

Beginner's Guide to Turquoise

For six thousand years, the Native American, Persian, Asian, and Egyptian cultures have been captivated by the alluring beauty and mystical power of turquoise. With a noticeable rise in demand for turquoise jewelry and a greater awareness of the diversity of types and mines of turquoise throughout the world, there is a greater range of unique styles and designs of turquoise jewelry available to consumers than ever before. This Beginner's Guide to Turquoise will provide an overview of the properties and nature of turquoise, an introduction to the variations in turquoise stones, mines and basic jewelry types, and our recommendations for how to select and care for turquoise jewelry.

I. Turquoise Stones

The Colors of Turquoise



Turquoise stones have a wide range of colors, from deep, sea blue known as "Persian Blue", which is often found throughout the Middle East (predominantly in Iran), to bright, neon green, such as that found in the American Southwest. The color of turquoise yielded by a certain mine is a result of the metal content. Generally, the higher the copper content in a specific deposit, the bluer the stone, and the higher the iron content, the greener the stone. Some

mines, such as the Sleeping Beauty mine which houses a bright, clear turquoise, tend to have high concentrations of a single color, while others, such as the Royston and Fox mines, have a wide range of hues, from light blue to deep green. In active mines, such as the Kingman mine, new deposits are occasionally uncovered, which yield a new shade of turquoise. When this occurs, there is frequently a "buzz" among collectors who hope to add a unique piece to their collections.

One of the most unique characteristics of turquoise is the presence of the "matrix" in the stone. The matrix is formed by thin veins of the host stone, which interweave throughout the turquoise stone, creating a unique pattern from and contrast between blues and greens, and earthy browns, rust and black. Similar to individual fingerprints, matrices vary from stone to stone, creating one-of-a-kind pieces that are visibly distinct from one another.



The Matrix

Some mines are known for the matrix that can be found in the turquoise stones they produce. For example, the earthy brown matrix of Boulder Turquoise and the tan to light brown matrix of the famous Bisbee mine are considered among the most desirable matrices found. The Kingman mine in Arizona yields both a common black matrix and a rare and highly sought-after silver matrix. One of the most popular types of matrix among collectors is the "spider-web matrix", which as its name implies, creates a characteristic, web-like appearance throughout its turquoise stones. Spider-web matrix can be seen often in #8 Turquoise.

How Turquoise is Formed

Technically considered a semi-precious mineral, turquoise is formed when primary copper deposits in igneous and, to a lesser degree, metamorphic and sedimentary rock are exposed to leaching minerals in host rocks and surface runoff. Depending on the composition of the primary deposit and minerals such as aluminum, phosphate and iron, turquoise stones of varying densities and colors are created within a host rock. This delicate geological process takes place most successfully in arid and semi-arid climates where surface soil and rocks are subject to erosion, and minerals can most readily be carried into underlying deposits over long periods of time. Because of the specific combination of conditions needed for the formation of turquoise, there are relatively few turquoise deposits throughout the world. Many of the active turquoise mines today are in China, Iran, and the Southwestern United States including Arizona, New Mexico, California and Nevada where environmental conditions are perfect for the creation of turquoise. (Lowry, Joe Dan and Joe P., Turquoise Unearthed, Rio Nuevo Publishers (Arizona), 2002)

Density

The Mohr's Hardness Scale is used to qualify minerals, gems and metals in terms of their hardness or density. Talc is considered a 1 on this scale, while diamonds are considered a 10. When ranked on this scale, turquoise measures between a five and a six, where low-grade "chalk" turquoise ranks as a five, and high quality turquoise ranks as a six. Softer turquoise is often treated or "stabilized" to keep its luster, making it a less expensive alternative to higher quality turquoise, which is kept closer to its natural state.

II. Turquoise Jewelry

Lapidary Work

Because it is a relatively soft stone, turquoise is ideal for jewelry making, since it can be shaped, cut and carved easily by lapidaries. Turquoise can be either machine or hand cut to form narrow "needlepoint" stones, small "petit point" shapes, or rough and irregularly-shaped stones. Stones can also be drilled with holes to be strung on necklaces, or made into earrings or pendants. The variety of options for shaping, grinding and cutting turquoise enables jewelers to use stones in a diverse range of styles and processes including overlay, inlay, bezel setting, and stringing.

One of the most traditional styles popularized by Native American artists is the use of overlay. In this process, two sheets of metal are layered upon each other either to form a design with an oxidized background, or to create a stencil into which cut stone can be set. This technique can be seen in the use of Navajo stamped bracelets, which contrast oxidized patterns with centrally set turquoise stones, and in the detailed inlay work of the Zuni, who are famous for their elaborate, framed inlay.



