

# MINERAL OF THE MONTH

## OPAL

*D. W. Webb Varnum*

There are three types of Opal—precious opal (e.g. black, boulder), common opal (opaque, splintery), and fire opal (red, orange, yellow), all composed of  $\text{SiO}_2 \cdot n\text{H}_2\text{O}$ . It has a white streak and a conchoidal or some-times a splintery fracture, a Mohs hardness of 5.5-6.5 and a specific gravity of 1.9-2.3. It is brittle and trans-pent to translucent with a vitreous, waxy, greasy, or dull luster. Precious Opal is best known for its variety of color which can flash red, yellow, orange, green, blue in a white, black, or brown back-ground. It is most often found in altering volcanic tuffs, basalt and deep water sediments formed at low temperature and pressure. The gem variety has considerable value as a semi-precious gem stone. Opal is found in several places in Australia, Brazil, Peru, Mexico, and the US. Fire opal has been found in Oregon and Louisiana, in addition to Mexico, and black opal occurs in Nevada. There are several mines in northern Nevada where collectors can dig for a fee, and opal has also been found in



Tonpah Opal—image,  
Webb Varnum

and opal has also been found in

the Tonopah region.

Opal is the birthstone for October, and if we are lucky enough to have an opal, there are steps to take to safeguard it. If our opal is a solid stone, it will not be damaged by water, but it can be fragile, so avoid activities where it might be knocked. Opal for jewelry is frequently used as a doublet or triplet, and those stones can be damaged by prolonged exposure to water. Clean an opal with a soft cloth and mild detergent. If your opal becomes dull, take it to a professional for polishing. To store your opal, protect it from contact with other jewelry by keeping it in a cloth bag. If it is to be stored for a length of time, “place our opal in cotton wool with a few drops of water, then into a sealed plastic bag just



Nevada Black  
Opal—image:  
Webb Varnum

to be safe. The water is not intended to soak into the stone (as opal is impervious) but will prevent water coming out of the stone if it is exposed to very low humidity environments.”

Sources, Mindat, Gemdat, Opals Down Under, and personal