



Creating the Perfect Ring

Your Guide to Understanding Custom Jewelry Design



Table of Contents:

- 1 - Introduction*
- 2 - The Anatomy of a Ring*
- 3 - Diamonds*
- 4 - Colored Stones*
- 6 - Precious Metals*
- 7 - The Creation of an Engagement Ring*
- 10 - Examples and Timeframes*
- 11 - Old Gold and Diamonds*
- 12 - Distance Contracting*
- 13 - Store Policies*
- 14 - Glossary*
- 15 - Finished Works*

802.862.6600

info@vermontgemlab.com

www.vermontgemlab.com

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Welcome!

Choosing an engagement ring is one of the most important decisions of your life. Your ring should be beautiful, timeless, and representative of your tastes. It should also be durable and designed to withstand your many happy years to come.

Creating a ring is a journey you take with your jeweler. Your role is to explain the colors, designs, motifs, and symbols that appeal to you. Be honest with your jeweler!

Your jeweler will then source diamonds and gemstones, choosing the best method for the fabrication of your ring, utilizing the optimal precious metal(s) for your design, contracting with the right professionals, keeping the project within budget, and delivering the ring on time for your special proposal.

Creating an engagement ring should be a fun, expressive, and artistic experience that you will always remember. When made properly, your ring is an heirloom that will be cherished forever.

*We are excited to be taking this journey
with you!*



The Anatomy of a Ring

Common Gem Shapes



Round



Oval



Pear



Marquise



*Half
Moon*



*Square
Princess*



Asscher



Radiant



Emerald



Triangle

Types of Settings



Four prong



Halo



Half Bezel



Bezel



Bead



Channel



Flush

Types of Shanks



Domed



Bypass



Flat



Comfort



Knife Edge



Cathedral



Split

- 1. Head/Center Setting*
- 2. Side Stones*
- 3. Gallery*
- 4. Shoulder*
- 5. Shank*





Diamonds

Finding the right diamond(s) for your ring is vital to its overall appearance. Subtle details, that may not be evident at first play a role in the ring's beauty. For example, whiter diamonds are needed for white metal rings, while warmer diamonds can be used for yellow metal rings. Talking with your gemologist will give you the opportunity to make an informed decision. Typically, you'll have several different diamonds to choose from, each with different prices and qualities.

GIA Diamond Grading Criteria

Color



D E F G H I J K L M N O P Q R S T U V W X Y Z

Clarity

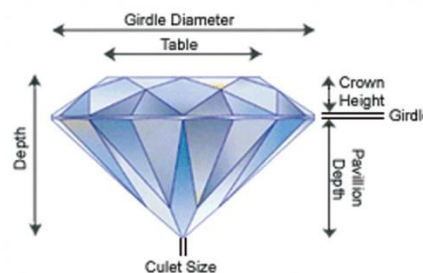


F	IF	VVS1	VVS2	VS1	VS2	SI1	SI2	I1	I2	I3
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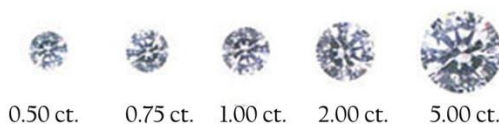
Flawless Internally Flawless Very Slight Inclusion One Very Slight Inclusion Two Very Slight Inclusion One Slightly Included One Slightly Included Two Included One Included Two Included Three

Cut

Best Average Worst	Excellent
	Very Good
	Good
	Fair
	Poor



Carat Weight



One carat equals 200 milligrams in weight. For diamonds under one carat, each carat is divided into 100 points. 0.75 carats = 75 points, 1/2 carat = 50 points



