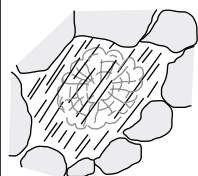
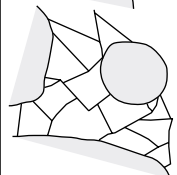


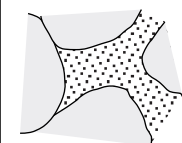
Granular (above) and blocky (below): Comprise equidimensional mosaics and are distinguished on the basis of crystal size, with granular cements generally tens of microns in diameter and blocky cements hundreds of microns. Crystals are generally subhedral, and, since all pore space is filled, crystal terminations are rare. High percentages of enfacial junctions. High-Mg calcite, low Mg calcite, and dolomite. Meteoric phreatic and vadose environments and burial. Similar textures can arise from the neomorphic growth of carbonate mud or earlier cements (see Table 19.2).



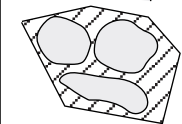
Syntaxial overgrowth cement: Substrate-controlled overgrowth of a single crystal around a host grain (commonly a high-Mg calcite echinoderm fragment). Overgrowth is in crystallographic (hence optical) continuity with the host grain. Overgrowths on echinoderm fragments are commonly zoned. Color differences between the skeletal grain and the overgrowth cement can be conspicuous. Calcite. Overgrowths from near-surface marine, vadose-marine, and meteoric-phreatic environments are inclusion-rich and cloudy, deep burial overgrowths clear. Syn.: Grain-overgrowth cement, syntaxial echinoderm cement, syntaxial rim cement, syntaxial overgrowth rim cement.



Peloidal microcrystalline cement: Peloidal fabric composed of well-sorted peloids generally $<100\ \mu\text{m}$ within a microcrystalline ($<40\ \mu\text{m}$) granular mosaic. Peloids consist of mud-sized crystals with a radiating halo that grades out to the cement. Calcite and aragonite. Lakes and shallow-marine environments, common in reefs where it is probably microbially induced.



Microcrystalline or micrite cement: Micron-sized crystals, in SEM seen to comprise curved, rhombic mosaic. Forms thin coatings around grains, lines intraskeletal pores, fills pores completely or makes up meniscus and dripstone cements. Mg calcite or aragonite. Marine and meteoric vadose and phreatic zones. Microcrystalline cement coatings can resemble micrite envelopes and microcrystalline pore-filling cement resembles detrital mud. Commonly associated with peloidal cements.



Poikilitic cement: Single crystal surrounds a number of grains. Calcite. Marine phreatic, meteoric phreatic, burial.

FIGURE 19.8. Continued.