Alluvial Facies Architecture and the Role of Climate and Tectonics in Basin-Fan Systems, Death Valley, CA

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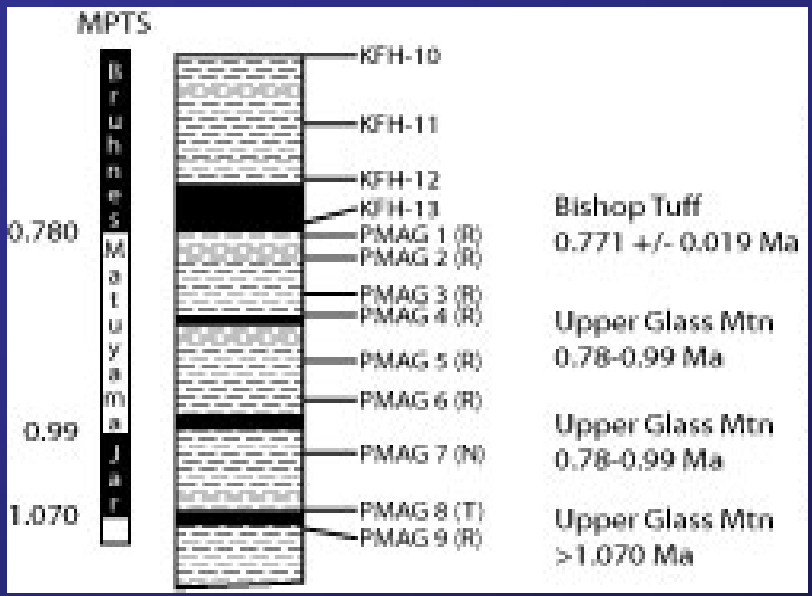
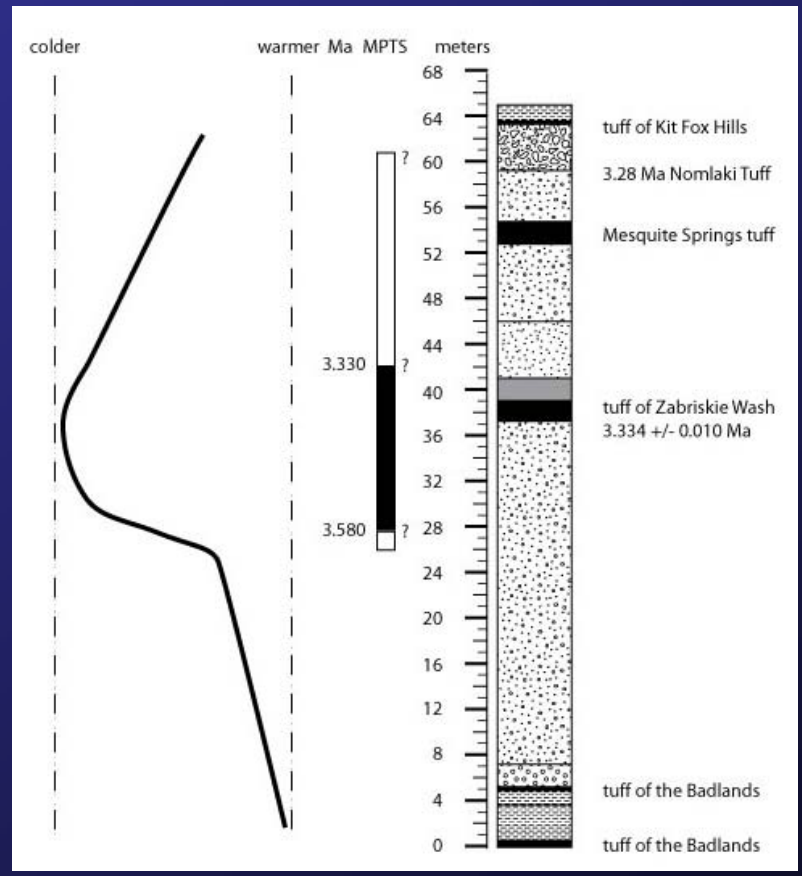
At present, the lithologic and geochronologic data varies with respect to the system response to climate change in this hyperarid region suggesting additional factors (intensity and direction of climate shift) may control fluvial systems.



Early to middle Pleistocene sediments do not show any lithologic changes (bedded fine sands) despite the section encompassing several substantial climatic shifts.



Pliocene lithology changes rapidly from interbedded sands and silts to coarse conglomerates. This change is coincident with the termination of a shift from colder to warmer temperatures ~3.28 Ma. In contrast, the shift from warm to cold ~3.58 Ma did not result in a lithologic change.