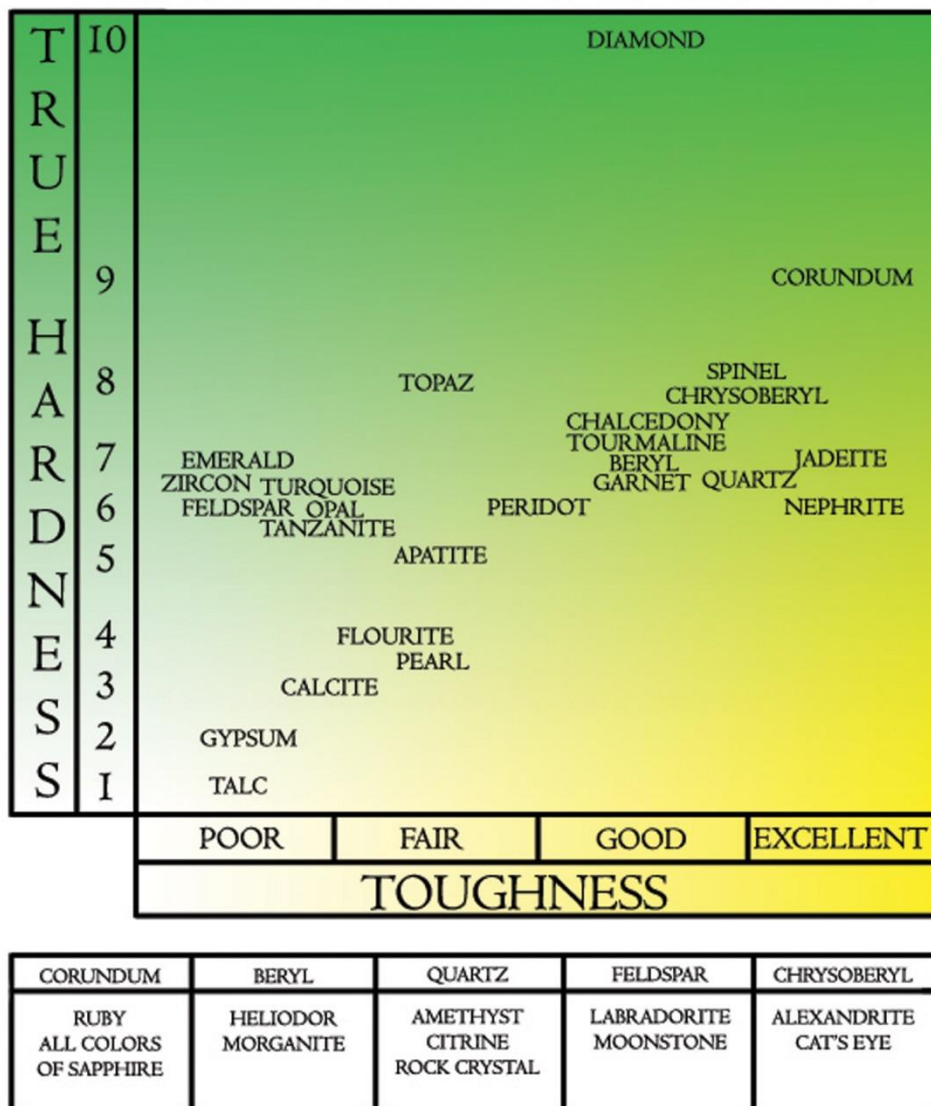
Colored Stones

Gemstones are full of unique, beautiful, and occasionally mysterious traits. Choosing one can be more challenging than choosing a diamond. Many colored stones have their own individual grading system, and many gemstones have undergone treatments to make them more beautiful. These factors, among many others, play a vital role in the selection of the right stone(s) for your center or side stones.

Your gemologist will be able to source rare gemstones for you to select from. This process requires hands-on meetings in a gemological laboratory. There, you will be able to view and compare several stones, see them under magnification, and absorb the information you need to make an educated decision.

One important factor of this process is the durability of gemstones. Toughness is a gemstone's resistance to breaking and cleaving. Hardness is a gemstone's resistance to scratching. The chart below shows where some gemstones fall on scales of both toughness and hardness.

The gemstones listed below are group names, some species of these groups are noted on the bottom of the chart.

