

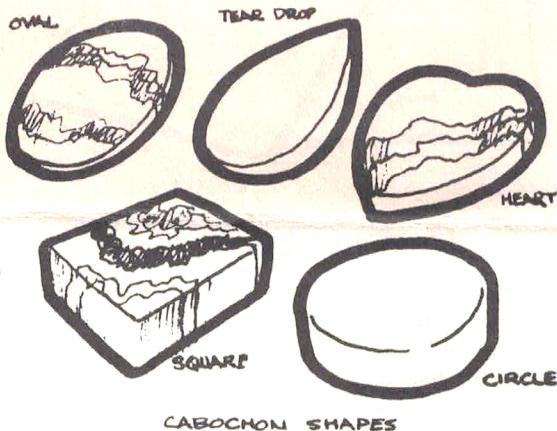
Lortone

Stroker

Hand Cabbing System

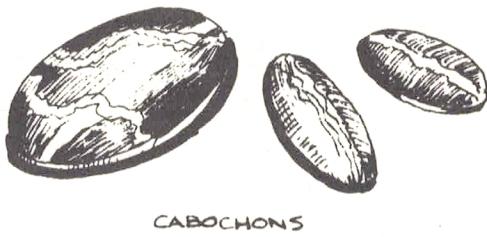
The Stroker System will introduce you to the wonderful world of lapidary - the world of precious gemstones, where you actually form and polish gems by yourself. With the invention of The Stroker, you can "create" gemstones that even a professional or a connoisseur will envy. And you can do it by hand, yourself, the very first time!

With The Stroker System you can make stones in shapes like these - all gleaming and polished - ready to mount in rings, pendants, pins, just about any piece of jewelry you can think of.



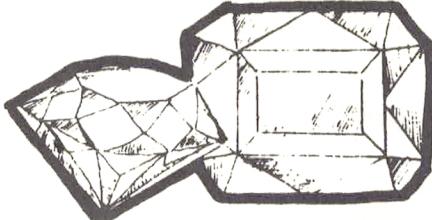
CABOCHON SHAPES

Shapes like these are called cabochons.



CABOCHONS

and stones that look like these are faceted stones. Both gemstone shapes are associated with fine quality jewelry.

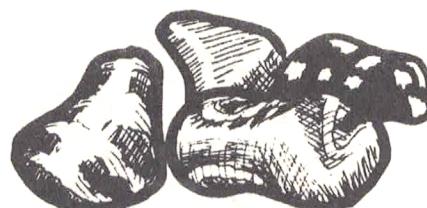


FACETED GEMSTONES

Lortone Division
The Carborundum Company
2856 N.W. Market Street
Seattle, Washington 98107
Telephone 206/789-3100

CARBORUNDUM

Irregular or free-form stones are called baroque.



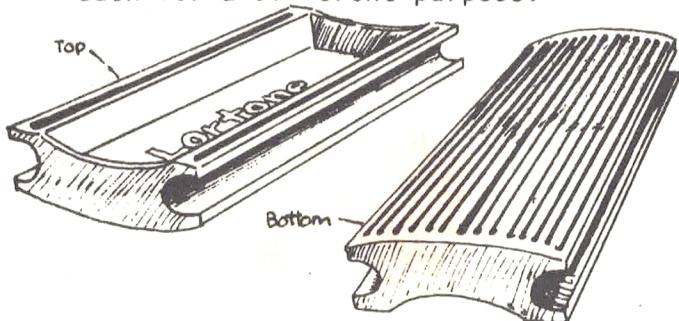
BAROQUE

Faceted gems are cut and polished by special machines and baroque stones are polished in a tumbling machine. Cabochons in all sizes - from very large to very tiny - are generally made on specialized machines.

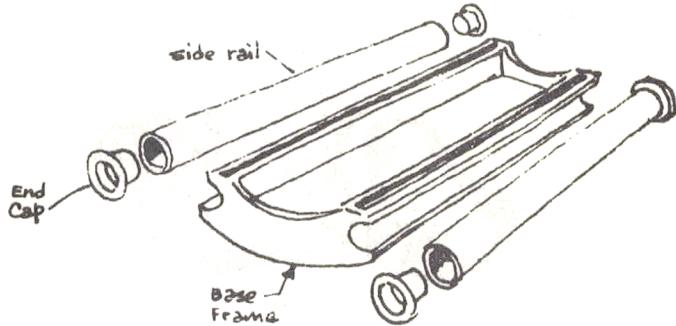
You can use The Stroker System with just about any of the popular gemstones - turquoise, malachite, onyx, agate, jasper, tigereye, opal, jade - except the very hard stones such as garnet, topaz, emerald, sapphire, and diamond. Every stone you polish will be an original -- your's alone -- the only one like it in the world because no one of nature's gems is identical with another. Your stone is your's and with The Stroker you can make it your masterpiece. Make no mistake about it - The Stroker is not a toy. It is a craft system.

The Stroker System Contains These Component Parts:

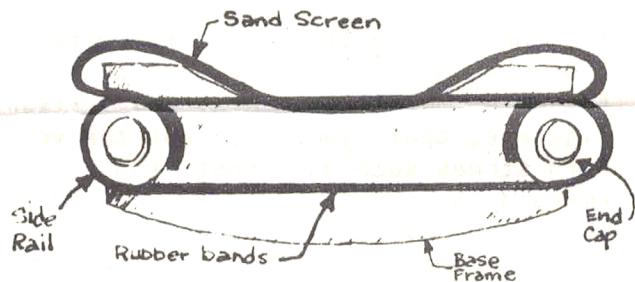
- 1) The Base Frame - You use this as a "bed" for the unique, custom, sequential abrasive screens that actually grind away the stones bit by bit. Both top and bottom are used - each for a different purpose.



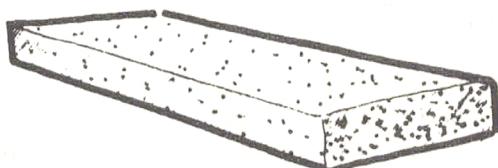
2) Two Side Rails - These fit into the sides of the base frame and grip the abrasive screens and polishing cloths to hold them in working position. Four end caps close out the ends of the side rails and keep the rubber bands from slipping off.



3) The rubber bands clamp the side rails together at each end of the base frame to secure the screens or polishing cloths into position.

