REVIEWS

Sea Shells in the Mountains and Llamas on the Coast: The Economy of the Paracas Culture (800 to 200 BC) in Southern Peru. CHRISTIAN MADER. 2019. Forschungen zur Archäologie Außereuropäischer Kulturen 16. Harrassowitz, Wiesbaden, Germany. 211 pp. $133.00 (cloth), ISBN 978-3-447-11327-4.

Reviewed by D. G. Beresford-Jones, McDonald Institute of Archaeological Research, University of Cambridge

The Andes, it is often asserted, are *different*: manifestly so in how their tremendous altitudes, lying through tropical latitudes, compress enormous ecological diversity across relatively short horizontal distances to the lowlands of Amazonia; and immanently too through the unique cultural trajectories that unfolded there—not least in how their communities met their material needs through the "dismal science" of economics. Ever since Karl Polanyi's ideas were crystallized in Andean ethnography by John Murra, interactions elsewhere driven by vulgar commerce were, in the Andes, characterized rather by redistribution and reciprocity, finding ultimate expression in the proto-Marxist central control of the Inca Empire. The seeming absence of market exchange or currency in one of the world's largest polities at the time has long been explained through various expressions of ecological complementarity, most famously through Murra's "verticality" model, whereby communities strove to achieve direct access to a diversity of agricultural and other products by structuring themselves across altitudinal tiers. While questions have since been asked of how pervasive such models were across ancient Andean time and space and attempts to pin down ethnographic analogy in the archaeological record proved generally elusive, the ideal of verticality remains one of the most enduring theories of ancient Andean economy. *Sea Shells in the Mountains and Llamas on the Coast* offers one of the most comprehensive archaeological evaluations yet of the verticality concept, but perhaps even more remarkably, does so in the context of an archaeological "culture" long emblematic of the Peruvian coast—Paracas.

Famous through the corpus of beautiful ancient textiles excavated in the 1920s by Julio C. Tello on the eponymous south coast peninsula, the people and society(ies) who made these extraordinary artifacts have been almost overshadowed by the very glamor of their material culture. Long defined by analyses of its rich, coastal mortuary contexts, understanding of Paracas is now being broadened by large-scale investigations of valleys both north and south of the Paracas Peninsula, including the German Archaeological Institute's Nasca-Palpa Archaeological Project directed by Marcus Reindel and Johnny Isla, from which Christian Mader's book emerges. And, just as its title encapsulates, by Late Paracas (ca. 200 BC) that character turns out to embrace the entire western Andean flank, from the Pacific littoral to the high puna above 4,000 m asl.

Sea Shells in the Mountains and Llamas on the Coast begins with reviews of Andean human ecological diversity following Pulgar Vidal's classifications and the economic models postulated for interchanges across that diversity, including an excellent synthesis of the evolution of Murra's verticality concept, followed by a history of Paracas studies and the ongoing uncertainties about its geographical scale, sociopolitical nature, and even cultural history. Having set the stage, Mader then proceeds with his main task of bringing sorely needed economic perspective to Paracas through analyses of three lines of evidence: obsidian lithics, marine and terrestrial mollusks, and camelid bones. These data derive from extensive area excavations of three major settlements at Juaranga (285 m asl), Collanco (1,630 m), and Cutamalla (3,300 m), along with excavations at eight other Paracas sites—all unfolding from more than two decades worth of survey and investigation by the Nasca-Palpa Archaeological Project. It is this very rare context of truly comprehensive archaeological investigation right across the Andean altitudinal transect that gives this study's data particular meaning. By way of illustration, density values for excavated materials that Mader uses will inevitably vary enormously between particular archaeological contexts, and yet will average out to give meaningful comparators in excavations on these scales, just as he shows.

Latin American Antiquity 31(4), 2020, pp. 871–874

doi:10.1017/laq.2020.87

Each of these lines of evidence is then elaborated through some meticulously documented analyses including, inter alia, provenance and *chaîne opératoire* analyses of more than 2,000 obsidian artifacts to ascertain how these materials were worked through the courses of journeys from their source at 4,100 m asl at Quispisisa / Jichja Parco down across the Paracas world; the identification and quantification of mollusks to track their movement inland in significant quantities more than 60 km from the ocean and *lomas*, and as artifacts even up to the high sierra; and last, but not least, analyses of the remains of the beasts of burden that articulated Paracas mobility, including strontium isotope analyses of the teeth of 30 camelids from the Palpa Valley, showing that these were likely raised in the highlands.

