Polishing Stones
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Naturally Polished Stones

http://www.minresco.com/australia/dn_under.htm
Steps for Polishing Stones

- Sawing/Cutting
- Grinding
- Sanding
- Tumbling/Polishing


http://browse.deviantart.com/photography/?qh=&section=&q=polished+stones#/d2c8exd
Cutting and Polishing Stones

- Stone cutting and polishing is an ancient craft thousands of years old.
- Stones are shaped and polished for jewelry, ornaments, and decorative items.
- Stones were worked into tools for cutting long before metal even appeared.

http://www.jewelrycabs.com/specimens.html
Different Types of Machines are Used to Shape and Polish Stones

http://www.cabking.us/store/product.php?productid=16156&cat=3&page=1

http://www.lopacki.com/howto/
Sawing

- **Objective:** Turn larger pieces into smaller pieces
- **Slab Saw:** cuts stones several inches thick.
- **Trim saw:** cuts smaller stones into slabs.
- **Faceter’s Trim Saw:** very thin blade used to saw small pieces of expansive rough.

http://www.tradeshop.com/gems/howcut.html
Grinding

- Rapidly removes stone to attain desired shape.
- Silicon carbide wheels and diamond – impregnated wheels.
- Coolant/lubricant used to remove debris and cool wheel (typically water or oil).

http://www.blueherongems.com/servlet/the-template/shop/Page
Stones are attached to a stick with hot glue or wax for the grinding process.

Some stones break or shatter with hot glue or wax due to water in them. So they have to be treated delicately. An example would be Opals.

http://browse.deviantart.com/photography/?qh=&section=&q=stone+polishing#/d2m32xq
Polishing agents and grinding wheels work together to grind and shape the stones to achieve a smooth dome shape.

### Grit

<table>
<thead>
<tr>
<th>Barrel Size</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
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<tbody>
<tr>
<td></td>
<td>Coarse Grit 60/90</td>
<td>Fine Grit 120/220</td>
<td>Pre-Polish 500 Grit</td>
<td>Polishing Compound</td>
<td>Burnish (Soap)</td>
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<td>Pounds</td>
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</table>

Carving and polishing

Sanding

- Similar to grinding.
- Uses finer abrasives.
- Removes scratches due to grinding.
- Allows for more delicate control when shaping.
To aid the reflection of light from a stone's surface, a stone is polished to create a mirror-like finish or refraction in transparent stones.

- Facets are polished with tin, lead, leather, felt, or wood.
- Round surfaces like cabochons are polished with felt, leather cork cloth or wood.
- Tumblers cover some of the grinding and sanding process as well as the polishing by using various grits and lubricants to move from a rough to a smooth polished stone.
There are many different styles and cuts of stones. Cabochons are one of the most popular.

http://www.tucsonmineral.com/cabachons.html
Toy Tumblers

http://www.globalpowertools.com/products/rock_polisher/7.jpg

http://images1.americanlisted.com/nlarge/rock_polisher_discovery_kids_50_se_lincoln_9114062.jpg

http://www.compar estoreprices.co.uk/images/ro/rock-polisher.jpg
Commercial Tumblers

http://www.risingsunwholesale.com/gianttumbler.htm
These Mid-Grade Commercial Tumblers Can Polish Many Stones at the Same Time.

http://www.thumlerstumbler.com/

Before and After

http://andy321.proboards.com/index.cgi?board=trtphoto&action=display&thread=36957
Before

http://andy321.proboards.com/index.cgi?board=trtphoto&action=display&thread=36055
After

http://andy321.proboards.com/index.cgi?board=trtphoto&action=display&thread=36055
Works Cited


pictures

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- http://images1.americanlisted.com/nlarge/rock_polisher_discovery_kids_50_se_lincoln_9114062.jpg
- http://gemcrystalskull.en.made-in-china.com/product/1qPmMbLvnDhe/China-Rock-Crystal-Skull-Polishing-Show.html
pictures

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- http://www.jewelrycabs.com/specimens.html
- http://browse.deviantart.com/photography/?qh=&section=&q=polished+stones#/d2c8exd