The Language of Color

Color is the communication tool that Jill Pilarosca uses to create environments, products and now Web sites that speak volumes.

by Diane Winters
Culverman


Visualize these in your mind's eye and chances are that you—and probably everyone around you—will see pictures painted in very specific colors. The bride will be dressed in white, the police officer in blue, love and passion are represented by red and so on and so forth.

From a very young age, humans learn to associate objects, places and events with certain colors. There are even instances when changing an expected color can be quite off-putting. Imagine a mourner dressed in red or a Christmas tree decked with black tinsel.

But color is more than just a tool of recognition. Indeed, color is a tool of communication that we use every day. And just as we must choose our words carefully if we want to communicate the correct verbal message, so must we choose colors carefully if we want to communicate the correct mental message.

Jill Pilarosca has made an art of her color communication skills. Pilarosca knows beyond a shadow of a doubt that color, not simply a picture, paints a thousand words. No matter what the project, Pilarosca is keenly aware of the results color can produce.

"Color can shape a person's experience in an environment," says Pilarosca, principal and founder of Colour Studio Inc., San Francisco, CA. "But that's not all. Color shapes behavior, mood, our visual response to an environment and it can even cause biological responses that we may not be conscious of. As designers, we must be mindful of the fact that color is a powerful tool. We need color to help us create the best and most beneficial environments for people."

Pilarosca practices a cross-disciplinary approach in her use of color. In other words, she balances art with science, beauty with functionality. Yes, color can be pretty, but at the center of Pilarosca's work is the abiding belief that color can create life-enhancing solutions for design challenges.

Using color to communicate a message is nothing new or original. Sailors of long ago monitored the color of the sky and the ocean's waves in order to know the direction they were headed. In many cultures, the color of clothing indicated a person's standing; royalty wore purple, for example. But humans aren't the only species to use color for communicating. The animal and plant kingdoms both have excellent color communicators. Of course, there's the chameleon, but did you know that sea urchins use color to identify one another as male or female? And when it's time to pollinate, the busy bee wouldn't know where to go if not for a flower's color.

What is new, however, is the scientific evidence that researchers are accumulating to prove the psychological and biological response humans have to color.

"If you put someone in a red room for a while and then test their blood pressure, the reading goes up," says Pilarosca. "Alternatively, blood pressure goes down in a blue room. This knowledge has been put to very good use in designing healing environments. But my favorite question is, 'Why do we have to wait until someone is sick to..."
create a healing environment.

Pilaroscia, for one, refuses to wait. She is pioneering the use of color as a communication tool for corporations, to position product in the marketplace and is collaborating on color in architecture. Her client list includes some heavy hitters, such as Herman Miller, Hewlett-Packard, Bentley Mills, Haworth, Gensler, Skidmore, Owings & Merrill (SOM) and the University of California Medical Center. Rounding out the list are a number of clients ranging from lawyers to rock ‘n’ roll musicians—for whom she has consulted on offices and residences.

Residences are actually where Pilaroscia got her start. And not just any residences, but the famous “Painted Ladies” of San Francisco. Pilaroscia attended the San Francisco Art Institute. As a painting and drawing major with a minor in psychology, she discovered that with color she could influence a person’s response to a painting. For example, a field of red, black or white made some people agitated and others animated.

After graduating, Pilaroscia managed to eke out a living doing color field painting at a time when photo realism was the hot ticket in art galleries. Then she answered an ad for a person “to fill large fields of color.” The job turned out to be house painting.

“I created color palettes and mixed custom colors so no two houses were the same,” she recalls. “It paid the bills, thrilled the home owners and a lot of people saw my work.”

Six years into the 10 that Pilaroscia worked for the house painting company, she realized that she could consult with clients of her own while the painters did their work. Eventually, the desire to grow and learn more about color led her to establish her own consulting firm, Colour Studio Inc. The first order of business was to educate herself about what color could accomplish. Pilaroscia already had what she calls “a nice sense of color” and she was familiar with color theory. However, what Pilaroscia wanted to do was not only pick color palettes, but create beneficial environments and help clients envision identity and image through color application.

