

MODELLING PROCESSES RATHER THAN THEIR RESULTS: AN ALTERNATIVE FOR NEW
SIMULATION POSSIBILITIES

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When considering computer modelling of physical environments, most people think of representing objects. In this paper we present a modelling approach that focuses instead on the processes leading to the production of these objects. The object is considered as one of the many potential results of a process. This approach is based on the hypothesis that there are simulation problems which can be better solved during the object definition process. It is also based upon the idea that if most people think of representing objects rather than processes, it is due to a direct transposition of ways of thinking with traditional tools (paper, rule and pencil) rather than establishing a paradigmatic shift from one working environment to another.

The paper comprises three parts. Firstly, drawing on historical considerations, we give a brief account of the general evolution leading towards an object representational paradigm involving a loss of interest in the production process depiction. Secondly, we elaborate on a definition of the design process based on contemporary design research literature. Thirdly, we present our approach to the modelling process based on a definition of actions (i.e. processes) and their transcription into a computer environment. Its validity is illustrated by results obtained in different design contexts.