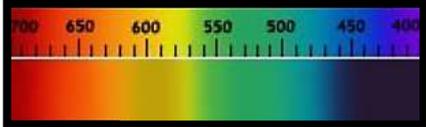


**Warning: this version has been completed with Google Translate , it certainly contains errors or inaccuracies.**

## Technical sheet - general: Amethyst

<b>Gemma - names</b>	( Italian -Amethyst) ( English - Amethyst ) ( French - Améthyste ) ( Spanish - Amatista) ( Portuguese - Amethyst) ( Thai - อเมทิสต์ xmethi s-t )		( German - Amethyst ) ( Arabic - جمشت jamasht ) ( Russian - Аметист Amethyst ) ( Mandarin -紫晶 zǐ jī ng ) ( Swahili - Amethisto ) ( Hindi - बिल्लौर billaur )		<p style="text-align: center;"><b>photo</b></p> 
<b>Colors (GIA)</b>	<p>The color range includes <b>reddish-purplish</b> tints of pale or nearly colorless shades to deep, rich tones of <b>pure purple</b> .</p> <p>The color is generally distributed unevenly in the individual crystals. In amethyst geodes, it is often most intense in the growth zones under the rhombohedral faces (at the tip). Occasionally the color is deeper underneath the <i>roz</i> rhombohedral faces, giving the crystal a pinwheel appearance when viewed from above. In prismatic crystals, color can appear in thin, ghost-like layers, while in scepters and skeletal quartz the color is often concentrated along the edges and accompanied by a smoky zone. Occasionally the color is deeper underneath the <i>roz</i> rhombohedral faces, giving the crystal a pinwheel appearance when viewed from above.</p>				
<b>Cause of Color</b>	<p>Purple to purple charge transfer, <math>O^{2+} \rightarrow Fe^{4+}</math>, due to <b>irradiation</b> . In prismatic crystals, color can appear in thin, ghost-like layers, while in scepters and skeletal quartz the color is often concentrated along the edges and accompanied by smoky areas. Despite the intense color, the iron content occupying Si positions in amethyst is quite low, in the range 10-100 ppm.</p> <p>A purple to violet variety of quartz that owes its color <b>to gamma irradiation and the presence of traces of iron</b> embedded in its crystal lattice. Irradiation causes the <math>Fe^{+3}</math> iron atoms that replace silicon (Si) in the lattice to lose one electron and form a color center <math>[FeO_4]^{0-}</math>.</p>				
<b>Classification</b>	<b>Mineral class</b> Oxides - tectosilicates		<b>Species - Group (mineral)</b> Quartz - /		<b>Variety</b> Amethyst
<b>Optical properties</b>	<b>Specific Gravity:</b>  Municipality: 2.65		<b>RE:</b> 1,544 to 1,553 <b>Polariscope</b> : DR (bull's eye in the polariscope) <b>Double refraction:</b> 0.009		<b>Character optical</b> Positive uniaxial  <b>Pleochroism Dichroic</b> : blue-violet to purple
	<b>Luster (luster) - luster of the fracture</b> Vitreous - vitreous			<b>Dispersion (fire)</b> 0.013	
<b>Light</b>	<b>Fluorescence</b> SWUV: Inert LWUV: Inert			<b>Phosphorescence</b> NO	
<b>Form</b>	<b>Crystalline dress</b> Hexagonal prisms <b>Melting point:</b> 573 (transformation) -1470 °C		<b>Phenomenal optical effects</b> Attitude Asterism (rare 4/6/12 rays)		<b>Crystalline system</b> Trigonal  <b>Crystal class</b>
<b>Chemical formula</b>	Silicon dioxide  $SiO_2$				<b>Spectrometer image</b> 

