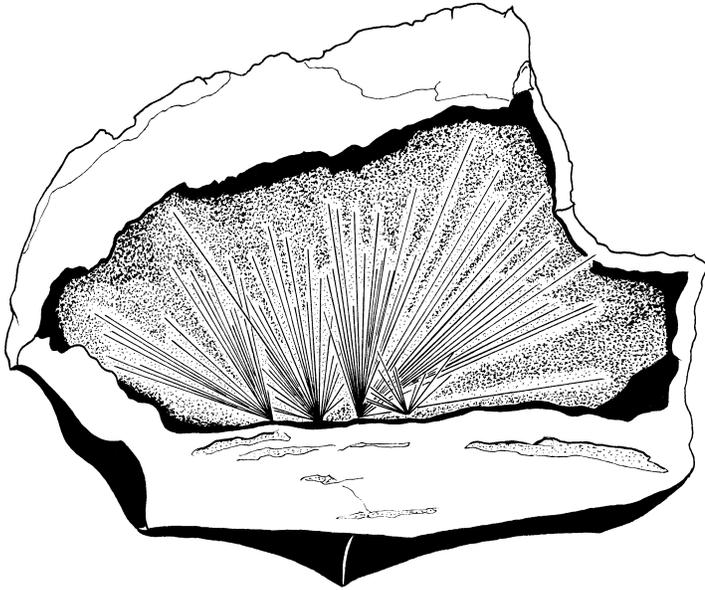


Acicular

“Needle-Like”



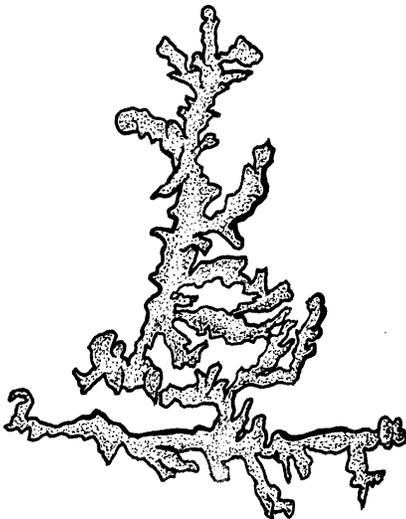
The word *acicular* is from a Latin word *acicula* that literally means *a little needle*.

Acicular crystals are minerals that crystallize as long, thin, hair-like needles. The list of minerals that form acicular crystals include aurichalcite, artinite and millerite. You can see the acicular crystals in this specimen of millerite from the Sterling Mine, Antwerp, New York. The needles are brass-yellow and are extremely fragile. Even a light touch can

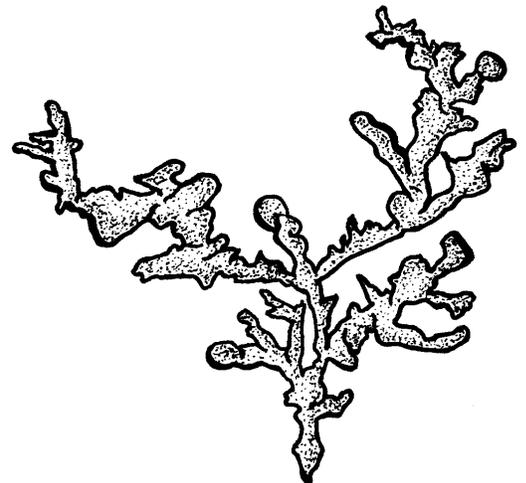
break them off. In this specimen from a very famous mineral locality, the millerite crystal sprays grow in holes (mineralogists call these holes *vugs*) in massive hematite (iron ore).

