

## 摘要

研究分爲兩個部分。第一個部分，是藉由文獻探討，了解特定環境（網際空間）和人（設計者空間認知）和電腦輔助設計——一種特殊的、人爲的問題解決方法和過程——三者之間關係的架構。第二個部分，透過深度訪談進行資料蒐集，並以質化研究中紮根理論研究方法進行分析，描繪出處在網際網路環境下，其特殊的空間特性透過電腦輔助設計，對設計者空間認知和作品的空間表現所產生的衝擊。

研究結果歸納出兩個歷程，分別爲設計過程中空間營造和構圖原則發展歷程，以及作品的空間表現歷程。以電腦輔助設計而言，其特性使得設計者的空間營造和構圖原則發展產生表現階段構思傾向：設計過程中，設計者「邊做邊想」，思考和發展階段的重要程度降低，和表現階段的界線趨於模糊，甚至產生思考和發展階段萎縮的極端情形。在這樣的情況下，其作品的空間表現朝向深度和容量發展，同時產生抽象化的傾向。

但在網際網路環境下，受到表現媒材導向（包含網際網路的空間特性及其所引發的使用者立場考量）的影響，使得設計者作品的空間表現發生深度限制的情形，傾向傳統媒材時期的做法——重疊法、對比的形式，表達了物件之間的前後關係。

研究隱含的意義是，在這個時間點上，藉由對網際網路、電腦輔助設計、設計者空間認知三者之間關係的探討，能夠對藝術和科技之間連續不斷且複雜的交互影響過程，提出一個觀察的角度。

關鍵字：網際網路空間、電腦輔助設計、設計者空間認知、視覺空間表現

# Abstract

This study contains two parts. In Part 1, the references are reviewed to understand the relationship framework among specific environment (cyberspace), people (designer's spacial cognition) and computer-aided design in terms of special and man-caused problem solution method and process. In Part 2, the in-depth interview was conducted to collect data and to carry out analysis with the grounded theoretic research method during the qualitative study. In this way, the impact brought by the designer's spacial cognition and the visual space presentation will be depicted for the special space characteristics under cyber environment by means of computer-aided design.

During the study, two processes have been concluded, namely, space shaping and artwork sketching principle developing process as well as the visual space presentation process during the design. By the characteristics of the computer-aided design, the presentation-stage configuring trend can be visualized for the development of the designer's space shaping and the artwork sketching principles. It means that the designer's "think in process of doing" would bring about the smoothed significance of the thinking and developing stage and the obscured boundary line of the presentation stage and even result in the extreme dwindling situation during the thinking and the developing stage. Under such circumstances, the visual space presentation of the artwork would develop toward depth and capacity and thus, leading to abstractiveness at the same time.

Being affected by the media-oriented feature (incl. space characteristics of the Internet and the entailing user-based consideration) under the cyber environment, the depth of space presentation of designer's artwork would be usually limited tends in adopting the overlapping method and contrast pattern that are practiced during the conventional media time for presenting the relationship between articles.

At this point, the purpose of this study is to propose an observation angle for the continuous and complex interactions between art and technology through the investigation of relationship among the cyberspace, the computer-aided design and the designer's spacial cognition.

*Keywords: cyberspace, computer-aided design, designer's spacial cognition, visual space presentation*