Archaeology

Archaeology The popular image of archaeology is of a pith-helmeted Indiana Jones-like character risking life and limb to obtain precious and rare artifacts. Nothing could be further from the truth. The ultimate goal of archaeological study is to explain past behavior, meaningless collection of isolated artifacts. Collection of artifacts is employed to determine patterns from which inferential links based on ethnology, ethnoarchaeology, experiment, etc. can be used to make statements about behavior. As the question for this assignment states, " based on this pattern of reasoning many archaeologists have recently argued that archaeology can contribute to scientific understanding of long-term ecological change and the structure of modern environments." This is the opinion of our instructor and will be examined throughout the remainder of this discussion. In " Fishing from past to present: continuity and resilience of red abalone fisheries on the Channel Islands, California", Braje et al. develop an 8000-year time-line employing archaeological data from the Holocene and historical data from the last century and a half " with the objective of integrating deep time into modern resource management." (906) In 1997 emergency closure by the California Fish and Game Commission was instituted on the red abalone fishery in response to what was viewed as a catastrophic decline in the red abalone population. However, according to Braje et al., the archaeological record indicates that " anthropologic trophic cascades began some 8000-7500 years ago along the Santa Barbara Coast." (917) In other words, the number of various prey and predator species has oscillated significantly over the last eight millennium along the Santa Barbara Coast. This optimistically indicates that the current decline in the red abalone populations is not necessarily permanent. More importantly, archaeological evidence also may provide a

key to restoration of the red abalone according to Braje et al.. The archaeological record indicates that the area around San Miguel Island (one of four northern Channel Islands off the Santa Barbara Coast) has been the key to the restoration of the population in the past and, therefore, may be the critical habitat in the current situation. (Braje et al., 916) In this instance archaeological evidence provides a deep time perspective on the situation and, possibly, a key to contemporary restoration of the red abalone population. The archaeological technique that allows this deep time analysis is radio-carbon dating. Radio-carbon dating is the type of analysis that allows red abalone shells in middens to be accurately dated and placed in a deep time framework. In “ Fire and vegetation history on Santa Rosa Island, Channel Islands, and long-term environmental change in southern California”, Scott et al. (2010) take a similar deep time perspective on fire and vegetation in the northern Channel islands of California. They use charcoal and pollen stratigraphies “ to determine the Holocene vegetation, climate and fire history of Santa Rosa Island” with an eye to determining the impact of climate change on vegetation and the impact of human habitation and action on fires on the island. (783) This opinion is verified by much evidence in the article. Most importantly, the charcoal stratigraphies indicate that fire is largely a result of human activity not natural events such as lightening strikes or spontaneous combustion. Their research and analysis is not as directly related to the contemporary situation as that of Braje et al. is. However, it still offers important insight relevant to the situation on the island (and throughout southern California) today. Both fire and climate change, particularly the former, have profound impacts on contemporary southern California. Many famous movie stars have had their homes

destroyed and family disrupted. This also happens to many rich people who are not famous. It disrupts their lives of leisure. Research connecting human behavior and fire in the Holocene may very well offer insight into the current situation where most fires are linked to human activity not natural causes such as lightening strikes. (Scott et. al., 2010, 794) Together these two articles make plain the importance of deep time and archaeological research in understanding the contemporary situation and appropriate public policies in the modern era. Works Cited Anderson, R. Scott, Scott Starratt, Renata M. Brunner Jass, and Nicholas Pinter. “ Fire and vegetation history on Santa Rosa Island, Channel Islands, and long-term environmental change in southern California.” Journal of Quaternary Science 25: (2010): 782-797. Print. Braje, Todd J., Jon M. Erlandson, Torben C. Rick, Paul K. Dayton, and Marco B. A. Hatch. “ Fishing from past to present: continuity and resilience of red abalone fisheries on the Channel Islands, California.” Ecological Applications 19: (2009): 906-919. Print.