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TITLE: Sea levels, shorelines and settlements on Pacific reef islands

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ABSTRACT:

ABSTRACT A reassessment is made of the model of D ickinson (2003, J ournal of C oastal R esearch), which proposed that many P acific island coasts were settled only after the palaeoreef flats or shore platforms that formed during the mid? H olocene sea?level highstand emerged above high?tide level: a point in time known as the crossover date. Focusing on reef (atoll) islands, the analysis suggests that this model has potential when applied to islands east of 178° E , with some, such as F unafuti (T uvalu) and A tafu (T okelau), being settled around the time of their crossover dates and others to the east and north?east a few centuries later. The model fails to explain the settlement of atolls in the north?west P acific (M arshall I slands and eastern K iribati), where islands formed well before crossover dates, something that can be attributed to the larger tidal range and complex interplay between sea level and reef upgrowth. The enduring legacy of D ickinson to P acific archaeology is the demonstration that people were operating in a dynamic environment that presented them with new challenges and opportunities rather than in an environment that was static.

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