sling use in areas where slingstones have not yet been identified. These include the presence of certain kinds of armour, defensive site features and trepanation.

Robert and Gigi York provide an exceptionally detailed examination of the sling and slingstones in Oceania and the Americas. It will undoubtedly serve as an invaluable reference, especially for those students who may not have heard of, nor know how to recognise a slingstone. One can only hope that the Yorks’ aim, to challenge anthropologists to consider the role that the sling and slingstone played in past societies and to pursue the numerous research possibilities presented in this work, will be met in the near future.


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*Calculating Chiefs* investigates the patterned variation in warfare and violence among the agricultural societies of Oceania. With a lengthy bibliography, it reviews the extensive ethnographic and historical evidence, analysing 11 ethnographic cases to compare patterns in Polynesia, the Caroline Islands and Melanesia. The book is a tour-de-force.

Stephen Younger is a surprising person to have written such an important book. His PhD is in Physics, he has worked in simulation and policy, and is appointed as Special Advisor to a Vice Chancellor at the University of Hawai‘i. He is an outsider to Anthropology, but, almost as the model anthropologist, he comes from outside to immerse himself in the village life of his subjects, a community of fractious anthropologists. The clarity of his review is remarkable. He summarises the relevant theories of major and less major scholars and presents a comprehensive summary of case materials, providing an exceptional review of the literature on warfare and violence. Of course, some individuals, such as Patrick Kirch or Michael Kolb, deserved fuller treatment, but the evenness of Younger’s coverage is laudable.

The book’s organisation is a model. The clear introduction justifies both the topic (human violence within an evolutionary perspective) and the appropriateness of Oceania for analysis. He provides an overview of Oceania’s geography, culture history and political organisations, a review of the existing literature on warfare and the ethnographic data, robust analyses of seven cases, a justification for the use of simulation and the construction of several simulations, concluding with an assessment of the value added by simulations. Looking systematically at the evidence, Chapter 6 draws convincing conclusions across a wide range of important topics. His scrutiny of small atoll societies is particularly significant, explaining why they should have a “participatory” (nonhierarchical) structure with little warfare. He also concludes that the frequencies of interpersonal violence and warfare are correlated, both
increasing with total population but not with population density. Although violence and warfare are also correlated with leadership and social stratification, he argues that the association is not causal as both are connected to the underlying variable of total population size. His justification for the value of simulation in anthropology is also well presented, although I found the actual simulations too simplified to make their conclusions convincing. This is a common criticism by anthropologists, not resolved by the present simulations, although the concluding chapter shows how simulation can help pick apart causal relationships.

The book stresses the importance of comparative studies in anthropology. Although formulated as a comparative discipline trying to make sense of variation in the human experience, anthropologists have pulled away from engaging with big questions, like those which Younger addresses head on (pp. 23-26). Unlike the anthropologists buried in details of their specific cases, he investigates systematically the rich description of human variation as a means to interrogate those key questions. He grounds his work in existing broad cross-cultural studies of warfare, especially those by Carol and Melvin Ember based on the ethnographic resources in HRAF (Human Relations Area Files).

Younger also stresses the importance of evolutionary studies of variability within specific cultural areas, in contrast to broad cross-cultural studies. Such specific evolution creates differing social forms from common historical backgrounds under variable local conditions of geography, productivity, isolation and community size. Oceania provides the exceptional opportunity for such work. As originally described by Marshall Sahlins, Oceania presents a laboratory for understanding specific evolution as adaptive radiation. Better than any other world region, Pacific scholars can assume that “other things are equal” because the region has a common history, technology and subsistence base. As seen in the comparative studies by Sahlins, Goldman, Feil and others, Oceania is a remarkable workshop for studying evolutionary processes. Younger continues this important tradition.

Considering the opportunity to study specific evolution, the greatest gap in Younger’s analysis is his slight consideration of Oceanic archaeology. Why does he pay so little heed to prehistory? I think that he was forced to ignore it, because archaeologists have been too reluctant to develop measures of key variables such as warfare and political leadership that can be used diachronically. When discussing warfare, we often rely on the same historical and ethnographic documentations used by Younger. Archaeology needs to work with observed diachronic variation, developing creative material measures of such significant variables. As illustrated by the work of Kirch and his collaborators, evolutionary processes can be studied systematically with diachronic data available only archaeologically.

I note the lack of Younger’s consideration of political economy. Perhaps the gap represents his commitment to an agent-based modeling, which rarely considers longterm change, or his slight consideration of archaeology. For example, Younger states “Earle (1997) divides the function of leadership into three categories: economic, military, and ideological” (p. 68). These three are not functions, but are sources of power. The ability of chiefs to control bottlenecks in the political economy allows the mobilisation of surplus to support political power strategies involving these elemental
powers. Thus, with the increasing power of chiefs, the goal of warfare shifts from community defense to political conquest seeking revenue sources. The warrior class should be conceptualised as power specialists equivalent to land managers or priests. Although Younger has read the work by Kirch, myself and our collaborators, he fails to understand our political economy perspective on warfare and related topics. Probably each reader will identify some further gaps, but this does not detract from the great scope and fine analyses of the book.

Calculating Chiefs is a classic study in comparative anthropology. Younger’s analysis of the ethnographic differences in warfare and violence in Oceania is a touchstone for future work. Now we must meet Younger’s challenge to increase the use of modelling, to emphasise comparative approaches, and to take the significance of Oceanic studies to a broad social science audience. We should also reconfigure our approaches to archaeology to measure such key variables as warfare and violence, and to bring in a strong political economy perspective to issues of longterm social change. I appreciate the contribution and welcome the challenge that Younger has given us.