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# Planning, provisioning, and predictability: The organization of microblade technology in the eastern Aleutian Islands, Alaska

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## Résumé

The hunter-gatherers of the eastern Aleutian Islands possessed an almost entirely maritime-oriented economy for the past 9,000 years. Sophisticated technological items such as watercraft and multicomponent bone and stone tools enabled access to subsistence resources and materials for production of critical crafts such as clothing. Chipped stone tools, and the tasks that they are associated with, have received little analytical attention, despite their abundance in the Aleutian archaeological record. Because extractive and processing activities have different material requirements, tool or toolkit attrition rates, and spatio-temporal distributions of need, use, and discard, it is expected that their dynamics of production and replenishment, as well as lithic economies, will also differ. Microblade technology is particularly relevant to understanding Aleutian lithic assemblage variability through the Holocene but the role of this distinctive prepared-core technology in coastally adapted technological systems around the Arctic and North Pacific is not universal. Generally, contextual evidence for the use of microblades in hunting weaponry predominates, however, there is also unambiguous evidence in some coastal locations for the use of microblades in hafted knives and, therefore, as a technology aligned to processing tasks. In this paper, results are presented from morphometric and technical analysis of microblade technology at Russian Spruce and the stratified Margaret Bay site on Unalaska Bay in the eastern Aleutian Islands, Alaska. Reconstruction of the technological system is aided by Minimum Analytical Nodule analysis and an approach guided by the concept of chaîne opératoire. Together these lines of evidence demonstrate variability in microblade production techniques and provisioning strategies between 9,000 and 3,500 cal BP. The persistence of microblade production, but with variability in its organization through time in Unalaska Bay, is interpreted as adaptive responses by Holocene foragers to the proximal effects of environmental change, and the outcome of decisions made in the context of shifting levels of uncertainty and risk.

**Mots-Clés:** Microblade technology, lithic provisioning, Aleutian archaeology

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