Thus, Pilaroscia began scouring new and used book stores for anything on color she could find. There were books on color in history, color and healing, color in nature. But
it wasn’t until she found *Color and Light in the Manmade Environment* by Frank Mahnke that she knew she was on to something. Mahnke, who is from Geneva, Switzerland, and is with the International Association of Color Consultants (IACC), covered topics such as visual ergonomics and how color triggers physical and chemical changes in the body. Here was the written word, from a globally recognized authority, on what Pilaroscia had herself suspected of people who looked at one of her paintings or one of her houses.

This new information made Pilaroscia even more eager for resources on color. So, when Mahnke himself came to the United States to lecture, Pilaroscia was there.

“There is no curriculum in the current architectural educational programs which would certify a color consultant,” says Pilaroscia. “The field of expertise is a self-taught study and exploration. Frank Mahnke and his insights from the International Association of Color Consultants is the closest thing to a course of study. Even within that venue, self-exploration of cross-disciplinary topics is the path to understanding color in the built environment.”

Pilaroscia has submitted a thesis to the IACC in an effort to attain the professional title of Qualified Color Consultant. Thus far, this qualification is the closest thing to a diploma in the field of color. Pilaroscia’s thesis is entitled, *Color in the Manufacturing Environment,* and is a case study of Bentley Carpet Mills, Inc. in City of Industry, CA.

“The manufacturing environment is typically overlooked when it comes to design in general and especially color,” says Pilaroscia. “But this is not management’s fault because usually they don’t have any knowledge of how a beneficial environment can increase productivity and improve morale.”

In her thesis, Pilaroscia outlines the problem:

*The first problem was how to transform a voluminous space, built over 40 years ago,*
Painted in its original industrial gray palette and create a harmonious colorful environment, which would enhance worker productivity, support safety, benefit health and promote psychological well-being for carpet mill employees. The second part of the problem was how to address the Visitor and Guest Program at Bentley Mills. Each week designers from around the country tour the facility to learn about the carpet production process. A color solution was needed which would enhance the worker experience and appeal to the sophisticated eye of the design community.

Through observation, interviews with workers and analysis and documentation of Bentley Mill’s facility, Pilaroscia gathered data to develop a color program that would support the tasks and functions performed by employees.

For Bentley Mills Inc., Pilaroscia developed a color program to enhance the manufacturing environment for employees. In these before and after photos, the positive effects of color are apparent. Pilaroscia’s thesis on this project is currently under review by the International Association of Color Consultants.

Photography by Jill Pilaroscia

The program is being implemented in stages over a five-year period.

“The first phases of the program have been implemented and the feedback from management and employees has been very positive,” she says. “Designers touring the mill also like the color application. Based on these responses, Bentley Mills is committed to completing the program.”

Pilaroscia developed a similar factory transformation plan for Herman Miller, Inc. in Zeeland, MI. According to the company’s corporate philosophy (outlined in Herman Miller, Inc.: Buildings and Beliefs, Jeffrey L. Cruikshank and Clark Malcolm, The American Institute of Architects Press 1994, pg. 2), “How people feel about their work place affects their morale and in turn their productivity . . . The work place should express a certain joy and embody enthusiasm.” In 1999, however, management
at Herman Miller realized that this philosophy was not being extended to employees in the factory. Design dollars had been concentrated on public spaces, while the manufacturing floor was being denied.

Thus, Pilarosca was enlisted to create a color program. Subsequently titled *Art Meets Industry*, the program addresses three goals:

- Improve the factory workers' environment by creating varied experiences that stimulate and promote a positive psychological response. Workers should feel that the same care taken to plan and design public spaces also was given to the manufacturing floor. Thus, whether in sales, service, shipping or manufacturing, workers feel valued and respected.
- Enhance visitors' and customers' experiences when they see the manufacturing facility. Send a message that Herman Miller is an innovative industry leader.

