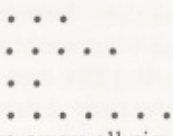
circle with a greater angle and a greater circle with a smaller angle—frequently you are not able to see which of the two planes covered by the angles is the greater. But that is sometimes important. For example: a comparison is made between two countries and their division into woods, grassland, fields, and unfertile land. The countries are of different sizes—the circles are of different sizes. The relation of parts is different—the angles are different. But if the question is: where are there more fields, the answer will not necessarily be given by the design without some mathematics. This design is not a good picture of the number material.

In addition, circles, like squares, are necessarily separate. They may not be used for covering a plane. They will never give the effect of parts of a unit. There are pictures of the nations of the earth, in which every nation is a circle. A great number of unequal circles—a trouble for the eye, which does not see clearly why there are such a number. Isn't one of them unnecessary? Are they all there?

The complete comparison of these forms is made clear in Picture 35.

Another sort of geometry design which is specially valued is the curve. It is used for the statement of changes in amounts or degrees in time: curves of heat, changes in the number of men living in a town, changes in the amounts produced in some industry. The curves put the changes clearly before the eye. They may make rough statements and they may make clear-cut statements—they may be looked at as giving a general view or as making an addition of delicate details—they are never a trouble to the eye.

In the ISOTYPE system changes in amounts are pictures of this sort:



If we take away all signs—the only thing which makes clear the material in question—and make a mark where the end of the line of signs has been, and then make a connection between these points, we get the curve: