

## THE ECONOMICS OF AMATEUR FACETING

by Joe Rubin, [joe@ultratec-facet.com](mailto:joe@ultratec-facet.com)



***"How much should I charge for a stone I've cut?"- that's a frequent amateur faceter's question. It's that question that prompts this article....***

An amateur faceter pursues his hobby for the pleasure of it. But, unlike most other hobbies, faceting produces things with marketable values -- faceted gemstones. The question of gem value is impossible to ignore-when a hobbyist proudly shows his handiwork, someone always asks "What's that worth?", or, "Would you sell me that?" The hobbyist thinks (maybe he says)..."Hmmm...".

The hobbyist realizes that although he facets for the love of it, the question of the value of his gems soon becomes very important. It affects his decisions about the rough material he'll buy, what designs he'll choose, how carefully he'll do the cutting. If he's lucky enough to think about this before he buys equipment, it will most certainly affect that decision.

Let's get into it.

### PRICES and COSTS.

In the World of Gemstones, the commercial price of a gemstone is generally set by the existing commercial market. The amateur faceter's prices, however, while he certainly considers the commercial market, may be higher or may be lower, depending on several factors.

For easy thinking about it-lets use a couple of simple (and rather obvious) formulas:

YOUR TOTAL COST = COST OF (EQUIPMENT+ ROUGH + SUPPLIES + YOUR TIME)

YOUR PRICE WILL BE = TOTAL COST + SOME PROFIT

For the Faceter "in business", it's not so hard to figure out these factors. For the Amateur, however, it is more difficult-primarily because the Amateur's "YOUR TIME" factor is "tricky" (Right-that's why I'm bothering to read this-you say). This article will discuss all of the factors in the equations, and in particular the tricky "YOUR TIME" factor, right after a few paragraphs, right below, about what might influence an Amateur to charge less than the commercial market - and what might influence an Amateur to charge more than the commercial market.

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## GEMSTONE PRICES.

Here are several factors that would lead the hobbyist to set a LOWER price than the market:

- \* He's unaffected by most "business expenses"
- \* He's not counting on the income for basic needs-like rent and food
- \* He's using time that is assigned to pleasure (as compared to earning-a-living-time),

AND.

Here are several factors that would allow the hobbyist to set a HIGHER price than the market:

- \* the gem usually has the quality of being "special" and interesting in design-that's exactly what the Amateur should do anyhow (even if he never thinks of selling), cut stones that are different from the commercial stuff routinely available.
- \* the gem will very likely have been cut with exceptional quality - much better than typical commercial gems in the quality of execution (that's another characteristic of the Amateurs work - there are more comments about that further on).

So, there are downward influences on price, and upward influences. And, since the Amateur is not dependent on the income, he's in control. With these thoughts on pricing in mind, let's go back and look at the COST formula, and see where it leads.

## THE ELEMENT OF YOUR TIME

Often, the puzzled faceter who's thinking about selling his stones poses the question as: "How much should I consider my time worth?" He's so puzzled because he intuitively understands that the answer to this question is nothing. OK, I'll repeat that-nothing. Why? Well, your faceting is done for pleasure. You would choose to facet even if there were no market for the product. Think about it-if the government decided to require a license for faceting you'd (grumpily) pay for the privilege. So, how would you financially value time that you'd even be willing to pay for? Right.

The cost factor for TIME is plugged into the formula as-zero. It's important to note, the amateur in his search for perfection, typically spends much more time at completing his stone than a professional does. It shows, incidentally in the quality of the stones-and it's one of the reasons that the Amateur can often charge more than commercial prices. It is acknowledged that the finest faceting is done by amateurs. They give it the time.

To illustrate this point with an example, let me refer to another hobby of mine, raising Tropical fish. If I added up the time spent at this hobby and wanted to be paid for that time, I'd have to charge a small fortune for the occasional fish sold. But I don't think of time because I'm doing something I love to do. The fact that the faceter is working with gemstones, which are symbols of value, does obscure the question, but the same principle applies - we don't expect payment for hobby time.

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In faceting, if you choose to sell, your time can be handsomely rewarded indeed-since we put in a zero cost factor for the time, any return on it is "found money". Nice.

What about the other factors?

