Revealing the Light Within

FACETING DESIGNS

By Ernie Hawes

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Acknowledgements

Without the computer programs **GemCad for Windows** and **GemRay for Windows** created by Robert Strickland, this book would have never even been started. The faceting community owes Robert a huge debt of gratitude for the work he has done.

This book is dedicated to the memory of Eldon Fleck, Louis Natonek, and especially my mentor, Merrill Murphy. They, along with myself, founded the New Mexico Faceters Guild in 1981. These men did much to encourage and inspire my interest in faceting and the creation of faceting designs. And I must not forget my friend, Al Huebler, who freely shared his enormous knowledge of faceting and gave honest critiques of my early design efforts. While long gone, each of these men contributed something that is reflected in the designs in this book.

Of course, I must not forget my wife, Rebecca, who not only has encouraged me, she has tolerated the untold hours spent at my faceting bench, the time taken by the many workshops I have attended or taught, the trips to gem shows across the country and the considerable amount of equipment and supplies that take up too much space in our home.

Finally, I want to dedicate this book to my many students who have done much over the years to keep me striving to learn more about faceting and to become the best faceter I can possibly be.

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Introduction

Creating faceting designs has been a serious interest of mine for over twenty-five years. I find it both challenging and satisfying. It certainly doesn't hurt my ego to see my designs in print or to have someone come up to me and tell me that they've enjoyed cutting one or more of my designs. Many of my designs have been published in various guild newsletters as well as **Lapidary Journal/Jewelry Artist**. However, I never seriously considered publishing a book of my designs, even though numerous people over the years have suggested that I do so. It's just been my firm conviction that faceting designs should be freely shared, and I've done that on many occasions. So why am I publishing a book now?

At the Tucson shows in 2014 I was confronted by some faceters who told me that they either didn't always have internet access or didn't have it at all. And they all said that they really preferred to have a hard copy compilation of designs that they could work with. I pointed out to them that there are several good design books already available. Why didn't they get those? One guy responded that he had them and wanted more. Another flattered me by saying he especially liked mine and really wanted to have a book of my designs. A dealer who was part of the conversation said that he would like to have copies of a book of my designs to sell. The pressure was definitely on. How was I going to satisfy what these guys were asking for, some of whom are friends, and not be in conflict with my belief that designs should be shared for free? I thought about it for a long time and finally concluded that the only way to resolve this conflict was to go ahead with the publication of a book but to dedicate any profits earned to furthering the faceting hobby. Beginning faceters that I work with will be provided rough for their first stone and a variety of instructional materials at no cost. Everyone may not agree with this approach but I think it is a fair compromise.

About the designs in this book, it took me quite awhile to decide which patterns to include. It was suggested that a reasonable selection would be twenty or twenty-five designs. I wanted to have a variety of shapes and also be certain that most were fairly easy so that novice faceters would find the book useable. While I have design several hundred faceting patterns over the years, I honestly believe many are not that good and I obviously want folks to be happy when they've cut one. Of the entire collection, maybe a little over one hundred are truly worth sharing. Paring that down to a selection of twenty or twenty-five was a task. Some that I've chosen have already been published in newsletters or **Lapidary Journal/Jewelry Artist,** although often those have been revised in either their angles or the cutting instructions. Most are fairly new

patterns that have not been shared yet with anyone other than a small group of faceters in the New Mexico Faceters Guild. Some have never been shared.

Some designers emphasize brightness in their patterns, others, especially in the past, have emphasized complexity. When I first started designing I thought the goal was to reflect back as much light as possible. I soon learned that the result was more like looking into the head lamp on a car; bright, yes, but not very interesting. Designs should be interesting to look at on paper, but most important, they must be interesting to look at when cut, whether it's in quartz, topaz, ruby or CZ. For me, scintillation is what helps most to create an interesting design. Shape can be important, as can the way the facets are placed in the design, but if the design lacks scintillation, it will almost invariably have an uninteresting appearance. If a design is bright in one area and dull in another, or if the facets appear to blend together without noticeable definition it will not stand out. Over the years I've designed a number of patterns that looked good on paper, but when cut did not achieve the results I wanted, having one or more of the undesirable characteristics just mentioned.

My design philosophy is to primarily create patterns that are fairly simple while having as much scintillation as possible. Brightness is important, but secondary. Also, I focus on creating designs that novice faceters are comfortable cutting, or find to not be unreasonably challenging. Most of my designs have been created to look good in quartz, but often they will look good or even better in higher RI materials. Also, I tend to focus my designing on patterns that use the 96 index. Sometimes I get an idea for a design that simply will not work with a 96 index and I design for an index gear that fits the idea, but if I can, I will always design for the 96, simply because that's the one index gear almost everyone has. It's not unusual for me to create several variations of a design, and I will work on these variations until one evolves that I think stands out from the others. Usually, that's the one I publish, although, as you'll see in this book, I sometimes come up with variations that are sufficiently different, or that I consider to be equally worthwhile, that I publish both.

As I said earlier, up to now, my published designs have appeared mostly in various guild's newsletters or in **Lapidary Journal/Jewelry Artist.** And at the moment, a little over twenty of them can be found on line at *facetdesigns.org.* But finally, for those who have asked for it, here is a compilation of a variety of my designs. I hope you enjoy them. Very few of my designs should present problems when cutting, but please feel free to contact me at erniehawes@msn.com if you encounter an obstacle.

ABOUT THE DESIGNS

1 **Six-Eight Cushion**

A simple antique cushion designed for 1.54 RI but could work well in higher RI materials.

