the kinds of archeological evidence necessary to make a compelling case for them.

The contributions of Mayer and Shimada merit special attention because they go beyond the substantiation and refinement of the Murra framework. Mayer demonstrates how new insights can be gained by studying the way in which groups transform Andean environment into production zones and then maintain or change them in response to fluctuating demands and conditions. This approach allows him to trace how and why linked sets of production zones become independent of each other, and it is far more satisfying than viewing these changes as the vanishing moraines of ecological complementarity.

Shimada's study of arsenic-bronze production by the pre-Hispanic Sican state likewise pays special attention to the means and relations of production. He considers the procurement of fuel, ores, and labor as well as the varying social and spatial context in which the productive activities were carried out. Sican metallurgical production is then viewed in terms of exchange relations with adjacent highland polities and other coastal groups on the Ecuadorian and northern Peruvian coast. Shimada is cautious in reconstructing organizational relationships and distributional mechanisms, but at the same time he demonstrates that problems at this scale and level of abstraction are amenable to archeological research.

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A Nexus of Transformations

Sweetness and Power. The Place of Sugar in Modern History. SIDNEY W. MINTZ. Viking, New York, 1985. xxx, 274 pp. + plates. $20.

In *Sweetness and Power*, Sidney W. Mintz has blended the methodology and theory of his discipline of anthropology with historical data to provide a provocative history of a foodstuff—sugar—and its impact upon modern British society.

According to Mintz, between 1650 and 1900 the production and consumption of sugar mirrored significant changes in the social, economic, and political structure of Britain. First used only by the nobility as a seasoning, medicine, or symbol of status, sugar had by the middle of the 19th century become a mainstay of the working-class diet. This transformation did not occur accidentally. In effect, sugar was made available to British workers for political and economic purposes.

Production of sugar within the British empire began after the acquisition of Barbados (1627) and Jamaica (1655). There planters used African slave labor to produce and process sugarcane for the British market under a protectionist system. Their endeavors not only made them rich but contributed to the fortunes of British merchants who participated in the triangular trade with Africa. Profits from that trade provided the surplus capital that allowed the industrial revolution to flourish in Britain. Moreover, the planters also developed a prototype for industrial factories, for the processing of sugar required a disciplined and efficient use of labor. Each stage of the process demanded specialization, which led to the creation of a production line not unlike that found in the early British factories. Besides yielding profits for planters and merchants, sugar benefited the bureaucrats, who appreciated its importance as a source of tax revenue.

Mercantile and bureaucratic interests continued to benefit from sugar when, during the early 19th century, protection gave way to free trade and West Indian plantations gave way to sources that provided more plentiful and cheaper sugar. As sugar supplies increased and prices dropped, patterns of sugar consumption altered. The availability of cheap sugar coincided with the appearance in Britain of tea, coffee, and chocolate. Added to these bitter drinks and to fruit preserves, sugar soon became a basic part of the working-class diet, providing both nutritional and symbolic satisfaction to the masses. For the new capitalists who emerged as the mercantile plantation economy declined, increased sales to the workers brought increased profits despite falling prices.

New foods, especially sugar, altered the lives of working people. Sweet tea and jam on bread served as quick hot meals for laborers. Thus, sugar provided a cheap and convenient source of energy for fueling the labor needed for industrialization in Britain, and, Mintz suggests, elsewhere. In this way, culture, power, and economic realities merged and determined in large part the means by which capitalism developed during the 19th century.

Mintz has not written a definitive history of the role of sugar in the British empire. Nor has he presented a typical anthropological study of the role of food in social behavior. But he never intended to do either. What he has produced is a challenging and entertaining book that should appeal to readers of many stripes and interests.

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Marsupials

Evolutionary Ecology of Marsupials. ANTHON K. LEE and ANDREW COCKBURN. Cambridge University Press, New York, 1985. viii, 274 pp., illus. $54.50. Monographs on Marsupial Biology.

Lee and Cockburn have produced in *Evolutionary Ecology of Marsupials* the first broad-scale treatment of marsupial life histories and evolution since Tyndale-Biscoe's *Life of Marsupials* over a decade ago. More important, theirs is the first attempt to place marsupial reproductive ecology explicitly in an evolutionary framework. The organization of the book, which highlights evolutionary considerations, allows the authors scope to raise and treat fascinating issues like sex allocation theory that, as they point out, have been ignored by most workers on marsupial biology.

The authors tackle a diverse set of problems, structuring their approach around six major themes. The book is best viewed as a collection of essays, though with more coherence than most collections. Lee and Cockburn argue first that food quality and dispersion influence life histories and social behavior. They then suggest that any organism's life history, physiology, and behavior are the result of phylogenetic constraints and current adaptive response to environmental pressures. For example, they argue that marsupial diversity may have been constrained by specialization for early extrauterine life (though they give no convincing argument why this specialization may have been favored in the first place) and thus marsupials may be viewed as specialized, rather than "primitive" as many mammalogists have argued in the past. Three very thorough reviews follow: of the diversity in carnivorous and in herbivorous marsupial life histories and of *Antechinus* (small dasyurids in which males are semelparous) as a paradigm. Much of the work on *Antechinus* is the authors' own. A final essay attempts to set marsupials in a coevolutionary and community ecological context. There is a heavy emphasis on non-macropod marsupials.

The strongest chapters are those that assemble in a coherent fashion the diverse information about the details of specific marsupial life histories. The authors present a wealth of data in a clear general context. On occasion, their attempts to integrate current evolutionary theory with life history information seem to me to fall short. Sometimes it is simply a matter of an opinion's being asserted without a clear supporting argument. After reviewing the possible constraints on marsupial radiation imposed by developmental specialization, for example,