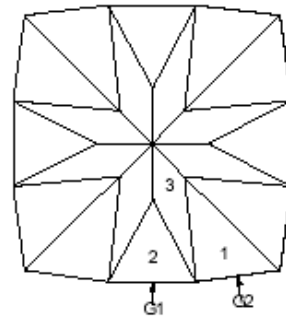
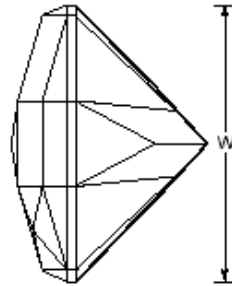
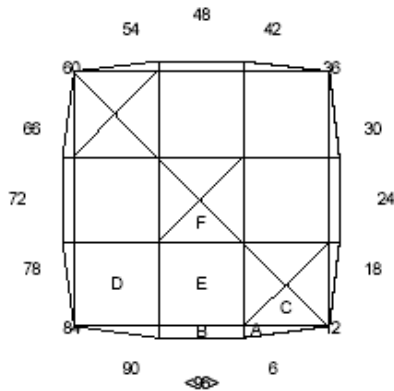


Original Gem Faceting Designs and Certificate of Design Program by John Bailey

<http://www.gemstoneartist.com/Default.asp>

Visit this site for more designs and updates!



Tic Tac Top

by John Bailey, 2004

Angles for R.I. = 1.540

50 + 12 girdles = 62 facets

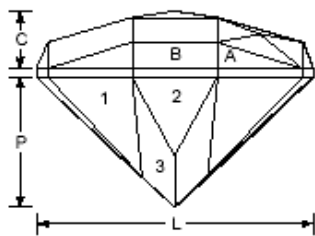
2-fold, mirror-image symmetry

96 index

L/W = 1.000

P/W = 0.475 C/W = 0.205

Vol.W³ = 0.289



PAVILION

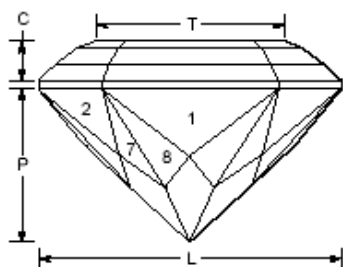
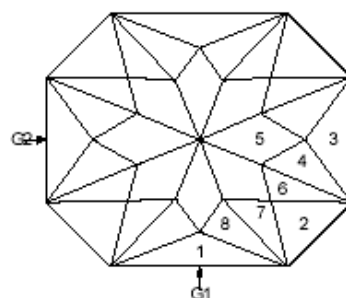
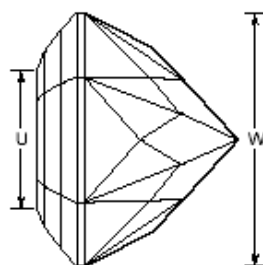
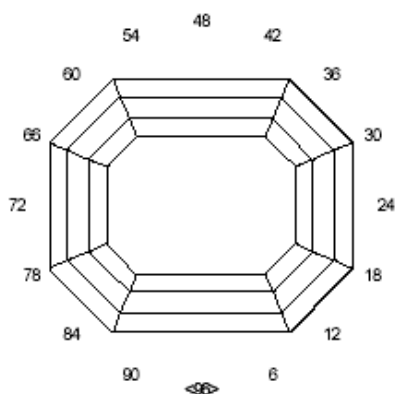
1	43.00°	02-22-26-46- 50-70-74-94	CTP
2	43.90°	96-24-48-72	CTP
G1	90.00°	96-24-48-72	Calibrate size
G2	90.00°	02-22-26-46- 50-70-74-94	Even girdle
3	43.00°	01-23-25-47- 49-71-73-95	Meet 1, 2, G1, G2

CROWN

A	66.40°	02-22-26-46- 50-70-74-94	Set girdle thickness
B	66.20°	96-24-48-72	Even girdle
C	31.00°	08-16-56-64	Meet A, G1
D	23.00°	36-84	Meet A, G1
E	16.70°	96-24-48-72	Meet A, B, C and A, B, D
F	8.00° 17.25°	96-24-48-72 04-20-52-68	Meet D, E

If cutting concave mains, cut on index of 3, reduce main angle by ~ 1 degree.

E:\Dvue2\tictactop.gem



ECED meetpoint Radiant 1.20

by John Bailey, 2004

Angles for R.I. = 1.540

57 + 8 girdles = 65 facets

2-fold, mirror-image symmetry

96 index

L/W = 1.200 T/W = 0.745 U/W = 0.546

P/W = 0.606 C/W = 0.154

Vol./W³ = 0.397

PAVILION

G1	90.00°	96-48	Set width (calibrate)
G2	90.00°	12-24-36-60-72-84	Set length (calibrate)
			ECED
1	63.00°	96-48	Locate girdle
2	48.70°	12-36-60-84	Level girdle
3	49.90°	24-72	Level girdle
4	45.50°	22-26-70-74	Meet 2, 3, girdle
5	43.00°	96-12-24-36-48-60-72-84	Meet 3, 4 and CTP
6	45.50°	14-34-62-82	Meet 2, 3, 4, girdle
7	46.80°	10-38-58-86	Meet 2, 5, 6 and 1, 2, girdle
8	50.28°	04-44-52-92	Meet 1, 5 and 1, 2, 7, girdle

CROWN

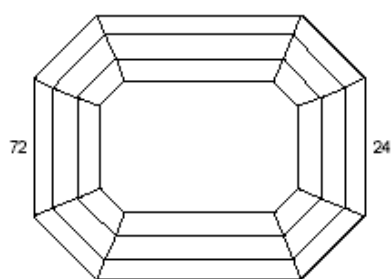
42.00°	96-48
42.00°	12-24-36-60-72-84
37.00°	96-48
37.00°	12-24-36-60-72-84
20.00°	96-48
20.00°	12-24-36-60-72-84
0.00°	Table

