

# *FULGURITES*

by J. C. ZEITNER

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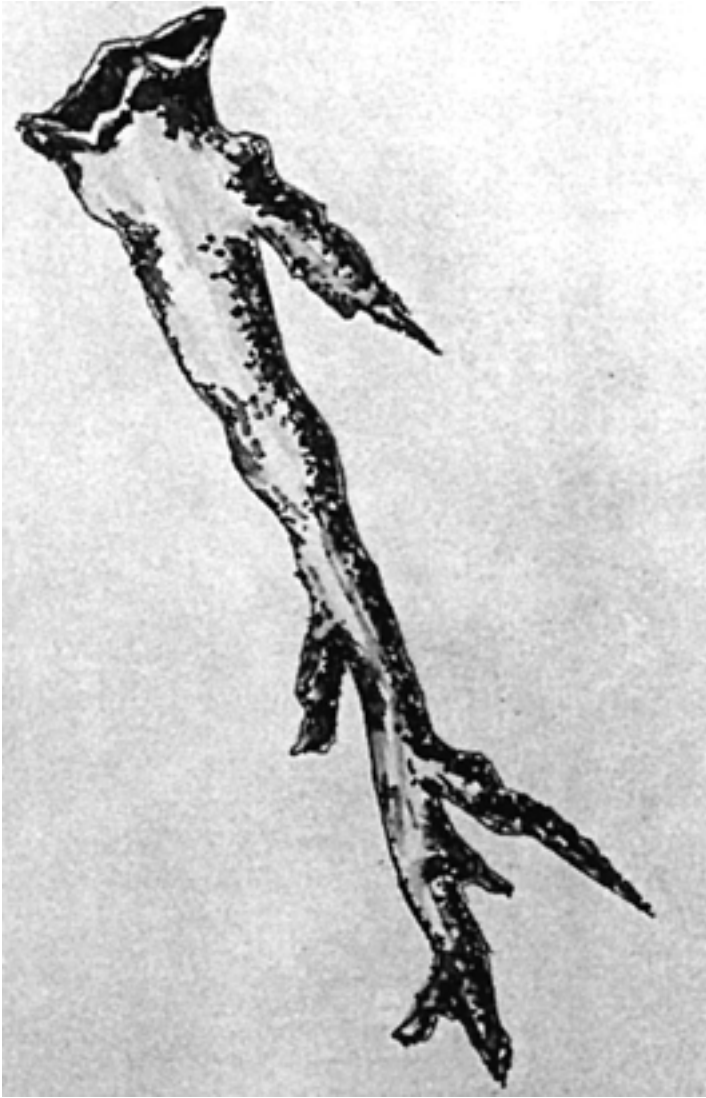
Sometimes referred to as petrified lightning, fulgurites are vitreous, irregularly shaped tubes formed by fusion when lightning strikes sand. Stemming from the Latin word fulgur, meaning lightning, fulgurites are generally found in quartz sand. They may be elongated and knobby hollow cones, or they may be elaborately branched networks. The tubes are usually small in diameter, and are lined with thin and shining, lightning-formed glass. The crusty exterior is dull and grainy as it is coated with the sand which became hot enough to be fused to the glassy core.

Although most of those found are only a few inches in length, some have been found which are thirty feet or more in length. Small pebbles in the sand frequently cling to the fulgurites. Some fulgurites are no larger in diameter than a soda straw, and others have the diameter of a good sized carrot.

Look for fulgurites in sand dunes, on lake shores, sea shores, sandy hills where lightning often strikes, sandy cliffs by rivers, on islands, and in sandy fields. Fulgurites have been reported in the following states, but the list is probably only a beginning: Florida, Georgia, North Carolina, South Carolina, Texas, Illinois, Wisconsin, Indiana, Michigan, Ohio, Maine, Massachusetts, New Jersey, Nebraska, South Dakota, Colorado, Oregon, Arizona, and California.

Fulgurites are fragile and should be dug out with extreme care and patience. When one is found there may be others near it, or it may be the only one present. The objective of the trip might be gemstone pebbles, or microfossils, or small crystals, or colored sand for sand bottles, but the possibility of fulgurites should be in the consciousness of the collector. The technical name for naturally fused sand is lechatelierite. The fulgurite will be mainly silica. It will have the same exterior color as the surrounding sands, but perhaps a little darker in appearance because of the dark fused glass interior. Sand colors vary from beige to buff to gray, charcoal, or drab muted tints of pink, yellow or green. These other colors are due to the presence of other minerals than quartz in the sand. Some of these minerals may be feldspar, hornblende, biotite, and clay and iron minerals.

Fulgurites are sometimes seen at shows, although they are rather fragile for packing and transporting. Some museums and private collectors in areas where they have been recognized have notable specimens. More information on this subject should be exchanged. So here is a chance for every field collector to learn something new and make a significant find and contribution to science.



A fulgurite is a glass-lined tube of fused sand formed by lightning. Sometimes called "petrified lightning," any sandy area where lightning strikes could have fulgurites.

*THE EVENT*

*PETRIFIED LIGHTNING FROM CENTRAL FLORIDA*

A PROJECT BY ALLAN MCCOLLUM

CONTEMPORARY ART MUSEUM  
UNIVERSITY OF SOUTH FLORIDA  
MUSEUM OF SCIENCE AND INDUSTRY  
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