foraging strategies. However, this discussion falls short on mak-
ning a tangible connection between individual choice, resource
ings, and the archaeological record. Landscape-learning
s imposed by modern environmental conditions.

The final chapter in part 1 is a case study on societal com-
plexity in western Arctic prehistory designed to confront the
concepts discussed in the first two articles. Mason uses evolu-
tionary theory to deconstruct style and function with the purpose
of discerning identity, ethnicity, and cultural relationships. This
first section defined macroevolution and cultural evolution in
prehistory, and introduced some of the key issues such as han-
dling group variability, human behavior, and environment, and
inferring these concepts from artifacts. However, these concepts
are difficult to consider without accounting for the unpredictable
nature of human behavior.

The second section, entitled “Macroevolutionary Ap-
proaches to Cultural Change,” is a series of case studies that
apply evolutionary theory to archaeological examples. The first
article by Anna Prentiss explains socioeconomic strategies among
complex hunter-gatherer communities in the Pacific Northwest.
Specifically, Prentiss describes two periods in the Mid-Fraser
(Northwest Interior Plateau) region where dramatic changes
sparked the emergence of new socioeconomic strategies—the
collector and complex collector strategies (see Binford 1980),
which emerged first in the coastal and riverine areas and moved
into the interior plateau of BC. Prentiss attributes these socioeco-

nomic changes to alteration of foraging strategies, human fitness
levels, and underlying cultural norms. Interestingly, Prentiss
moves past these scales of measurement to include variables
not included in traditional macroevolutionary perspectives, such
as labor integration, social arrangements, land-use pattern and
range, and changes in the relationship between humans and their
environment.
The next case study takes the reader to the Zapotec region in the Mexican state of Oaxaca to study the transition from chiefdom to state. Charles Spencer applies the morphogenesist model of primary state formation to explain the rise of Monte Albán from Early Monte Albán I phase to Late Monte Albán I phase. The morphogenesist model applies the principles of cell growth and cellular differentiation from developmental biology to explain the process of cultural evolution. Using this perspective, Spencer creates a gradual picture of state formation, in which, almost imperceptibly, chiefdoms become states. The application of the morphogenesist model in conjunction with an adaptive landscape model provides another interesting combination of models in which to explain cultural evolution. As Spencer suggests, pursuing analogy between biological and cultural evolution in isolation is not constructive—in fact, researchers should use two explanatory models to address cultural transitions. In this case, Spencer combines macroevolutionary theory and the morphogenesist model to analyze the emergence of Monte Albán as a primary state within an adaptive landscape. Using multi-perspective approaches, researchers can explore the complexities of socioeconomic transitions by looking at the risks, costs, and potential benefits involved.

In the final contribution to this section, Melinda Zeder addresses a long standing question in archaeology—the emergence of agriculture in the Near East. Zeder applies selectionist evolutionary archaeology, macroevolutionary archaeology, and human behavioral ecology to cultural evolution. She then applies the tenets of each to the transition to agriculture from hunter-gatherer lifeways. Predictably, she concludes that each of the models provides certain benefits to understand cultural change but, also predictably, all of them fall short because of their tendency to overemphasize biological underpinnings and their literal application of biological evolutionary theory to human behavior.

This second section applied different aspects of macroevolutionary theory (human fitness, landscape models, and morphogenesist theory) to explain transitions observed in the archaeological record at both the state level and among complex hunter-gatherers. While these discussions provided interesting perspectives and analogies to explain cultural evolution they do not address why groups react with these behaviors. Instead, these models classify numerous cultural groups together, and use one perspective to explain cultural change for all of them.

The third collection of chapters in this volume is largely concerned with three variables: cultural diversification, stasis, and extinction and their roles as macroevolutionary processes. Opening this section, James Chatters explores the idea of stasis in the archaeological record of the Mississippian complex. Problems quickly become apparent with Chatters' early statement, that "change in higher level entities is a very rare event." This is highly unlikely and based on an overgeneralization of a limited data set of cultures represented by the archeological record. Perhaps it is more realistic to recognize that change may be occurring at higher levels, but archaeologists cannot detect it. Chatters expands his discussion by introducing the "resource management strategies" (RMS) perspective. RMS is used as a tool to measure selection and human fitness levels, by analyzing the physical traces of these behaviors (artifacts, patterns of associated artifacts, soil stains, and seasonal patterned floral and faunal materials).

RMS are used in the following chapters by Prentiss and Michael Lenert to explain cultural stasis and change in Arctic prehistory among the Pre-Dorset, Dorset, and Thule groups by analyzing artifact types and foraging strategies. Specifically, the authors are concerned with the periods of material stasis, during which cultures remain unchanged in the archeological record. Despite the obvious problems with the concept of cultural stasis observed within a representative sample of the past, the authors explain that these three groups are not different populations, but the same cultural group undergoing long periods of cultural stagnation. The apparent breaks that have been misclassified as new groups are, in fact, the results of cultural transition or evolution. Ian Kuijt and Prentiss make this same argument in the following chapter about cultures in the Near East.

The volume's conclusion draws the major contributions together while defining evolution and creating parallels between biological and material culture systems. Robert Bettinger reiterates the importance of macroevolutionary theory by presenting his version of the paradigm, which favors the fitness landscape perspective. Macroevolution, Bettinger argues, is the only paradigm that separates cultures into meaningful units by which they can be measured. However, he fails to address how one theoretical perspective can be so malleable to apply to human behavior worldwide.

When applied to archaeological queries, macroevolutionary theories about cultural evolution are well suited to explain overarching trends in human behavior as they appear in the archaeological record. However, even with the new research and perspectives included in this volume, evolutionary theory continues to struggle with the same basic considerations as other paradigms. These conundrums of the evolutionary perspective resonate strongly when researchers attempt to explain significant transitions within groups, e.g., state formation and hunter-gatherer foraging strategies. The major problems inherent in this theoretical stance include disregarding the preferences and actions of individuals in favor of the group, lack of consideration of factors which influence or cause cultural change, limitations of the archaeoological record in terms of its representational sample, the failure of this perspective to consider the equifinality of the archeological record, and the underlying assumption that all human groups are unconsciously striving to reach an idealized socioeconomic climax. Although this book is a significant and impressive contribution to evolutionary studies of cultural change, it propagates rhetoric inherent in this rigid perspective on dynamic variables like human behavior and the environment.

References

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