

# **Color-Me-Boomerful: a design toolkit for analyzing and understanding color preference in hospital environments**

*Violet Lee*

Arizona State University  
750 W. Baseline Rd. #2123 Tempe, AZ 85283  
violet@asu.edu

*Aisling Kelliher*

Arizona State University  
699 S. Mill Ave. Room 392 Tempe, AZ 85281  
aisling.kelliher@asu.edu

## **ABSTRACT**

The significant role of color in health and healing environments has long been championed, from Florence Nightingale's early claim that 'variety of form and brilliancy of color in the objects presented to patients are actual means of recovery' to recent studies and guidelines describing the functional, affective and aesthetic impact of color schemes in elder care facilities. Within the burgeoning field of evidence-based design, leading health care experts continue to focus on interior visual elements as a primary source of impact. However, there is an identified lack of scholarly research directed towards the systematic analysis and understanding of the use of color in hospital environments. As aging baby-boomers begin to place growing demands on the US healthcare system, hospitals need to update, expand and innovate to cater to the needs of this strongly consumer-oriented group. Understanding and accommodating the needs, preferences and expectations of this diverse new client base will be fundamental in creating affordable, efficient and attractive healing environments.

Our approach to this problem is to adopt an iterative design framework, where results from initial studies inform the design and implementation of subsequent explorations. The work encompasses four broad phases: 1) Develop a systematic method/toolkit for evaluating current color design practice in hospital environments; 2) Evaluate the efficacy of this method in a formal study 3) Investigate color preference in baby boomers using a survey instrument developed using findings from the toolkit study; 4) Develop pragmatic color design principles and guidelines through sharing boomer preference findings in investigative interviews with healthcare design practitioners.

In phases 1 and 2 of our research, we have developed a systematic tool for evaluating color design in hospital environments and obtaining comprehensive visual records for analysis. We describe the design and implementation of the Color Evaluation Toolkit, and present results and findings from its use in a study of 5 hospitals in Phoenix, Arizona. We discuss the potential of the toolkit for evaluating existing healthcare buildings and for determining the strengths and weaknesses of hospital designs at various stages of development.

Using data and results from this study, we have developed a survey instrument in the form of focused exercises and semi-structured interviews. This survey is administered to targeted groups of baby boomers in order to determine and analyze their color preferences in regard to hospital environments. Results from this survey subsequently form the basis of the final stage of our research, where a series of investigative interviews with healthcare design professionals help develop pragmatic color design guidelines for healthcare environments.

Contributing findings from our research can be used to systematically analyze color design in hospitals, provide insights into baby boomer design preferences and identify functional, affective and cost-effective design opportunities in healthcare environments.

## **KEYWORDS**

Color design; Color preference; Hospital; Baby boomer