Mader's interpretations of these data are strictly, even fastidiously qualified, but it will doubtless disappoint anthropologists of the past that he can discern no evidence for verticality expressed through Murra's vertical archipelago model, sensu stricto, or for interactions in Paracas driven much by redistribution or reciprocity. Instead of archipelagos of colonies, what emerges is ecological complementarity through the aegis of long-distance exchanges articulated by intense camelid caravans throughout an entirely Paracas landscape (for which Mader coins the term "economic directness"). By Late Paracas this landscape, as documented by the Nasca-Palpa Archaeological Project, had become peppered with dozens of settlements of different scales along rivers and atop ridgelines, all sharing in a material culture yet also exhibiting increasing evidence of internecine conflict. For me this begs additional questions about how long-distance mobility was pursued within such a milieu and indeed what that might mean for the nature of Late Paracas society and economy.

Sea Shells in the Mountains and Llamas on the Coast is founded on the *fixed*, tangible elements of the past excavated from particular places, yet the patterns drawn from those data are those of movement *between* those places. Mader himself has walked the 200 km of Paracas routeways from the high Andean obsidian sources at Quispisisa, via many of the settlements studied such as Collanco, down to the Pacific shore at the estuary of the Río Grande de Nazca. With this excellent study he has reanimated ancient Paracas for us and moreover has done so over hitherto unrecognized geographies.

Historical Ecology and Archaeology in the Galápagos Islands: A Legacy of Human Occupation. PETER W. STAHL, FERNANDO J. ASTUDILLO, ROSS W. JAMIESON, DIEGO QUIROGA, and FLORENCIO DELGADO. 2020. University Press of Florida, Gainesville. 240 pp. $90.00 (hardcover), ISBN 9780813066271.

Reviewed by Atholl Anderson, Australian National University

Scholarly books on the history of human–environmental relationships in the Galápagos Islands since the sixteenth century are rare, and it is pleasing to be able to welcome this one, which measures, as its subtitle states, the legacy of human occupation. It is a small book and more focused than its title suggests, but it is well written and illustrated, and it makes a valuable case in considering larger issues of ecological transformation.

The two introductory chapters provide a good narrative summary of human history, the introduction of foreign plants and animals, and some consequences for Galápagos landscapes and ecologies. There are also comments, mostly related to modern changes, in the concluding chapter, and it is worth mentioning the extensive notes and references. Nevertheless, the main part of the book is devoted much less to historical ecology and archaeology in the Galápagos Islands generally than to a particular case study of the impact of intensive commercial activity on Galápagos history and ecology. It is mainly about the Hacienda El Progreso of San Cristóbal Island, and the story is both colorful and instructive.

Manuel Julián Cobos was a freebooting capitalist from coastal Ecuador who organized the export from San Cristóbal to Central America in the 1860s of cattle hides, salted meat, sea lion skins, and the much-valued orchilla lichen, used to make purple dye. Charges of cattle rustling and smuggling sent Cobos and his 300 followers to Mexico, with similar results, and then to San Cristóbal where a sugar plantation was established in 1875. This developed into an extensive operation covering about 25,000 ha of western San Cristóbal. By the early twentieth century Hacienda El Progreso was producing 500 tons of sugar per year and had 100,000 coffee bushes, extensive market gardens, and large herds of cattle and horses, plus pigs, goats, and sheep. In addition, Cobos exploited the feral cattle elsewhere on San Cristóbal and on Floreana Island, and he extracted whale, sea lion, and tortoise oil. There were two boats for transport of goods to and from the mainland.

Several hundred people, of which men outnumbered women by four to one, were needed to run Hacienda El Progreso. They were mostly criminals or exiles and were effectively held in bondage and treated brutally by Cobos. Eventually he was attacked and killed by his

https://doi.org/10.1017/laq.2020.87 Published online by Cambridge University Press