E:\Dvue2\MyGems\MyRad120.gem

60

48

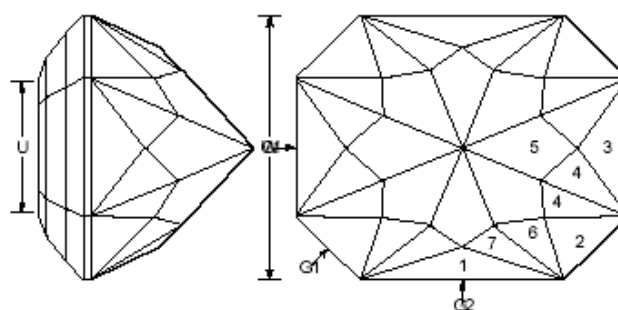
36



84



12



ECED meetpoint Radiant 1.25

by John Bailey, 2004

Angles for R.I. = 1.540

57 + 8 girdles = 65 facets

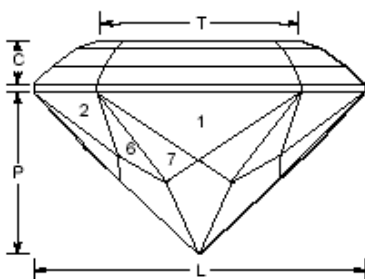
2-fold, mirror-image symmetry

96 index

L/W = 1.250 T/W = 0.748 U/W = 0.498

P/W = 0.611 C/W = 0.167

Vol./W³ = 0.423



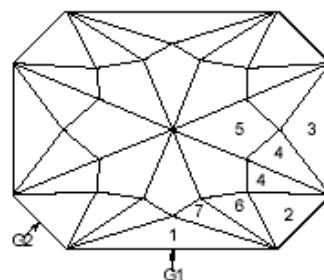
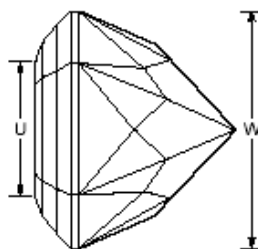
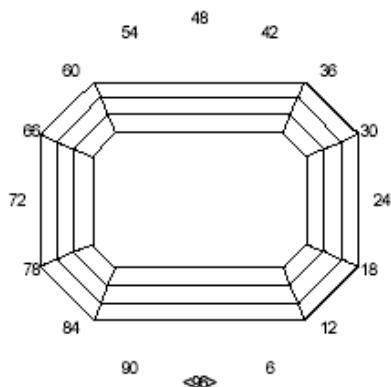
PAVILION

G2	90.00°	96-48	Set width (calibrate)
G1	90.00°	12-24-36-60-72-84	Set length (calibrate) ECED
1	64.70°	96-48	Locate girdle
2	46.60°	12-36-60-84	Even girdle
3	47.20°	24-72	Even girdle
4	44.80°	13-23-25-35-61-71-73-83	Meet 2, 3, Girdle
5	43.00°	96-12-24-36-48-60-72-84	Meet 3, 4 - CTP
6	45.73°	11-37-59-85	Meet 2, 4, 5 and 1, 2, girdle
7	53.00°	03-45-51-93	Meet 1, 5 and 1, 2, 6, girdle

CROWN

42.00°	96-48
42.00°	12-24-36-60-72-84
37.00°	96-48
37.00°	12-24-36-60-72-84
20.00°	96-48
20.00°	12-24-36-60-72-84
0.00°	Table

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ECED meetpoint Radiant 1.33

by John Bailey, 2004

Angles for R.I. = 1.540

57 + 8 girdles = 65 facets

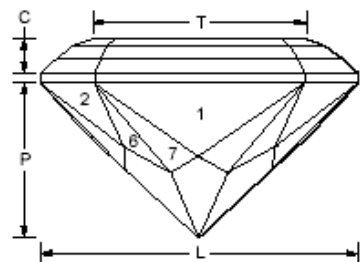
2-fold, mirror-image symmetry

96 index

L/W = 1.330 T/W = 0.895 U/W = 0.565

P/W = 0.650 C/W = 0.145

Vol./W³ = 0.478



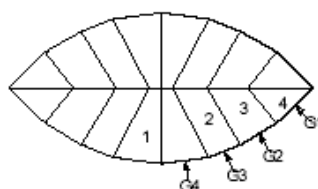
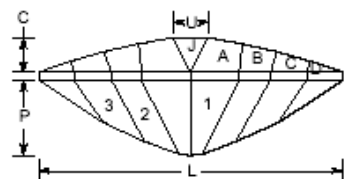
PAVILION

G1	90.00°	96-48	Set width (calibrate)
G2	90.00°	12-24-36-60-72-84	Set length (calibrate)
			ECED
1	66.30°	96-48	Locate girdle
2	46.30°	12-36-60-84	Level girdle
3	47.00°	24-72	Level girdle
4	44.70°	13-23-25-35-61-71-73-83	Meet 2,3, girdle
5	43.00°	96-12-24-36-48-60-72-84	Meet 3, 4, CTP
6	45.77°	11-37-59-85	Meet 2, 4, 5, and 1, 2, girdle
7	54.71°	03-45-51-93	Meet 1, 5, and 1, 2, 6, girdle

CROWN

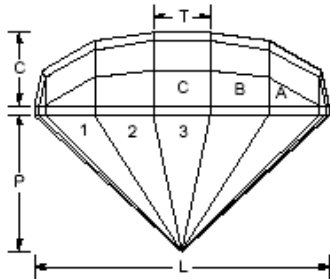
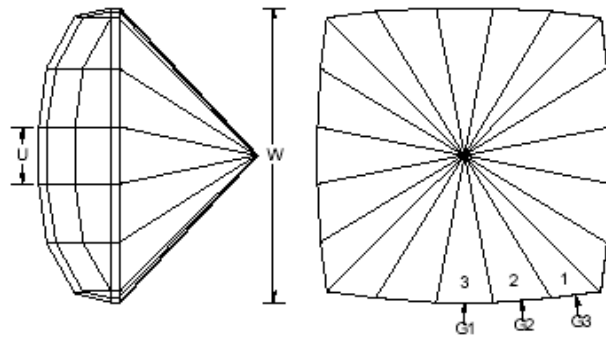
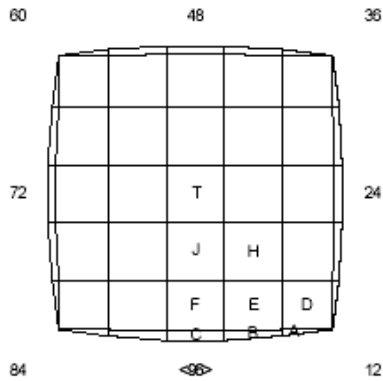
42.00°	96-48
42.00°	12-24-36-60-72-84
37.00°	96-48
37.00°	12-24-36-60-72-84
20.00°	96-48
20.00°	12-24-36-60-72-84
0.00°	Table

E:\Dvue2\MyGems\MyRad133.gem


$$\text{Vol. } W^3 = 0.470$$


A	35.80°	02-46-50-94	Set girdle thickness
B	38.50°	06-42-54-90	Even girdle
C	41.50°	08-40-56-88	Even girdle
D	50.00°	12-36-60-84	Even girdle
E	19.00°	24-72	Meet D, G1
F	16.00°	24-72	Meet C, D, E
G	13.00°	24-72	Meet B, C, F
H	10.00°	24-72	Meet A, B, G
J	34.30°	96-48	Meet A, G4
T	0.00°	Table	Meet A, J, H

