Shell and Bone Artefacts from the Emily Bay Settlement Site, Norfolk Island

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ABSTRACT. Amongst molluscan shell from the Emily Bay site were 40 specimens of fragmented bivalves, especially of *Gari livida*, which were examined for evidence of their use as artefacts. Experiments using modern specimens of the same taxa showed that it was impossible to define deliberate breakage sufficiently clearly to define shell tools on that criterion. Analysis of usewear by microscopic inspection of edges was the main discriminant adopted. In addition vegetable residues were identified on several edges. These means identified 19 pieces as tools, which had been used mainly for scraping soft materials. Two other tools were identified by morphology. A small assemblage of bone and marine ivory artefacts was also recovered from Emily Bay. Most were pieces of fishing gear.

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Shell artefacts

The shell artefacts referred to here are not of the formal kinds found throughout Oceania (Poulsen, 1970), but rather informal, flaked shell pieces. Fragments of worked shell appear in Pacific sites from early Lapita in the west (Spriggs, 1991; Kirch, 1987) to late sites in the east (Kirch, 1989), thus possessing a very wide geographic and temporal distribution. However, they have been considered to yield no information about cultural sequences and so little time has been devoted to their analysis. They have been described variously as worked shell, shell fragments, shell scrapers or shell knife fragments. Smith (1999: 284) notes that no

direct relationship between usewear and residues has been established for any of these artefacts. This paper attempts to address this issue by an examination of usewear and residues on the worked edges. No signs of deliberate modification or use were observed on any gastropod shell recovered from the site at Emily Bay. In contrast, all of the bivalve shell (40 pieces) was highly fragmented, often in ways which suggested deliberate human modification. In order to cast some light on the processes which might have been involved in shell modification at the site, experimental breakage was conducted with material from the same molluscan species, and the archaeological specimens were examined microscopically for edge wear and residues.