## GEM ROUGH-and cutting yield.

The cost of Gem Rough, then, becomes a significant factor-but as you will see, the yield obtained from the rough is the most important factor. Below, I'll talk about a pricing "rule" which is based on yield, and which indicates the percentage increase in value as you turn the rough into a finished gem stone. Incidentally, since we are dealing with percentages, if you start with expensive rough, the absolute value of the earning is higher than the value of less costly rough (to be obvious-the absolute amount of a percentage of a big number is proportionately more than the absolute amount of the same percentage of a small number).

When you sell a stone, it's so-much money per carat. So, yield is crucial-if you can coax a few more carats from the rough, the reward is large (if you sell a stone at \$15 a carat, an extra two carats gets you \$30, and that still buys lunch). Yield is maximized by your being clever in the design, picking a design that fits best to the shape of the rough, and, using equipment that is accurate, so that you're not whittling away material as you correct the cutting and polishing. A carat is only 1/5 of a gram, and it doesn't take much "evening up" to lose a carat or two.

## The Pricing Rule - cost of Rough vs. Price of Finished Stone.

This "Rule" was given to me by a professional cutter, and I bounced off several others who said "that's about it". It was also published over 15 years ago, with no negative feedback. It is: assuming a 20% yield from the rough, the price of the finished stone will be twice the cost of the rough.

The way it works out is this: You assume the 20% yield. To determine the per carat price of the finished stone, multiply the per carat price of the rough by 10. For example, if you purchase a rough stone of 50 carats at \$1 per carat, your cost is \$50. At 20% yield, the finished stone's yield is 10 carats-so, to double the cost of the rough, the per carat price of the finished stone is \$10. Note how the actual yield is critical. On the down side, the yield would have to fall to 10% to just cover the cost of the rough (you won't do that bad)-in the example, with a 10% yield, you'd get the \$50 rough cost back-5 carats at \$10 per carat. On the other hand, if your yield rose to 25%, 12.5 carats, you'd get \$125. -nice return on a \$50 investment + your hobby time.

Typically, an amateur's first efforts will yield about 15%, but improvement to 20% and beyond will be quite fast. Customarily, professional faceters use 20% yield as their rule-of-thumb, they promise that to their customer and then usually beat that percentage by several points-and you will too. .

As a matter of fact, since the original publishing of this article, the "20% or several-points-more " has taken a beating from professional Ultra Tec cutters. We have spoken to several who promise and (I've confirmed) deliver 35% yields from random material. That is an exceptional yield, for which they credit the accuracy and repeatability of the equipment. It all works in the favor of the amateur who can reasonably set personal yield goals at 30% (and perhaps more). But, the 20% remains as the computation rule. If these yields sound low to you, here's an interesting calculation-if you had a piece of rough in a shape of a cylinder, with the diameter coinciding with the girdle diameter of the stone to be cut, and the height of the cylindrical rough equal to the table-to-culet height of the stone, the yield from that rough would be 43%. So, when people tell you about 70% yields-take it with a grain of salt.

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Does this pricing rule square with reality? Do a little checking -- rough value versus finished value - and you will see it does. Professionals have given me all sorts of complicated formulas to apply to the rough-finished relationship -- but they all reduce down to about the same thing. Assuming a 20% yield, the price of the finished stone will average a bit more than twice the cost of the rough. If you figure out those numbers and compare them to the pay that the professional cutter needs, you will see they make sense. Now, for you and the time you may put in, it might or might not be a good hourly wage, but it is a wonderful payback for an amateur's voluntary time.

### THE QUALITY OF THE CUTTING-THE UNIQUENESS OF THE DESIGN.

The amateur has another real edge in all of this--the ability to spend the time needed for a new design, or an original design, or a freeform design which will yield a high percent of the rough. Here's a favorite story:

The late Al Huebler (an engineer living in the San Francisco area) made a special design that he cut in Blue Topaz for a competition at the Northwest Faceters Conference. He did a super job and won the first place award. Needless to say, he was pleased, and we at Ultra Tec were pleased--Al was an Ultra Tec cutter. After the award, someone representing a client who wanted to purchase the stone approached Al. Al thought about it--he'd ask about \$400, a premium price for his good cutting -but he badly wanted to come home to California with it, and show it to the Ultra Tec crew, and so he said it wasn't for sale. The man went away, and came back, and said, "Certainly there's a price". Now, Al sighed, and thought if he told him 3 times his price, \$1200, he'd go away. You know the rest of the story (incidentally, Al insisted that he be able to hold the stone long enough to show it to us at Ultra Tec, which he did). That's not an every-day story, but it's an illustration of the increased interest in the exceptionally well done interesting-design stone.