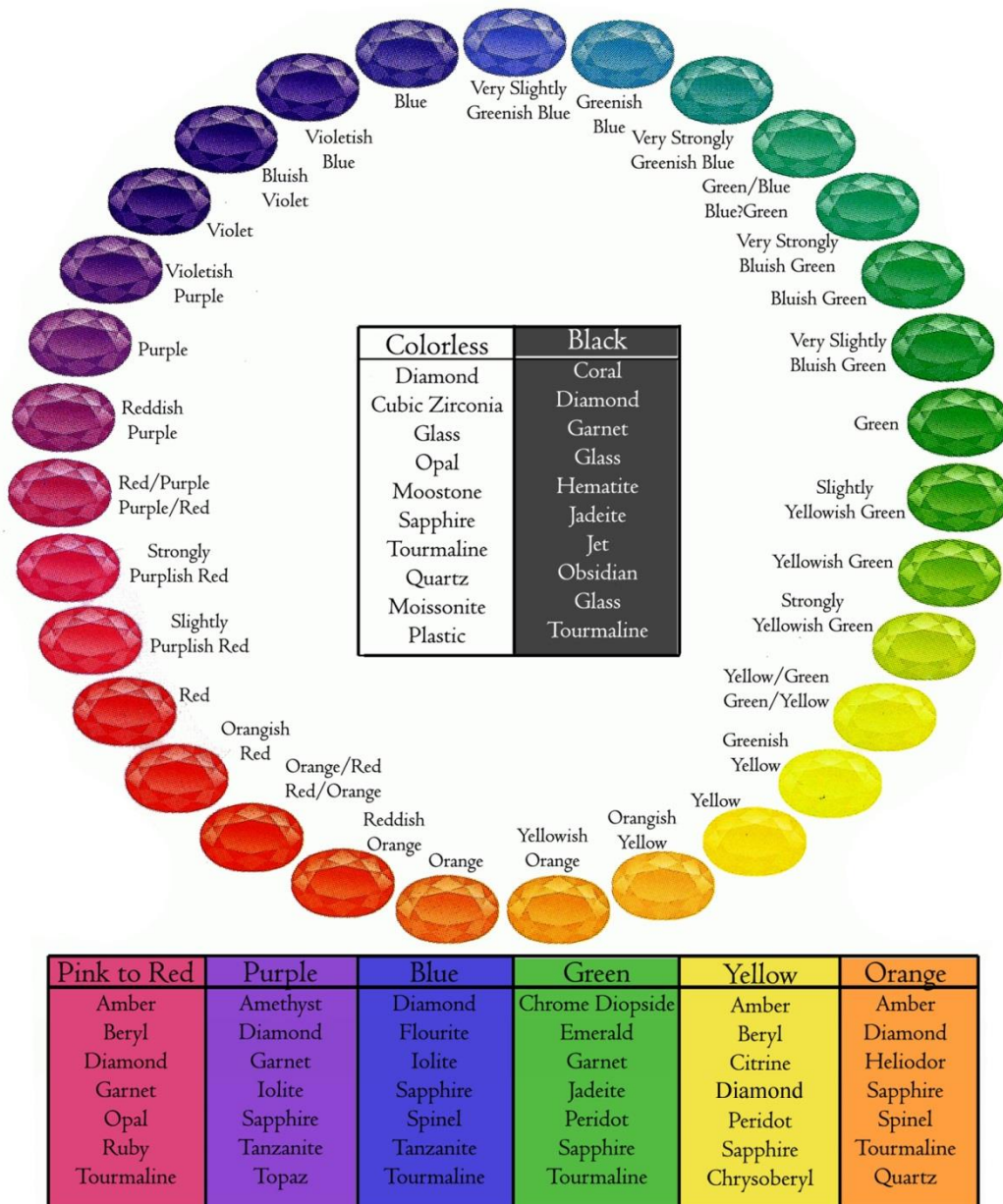




Gemstone Color

One of the most fundamental elements you must consider in choosing a gemstone is color. Some stones, like alexandrite, can change color based on their lighting environment. Other stones can exhibit a “phenomenon”, like a star pattern in some sapphires or opalescence in opals. You’ll learn about these traits, as well as many more, during meetings with your gemologist.

The following chart shows the array of colors gemstones can exhibit.