E:\Dvue2\MyGems\buabody.com



Gimme Five

by John Bailey, 2004

Angles for R.I. = 1.540

65 + 20 girdles = 85 facets

4-fold, mirror-image symmetry

96 index

$L/W = 1.000$ $T/W = 0.192$ $U/W = 0.192$

$P/W = 0.466$ $C/W = 0.246$

$Vol./W^3 = 0.337$

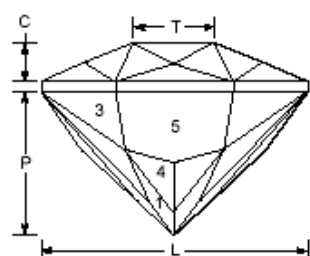
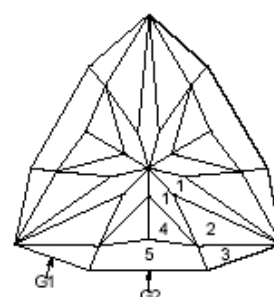
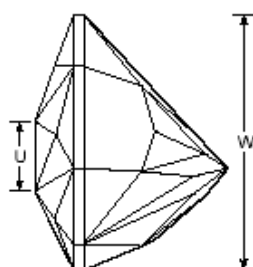
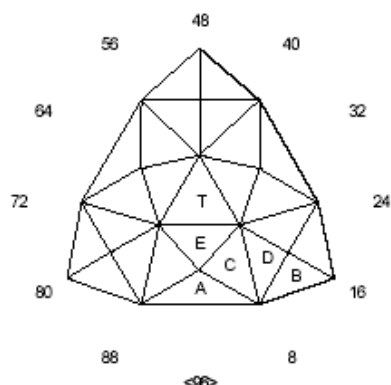
PAVILION

1	41.80°	02-22-26-46-50-70-74-94	CTP
2	42.70°	01-23-25-47-49-71-73-95	CTP
3	43.00°	96-24-48-72	CTP
G1	90.00°	96-24-48-72	Calibrate size.
G2	90.00°	01-23-25-47-49-71-73-95	Even girdle.
G3	90.00°	02-22-26-46-50-70-74-94	Even girdle.

CROWN

A	76.70°	02-22-26-46-50-70-74-94	Set girdle thickness.
B	76.60°	01-23-25-47-49-71-73-95	Even girdle.
C	76.60°	96-24-48-72	Even girdle.
D	38.00°	12-36-60-84	Meet A, G1.
E	29.80°	04-20-28-44-52-68-76-92	Meet A, B, D.
F	28.90°	96-24-48-72	Meet B, C, E.
H	12.00°	12-36-60-84	Meet D, E.
J	8.60°	96-24-48-72	Meet E, F, H.
T	0.00°	Table	Meet H, J.

E:\Dvue2\MyGems\gimmefive.gem



Tom's Hopscotch Triangle

by John Bailey, 2003

Angles for R.I. = 1.540

55 + 9 girdles = 64 facets

3-fold, mirror-image symmetry

96 index

$L/W = 1.041$ $T/W = 0.317$ $U/W = 0.275$

$P/W = 0.561$ $C/W = 0.152$

$Vol./W^3 = 0.236$

PAVLION

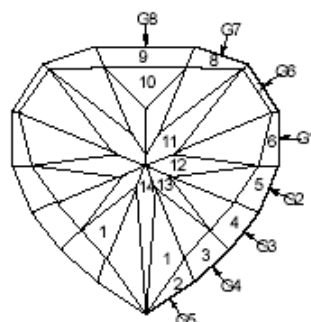
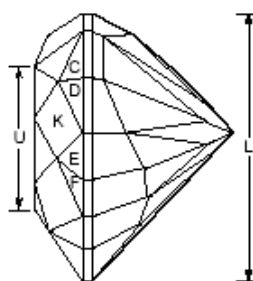
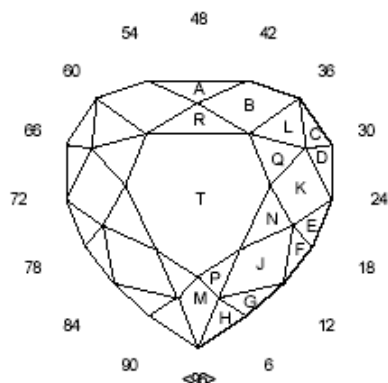
1	43.00°	07-16-25-39-48-57-71-80-89	CTP
G1	90.00°	05-27-37-59-69-91	Establish corners
2	44.70°	12-20-44-52-76-84	Meet 1, G1
3	65.80°	05-27-37-59-69-91	Meet 1, 2, G1
4	48.00°	02-30-34-62-66-94	Meet 1, 2, 3
5	67.30°	96-32-64	Meet 1, 2, 3, 4
G2	90.00°	96-32-64	Even girdle - Meet 3, 5

CROWN

A	28.50°	96-32-64	Set girdle width
B	27.30°	05-27-37-59-69-91	Even girdle
C	26.00°	01-31-33-63-65-95	Meet A, B, G1, G2
D	25.70°	04-28-36-60-68-92	Meet A, B, C
E	24.60°	96-32-64	Meet A, C, and C, D
T	0.00°	Table	Meet C, D, E

In loving memory of Dr. Tom Walker 01/10/1934 - 04/29/2003

E:\Dvue2\MyGems\HOPSCOCH.GEM



Trish's Omni Heart

by John Bailey, 2003

(Happy Anniversary, Trish)

Angles for R.I. = 1.540

69 + 15 girdles = 84 facets

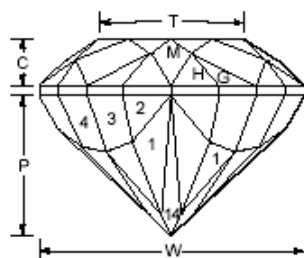
1-fold, mirror-image symmetry

96 index

L/W = 1.009 T/W = 0.548 U/W = 0.537

P/W = 0.525 C/W = 0.180

Vol./W³ = 0.271



PAVILION

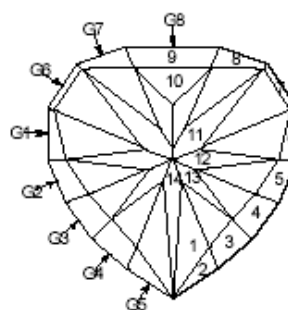
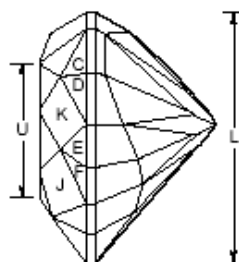
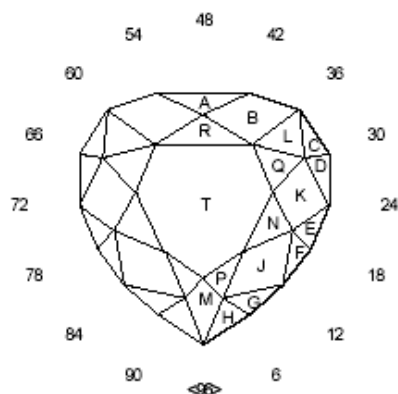
1	44.30°	03-09-15-21-27-33-39-45-51-57-63-69-75-81-87-93	CTP as in SRB
G1	90.00°	24-72	Establish size
G2	90.00°	18-76	Meet 1, G1 - OMNI
G3	90.00°	14-82	Meet 1, G2 - OMNI
G4	90.00°	11-86	Meet 1, G3 - OMNI
G5	90.00°	09-87	Meet 1, G4 - OMNI
G6	90.00°	33-63	Meet 1, G1 - OMNI
G7	90.00°	43-53	Meet 1, G6 - OMNI
G8	90.00°	48	Meet 1, G7 - OMNI
2	61.70°	09-87	Meet 1, G5 - Start level girdle
3	62.60°	11-86	Meet 1, G4, G5 - Even girdle
4	62.80°	14-82	Meet 1, G3, G4 - Even girdle
5	62.00°	18-76	Meet 1, G2, G3 - Even girdle
6	60.10°	24-72	Meet 1, G1, G2 - Even girdle
7	58.50°	33-63	Meet 1, G1, G6 - Even girdle
8	60.60°	43-53	Meet 1, G6, G7 - Even girdle
9	62.50°	48	Meet 1, G7, G8 - Even girdle
10	49.00°	48	Meet 1, 8, 9
11	43.00°	36-60	Meet 1, 7, 8
12	43.00°	24-72	Meet 1, 5, 6 and culet point
13	43.00°	12-84	Meet 1, 3, 4 and culet point
14	43.30°	96	Meet 1, 2, G5 and culet point

