Discovery of the Amazon, according to the Account of Friar Gaspar de Carvajal and other Documents*. H. Heaton, ed. B. Lee, trans. New York: American Geographical Society.
- Métraux, Alfred
1927 *Migrations Historiques des Tupi-Guarani*. *Journal de la Société des Américanistes de Paris* 19:1-45.
1963 *Tribes of Eastern Bolivia and the Madeira Headwaters*. In *Handbook of South American Indians*, vol. 3. J. Steward, ed. pp. 381-463. Washington, DC: Smithsonian Institution, Bureau of American Ethnology.
- Moore, Alexander
1978 *Cultural Anthropology*. New York: Harper and Row.
- Moore, Thomas
1981 *SIL and a "New Found Tribe": The Amaraeri Experience*. In *Is God an American? An Anthropological Perspective on the Missionary Work of the Summer Institute of Linguistics*. S. Hvalkof and P. Aaby, eds. pp. 133-143. Copenhagen: International Work Group for Indigenous Affairs.
- Morey, Robert, and John Marwitt
1975 *Ecology, Economy and Warfare in Lowland South America*. In *War: Its Causes and Correlates*. M. Nettleship, R. D. Givens, and A. Nettleship, eds. pp. 439-450. The Hague: Mouton.
- Morey, Robert, and Donald Metzger
1974 *The Guahibo: People of the Savanna*. *Acta Ethnologica et Linguistica* no. 31. Vienna.
- Murphy, Robert
1957 *Intergroup Hostility and Social Cohesion*. *American Anthropologist* 59:1018-1035.
1960 *Headhunter's Heritage: Social and Economic Change among the Mundurucú Indians*. Berkeley: University of California Press.
1989 *Cultural and Social Anthropology: An Overture*. 3rd ed. Englewood Cliffs, NJ: Prentice Hall.
- Murphy, Robert, and Buell Quain
1955 *The Trumai Indians of Central Brazil*. *Monographs of the American Ethnological Society*, no. 24. Seattle: University of Washington Press.
- Murphy, Robert, and Julian Steward
1956 *Tappers and Trappers: Parallel Processes in Acculturation*. *Economic Development and Cultural Change* 4:335-355.
- Myers, Thomas
1974 *Spanish Contacts and Social Change on the Ucayali River, Peru*. *Ethnohistory* 21(2):135-157.
- Nanda, Serena
1987 *Cultural Anthropology*. 3rd ed. Belmont, CA: Wadsworth Publishing.
- Nimuendajú, Curt
1967 *The Apinayé*. Oosterhout N.B., The Netherlands: Anthropological Publications.
- Oberem, Udo
1985 *Trade and Trade Goods in the Ecuadorian Montaña*. In *Native South Americans: Ethnology of the Least Known Continent*. P. Lyon, ed. pp. 346-357. Prospect Heights, IL: Waveland Press.
- Oberg, Kalervo
1953 *Indian Tribes of Northern Mato Grosso, Brazil*. Smithsonian Institution, Institute of Social Anthropology, Publication no. 15. Washington, DC: U.S. Government Printing Office.
1973 *Types of Social Structure among the Lowland Tribes of South and Central America*. In *Peoples and Cultures of Native South America*. D. Gross, ed. pp. 189-212. Garden City, NY: Natural History Press.
- Oswalt, Wendell
1986 *Life Cycles and Lifeways: An Introduction to Cultural Anthropology*. Palo Alto, CA: Mayfield.
- Otterbein, Keith
1973 *The Anthropology of War*. In *Handbook of Social and Cultural Anthropology*. J. Honigsmann, ed. pp. 923-958. Chicago: Rand McNally College Publishing.
- Overing Kaplan, Joanna
1975 *The Piaroa, A People of the Orinoco Basin: A Study in Kinship and Marriage*. Oxford: Clarendon Press.
- Park, Michael Alan
1986 *Anthropology: An Introduction*. New York: Harper and Row.
- Peires, J. B., ed.
1981 *Before and After Shaka: Papers in Nguni History*. Grahamstown, South Africa: Institute of Social and Economic Research, Rhodes University.

- Peoples, James, and Garrick Bailey
 1988 *Humanity: An Introduction to Cultural Anthropology*. St. Paul, MN: West Publishing.
