Making a rhombic 1080-hedron

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Paper models of polyhedra are attractive but difficult to make. That is why in schools we prefer to make polyhedra from plastic parts (Polydron, Zometool). We are interested in golden rhombic solids. There are only five convex golden polyhedra: prolate and oblate rhombohedron, rhombic triacontahedron (Kepler, 1611), rhombic icosahedron (Fedorov, 1885), and Bilinski dodecahedron (1960). Our project is to make a polyhedron that has 1080 golden rhombuses as faces and has the symmetry of an icosahedron. Such a polyhedron has 2160 edges and 1062 vertices. So we need 2160 sticks and 1062 Zometool balls. Theoretically, we could describe the fabrication by starting with Kepler's triacontahedron. Each rhombus is divided into 36 smaller ones. We then do an inversion on the vertices of valence 3 until no two adjacent rhombuses are in same plane. The orthogonal projection of such polyhedron along an axes of fivefold rotation form a Penrose tiling.