Institut für Mechatronik

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Titel des Beitrags: Transforming shape in design: Observations from studies of sketching

Abstract: This paper is concerned with how design shapes are generated and explored by means of sketching. It presents research into the way designers transform shapes from one state to another using sketch representations. An experimental investigation of the sketching processes of designers is presented. Connections between sketches are defined in terms of shape transformations and described according to shape rules. These rules provide a formal description of the shape exploration process and develop understanding of the mechanics of sketching in design. The paper concludes by discussing the important phenomenon of 'subshape' and suggests that a computational mechanism for detecting sub-shapes in design sketches might augment explorative sketching by providing important opportunities for manipulating and generating shape in design.

Stichworte: drawings; conceptual design; shape transformations; shape rules; computer-aided design

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