nonstrating the Perception of Hidden Order in Art

Frans Boselie
partment of Psychology , University of Nijmegen, The Netherlands

) an age-old conviction, beauty is maximal when a maximum of effect is minimum of means applied. Birkhoff has based his theory of beauty on this .t his specification of means and effects differs from the one presented in :ct will be specified here as the number of independent regularities (R) of a counted for by the simplest interpretation of the picture, but which 'e perceived by an observer, mostly without being aware of them. This :ely allied to the concept of conjunctive ambiguity (of psychoanalists like n) and to the concept of hidden order or secret geometry (as described for ›uleau). The irregularities of a picture that are not constrained by hidden make up the means term of the means-effect analogy. An index of aesthetic is defined, A = (1+R)/P.

' been shown earlier that there is a substantial correlation between A and gements for a set of Birkhoff polygons. In the paper the results of an which several versions of modern paintings, differing in the amount of specified by the theoretical measure R, judged as to aesthetic attractivity, d.

On the Perception of Launched Projectiles

Paolo Bozzi*, Paola Bressan**
*Università di Trieste, Italy
**Università di Padova, Italy

The present experiment forms part of research on naive physics revealing the "Aristotelian" tendency of visual perception, i.e. the fact that subjects describe dynamic events they have seen according to Aristotle's rather than Galileo's physical theory.

In his "De Caelo", Aristotle mantained that once projectiles have been fired they continue to accelerate, and that only in the second part of their trajectory do they decelerate until they stop. This incorrect idea was believed to be true until the time of Descartes (who, in a letter to Mersenne, showed he still believed it), and was taken for granted in Renaissance ballistic manuals.

In our experiment, subjects were presented with computer-screen images of the trajectories taken by three different projectiles: a cannon-ball, an object sliding on a smooth surface (ice), and an arrow fired from a bow and striking a target.

Thanks to a specially prepared computer program, subjects could change the acceleration of either the first or the second part of the trajectories shown on the computer screen by choosing various combinations of uniform motion, positive acceleration or negative acceleration.

After some attempts and corrections, subjects reached what they thought was the most satisfactory trajectory - that which would have been accepted, for example, in a cartoon film. In almost all cases the chosen trajectory of the projectile showed acceleration in the first part, in accordance with the Aristotelian theory.