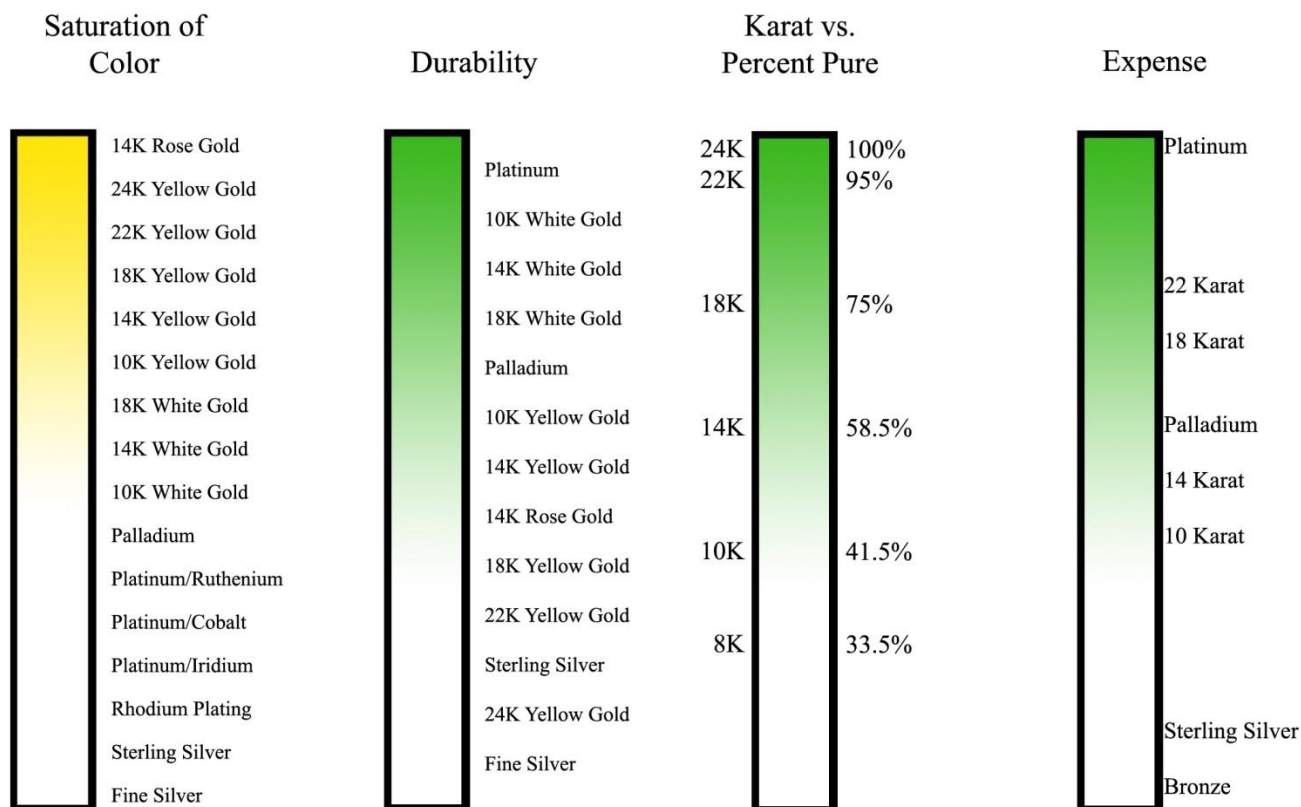




Precious Metals

The properties of various precious metals help dictate the appearance and durability of your ring. More durable metals, like platinum, are a better choice for active people. Sterling silver, on the other hand, is extremely soft and almost never used for engagement rings. The wearer's hobbies and lifestyle should be a main consideration when choosing a precious metal

The chart below shows you some of the differences between the most popular precious metals.





The Creation of a Ring

The type of construction used to fabricate a ring will determine its durability, cost, design, as well as the timeframe required for creation. The following sections briefly describe a few different methods of ring manufacturing.