CROWN

A	57.20°	46	Set girdle thickness
E	43.40°	43-53	Even girdle
C	46.60°	33-63	Even girdle
D	44.30°	24-72	Even girdle
E	47.00°	18-76	Even girdle
F	44.40°	14-82	Even girdle
G	47.00°	11-86	Even girdle
H	48.40°	09-87	Even girdle
J	41.00°	13-83	Meet F, G, Girdle
K	38.00°	22-74	Meet D, E, Girdle
L	38.00°	36-60	Meet B, C, Girdle
M	34.10°	96	Meet H, Girdle
N	29.70°	17-75	Meet E, F, J, K
F	26.30°	09-87	Meet G, H, J, M
C	26.40°	30-66	Meet C, D, K, L
T	0.00°	Table	Meet M, P and J, N, P and K, N, Q and B, L, Q
R	21.62°	46	Meet B, L, Q, T

NOTE: Easier / faster than it looks - performs well.

E:\Dvue2\MyGems\TrishsHeart154.gem



Trish's Omni Heart

by John Bailey, 2003

(Happy Anniversary, Trish)

Angles for R.I. = 1.620

69 + 15 girdles = 84 facets

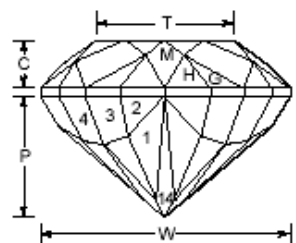
1-fold, mirror-image symmetry

96 index

L/W = 1.009 T/W = 0.549 U/W = 0.539

P/W = 0.489 C/W = 0.193

Vol./W³ = 0.262



PAVILION

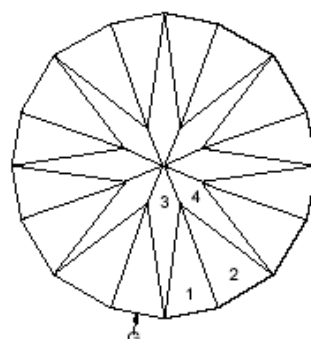
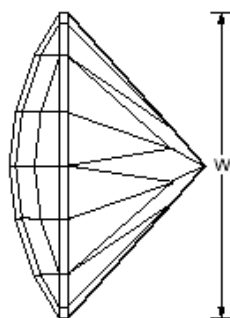
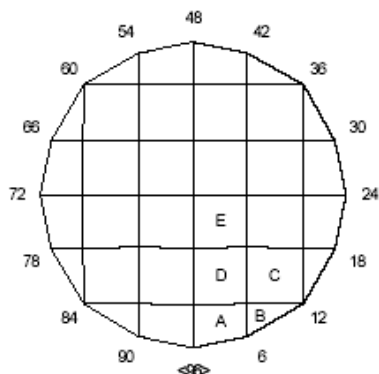
1	42.30°	03-09-15-21-27-33-39-45-51-57-63-69-75-81-87-93	CTP as in SRB
G1	90.00°	24-72	Establish size
G2	90.00°	18-78	Meet 1, G1 - OMNI
G3	90.00°	14-82	Meet 1, G2 - OMNI
G4	90.00°	11-86	Meet 1, G3 - OMNI
G5	90.00°	09-87	Meet 1, G4 - OMNI
G6	90.00°	33-63	Meet 1, G1 - OMNI
G7	90.00°	43-53	Meet 1, G6 - OMNI
G8	90.00°	48	Meet 1, G7 - OMNI
2	60.00°	09-87	Meet 1, G5 - Start level girdle
3	60.90°	11-86	Meet 1, G4, G5 - Even girdle
4	61.10°	14-82	Meet 1, G3, G4 - Even girdle
5	60.30°	18-78	Meet 1, G2, G3 - Even girdle
6	58.30°	24-72	Meet 1, G1, G2 - Even girdle
7	56.70°	33-63	Meet 1, G1, G6 - Even girdle
8	59.00°	43-53	Meet 1, G6, G7 - Even girdle
9	60.80°	48	Meet 1, G7, G8 - Even girdle
10	47.00°	48	Meet 1, 8, 9
11	41.00°	36-60	Meet 8, 9, 10
12	41.00°	24-72	Meet 1, 7, 8 and culet point
13	41.00°	12-84	Meet 1, 5, 6 and culet point
14	41.30°	96	Meet 1, 2, G5 and culet point

CROWN

A	59.00°	46	Set girdle thickness
E	45.40°	43-53	Even girdle
C	48.60°	33-63	Even girdle
D	46.30°	24-72	Even girdle
E	49.00°	18-78	Even girdle
F	46.40°	14-82	Even girdle
G	49.00°	11-86	Even girdle
H	50.40°	09-87	Even girdle
J	43.00°	13-83	Meet F, G, Girdle
K	40.00°	22-74	Meet D, E, Girdle
L	40.00°	36-60	Meet B, C, Girdle
N	36.00°	96	Meet H, Girdle
N	31.50°	17-76	Meet E, F, J, K
F	28.00°	09-87	Meet G, H, J, M
C	28.00°	30-66	Meet C, D, K, L
T	0.00°	Table	Meet M, P and J, N, P and K, N, Q and B, L, Q
R	22.90°	46	Meet B, L, Q, T

NOTE: Easier / faster than it looks - performs well.

E:\Dvue2\MyGems\TrishsHeart162.gem



Meet me at 8:00

by John Bailey, 2003

Angles for R.I. = 1.540

56 + 16 girdles = 72 facets

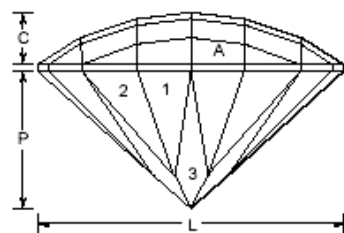
4-fold, mirror-image symmetry

96 index

L/W = 1.000

P/W = 0.450 C/W = 0.168

Vol./W³ = 0.198



PAVILION

G	90.00°	03-08-16-21- 27-32-40-45- 51-56-64-69- 75-80-88-93	Cut even girdle
1	43.40°	03-21-27-45- 51-69-75-93	CTP
2	43.60°	08-16-32-40- 56-64-80-88	Cut even girdle
3	42.00°	96-24-48-72	Meet girdle
4	41.60°	12-36-60-84	Meet girdle