		Normally not indicative	
<b>Fracture</b>	<b>Flaking</b> Weak along the dominant rhombohedral axis	<b>Breaking- Parting</b> SI Geminatio by <b>penetration</b> (read Brazilian and Dauphiné) and by <b>contact</b> (Japanese)	<b>Fracture</b> Concoidal
<b>Durability</b>	<b>Hardness (Mohs) - Absolute</b> 7; 100	<b>Toughness</b> Fragile	<b>Stability</b> (heat, light, chemicals) Susceptible to heat and light (including sunlight) Excellent in the colorless variety
<b>Clarity - characteristics</b>	<p><b>Typical inclusions:</b> Huge variety of inclusions such as liquid and biphasic inclusions golden rutile needles ("Venus hair"), black tourmaline crystals, green actinolite fibers, moss green chlorite, dark red hematite, goethite, etc.</p> <p>Typical <b>"zebra stripe" pattern</b> , 2-phase inclusions in a veil-like pattern. Curative crepe ("tiger stripes"), twinning under Brazilian law</p>		
		<b>Type II</b> Normally included	<b>Transparency (commercial) - transparency</b> Transparent, translucent, opaque
<b>Deposits - types of rocks</b>	<p>Quartz is found in the epithermal veins; it is a mineral characteristic of granites and granite pegmatites and is found in sandstones and quartzites. It occurs in hydrothermal metal deposits and in carbonate rocks where it is common.</p> <p>Amethyst crystals grow inside <b>geodes</b> developed in the basaltic rocks due to <b>hydrothermal activity</b> following, but often close to, the magmatic event itself. Geodes are cavities present within igneous rocks, which in fact represent <b>gas bubbles</b> variously shaped by the greater or lesser flow of the magmatic liquid. The lower the viscosity of the liquid, the more elongated can be the shape of the geode of which the sharpest part coincides with the direction of the flow. On the internal walls of these geodes it is possible to develop groups of crystals (among the most common quartz, zeolites, carbonates and sulphates) "grown" thanks to the particular chemical composition and the relatively high temperature (from 850 to 950 ° C) of the leachate hydrothermal fluids through the rock.</p> <p><b>Age :</b></p>		
<b>Characteristics of rough stones</b>	<p>Amethyst crystals appear as 6-sided prisms, i.e. they end with a 6-sided pyramid (typical), ranging from the size of a druze, to fine-grained crystals to microcrystals, or they are massive with frequent horizontal streaks. Amethyst crystals are not normally very large, those longer than 30 cm are uncommon.</p> <p>The most common forms of growth are:</p> <ol style="list-style-type: none"> <li>1. <b>Druze</b> - like aggregates delineating cavities; with short prismatic crystals often devoid of prismatic faces, common in volcanic rocks, but also in hydrothermal veins and even in cavities of sedimentary rocks;</li> <li>2. <b>Scepters (late syntaxial overgrowth)</b> on other color varieties of quartz, particularly in medium-high temperature environments such as cracks and alpine-type pegmatites;</li> <li>3. <b>Split growth crystals</b> ("artichoke quartz") in hydrothermal veins in mineral deposits, but also in volcanic rocks.</li> <li>4. Well formed single crystals, grown in small cavities and fissures, particularly in volcanic rocks.</li> <li>5. Irregular crystals formed in <b>hydrothermal veins</b> , often with different growth phases with varying color that show through alternating band designs.</li> </ol>		
<b>Main deposits</b>	<p>The prized amethyst historically came from <b>the Russian Ural Mountains and the Idar-Oberstein area of West Germany</b> , although both deposits are now largely depleted. Today the economic quantities are found in <b>Zambia, Mexico and Uruguay</b> , with smaller deposits in <b>Australia, Sri Lanka, India, Madagascar , Southwest Africa and the United States</b> .</p>		