Commercial Rings

Commercial rings are created using mass-manufacturing techniques such as casting and die striking. A commercial ring is limited by the molds and designs of each manufacturer. Unless the manufacturer accepts special orders, these designs are available in only the most popular precious metals, such as gold and platinum. Gemstone sizes, shapes, and sometimes species are limited by the settings that they're designed for. This type of manufacturing is economical. It's ideal for pieces that are relatively simple or where there is not a lot of time available for other methods. These rings typically take from one day to two weeks for completion.

Computer Aided Design (CAD)

Computer Aided Designs (CAD) are one-of-a-kind 3D images that have been created by specialized software. This technique is versatile, and can create complex pieces with ease. Geometric designs tend to be a better decision than free-form shapes, since a computer program can more easily produce geometric designs than organic ones.

A tangible wax/resin model is produced and can be examined for quality control and design aesthetics before the piece is cast.





Wax Carved and Cast

Free-flowing shapes, natural themes, human forms and asymmetrical designs are ideally created using the wax carving method of manufacturing. This method has a certain degree of “human touch,” which can be advantageous when creating curvilinear motifs. These rings typically take six weeks or more for completion.



Hand Fabrication

The term hand fabrication refers to pieces that have been created from raw components such as wire, sheet and granulated forms of precious metals. Machine driven methods of manufacturing, such as casting, turning, and die-striking, are not considered to be hand fabricated. Hand-fabricated rings are labor intensive and require a high level of expertise.

Hand fabrication includes specialized methods such as Moku Magane, Kum Boo, Granulation, Chasing and Repousse, Enameling, Engraving, and other ancient techniques. These rings take from six to eight weeks or more for completion.





Example Fabrication: Custom CAD/CAM and Cast Ring



1. Conversations begin between you and your jeweler. The details and parameters of the ring are discussed and recorded in a contract.
2. Stones are sourced from dealers or carefully removed from family jewelry.
3. Each stone is graded, weighed, and meticulously measured.
- 4-5. Pencil renderings are made to show a simplistic design of the ring.
- 6-7. CAD renderings are created to show a 3D model of the ring.
8. The ring is milled in wax, and cast in 95/5 platinum ruthenium.
9. The ring is de-sprued, filed, tumbled, sanded, polished, the stones are set, and its stamped with a maker's mark and purity stamp.
10. The ring is presented and minor adjustments, such as sizing and engraving are made.
11. Your proposal! This part is up to you.



Examples of Ring Fabrications

Commercial



Die struck component parts
14K yellow gold
One hour of labor
Family diamond
1 to 7 days
\$475



Die struck component parts
Platinum/Cobalt
One hour of labor
0.50 carat H-I2 diamond
0.25 carat diamond melee
\$2500

Custom Wax Carved



Carved "Birch Tree" ring
14K white and rose gold
Family diamond
5 hours of labor
4 weeks
\$1900



Hand carved "Costa Rica" ring
2.50 carat custom cut moonstone
18K yellow gold
15 hours of labor
12 weeks
\$4250

Custom CAD/CAM and Cast



CAD/CAM designed
Platinum, 14K gold
Family gemstones
9 hours labor
6 weeks
\$2900



CAD/CAM designed
Platinum/Ruthenium
2.06 carat G-VS center
127 diamond melee
18 hours labor
12 weeks
\$30000

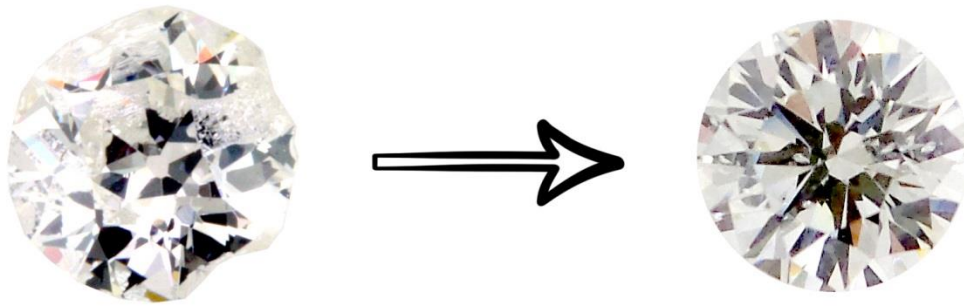


Recycling Old Gold and Gemstones

Old gold and family diamonds can be excellent additions to a new ring. Inherent sentimental value can give the new ring a natural feel. With a little coordination old, worn stones can become brilliant, and old worn jewelry can be re-alloyed into new designs.