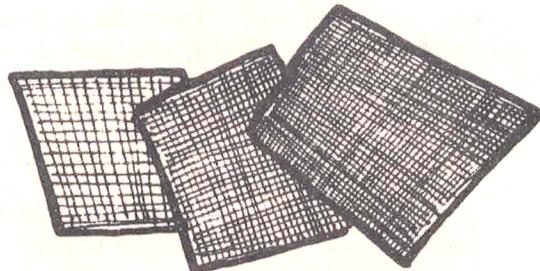


4) One silicon carbide "shaping stone" for rounding the sharp top edges. You also use this in making straight sided shapes such as crosses, rectangles, etc.

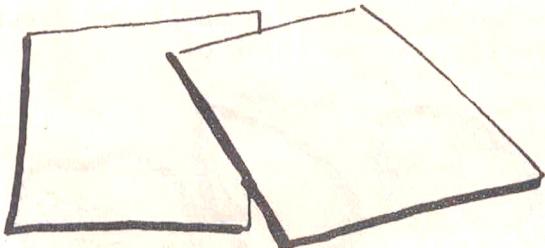


5) Three different sequential, patented silicon carbide preimpregnated abrasive screens - a coarse screen, a medium screen, and a fine screen. You use these one at a time. First, the coarse which takes off lots of

material for final forming; then, the medium for removing large scratches; and finally, the fine screen to remove remaining scratches before you start polishing.



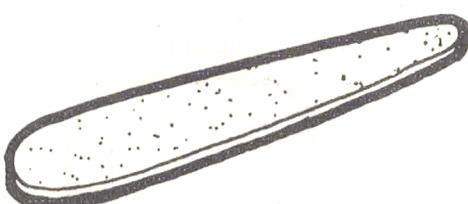
6) Two polishing cloths for use with the pre-polish and final polish components.



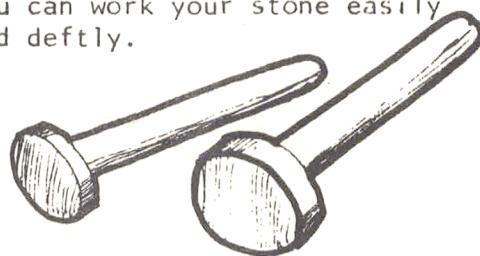
7) One pre-polish compound to prepare your gemstone for polishing. One polishing formula - designed to enhance the lustre and brilliance of your stone.



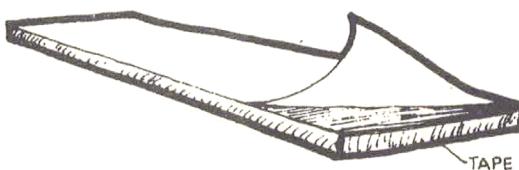
8) The double-edged silicon carbide fileboard is used to smooth and shape the lower edge or back of the stones. It has a fine side and a coarser side for rougher cutting.



9) Two Custom Shaped "Dop Sticks" - These are the handles you will attach to your preforms so that you can work your stone easily and deftly.

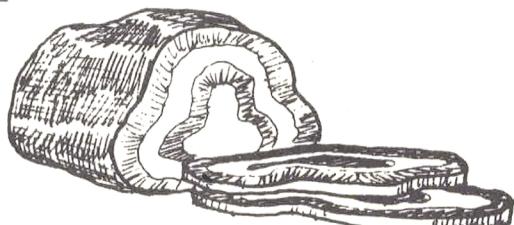


10) One strip of double-adhesive dop tape which you'll cut to fit the dop stick you select and use to attach the stone to the dop stick - then, you're ready to go to work.

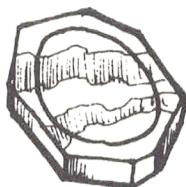
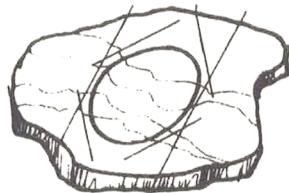


11) Two Imported "Mexican Onyx" Cab Blanks - This colorful stone is formed from minerals in underground waters settling into underground cavities. As the minerals build up, magnificent bands of color appear. These colors will vary depending on the amount and type of metallic mineral content of the water.

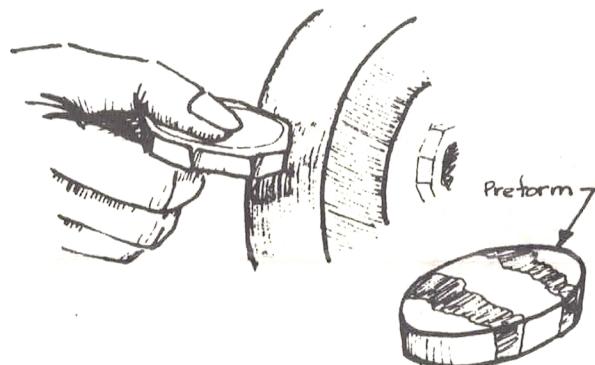
Found in various parts of the world, the stone is mined for a variety of uses. After cleaning and grading, the very best pieces are hand selected for future gemstone processing. The high-graded (an old mining term which means sorting out the very best quality) chunks of stone are shipped to processors such as Lortone, where they are cut into slabs, or "slices," the same thickness as the stones in your Stroker kit.



The slabs are then choice cut into smaller pieces selected for their unique texture and banding.



Finally, these pieces - "the very best of the best" - are preformed into stones such as yours, ready to be ground and polished into a gleaming gemstone.

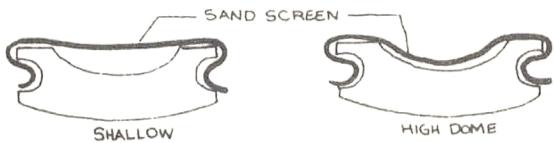


A note before you begin - initially, the process of forming gemstones consists of grinding and sanding the stone from a rough shape and surface into a delicate, precise shape with a high polish and lustre. In the process, you'll be removing stone in the form of dust - stone dust. It is like sawdust, but it is much finer - almost invisible. Inhaling the dust or getting it into your pores can be irritating. We recommend that you always use your Stroker "wet." The abrasive screens and stone are designed to work best that way.