	<p>Other deposits:  <b>Bolivia</b> (Santa Cruz) <b>Brazil</b> (Bahia Pará Rio Grande do Sul Rondônia ) <b>Cambodia</b> ( Ratanakiri Province ) <b>Canada</b> (Ontario) <b>India</b> Madhya Pradesh <b>Kenya</b> Kitui County , <b>Madagascar</b> Alaotra-Mangoro Analamanga Diana Ihorombe <b>Mexico</b> Guerrero <b>Myanmar</b> Mandalay Region Sagaing Region <b>Namibia</b> Erongo region Otjozondjupa region <b>Nigeria</b> Taraba <b>Peru</b> Áncash , <b>Russia</b> Chelyabinsk oblast Magadan oblast Murmansk oblast Republic of Sakha (Yakutia) <b>South Korea</b> <b>Southern</b> Gyeongsang Province Sri <b>Lanka</b> Sabaragamuwa Province <b>Uruguay</b> Department of Artigas <b>USA</b> Arizona, Georgia.</p>
<p><b>Year of discovery</b></p>	<p><b>Very ancient:</b> Difficult to go back to the first mentions, also for the use of different names that sometimes indicated the stone and sometimes the color or some quality.</p>
<p><b>History</b></p>	<p>Some sources speak of amethysts that are 25,000 years old, but there are no findings that corroborate this claim. One of the oldest examples of amethyst was recovered in a <b>ship burial in central Sudan</b> ; the radiocarbon examination suggests its dating around <b>4400–4100 BC</b> . Under the body of a child, buried in that tomb, an ivory bracelet was found, approximately 67–72 mm in diameter, 29–31 mm wide and 3–4 mm thick. The funerary equipment of the tomb also included seven grains of rock crystal of excellent workmanship and <b>1 of amethyst</b> , all with a completely smooth surface. The diameters of the beads ranged from 5.27 to 5.72 mm and their height from 1.81 to 3.06 mm (amethyst). The holes drilled on both sides had a diameter of 1.56 to 1.84 mm.</p> <p>Roman gold and amethyst mining and processing sites in Wadi el-Hudi , an extensive and geologically diverse region covering an area of approximately 300 square kilometers in northeastern Lower Nubia. Wadi el-Hudi is located about 35 kilometers southeast of Aswan. The region has been exploited for its minerals (including mica, barite, gold and amethyst) at least since the beginning of the <b>2nd millennium BC</b> , and in the early 1990s modern miners and quarries still mined hematite and building stone from the surrounding area. the use of amethysts mainly took place mainly during two specific phases: <b>the Middle Kingdom (2055–1650 BC)</b> and the Greco-Roman period (332 BC - 311 AD) Although amethysts were used in Egyptian jewelry from the late <b>Predynastic period</b> ( 5300-3000 BC) <b>onwards</b> , no such ancient mines have yet been identified.</p> <p>The use of amethyst in jewelry is rarely but constantly attested during the Archaic period (ca. 3050 - 2686 BC) and the Old Kingdom (2686 - 2181 BC). Beginning in the <b>First Intermediate Period</b> (2181 - 2050 BC) there is a dramatic spike in amethyst's popularity and in the Middle Kingdom (2050 - 1690 BC), the once uncommon gem suddenly became ubiquitous. After the Middle Kingdom the immense popularity of amethyst began to wane but the material remained in use in amulets and, in particular, in scarabs. Amethysts were also more often used for beads in both the Pharaonic and Greco-Roman periods, the most typical types of the late <b>Ptolemaic</b> and early Roman periods were <b>truncated biconical pearls often very dark in color</b> (in contrast to some of the varieties lighter pharaonic ), while those of the <b>6th and 7th century AD</b> were characteristically pear-shaped. Unfortunately there are few mentions of this gem in ancient Egyptian literature.</p> <p>The trade in amethyst extended from Egypt to neighboring countries under Pharaoh <b>Senusret I</b> who reigned from <b>1971 to 1926 BC</b> . approximately, during the Middle Kingdom. He was a strong leader who ruled a stable and unified Egypt. Art, literature and architecture flourished during his reign. The pharaoh controlled the mines laden with gold, copper and gems such as amethyst. Its craftsmen modeled these materials into beautiful jewelry. Bracelets and necklaces were often very detailed.</p> <p>One of the most celebrated masterpieces of ancient Egyptian art is <b>Tutankhamun 's</b> . The main element of the jewelry is the <b>light purple amethyst beetle</b> with details, as is common with the beetles of this hard stone.</p> <p>Significant specimens of Greek amethyst were recovered in <b>the Tomb of the Warrior Griffin (Griffin)</b> , discovered in <b>Pylos</b> (now called Navarino, in <b>the Peloponnese</b> ) in 2015. The Griffin warrior was buried around 1500 BC, around the time the <b>Mycenaeans</b> from mainland Greece defeated the <b>Minoans</b> , a more advanced civilization on the island of Crete that had a massive influence on the Greek world. The tomb is believed to have been the final resting place of an extraordinarily wealthy Mycenaean warrior or priest. To date, archaeologists have cataloged around <b>3,000</b> funerary objects, including a bronze sword with an ivory hilt embellished with gold; four solid gold rings; silver cups; over <b>1,000</b> carnelian, <b>amethyst</b> , jasper and agate beads; fine-toothed ivory combs; and a golden dagger.</p>

