The Sonobe module and the Corner-pocket Sonobe module

The original Sonobe module was designed sometime in the late 1960s by the Japanese paperfolder Mitsonobu Sonobe, after whom it is named.

I found the Corner-pocket version for myself, in 1987, before I had seen the original Sonobe module design, but I have since discovered that it had previously appeared in Origami for the Connoisseur by Kunihiko Kasahara and Toshie Takahama, which was published in Japanese in 1985 and in English in 1987. In this book the module that I call the Corner-pocket Sonobe is called the Tomoko module.

When these modules are folded with the small triangular flaps tucked away inside the design they are exactly four layers of paper deep at every point and therefore qualify as even distribution designs, as are modular assemblies made from them. Occasionally, however, as with the alpha 12-part Cube, modular assemblies made from Sonobe modules only work, or work better, if the two small triangular flaps are not folded away.

In their basic form the exterior of both these modules is formed from just one surface of the paper so that any kind of paper can be used to make them.
The Sonobe module - original method - flaps folded away
Each module is folded from a square. If using irogami begin with your paper arranged white side up.

1. Fold in half upwards, then unfold.

2. Fold both the top and bottom edges onto the horizontal crease.

3. Fold the top left corner onto the bottom edge and the bottom right corner onto the top edge.

4. Unfold.

5. Fold the top left and bottom right corners inwards again using the creases made in step 3 but this time tuck them underneath the opposite flaps.

6. Fold the two small triangular flaps backwards in between the other layers by reversing the direction of the creases made in step 3.
7. This is the basic form of the original version of the Sonobe module. You will need to add configuring folds in order to make cubes, cube combinations or silverhedra using this module.

The Sonobe module - alternative method - flaps out (not folded away)
Begin by following steps 1 and 2 on the previous page.

3. Open out the top front flap.

4. Fold the bottom right corner inwards onto the horizontal crease, then unfold.

5. Unfold the bottom front flap then fold the top edge downwards using the existing crease.

6. Fold the top left corner inwards onto the horizontal crease, then unfold.
7. Fold the bottom edge upwards using the existing crease.

8. Remake fold 4 but this time tuck the corner underneath the opposite front flap.

9. This is the basic form of the flaps out version of the Sonobe module. You will need to add configuring folds in order to make cubes, cube combinations or silverhedra using this module.

The Corner-pocket Sonobe module
Each module is folded from a square. If using irogami begin with your paper arranged white side up.

10. Fold in half upwards, then unfold.

11. Fold both the top and bottom edges onto the horizontal crease.
12. Fold the top right corner onto the bottom edge and the bottom left corner onto the top edge.

13. Unfold.


15. Fold the top left and bottom right corners inwards using the existing creases.

16. Make fold a then fold b to collapse the paper into the form shown in picture 17.

17. Repeat step 16 on the other half of the paper but this time tuck the paper underneath the opposite front flap.
18. This is a Corner-pocket Sonobe module. Turn over sideways.

19. The resulting Corner-pocket Sonobe module will look like this.

You will need to add configuring folds in order to make cubes, cube combinations or silverhedra using this module.

Diagrams drawn by David Mitchell and available from www.origamiheaven.com