Overlay

Bezel Setting



One of the most basic and popular treatments of turquoise is the stone-setting technique known as bezel setting, whereby turquoise stones are nested in a mounting, and closed inside of a silver "frame" using jewelers instruments. Since turquoise stones are softer than most other gemstones, they need a bit more protection from bumping and rubbing than other, harder stones. Bezel settings are used for all types and shapes of stones, including needlepoint, petit point, ovoid or circular, or irregularly shaped stones.

Inlay

Inlay work describes the process of setting multiple small turquoise or other semi-precious stones in the same piece of jewelry. There are two types of inlay work—channel and mosaic. Channel inlay refers to the process of setting small stones in sequence with each other from end to end in a single line. Mosaic describes the process of setting multiple small stones in a geometric cluster, similar to bath tiles or bricks.

Both types of inlay work require significant skill, as shown by the Zuni and, more recently, the Navajo. Because turquoise stones are often set flush with the surface of the piece of jewelry, inlay offers them a bit of additional protection from unnecessary exposure.

One of the most traditional and oldest forms of turquoise jewelry making is the process of bead stringing which has been carried out by Native American jewelers for centuries. Turquoise can easily be shaped into beads and drilled for use in stringing. Turquoise cabochons are polished stones that are drilled and strung in a simple and classic form. Heishi beads are small, disc-shaped beads that are strung in sequence to form a simple beaded strand that may be graduated from small to large. Many of the Native Americans of the Southwest such as the Santo Domingo people, the Zuni, and the Navajo have unique styles and expertise in stringing beads of various shapes, materials and sizes.

**Stringing**

III. Notable Turquoise Mines & Types

Bisbee

Some of the highest-quality turquoise in the United States comes from the Bisbee mine in southeastern Arizona. Bisbee turquoise is known for being among the densest turquoise found in the Southwest, which makes it both more valuable and more durable. This unique kind of turquoise is among the most easily distinguished, as it has a deep blue color and a dark brown and black matrix that is difficult to find elsewhere. Bisbee turquoise is a favorite among knowledgeable collectors of turquoise.

While turquoise veins and deposits often reside close to the Earth's outermost surface, the turquoise yields from the Blue Gem mine are from one-inch veins as deep as 800 feet. Located in Lander County Nevada and founded in 1934, the production of turquoise continued at the Blue Gem mine until the magnificent stone's depletion. As a result, the highly sought-after Blue Gem turquoise remains coveted by investors and collectors alike. Well known for its reflective and translucent look, the turquoise from the Blue Gem mine often contains pyrite, which adds a bit of sparkle to its glassy surface

**Blue Gem**

Similar to the fate of many other North American turquoise mines, the presence of precious metals including copper and gold accelerated production at the Blue Gem mine, eliminating what little turquoise remained. Whether through depletion or destruction, the value placed on the Blue Gem turquoise increased as a result.

Blue Ridge

The Blue Ridge mine holds a range of colors of stones, from sky blue to yellowish green. Turquoise from the Blue Ridge mine that contains green hues is commonly referred to as Orvil Jack turquoise, named after the miner who originally discovered the turquoise deposits. Periodically worked from time to time, the Blue Ridge mine is still operated by the descendents of Orvil Jack. When the zinc and iron are predominant, some green turquoise may be mistaken for faustite, a material that resembles turquoise but is actually a secondary mineral.

One of the finest and most unusual forms of turquoise is Boulder Turquoise, which is mined from the Royston mining district of Nevada. Boulder Turquoise consists of a brown or rust colored host rock through which a dazzling vein of turquoise runs (known as “ribbon turquoise”). Whereas most turquoise is named after the mine from which it was extracted, Boulder Turquoise is named for its unique composition and appearance. The natural combination of varying tones of earthy browns, beige and rust in conjunction with sky blue to light green turquoise veins make a striking impression that is sought after by turquoise collectors. Because there is very little uniformity among Boulder Turquoise stones, each piece of jewelry made with this distinctive stone has a one-of-a-kind look.

Boulder Turquoise**Fox**

Among the most productive mines in the Southwest is the Fox mine in Nevada, which yields a distinct medium to high quality green-blue stone that is extremely popular among turquoise jewelry collectors. Fox turquoise typically has a prominent, earthy slate and brown matrix that is a good indicator of its authenticity.

For the past half-century, the Kingman mine of northwestern Arizona has contributed the largest amount of turquoise utilized in Native American jewelry. The Kingman mine produces well-known turquoise nuggets consisting of brilliant blues to blue-greens, with the most common form of turquoise containing a black matrix, and the rarest a silver matrix. To this day, Kingman turquoise remains one of the most recognizable names among turquoise mines.

