

THE EMERGING DIGITAL STYLE

Attention shift in architectural style recognition

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1. Background and Problems

“Style” has long been an important index to observe the design thinking of designers in architecture. Gombrich (1968) defined style as a particular selection from the alternatives when doing things; Ackerman (1963) considered that a distinguishable ensemble of certain characteristics we call a style; Schapiro (1961) pointed out that style is constant forms, and sometimes the constant elements, qualities and expression; Kirsch (1998), Cha and Gero (1999) thought of style as a form element and shape pattern. As Simon and others referred to, style emerged from the process of problem solving, Chan (1994, 2001) ever devised a series of experiments to set up the operational definitions of style, further five factors that relate to generating styles.

Owing to that the greater part of sketches and drawings in the design process couldn't be replaced by computer-aided design systems (Eisentraut, 1997), designers must shift between different problem-solving methods while facing different design problems. The purpose in this research is to discuss the influences of computer usage on style generation and style recognition: The employment of certain procedural factors that occurred in the design processes that using conventional media is different from the ones that using computer media? Do personal styles emerge while designers shifting between different media in the design processes? Does any unusual phenomenon emerge while accustomed CAD-systems designers recognizing a style?

2. Methodology

Three experiments were conducted. In experiment 1, design stages, movement and media usage of two groups of designers (accustomed CAD-systems users

vs. conventional media users) are recorded by video recorder in the design processes, verbal data came from the questions that the subjects are asked after their design activities. In experiment 2, design processes of several accustomed CAD-systems users are observed and recorded, particularly the time of media shifting, media using modes, using intensity, using length and other distinguishing features. In experiment 3, some building plans, photos and 3D model images are provided, two groups of subjects are asked to classify buildings styles and indicate the stylish features.

3. Conclusion

The results showed that: (1) some new procedural factors emerging in the design processes of accustomed CAD-systems users and these factors could interpret the characteristics of designers' design activities; (2) those who are used to CAD-systems have different media using modes while shifting between conventional media and computer media, digital personal styles emerge from the repeating media usage; (3) while recognizing a style, accustomed CAD-systems users have different interpretation of building characteristics and elements assembling from the designers that using conventional media.

This research attempts to gain a further understanding of the role of computer media in the design process and the relation between the procedural factors and style generation after the computer media involved; a discussion on accustomed CAD-systems user's personal style of using computer media and ability of style recognizing was given. There is not much previous discussion about the architectural style generating under influences of media, and the relevant experimental and analytical methods are not complete. This research merely proposes possible influences of computer media on style generating and recognizing. Future research could address further discussions and verification on the employment of factors in the design processes of CAD-systems users.

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References

- Cha, M. Y. and Gero, J. S.: 1999, Style Learning: Inductive Generalisation of Architectural Shape Patterns, in A. Brown, M. Knight and P. Berridge (eds), *Architectural Computing from Turing to 2000*, eCAADe, University of Liverpool, Liverpool, pp. 629-644
- Chan, C. S.:1994, Operational definitions of style, *Environment and Planning B: Planning and Design*, **21**(2), 223-246
- Chan, C. S.:2001, An examination of the forces that generate a style, *Design Studies*, **22**(4), 319-346
- Chen, K. and Owen, C. L.:1997, Form language and style description, *Design Studies*, **18**(3), 249-274
- Eisentraut, R.:1999, Styles of problem solving and their influence on the design process, *Design Studies*, **20**(5), 431-437
- Eisentraut, R. and Gunther, J.:1997, Individual styles of problem solving and their relation to representations in the design process, *Design Studies*, **18**(4), 369-383
- Kvan, Thomas and Yunyan, Jia:2005, Students' learning styles and their correlation with performance in architectural design studio, *Design Studies*, **26**(1), 19-34
- Schapiro, M.:1961, Style, in M. Phillipson (ed), *Aesthetics Theory*, World publishing, Cleveland, pp. 137-171
- Simon, Herbert A.:1975, Style in Design, in C. M. Eastman (ed), *Spatial Synthesis in Computer-Aided Building Design*, Elsevier Science Inc, New York, pp. 287-309