2 **Spectra I**

Square emerald pattern, moderately difficult because of a few non-meetpoint facets. Designed for 2.16 RI but will work well in materials from 1.61RI up to 2.16.

3 **Long Cushion Triangle**

A moderately difficult cushion triangle designed for 1.54 RI but will work all the way up to 2.16.

4 **Spectra II**

An elongated version of Spectra I with a scissors crown. Designed for 1.76 RI or above. Same difficulty as Spectra I.

5 **Odd Main Portuguese**

Round brilliant that is spectacular in CZ or other high RI material, but can look good in quartz with modified angles. Requires a 120 index gear.

6 **Long's Inspiration Oval**

Based on Robert Long's Lazy Oval series, it's easy for an oval pattern. Designed for 1.54 RI.

7 **Merrill's Inspiration**

Inspired by my mentor, Merrill Murphy, this square cushion design is moderately difficult to cut. Designed for 1.76 RI but looks good in other high RI materials.

8 **Portuguese Cushion Triangle**

The Portuguese style of this low RI pattern makes quartz or Mexican opal look great. Difficulty is moderate.

9 **Solara**

Designed for 1.61 RI, this square cushion design is also suitable for higher RI materials. Not suitable for stones under 10*mm*, cutting difficulty is moderate.

10 **Himalaya Triangle**

Although it can be cut in other materials, this cushion triangle was designed to give high yield on open C-axis tourmaline. Cutting is not difficult.

11 **Becky's Scissors Barion**

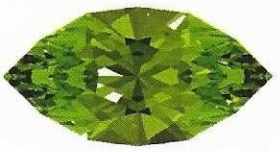
This barion style emerald has lots of scintillation to make up for the small amount of dark area in the center of the pavilion. Medium saturation amethyst looks very nice cut in this 1.54 RI pattern.

12 **Easy Square Emerald**

Beginning faceters learn with this design that two facets can look different but really are alike. They enjoy how easy this design cuts, and experienced faceters like it, too. Scintillation makes up for the apparent dark areas, especially in lighter stones. Design RI is 1.54.

13 **Fiesta Marquise II**

A nice marquise for beginner and experienced faceters alike this is an attractive pattern with lots of scintillation for citrine or amethyst and even a little higher RI stones like peridot.



14 **Flower of the Mines**

A simple variation of an Old Mine style cut, this pattern looks better cut than the image suggests. While the RI listed is 1.54, don't hesitate to cut the design in higher RI materials. I've cut it in quartz and corundum and both look fine. And like the Easy Square Emerald, there are facets that don't look the same but are in fact in the same row.

15 **Long Easy Trillion**

Much simpler than the Long cushion Triangle, this pattern should present little difficulty to the novice faceter. It makes a nice pendant stone if cut in a large size. Also, low saturation stones perform well in this pattern.

16 **The Queen's Fancy**

This design performs very well in corundum. When originally published in **Lapidary Journal/ Jewelry Artist** there were two versions, one for corundum and one for quartz. Of all the designs I've created, this, and the revised version below, are my favorites. An 80 index is required.

17 **The Queen's Fancy revised for 96 Index**

Many faceters do not have an 80 index. Keeping the exact length-to-width ratio of the original pattern simply could not be modified to work with a 96 index gear. Finally, I worked out a slightly shortened version that did work. It's every bit as nice as the original.

18 **My Pear IV**

Robert Strickland designed several pear patterns that I like and the crown of this pattern is very much like his. The pavilion is my own creation in a style I like to use for various shapes. Although designed for 1.54 RI, the design performs well without angle modification on almost any material, from quartz to CZ. It is moderately difficult to cut requiring care to get even sides on the pavilion.

19 **Square Twist**

You can't get much simpler than this pattern that I created just for kicks to see how few facets I could use and still get a decent design. It's actually a good pattern for small stones 4*mm* and under.

20 **Sultana**

Plan to spend awhile if you want to cut this fat little pear. But this jewel will reward you whether you cut it in quartz, corundum or CZ. The scintillation in this design is exceptional. It is moderately difficult, mostly because there are so many different steps.

21 **Prince of Portugal**

This square barion cushion looks best when cut in stones 12*mm* or larger. While not overly difficult to cut, beginners might find it challenging. Cut in Rhodolite garnet or pink sapphire, the design is stunning with lots of scintillation. Synthetic spinel is another excellent choice for this pattern.

22 **Tri-Cushion II**

Tri-Cushion II is based on a pattern by my friend, Dylan Houtman. Dylan is a prolific designer and excellent faceter in Albuquerque. Dylan used a 120 index but making a slight change in the outline allowed me to stay with a 96. Crowns are pretty much the same with different angles. My pavilion starts like Dylan's, then changes quite a bit. The scintillation in both our designs is excellent.

23 **Mixed Square Cushion III**

Step-cut and brilliant style facets in combination help considerably in making this an attractive design. Because some of the corner facets on the pavilion are small, I don't recommend cutting this design smaller than 8*mm*.

24 **Pendant I**

Most of my designs are created in traditional shapes, but once in awhile an idea comes to me for something unusual. Pendant I is the only kite shaped pattern I've done to date that satisfied me. It's moderately difficult and takes some time to cut.

25 **Valentine Heart**

With an RI of 1.76 this design can be cut in either ruby or red garnet. With so many rows, angle and height changes on the pavilion, getting everything just right will take time and care. Although there are several other heart patterns available, I hope you like this one.