Kingman**Royston**

One of Nevada’s most popular mining districts, the Royston mining region continues to produce some of the most magnificent turquoise available. Renowned for its range of colors, the Royston district contributes a multitude of blues and greens, ranging from a stunning Robin’s egg blue to a limonite infused green. The Royston district contains four known turquoise mines including the Bunker Hill, Easter Blue, Oscar Wehrend and Royal Blue mines.

Once Nevada’s largest producer of turquoise the Royal Blue mine yields a multitude of colors of turquoise with a brown matrix. Found in small veins and seams, the turquoise comes in the form of thin discs, large masses and sizable nuggets. Thought relatively low-yielding, the Easter Blue mine produces a wonderful, light Easter egg blue stone that is rarely found elsewhere.

Sleeping Beauty

Just outside of the small mining town of Globe, Arizona, is the highly variable and prolific Sleeping Beauty mine. With little to no visible matrix, Sleeping Beauty turquoise has a clear, light turquoise appearance that is extremely popular worldwide. Though the Sleeping Beauty mine once produced a vast amount of turquoise, the majority extracted from this region today is from the tailing piles. Since much of the modern Sleeping Beauty turquoise is

enhanced, and therefore cheaper, the small, high-grade yield from this mine is among the most coveted by collectors and artists.

Though it is not technically turquoise, White Buffalo "Turquoise" has been found in conjunction with genuine turquoise in the Dry Creek Mine on the Shoshone Reservation. This breathtaking cream-colored and white stone with black matrix is formed in much the same way as blue and green turquoise, but the higher concentration of aluminum yields an entirely unique stone. With only one vein known to man, there is a premium placed on the White Buffalo stone. This unique stone was given its name by Native Americans because of its rarity in nature. Discovered in 1993 and predicted to have a short productive phase, White Buffalo is among the most popular semi-precious stones in the Southwest.

**White Buffalo****#8 Turquoise**

Due to its rarity and magnificent spider-web matrix, the turquoise from the # 8 mine is one of the popular types of turquoise among collectors. Closed and depleted in 1961, less than 10% of the turquoise derived from the # 8 mine consisted of quality, high-grade stones. The spider-web matrix found in this lineage of turquoise contains gold, various hues of brown, and black, which form an intricate web pattern throughout the light, blue-green turquoise. Because #8 turquoise can be found in a variety of host rocks including chert, shale and quartz, each piece is individually unique.

Located within the Lynn mining district of Nevada, the #8 mine yielded two deposits of turquoise for the original founders, the Edgar brothers. The Edgar family started mining the first deposit in 1925 only to deplete it within four years. Although the initial mine produced large amounts of low-grade, nodular turquoise, another nearby deposit yielded what we know as the high-grade #8 today. Though most turquoise stones extracted from this mine were relatively small, the #8 Turquoise mine once yielded a single, 150 pound turquoise stone, which was at the time the largest turquoise stone known to man.

IV. Turquoise Treatments

There is a wide range of colors, qualities and types of turquoise that are marketed as “turquoise,” and the vast majority of turquoise sold has been treated in some way. While taste in the color, texture and style of turquoise is a personal preference, it is important to be familiar with the kinds of treatments that are commonly used on turquoise in order to make sure that you know what you are getting when you buy turquoise jewelry. The four main types of products sold as “turquoise” are enhanced, stabilized, reconstituted and imitation turquoise.

Enhanced Enhanced turquoise is medium-grade turquoise that has been treated to enhance color and resist wear and tear. Through the enhancement process, turquoise is infused with vaporized quartz, resulting in a harder, more uniform-looking stones. Enhanced turquoise is considered the closest on the spectrum of treated turquoise to high-grade turquoise.

Stabilized Stabilized turquoise is low-grade, porous and relatively soft turquoise that has been treated to form a more workable appealing-looking stone. In the process of stabilization, turquoise is covered with an epoxy and heated at high temperatures. Not only does the stabilization process enhance color, but the application of resin also fills the turquoise pores, creating a harder and less porous gemstone. The waxy surface of stabilized turquoise protects it against the wear and tear and breakage.

Reconstituted Though it should not be represented as turquoise, reconstituted turquoise is commonly sold without complete disclosure. During the process of reconstitution, the lowest-grade turquoise chalk is crushed and bound with other inexpensive stones to form a mineral paste. This paste is then heated and dyed to form a turquoise-like substance that can be shaped and used in jewelry. Much of the turquoise sold in the Asian markets is reconstituted rather than authentic turquoise.

Imitation Containing absolutely no turquoise at all, imitation turquoise can be forged out of man-made materials such as ceramics, glass, and plastic with such skill that it is difficult to distinguish from the real thing. Additionally, there are some naturally occurring minerals that resemble and are often confused for turquoise. Just as pyrite once fooled unknowing gold miners during the Gold Rush, minerals such as faustite and varicite are easily mistaken by unsuspecting miners and consumers. With so many imitators on the market, we always recommend you purchase your turquoise through reputable dealers with genuine expertise in turquoise, so you receive exactly what you believe you are buying.

