

PAFU CHESS PIECES

Pafu chess pieces are an original design for the traditional chess pieces. The pieces are all pyramids in shape, of equal size. Each of the four sides of each piece bears the same face, so that they are easy to scan from all view angles of the board. The base and the top of each pyramid are of the same color, white or black, identifying clearly the side,

The three triangles in the middle of each side are the 'information bits' which distinguish between the different figures. All 8 of the possible 'encodings' are used, with the knights and rooks having mirror images. The number of center triangles also corresponds to the relative values of the pieces (0 for pawns - lowest, 1 for bishops/knights – next higher, 2 for rooks and queen – higher, 3 for king – highest). The 'information bits' are of the same color as the base color, while the contrast color can be either the opposite color, or a neutral color. In the illustrations white and black base colors are used, with gray contrast.

This design for the chess pieces is probably the simplest ever proposed, but the pieces are still very easy to scan and recognize. Three 'bits' does not give much opportunity to make representative shapes, nevertheless the figures for knights and bishops have a stylistic resemblance to their traditional shapes; the rooks resemble a (leaning) castle wall, the queen has the distinctive female inverted triangle, the king a massive uniform coloring. The rooks and knights 'lean' towards the center of the board; the knights also have a stylistic resemblance to the letters B and G, the files where they are originally placed.

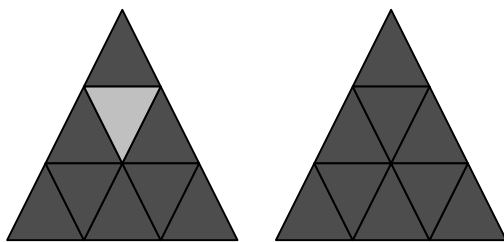
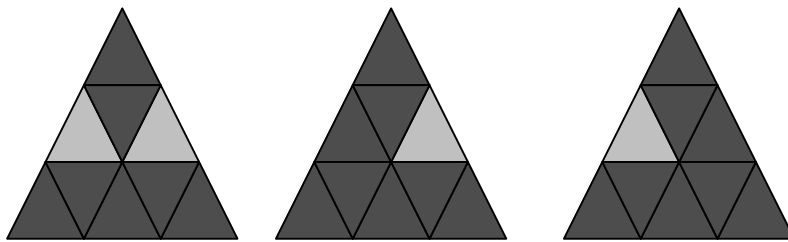
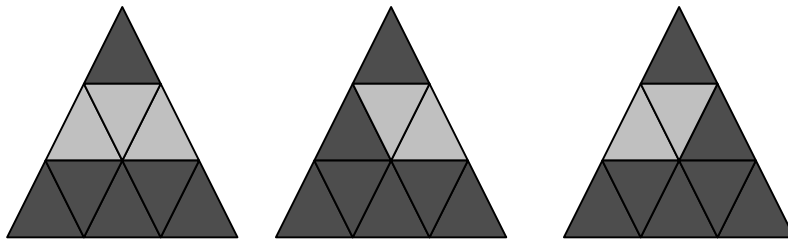
In chess, we distinguish between 6 different types of figures. This requires at least 3 bits of information, so this design is the most compact possible. In the Pafu chess pieces design the queen and king side knights and rooks are distinguished as mirror images. As a result, we can also use a more succinct system for move coding (originally proposed by Stamma in the mid 18th century). In this system, instead of coding a move with the name of the piece that moves, we can code instead with the name of the square that the piece originally occupied. As an example, the move Ngf3 can be coded Gf3 instead. This notation is not only more efficient, it is also international, because the coordinate system for the chessboard is used globally, whereas the pieces have different names in each different language. Of course the traditional notation systems can also be used for move coding.

The pieces can be manufactured out of any material, eg. wood, plastic, ceramic, or metal. The pyramid pieces should be enjoyable for little children to play with as well, stimulating their interest in learning to distinguish the pieces and so begin to learn the real game. The pieces can be hollowed out, so that they stack together easily and compactly. This allows to check quickly if pieces are missing (eg. 4 stacks of 8 pieces fits a rectangular box).

PAFU CHESS PIECES

(black)

- 1 Pawn 2. 'B' Knight 3. 'G' Knight
- 4. Bishop 5. 'A' Rook 6. 'H' Rook
- 7. Queen 8. King



PAFU CHESS PIECES

(white)

- | | | |
|-----------|---------------|---------------|
| 1. Pawn | 2. 'B' Knight | 3. 'G' Knight |
| 4. Bishop | 5. 'A' Rook | 6. 'H' Rook |
| 7. Queen | 8. King | |