Diamond and Gemstone Re-cutting

Diamonds with older-cut arrangements and chipped or broken stones can often be re-cut to become modern, brilliant cut stones. Your gemologist will be able to give you an estimate on the retention weight and quality grades that might result in the alteration.



Old Gold

Precious metals can be refined to a pure metal and then re-alloyed to the mixture of your choice. An old 10K yellow gold brooch that's beyond repair can become a new 14K white gold engagement ring. It's often more feasible to scrap the material and order a new alloy versus using the same material. This is due to the high cost of refining. Though, special orders are available where your jeweler can take the same material and use it for your new piece.





Distance Contracting

From Australia to Alaska, the Vermont Gem Lab has manufactured jewelry for couple in love all over the world. CAD renderings, email communication, insured global shipping and other advances in technology have made it possible to perform work across borders and oceans.

Communication

The Vermont Gem Lab uses email and international calling such as Skype (ken.young100). These technologies allow for instantaneous communication, live chat and data transfer across time zones and continents.

CAD renderings provide a way to visually inspect a 3-dimensional object on a computer screen, anywhere in the world. If you like, your jeweler can share his computer screen with you to see the rendering being created or altered in real time.

Gathering photographs of jewelry that you like or dislike is a very effective way of communicating design ideas. The more ideas that you collect and give to your jeweler, the easier it will be for him or her to interpret your ideas into a physical object of art. Here are a few websites that will help you in your search:

www.ganoksin.com/exhibition -An artisanal, user-submitted exhibition

www.metalcyberspace.com -A collection of links to designers, competitions, galleries and more

www.agta.org/awards -The best of the best, dating from 1984

Shipping

Shipping your jewelry doesn't have to be a daunting or stressful process. We've compiled a list of recommendations that will help you ship securely and confidently.

- Use an insured method with tracking and signature confirmation such as USPS's Registered/Insured service. International shipments can be insured through G4S international.
- Use a large box as small expensive items typically don't require them.
- Use dead weights as heavier packages typically don't suggest jewelry.
- Never write "Gem Lab", "Jewelry" or other suggestive terms on the outside of the package. For example, "Vermont Gem Lab" can be abbreviated "VGL".



Warranty and Policies

Custom Orders

- A 50% down payment for precious metals and castings is required before fabrication.
- Diamonds and colored stones must be paid for in full before fabrication begins.
- A contract and order form is required for all custom orders.
- All ring and personal sizing is solely the responsibility of the client.

Commercial Orders

- A 50% down payment is due at the time of the order.
- Commercial orders are non-refundable after any alteration.

Return Policies

- Custom orders are not returnable or refundable. It's the client's responsibility to order the desired design and request exact dimensions, materials, and requirements. The jeweler cannot be responsible for his interpretation of the client's requests. Clear communication is the key to getting your perfect stone and design.
- Commercial jewelry is returnable within 30 days of purchase, unless otherwise noted by the manufacturer.

Payment

- Visa/Mastercard debit and credit cards are accepted with a 4.0% processing fee.
- PayPal is accepted with a 5% processing fee.
- Cash and checks are accepted at no charge. A photo ID is required.

Alterations

- One ring sizing, within the finished ring's ability/parameters, is free of charge within 60 days of purchase.
- Cleaning, stone checking, and minor rouge-buff polishing are free for the life of the ring.
- Alterations after an order or contract are completed at an additional charge.

Diamonds, Gemstones, and Settings

- Stone settings are guaranteed under normal wear and tear.
- There is no guarantee for stone settings with 3 or fewer prongs.
- The VGL is not responsible for stones that were not originally purchased at the VGL.
- The VGL is not responsible for stones that chip, break or are damaged after the completion of the finished piece.
- Settings must be checked for integrity every six months. The VGL is not responsible for settings that have not been examined on a regular basis.