- Perdue, Theda
 1979 *Slavery and the Evolution of Cherokee Society, 1540–1866*. Knoxville: University of Tennessee Press.
- Peters, John Fred
 1973 *The Effect of Western Material Goods upon the Social Structure of the Family among the Shirishana*. Ph.D. dissertation. Department of Sociology, Western Michigan University.
- Price, David
 1987 Nambiquara Geopolitical Organisation. *Man* (n.s.) 22:1–24.
- Ramenofsky, Ann
 1987 *Vectors of Death: The Archaeology of European Contact*. Albuquerque: University of New Mexico Press.
- Rausch, Jane
 1984 *A Tropical Plains Frontier: The Llanos of Colombia 1531–1831*. Albuquerque: University of New Mexico Press.
- Ribeiro, Darcy
 1967 Indigenous Cultures and Languages of Brazil. In *Indians of Brazil in the Twentieth Century*. J. Hopper, ed. pp. 77–165. Washington, DC: Institute for Cross-Cultural Research.
 1970 *Os Índios e a Civilização: A Integração das Populações Indígenas no Brasil moderno*. Rio de Janeiro: Civilização Brasileira.
- Richter, Daniel
 1983 War and Culture: The Iroquois Experience. *William and Mary Quarterly* (3rd series) 40:528–559.
- Riviere, Peter
 1969 *Marriage among the Trio*. Oxford: Clarendon Press.
 1984 *Individual and Society in Guiana: A Comparative Study of Amerindian Social Organization*. Cambridge: Cambridge University Press.
- Rodman, Margaret, and Matthew Cooper, eds.
 1979 *The Pacification of Melanesia*. Ann Arbor: University of Michigan Press.
- Roosevelt, Anna
 1980 *Parmana: Prehistoric Maize and Manioc Subsistence along the Amazon and Orinoco*. New York: Academic Press.
- Rosaldo, Renato
 1980 *Ilongot Headhunting, 1883–1974*. Stanford: Stanford University Press.
- Rosman, Abraham, and Paula Rubel
 1989 *The Tapestry of Culture: An Introduction to Cultural Anthropology*. 3rd ed. New York: Random House.
- Ross, Eric
 1978 Food Taboos, Diet, and Hunting Strategy: The Adaptation to Animals in Amazon Cultural Ecology. *Current Anthropology* 19:1–36.
- Roth, Walter
 1924 *An Introductory Study of the Arts, Crafts, and Customs of the Guiana Indians*. 38th Annual Report of the Bureau of American Ethnology, 1916–1917. Washington, DC: U.S. Government Printing Office.
- Ruse, Michael
 1979 *Sociobiology: Sense or Nonsense*. Boston: D. Reidel.
- Sanders, James
 1979 The Expansion of the Fante and the Emergence of Asante in the Eighteenth Century. *Journal of African History* 20:349–364.
- Secoy, Frank
 1953 *Changing Military Patterns on the Great Plains*. American Ethnological Society Monograph no. 21. Seattle: University of Washington Press.
- Simpson, Lesley Byrd
 1982 *The Encomienda in New Spain: The Beginning of Spanish Mexico*. Berkeley: University of California Press.
- Siskind, Janet
 1973a *Tropical Forest Hunters and the Economy of Sex*. In *Peoples and Cultures of Native South America*. D. Gross, ed. pp. 226–240. Garden City, NY: Natural History Press.
 1973b *To Hunt in the Morning*. New York: Oxford University Press.
- Siverts, Henning
 1975 *Jivaro Head Hunters in a Headless Time*. In *War: Its Causes and Correlates*. M. Nettleship, R. D. Givens, and A. Nettleship, eds. pp. 663–674. The Hague: Mouton.
- Smole, William
 1976 *The Yanoama Indians: A Cultural Geography*. Austin: University of Texas Press.
- Staden, Hans
 1928 *Hans Staden: The True Story of his Captivity, 1557*. M. Letts, trans. London: Routledge and Sons.
- Stearman, Allyn MacLean
 1984 The Yuquí Connection: Another Look at Sirionó Deculturation. *American Anthropologist* 86:630–650.

- Steward, Julian
1958 Problems of Cultural Evolution. *Evolution* 12:206–210.
- Stirling, M. W.
1938 Historical and Ethnographical Material on the Jivaro Indians. Smithsonian Institution, Bureau of American Ethnology, Bulletin 117. Washington, DC: U.S. Government Printing Office.
