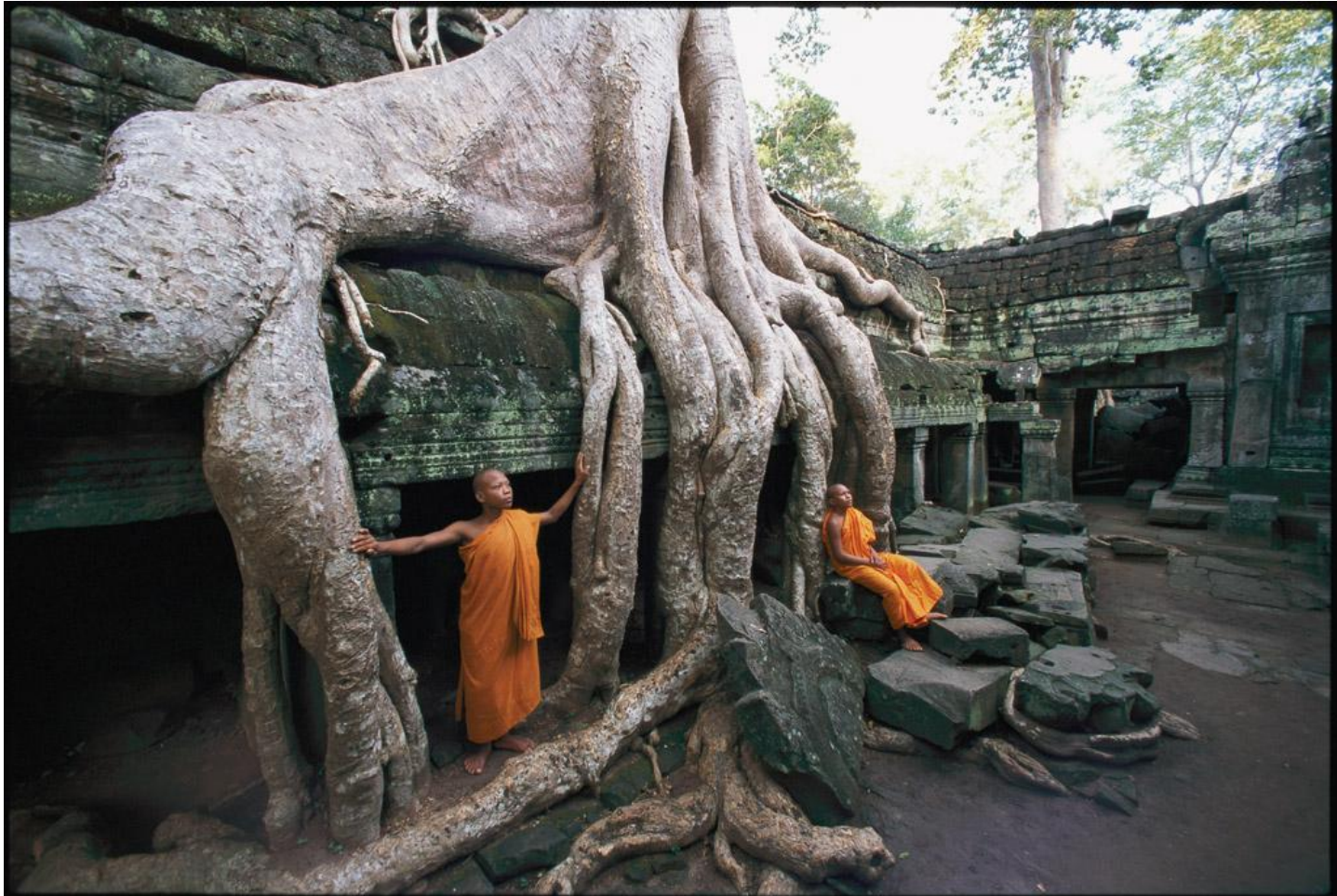


21.1 Plant Cells and Tissues

KEY CONCEPT

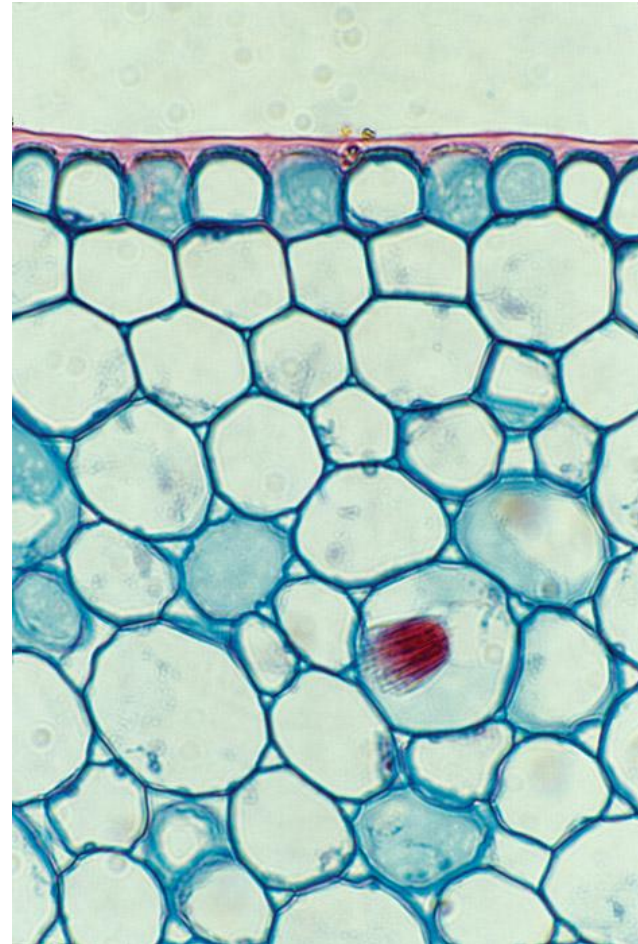
Plants have specialized