### GRADING FIRE AGATE

To this day there is no established scientific method to grade and evaluate Fire Agate. Prices vary from dealer to dealer as judgement of quality is very personal.

Quality is determined by:

- brightness of colour
- completeness of the stone (full fire)
- size and appeal of shape
- style of cutting and expertise of the cutter
- rarity of colours

## **HOW TO PURCHASE FIRE AGATE**

Fire Agate high grade is difficult to buy in vast quantities as the supply of rough is limited. Buying fire agate rough involves ordering a package of stones which have been graded based on an estimate of their value. Rough fire agate often reveals very little of the stone's potential colour, making it difficult to evaluate.



Another slightly more expensive option that involves less risk for the buyer is to purchase partially cut stones called "windows" which have some exposed layers and color.

### **CUTTING FIRE AGATE**

Fire Agate is a very challenging stone to cut properly. It requires the cutter to follow each nodule, contour, and layer, while embracing the natural forms of the stone.

Cutting and polishing the stone entails a gradual change from coarser to finer wheels and polishing mediums. We have been using a variety of dental sanding disks, drills and wheels that are easier to control for cutting botryoidal (spherical cluster form) gemstones than conventional wheels.

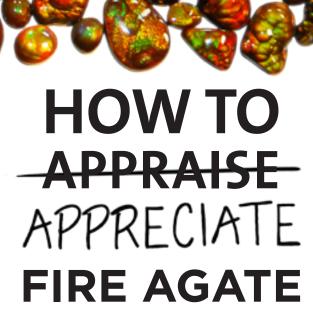


# THE VALUE OF FIRE AGATE

There is a question of how to appraise a cut stone:

- as is
- how it could be (after recutting)
- how it was (if the colour layers have been cut through or burnt out)

Some stones have a hidden value as they may have been cut with primitive tools by today's standards, and can be recut to make dramatic improvements to their appearance and value.





By Ryszard Krukowski

FIRE AGATE ART STUDIO



## **AN INTRODUCTION TO FIRE AGATE**

Fire Agate is a new and rare gemstone first documented in the 40's and 50's. While difficult to cut and challenging for jewellers to use, it offers the reward of unique, one of a kind designs. Cutters experience a sense of discovery as they carve away chalcedony revealing new layers of colour and intensities.

## **FIRE AGATE JEWELLERY**

Fire Agate is a hard gemstone (6.5 - 7) making it very versatile for a variety of settings, mosaics, and drilling... we've even managed to drill out rings made entirely of Fire Agate, and set gold in grooves cut into a stone (see the scorpion.)

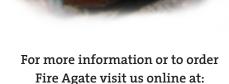
The durability of agate makes it an excellent ringstone, but the free form nature of Fire Agate often requires very intricate bezel work. Calibrated stones can be cut, but at the cost of losing color.





Fire Agate is a natural gemstone found in localized areas of the United States (Arizona, California) and Mexico. It requires specific conditions to develop but it most commonly forms as nodules in the pockets or void spaces of volcanic rhyolite. It is presumed that due to hydrothermal activity a mixture of molten silica and impurities penetrate and infiltrate the rhyolite in areas of sufficient space. With correct temperature and pressure conditions the unique layering of silica and impurities (goethite and limonite) form layers and botryoidal textures (very rarely with good color.) Fire Agate usually forms with a milky or clear chalcedony cap with the actual Fire Agate safely preserved underneath due to the settling of the molten liquid.

Most Fire Agates have a brown hue from the high iron concentration. Stronger peacock intensities are rarer and more expensive. Unlike many gem stones, Fire Agate cannot be mimicked or synthesized in lab settings, so each stone is truly one of a kind and irreplaceable.



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