



FIGURE 16.22. Deposits of the Arabian Gulf tidal flats and sabkha. (A) Mudcracked microbial laminites from the high intertidal flats surrounding the lagoons. White ticks on the ruler, lower right, are 10 mm. (B) A gypsum-crystal mush shown in an epoxy-resin-embedded core. These displacively grown crystals have the characteristic discoidal or lenticular morphology flattened normal to the c-axis. Some of the crystals engulf bits of the surrounding sediment. The pen cap gives the scale. (C) "Chicken-wire" nodular anhydrite, reckoned to be the dehydrated equivalent of a gypsum-crystal mush similar to that in (B). The machete (left) provides the scale. (D) Complexly deformed layers of nodular anhydrite buckled into tepee structures commonly referred to as enterolithic folding. Note the erosion of the buckled sediment. The bottom of the trench comprises high-intertidal microbial laminites. (E) The trench through the entire shallowing-upward tidal-flat cycle of the Arabian Gulf. The base of the trench filled with brine is in subtidal burrowed pellet mud. The shovel shaft and handle rest against high-intertidal microbial laminite. The white patch is "chicken-wire" anhydrite. The top of the trench below the ruler is layers of folded nodular anhydrite in wind-blown quartz sand.