Arborescent

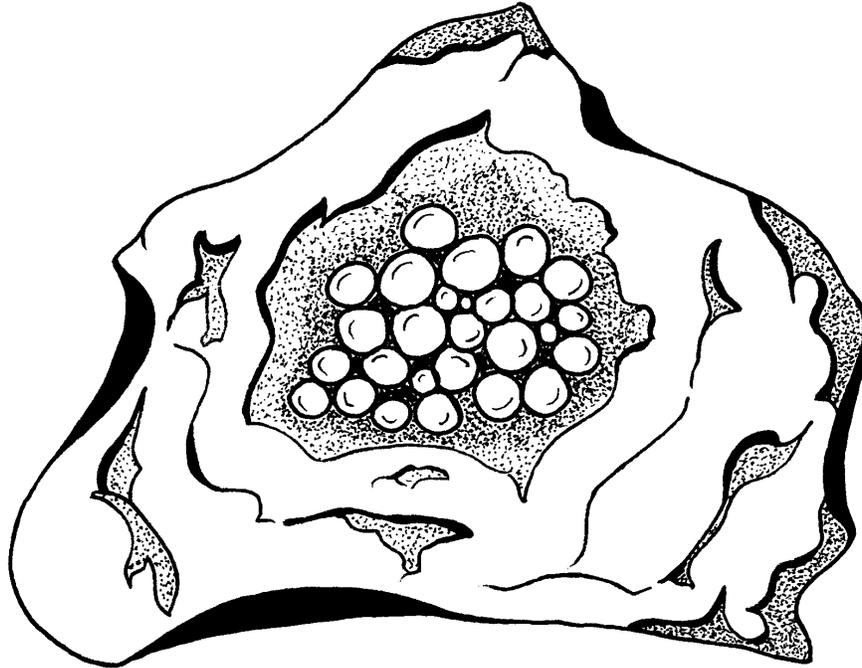
“Like a Tree”



The Latin word for *tree* is *arbore*. Some minerals, like these copper specimens from Itauz, Djezkazgan, Central Kazakhstan, grow in forms that resemble tree branches and so are described as *arborescent*.



Bird's Nest



Mineralogists often use fancy words that come from languages like Latin or Greek to describe the shape of a mineral. Words like *acicular* and *reniform* and *botryoidal* describe special mineral shapes.

Sometimes mineralogists describe a mineral form simply based on what it looks like. Here are some balls of calcite that formed and hardened in a depression in limestone. Limestone and calcite are made of the same material - they are both calcium carbonate (CaCO_3).

The very serious mineralogists call this formation *pisolitic*. The word *pisolitic* comes from the Latin word *pisos* which means *pea* because the specimen looks like a bowl of peas.

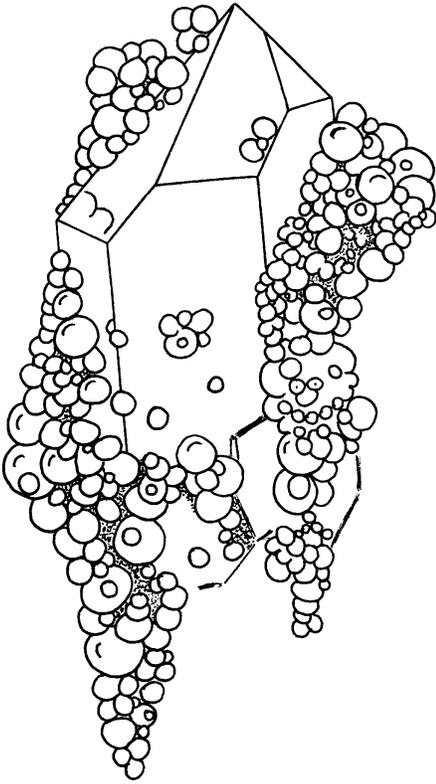
Other mineralogists looked at this specimen and said, "Hey, that looks like a bird's nest filled with eggs." So, specimens like this one are commonly called

"Bird's Nest Calcite."

