THE TALE OF TWO SITES: ARCHEOLOGICAL DATA AS A PREDICTOR OF THE EFFECTS OF CALIFORNIA'S FUTURE CLIMATE CHANGE

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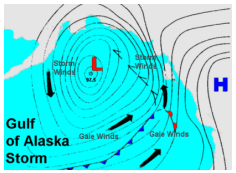
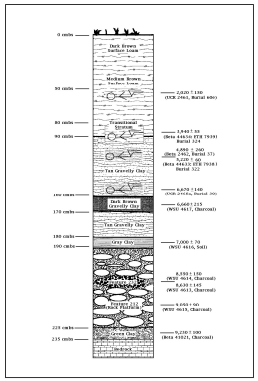
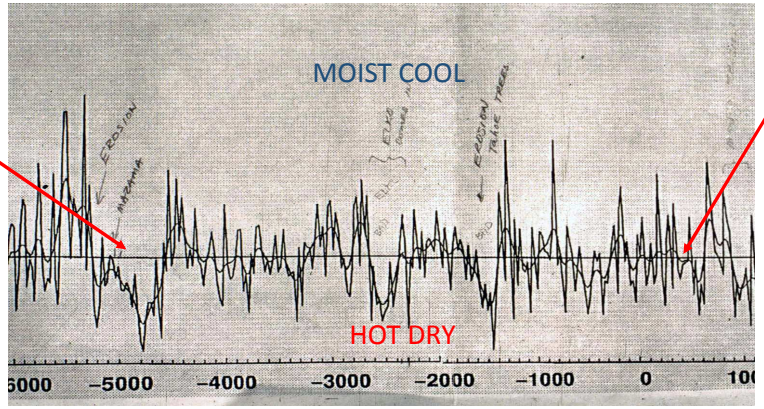
Skyrocket site and the Altithermal (7,000 – 5,000 BP)

At skyrocket during the Altithermal, the weather pattern shifts from winter rains, leading to significant snow packs in the Sierra, to sporadic summer monsoonal ones.




Skyrocket's Stratigraphic Column

The end result are thick deposits of gravelly clay represented at skyrocket that cap the oldest layers at the site.



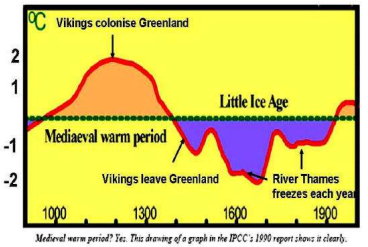
Skyrocket is situated in the Salt Spring Valley, 40 miles east of Stockton, and TMR-13 is located in northern Fresno County, southeast of Millerton Lake.

WHAT LESSONS CAN WE LEARN FROM THE DATA

1. California's climate has changed much over the last 10,000 years
2. The Altitermal and Midlevel Climatic Anomaly provide us a model for California's future climate change.
3. The rainfall record for the last 110 years, from which we calculate average precipitation, is actually wetter than normal.

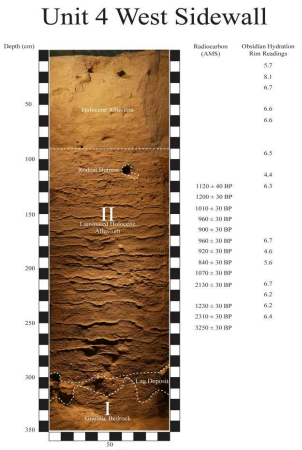
TMR 13 - The Medieval Climatic Anomaly and The Little Ice Age (1200 – 700 BP)

At TMR-13, during a much shorter time period, there's fluctuation between hot and dry conditions during the MCA and intense *el nino* like conditions during the Little Ice Age.



Medieval warm period? Yes. This drawing of a graph in the IPCC's 1990 report shows it clearly.

At TMR -13 the result was a thick deposit that rapidly developed. The effects of this climatic event can be seen in many landscapes across California.



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