39 Sleazier

Puzzle Goal:

Place all four pieces flat in the tray.

Materials:

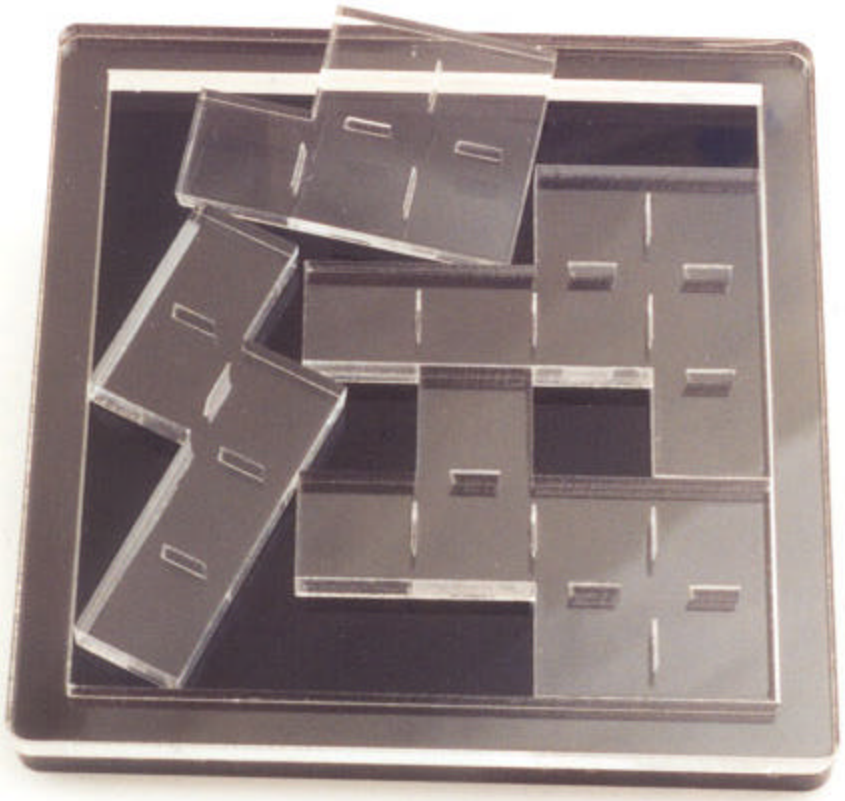
Plastic

Classification: 2-D Put Together

Notes:

History:

The inspiration for the puzzle came while failing to solve “Four Sleazy Pieces,” by Stewart Coffin. This puzzle is even less “perfect” than that one, however; hence the name.



40

Homage to the Cube

Puzzle Goal:

The goal of the puzzle is to make a pattern of the tiles in which no tile is adjacent, along an edge, to a tile of the same color. Tiles may share the same color with a tile in a diagonal direction across an intersection of tiles.

Materials:

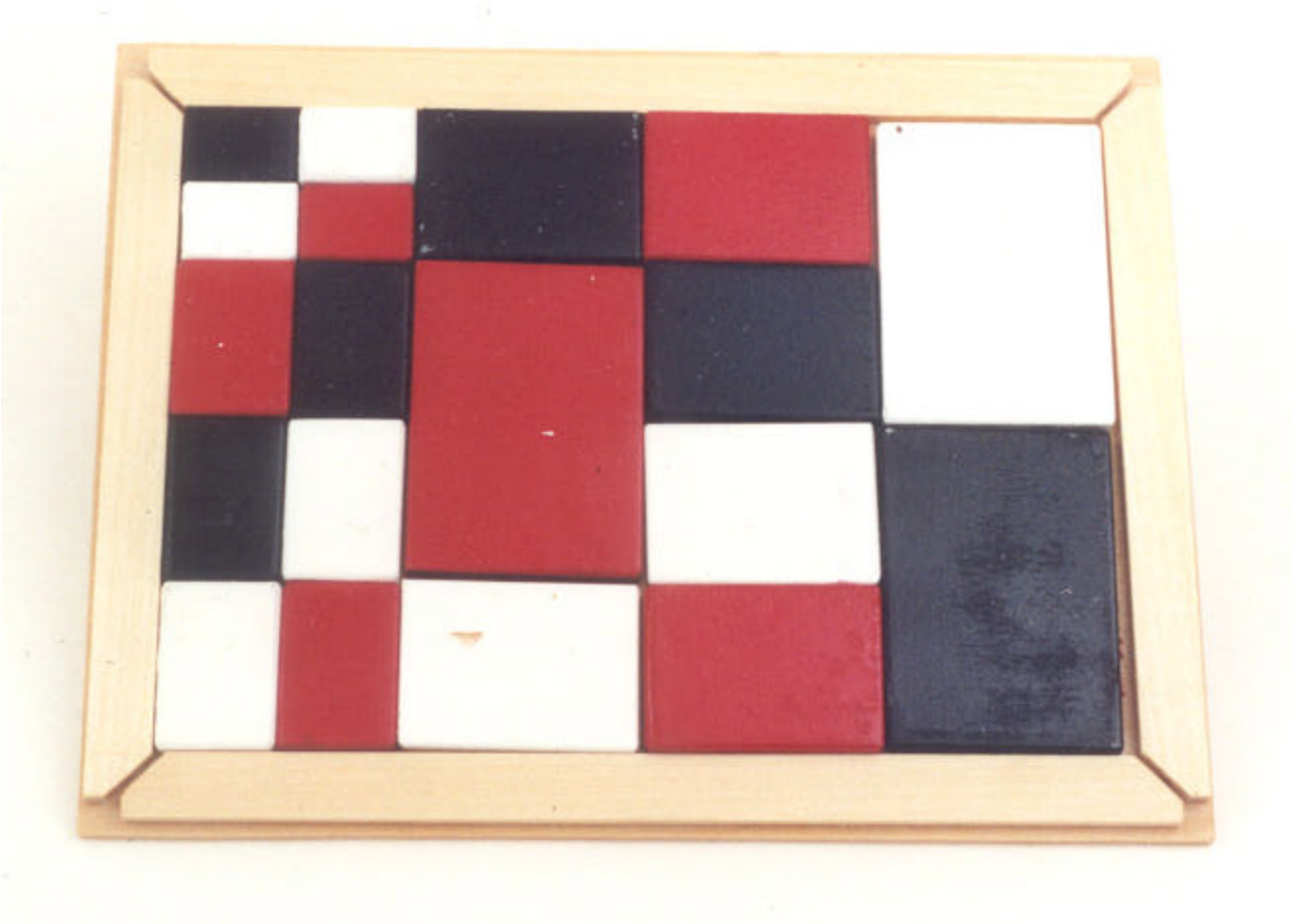
basswood with a finish of enamel

Classification: Two-dimensional assembly

Notes:

The unusual feature of the tiles is that each increase in size is by a factor of two, so that each tile is half the area of the next larger tile. Nonetheless, the ratio of the length of the sides of all the tiles is the same: $\sqrt{2}$:1. This forces the tiles of each size to maintain either a horizontal or a vertical orientation in the pattern; a tile that is placed vertically will not fit horizontally, and vice versa.

History:



41

The Box of ZN

Puzzle Goal:

Manipulate the moveable pieces on the top of the puzzle box to open it. Once the lid is opened, there is a tricky "panel" that must also be removed.

Materials:

Keruing and Bubinga

Classification: Trick opening box

42 Solitary Confinement

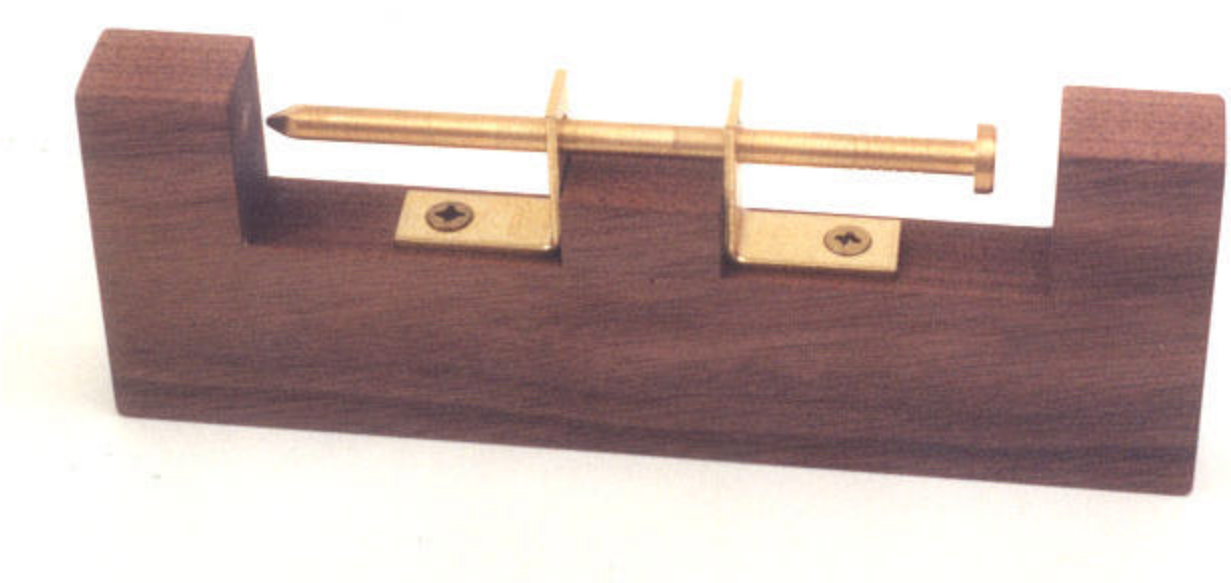
Puzzle Goal:

Free the nail from its constraints.

Materials:

Brass nail and walnut base

Classification: Take Apart



43 The Skeleton Key

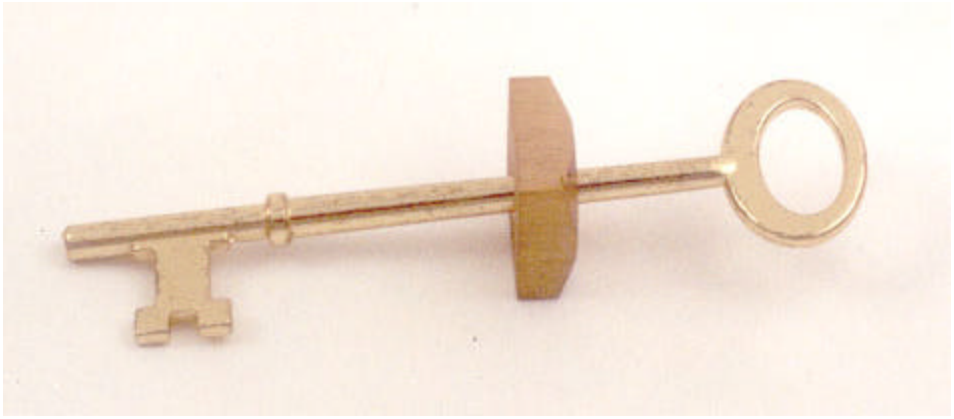
Puzzle Goal:

Remove the nut from the key

Materials:

Brass nut and key (the key is brass plated)

Classification: Take Apart



44

Stickman No. 5

Puzzle Goal:

Open the box through the sequential movement of its exterior pieces. After this, the next goal is to dismantle the box into its 78 individual pieces and reassemble it back into a working puzzlebox (it is recommended that only one panel be disassembled at a time).

Materials:

Walnut, Maple, Bloodwood & Cherry

Classification: Take Apart

45 Stickman No. 7

Puzzle Goal:

Remove all four drawers from their cage.

Materials:

Wenge & Maple

Classification: Take Apart

Notes:

The Stickman No 7 Puzzlebox is unique in that the movement of each drawer depends on the positions of adjoining drawers. The movement of adjoining drawers is also dependant on the positions of the drawers that neighbor them. Once completed, the individual drawers can be also reinserted back in hundreds of different ways (how many?), each producing their own unique series of moves and level of difficulty.

46

Gyro Brain

Puzzle Goal:

Disassemble and reassemble the cube.

Materials:

360 Machined Brass

Classification: Put-together Puzzle

History:

A prior design, Perplexity, was redesigned and sized to form an alternative "brain" for Berrocal's Hoplita.