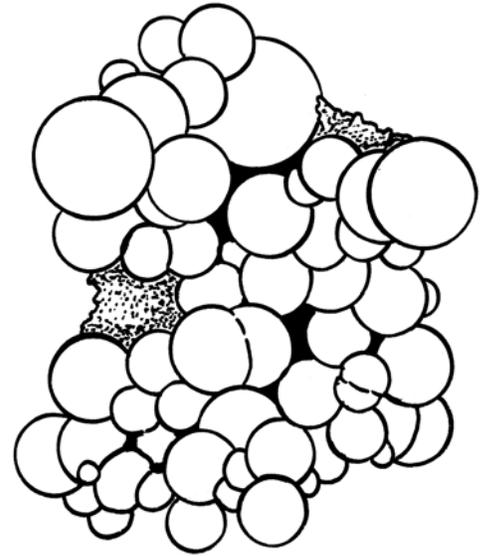
This specimen was found in Germany early in the 1900's. Bisbee, Arizona was well known for these specimens, too.

Botryoidal

“Grape-Like”



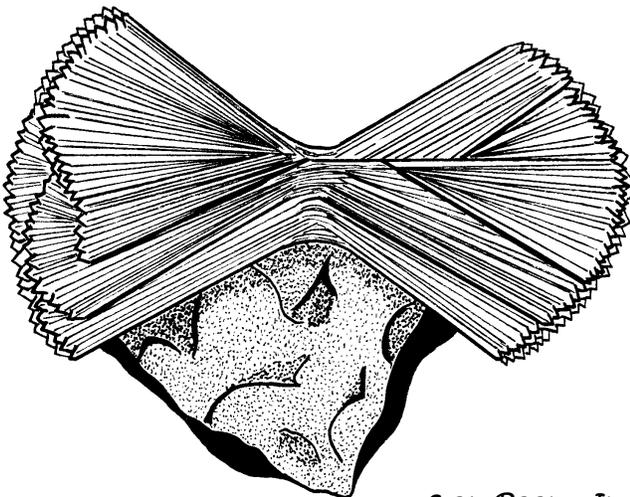
Under the right conditions, some minerals form clusters of round balls that look like bunches of grapes. Mineralogists call this form *botryoidal*. *Botryoidal* comes from the Greek word *botrys* which means *bunch of grapes*.



Left: Hematite on quartz from Graves Mountain, Georgia.

Right: Malachite from Morenci, Arizona.

