



# MY DIAMOND DROP

## GEM GUIDE

### AGATE



Agate is a common semiprecious silica mineral, a variety of chalcedony that occurs in bands of varying colour and transparency. Agate is essentially quartz, and its physical properties are in general those of that mineral. Agate is found throughout the world and most agates occur in cavities in eruptive rocks or ancient lavas. A popular choice for jewellery due to its varied appearance and relative hardness, agate ranges from transparent to opaque. Varieties include Blue Agate, Green Agate and Indian Agate.

### ALEXANDRITE



Alexandrite is one of the rarest and most expensive gemstones in the world. Because of its great power of absorption of certain colours, alexandrite looks green in daylight and reddish purple in artificial light. This gemstone was first discovered in 1831 in the Ural mountains. It is said that it was found the same day in which the Russian Tsar Alexander II was born and this is the reason why this gem was named in his honor.

### AMBER



Amber is a fossil tree resin. Amber has been found throughout the world, but the largest and most significant deposits occur along the shores of the Baltic Sea. It occurs as irregular shapes in all shades of yellow with nuances of orange, brown, and, rarely, red. Milky-white opaque varieties are called bone amber. Many hundreds of species of fossil insects and plants are found as inclusions. Deeply coloured to transparent amber is prized as a gem.

### AMETHYST



Amethyst is a transparent, coarse-grained variety of the silica mineral quartz that is valued as a semiprecious gem for its violet colour. The name, derived from the Greek “amethystos”, not intoxicated, expresses the ancient folk belief that the stone protects its owner against drunkenness. In ancient writings the Latin name “amethystus” was used for amethyst, purple corundum, and purple garnet.

## AQUAMARINE



Aquamarine is a pale greenish blue or bluish green variety of beryl that is valued as a gemstone. As the water of the sea it can have different tones (from light blue to blue-green) and from this characteristic derives its name. The best Aquamarines are considered those that once immersed in the sea are indistinguishable from the water. The most valuable are those of deep blue color but they can assume different tones depending on the direction from which they are observed.

## CITRINE



Citrine is transparent, coarse-grained variety of the silica mineral quartz. Citrine is a semiprecious gem that is valued for its yellow to brownish colour and its resemblance to the rarer topaz. It may be distinguished from topaz by its inferior hardness and from decolorized amethyst by its lack of reddish cast. Principal localities of occurrence are those of amethyst are: Brazil, Uruguay, the Urals, Scotland, and North Carolina.

## CORAL



Coral is not just a stone but the product of the three kingdoms: mineral, vegetal and animal. Coral is also called "tree of the sea" and it is the skeleton of the small calcareous marine polyps that live in colonies in the warm waters. The colors of the coral ranging from white to pale pink to dark red which is the most precious variety. Coral is fragile, tends to become opaque and may be damaged by soaps and cosmetics.

## DIAMOND



Diamond is the hardest naturally occurring substance known and the most popular gemstone. The hardness, brilliance, and sparkle of diamonds make them unsurpassed as gems. In the symbolism of gemstones, it represents steadfast love. Diamonds vary from colourless to black, and they may be transparent, translucent or opaque. Most diamonds are transparent and colourless or nearly so. Colourless or pale blue stones are most valued but these are rare; most gem diamonds are tinged with yellow.

## EMERALD



Emerald is a grass-green variety of beryl that is highly valued as a gemstone. The name comes indirectly from the Greek "smaragdos", a name that seems to have been given to a number of stones having little in common except a green colour. The physical properties of emerald are essentially the same as those of beryl. Its refractive and dispersive powers are not high, so that cut stones display little brilliancy or fire.

## GARNET



Garnet consists of any member of a group of common silicate minerals that have similar crystal structures and chemical compositions. Depending on its composition we can distinguish several gemstones of different colours: the Almandine (usually dark red), the Andradite (mainly green, black or yellow), the Grossularia (orange, brown, pink and green), the Pyrope (deep red sought also in a transparent variety), the Spessartine (yellow-orange) and the rare Uwarowite (emerald green color).

## HEMATITE



Hematite is a heavy and relatively hard oxide mineral. The steel-gray crystals and coarse-grained varieties have a brilliant metallic lustre and are known as specular iron ore; thin scaly types are called micaceous hematite. Much hematite occurs in a soft, fine-grained, earthy form called red ochre or ruddle. The most important deposits of hematite are sedimentary in origin. The world's largest production comes from a sedimentary deposit in the Lake Superior district in North America.

## IOLITE



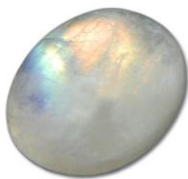
Iolite (also called Cordierite), is a blue silicate mineral that occurs as crystals or grains in igneous rocks. A blue-violet gemstone whose name comes from the Greek "ios", meaning violet, and "lithos", meaning stone. It can appear colourless when viewed across the crystal while the best blue is seen down the length of the crystal. It typically occurs in thermally altered clay-rich sediments surrounding igneous intrusions and in schists and paragneisses.

## JADE



Jade, either of two tough, compact, typically green gemstones that take a high polish. Both minerals have been carved into jewelry, ornaments, small sculptures, and utilitarian objects from earliest recorded times. The more highly prized of the two jadestones is jadeite; the other is nephrite. The fine lustre of polished nephrite is oily rather than vitreous, while that of jadeite is the reverse.

## MOON STONE



Moon Stone is a gem-quality feldspar mineral that shows a silvery or bluish iridescence. Nearly all commercial moonstones come from Dumbara District, Sri Lanka, where they occur in gem gravels and in acid granulites and pegmatites. The term moonstone also has been applied to the plagioclase feldspars peristerite and labradorite, which also exhibit iridescence.

