

Title	二段階生成モデルによるスケッチベースの錆テクスチャ生成手法の提案
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## Sketch-Based Rust-Texture Design with Two-Stage Generative Model

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Computer-generated images are highly dependent on texture in terms of realism. In this study, we focus on rust textures commonly found in the real world and propose a rust texture generation system using user sketches as input. First, the rust texture is converted into a control map to extract large-scale variations and nonlocal features. Then, the control map is converted to sketch data to extract global shape information. With the control map and sketch from the rust texture, we constructed the training dataset for texture image generation. A two-stage generative model is proposed to generate a rust texture with a complex structure from a user sketch. Using the proposed method, we implemented a prototype system that generates rust textures from user sketches, and evaluated the fidelity of the generated rust textures to the input sketches, their realism and diversity as rust textures.