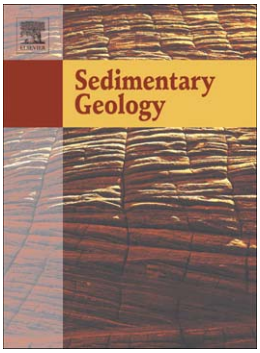

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ABSTRACT

Pliocene to Quaternary age travertines are very well-exposed in quarries near Belen, New Mexico, U.S.A., on the western edge of the Rio Grande Rift system. A series of hillside springs produced travertine tongues tens of meters thick and hundreds of meters long. The accumulations represent deposits from individual springs as well as the amalgamation of deposits. The overall architecture is predominantly composed of sloping fans with a smaller component of terrace mounds. The sloping fan deposits commonly have a dip of less than 10 degrees, however, they range from horizontal to near vertical. Individual strata display significant changes in depositional dip, beds pinch and swell, and some are completely truncated. Centimeter to meter scale terrace mounds exhibit the common stair-step morphology. As a consequence of vertical accretion in the pools, terrace mounds morphed into sloping fans. The travertine is composed of a variety of commonly reported constituents, i.e., centimeter thick laminae of bacterial shrubs and oncoids, foam rock, sheets and rafts, and finely crystalline crusts