Rule of thumb for this sort of thing: multiply the calculated price as shown in the previous section by 1.5 or 2 (or, I guess you could try 3, as Al did).

### OTHER COSTS-EQUIPMENT AND SUPPLIES

Your equipment is logically in the same category as your time. Since you're faceting for the love of it, and you need a machine to use, why would you charge someone who buys a stone with some share of the equipment cost? I guess you could reason that you got a more expensive machine in order to get the yields we've been talking about--but the same machine characteristics that give you the yield make the faceting job more pleasurable. And isn't it pleasure that you as an amateur was seeking in the first place? Anyhow, if you take the difference between the lesser-cost machine and the more expensive machine, and divide that difference by the number of stones you'll cut, the amount becomes insignificant.

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### THINGS TO THINK ABOUT, OTHER THAN COST...

#### THE FACTOR OF INFLATION.

Those of you old enough to remember the 70's (did I ever think I'd write something like that!), remember the galloping inflation—a rate of over 10% a year. During the '70's several magazines—Time, Forbes, and Fortune—wrote about what a good inflation-hedge colored stones represented. Those articles fueled rising gem prices even more than the inflation rate. Then, as it happens in many "boom" situations, unprincipled speculators took advantage of some not-too-clever buyers (including banks!) and there were scandals that slowed things down.

But, inevitably the upward direction of prices has been renewed, and even the 2 to 4% of recent years adds up pretty fast

#### THE FACTOR OF ADVERTIZING AND PR.

As wristwatches have moved from jewelers shelves to the electronics stores, and as stainless tableware replaces silver, jewelers have been looking to colored stones to replace the lost volume of sales. This is apparent to anyone who looks through the jewelers trade magazines (the articles designed to educate the jewelers about colored stones can often be excellent, incidentally). This concentration by the commercial people adds to good economics for colored stones in the coming years. Their efforts don't cost you anything, but you will gain in the value of your stones.

#### THE FACTOR OF SCARCITY.

There is just so much of any natural material, so the long-range scarcity is certain. Is material available? Yes—it is costly when compared with old time prices (what isn't?), but there is material available. And there are still bargains for the sharp buyer and for the hard working buyer. Discoveries in Africa, the Far East, South America, and elsewhere can make the short range availability pretty good, but the long range certainty of scarcity will always influence the gem prices in and upward direction. If you are interested in the growing value of your gems, this scarcity is a positive factor.

#### THE FACTOR OF MIDDLEMEN.

In the commercial world of selling there is the cost of the middleman, (or more than one) that buys from the cutter and sells to the retailer. He is a costly fellow, who also has to eat, pay his rent, etc. (and is generally well-dressed and well auto'd). Since you will be your own middleman, you benefit again from the effect of this cost on the "market value."

#### WHEN DO YOU GET THE FINANCIAL PAYBACK OF YOU FACETING?

If you can bear to part with your masterpieces, you have a choice of selling stones now. Or, you could put them a way as a "nest egg". The nest egg approach is attractive to me, largely because I have been impressed by the accumulated size of some nest eggs I have seen. I have seen gem collectionS of amateur faceters worth many thousands of dollars more then the faceter had ever invested. In the seventies, when the first version of this article was written, I described one man's collection that I had seen, valued at wholesale rates at over \$50,000, and, as I pointed out, and the faceter had been an hourly-paid working man all of his life. Now since the '70's, when I wrote that, inflation has had a big impact (that year I bought a new car for \$3000)—so that "nest-egg" may amount to more than double or triple what it was then. Nice—from a hobby-incidentally, untaxed.

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### ARE PARTICULAR STONES BETTER THAN OTHERS FOR A "NEST EGG?"

Certain stones are safer than others are. The obvious rule is the more expensive the stone the safer it is as an investment. The reason for the word "safer" (rather than "better") however, is that expensive stones might not be the most productive from an inflationary standpoint. Over the years, the interest in gems tended to "bring aboard" even the modest quartz varieties, and their percentage increase in value has been greater than the traditionally valuable stones. But, where interest in quartz varieties might sag, the more valuable stones beryls, peridot, tourmalines, etc, will always have a good market. The best rule for the nest egg approach (as a matter of fact, the best rule if you want to sell stones now) is CUT THE BEST MATERIAL YOU CAN AFFORD.

