

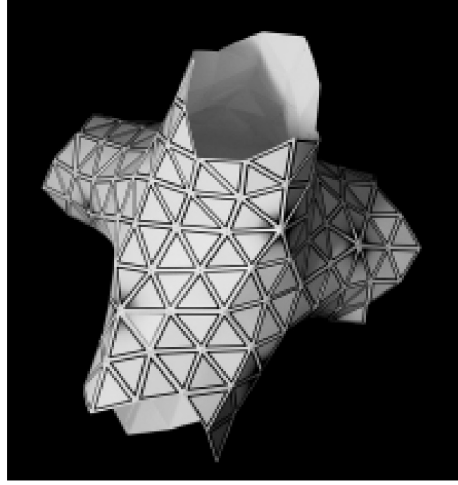


Fig. 15. Subdivision of (6,6,7) hyplane (chimaki type).

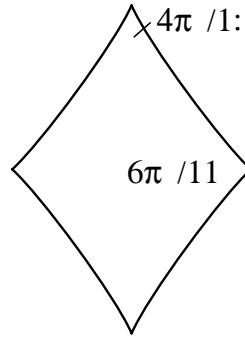


Fig. 16. A hyperbolic rhombus.

## 6. Irregular Tiling and Hyplane

Tiling pattern of  $(a, b, c)$  hyplane is the same as that of  $(2\pi/a, 2\pi/b, 2\pi/c)$  hyperbolic triangles. We can understand this feature naturally because a  $K = -1$  surface is an isometric immersion of the hyperbolic plane to  $R^3$ . From this viewpoint, for an irregular tiling pattern of the hyperbolic plane by triangles of the same figure, we can construct a hyplane-like polyhedron. Here is an example. In Fig. 16, there is a hyperbolic rhombus with angles  $4\pi/11$ ,  $6\pi/11$ . We can make an irregular tiling on the hyperbolic plane. To make  $2\pi$  by summing up  $4\pi/11$  and  $6\pi/11$ , there are two following ways: