

# **The Color Naming Project: Forging ties between educators and industry**

## **Abstract:**

How can interior design educators develop closer ties to industry? How do we develop mutually beneficial relationships, which respect the integrity of academic intellectual freedom and contribute to the development of disciplinary knowledge while providing useful services to industries competing in a market-driven economy?

The Color Naming Project was a successful university-industry collaboration that used design knowledge and methods as the basis for an innovative, result-driven process. It explains how an industry need led to the development of a new way to name colours, and how color affectivity played a key role in the project, providing a catalyst for the naming process. During this process, a multidisciplinary team worked together to develop a novel framework for designing coherent, structured, and emotionally resonant links between colors and names.

This paper describes the phenomenologically grounded strategy used to manage the design process and guide the team through the naming of 2400 colors in two languages.

Keywords: Color affectivity, phenomenological research, color research.

## Introduction

Interior design education often seems separated from industrial practice and its real-world cycles of research, development, and implementation. Here in Canada, a distinct line exists between industrial and educational institutions. This creates a gap between academic research initiatives and industry-leading projects integrating innovative design thinking.

However, given the status of design as a professional, practice-based discipline, it is important that educators ensure that this gap does not become too wide. Teachers need to stay abreast of trends and tendencies and students must acquire the skills and expertise that will allow them to succeed professionally, while industries would do well to recognize that design schools are hotbeds of creative, multidisciplinary thought. There is room to work together to the mutual benefit of education and industry alike.

This paper describes the design methods and strategies used in the Color Naming Project, an academic-led design project which successfully created names for the 2400 colors that comprise the new product line of a major Canadian paint manufacturing company.

## Practice-based research

The SICO Color Naming Project is an example of what Zmud (98) calls 'practice-based research.' In such projects, the context of intervention drives the activity, while the methodology emerges during the course of the project. This is a common form of research in contexts of sponsored research: the goals are frequently diffuse at the beginning of the project, and several steps of negotiation are required to define aims and methods before entering into production.

### Practice-driven

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- topic defined by sponsors
- end-point is a "moving target"
- framed by nature of phenomena
- designed jointly by researcher and sponsor

### Researcher-driven

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- topic defined by researchers
- end-point is initially known
- framed by a research model
- designed by researcher

**Figure 1. Practice-driven Research vs. Researcher-driven Research, adapted from Zmud (98).**

Such projects are also exemplary of what Buchanan (96) and Rittel and Webber (67) refer to as 'wicked problems,' complex problems which resist reductive approaches. Two relevant characteristics of such projects are that they are 'unique'—which is to say that specific contexts must be addressed on their own terms—and that they have 'no definite formation,' which is to say that the formulation of the problem makes up a significant part of the project (Kimbell & Perry 01).

Thus, in the Color Naming Project, the results had to satisfy certain project constraints defined by the client in response to the specific corporate history, socio-cultural context, and business climate. These constraints were site-specific and not readily generalized. Likewise, neither the extent of the mandate nor the scope of the project were clearly defined or understood at the outset. However, the core issue itself—the relationship between colors and names—is of more universal interest, just as there are elements in the process and method used in this project which speak to more widespread design concerns.

### **Color theory and color names**

*'No one has to tell you what you're seeing or how you're feeling as you sit in the glow of a late summer sunset. But how would you describe the pink of that sky? Dazzling? Fleshy? Glistening? Iridescent?'* (Herman Miller 01; italics added)

Color theory and color use have been extensively explored in interior design and other design disciplines (e.g. Pile 1997; Birren 1978). Less understood is the relationship of colors to the names now commonly used to identify them. While designers and color professionals tend to specify paints by manufacturer and product number, color names are a well-accepted tool in the paint retail business, and are deeply enmeshed in the cycles determining national and international color trends. In North America, the complex evolution of these trends involve many factors, including both deliberate top-down actions of industrially affiliated institutions like the influential Color Marketing Group and the organic bottom-up actions of individual purchases representing consumer choices.

