Twelve Piece Separation

*Designed by Stewart Coffin, made by interlocking puzzles 2002.*
(Peroba Rosa, 12 pieces, 5 inches)

In *Geometric Puzzle Design*, Stewart Coffin says: "Twelve sticks of triangular cross-section with pyramidal end blocks assemble with some difficulty to form a symmetrical interlocking burr."

Here is the solution that was sold with the puzzle (pieces are numbered in assembly order):

**Step 1:** Assemble pieces #1, #2, and #3 to form a triangular base.

![Step 1 Diagram]

**Step 2:** When in place piece #4 will stand vertically with piece #5 parallel to piece #3. Piece #5 is the only piece with an extra augmentation. Assemble with the augmentation directly to the left of piece #2. Hold #4 loosely to allow #5 to slide in under the hook of #2.

![Step 2 Diagram]

**Step 3:** When in place piece #6 will be parallel to #4. To assemble, piece #6 hooks around #2 from below and slides up through next to #4.

![Step 3 Diagram]
Twelve Piece Separation Solution Continued

**Step 4:** When in place piece #7 will be parallel to piece #1. To assemble, first push piece #1 all the way into the puzzle. This allows piece #3 to move to the left giving room for piece #7.

![Image of puzzle pieces](image1)

**Step 5:** Insert piece #7. Slide piece #3 back to the right and #1 forward.

![Image of puzzle pieces](image2)

**Step 6:** When in place piece #8 will be parallel to piece #2. To assemble, place #8 on the right side by hooking around #4 and sliding through #1.

![Image of puzzle pieces](image3)

**Step 7:** Now the puzzle has enough pieces in place to hold together better. When in place piece #9 will stand vertically, parallel to piece #4 and #6. To assemble, drop #4 down and move piece #7 back away from you. Bring #8 towards you until enough opening is made to allow for #9.

![Image of puzzle pieces](image4)

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Twelve Piece Separation Solution Continued

**Step 8:** Insert #9 by hooking around #3. Push #8 back in place to allow #4 to come back up. Make sure #9 is all the way down to allow #7 to slide back towards you. Bring #9 up to its final place. When in place piece #10 is parallel to #5 and #3. To assemble, hook the end of #10 around #8 and slide left under #9.

![Step 8 Diagram]

**Step 9:** When in place piece #11 is parallel to #8 and #2. To assemble, first drop #4 and #6 down. Slide #8 all the way towards you. Then move #10 to the left just enough.

![Step 9 Diagram]

**Step 10:** This allows #11 to be inserted underneath #10 with its end hooking around #7. Slide #10 back to the right. Now #8 slides back to allow #4 up. Make sure #11 is all the way towards you to allow #6 to come back up.

![Step 10 Diagram]

**Steps 11 & 12:** Move #11 to its final place. Then the key piece #12 moves in parallel to #7 to touch the augmented place on #5.

![Steps 11 & 12 Diagram]

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