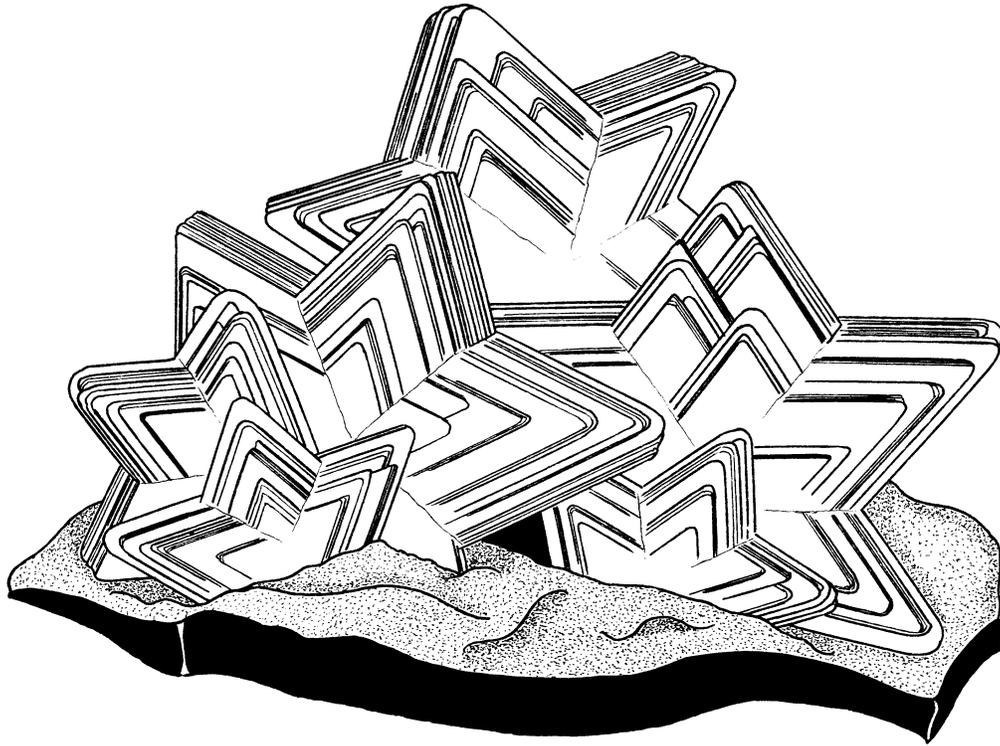
Bow-Tie Crystals



A single stilbite crystal looks like a thin blade. But when thousands of stilbite crystals grow together, they can form groupings of crystals, like this specimen from India, that look like an old-fashioned bow tie. If you look carefully you can see how a number of crystal groups have grown over each other to create the bow-tie shape.

from Poona, India.

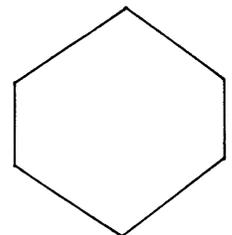
Star Mica



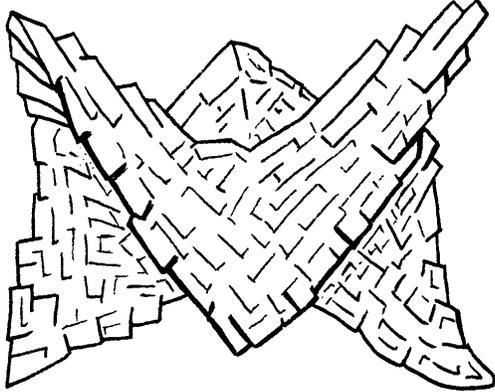
Muscovite crystallizes in the monoclinic crystal system. However, it typically forms six-sided crystals. When you look at them, you would think that they actually belong to the hexagonal crystal system (but they don't!) When mica crystals grow together, they can form crystal groups that look like stars. You would not be surprised to learn that collectors call these specimens "Star Mica." The specimen above is similar to the star mica found in the State of Minas Gerais, Brazil. In this specimen you can see not only the star shape, but also the many layers of mica that formed one upon another. Remember that mica splits into very thin sheets, a type of cleavage that mineralogists call *micaceous cleavage*.

Do you know the special name for two crystals that grow together? Star mica is a twinned crystal (oops, we gave away the answer!) It is actually *five* crystals arranged on a circle, a combination that results in a star. (Now turn the page and read about *twinned crystals*.)

Here is a perfect, six-sided mica crystal. Because it is not in the hexagonal crystal system, it is referred to as *pseudohexagonal* which means *false-hexagonal*.



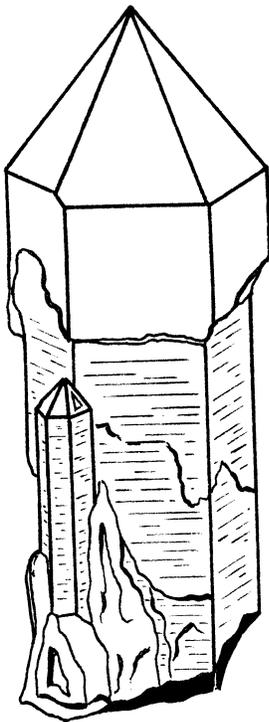
Saddle-Shaped Crystals



Under the right conditions, groups of dolomite crystals grow together and form a curving shape that looks like a horse's saddle. Other minerals that can form saddle-shaped crystals are Calcite, ankerite, siderite and rhodochrosite. All of these minerals have similar chemical compositions and crystallize in the same crystal system.

Excellent saddle-shaped specimens have recently been discovered in Shangbao, Leiyang, Hunan Province, China.

Scepter Crystals



A *scepter* is a long stick that is held by a King as a sign of the King's power and authority. The end of the King's scepter is topped with a large ornament that is covered with beautiful jewels.

A *scepter* crystal is one in which there is a long, lower portion that is topped with a larger, wider crystal termination. Mineralogists call the lower portion of the scepter crystal the *prism* of the crystal.

To the left is a scepter crystal from Namibia (Africa) with a white, milky quartz prism and a purple, amethyst

termination. To the right is a white scepter quartz crystal from Brazil.

