Spatial Color: Experiencing Color in the Third Dimension

By Shashi Caan 26 Feb 2006

Bridging Art with Science, Spatial Color is an exciting project which aims to obtain comprehensive color knowledge in the built environment. This three room installation will document the behavioral reactions through the observational recording of the visceral and the physiological human response as measured through empirical means. Since we are studying three color immersions simultaneously, a comparative analysis of the colors relative to each other will also be carefully conducted.

Project Hypothesis

Vernacular color knowledge tells us that in the presence of:

- Red we are apt to eating more and staying longer
- Blue is calming and stretches the sense of time
- Yellow makes us happy and can evoke aggression

Although this knowledge is commonly found in literature and popularly used, we do not have any examples of rigorous testing for behavioral or scientific correlation to these claims. Spatial Color is designed to test if these statements are true.

Behavioral Observation and Recording

By using video and still camera recording, approximately 30 hours of footage is intended to be filmed. Information will be recorded during the party hour(s) and 4 hours additional time more randomly collected. The elements specifically of interest are:

- 1. Circulation patterns (where people go first and the paths they take)
- 2. Duration of time spent inside each color
- 3. Activity most employed (talking/eating/drinking, etc)
- 4. Body gesture(s)
- 5. Facial expression(s)
- 6. The cadence and pitch of human sound (are people softer spoken or gregarious, etc)
- 7. Quantity of food consumption
- 8. Quantity of beverage consumption
- 9. Words describing the emotions experienced (multiple choice touch screen questionnaire)

Measuring the Physiological

This portion of the experiment is rigorously controlled and will require a statistically accurate number of people to be monitored using pulse measure wrist bands. Specific desired data collection for this is:

- 1. Heart rate measure
- 2. Quantity of food consumption
- 3. Quantity of beverage consumption
- 4. Comprehensive clip board survey

The Installation

For this purpose of the above data collection, we will build three identical rooms, the entire interior of which will be primarily matt white (with some texture relief in the bar) and be immersed with a single color (edge to edge) from the ceiling down. There will be an additional light source which is more directional and embedded in the bar itself. These rooms will each have a bar; basic seating (8 stools per space) and (4) touch screen monitors for adjective/word capture.

Intentionally situated in the context of the 'messiness' of real life, the experiment uses the function of a party for its 'live lab' environment, where a champagne reception will be hosted. All guests will be required to wear white overalls ('bunny' suits) and fill out both a survey and an agreement to their participation in the experiment (which will allow us to use the data gathered at will after).

All food and beverage used will be either transparent or white and consistent within all three rooms. There will be no music. Sound generated by the participants will be an important measure.

Directly outside of these three rooms will be a shared space which will have a scrim wall opposite the entrance to each room. This scrim wall will have live time projection of the most commonly used adjectives as punched in by the party subjects using the touch screen media. The individual entrances to each color space will be announced with a painted wall (matching the color immersion inside).

Color / Hue Selection

This was derived by soliciting the most specified color (or popular sample request made) in the family of the red, blue and yellow. The four major manufacturers who provided this knowledge were:

- Benjamin Moore
- DuPont Solid Surfaces
- Pantone
- Sherwin Williams

Although a request for the most popular color specific to the purpose of eating and drinking (in the context of restaurants / bars, etc) was made, it was not possible for any of the manufacturers to provide this. The colors supplied were either the most requested or specified colors in the family of red, blue and yellow, by the general and the professional public at large.

The Project Team

The very ambitious nature of this project is made possible with some of the most expert individuals working together as follows:

- David Berengut
 Statistics and Quality Technologist
 DuPont Solid Surfaces
- David Bianciardi State-of-the-Art Technologist, Audio Visual Controls

- Shashi Caan (Project Conceptualization and Lead)
 Architect/Interior Designer and Color expert
 The Shashi Caan Collective
- Troy Durst (Overall Project Coordinator) Merchandise Mart Properties
- Gin Guei Ebnesajjad
 Color and Aesthetics Developer
 DuPont Solid Surfaces
- Paul Gregory Lighting Design Focus Lighting
- Dr Val Jones
 MD and Medical Researcher
- Maria Villamil (Technology Coordinator) Architectural technologist
- Bonnie Wilson (Research Assistant)
 Interior and Behavioral Psychology Researcher

After the Fact

It is the intention to create a lasting document which will be widely disseminated for the use of the professional, student and the general public.