19.1.5 CLAMour

The CLAMour gem design, like Tris de Garnet, is deceptively simple, yet it holds a deeper, more mathematical secret. Hidden behind the apparently straightforward selection of index and angle for the first two facet tiers is the CLAM technique for establishing the gem outline. Chapter 17.5 supplies all of the mathematical (and practical) gore of the CLAM method.

Cutting CLAMour is, relatively speaking, simplicity itself, and the gem does a really nice job of balancing colour and sparkle. Figures 19-21 and 19-22 contain the usual 4-views of the design and its GemCAD prescription, respectively, while Figure 19-23 portrays, in abbreviated form, the cutting sequence.

Figure 19-20 CLAMour, rendered in garnet.

CLAMour is a typical keel-type gem cut in the sense that it exploits what are effectively multiple "center points" along the base of the stone to keep the pavilion angles under control in an elongated design. While cutting the gem, try to understand

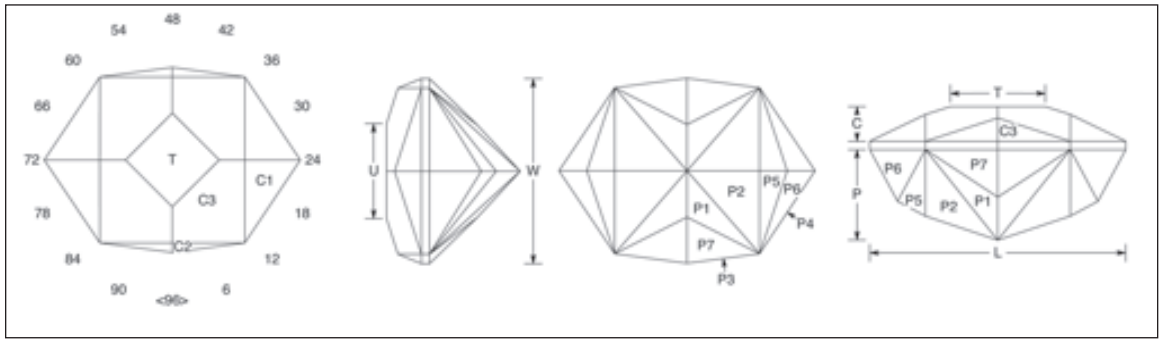

Figure 19-21 Top, side, bottom, and end views of the CLAMour gem design.

CLAMour

Designed by Tom Herbst, Mar 2007 - Jul 2013
BOG optimized for ISO and Tilt
ISO 80.2% in Garnet
Angles for R.I. = 1.760
33 + 8 girdles = 41 facets
2-fold, mirror-image symmetry
96 index
L/W = 1.382 T/W = 0.513 U/W = 0.513
P/W = 0.490 C/W = 0.189
Vol./W³ = 0.357

PAVILION			
P1	43.50°	03-45-51-93	Cut to TCP
P2	40.97°	06-42-54-90	to same TCP
P3	90.00°	02-46-50-94	Define size
P4	90.00°	15-33-63-81	Continue girdle
P5	43.98°	09-39-57-87	to P1-P2-P3-P4 meet
P6	65.93°	15-33-63-81	Same meet, level girdle
P7	46.06°	02-46-50-94	Same meet, complete girdle line
CROWN			
C1	30.20°	15-33-63-81	Define girdle thickness
C2	68.02°	02-46-50-94	Complete girdle
C3	24.57°	12-36-60-84	to girdle meet
T	0.00°	Table	Float in to 1/2 Width

Figure 19-22 GemCAD prescription for CLAMour. Note that P1-P2 locate the corner girdle meet using the CLAM technique. Turn to Chapter 17.5 for more.

how the keel comes together. If and when you embark on your own design adventures, your command of the keel will come in very useful.

I first cut CLAMour in some lovely synthetic GGG rough and was amazed. The design should work well in any medium to strongly saturated material. Try it yourself and see.

