The serious mathematics begins with the third chapter in which Coxeter introduces the symmetry groups of the Platonic solids. After a full discussion of this important topic, he turns to degenerate polyhedra such as tessellations and honeycombs and their groups. These lead to results of crystallographic importance. Under the heading "The Kaleidoscope" he then describes the discrete groups generated by reflections. The exposition is greatly illuminated by his own "graphical notation" which makes complicated relations self-evident. The treatment of three-dimensional solids closes with a chapter on regular solids which are not quite polyhedra in the strict sense. These are obtained from the Platonic solids by "stellating" (adding pointed solid pieces) or "faceting" (removing solid pieces). This process raises the number of regular polyhedra from five to nine.

The remaining two-thirds of the book is devoted to polytopes of higher dimensions. The general program is similar to that carried out for ordinary polyhedra. It is shown that in four-space there are six regular polytopes and that in n-space ($n>4$) there are only three regular polytopes. Explicit constructions are given for these and metrical properties are derived. There are even photographs of models of three-dimensional projections of some of these hypersolids. The methods used are increasingly analytic, but the underlying geometry is never lost among the formulae.

I have only one regret about this theory, and Coxeter should not be blamed for this. I refer to the formidable terminology, doubtless invented by mathematicians with a far better education in classical languages than myself. Dry-sounding words like "enantiomorphous" and "great stellated triacontahedron" tend to obscure the geometrical treasures of the subject. This is a place where a judicious use of American slang would greatly improve the situation.

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Mathematical theory of human relations. An approach to a mathematical biology of social phenomena. By N. Rashevsky. Bloomington, Principia, 1947. 14+202 pp. $4.00.

The name Rashevsky is virtually synonymous with the term "mathematical biophysics," a term which he coined to designate a field created and developed by himself and under his own direction. In this field he is the author of two books, one recently reissued in revised and greatly expanded form, and the editor of a quarterly journal, the Bulletin of Mathematical Biophysics.

Professor Rashevsky entered this field by way of a theoretical study of the behavior of liquid drops within which constituents drawn from