

Fig. 3. Various first generations generated from an initiator element of Asanoha.

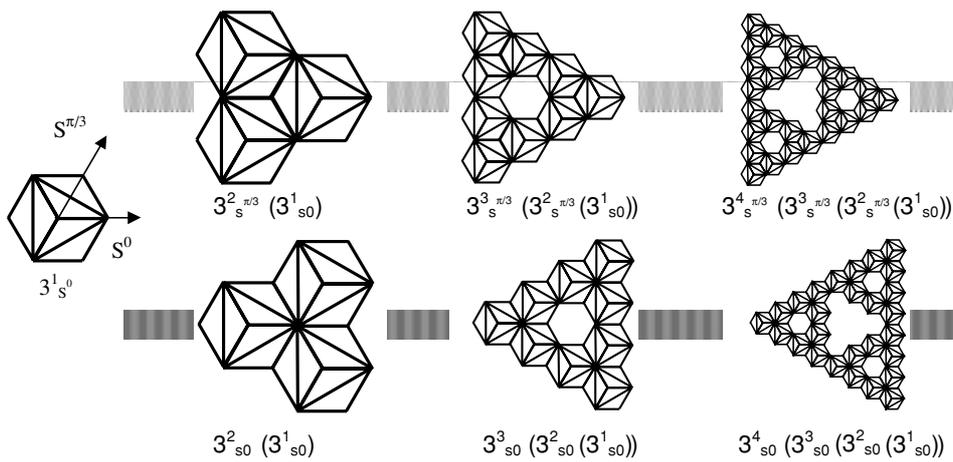


Fig. 4. Self similar composition generated from the first generations of Asanoha $3^1_{S^0}$.

rotational operation. In the same way, various initiator closed elements are selected as first generation module from many other planer patterns including traditional folk art.

3.2. Introduction of initiator elements from folk art into hierarchical modular systems

In this paper, we introduce of various unit elements from folk art into initiator modules. This attempt can be said as one of tiling or tessellation. However, conventional tiling and tessellation provide spatially uniform repeated patterns. In hierarchical modular systems, each assembly rule can be different every generation, which increase spatial diversity.

Various Japanese traditional patterns such as Asanoha, Kagome, Kikko, Shippo,