GIS maps reveal that clustering of archaeological sites in the Gulf of Alaska region are driven by spatial patterns of marine resources. We used spatial models fitted with the Metropolis-Hastings algorithm to analyze site distribution. We found that salmon streams, herring, halibut, cod, sea bird colonies and seal rookeries are all associated with archaeological sites. We infer different site selection strategies within the several sub-regions depending on which resources are most available. (Received September 14, 2008)