cells and tissue systems.



21.1 Plant Cells and Tissues

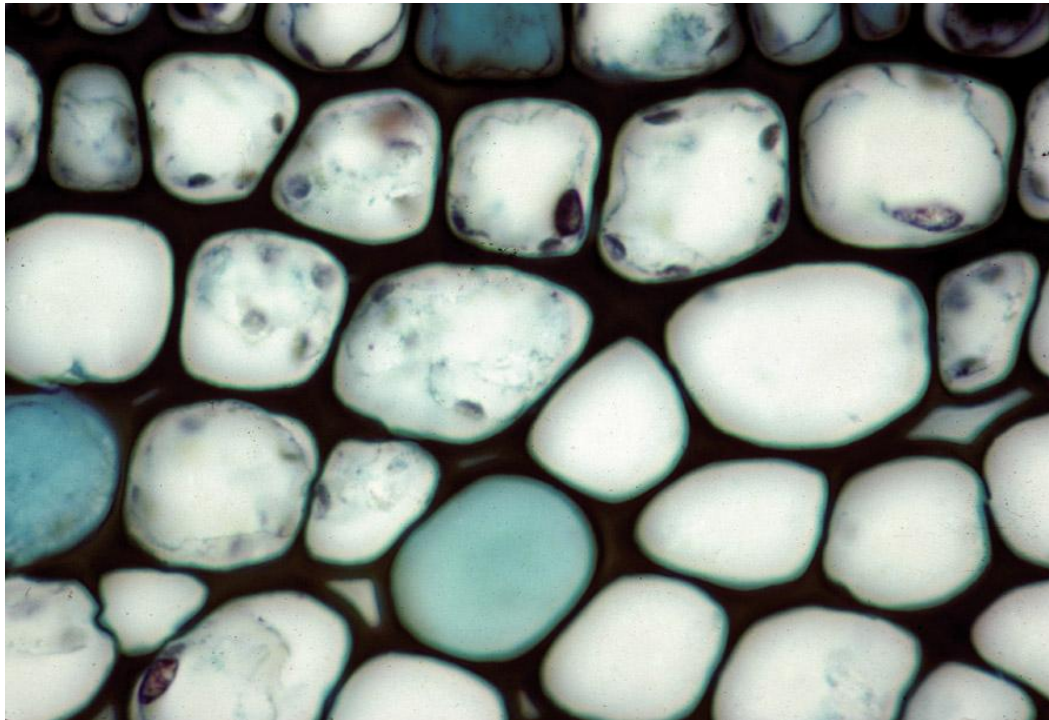
▶ Plant tissues are made of three basic cell types.