In a color program titled *Art Meets Industry*, Pilarosca helped Herman Miller follow its corporate philosophy, which states that, "The work place should express a certain joy and embody enthusiasm." These computer renderings showing what the manufacturing floor currently looks like and how it will eventually appear with the addition of color and imagery.

Photography by Gregory Lindfoy

- Respect the integrity of the building's existing architecture. Use scale and space to articulate a color story.

"The different manufacturing areas in the Herman Miller factory work off of a quarter-mile-long spine," Pilarosca explains. "Our color program will cover the walls of the spine and extend onto the walls and columns inside each of the adjoining manufacturing areas."

Right now the program exists as computer images showing before and after shots of the factory. However, when the paint brushes actually hit the walls, the paints and stains that are applied will be environmentally sustainable products manufactured by responsible vendors.

To this end, Pilarosca is interested in working with a paint manufacturer to develop
a line of environmentally responsible paints. According to Pilaroscia, there are usually upwards of 3,000 colors in any paint system, but only 15 to 20 percent of those colors are used regularly. Pilaroscia believes that if those 3,000 could be narrowed down to workable choices, and if they were environmentally responsible, designers would be more likely to consider them because there wouldn't be so much chaff to pick through.

Pilaroscia not only uses color to create environments that are supportive, she also uses the medium to influence response to products and corporate imagery. For Bentley Mills, a company that manufactures carpet that supports the contract design market, she is developing a library of colors for the design studio to use as a resource. In addition, she designed Carnegie's showroom for NeoCon 2000.

"Mentally and emotionally, color works on a deep level, influencing our mood," Pilaroscia says. "Such was the approach taken in designing the showroom. The 187 circles composed of 57 different hues were selected based on their chromatic intensity and environmental friendliness. They were arranged considering their relationship with adjacent colors, in order to create a sense of relief and add an uplifting freshness to the space."

Pilaroscia also does a lot of work with clients to define an image. Not surprisingly, she uses color to support corporate identity and culture.

"We have a new client now who is growing globally, but they really don't know who they are," she says. "We currently are analyzing the company from an emotional and philosophical perspective. Then we will process the information gathered and come up with a color palette to match the company's identity. Through color, the company will be able to communicate who it is to the public, as well as to its own employees."

And while it's probably not the last frontier for this color pioneer, the Internet has been getting Pilaroscia's attention lately, thanks in part to her associate Gregory Lindley. The field of Web site design is one that certainly needs to carefully consider color if for no other reason than the fact that a computer screen can render a color dif-
ferently than a designer may have intended.

Thus far, Pilaroscia’s efforts have focused on experimenting with her own Web site: www.coloursstudio.com. But the time probably isn’t far off when she will be matching colors on a computer to the image a client wants to project in cyberspace.

Another experiment Pilaroscia would like to conduct involves training and teaching design professionals.

“At one point I was investigating writing a textbook for the college market on color in the built environment,” she says. “I did research to see what courses were offered on color and architecture at the major architectural institutions. There were very few opportunities to do a focused study on color relating to buildings. However, I do think it is a subject that would be valuable not only to students but professionals, as well, who have been in the working world for a while.”

One topic sure to come up in a workshop of Pilaroscia’s is that color selection does not follow a formula. Of course there are some simple rules, such as don’t paint with red in Phoenix and don’t use gray in London. But for the most part each situation is different and, therefore, requires individual consideration. A designer, says Pilaroscia, must understand the goals of a project and then work to match color, materials and finishes to those goals.

On the bright side of not having a formula to follow, there is lots of room for exploration and experimentation. As an example Pilaroscia offers up a very commonly used product: work station panels. Why not, she asks rhetorically, use more saturated colors on panels? As long as a designer selects harmonic pairings of colors, the effect could be uplifting for an employee who would otherwise sit in—let’s face it—a cube.

Of course, trying to find harmonic combinations of colors is an art that has been practiced for eons. But is it only an art? In the mid-1800s, the German philosopher Goethe was studying the connection between music and color. He discovered that like sound, color is communicated by wave length. Each of the prismatic colors, in fact,

The Six Ways that Humans Process Color

1. Biological response.

Biological response is outside of our control. They remain outside the scope of how we as individuals think or feel about a certain hue. They constitute a cellular response.

