TemariKai Tool Kit - 8 Combination Multiple Centers
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While the majority of mutiple-center designs that you will see are worked from a 10-Combination standard division, they are not limited to that starting point. It's possible to apply the same sub-dividing to an 8 Combination standard division to end up with various assortments of multple center maris.

The same principles apply, in that the 6 part Diamond is located and its sides subdivided, or the 4-part Diamond is located and subdivided, in the same manners a 10 Combination. As in 10 Combination multi-centers, the results will be either perfect or imperfect, and imperfect divisions may be carried forward to perfect. The formulas for finding the number of centers change as follows:

For dividing the 6-part Triangle, the number of sections the side is divided into must be a multiple of 3, and the formulas are as follows:

- For Imperfect Division: 1/3 (X^2) x 4 + 2 = 3 of imperfect centers.
- For Perfect Division: X^2 x 4 + 2 = 3 of perfect centers.

When dividing the 4-Part Triange, the number of sections is not restricted to a multiple of 3 and the formulas are as follows:

- For Imperfect Division: X^2 x 4 + 2 = # imperfect centers.
- For Perfect Division: X^2 x 12 + 2 = # perfect centers.

Here is one marking example, using a 4-Part diamond division into 4:

This is an 8-Combination standard division, originally marked in fine gold thread. Three of the six original centers are marked with white pins. They are also locating one of the large diamonds, for visual orientation.

The multiple centers marking is being worked on the 4-part Diamond outlined in green. Three sets of marking lines are added in the diamond, A-B-C-D-A; 1-2-3-4-1; and a-b-c-d-a.
You can see how the side of the diamond has been divided into four sections.

Locating the centers that emerge means finding the adjacent hexagons, along with usually a center square in the original 8-Combination center.

For this example, using the imperfect forumula for dividing the 4-part diamond, the number of centers should be 66: $4^2 \times 4 = 2 = 66$

There is a perfect square (4 sides, 8 wedges) at each of the six original poles of the 8-Combination division - shown in white outline and with a white pin (total of 6).

Imperfect hexagons now surround the mari: a set of four around each of the six poles (shown in pink outline - total of 24)); one halfway between each pole (shown in green outline, total of 12), and a cluster of 3 in the center of the large original triangle, (shown in red outline, total of 24). so, the total centers is 66: 6 perfect and 60 imperfect, by count.

Needless to say, adding multiple centers to an 8-Combination division creates another multitude of design possibilies.....

References:
Lessons and translations (with deep appreciation): M. Mizuta; Translation assistance: M. Koh, Kiyoko K; Publications: *Kaga Hana Temari* (ISBN4-8377-0292 -9), *Sosaku Temarizikushi* (ISBN4-8377-0696-7), *Edo Temari* (ISBN4-8377-0394-1)

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