

2009 SSC Master Stone Cutting Review
Superpear 96 by Long & Steele
Pattern Use Courtesy Graves Company

by Wing Evans

The cutting of the Long & Steele Superpear 96 is shown in great detail in the Long & Steele “Introduction to Meetpoint Faceting” booklet. These authors are some of the faceting heroes we now have the privilege of following.

I nearly always follow exactly the cutting sequence the designer offers. This is usually the best, and for this trial cut is what I did. As with all designs, spend a minute or two studying the way the facets interplay in the final form. If you can see a better sequence, use it!

The Superpear 96 has a simple 7 facet culet, (P1) that is the main reference point. Two other facets, (P2), meeting at this culet will define the length of the stone. Then the first 2 girdle facets will define the width of the stone. Sizing this stone to predetermined dimensions is fairly difficult.

I used a piece of beryl var. heliodor (which has a future use) for this test cut. For a quartz stone, the angles would be so close that no tangent ratio change is needed.

In an attempt to cut this stone to a predetermined width, I worked out the following scheme. First cut the 9 culet facets. Then cut the first two girdle facets, (P3), I tried to establish the depth of cut of these two girdle facets by measuring from the back of the dop to the P1, P3 meetpoint. I used the ratio between the overall length and the culet to the P1, P3 meetpoint length to calculate this distance. I used a micrometer to measure on the gem cad printout what these lengths are. I added ½ the dop thickness to the calculated distance and used the micrometer to make the measurement as I cut the 2 P3s. I was aiming at 11.0 mm width. I did not see a small overflow of superglue at the back of the dop, so I overcut the two facets a little. The final size was 10.55 mm by 14.60.

The method will work fine, but if you must make a certain size, cut a little less than needed and then recut to get it just right.

As you cut this stone, take great care establishing a girdle line that is exactly even. The second tier of facets (P4 to P8) must be exactly right or the girdle will not be straight.

The cutting and polishing sequence I used was:

1. Rough cut with 260 steel lap,
2. then 600 grit steel lap,
3. prepolish with 50,000 grit on a ceramic lap,
4. polish with 50,000 grit on a tin lap.