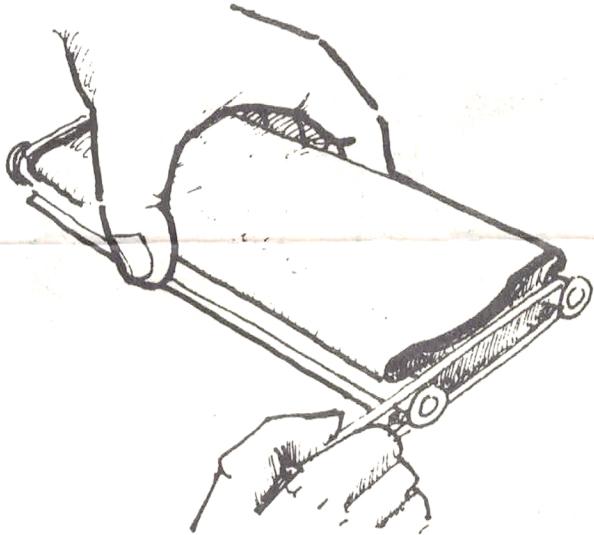
Stroker Instructions

STEP 1 - ASSEMBLE THE STROKER

- Use coarse screen first. Place over open frame (top) and drape down into cavity. Note: For high domes, drape the coarse screen all the way down to the built-in arc on The Stroker frame ends. For shallower doming, tighten the screen so there is very little draping down into the cavity.



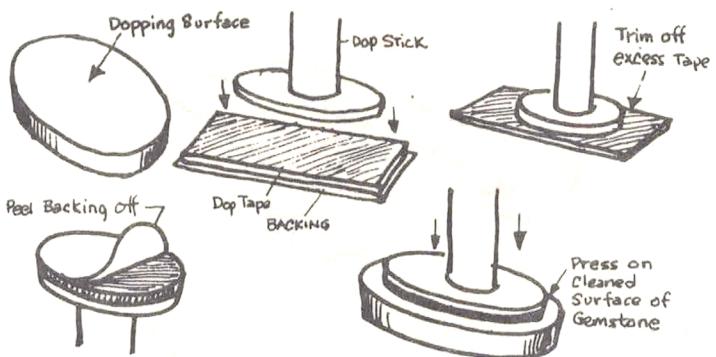
- Grip with retaining rails.
- Fasten rails together with rubber bands at each end.



STEP 2 - CHOOSE YOUR GEMSTONE PREFORM AND DOP IT

Select the dop stick that best fits the stone. Clean the surfaces that will be cemented together using alcohol or other cleaner that leaves an oil-free surface. Be careful not to touch the clean surface with your fingers. Fingerprints leave a body oil that reduces the dop tape's adhesion. Cut enough dop tape off the tape strip to cover the oval end of the dop stick. Remove one protective film and stick the dop tape on the end of the dop stick. Trim around the dop stick's oval face with a pair of scissors. Remove the protective film from the dop tape and carefully center the gemstone on the dop. Press the dop stick and stone together to

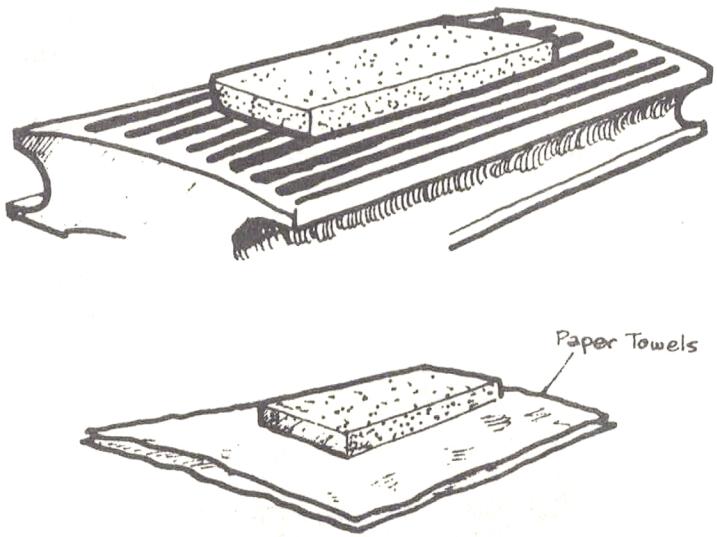
obtain better adhesion. The special foam tape takes from 10 to 60 minutes to achieve full bonding strength.



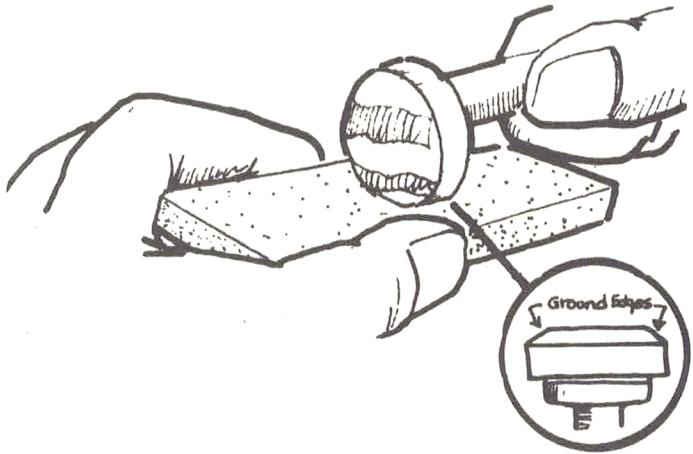
STEP 3 - FIRST, ROUGH SHAPING IS DONE WITH THE SHAPING STONE

The shaping stone is used to break the top edge and to quickly round-off excess side material. Using the shaping stone greatly reduces the time spent in initial gemstone shaping.

The shaping stone is used "wet" as in all Stroker grinding and sanding operations. The shaping stone should be thoroughly soaked in water prior to use. The base of The Stroker frame may be used as a convenient place to rest the shaping stone or it can be placed on some folded paper towels on any convenient surface that won't be marred by the wet stone.



Take the dopped gemstone and work the top edge, using relatively short back and forth strokes, rounding-off the sharp edge and some of the excess side material (see sketch). Work around the edge evenly. Do not worry about flat spots or smoothness as these will be evened out on the coarse sandscreen. The upper edge is rounded-off on the shaping stone to prevent the stone from digging or catching in the sandscreen.



Dip the gemstone in water frequently. The excess water picked up on the gemstone will keep the shaping stone wet as you work. Do not let the shaping stone dry out.

