Living in the Ballona Wetlands of the Southern California Coast: Paleoenvironmental Reconstruction and Human Settlement

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Abstract
Over twenty years of archaeological research in the Ballona wetlands, California, USA, has provided the opportunity to reconstruct how settlement responded to landscape change in this dynamic environment over the last 8000 years. Analyses of stratigraphy, radiocarbon dates, and paleoecological indicators (foraminifera, ostracods, molluscs, diatoms, silicoflagellates, and pollen) from core samples indicate that sea level rise caused the Ballona to shift from a bay at the mouth of the Los Angeles River to a lagoon by about 7500 cal BP. As the lagoon gradually filled with sediment, the landscape also changed, providing abundant resources for human exploitation from the middle Holocene to the early historic period. The archaeological record reveals that human settlement responded also to long-term climatic fluctuations and changes in the course of the Los Angeles River. Settlement was most widespread between 4000 and 1500 cal BP, when the wetlands were most productive. The inhabitants of the Ballona chose to abandon most of the area between 800 and 400 cal BP, when climatic conditions deteriorated rather than to intensify exploitation of nearby pelagic resources as some neighbouring populations did. People returned to the Ballona after 400 cal BP, when climatic conditions ameliorated, but with a markedly different settlement structure than before.

KEYWORDS paleoenvironmental reconstruction, human settlement, Ballona wetlands, Southern California