VI. Buying Turquoise Jewelry

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The most important things to consider when buying turquoise jewelry are the authenticity, value and condition of a given piece and stone. There are many variations of turquoise stone types and qualities, and even more different tastes among buyers. When choosing a piece of turquoise jewelry, you should always start with the items that you like and appreciate, and make sure that you feel comfortable that the type of turquoise you're buying is being represented truthfully.

Authenticity

Often times, consumers are drawn to the most uniform and brightly-colored stones, such as Sleeping Beauty and Kingman turquoise, but these stones must often need to be enhanced or stabilized to be workable and aesthetically appealing to consumers. Don't worry – there's nothing wrong with this, unless you are expecting natural turquoise, or you are being charged for turquoise as if it were of the highest grade. You should expect that stabilized turquoise will be less expensive than either natural (untreated) or enhanced turquoise, and more expensive than reconstituted or imitation turquoise. In general, you shouldn't consider either imitation or reconstituted turquoise genuine, and you should stay away from vendors who make this claim.

Value

When determining the value of a given stone, don't judge a book by its cover (unless you are an experienced collector), as often the highest-grade stones are seemingly less "perfect", or have a more extensive matrix throughout the stone that alter its appearance. As with other gemstones, the rarer the stone, the more valuable it is, but in the case of turquoise, you must also factor in whether the stone has been treated or not. Any reputable turquoise dealer or retailer will willingly provide additional documentation for or information about your piece, as well as give a money back guarantee if you are not satisfied with the quality of your jewelry. The value of any piece of jewelry will be the combination of the "cache" of the designer, the amount of silver (or gold) used, the size of the turquoise stone, the quality of the stone, the rarity of the stone, and how the stone has been treated (the denser the stone, the more valuable it is, and the less it needs to be treated). If you have doubts about a piece or a given stone, always ask the retailer for additional information.

Condition

It goes without saying that you should never purchase a broken turquoise stone, but this is sometimes a bit harder to determine than it would seem. Because it is a soft stone that is vulnerable to temperature changes, moisture, and impact, turquoise often can often break in the process of storage or shipment, creating a "hairline" fracture that is difficult to see. Before buying a turquoise stone, make sure to look at it in good light, and from a variety of angles. While stones have texture, imperfections and matrices that are acceptable and even valuable, breaks and chips will decrease the value of your jewelry permanently.

VII. Turquoise Jewelry Maintenance

Porosity

Compared to many precious gems such as diamonds, emeralds and rubies, turquoise is a relatively soft and porous stone that requires special care to guard against unnecessary staining, lightening, and breakage. Because it is a porous stone, turquoise can easily absorb fluids and oils such as perfume, sunscreen and makeup.

Eventually, the absorption of additional substances can take its toll on the color and longevity of your turquoise jewelry by altering the color and chemical stability of your pieces.

Though it initially is enhanced by sunlight, turquoise can quickly become faded, dried out and even cracked from exposure to direct sunlight. Over time, the cumulative effect of sun on your turquoise jewelry can be quite significant.

To protect your turquoise jewelry, we recommend that you put jewelry on after applying makeup, sunscreen and perfume, and never wear your jewelry in the shower, bath or swimming pool. Additionally, avoid wearing your turquoise jewelry when you know you will be spending long periods of time in the sun.

The best way to clean your turquoise stones is to dab them gently with warm water, and then use a lint-free cloth such as a chamois cloth to pat them dry. The use of mild soaps and popular cleaning agents is harmful and unnecessary. Never submerge the turquoise in water, as you won't be able to dry all surfaces within the setting, which can lead to long term damage. Once cleaned, store your turquoise in a place where it will not be bumped or scratched by other, harder gems or jewelry. The proper care and cleaning of turquoise will ensure that your turquoise jewelry has greater longevity and more aesthetic appeal, and will guarantee that your investment is protected.

Cleaning and Care

About Us

TurquoiseJewelry.com is committed to being the most trusted resource online about turquoise jewelry and to spreading knowledge about this beautiful and storied gemstone. In addition to our great selection of authentic turquoise jewelry, we also provide a wide library of content ranging from the history of turquoise to how to properly care for your turquoise jewelry.

Our highest priority is to safeguard the trust of our customers and ensure all the turquoise we sell is authentic and high-quality. We do not sell either dyed or reconstituted turquoise (sometimes called "chalk turquoise"). We only use genuine authentic turquoise in our jewelry, and back all our merchandise with a 100% Moneyback Guarantee.