47 Bricks Thru Window

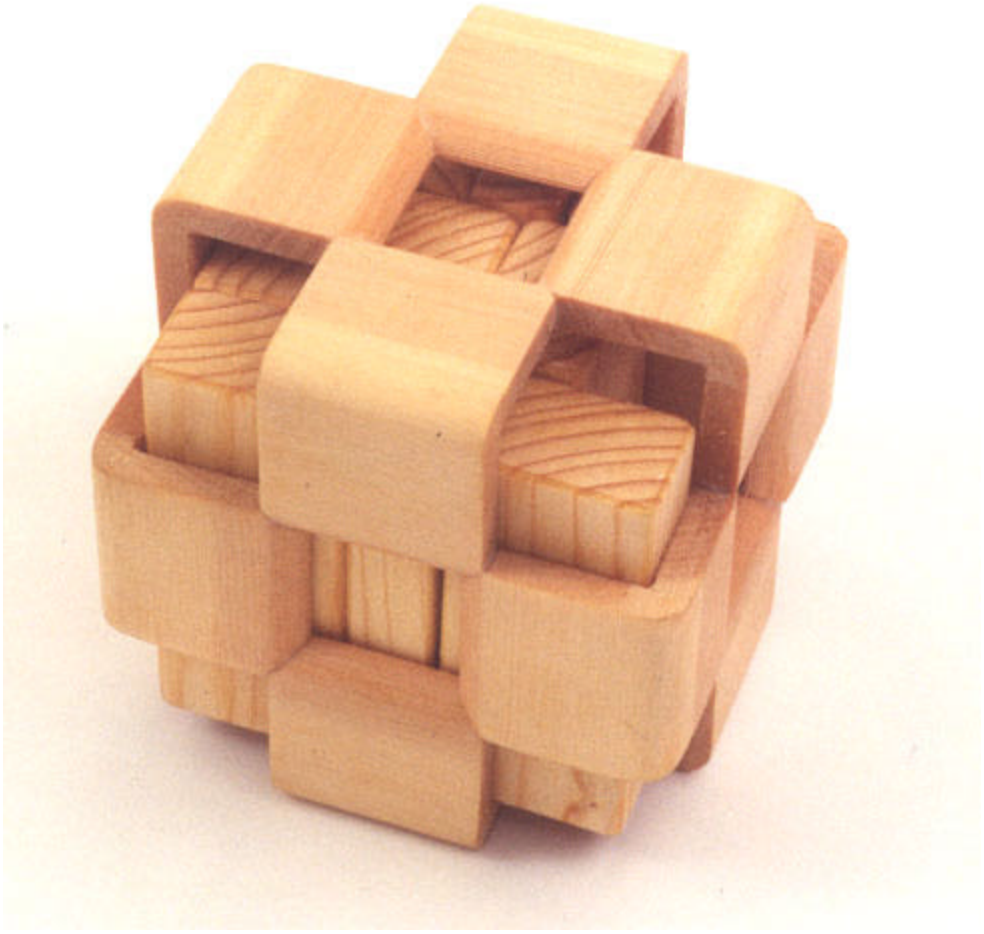
Puzzle Goal:

To take out cuboids from box, and then to replace cuboids within box.

Materials:

Pine

Classification: Box filling/ emptying



48 Living Quarters

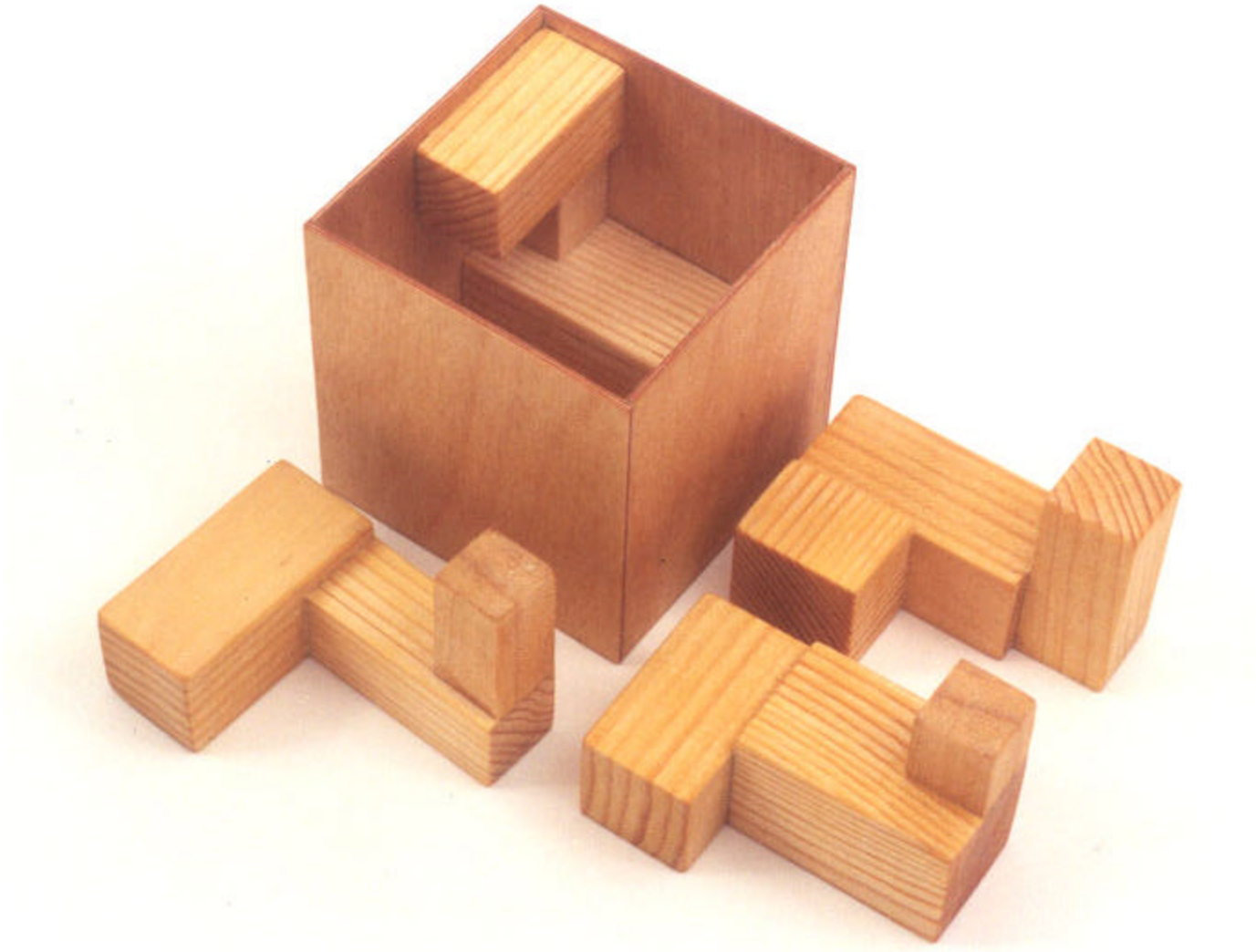
Puzzle Goal:

Fit the three shapes into box and replace lid

Materials:

Pine and marine board

Classification: Box emptying/box filling



49

Triple Trouble

Puzzle Goal:

Insert the blocks into the box.

No significant force is necessary.

Materials:

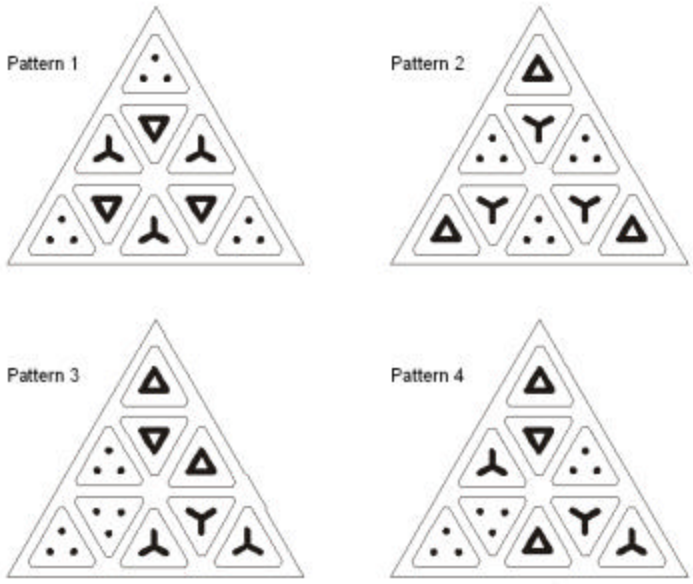
Wood (cherry/bubinga or maple/bubinga)

Classification: 3D Assembly

50 Necklace Packing Puzzle

Puzzle Goal:

Pack the nine triangle beads of this necklace in the tray to make the following patterns. The two chain parts can be loose and they have to be packed completely around the beads.