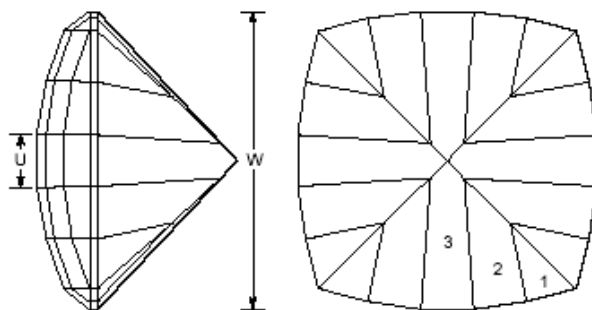
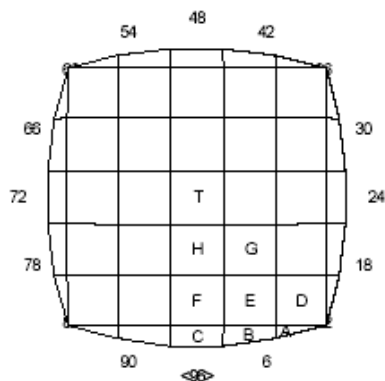
CROWN

A	31.30°	03-21-27-45- 51-69-75-93	Set girdle width
B	34.50°	08-16-32-40- 56-64-80-88	Even girdle
C	25.90°	12-36-60-84	Meet girdle
D	20.00°	05-19-29-43- 53-67-77-91	Meet A, B, C
E	9.30°	12-36-60-84	Meet C, D

From FVS-338 (64 index) - Straight lines on a 96 index.

With deference and gratitude to the late, great Fred Van Sant.

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ReCheck for Quartz

by John Bailey, 2003

Angles for R.I. = 1.540

65 + 20 girdles = 85 facets

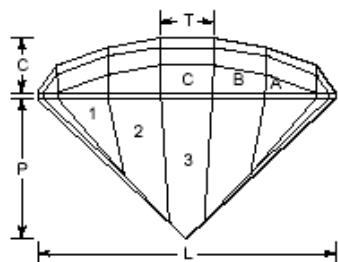
4-fold, mirror-image symmetry

96 index

L/W = 1.000 T/W = 0.181 U/W = 0.181

P/W = 0.466 C/W = 0.180

Vol./W³ = 0.261



PREFORM

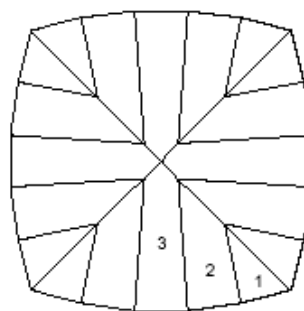
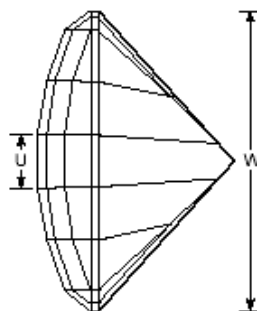
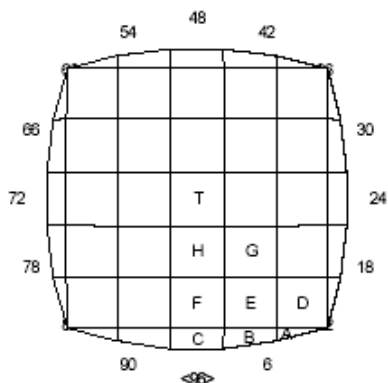
1	43.00°	04-20-28-44- 52-68-76-92	CTP
PF-1	44.20°	02-22-26-46- 50-70-74-94	CTP
PF-2	44.60°	96-24-48-72	CTP
G1	90.00°	96-24-48-72	Calibrate size
G2	90.00°	02-22-26-46- 50-70-74-94	Even girdle
G3	90.00°	04-20-28-44- 52-68-76-92	Even girdle
PAVILION			
2	43.00°	02-22-26-46- 50-70-74-94	Meet 1, G2, G3
3	43.00°	96-24-48-72	Meet 2, G1, G2

CROWN

A	54.60°	04-20-28-44- 52-68-76-92	Set girdle thickness
B	53.80°	02-22-26-46- 50-70-74-94	Even girdle
C	53.40°	96-24-48-72	Even girdle
D	26.80°	12-36-60-84	Meet A, G3
E	21.70°	07-17-31-41- 55-65-79-89	Meet A, B, D
F	19.60°	96-24-48-72	Meet B, C, E
G	14.00°	12-36-60-84	Meet D, E
H	10.00°	96-24-48-72	Meet E, F, G
T	0.00°	Table	Meet G, H

Note: Revised 2005

E:\Dvue2\MyGems\ReChk154.gem



ReCheck for Sapphire

by John Bailey, 2003

Angles for R.I. = 1.760

65 + 20 girdles = 85 facets

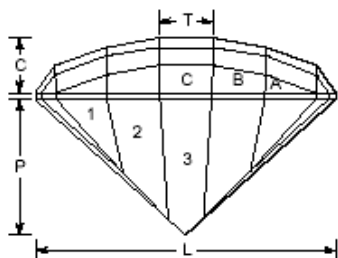
4-fold, mirror-image symmetry

96 index

L/W = 1.000 T/W = 0.181 U/W = 0.181

P/W = 0.450 C/W = 0.180

Vol./W³ = 0.256



PREFORM

1	42.00°	04-20-28-44- 52-68-76-92	CTP
PF-1	43.20°	02-22-26-46- 50-70-74-94	CTP
PF-2	43.60°	96-24-48-72	CTP
G1	90.00°	96-24-48-72	Calibrate size
G2	90.00°	02-22-26-46- 50-70-74-94	Even girdle
G3	90.00°	04-20-28-44- 52-68-76-92	Even girdle

PAVILION

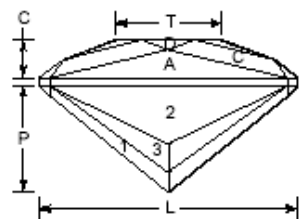
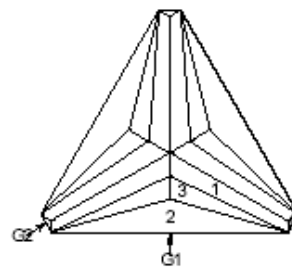
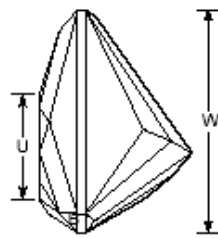
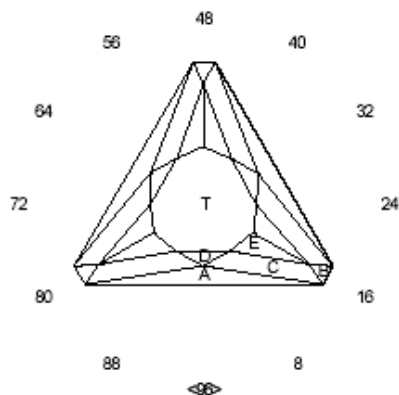
2	42.00°	02-22-26-46- 50-70-74-94	Meet 1, G2, G3
3	42.00°	96-24-48-72	Meet 2, G1, G2