- Stocks, Anthony
1983 Native Enclaves in the Upper Amazon: A Case of Regional Non-Integration. *Ethnohistory* 30:77–92.
- Taussig, Michael
1987 Shamanism, Colonialism, and the Wild Man: A Study in Terror and Healing. Chicago: University of Chicago Press.
- Taylor, Anne-Christine
1981 God-Wealth: The Achuar and the Missions. In *Cultural Transformations and Ethnicity in Modern Ecuador*. N. Whitten, ed. pp. 647–676. Urbana: University of Illinois Press.
- Thomas, David John
1982 Order without Government: The Society of the Pemón Indians of Venezuela. *Illinois Studies in Anthropology*, no. 13. Urbana: University of Illinois Press.
- Trigger, Bruce
1976 The Children of Aataentsic: A History of the Huron People to 1660. 2 vols. Montreal: McGill-Queens University Press.
- Up de Graff, Fritz
1923 Head Hunters of the Amazon: Seven Years of Exploration and Adventure. New York: Duffield and Co.
1985 Jivaro Field Clearing with Stone Axes. In *Native South Americans: Ethnology of the Least Known Continent*. P. Lyon, ed. pp. 120–122. Prospect Heights, IL: Waveland Press.
- Vayda, Andrew
1969 Expansion and Warfare among Swidden Agriculturalists. In *Environment and Cultural Behavior: Ecological Studies in Cultural Anthropology*. A. Vayda, ed. pp. 202–220. Garden City, NY: Natural History Press.
1970 Maoris and Muskets in New Zealand: Disruption of a War System. *Political Science Quarterly* 85:560–584.
- Villas Boas, Orlando, and Claudio Villas Boas
1973 Xingú: The Indians, Their Myths. New York: Farrar, Straus, and Giroux.
- Wagley, Charles
1983 Welcome of Tears: The Tapirapé Indians of Central Brazil. Prospect Heights, IL: Waveland Press.
- Wesler, Kit
1983 Trade Politics and Native Polities in Iroquoia and Asante. *Comparative Studies in Society and History* 25:641–660.
- Whiffen, Thomas
1915 The North-West Amazons: Notes of Some Months Spent among Cannibal Tribes. London: Constable and Co.
- Whitehead, Neil
1988a Lords of the Tiger Spirit: A History of the Caribs in Colonial Venezuela and Guyana 1498–1820. Providence, RI: Foris Publications.
1988b Carib Ethnic Soldiering in Venezuela, The Guianas and Antilles: 1492–1820. Paper presented at the 46th International Congress of Americanists, Amsterdam.
1989 The Ancient Amerindian Polities of the Lower Orinoco, Amazon and Guyana Coast: A Preliminary Analysis of their Passage from Antiquity to Extinction. Paper presented at the Wenner-Gren Symposium, Amazonian Synthesis: An Integration of Disciplines, Paradigms, and Methodologies, Nova Friburgo, Brazil.
In press The Snake Warriors—Sons of the Tiger's Teeth: A Descriptive Analysis of Carib Warfare, ca. 1500–1820. In *The Anthropology of War*. J. Haas, ed. Cambridge: Cambridge University Press.
- Whitten, Norman
1976 Sacha Runa: Ethnicity and Adaptation of Ecuadorian Jungle Quichua. Urbana: University of Illinois Press.
- Wilson, Edward
1978 On Human Nature. Cambridge, MA: Harvard University Press.
- Wolf, Eric
1982 Europe and the People without History. Berkeley: University of California Press.
1987 Cycles of Violence: The Anthropology of War and Peace. In *Waymarks: The Notre Dame Inaugural Lectures in Anthropology*. K. Moore, ed. pp. 127–150. Notre Dame: University of Notre Dame Press.
- Wright, Robin Michael
1981 History and Religion of the Baniwa Peoples of the Upper Rio Negro Valley. Ph.D. dissertation. Department of Anthropology, Stanford University.
- Yde, Jens
1965 Material Culture of the Waiwai. Copenhagen: National Museum.

Yost, James, and Patricia Kelly
1983 Shotguns, Blowguns, and Spears: The Analysis of Technological Efficiency. *In Adaptive Responses of Native Amazonians*. R. Hames and W. Vickers, eds. pp. 189-224. New York: Academic Press.

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