Materials:

aluminum "hylite" and acryllic beads, nylon string and nickel chain, packed with blue paper description in transparent jewel case

Classification: Put Together (Packing Problem)

51

Butterfly

Puzzle Goal:

From the starting position shown, without lifting the pieces from the tray, rearrange them to put the Swallowtail together. The shortest path requires 31 moves. Then, from that solution, continue rearranging the pieces until the Monarch emerges again. The shortest path this time is only 9 moves.

Materials:

paper, laminate, aspen, ebony, birch plywood

Classification: Sliding Block

52

W-O

Puzzle Goal:

Find four compartments

Materials:

Walnut, Rengas and Iron bolt

Classification: Take-Apart

53

Petit Heart

Puzzle Goal:

Open both halves of the heart

Materials:

lengas, mizuki

Classification: Take-Apart

54

Caged Knot

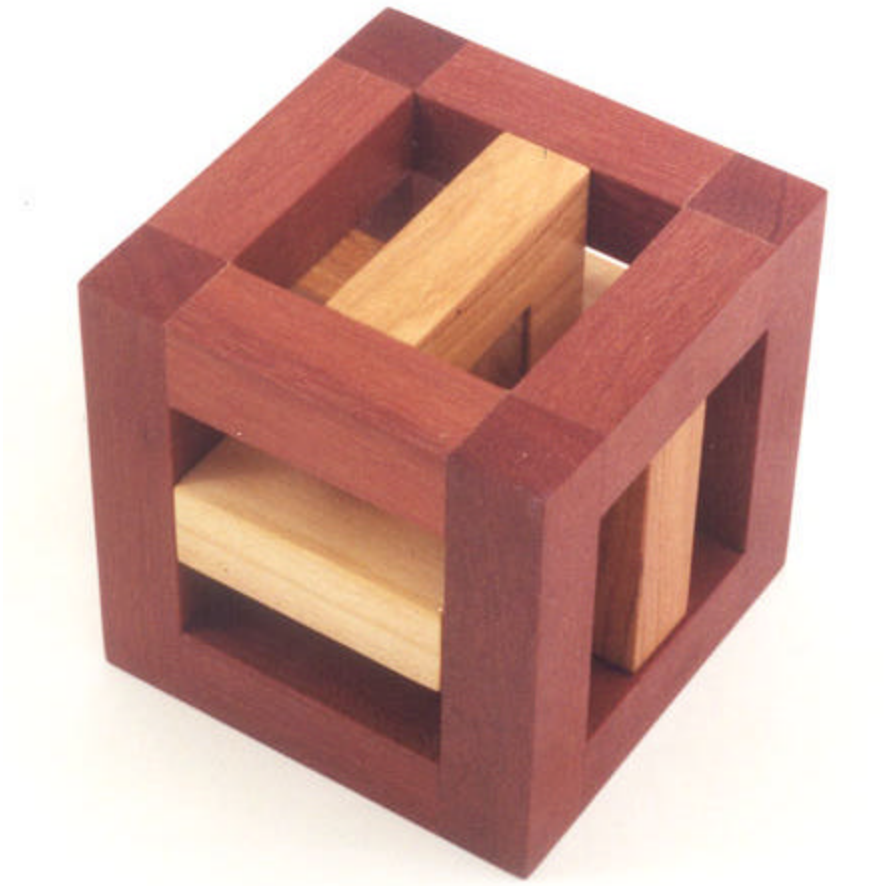
Puzzle Goal:

Take it apart (difficult) then put together (very difficult)

Materials:

Masaranduba wood (cage) and maple for the pieces

Classification: 3.2 Interlocking Geometric Object



55

Icosahedron92

Puzzle Goal:

Put together all pieces to form an icosahedral object

Materials:

cherry

Classification: Put Together Puzzle

56 Swan

Puzzle Goal:

Disassemble and reassemble the pieces

Materials:

Plastic – GPPS

Classification: 3D Puzzle

Notes:

This improves upon older Mag-Nif designs by introducing a non-symmetrical piece pattern and mechanisms for adding external pieces.

57

cuBBox

Puzzle Goal:

Pass the stick throughout the cube

Materials:

Solid wood and solid brass

Classification: Dexterity