Amethyst is the last gem listed in the third row **of the High Priest's Breastplate** (Exodus 28:19 and 39:12) and is also the twelfth stone in the foundations of the walls of the heavenly Jerusalem (Revelation 21:20) . used in the bible was the Hebrew term *achlamah* and meant "stone of dreams" (however, it is not certain that the term indicates the violet variety of quartz). Also, in all major **Bible translations** used for comparison purposes in this series, the Hebrew word *achlamah* is translated with the Greek term ἀμέθυστος ( amethystos ) in the two passages of Exodus.

Amethyst also appears in the first texts **of ancient India** as one of the **Ayurvedic birthstones** of the ancient Hindu calendar (corresponding to the contemporary Gregorian month of *February* ) and as one of the " **uparatna** ", or secondary stones, associated with the celestial body of **Saturn** ( Shani in Sanskrit: शनि , Śani ), or Śanaishchara ). Some believe that there are mentions of the amethyst it can be found in Indian texts dating back to around 1500 BC. Or even that the stone was known in South Asia since before the dawn of the Indus **Valley Civilization** . Amethyst also appears in **ancient China** (there are deposits in Yunnan) not only as a birthstone associated with the Chinese zodiac **dragon sign, but also as a powerful tool to be used in feng art shui** . Dragon-shaped artifacts from the Tang (618-907 AD) and Liao (907-1125 AD) dynasties have been recovered.

The Romans used to create rings adorned with amethysts, various specimens were recovered in the four corners of the empire. Most date from the 1st century BC-3rd century AD

In the **Middle East** , the presence of amethyst is attested starting from the time of **Kurigalzu I** (died around 1375 BC), the 17th king of the Kassites or 3rd dynasty who ruled over Babylon, responsible for one of the most extensive and widespread programs of construction of which evidence survived in Babylon. A seal and some beads made of amethyst were found in his tomb.

During the Middle Ages the amethyst was adopted by the Catholic Church as a symbol of the high spiritual state that the bishops had to achieve. As a result, the **amethyst rings became part of the bishop's insignia** and a symbol of their office. To this day the highest grade of amethyst is referred to as "bishops grade" Perhaps due to its association with Catholic clergy, amethyst has come to represent purity and piety.

**Leonardo Da Vinci** wrote that amethyst has the power to chase away bad thoughts and refine the intelligence of those in contact with it.

In **1660** , after the restoration of the monarchy by Charles II of England, amethyst was used as a centerpiece for the **crown jewels** .

Until the **1700s** , the amethyst was included in **Cardinal or more precious stones** (together with diamonds, sapphires, rubies and emeralds), but from the discovery of vast deposits of Eastern Europe and Latin America, it lost much of its value. The amethyst was discovered in Brazil **at the beginning of the 19th century** , by the settlers of Idar-Oberstein (Germany); To date, mining requests have been present in at least 8 of the 27 states of Brazil. Maraba (which is currently producing the most amethyst in Brazil), Pau d'Arco (which produces some of the finest material) and Rio Grande do Sul (which has the longest sustained production) are 3 of the main mining areas . These locations also provide good examples of the presence of amethyst in **three different geological contexts** : such as large veins in quartzite, those forming the sedimentary flood and those forming geodes in the basalt. A bracelet worn by **Queen Charlotte of England** in the early 1700s was worth £ 200 at the time. However, shortly after, with the discovery of new deposits, the estimated price of this jewel was drastically reduced.

In **1847** the scientist Haidinger discovered the effect of circular dichroism, typical of amethysts.

By the mid-19th century, the **vast deposits of the gemstone in Brazil and in the Ural Mountains of Russia** collapsed the market and made the gem very common.

