

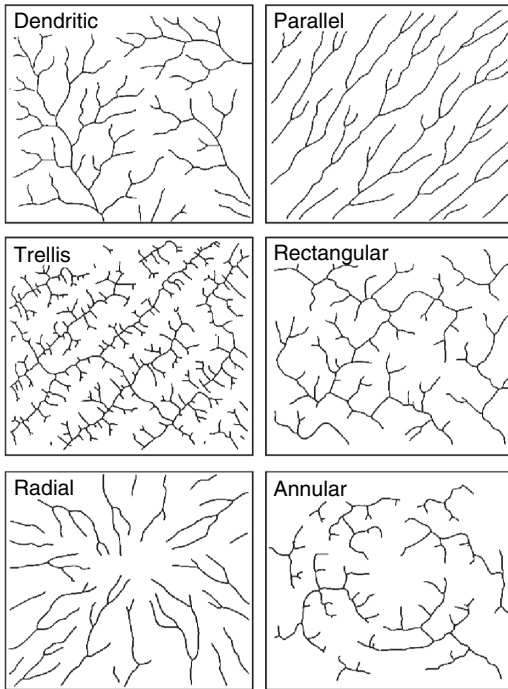
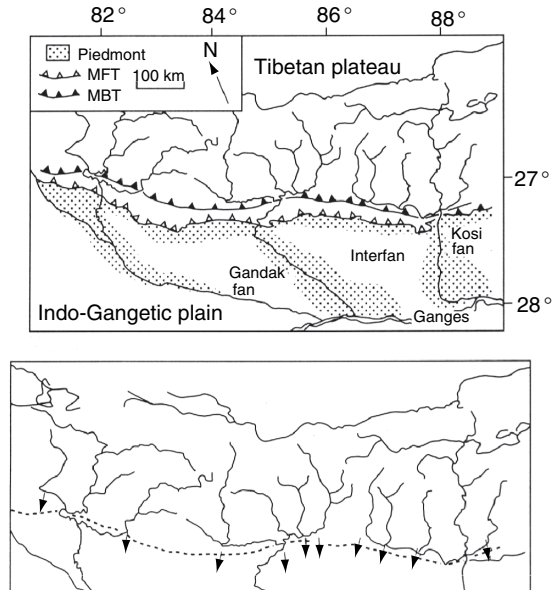
A**B**

FIGURE 13.3. (A) Drainage patterns controlled by topography and geology. After Howard (1967). Dendritic patterns form on slopes underlain by homogeneous material. Trellis and rectangular patterns are controlled by fracture patterns or dipping sedimentary strata of unequal resistance to erosion. Radial dendritic patterns form on topographic domes formed of homogeneous material (e.g., ash cones). Annular patterns form on topographic domes with either concentric fracture patterns or rocks with unequal resistance to erosion. AAPG © 1967 reprinted by permission of the AAPG, whose permission is required for further use. (B) Modification of Himalayan rivers by progressive growth of anticlines associated with thrust fronts. From Leeder (1999), after Gupta (1997). The upper figure shows the present-day drainage system: MFT is the Main Frontal Thrust; MBT is the Main Boundary Thrust. The lower figure shows postulated courses of rivers (arrows) prior to formation of the thrust-related drainage divide.