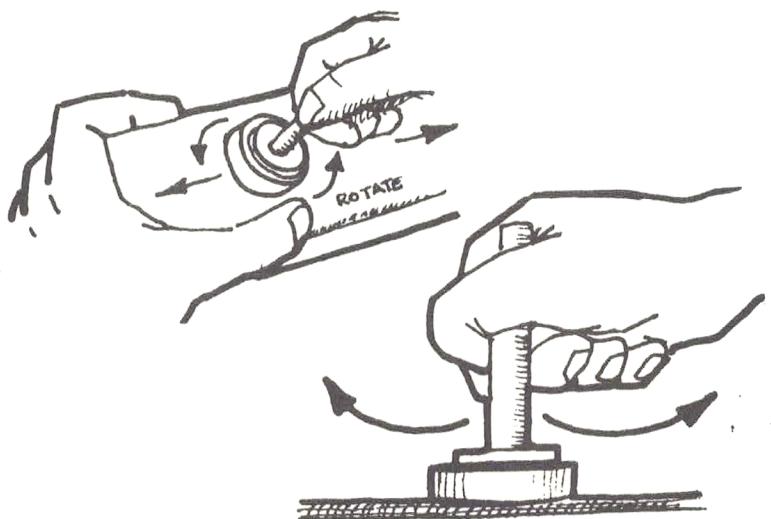
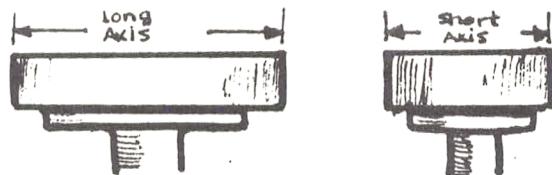
After the upper edge has been rounded-off, you are ready to use The Stroker frame for final shaping.

STEP 4 - FINAL SHAPING IS DONE ON COARSE SANDSCREEN

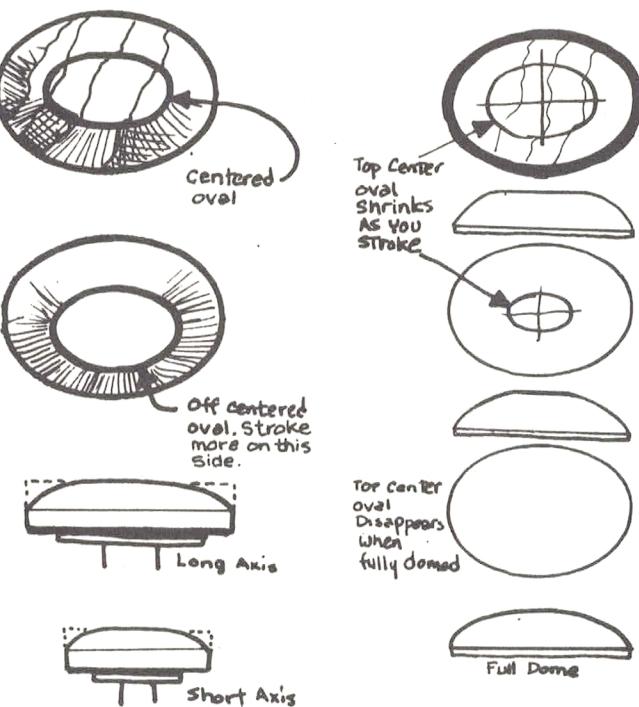
Sprinkle several drops of water on the coarse sandscreen mounted on The Stroker frame. Dip the dopped gemstone in water and you are ready to start final shaping. There are many ways to 'stroke' the gemstone to achieve its final shape. The following are three methods:

METHOD "A"

Align the long axis of the stone with the long axis of The Stroker tray. Move the stone against the screen with long, arcing, straight, sweeping strokes - rotating the stone 90° after every 15 to 30 strokes. This will bring the dome in gradually.



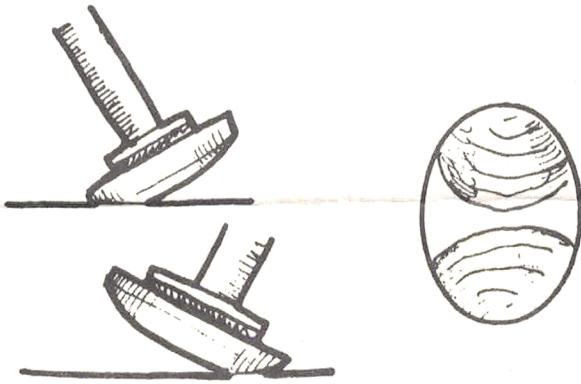
Remember to dip the stone in water and keep the abrasive screen wet. Occasionally, inspect the stone. You will notice the sides gradually rounding and the top flat oval gradually shrinking. The flat spots generated on the shaping stone should disappear rapidly. You will want to keep the top flat oval centered. Therefore, should you note that the top oval is skewed to one side or one edge, stroke more on that side or edge to recenter the oval. When the top flat oval disappears, you will have a fully domed shape.



Depending on the original preform thickness, the sides may or may not be shaped fully to the bottom. It is best not to bring the side slopes all the way to the bottom edge. This will be backbeveled later. Backbeveling helps to stop chipping of the edge when setting the stone in its jewelry mount.

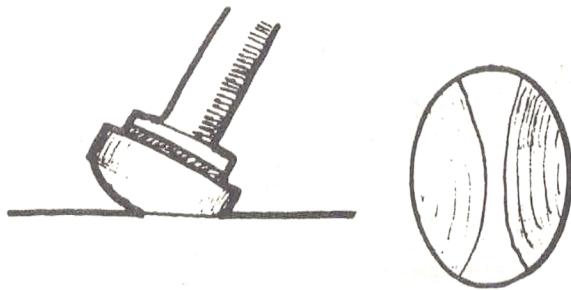
METHOD "B"

The second method is a variation of Method "A." Stroke one end only until it is almost domed. Then, stroke the other end to match. Or work one end for a period, then switch ends and even that end up. When both ends are finished, the sides can be worked very quickly. Then, sweep over the whole dome to its final shape as in Method "A." Remember to keep both stone and sandscreen wet.



METHOD "C"

This variation is the reverse of Method "B." In this case, stroke the sides of the stone down before working the ends. Again, keep both stone and sandscreen wet.



Notes:

1) The sandscreen is quite strong and a fair amount of pressure can be applied against it. However, heavy pressure against the sandscreen will tear out pieces of abrasive and weaken the screen, cause the user to tire faster, and put deeper scratches in the dome surface.

2) The sandscreen is reversible. When one side has worn smooth and is not cutting, reversing the screen presents a new cutting surface.