- Parenchyma cells are the most common plant cell type.
 - store starch, oils and water
 - help heal wounds to the plant
 - have thin flexible walls



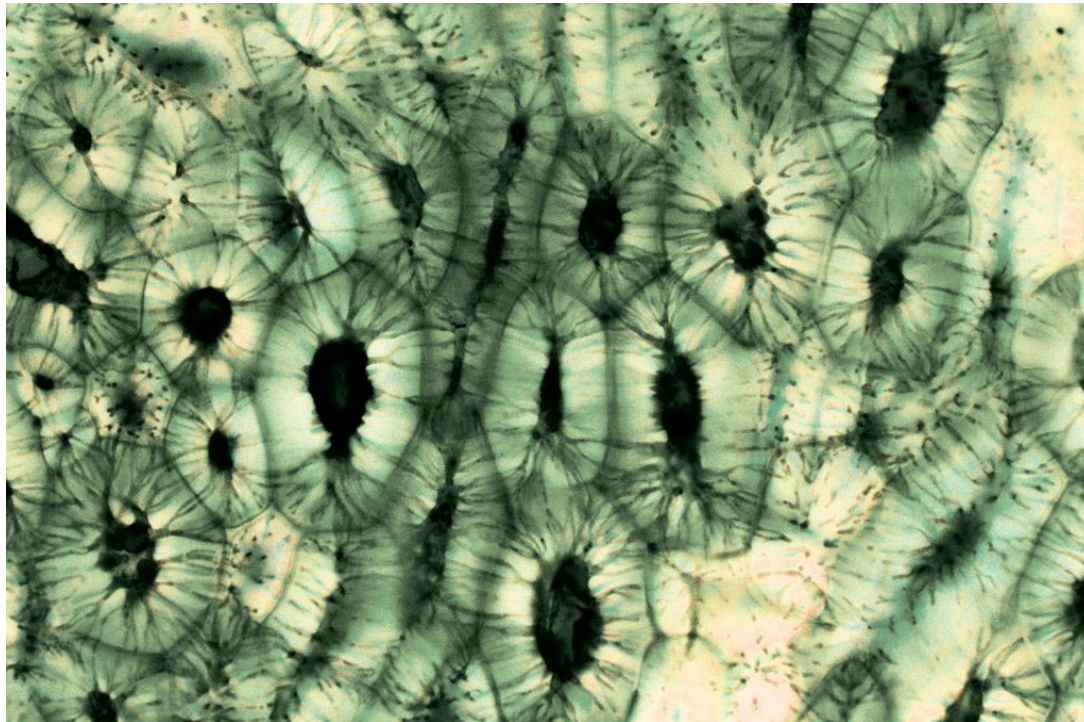
21.1 Plant Cells and Tissues

- Collenchyma cells provide support to a growing plant.
 - they are strong and flexible.
 - celery strings are strands of collenchyma.
 - they have unevenly thick cell walls.



21.1 Plant Cells and Tissues

- Sclerenchyma cells are the strongest plant cell type.
 - second cell wall hardened by lignin
 - die when they reach maturity
 - used by humans to make linen and rope



21.1 Plant Cells and Tissues

▶ Plant organs are made of three tissue systems.

- Dermal tissue covers the outside of a plant.
 - protects the plant
 - secretes cuticle of leaves
 - forms outer bark of trees

21.1 Plant Cells and Tissues

- Ground tissue is found inside a plant.
 - provides support
 - stores materials in roots and stems
 - most commonly made of parenchyma

21.1 Plant Cells and Tissues

- Vascular tissue transports water, minerals and organic compounds.
 - two networks of hollow tubes
 - xylem transports water and minerals
 - phloem transports photosynthetic products