CROWN

A	54.60°	04-20-28-44- 52-68-76-92	Set girdle thickness
B	53.80°	02-22-26-46- 50-70-74-94	Even girdle
C	53.40°	96-24-48-72	Even girdle
D	26.80°	12-36-60-84	Meet A, G3
E	21.70°	07-17-31-41- 55-65-79-89	Meet A, B, D
F	19.60°	96-24-48-72	Meet B, C, E
G	14.00°	12-36-60-84	Meet D, E
H	10.00°	96-24-48-72	Meet E, F, G
T	0.00°	Table	Meet G, H

Note: Revised 2005

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Hari-Peri

by John Bailey, 2003

Angles for R.I. = 1.670

40 + 6 girdles = 46 facets

3-fold, mirror-image symmetry

96 index

L/W = 1.155 T/W = 0.478 U/W = 0.465

P/W = 0.477 C/W = 0.172

Vol./W³ = 0.217

PAVILION

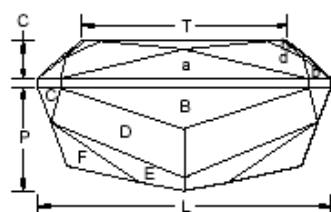
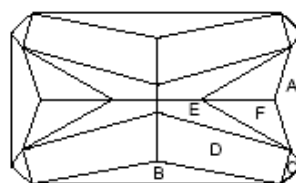
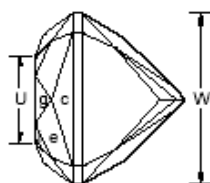
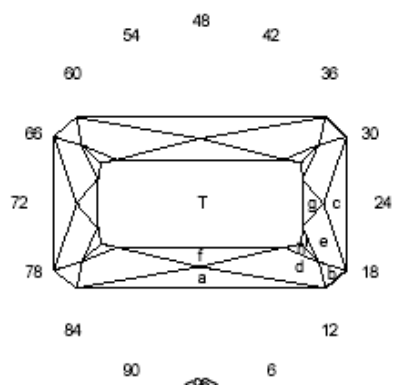
1	43.00°	05-27-37-59-69-91	CTP
G1	90.00°	96-32-64	Fix Size
G2	90.00°	16-48-80	Cut comers
2	60.00°	96-32-64	Meet 1, G1, G2
3	50.00°	02-30-34-62-66-94	Meet 1, 2, G1, G2
4	60.00°	16-48-80	Meet 1, 2, 3, G1, G2

CROWN

A	57.00°	96-32-64	Set girdle width
B	40.00°	16-48-80	Even girdle
C	40.00°	02-30-34-62-66-94	Meet A, B, Girdle
D	33.00°	96-32-64	Meet A, C
E	19.00°	10-22-42-54-74-86	Meet B, C
T	0.00°	Table	Meet C, D, E

You can CAM preform a 25 i 0; a 15 i 16, though not critical.

E:\Dvue2\MyGems\HARIPERI.GEM



Green #3 for closed C Tourmaline

by John Bailey, 2003

Angles for R.I. = 1.630

49 + 8 girdles = 57 facets

2-fold, mirror-image symmetry

96 index

L/W = 1.708 T/W = 1.200 U/W = 0.518

P/W = 0.600 C/W = 0.218

Vol./W³ = 0.803

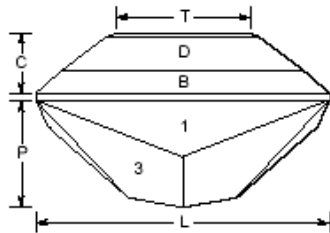
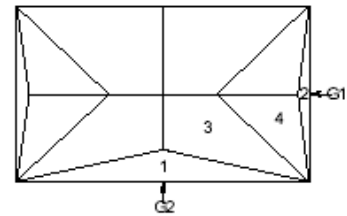
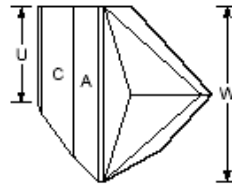
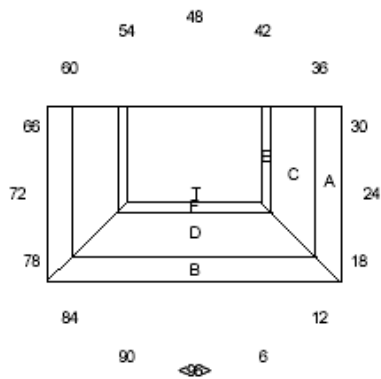
PAVLION

	90.00°	24-72	
	90.00°	96-48	
A	70.00°	24-72	Cut end facet
B	60.00°	96-48	Cut to blade.
C	60.00°	11-37-59-85	Meet A, B to set corner symmetry.
	90.00°	11-37-59-85	
D	46.00°	02-46-50-94	Meet B, C.
E	42.00°	03-45-51-93	Meet tip of C.
F	40.00°	04-44-52-92	Meet tip of C.

CROWN

a	55.00°	96-48	Cut even girdle
b	43.00°	11-37-59-85	Cut even girdle..
c	44.00°	24-72	Cut even girdle.
d	39.00°	02-46-50-94	Meet girdle, a, b
e	39.00°	23-25-71-73	Meet girdle, b, c
f	20.00°	96-48	Meet a, d
g	36.78°	24-72	Meet e, c
h	36.00°	03-45-51-93	meet tip of b
i	36.00°	22-26-70-74	Meet tip of b.
T	0.00°	Table	Meet d, f, h and e, g, i.

E:\Dvue2\MyGems\GREEN3.GEM



CatManToo

by John Bailey, 2004

Angles for R.I. = 1.540

21 + 4 girdles = 25 facets

2-fold, mirror-image symmetry

96 index

L/W = 1.663 T/W = 0.761 U/W = 0.549

P/W = 0.609 C/W = 0.341

Vol./W³ = 0.846

PAVLION

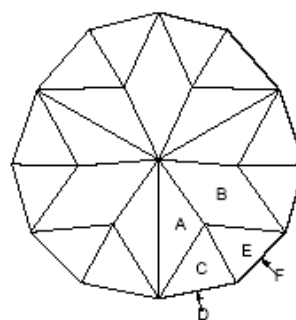
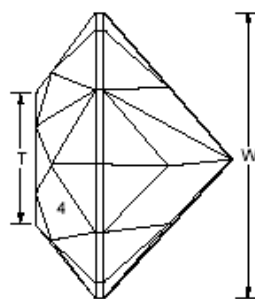
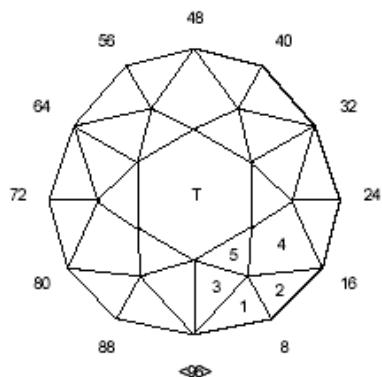
G1	90.00°	24-72	Set finished stone width
G2	90.00°	96-48	Set finished stone length
1	60.00°	96	Set girdle location
2	65.00°	24-72	Even girdle
3	43.00°	03-45-51-93	Meet G1, G2, 1, 2
4	42.00°	21-27-69-75	Meet 1, 2, 3, G1, G2

CROWN

A	42.00°	24-72	Set girdle width (both stones)
B	42.00°	96	Even girdle (both stones)
C	37.00°	24-72	Set mains width (both stones)
D	37.00°	96	Meet A, B, C (both stones)
T	0.00°	Table	Cut table (both stones)
E	20.00°	24-72	Set star width (both stones)
F	20.00°	96	Even star facets (both stones)

Designed to fill a 12 x 10 ring setting with reduced pavilion depth. Cut a matched pair of these 10 x 6 mm.

