



FIGURE 11.19. Various types of stromatolitic lamination. (A) A thin-section photomicrograph of a modern uncemented stromatolite (Figure 11.17B) composed of mud layers and layers of fine sand and silt-size pellets that adhered to a microbial mat. The scale bar is 1 mm. (B) Mudstone laminae in upper portions of this stromatolite pinch out down the sides of the stromatolite; however, mudstone laminae at the arrow maintain constant thickness (are isopachous), entomb pisoids, and bridge between adjacent stromatolites. Such isopachous laminae may be chemical precipitates. The scale bar is in cm. (C) A thin-section photomicrograph showing laminae composed of fine crystalline mosaics at top and bottom with pellets and mud laminae in the middle. Radiating crystal forms are suggestive of abiogenic carbonate precipitation, whereas mud and pellet layers suggest microbial trapping of grains. Field of view ~2 mm. Photograph courtesy of Brent Waters.