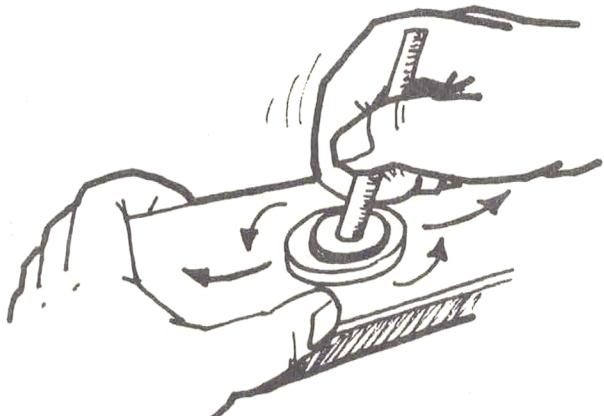
3) The stroking speed is a function of the user's stamina.

4) Store screens and cloths in their own plastic bags to prevent contamination.

When the stone is domed, the next step is to sand out the scratches put on the surface during shaping. Remove the coarse sandscreen and wipe out the tray with a damp paper towel, particularly along the top side edges.

STEP 5 - SAND THE CAB SMOOTH

Install the medium sandscreen (280 grit) in the same manner as the coarse screen. Dampen the screen and the stone. In sanding, we use the long sweeping strokes as in Method "A" and a circular or oval stroke.

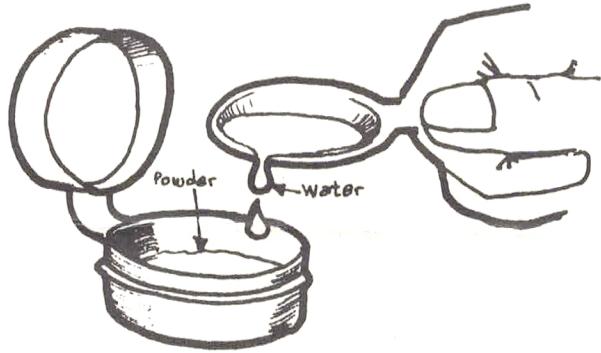


Sanding is a much faster phase than basic shaping. Only enough material is removed to make the large, deep scratches disappear. When inspecting to see if the scratches are gone, dip the stone and wipe it clean and dry. (If left wet, the water tends to mask the scratches and make it look smooth.) Hold the dopped stone up

near a light and watch the reflected light show the scratches. When you are satisfied that the large scratches are gone, remove the medium sandscreen, clean The Stroker tray, and install the fine sandscreen (400 grit). Wet the fine sandscreen and stone, proceed as before until you are satisfied that the stone is really smooth. Remove the sandscreen and store in its plastic bag. Clean The Stroker tray, grooves, side rails, etc.

STEP 6 - PRE-POLISHING

For pre-polishing, the powder marked "pre-polish" is mixed with a small amount of clean water to a cream-like consistency. It can be mixed by shaking the container or by stirring.



Install one of the white fabric sheets on The Stroker frame. Pour a few drops of the mixture in the center of the fabric. Dip the dopped gemstone in clean water and spread the pre-polish evenly over the cloth. Use short, rapid strokes in line or as a circular pattern - or both - over the domed surface several times, dipping the stone occasionally to keep the surface wet, until a uniform slight shine covers the surface. Do not neglect the lower edges of the stone. Wash the dopped stone and wipe The Stroker frame clean. Store the pre-polish cloth in its plastic bag to prevent contamination from dust and other grit particles off the sandscreen.

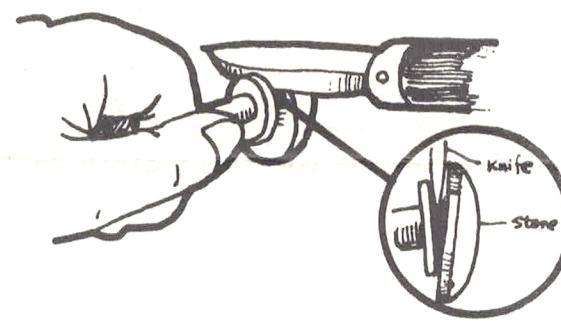
STEP 7 - FINE POLISHING

Mix and apply the polishing compound in the same manner as the pre-polish and pour a few drops on the second white fabric

sheet. Dampen the gemstone and spread the polish. Again, use the shorter, very rapid strokes. It is not necessary to keep the polishing compound very damp during final polishing. In fact, the final shine will appear when the polishing compound is almost dry. There is little danger of noxious dusts at this time as virtually no gemstone material is being removed. The final polish achieved will rival that achieved on the most expensive cabochoning machines available - and you did it manually in not much more time.

STEP 8 - REMOVING THE DOP STICK

The stone can be undopped in several ways. The easiest way is to insert a razor, X-acto, or very thin knife blade between the gemstone and the dop stick, cutting through the dop tape.

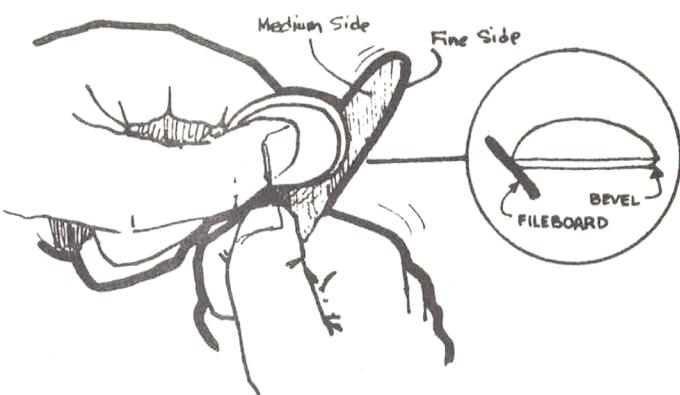


The remaining tape can then be peeled off. Any adhesive remaining on the gemstone back can be removed easily with alcohol. Tougher materials (jade, agate, etc.) can be "popped-off" using thumb pressure. (Highly banded or soft materials may break using the thumb pressure method. For safety on all stones, use the knife edge method.)

STEP 9 - BACKBEVELING, READY FOR MOUNTING

The bottom edge is still sharp and, as yet, unfinished. If the stone was mounted in either a prong or bezel mounting, the mounting - during setting of the stone - will exert a pressure against the sharp edge. This usually results in a large flake breaking off or a cracked gemstone. To prevent this, The Stroker System

includes a fileboard. The fileboard has a medium silicon carbide face and a fine silicon carbide face. Use the dampened medium grit side to round off the sharp edge.



