When looking at visual patterns, we receive various impressions such as goodness, complexity, and beauty. This study was conducted to identify the stimulus factors giving rise to impressions of order and disorder. We presented two visual patterns simultaneously with manipulation of the stimulus factors of gathering. Participants reported which pattern was more disorderly. Gathering index was defined to indicate the degree of gathering of elements in the pattern. Results showed that the disorder ranking value calculated from the responses increased as the value of gathering decreased. Results also showed that the disorder ranking value decreased as the number of local repetition in the whole stimulus increased only when the gathering value was small. From the results of present study, we conclude that factors of gathering and repetition affect impression of order and disorder. We suggest that the gathering value indicates whether there are any objects or not in the pattern and the repetition value indicates whether there are any texture or not. Objects and textures seem to be the important concept to analyze or recognize visual patterns for human. Therefore, we can suppose the impression of order and disorder tells us whether there is meaningful information in visual patterns.
the repetition of elements or combination of elements in a recognizable organization. Proportion. a design principle reflecting the size relationship of parts to one another and to the whole. Rhythm. a principle of design that refers to the ways of combining elements to produce the appearance of movement in an artwork, it may be achieved through alternation, repetition, or progression of an element. Unity. a principle of design related to the sense of wholeness that results from the successful combination of the component elements of an artwork. Variety. a principle of design concerned with th