Synthetic purple or bi-colored amethyst-citrine quartz was first mentioned in Russian scientific literature in the late 1950s and early 1960s. In particular, **Tsinober and Chentsova (1959)** reported that, after X-ray irradiation, certain brown synthetic quartz crystals developed purple color (amethyst) in the rhombohedral growth sectors. This treatment was subsequently revisited and improved. Efforts were underway in Russia in 1977 to understand the fundamental mechanisms of ametrine synthesis . In 1994, the growth technology was established success, and the first commercial batch (on the order of 100 kg) of synthetic ametrine crystals was sold.

**Name** : The name comes from the Greek  $\alpha$  -,  $\alpha$ - and  $\mu\epsilon\theta\acute{\upsilon}\sigma\kappa\omega$  , methysko (from the verb  $\mu\epsilon\theta\acute{\upsilon}\omega$  , methyo ) , and literally means 'do not intoxicate'. in reference to the belief that the stone protected its owner from drunkenness. The ancient Greeks first - then Romans wore amethyst and made drinking vessels out of it in the belief that it would prevent intoxication. This belief perhaps influenced the French poet **Remy Belleau** (1528–1577). In his poem " *L' Amethyste , ou les Amours de Bacchus et d' Amethyste* "(Amethyst or the loves of Bacchus and Amethyste ) , the transalpine writer introduced the myth in which Bacchus decided to chase a girl named Amethyst, who refused her affections. And eventually transformed her into a crystal . The modern truth of this story would see Bacchus in love with the beautiful goddess **Diana (for the Greeks Artemis)** who loved to live simply and in solitude. Despite the numerous suitors, Diana was a goddess almost impossible to conquer. Among her greatest admirers there was. also Bacchus (the Greek Dionysus), god of wine. Ignored by Diana and deeply wounded, the divinity drowned his sorrows in alcohol. To take revenge, he decided to hurl 2 tigers against the first girl he met. Amethyst, venerator of Diana , she passed there at that moment and was attacked by beasts. By now too late to be saved, she was transformed by her patron goddess into pure colorless crystal. what happened, Bacchus repented, saddened and poured all the wine, "nectar of the gods", on Amethyst. When the wine and the god's tears mixed in contact with the crystal, the latter as if by magic turned purple, taking on the color with which we know it today.

Dionysus, the god of viticulture , was the son of Zeus and Sèmele (who deceived him). It was a "hybrid" with a multifaceted **masculine and feminine nature, animalistic and divine, tragic and comic** .

Since he was a very noisy god he was also called **Bacchus** , which in Greek means " *clamor* ", hence the Italian word **baccano** . In fact, the Romans adopted Bacchus to indicate Dionysus, with Fufuns by the **Etruscans** and with the Italic divinity *Liber Pater* , nicknamed **lysios** , "he who frees" man from the bonds of personal identity to reunite him with universal originality . In the Eleusinian mysteries he was identified with Iacchus .. They were sacred to **Dionysus** among the plants: the vine, the ivy, the oak, among the animals: the bull, the goat, the panther, the tiger and the lynx.

**Varieties** : **Violet, ametrine (Yellow-violet: amethyst + citrine), Rose of France** (pale amethyst, light amethyst) , **musk, mantle, praseolite / prasiolite** (green), cacoxenite amethyst (with brown, orange tips), ameverde ( violet + green ) , auralite (consisting of up to seventeen combined minerals, including hematite and red quartz), black amethyst (very dark with various types of inclusions), red-tipped (hematite), Chevron (mixed of different colors) **Brandberg** ( not always purple, it resembles smoky quartz or lodalite , a mixture of minerals).

are the best known types of amethyst. Unlike other stones, amethyst's value is based on its color rather than carat weight, and the most valuable amethyst beads are those that are dark purple with reddish undertones.

**Trade names** :

**Property attributed**

It is a very protective stone and a powerful healing crystal. It blocks negative environmental energies and has strong purifying powers. It strengthens the immune system and cleanses the organs. Amethyst is an excellent blood cleanser and relieves physical, emotional and psychological pain or stress. Relieves headaches and relieves insomnia. It can be held in the third eye chakra for maximum benefit. You can also keep it on the bedside table.