2. Collective unconscious.

According to Carl Jung, the collective unconscious is a reservoir of primordial images. This reservoir extends back through generations and, therefore, is not based upon individual experience.

3. Conscious symbolism.

These are learned responses. For example, red is symbolic for fire, life and passion. Thus, there is the Red Cross, the red fire engine and the red sports car.

4. Cultural influences and mannerisms.

Ethnicity, geographic location and local mannerisms affect the way people process color. “A red wedding dress brings good ‘chi’ for the bride in many Asian countries,” says Pilaroscia. “But if worn in most Western countries the guest might think the bride was a harlot.”

5. Style and trends.

A cross-current of thought on color is manifested in art and architecture. For example, during times of optimism, bright and happy colors are the trend. On the other hand, during times of pessimism—such as when the economy is down—muted colors of brown, black and gray are in. “Nowadays, with information spiriting around the globe, it has become harder to predict trends and harder for trends to take hold,” Pilaroscia explains. “There is a global cross-pollination of trends and before a trend is even recognized the next one has moved in to take its place.”

6. Personal relationships.

Our individual likes and dislikes of colors is based on our own color memories, or what is called synesthesia—the ability of the eye to see a color and cause the mind to lapse into the memory of a smell, a taste or a place. For example, one person may love the color yellow because it brings to mind grandma’s yellow dining room and the wonderful taste and smell of her cooking. On the other hand, a person may detest the color yellow because it recalls the color of the classroom in which a nasty teacher was always shouting and sending children to sit in the corner.

Pilaroscia attributes her own love of color to her childhood years growing up in Rochester, NY, where her father tended acres of gladiolas and dahlias. “There was row upon row of colorful flowers,” she recalls. “I remember walking through the rows, which were taller than I was, and being thrilled by the beautiful colors around me.”
For the Wilson Equity Office buildings in San Francisco's Foundry Square designed by Studios Architecture, Pilanesci choose the hues for the naturally-colored stone cladding that differentiates each of the buildings as shown on these models.
Photography by Geri Rato
has a different wave length and speed of vibration or frequency. Thus, Goerte postulated, certain combinations of colors would sing while others would fall flat, much like notes combined to play a chord.

"As design professionals, we need to think about what behavior we want to support in an environment," say Pilarosca. "What will a color say to people? How will it affect them psychologically and biologically? We can support energy by selecting the so-called happy colors. We can promote concentration, such as in a science lab or classroom, by placing blue in the periphery. A bright color on a white background stimulates the pupil of the eye to open wider. All of this tells us that color is not only an element of art, but of science, too. Color is an extremely deep and powerful tool of communication that deserves respect."

For the Carnegie showroom at NeoCon 2000, Pilarosca arranged 57 different colors to create a sense of relief and add an uplifting freshness to the space. The showroom was designed in collaboration with Carnegie’s Michele Rondelli; installation by Studios. Photography by Douglas Fogelson.

Personal Favorites

Jill Pilarosca on what she likes best—and remembers the most.

Favorite movie
"Dangerous Liaisons"—The costumes and characters were so twisted.

Favorite book
A Cure in the Snow by Vicki McKenna

Favorite author
Pablo Neruda

Favorite restaurant
Locanda San Pietro, San Francisco

Favorite vacation spot
Any place warm by the water.

Favorite instructor
Frank Mahnke, International Association of Color Consultants

Favorite building
Chinese Temple in Golden Gate Park at Stow Lake

First design assignment
Exterior of a Queen Anne Victorian in San Francisco

Most challenging design assignment
San Mateo County Courthouse restoration, which has a domed space of stained glass

Hobbies
Running, swimming and studying I Ching, a system of Chinese divination that focuses on experiences you can have within your life.

Favorite food
Pasta

Favorite ice cream flavor
Green tea—it’s such a beautiful color!