

Figure 21. El Peñon, northeastern Mexico. Reconstruction of the topmost rippled sand and silt layers of Unit III, showing the tiered deep and shallow burrow types. The star-shaped, 5-m diameter *ophiomorpha*-type burrow structures follow the interbedded silt layers, up to a depth of 50 cm below the top of the K/T sandstone complex. In the middle of the "star" they are connected to a number of vertical tubes, observed to penetrate from above through at least 20 cm of sandstone above the star-structure and here interpreted to reach all the way to the surface, although that has not yet been observed.

Bochil, Chiapas, Mexico

The K/T sandstone complex crops out along a dirt road to the PEMEX well Soyalo-1, 9.4 km from the turnoff from the road between Bochil and Tuxtla Gutierrez (Montanari et al., 1994). The K/T sandstone complex occurs within a sequence (from bottom to top) of >80 m Campanian–Early Maastrichtian platform limestones with rudists, 30 m of late Maastrichtian pelagic marls containing several turbidites and debris flows, a >50-m-thick debris flow, and >15 m pelagic Paleocene marls. The Maastrichtian debris flows contain, among others, limestone cobbles, orbitoid foraminifers, and rudists. The K/T sandstone complex is underlain by a graded, >50-m-thick polymict mass-flow containing platform limestone blocks as large as 10 m. Those blocks consist of rudist-limestones, orbitoid limestones, and miliolid (lagoonal) limestones of the same composition as the cobbles in the Maastrichtian mass-flows. These components are thus locally derived and unlikely to be coarse ejecta from the Chicxulub impact. The matrix of the mass-flow contains loose orbitoids (Fig. 23A) and rudists.

The mass-flow grades into a 105-cm-thick, laminated and crudely cross-bedded sandstone with lime and bioclasts (orbitoids, rudist fragments, miliolids [*Murciella* sp.]; Fig. 23B). Remains of bubbly spherules have not yet been identified in the sandstone. The sandstones are overlain by a 5-cm-thick marl

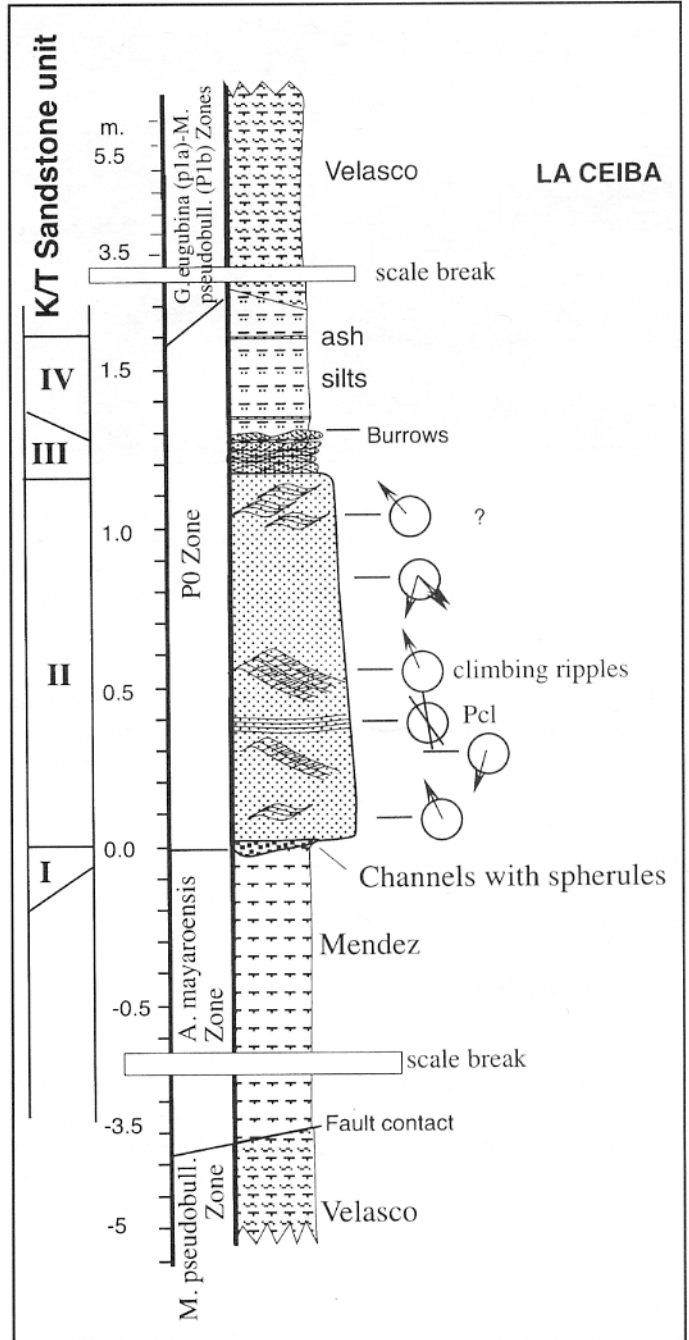


Figure 22. Stratigraphic column of the K/T sandstone complex at La Ceiba, east-central Mexico, with measured current directions. Pcl = primary current lineation. Unit II contains dominantly climbing ripple structures.

enriched in iridium, containing fine sand laminae locally stained by iron oxides (Montanari et al., 1994). Some poorly defined burrows occur in the marl. The marl is overlain by a 10-cm-thick silty limestone, similar to other outcrops in the Gulf Coast, followed by marls containing *G. eugubina*. The 50-m-thick mass-flow underlying the K/T sandstone complex may actually