

# COMPARING DRAFTING SYSTEMS AGAINST THEIR IMPACT ON EFFICIENCY AND EFFECTIVENESS IN THE CREATIVE DESIGN PROCESS

**BERRY, AMANDA**

Land F/X, San Luis Obispo, California 93401, amanda@landfx.com

## 1 ABSTRACT

*BIM software is only a partial solution for landscape architects. Compared with drafting in a landscape architecture specific BIM software, or BIM(L), the design process employed by landscape architects who solely use BIM software is not as efficient nor as effective, and can hinder BIM ideals. Tools specific to landscape architectural design are requirements in making a CAD-based workflow compatible with a creative landscape design process. The purpose of this study is to gain insight on the effectiveness of common workflows in the field. This paper argues that BIM alone is not much better than CAD alone when compared in terms of efficiency, training time, team coordination, and quality of output and creative design, but that BIM(L) is best for all these factors. The “design process” is defined as “Analysis - Concept - Public Outreach - Construction Drawings - Construction Management” and is used as the basis to compare four basic drafting systems: hand drafting with and without technology, CAD, BIM, and BIM(L). Past research is reviewed, along with a survey of the landscape architecture community’s used workflows and their perceived values of each drafting system. The results find that a majority of Landscape Architects are not using BIM(L) methods, and believe they are not required in projects, but most responses think it’s the most efficient option. The conclusions find that there are advantages for BIM(L) workflow after the concept phase, but that there is a reluctance to adopt the most efficient and effective workflow due to perceived barriers of cost and training.*

### 1.1 Keywords

BIM(L), Computer Aided Drafting, Creative Design Process, Efficiency, Professional Tools