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Dancing with isometries in architecture.

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Summary: This paper aims to emphasize the role of mathematics in computational design education. A computational design process that forces designers to design not only the end product but also the design process itself requires a mind shift to enable the designer to develop algorithms and skills to deal with complex relations. In this context, understanding rule-based systems, generative systems, parametric models and corresponding dimensionalities responding to the forces, variables, patterns, and the mathematics behind them, becomes crucial. Illustrating the reciprocal relationship between mathematics and architecture pattern studies offers great potentials. In this paper, a series of explorations have been presented. In this exploration dance acts as a medium of inquiry into how different complexities can be mapped, how rules can be generative (as first introduced in patterns) and how a set of rules can be transcoded into a complex domain.

Classification: M80 U70 G90

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