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The manufacture and exchange of jadeitite celts in the Caribbean

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The Caribbean island archipelago, with its' considerable inter-island variation in geology, forms a fascinating platform for studying distributions of lithic materials and reconstructing pre-Columbian regional exchange networks. Many rock materials have unique and localised sources and, as a result, lithics were often transported and traded between the islands.

Long after early reports of "jade" finds in the Antilles, recent petrographic, mineralogical and geo-chemical analyses of artefacts found at a number of Ceramic Age sites distributed over a considerable number of islands, spanning almost the entire Caribbean, have firmly attested the indigenous use of jadeitite, the rare rock type composed mainly of jadeite, as raw material for the manufacture of axes and adzes. Initial provenance work in the early 2000's pointed towards the Motagua Fault Zone in Guatemala, the only potential source region known at that time, suggesting the existence of a pan-Caribbean interaction network. Since the discoveries of two new more local jadeitite occurrences in Sierra del Convento, eastern Cuba, and in the Rio San Juan region, northern Dominican Republic, the sourcing of the jadeitite findings in the Antilles has received renewed attention. Subsequent work on the study of lithic artefact collections within the Lesser and Greater Antilles, followed by petrographic, mineralogical and geo-chemical analyses of individual artefacts and comparison with the available source data, have demonstrated the complex nature of jadeitite characterization and the difficulties with discriminating particular sources, as these tend to extend over considerable areas and exhibit much intra-source variation. As a result, the research that has been conducted up to this point has not been able to specify with a high degree of resolution the origin and exact distribution patterns of this semi-precious stone material.

Very recent work in the northern Dominican Republic, however, has for the first time revealed evidence of local axe manufacture at the multi-component Late Ceramic Age settlement site of Playa Grande (AD 750 – 1600), which is adjacent to the jadeitite occurrences in that island. The nature of the materials worked and the artefacts produced exhibit strong similarities with jadeitite tools found elsewhere in contemporaneous contexts in Hispaniola, Puerto Rico and the Lesser Antilles. These similarities make this site a very likely candidate from where axes and adzes had been exchanged to neighbouring sites and subsequently became distributed over considerable distances. Being a much valued commodity, the control over this jadeitite probably offered the Rio San Juan region and the Playa Grande site an advantage compared to neighbouring areas. We therefore argue that the presence of jadeitite might have played an important role in the continuing socio-political competition between the different chiefdoms that arose during the Late Ceramic Age in the Greater Antilles, and in particular in the core area of Hispaniola.