FIG. 005
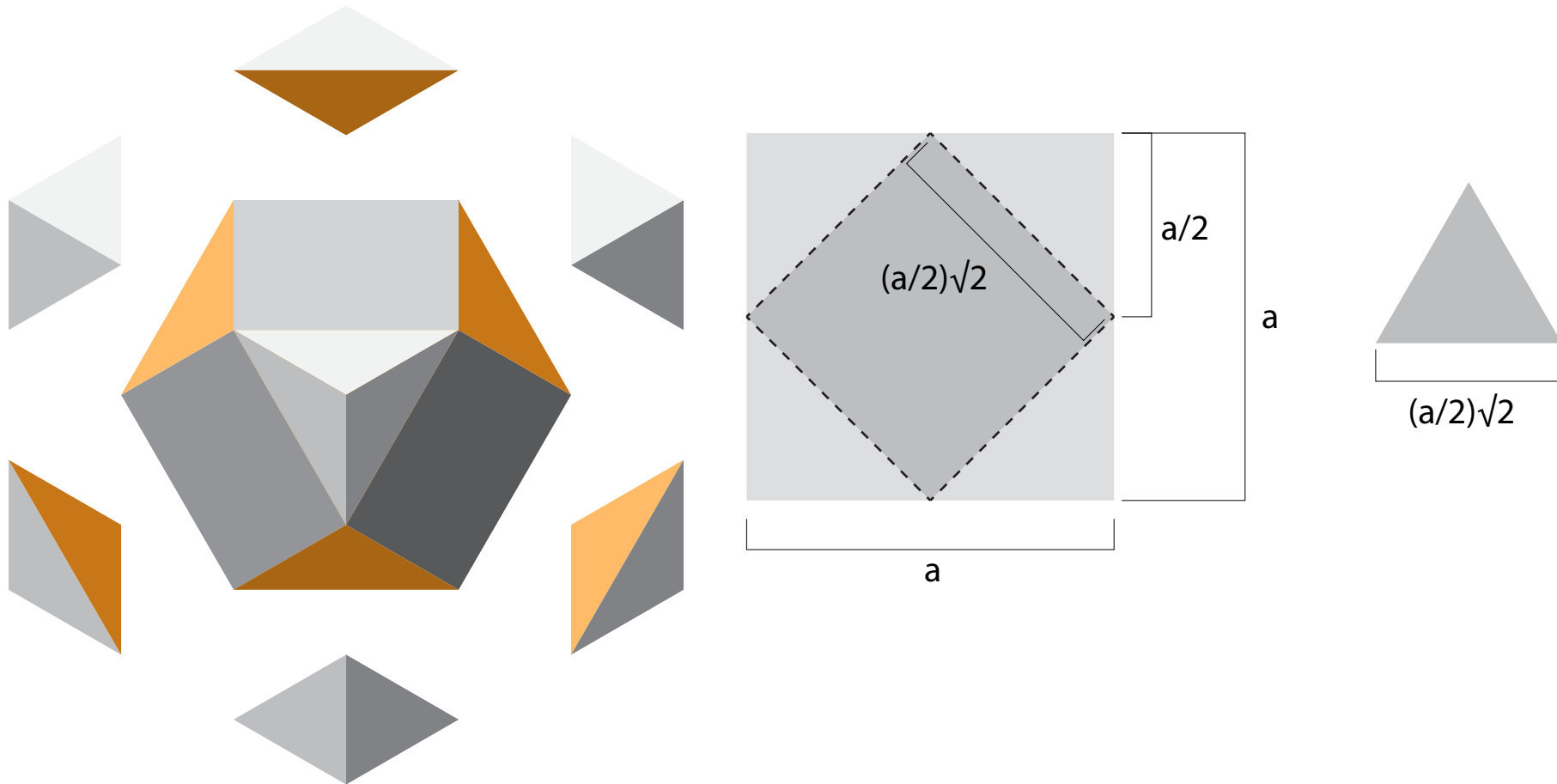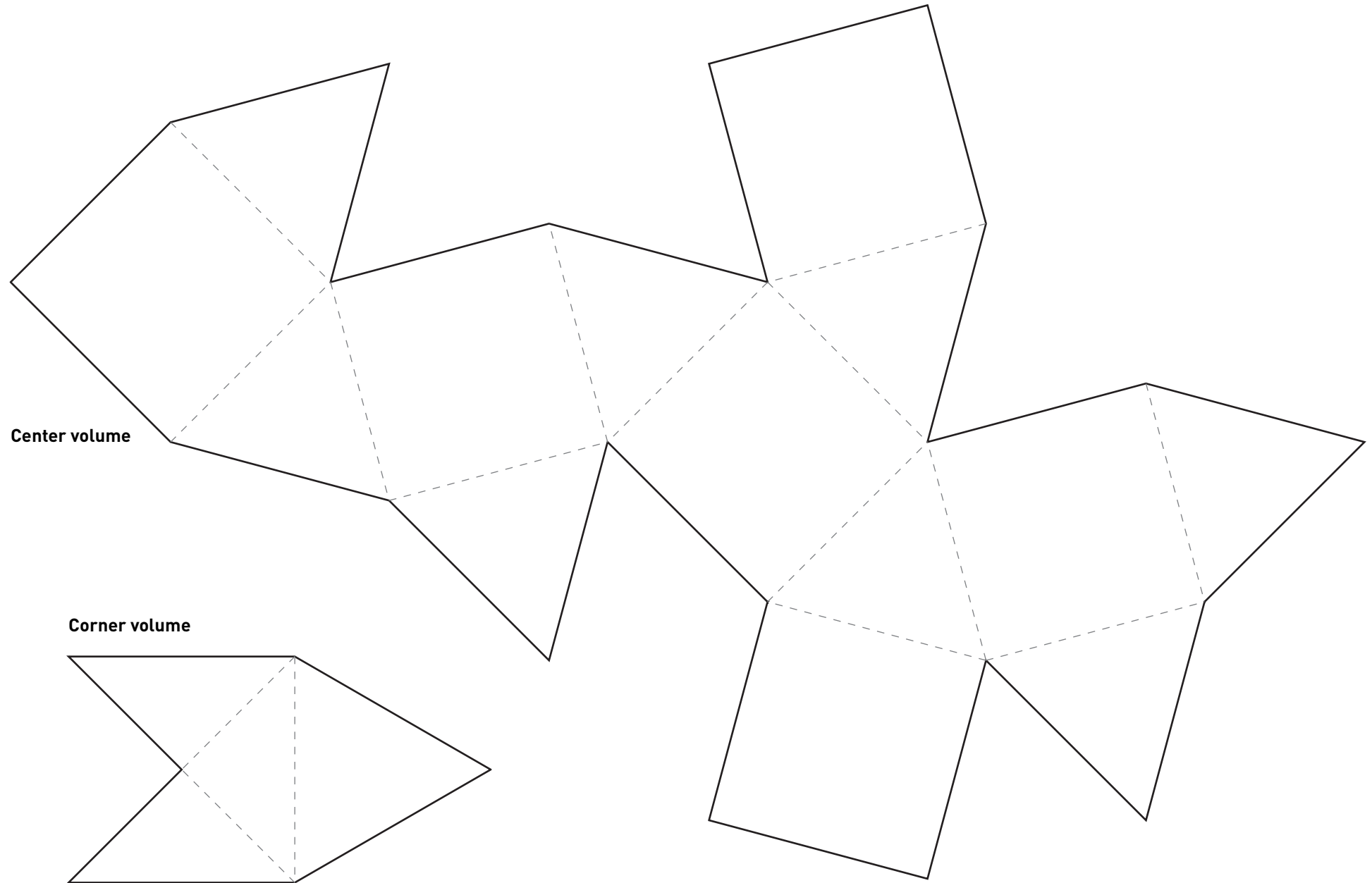
In this exploration, we cut away 1/8 of each face by connecting the midpoints of adjacent edges. This operation removes the cube's eight corners, leaving behind eight small triangular solids. The remaining central form becomes an intricate polyhedron, composed of both triangular and square faces. This transformation demonstrates how a simple, systematic cut can generate a more complex and multifaceted structure.

$a/2$

$(a/2)\sqrt{2}$

a

a

$(a/2)\sqrt{2}$

Center volume

Corner volume

Laser cut / One color

Fig. 005

Fig. 005