According to claims circulating in the world of crystal therapy, amethysts are said to have several physical healing properties, including: enhancing **the immune system** , improving endocrine function, improving the appearance of the skin, promoting digestive health, reducing headache, regulate hormones. While some of these benefits may be real, the scientific community sees the research as proof of effectiveness and, in this case, there hasn't been much.

Natural health professionals today use amethysts to promote serenity and calm. Amethysts are said to **open a person's third eye** . The third eye is considered a source of power and wisdom and to enhance or refine spiritual visions and enlightenment. Practitioners of metaphysical crystals may also believe that the geodes or amethyst crystals placed in your home absorb negative energy. Additionally, they claim that amethysts help block electromagnetic frequencies and " geopathic stress " that can foster negativity. This is said to occur when human-made objects disrupt the earth's natural energy.

	<p>Amethyst is the traditional gift for the <b>6th and 33rd wedding anniversary</b>.  <b>Planet:</b> Saturn  <b>Month:</b> February <b>Zodiac sign:</b> Pisces  <b>Chakra:</b> Third eye and Crown (rose of France)</p>		
<b>Treatments</b>	<p>There are no known treatments to make it transparent. Eventually some interventions are implemented to add color. When heated to more than about <b>300-400 ° C</b> , the amethyst loses its purple color and often <b>turns yellow</b> , orange or brown, and then resembles the citrine variety, but depending on the location and temperature during heat treatment, it can also turn colorless or - rarely - green. To obtain the <b>aqua -aura variety</b> , the quartz is heated to 871 ° C under vacuum, then gold vapor is added inside the treatment chamber. The gold atoms fuse to the surface of the crystal, which gives the crystal an iridescent metallic luster. <b>Irradiation</b> with UV light destroys the color centers and, as a result, prolonged exposure to sunlight slowly fades the stone. Prolonged exposure to the sun and intense light causes it to turn pale ; at a temperature between 400 ° C and 500 ° C, the crystals change their color in a radical way (in yellow-brown-orange) becoming artificially similar to citrine quartz crystals and often sold fraudulently as such. The treated amethyst is produced <b>by the irradiation of gamma rays, X-rays or electron beam of transparent quartz</b> (rock crystal), which is initially doped with <b>ferric impurities</b> . Exposure to heat partially cancels the effects of radiation and amethyst generally turns yellow or even green. Much of the citrine, cairngorm (smoky ') or yellow quartz in today's jewelry is said to be simply "heated or burned amethyst".</p> <p>required to <b>produce the color</b> in quartz (eg approx. 0.01–0.05% by weight of Fe for the amethyst). The purple color develops in <b>two stages</b> . First, the replacement of Si <sup>4+</sup> by Fe <sup>3+</sup> during growth produces a precursor center (Fe <sup>3+</sup> replacement center, [FeO <sub>4</sub> ] <sup>-</sup> ). The resulting lack of positive charge is compensated by the introduction of alkali metal ions (such as Li <sup>+</sup> or Na <sup>+</sup> ) or protons (H <sup>+</sup> ) into the quartz. This precursor center absorbs so little light that the material is nearly colorless. The purple color develops only when the precursor center is converted into the amethyst color center ([FeO <sub>4</sub> ] <sup>0</sup> ) by exposure to ionizing radiation. For the synthetic amethyst, a 5-6 Mrad dose of cobalt-60 is used. However, gamma radiation is commonly used while electron irradiation is occasionally employed.</p>		
<b>Synthetic counterpart</b>	<p>Today, rock crystal is used in lamps, lenses and in the production of glass and precision instruments. Synthetic rock crystal has been produced since the 1950s for use in watches. Synthetic amethyst (grown in the laboratory) is produced by a synthetic method called <b>hydrothermal growth</b> , which causes the crystals to grow inside a high pressure <b>autoclave</b> . The crystals are hydrothermally grown in concentrated alkaline solutions (K <sub>2</sub> CO <sub>3</sub> ) at temperatures of 330 ° –370 ° C and pressures in the range from 1,200 to 1,500 atmospheres, in autoclaves ranging from 1,000 to 1,500 liters of volume. The crushed silica used to cultivate synthetic quartz is derived from natural or synthetic quartz with a very low aluminum content (10-100 ppm ). To facilitate the incorporation of Fe <sup>3+</sup> into the growing crystal structure, manganese nitrate, Mn (NO <sub>3</sub> ) <sub>2</sub> , is used as an oxidant.</p>		
<b>It can be confused with</b>	<p>Not having a great value, the amethyst can be replaced by a few stones. Among the most common simulants are cubic zirconium (distinguishable by: RI, birefringence, dispersion, SG), glass and plastic as well as synthetic amethyst.</p>		
<b>Indicative gemological tests</b>	<p>Synthetic amethyst is made to mimic the best quality amethyst. Its chemical and physical properties are the same as natural amethyst and cannot be differentiated with absolute certainty without advanced gemological tests (which are often cost prohibitive ) . A test based on " <b>Brazilian law twinning</b> " (a form of quartz twinning in which the left and right quartz structures are combined into a single crystal) can be used to identify most of the synthetic amethyst quite easily. It is possible to synthesize twin amethyst, but this type is not available in large quantities on the market.</p>		
<b>Value (2021)</b>	<p><b>High</b> : 30 \$ / ct  <b>3 carat +</b></p>	<p><b>Medium:</b> 10 \$ / ct  <b>1-3 carats</b></p>	<p><b>Low:</b> 1 \$ / ct <b>under a carat</b></p>
	<p>Amethyst is often available in <b>large crystals</b> , so the gem's value is not primarily defined by its carat weight. This is different from most gemstones, as the carat weight typically increases the value of the stone exponentially. The most important factor in the value of the amethyst is the color. The highest grade amethyst (called <b>Deep Russian or Siberian</b> , but today does not refer to the place of origin) is exceptionally rare. When one is found, its value depends on collectors' demand. The finest sapphires or rubies are still orders of magnitude more expensive than amethyst.</p>		
<b>Typical cut</b>	<p>Statuettes and sculptures, beads, cameo, brilliant cut, step cut.</p>		