Be careful not to work into the polished area. When the back edge is rounded, use the fine grit side to smooth out the surface. If the back edge will not show in the type jewelry mounting you intend to use - you are finished! If the back edge will be seen, polish it while holding the stone in your fingers. If you can't hold it, redop it and put a little polish on the side of the polishing cloth on The Stroker frame and polish the edge of the gemstone.

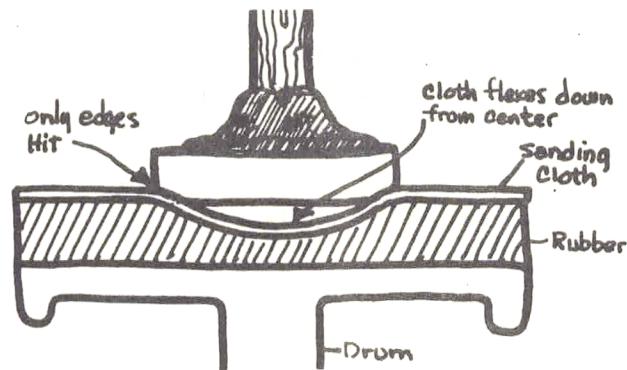
Now, you have completed a fine gemstone that can be mounted in the jewelry mounting of your choice.

Special Shapes

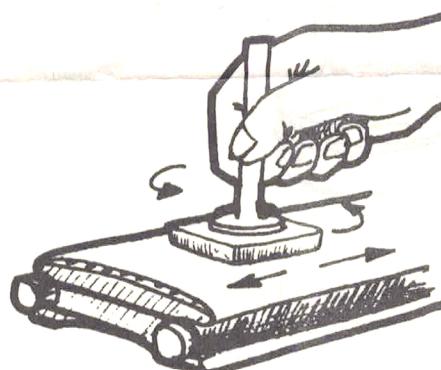
1) BUFF TOPS

Most special shaped cabochons are finished similar to a buff top with a flat or nearly flat surface. These are best ground, sanded, and polished on the ribbed base of The Stroker. The slight convex shape allows for easier sanding of a flat or nearly flat surface. (Unless you have an extremely flat surface in which the abrasive is embedded, you would only be able to grind or sand the edges and not the middle. When sanding on a motorized cabbing machine, the sanding drum or flat disc normally has a rubber padding behind the abrasive which will flex away from

the stone's center and again only finish the edge.)



The Stroker base is shaped to allow a cross-stone line contact that will grind, sand, or polish across the stone's face. To keep the stone flat, the stroke used would be a flat oval stroke rather than the arcing stroke used for doming. Edges can be worked in the same manner. Overhanging edges can be worked on the ends of The Stroker base.



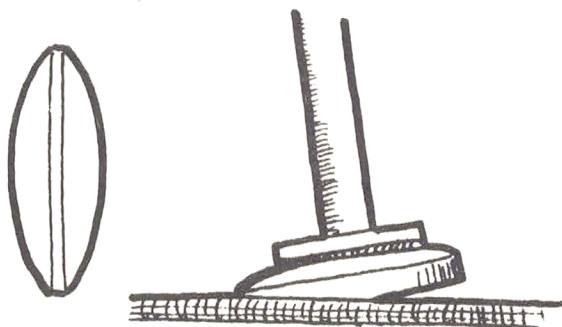
For longer sandpaper and polish cloth life, place a paper towel between the sandpaper (or cloth) and the ribbed Stroker base.

Keep the cloth and stone dampened while using the bottom. The grooves will collect the excess water and stone dust.

2) DUAL DOME

Some stones are domed on both sides - particularly for some types of pendant mountings where the normal back of the stone can be seen should the pendant swing free. If you wish to double dome, scribe a line around the preform girdle dividing the top and bottom. Dop the

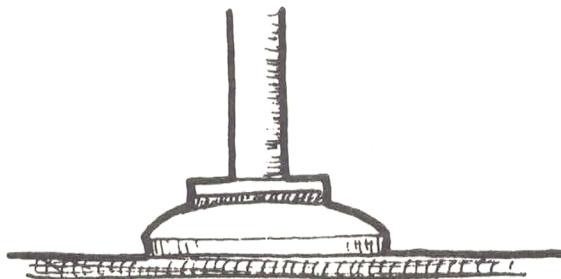
stone and partially form and sand one side following normal methods, making certain that the first dome sides do not quite touch the scribed girdle line.



Undop the stone and redop onto the partially domed side. Completely dome and polish the second surface, making sure the sides do not quite extend down to the girdle line. Reverse dop again and finish the first side.

3) POLISHED BACKS

If the mounting to be used with a particular stone will allow any part of the back surface of the cabochon to be seen, it is wise to polish the back. After finishing the domed portion, dop onto the domed surface, sand and polish the back using The Stroker bottom side as previously noted.



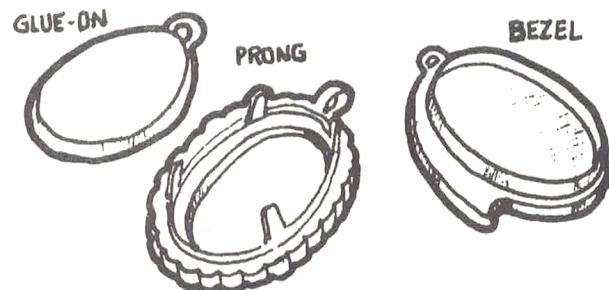
4) FREE-FORMS

Small or unusually shaped pieces of gemstone are sometimes cabbed in a free-form manner. That is, no particular geometric shape is preformed. The stone

is dopped and sanded smooth as close to the original shape as is practical.

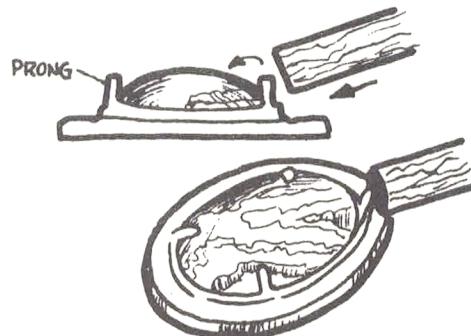
Jewelry Making

Cabochons are normally cut to a specific set of dimensions. Jewelry mountings are made in the same proportions. There are several methods employed in jewelry mountings to secure the gemstone in place. The major methods are: glue-on pad, prong or claw mounts, and bezel mounts (bezel mounts may be a solid bezel, either full or partial, or various lace and prong designs).

