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AUTOMATIC ARCHITECTURAL STYLE RECOGNITION

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Abstract. Procedural modeling has proven to be a very valuable tool in the field of architecture. In the last few years, research has soared to automatically create procedural models from images. However, current algorithms for this process of *inverse procedural modeling* rely on the assumption that the building style is known. So far, the determination of the building style has remained a manual task. In this paper, we propose an algorithm which automates this process through classification of architectural styles from facade images. Our classifier first identifies the images containing buildings, then separates individual facades within an image and determines the building style. This information could then be used to initialize the building reconstruction process. We have trained our classifier to distinguish between several distinct architectural styles, namely Flemish Renaissance, Haussmannian and Neoclassical. Finally, we demonstrate our approach on various street-side images.

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