

CONCAVE CARVING POINT

A new tool for lapidaries

BY HOWARD FRIEDLER

Sometimes while carving a gemstone, I've come face to face with a challenging step that brings me to a full stop. Such was the case in 2005. I was carving a seashell in blue topaz and I needed to round the tops of the grooves I'd cut into the shell's outer surface.

At that time, all available diamond carving tools cut a concave surface — and I needed to cut a uniform convex curve over surfaces of diminishing sizes. I remembered hearing a lecture by Henry Hunt at a GANA (Gem Artists of North America) meeting in Tucson a few years ago, during which he had stressed how tools are the keys to new designs and the evolution of carvings. As I slept, I pondered in my dreaming how such a shape might look. I awoke with a delightful shape idea!

I cut my first prototype point using a worn old diamond point with my flex shaft — but the resulting point was off-center. I needed to use a lathe to center the prototype during cutting. My dad has a lathe, so on my next visit to my parents I cut a series of concave points varying in curve radius sizes.

I sent two sets of points to Lasco Diamond Products for diamond plating. One set of points has a 3mm radius and the other has a 6mm radius. I had one tool of each set plated in 120 grit diamond and another tool of each set plated in 600 grit diamond. The beauty of using diamond plating is that the curve of the tool doesn't change.

With the actual tools in hand I began to see how they really cut. The edges that had required so many passes with other tools to round uniformly now were rounded with two or three passes of this tool! I was thrilled. As I continued to work with the new concave point, I found I needed to blend a small hole into a large curve. I reached out for a tapered point tool and suddenly realized that the new concave curved tool had the same shape at its tip — so I



IF YOU'RE IN THE MARKET

Concave curved points are available through Lasco Diamond Products, Chatsworth, California, in 3mm and 6mm radius in diamond grits ranging from 120 through 600. Other sizes may be ordered by request. More information at (800) 621-4726 or www.lascodiamond.com/products.

just kept on shaping with it. Then, I needed to smooth out some ripples on another surface, and once again I found the shape I needed on my new concave curved tool! *Wow!* I didn't even need to change my diamond point as the surfaces I was working on continued to change. I had not anticipated this!

I continued experimenting and stumbled into resolving yet another challenge. When holes are cut through gems so they may be worn as pendants, the edges of the holes may chip or be very sharp. This results in faster than normal wear on a chain or cord holding the pendant. Traditionally, rounding out this angle with most diamond tools creates two smaller edges, which then need to be reduced in size until a smooth

curve can be established. With a concave curved point, I was able to insert the tip into the hole and with one touch the entire edge was reshaped to a uniform smooth curve.

A lapidary friend who cuts such holes in his pendants and inserts gold tubes into them had commented to me about how the stress on the edges of the gemstone holes made bending the gold very tricky. I gave him the second set of tools to use for this application. I asked for feedback and he smiled broadly. The Concave Curved Point reduced the time needed to round the sharp edge of the hole, and the uniform curve formed a solid surface upon which the gold could be shaped without stressing the gold or the stone.

These tools are a delight to use because of their multiple shaped applications — and the reduction in labor time whenever a sharp edge needs to become a convex curved surface.



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ROCK STAR GEMS

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