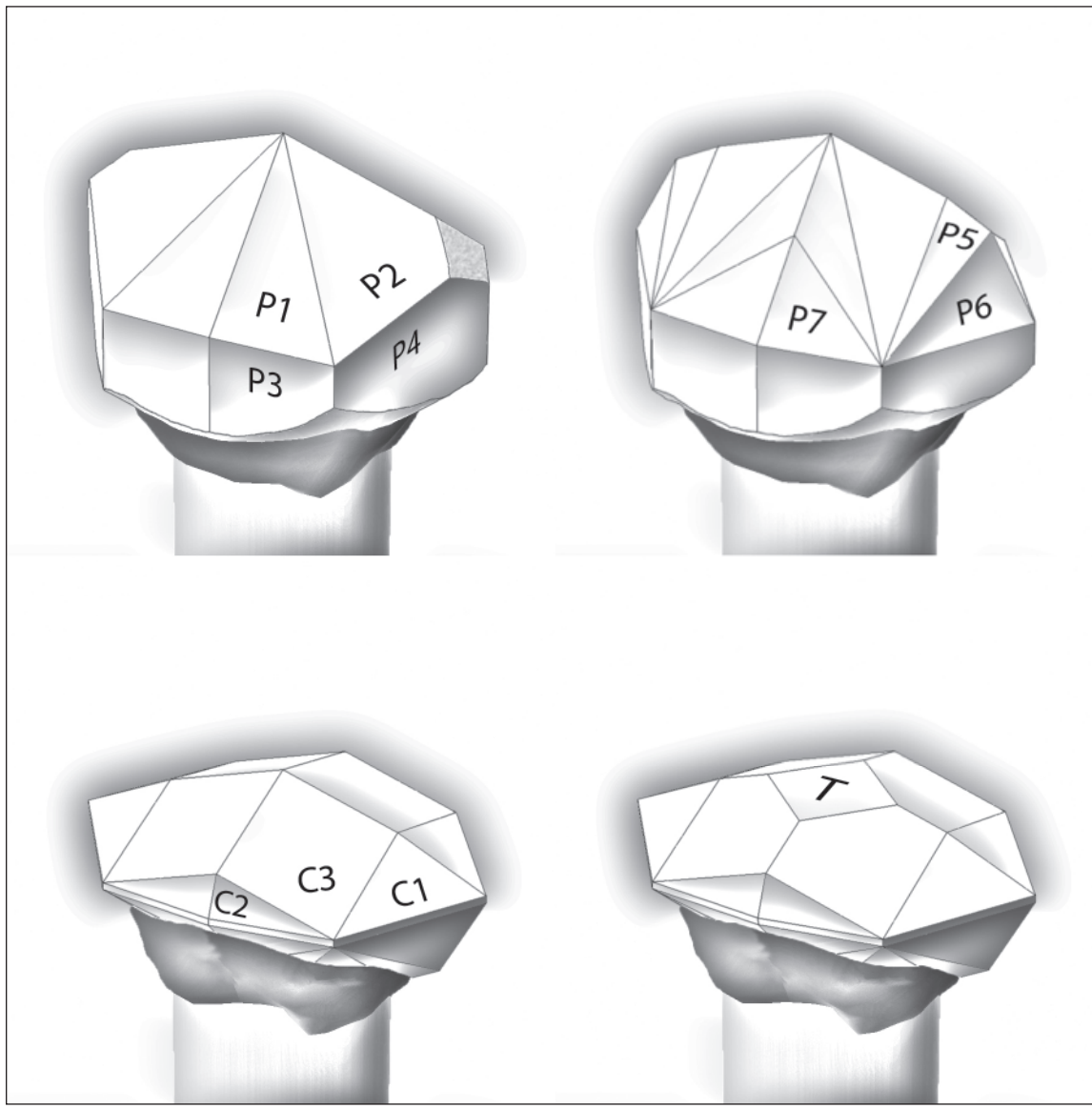

Figure 19-23 The CLAMour cutting sequence. P1 and P2 work together to locate the corner of the gem, while facets P3 and P4 establish the outline based on this reference (upper left). P5 through P7 level the girdle and add visual interest (upper right). The crown is relatively conventional, with C1 and C2 defining the girdle (lower left). The free floating table (lower right) has no meet points. While easier to execute in principle, you should monitor your progress carefully to ensure a pleasing, symmetric gem.