	<p>The most suitable setting today is a tooth or a bezel. The canal method should be used with caution. In past centuries, amethyst appeared in royal or important jewels, today it often adorns costume jewelry (especially clear or uneven stones).</p>
<b>Famous stones</b>	<p>Examples of famous amethysts include the stone that adorns the <b>British royal scepter</b> for the coronation of James II (1633-1701). Another amethyst is found around the sovereign globe. It is said that the wife of King George III of England, <b>Queen Charlotte</b> (1744-1818), bought a very expensive amethyst necklace.</p> <p>Other famous examples include: an <b>Egyptian amethyst necklace</b> with an 8th century BC necklace with hieroglyphics inscription.</p> <p>It was a favorite of the Egyptian pharaohs, most often used for personal adornment.</p> <p>Despite the name, the infamous "<b>Delhi sapphire</b>" is actually an amethyst. The stone was stolen from an Indian temple and is said to be cursed.</p> <p>The <b>tiara of Queen Silvia of Sweden</b> is set with amethysts originally owned by the French empress Josephine. The piece was originally a diamond necklace featuring fifteen large amethysts.</p> <p><b>The amethysts of Nassau.</b> The vast vaults of Luxembourg jewels contain not one but two amethyst diadems. One is a band that features oval cut stones, while the other includes rectangular gems. Both are regularly worn by ladies of the grand ducal family, often with a beautiful amethyst necklace and earrings.</p> <p><b>Duchess of Windsor Cartier bib necklace</b> . This striking necklace of amethysts, turquoise and diamonds was made for the Duchess of Windsor by Cartier in 1947. Today it is often featured in museum exhibitions.</p>
<b>Record stones</b>	<p>Rock crystals weighing many tons were found. However, cuttable material is rare.</p> <p>The piece called <b>the Empress of Uruguay</b> is the largest amethyst geode in the world. With a staggering <b>3.27 meters high</b> , the geode weighs <b>2.5 tons</b> ! Each of the thousands of perfect crystals formed within the geode 130 million years ago.</p> <p>Crystal Castle and Shambhala Gardens in Australia are home to the largest amethyst cave in the world, called <b>Enchanted Cave</b> . The 20-ton cave was shipped from Uruguay.</p>