## **Outsider Art and Digital Design**

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Abstract: The research engages with the notion of the irrational in the conception of digital architectural design. Following this line, various projects are developed and proposed explorations in the form of plans and 3D models that expose the precarious balance between feasibility, viability, and impossibility due to standards and physical and technical constraints. These different experiments are a testing ground for new practices and media, such as the exploration of different techniques of 3D printing for building construction as well as the assistance of artificial intelligence. The work focuses on outsider architecture, directly referring to the expression "Outsider Art," first used by Roger Cardinal in 1971 to translate the expression "Art Brut," defined and imagined by Jean Paulhan and Dubuffet in 1945. It represents an unprecedented potential sphere of action, broadening the debate on the status and possible contribution of Art Brut notions to architecture and design in constructing a global architectural discourse. The project focuses on the design of models/sculptures inspired by empirical practices culled from the Catalog raisonné of outsider architecture, a database. Our works use enlarged-scale versions of chosen artifacts of nature that have been scanned and transformed. Outsider architectures revive Bachelardian theories silenced by the paradigm shift that accompanied modernity. Our research-creation work follows this line of thought, linking the unconscious with the Bachelardian concept of material imagination. The model and plan studies are based on a process halfway between sculpture and architecture, used to create living units and focus on the potential of digital architecture as a trigger for imagination. The different representation techniques used in these creations contribute to developing various skills in computer modeling, 3D scanning and 3D printing. Outsider creates the opportunity to investigate methods of representation sidelined by architectural practice. The logic of construction shifts, emphasizing the creation of spaces with numeric tools of representation (Rhino, PrusaSlicer, ThinkerCAD, RevoScan, MFStudio, AutoCAD) that follow empirical design methods drawn from the field of architecture. Model-making becomes a laboratory for the formal exploration of various numeric transformations: anamorphism, scaling, piercing, extruding, and erasing.

Keywords: singular architecture, outsider art, anarchitecture, archisculpture, maquette-sculpture, photomount, collage, 3d

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