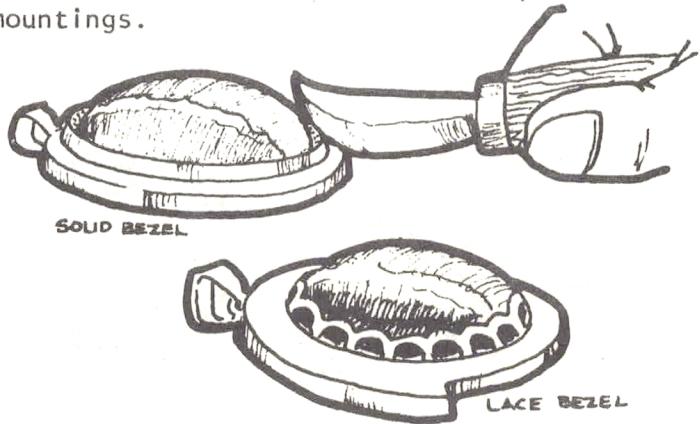


The glue-on pad mounting is the simplest method of mounting a cabochon gemstone. Both contact surfaces (stone and mounting) are cleaned with alcohol to remove any oil, fingerprints, dirt, etc. A small amount of epoxy is used to cement the surfaces together.

Prong and/or claw mountings are relatively easy to use. The stone must fit the mounting properly to prevent putting undue forces on the fragile edge of the gemstone. The prongs are bent around the stone and worked down to fit smoothly against the stone's sides.



The bezel mount is similar to a prong mount in some designs and, dependent on the actual design, it may be harder to set. One of the easier bezel mounts is the lace type which is a continuous series of half loops which are bent around the stone. A series of mini-prongs in a continuous string is very similar. The solid continuous bezel is usually much harder to set. A solid band of metal has to be gradually shaped around the girdle of the stone. There are special hand tools available to perform the task. The solid bezel provides a better grip on the stone and protects the edge of the gemstone better than the other styles of mountings.



You've Only Just Begun

The horizons for more fun, satisfaction, creativity, and individuality have no limit and no end in the world of lapidary. All it takes is imagination, patience, and the skills anyone can develop easily.

First, how and where to get more supplies? From your rock shop - listed in the telephone directory under "Rock Shops," or "Rock for Collectors," or "Lapidary." You can obtain a list of Lortone dealers when mailing in The Stroker registration card.

Visit the Lortone dealers in your area. The businesses are operated by accomplished craftsmen. They are quite willing to share their knowledge with new hobbyists. Most of our dealers carry a broad selection of gemstones for all phases of the lapidary hobby. In addition, you will find a wide assortment of jewelry mountings, supplies, and equipment. If there is no Lortone dealer near enough for you to visit conveniently, you can probably order

needed supplies by phone. If you are not satisfied with your purchase, you can be sure that the shop will gladly refund your money.

Shop by mail - many rock shops issue catalogs or price lists. Obtain copies and read the ads in the lapidary craft magazines - you will find additional catalogs listed there.

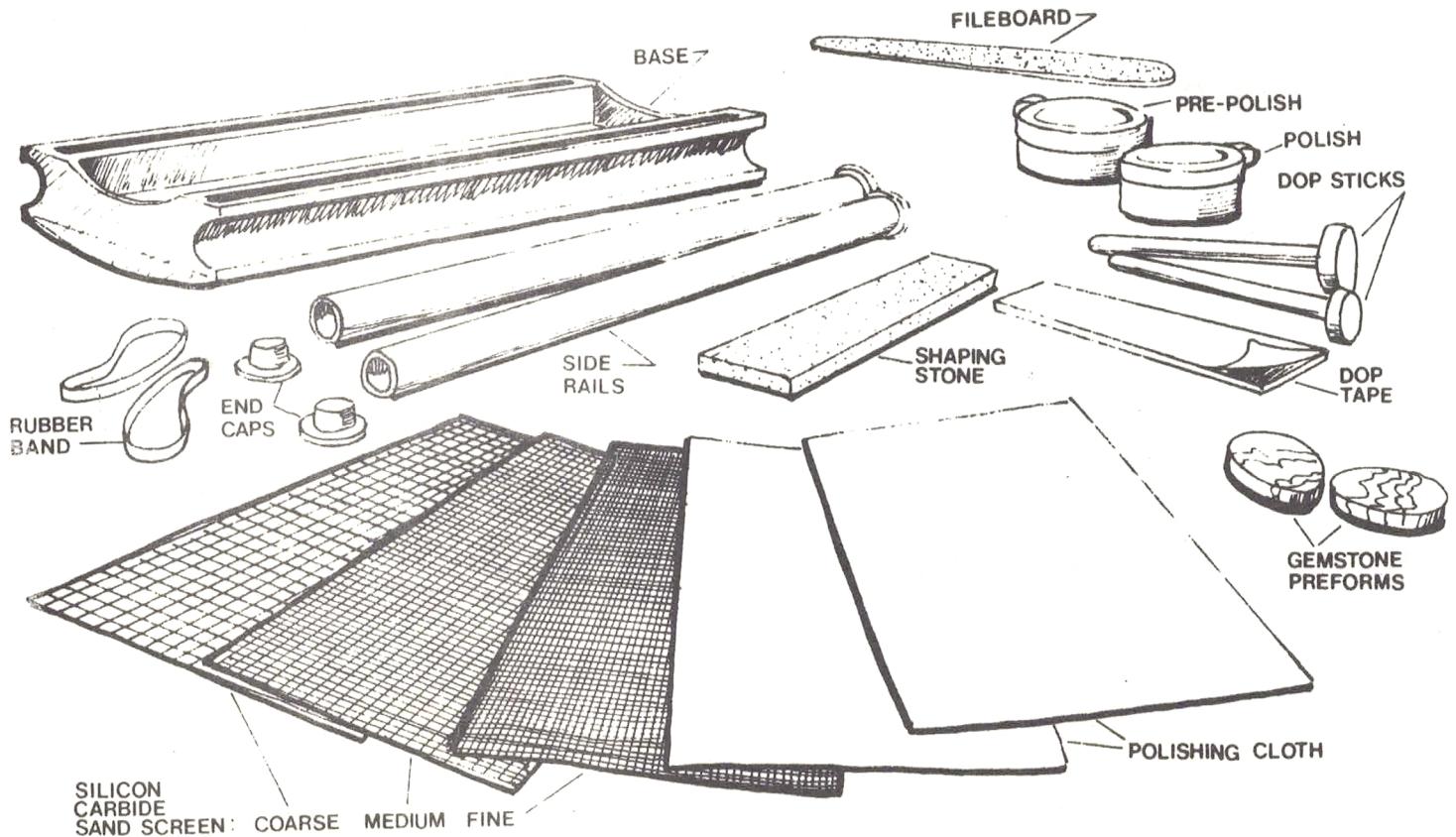
The Next Step

Cabochoning with The Stroker System can yield a lifetime of pleasure. As your interest in lapidary crafts and gemstone jewelry making increases, you can explore the worlds of faceting, casting, tumbling, flat lapping, and other craft kits. With patience, and the interest to learn, anyone can master all the phases of lapidary. To get started in these areas, visit your local library and read up on the subject that interests you most. There are several good lapidary craft magazines which you can read:

