Abstract

A number of new discoveries have been made since the last Bridges conference in the area of Spidron research. Shown here are samples of what will be presented in London.

1. Two Dimensions & 2.5 Dimensional Reliefs

Spidron versions of the Penrose-Richert tiles have been discovered, as well as a negative space partner to the classic spidron diamond. Two more reliefs based on semi-regular tilings were also discovered, one based on the tiling of squares and octagons and the other based on tiling of squares, hexagons and dodecagons.

Figures 1 and 2: Two new semiregular Spidron reliefs

2. The Splatonic Solids and the Archimedians

In addition to the already known Tetra-Spidro ball and the Octa-Spidro ball, there are three other solids corresponding to the Platonics. Also there are 10 other semiregular Spidron solids. A number of linkage puzzles have been discovered from these shapes.

Figures 3 and 4: The Splatronics (left), and two Archimedians and eight Quasi-Archemedians (right)
3. Platonic Dissections and Prism Towers

The Platonic solids can be dissected along skew polygons and we’ve found a family of prisms and towers.

Figures 5 and 6: Platonic dissections (left) and Prism towers (right)

4. Non-Periodic Spidron Networks

The A6 and O6 rhombohedra can be used as building blocks for non-periodic arrangements of Spidron nests, with great potential for sculpture.

Figure 7: The A6 and O6 building blocks

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