



Poly-Kit

by Janos Baracs

Model building is a part of our lives, a most exciting intuitive process for exploring order in space. The technique has to be fast and precise: we like to build as fast (or as slow) as we are thinking.

Our first kit designed with this in mind is now ready for distribution.

Poly-Kit allows you to build all the regular and semi-regular polyhedra, some prisms and anti-prisms up to n equal 10, some of the duals of the semi-regular polyhedra, as well as the five space-filling parallelehedra, without any cutting or gluing.

The kit consists of sixty identical sheets of light cardboard (325mm by 390mm) with 18 carefully chosen figures die cut on each sheet.

A reduced photograph of the sheet is shown on the left page. The polygons labelled with the letters A, B, C, and D are regular triangles, squares, a pentagon and a hexagon. Four of the polygons labelled E form a regular octagon; five of the polygons F assemble into a regular decagon. (By not printing complete octagons and decagons, we greatly reduce the required amount of paper. Yet these polygons are still in sufficient numbers that a complete set of semi-regular polyhedra can be built using only one kit.) Polygon G is the face of the semi-regular rhombidodecahedron. Polygon H produces rhombitriacontahedra. For these polygons, the edge length, measured along the "sacred line", is 60mm. Poly-

gons J and K are faces of two other semi-regular duals, namely the trapezoidal icositetrahedron and the trapezoidal hexacontahedron, respectively. The plates L provide a simple means to juxtapose polyhedra. Finally, in slot M, we supply the number 10 rubber bands needed for construction.

The assembly is simple, fast and precise: the die-cut polygons pop out of the sheet with a gentle touch. Once the scored tabs have been bent, adjacent tabs are easily fastened with the rubber bands.

An instruction booklet completes the kit. No geometric or manual skill is needed to build the models.

Our experience has shown that this kit is an excellent initiation, for young and old alike, to the wonderful world of natural structures. Its use has proven to be a stimulating classroom activity, from kindergarten through to masters' programmes.

Poly-Kit may be ordered directly from the Structural Topology Research Group in Montreal, at the cost of \$10, postage included. An order card has been inserted in each copy of the Bulletin.