I understand and agree with all of the terms and conditions set forth within this document. I understand that the custom design and fabrication of a piece of art is an interpretive process. I've explained, to the best of my ability, the aesthetic components of the item described.

Signature of Client



Glossary

Alteration:	Any change in a piece of jewelry that was not present in its original finished state.
Bezel:	A method for holding a gemstone in a piece by placing it in a cup-like structure, with the outside walls extending over the top of the stone. Similar type settings include half and partial bezels.
Brilliant:	A gem in the brilliant form (the common round diamond with 56 total facets). Also a term used for stones cut with triangular facets.
Carat Weight:	Unit of weight equal to 200 milligrams or .200 grams (1/5 gram).
Casting:	A method of manufacture that uses a mold, crucible, and molten metal.
Channel Setting:	A setting consisting of two parallel or tapered walls holding gemstones between them.
Clarity:	A stone's absence or abundance of inclusions. See Grading Criteria-Type page 5.
Cleavage:	The property of many gemstones to readily break in one or more directions based upon their crystal plane(s).
Color:	The specific hue of an object.
Commercial:	A quality level of jewelry, typically mass-produced, that is designed for the mainstream sector of the industry.
Crystal:	Solid material with a regular arrangement of atoms bound by natural plane surfaces.
Culet:	The very bottom point of a stone.
Cut:	The faceting arrangement of a gemstone.
Die-Struck:	A method of manufacturing that uses a dead weight (striker), die, or metal mold and sheet metal.
Extinction:	Positioning of darkness in a transparent anisotropic gem when examined in cross polarized light.
Faceting:	Process of removing sections from a gemstone, creating small polished smooth surfaces.
Fluorescence:	The emission of visible light from a gem when subjected to ultraviolet light or X-radiation.
Flush Setting:	Holding stones in a setting by placing them, individually and in accordance with their outline, underneath the surface of the metal.
Fracture:	A break other than in a cleavage direction. Usually shell-like in transparent stones.
Gold:	A metallic element (Au) with a yellow color, specific gravity of 19.29, and a hardness of 2.5.
Group:	A classification of the family to which a gemstone belongs.
Handmade:	Manufacturing that is based upon fabrication from raw materials, such as grain, sheet, wire, and tubing.
Hardness:	Resistance to scratching or abrasion.
Head:	The center setting, or top part of a setting.
Inclusion:	Internal characteristic other than a fracture or cleavage in a gemstone.
Iridium:	A member of the platinum family typically alloyed at 90% platinum, 10% iridium.
Melee:	A gemstone that weighs less than 0.40 carat.
Palladium:	A member of the platinum family, typically used independently, and alloyed at 95% pure.
Pave:	A method of setting a stone, typically melee, which uses two or more beads of metal to hold the stone.
Platinum:	A family of metals, as well as a member of a family of metals. It's typically alloyed with iridium or ruthenium for strength and workability.
Price:	The amount a particular purchaser has agreed to pay and a particular seller has agreed to accept under the circumstances surrounding their transaction.
Prong Setting:	A method of holding a stone in a piece with (typically) cylindrical arms, which extend from underneath, to over the top of a gemstone.
Saturation:	The amount of color in a gemstone.
Shank:	The part of a ring that wraps around the finger; the lower part of a ring.
Silver:	A metallic element (Ag), with a white color, a specific gravity of 10.46, and a hardness of 2.5.
Species:	The specific variety under a group.
Star:	A term for a star pattern, usually caused by needle-like inclusions, seen in rubies, sapphires, and chrysoberyl.
Tension Setting:	A method of holding a gemstone in a piece by two walls exhibiting inward tension on it.
Tone:	The amount of light or darkness a gemstone exhibits.
Transparent:	Transmitting light with a minimum of distortion.



"The aim of art is to represent not the outward appearance of things, but their inward significance."

-Aristotle