In the "nest egg" approach I have only mentioned natural stones. From a financial standpoint, a collection of synthetics is not wise. The certainty of long-range scarcity assures an increase in natural gem value. The synthetic materials, on the other hand, are subject to reduction in price because of competition, new methods, and the introduction of new and better synthetics. I'm not "anti-synthetic". It's fine to cut synthetics, admire them, practice skills, invent new cuts, use them in competitions, wear them, and sell them, but keep them out of any financial plans.

There is another reason for sticking with natural stones. There is some mystical attraction that people have for natural stones. It is the same mystical attraction that makes people love gems in the first place. I once explained to a friend about the "realness" of man-made emeralds. I explained they didn't cost so much, looked just as good, etc. I even had myself convinced. When I was done, she said, "you know what: I'd still love to have a natural emerald, even a little one." That feeling is something inside of us.

### IS FACETING REALLY A "PAYBACK" HOBBY?

Some hobbies pay back in a short run, perhaps, but not with the certainty of gemstones and in the long run maybe not all. Stamp collectors sell to stamp collectors; coin collectors sell to other coin collectors. As for stamps and coins they are expensive enough if you want to buy, but the selling is something else. The big difference with gemstones is in who buys them, and who buys them is not other faceters. Rich folks buy them. There will always be rich folks, as we've learned, even more certainly than we have inflation.

HOW ABOUT SELLING Selling stones is very much like any other buy and sell relationship, except that variation is the sale price can be considerable. Visit jewelers to gain experience now, even though you do not wish to sell until some future time. This will stand you in a good stead, when that future time comes. Selling few stones now, in exchange for that experience, is worthwhile. Hold the high end of your price at least for now. As a "custom cutter" you will not have a large array of stones, as professional sellers do, but rather a select group of several varieties. The trick is not to be desperate to sell the jeweler has a sixth sense in that regard.

You are in a good position when he says there was a customer earlier in the day, who was looking for a ring with a stone "just like that." You are in a bad position, when you say, "I need the money." I said the jeweler has a sixth sense--you do too. Use it. If you have been used to selling things there will be no problem. If not, you may feel a

little intimidated, but smile and go on in. The gems will pretty much speak for themselves. You can take your lead from what the jeweler says. Your price range will be fixed by the market situation at the time. Data on this situation is published in some of the jewelers' magazines such as the "Jewelers Circular-Keystone," and sometimes in the Gems and Minerals Merchandiser." If you keep close to other faceters through belonging to a club or one of the faceters' guilds and you will probably keep current on the price situation via the "grapevine".

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When you are at a point that you really wish to sell, it is a good idea to have a list of your stones. The list should include the material, color, size in millimeters, weight in carats, and price. Let the jeweler keep the list, after showing him enough of your work to convince him of its fine quality. When he calls for one of those items, you will get a good price for it. If you wish to sell in a particular group, explain that. You may also wish to work as a "semi-pro" during your faceting years. It helps establish a rapport with the jewelers for whom you can do repairs and re-polishing and perhaps some custom cutting, but this is not necessary and really a departure from the "amateur" status.

Most of all be sure that your work is of excellent quality. The jeweler doesn't put on the eye loupe for nothing. CLUBS I mentioned Faceting Clubs or Faceting Guilds. If belonging to such a group suits you, it is a good idea for not only will you hear about gem prices, but about available gem material and perhaps obtain some as a cooperative group. Most importantly, hear what others have to say about your craft. Opinions of other guild members can be invaluable in bolstering the shaky ego as well as correcting technical errors.

### WHAT THIS ARTICLE IS NOT ABOUT!

This is not about professional and semi-professional faceting. I realize this subject has considerable interest--some years ago we surveyed Ultra Tec owners and found a large percentage put themselves in the "semi-pro" category. That is, their regular income came from a job or business, but a significant adder came from doing custom faceting jobs. The variety and complexity of the semi-pro's way of marketing would probably need a small book to describe.

Anyhow (although many of the same "rules" apply), that's what this article is not about.

Just a last few words....when you do sell.....DON'T UNDERSELL! More than one professional with whom I discussed this article expressed concern about amateurs who offer stones at ridiculously low prices. Those amateurs are people who figured out (or listened to me) about his time being free, and then chose to sell for very little indeed. Don't do that. You should make the handsome profit this article indicated. The person who finally purchases a gem is hardly dealing with a necessity of life, and is spending discretionary money (and you deserve a good price for your outstanding work). Don't spoil things for the professional cutters - That might be you someday.

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