

## ◇ DIAMOND CUTTING WORKSHOPS ◇

In the past, the art of cutting diamonds was only passed down from father to son. Each cutter endured a lengthy apprenticeship - learning every phase of diamond processing including sorting, marking, cleaving, sawing, shaping, rounding, blocking, brillanting and final grading. Diamond cutters were highly respected as master craftsmen. For centuries they fiercely protected their 'trade secrets' in order to keep their industry small and profitable.

At the turn of the 20<sup>th</sup> century, the discovery of diamonds in South Africa created an unprecedented increase in the world's supply of rough diamonds. Of necessity, diamonds were soon being cut on production lines in factories. Each diamond worker received training in only one particular step of the process. Specialization meant that most 'trade secrets' were not disseminated to the typical employee.

Now, there is more than one way to cut a gem diamond. In America, many of the industry's most important stones are still entrusted to the care of fully-skilled artisans. Overseas, the bulk of commercial diamonds are mass-produced using high-tech automation and/or low-skilled and low-wage workers. Even today, the 'trade secrets' of cutting diamonds are typically very closely guarded.

At the *DIAMOND CUTTING WORKSHOPS* we teach the traditional techniques used by American diamond cutters. You will gain hands-on knowledge of all the aspects of the diamond finishing process - sorting, shaping, faceting, and appraising gem diamonds. You will learn skills that can be successfully applied to a broad range of endeavors within the diamond trade, from the workbench to the retail counter. All classes are open for enrollment regardless of age, sex, or ethnic origin. We promote the entrepreneurship and artistry that best symbolize the American trade.

The *DIAMOND CUTTING WORKSHOPS* evolved from the pioneering work of the late Leonard Ludel, founder of the American School of Diamond Cutting. In 1967, his school became the first fully accredited vocational school in the United States to offer complete training in the art of diamond cutting to students from all walks of life. In fact, his school's open-enrollment policy was unique in the diamond world. Mr. Ludel, himself a third generation master diamond cutter, also wrote the first book published in the United States to offer experts and laypeople alike complete step-by-step instructions on the 'secrets' of diamond cutting, *How to Cut a Diamond: a Diamond Cutter's Handbook* (1985).

The *DIAMOND CUTTING WORKSHOPS* were developed by Maarten de Witte. He completed his training with Mr. Ludel in 1975 and was past director of the American School of Diamond Cutting from 1990- 1994. Maarten has been self-employed as a cutter for much of his career. He also served as shop foreman at EightStar<sup>®</sup> Diamonds and as Director of Research and Diamond Wizard<sup>®</sup> at Hearts On Fire<sup>®</sup>. He is the creator of Rose Brilliant<sup>®</sup> and Star Brilliant<sup>®</sup> Cut diamonds. He holds a BA in African History and an MS in Minerals Geography from the University of Illinois - CU. Maarten is the author of *Diamonds and Development in Southern Africa: a case study of Botswana* (1989). He is dedicated to sharing the traditions of diamond cutting with anyone willing to learn.

# ROUND BRILLIANT WORKSHOP

4 Days ♦ 28 Clock Hours ♦ \$1650

## WORKSHOP GOALS:

- ♦ Introduce you to the craft of diamond cutting.
- ♦ Teach you how to round, block, brillianteer a sawed diamond.
- ♦ Teach you basic diamond repairs.
- ♦ Teach you how to evaluate Cut in gem diamonds.

## WORKSHOP OUTLINE:

1. Care and maintenance of the cutter's bench and wheel
2. Proper use of hand tools - the semi-automatic tang, dops, pots and fingers
3. Using a 10X cutter's loupe and various measuring gauges
4. Sawing principles and methods
5. Identifying the grain in a sawed diamond
6. Preparatory faceting for the bruting (rounding) process
7. Care and maintenance of the bruting machine and accessories
8. How to brute (girdle) the sawed diamond.
9. Proper orientation and proportions of a well-made brilliant cut diamond
10. Critical angles for an Ideal Cut diamond
11. How to block a diamond: cutting in cross and eight-square, top and bottom
12. Shape of facets: judging size, squareness and symmetry for fine make
13. Cutting the crown (top) facets: four corners and four bezels
14. Matching-up pavilion (bottom) and crown facets by eye evaluation
15. Cutting the culet
16. How to brillianteer the diamond: upper and lower girdle facets and star facets
17. Repairing scratched, nicked, chipped and burnt diamonds
18. Evaluating the finished diamond: Cut, Color, Clarity and Carat weight

## WORKSHOP STANDARDS:

You will be assigned daily tasks for completion.

You will cut a well-made round brilliant - from sawed rough crystal to finished gem.

You will perform satisfactory repairs to damaged diamonds.

# WHOLE DIAMOND WORKSHOP

4 Days ♦ 28 Clock Hours ♦ \$1650

## WORKSHOP GOALS:

- ♦ Teach you the theory and practice of cutting modern round brilliant diamonds from any whole rough diamond, regardless of its crystal orientation.
- ♦ Teach you to recut any badly damaged modern, "Old European", or "Old Mine" cut diamond.

## WORKSHOP OUTLINE:

1. Recognizing grain: diamond crystallography, octahedrons, dodecahedrons, cubes, naats, macles, amorphous and irregular shapes
2. Determining the most advantageous way to cut whole rough diamonds
3. Cardinal principles of cutting: spread, depth, perfection, and color
4. Opening windows, roughing out and girdling to determine orientation
5. Blocking and brilliantteering regardless of grain orientation
6. Cutting irregular and naated diamonds
7. Cleaving methods
8. Improvising setting, holding and cutting procedures
9. Selecting colored diamonds and unusual rough for special processing
10. Recutting badly damaged and old cut diamonds
11. Creating and maintaining a workshop
12. Principles of the diamond trade: buying, appraising and selling diamonds

## WORKSHOP STANDARDS:

You will be assigned specific daily tasks for completion.

You will determine the appropriate process for cutting a rough whole stone.

You will learn to recut damaged and old-fashioned cut diamonds.

You will evaluate both rough and finished diamonds.

# FANCY DIAMOND WORKSHOP

4 Days ♦ 28 Clock Hours ♦ \$1650

## WORKSHOP GOALS:

- ♦ Expand the range of skills of the diamond cutter who is already cutting round diamonds.
- ♦ Teach you to maximize weight, color and beauty from irregular rough diamond crystals by creating fancy shapes.
- ♦ Train you to evaluate both rough and finished gem diamonds.

## WORKSHOP OUTLINE:

1. Making the basic straight-edged fancy: baguette, emerald, and trilliant
2. Improvisation in holding procedures: step-faceting
3. Modern straight-edged gems: princess, radiant, and Barion
4. Making the elliptical styles: oval, heart, pear, and marquise
5. Eliminating the bow-tie effect
6. Faceting girdles
7. Proportions of fancy brilliants
8. Creating 'new' fancies

## WORKSHOP STANDARDS:

You will be assigned daily tasks for completion.

You will be able to analyze and finish both straight-edged and elliptical fancy gem diamonds.

You will explore the creation of new fancy designs through latest technologies and procedures.