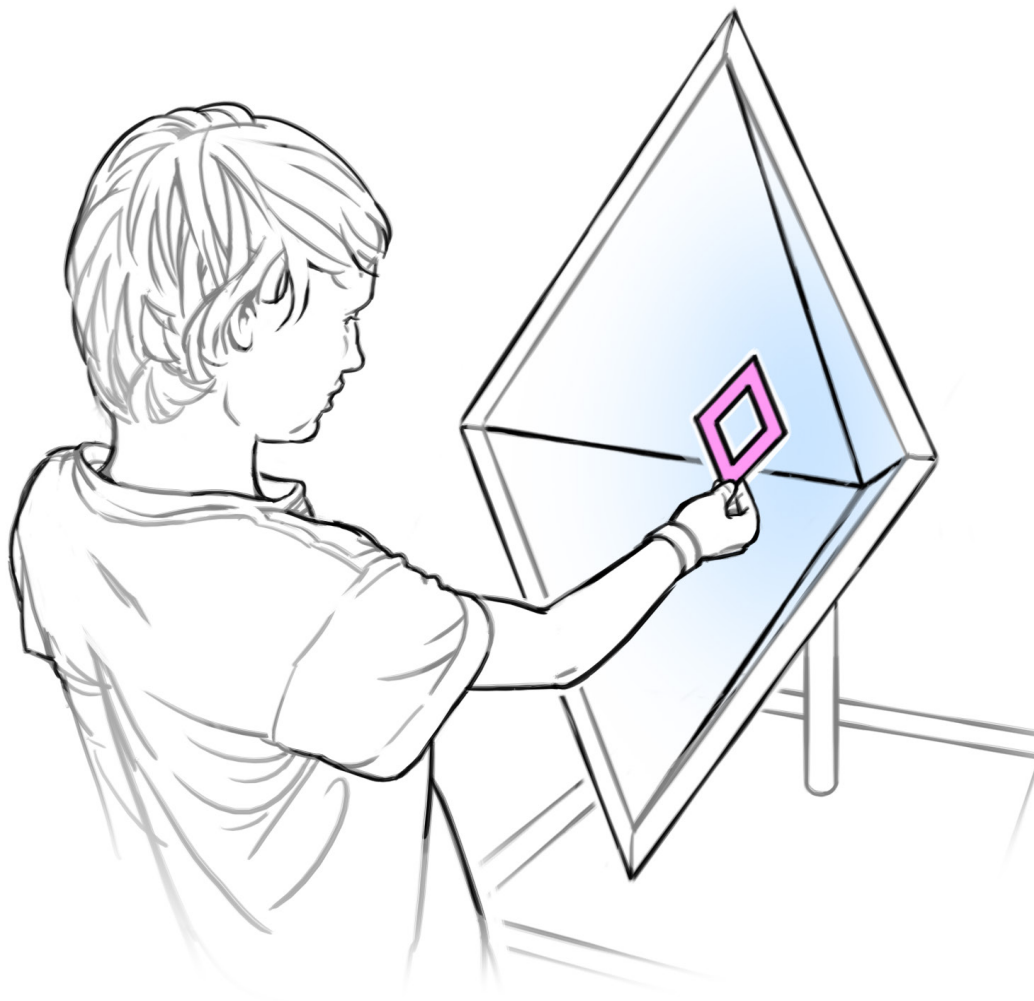# phæno

KALEIDOSCOPE 6.

PLACE several sticks in the kaleidoscope so that they rest on the edges of the mirrors. Which figures form?

EXPERIMENT with different objects and observe the arising figures.

This kaleidoscope consists of four mirrors. The angle between the mirrors is alternately 120° and 90°. As 120° is exactly one third and 90° is exactly one quater of a full circle (360°), a threefold and fourfold symmetry arises.

If you place sticks in the kaleidoscope dodecahedrons (twelve surfaces, from greek dodeca = twelve) and icosahedrons (20 surfaces, from greek eikosi = 20) form. Both are Platonic solids, which surfaces are equilateral and equiangular polygons of equal size.

If you place other more complicated objects, like object 'H', in the kaleidoscope, you'll see far more complicated figures.

Idea: Nik Schwabe, Zürich; construction: Technorama.