Charles Joseph Minard (French: [minak]; 27 March 1781 – 24 October 1870) was a French civil engineer recognized for his significant contribution in the field of information graphics in civil engineering and statistics. Minard was, among other things, noted for his representation of numerical data on geographic maps.

Charles Minard's map of Napoleon's disastrous Russian campaign of 1812.

The graphic is notable for its representation in two dimensions of six types of data: the number of Napoleon's troops; distance; temperature; the latitude and longitude; direction of travel; and location relative to specific dates.[2]


The numbers of men present are represented by the widths of the colored zones in a rate of one millimeter for ten thousand men; these are also written beside the zones. Red designates men moving into Russia, black those on retreat. — The informations used for drawing the map were taken from the works of Messrs. Thiers, de Ségur, de Fezensac, de Chambray and the unpublished diary of Jacob, pharmacist of the Army since 28 October.

Recognition

Modern information scientists say the illustration may be the best statistical graphic ever drawn. French scientist, physiologist and chronophotographer Étienne-Jules Marey first called notice to Minard's dramatic depiction of the fate of Napoleon's army in the Russian campaign, saying it "defies the pen of the historian in its brutal eloquence".

Noted information designer Edward Tufte says it "may well be the best statistical graphic ever drawn" and uses it as a prime example in The Visual Display of Quantitative Information. Howard Wainer identified Minard's map as a "gem" of information graphics, nominating it as the "World's Champion Graph".

Arthur H. Robinson wrote that Minard was 'a cartographic pioneer in many respects' and pointed out that his famous map (of Napoleon's march) was only one of 51 thematic maps he created during his lifetime.
References