E:\Dvue2\MyGems\CatManToo.gem



Lucky Lois

by John Bailey, 2004

Angles for R.I. = 1.540

49 + 12 girdles = 61 facets

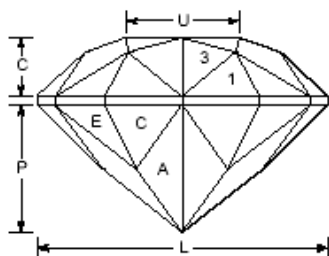
3-fold, mirror-image symmetry

96 index

$L/W = 1.019$ $T/W = 0.458$ $U/W = 0.396$

$P/W = 0.447$ $C/W = 0.207$

$Vol./W^3 = 0.235$



PAVLION

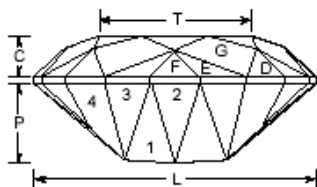
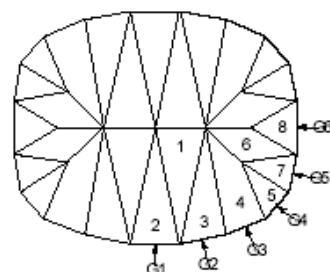
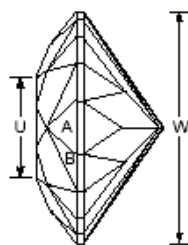
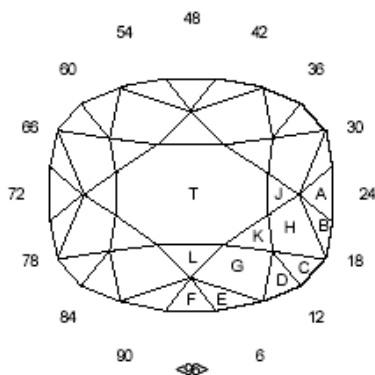
A	42.70°	01-31-33-63-65-95	Cut to point.
B	41.00°	16-48-80	Meet at culet.
C	45.80°	03-29-35-61-67-93	Set diameter.
D	90.00°	03-29-35-61-67-93	Meet A, C.
E	45.70°	12-20-44-52-76-84	Meet A, B, C.
F	90.00°	12-20-44-52-76-84	Cut even girdle.

CROWN

1	43.40°	03-29-35-61-67-93	Set girdle width.
2	43.00°	12-20-44-52-76-84	Cut even girdle.
3	38.90°	01-31-33-63-65-95	Meet 1, girdle.
4	36.00°	16-48-80	Meet 2, girdle.
5	21.00°	08-24-40-56-72-88	Meet 1, 2, 3, 4.
T	0.00°	Table	Meet 3, 5, and 4, 5.

For Mom - Happy Mother's Day, 2004

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Custom Cushion

by John Bailey, 2003

Angles for R.I. = 2.000

65 + 20 girdles = 85 facets

2-fold, mirror-image symmetry

96 index

L/W = 1.211 T/W = 0.655 U/W = 0.432

P/W = 0.344 C/W = 0.175

Vol./W³ = 0.282

PAVLION

1	34.00°	02-46-50-94	CTP
G1	90.00°	96-48	Fix Width
2	34.50°	96-48	Meet 1 at culet
3	34.70°	03-45-51-93	Meet 2, G1
G2	90.00°	03-45-51-93	Meet 2, 3, G1
4	35.30°	06-42-54-90	Meet G2, 3
G3	90.00°	06-42-54-90	Meet G2, 3, 4
5	38.30°	13-35-61-83	Meet G3, 4
6	39.10°	22-26-70-74	Meet 1, 3, 4
7	39.70°	21-27-69-75	Meet 4, 5, 6, and 4, 5, G4
G4	90.00°	13-35-61-83	Meet G3, 4, 5
G5	90.00°	21-27-69-75	Meet G4, 5, 7
G6	90.00°	24-72	Meet G5, 6, 7
8	41.00°	24-72	Meet G5, G6, 6, 7

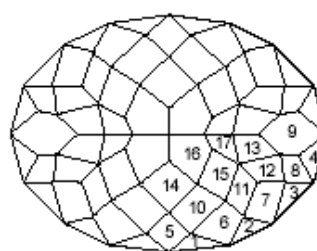
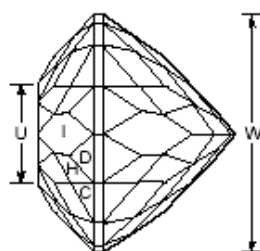
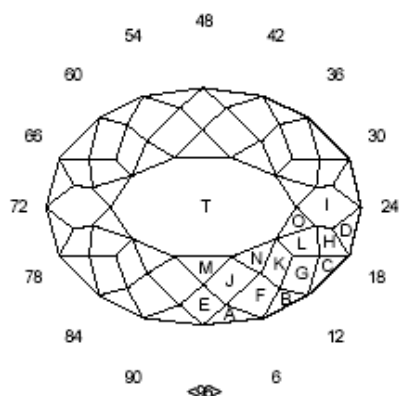
CROWN

A	41.80°	24-72	Even girdle
B	38.00°	21-27-69-75	Even girdle
C	33.20°	13-35-61-83	Even girdle
D	34.00°	06-42-54-90	Even girdle
E	34.80°	03-45-51-93	Even girdle
F	38.20°	96-48	Even girdle
G	32.00°	04-44-52-92	Meet D, E, girdle
H	30.00°	17-31-65-79	Meet B, C, girdle
J	19.00°	24-72	Meet A, B
K	20.00°	09-39-57-87	Meet C, D, G, H
L	24.00°	96-48	Meet E, F, G
T	0.00°	Table	

Angles for RI=2. This stone was custom-designed to fit an existing setting of shallow depth and odd size.

Hence, the odd specifications. Original material was Jewel-Lite (RI ~ 2).