## MORGANITE



Morganite is a gem-quality beryl coloured pink or rose-lilac by the presence of cesium. It is often found with peach, orange, or pinkish yellow beryl. Morganite crystals often show colour banding: blue near the base, through nearly colourless in the centre, to peach or pink at the terminations. This colour change is probably caused by differences in the composition. Morganite is commonly found as squat, in California and New England.

## MOTHER OF PEARL



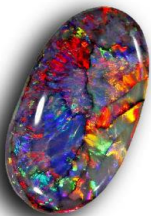
The Mother-of-Pearl is the inner layer, hard and iridescent one, of some marine shells. Not all the shells have the nacre. It is found mussels, limpets and also in freshwater shells in which can be both in the pure state or mixed with calcite that cause irregular iridescences.

## ONYX



Onyx is a striped, semiprecious variety of the silica mineral agate with white and black alternating bands. Onyx is used in carved cameos and intaglios because its layers can be cut to show a colour contrast between the design and the background. Other varieties include carnelian onyx, with white and red bands, and sardonyx, with white and brown bands. The chief localities of onyx are India and South America.

## OPAL



Opal is a silica mineral extensively used as a gemstone, a submicrocrystalline variety of cristobalite. In ancient times opal was included among the noble gems and was ranked second only to emerald by the Romans. Opal is fundamentally colourless but such material is precious and rarely found; disseminated impurities generally impart to opal various dull body colours that range from the yellows and reds to black.

## PEARL



Pearl is the concretion formed by a mollusk consisting of the same material as the mollusk's shell. It is a highly valued gemstone. Pearls are characterized by their translucence and lustre and by a delicate play of surface colour called orient. The more perfect its shape (spherical or droplike) and the deeper its lustre, the greater its value. Only those pearls produced by mollusks whose shells are lined with mother-of-pearl are really fine pearls. Jewelers commonly refer to saltwater pearls as Oriental and to those produced by freshwater mollusks as freshwater ones.

## PERIDOT



Peridot is also called precious olivine, gem-quality, transparent green olivine in the forsterite–fayalite series. Gem-quality olivine has been valued for centuries; the deposit on Saint Johns Island, Egypt, that is mentioned by Pliny in his *Natural History* (ad 70) still produces fine gems. Very large crystals are found in Myanmar; peridots from the United States are seldom larger than two carats. Yellow-green peridot has been called chrysolite (Greek: “golden stone”). Peridot is generally faceted with a step cut.

## PYRITE



Pyrite is a naturally occurring iron disulfide mineral. The name comes from the Greek word “pyr”, fire, because pyrite emits sparks when struck by steel. Pyrite is called fool’s gold because its colour may deceive the novice into thinking he has discovered a gold nugget.

## QUARTZ



Quartz is a widely distributed mineral of many varieties that consists primarily of silica, or silicon dioxide. Quartz has attracted attention from the earliest times; water-clear crystals were known to the ancient Greeks as “krystallos” or more commonly “rock crystal”. The name quartz is an old German word of uncertain origin first used by Georgius Agricola in 1530.

## RUBY



Ruby is a gemstone composed of transparent red corundum, a mineral form of aluminum oxide. Its colour varies from deep cochineal to pale rose red, in some cases with a tinge of purple; the most valued is a pigeon-blood red. On exposure to high temperature, ruby becomes green but regains its original colour upon cooling. Ruby is a mineral of very limited distribution. Its best known localities are in north-central Myanmar (Burma).

## SAPPHIRE



Sapphire is a transparent to translucent, natural or synthetic variety of corundum that has been highly prized as a gemstone since about 800 bc. Its colour is due mainly to the presence of small amounts of iron and titanium and normally ranges from a very pale blue to deep indigo, with the most valued a medium-deep cornflower blue. Colourless, gray, yellow, pale pink, red, orange, green, violet, and brown varieties of gem corundum also are known as sapphire.

## TOPAZ



Topaz is a silicate mineral that is valued as a gemstone. Fine topaz occurs at several localities in the Urals and in Siberia, in Japan and Brazil. Pure topaz may be colourless and, when brilliant-cut, has been mistaken for diamond. It may also be coloured various shades of yellow, blue, or brown; the colour in many cases is unstable, and the brown topazes of Siberia are particularly liable to be bleached by sunlight.

## TOURMALINE



Tourmaline is a borosilicate mineral of complex and variable composition. Some crystals are pink at one end and green at the other; concentric colour zoning may also occur. The coloured varieties, when transparent and free from flaws, are cut as gems. Coloured crystals of tourmaline have different colours when viewed in the direction of different axes; the ordinary ray is almost completely absorbed.

## TURQUOISE



Turquoise is a mineral extensively used as a gemstone. The colour of turquoise ranges from blue through various shades of green to greenish and yellowish gray. A delicate sky blue, which provides an attractive contrast with precious metals, is most valued for gem purposes. Delicate veining, caused by impurities, is desired by some collectors as proof of a natural stone. For most gem uses, turquoise is cut en cabochon, with a low-convex, polished upper surface.

## ZIRCON



Zircon is widespread as an accessory mineral in felsic igneous rocks; it also occurs in metamorphic rocks and, fairly often, in detrital deposits. It occurs in beach sands in many parts of the world, particularly Australia, India, Brazil, and Florida, and is a common heavy mineral in sedimentary rocks. The high refractive index and dispersion of zircon cause it to approach diamond in fire and brilliancy.