

Topaz

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Topaz

Topaz has always been a well-known and popular gem stone, and it is associated with a fine yellow, or sherry, color. It is frequently worn in rings, brooches, and pendants, and in antique jewelry large, transparent, flawless stones are especially common. The name topaz has caused a good deal of confusion in the past, since not so long ago it used to be common practice to apply it to almost all yellow gems irrespective of their true identity. Thus, the beautiful yellow form of corundum that should properly be called a yellow sapphire is on occasion misleadingly called topaz. Quartz, too, can be found in a clear yellow form, known as citrine, and this is frequently called topaz and sold as such. In this instance the unsuspecting purchaser will make a bad bargain, since citrine is a much inferior, and far less valuable, stone than the true topaz. It is quite wrong to give the name topaz to any other gem stone but the true one, and, fortunately, this conception is beginning to gain general acceptance among jewelers all over the world.

Topaz occurs in nature in the form of well-shaped crystals belonging to the orthorhombic crystal system (see Fig. 12). It is a complicated fluosili-cate of aluminum, and its chemical formula is written as $Al_2(FOH)_2SiO_4$. It is one of the few gem minerals that contain the element fluorine (F).

Topaz has a hardness index of 8 and is therefore harder than the mineral quartz. It is admirably suited as a gem stone that will stand up to wear over long periods of time. The state of Minas Gerais in Brazil produces the finest of the yellow and sherry-colored stones, but fine blue and white topazes are also found in the gem gravels of Ceylon. Other sources are the Ural Mountains in Russia, where fine blue stones are found, and the United States, where occasional finds have been made, notably in the state of Colorado. Topaz is also one of the few gems that have, on occasion, been found in the form of pale blue water-worn crystals in the Cairngorm district of Scotland.

Like the emerald, ruby, and sapphire, topaz displays its beauty by virtue of its attractive color and not by its fire, as the diamond does. Its dispersion is small, and it is unable to split white light into the spectrum colors to any appreciable extent.

On occasion, pink topaz is displayed in jewelry, but such stones most likely had their color artificially induced by the careful heating of yellow or sherry-colored stones under controlled conditions, for pink topaz rarely occurs in nature. This color change can be traced to a rearrangement of the atoms within the crystal. It is interesting to note that not every yellow topaz will change to pink on heating, but only sherry-hued stones of Brazilian origin.