LAPIDARY MAGAZINES

- 1) Lapidary Journal, P. O. Box 80937, San Diego, California 92138.
- 2) Gems & Minerals, P. O. Box 687, Mentone, California 92359.
- 3) Rock & Gem, 16001 Ventura Boulevard, Encino, California 91436.
- 4) Rockhound, P. O. Box 328, Conroe, Texas 77301.

One of the best ways to inquire about different areas of lapidary is through association with other hobbyists. There are Rock - or Gem and Mineral - Clubs throughout the United States. These clubs are a cross section of novices, advanced hobbyists, professionals, and shop dealers who like to gather together to share their experiences and skills in the world of lapidary. The clubs welcome new hobbyists and membership fees are minimal. You can find the club nearest you through your local rock shop or through your local Chamber of Commerce. The lapidary magazines periodically publish data on the clubs.



Your Stroker includes the following :

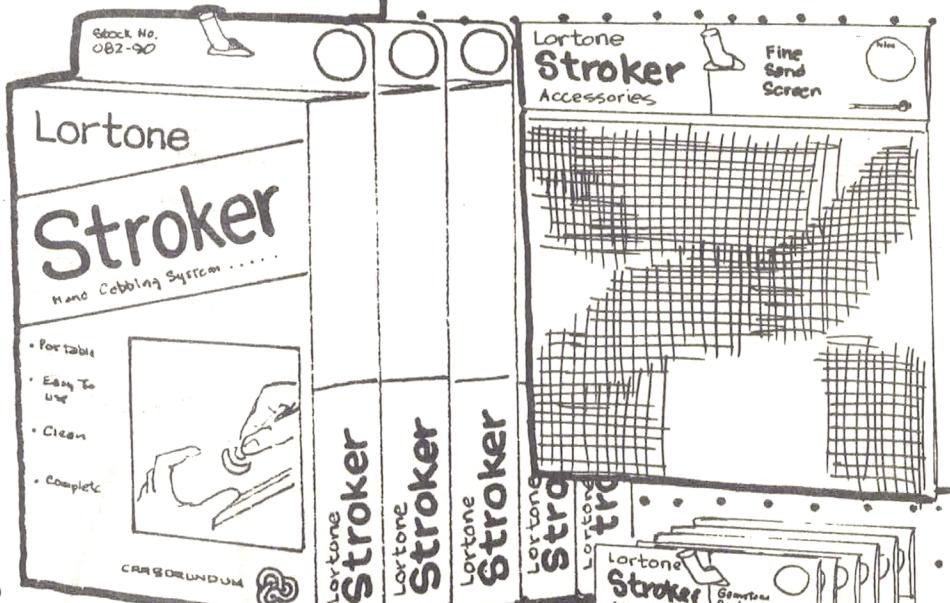
- Frame Assembly**
Base, Side Rails(2),
End Caps(4), Rubber
Bands(4)
- Sand Screen**
1 each - Coarse
Medium
Fine
- Polishing Cloth (2)**
- Fileboard**
- Shaping Stone**
- Gemstone Preforms (2)**
- Dop Sticks (2)**
- Dop Tape**
- Pre-Polish**
- Polish**

Complete Stroker System

(Boxed)

082-90

\$9.95

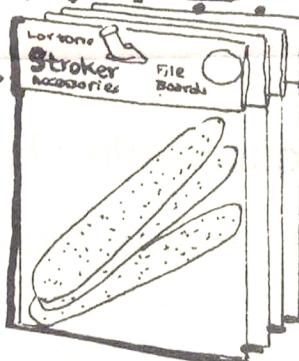


Stroker Accessories

082-21	Stroker Frame Assembly	\$4.95
082-20	Dop Sticks (Pkg. of 2)	0.89
730-90	Dop Tape (Pkg. of 5 strips)	0.99
566-50	Shaping Stone	0.79
504-20	Sandscreen-Coarse (Pkg. of 3)	1.95
504-21	Sandscreen-Medium (Pkg. of 3)	1.95
504-22	Sandscreen-Fine (Pkg. of 3)	1.95
512-01	Pre-polish/Polish Cloth (Pkg. of 2)	0.69
740-67	Pre-polish Compound	0.69
740-68	Polish Compound	0.79
504-30	Fileboards (Pkg. of 3)	0.59

Stroker Gemstone Preforms

576-15	Malachite	(2 ea.)	10 x 12 mm	\$2.30
576-14		(1 ea.)	13 x 18 mm	2.10
576-13		(1 ea.)	18 x 25 mm	3.95
576-18	Tigereye	(2 ea.)	10 x 12 mm	1.10
576-17		(1 ea.)	13 x 18 mm	1.00
576-16		(1 ea.)	18 x 25 mm	1.90
576-21	Jade	(2 ea.)	10 x 12 mm	1.29
576-20	(Nephrite)	(1 ea.)	13 x 18 mm	1.25
576-19		(1 ea.)	18 x 25 mm	1.79
576-24	Sodalite	(2 ea.)	10 x 12 mm	1.10
576-23		(1 ea.)	13 x 18 mm	0.95
576-22		(1 ea.)	18 x 25 mm	1.45
576-27	Obsidian	(2 ea.)	10 x 12 mm	0.80
576-26	(Snowflake)	(1 ea.)	13 x 18 mm	0.45
576-25		(1 ea.)	18 x 25 mm	0.60
576-03	Onyx	(2 ea.)	10 x 12 mm	0.80
576-02	(Calcite)	(1 ea.)	13 x 18 mm	0.45
576-01		(1 ea.)	18 x 25 mm	0.60



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