

A Knot of Cuts

installation, plexiglas, 2024

The four lines intersect each other to form a kind of blockage – a knot of cuts.

It is commonly accepted that a straight line consists of an infinite number of points. However, according to Euclid's famous definition, "a point is that which has no part." It means that a geometrical point has no dimension, no size. How, then, can it be possible to show such a dimensionless point on a straight line? The answer to this seemingly perplexing question is surprisingly easy: A dimensionless point can be shown by cutting a straight line. When we cut through any object, physical or abstract, we divide it into two parts, which always remain on both sides of the blade. There is no part of the object left at the cutting point – the cutting itself takes nothing out of the object. It, therefore, makes the dimensionless indication we were looking for.

For mathematicians, the infinite straight line provides a model of the set of real numbers in which the points correspond to real numbers, both rational and irrational. Building on the visual intuition of cutting the straight line, Richard Dedekind developed a formal method for defining real numbers. Although his method is fully abstract and devoid of any direct geometrical references, their trace survives in the name: *Dedekind cuts*.