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Sexy Native 1.33

angles for Spodumene

by John Bailey 01/25/2004

Angles for R.I. = 1.670

117 + 16 girdles = 133 facets

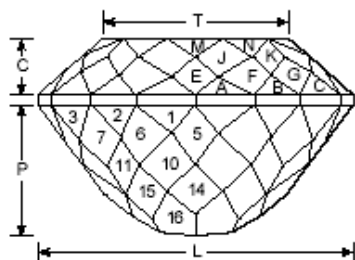
2-fold, mirror-image symmetry

96 index

L/W = 1.329 T/W = 0.784 U/W = 0.419

P/W = 0.556 C/W = 0.241

Vol./W³ = 0.443



PAVILION

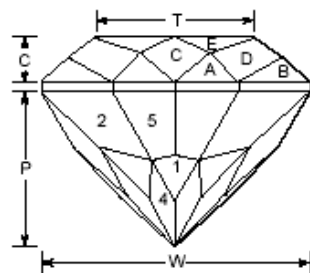
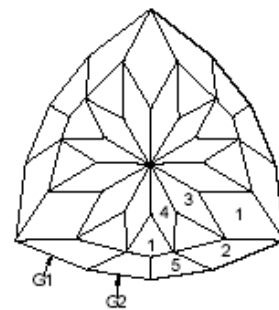
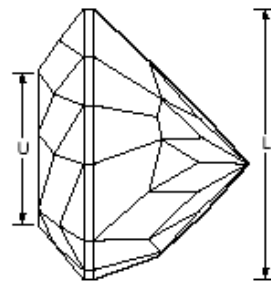
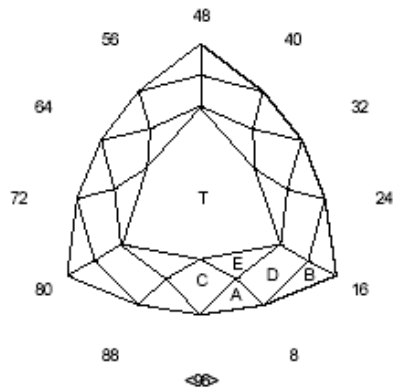
	90.00°	20-28-68-76
	90.00°	12-36-60-84
	90.00°	07-41-55-89
	90.00°	02-46-50-94
1	60.30°	02-46-50-94
2	60.30°	07-41-55-89
3	60.30°	12-36-60-84
4	60.30°	20-28-68-76
5	55.80°	96-48
6	54.10°	04-44-52-92
7	55.10°	10-38-58-86
8	55.10°	16-32-64-80
9	53.10°	24-72
10	51.00°	03-45-51-93
11	50.00°	08-40-56-88
12	49.10°	13-35-61-83
13	44.50°	15-33-63-81
14	44.00°	96-48
15	46.00°	06-42-54-90
16	40.00°	02-46-50-94
17	40.00°	12-36-60-84

CROWN

A	48.90°	02-46-50-94
B	48.90°	07-41-55-89
C	48.90°	12-36-60-84
D	48.90°	20-28-68-76
E	43.90°	96-48
F	42.10°	04-44-52-92
G	43.30°	10-38-58-86
H	43.30°	16-32-64-80
I	41.50°	24-72
J	39.00°	03-45-51-93
K	38.20°	08-40-56-88
L	37.30°	13-35-61-83
M	32.30°	96-48
N	34.00°	06-42-54-90
C	32.30°	15-33-63-81
T	0.00°	Table

CAM Preform using i2-a20; i7-a18.8; i12-a17.4; i20-a15.7 (ctp, then girdle)

C:\Dvue2\SexyNative.gem



Amethyst Shield

12 main barion cushion triangle

by John Bailey, 2003

Angles for R.I. = 1.540

64 + 12 girdles = 76 facets

3-fold, mirror-image symmetry

96 index

L/W = 1.007 T/W = 0.591 U/W = 0.570

P/W = 0.579 C/W = 0.170

Vol./W³ = 0.277

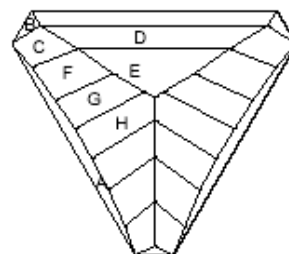
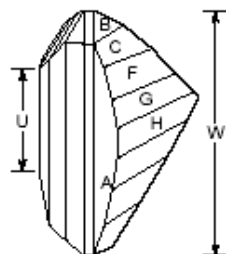
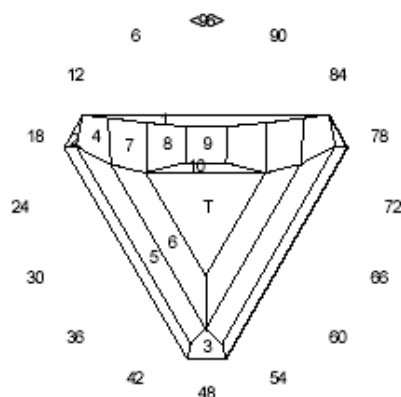
PAVLION

1	46.50°	96-08-16-24-32-40-48-56-64-72-80-88	CTP - 12-fold
G1	90.00°	06-26-38-58-70-90	Establish corners
2	65.60°	06-26-38-58-70-90	Fix girdle location
3	43.30°	12-20-44-52-76-84	Meet 1, 2 - CTP
4	43.00°	04-28-36-60-68-92	Meet 1, 2 and Culet
5	71.70°	02-30-34-62-66-94	Meet 1, 2, 4
G2	90.00°	02-30-34-62-66-94	Even girdle

CROWN

A	44.50°	02-30-34-62-66-94	Set girdle thickness
B	45.00°	06-26-38-58-70-90	Even girdle
C	40.30°	96-32-64	Meet A, G2
D	41.00°	05-27-37-59-69-91	Meet A, B, G1, G2
E	32.00°	03-29-35-61-67-93	Meet A, C, D
T	0.00°	Table	Meet C, E

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Mixtress Gem

by John Bailey, 2001

Angles for R.I. = 1.540

41 + 6 girdles = 47 facets

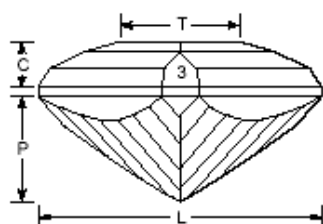
1-fold, mirror-image symmetry

96 index

L/W = 1.155 T/W = 0.485 U/W = 0.420

P/W = 0.429 C/W = 0.186

Vol./W³ = 0.232



PAVILION

	90.00°	96-32-64	
	90.00°	16-48-80	
A	65.00°	96-32-64	Cut even girdle.
B	65.00°	16-48-80	Cut even girdle.
C	44.00°	29-35-61-67	Meet A & B.
D	49.00°	96	Meet C & B.
E	44.00°	96	Meet D & C.
F	44.00°	30-34-62-66	Meet D, E, E.
G	44.00°	31-33-63-65	3/5 of E face.
H	44.00°	32-64	Divide faces G into 3rds.

CROWN

1	60.00°	96-32-64	Cut even girdle.
2	63.00°	16-80	Cut even girdle.
3	50.00°	48	Cut even girdle.
4	32.80°	04-92	Meet girdle, 1, & 2.
5	40.00°	32-64	Meet 2, 4.
6	20.00°	32-64	Meet 3, 5.
7	32.50°	03-93	Meet 4, 5, 6.
8	32.20°	02-94	Make 7 same width as 4.
9	32.00°	96	Divide faces 8 into 3rds.
T	0.00°	Table	Meet 6, 7, 8.
10	17.50°	96	(optional face) Meet 6, 7, 8.

Voted "One of the 12 best new designs of 2001" (CWFG)

Preform at 35° on 96 and 23° on 48.

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