The exact role of color names within this cycle is uncertain. There appear to be no publicly available systematic studies explaining the psychological impact of color names on the consumer, still less studies explaining the influence of names on the experience of interior spaces. Color choices are made daily by people, but not entirely rationally; color is emotionally affective at a pre-conscious or unconscious level (Birren 1978).

The Color Naming Project took as a basic premise that an affective response is created through the linkage of colors and words. Naming colors creates curious, often poetic relationships between sensory experience and mental imagery. The relationship of colors and names is analogous to Barthes' (1977) description of

the role that a caption plays in conjunction with a photograph. A photograph exists as a field of potential which the caption anchors, reducing it to a single state. Giving names to colors is thus a creative act that simultaneously reveals and creates a relationship that can be straightforward, surprising, playful, delightful or mysterious.

## **The case study**

The client is one of Canada's largest paint manufacturers. Already well established in Quebec and Eastern Canada, the company is currently enjoying a period of strong growth and expansion into new Canadian markets. A significant portion of the current product sales are within French-speaking communities.

In 2002, interior design faculty at a local francophone university contacted the client for assistance with a scholarship program. This request had an unexpected result: in subsequent conversations with the company, it became clear that they were deciding how to best address a design concern. The 2400 colors of their new product line had to be named, and the launch date was rapidly approaching. This offered an intriguing opportunity for interior design educators to engage with a very familiar material—paint—in a most unfamiliar way.

## **Establishing the relationship: the initial meeting**

The client relationship was built in stages. The first step was to demonstrate that design knowledge and design methods (and more particularly those of interior design) would provide appropriate tools with which to address the design problem. Thus, in September of 2002, with initial financing from the company, an interior design faculty member assembled a multidisciplinary team consisting of professional interior and industrial designers, artists, color specialists, and graduate design students. This team joined the client's marketing department for an intense one-day brainstorming session during which the participants familiarized themselves with the parameters of the design problem and with the company's vision and goals in order to establish the brief for the Color Naming Project.

The client's initial presentation of the project context provided the team with the broad outline of the project, the corporate context and history of the company, and details on the existing client base and plans for growth. The team then proceeded with the brainstorming session, first splitting into smaller groups to discuss the different aspects of the problem, then coming together to review the ideas, following the method detailed by Jones (1992). The multidisciplinary and diversity of viewpoints of the team proved invaluable in this process.

A number of possible strategies were spontaneously developed during this initial phase, and the group proceeded to analyze and evaluate the most valuable ideas. Potential concepts, strategies, and possible subjects for naming the

categories emerged for future development. In particular, the conceptual idea of naming the colors for emotional affectivity was identified as the overarching principle which would guide the process as a whole, while the basic marketing tool, a 'paint chip' with eight gradations of a particular color, emerged as the a primary physical constraint.

In the space of only a few hours, using only paper and markers, the team laid the groundwork for a project methodology that would soon guide a year of work. Furthermore, trust and confidence in the academic-led design team was established through this first intensive work session, since the participation and presence of the marketing team and other company representatives validated the work of the designers. As a result, the marketing group agreed that the University design team should proceed with a second brainstorming session to further refine the concept and come up with a strategy for generating names.

## **The initial design phase**

A follow-up brainstorm involving only the University design team took place one month later, in November of 2003. This phase of the project focused on the development of an workable strategy for the project as a whole. The group was modified slightly to include:

- a masters student from the Design and Complexity program at the University
- an interior design professor-practitioner with expertise in color in interior design
- two color experts from the industrial design profession
- one industrial design professor with textile and color expertise

Of the group, three were female aged 35-50 and two were male aged 25-45, from anglophone and francophone backgrounds, ensuring a balance of gender and linguistic sensibilities. Changing the composition of the team also ensured a fresh perspective on the project and provided a balance between objectivity and continuity.

The concept developed through an intensely focused reflection on the creation of affective linguistic meanings, how words should and could be grouped together, and what "glue" could be used to create a coherent program that would work with the entire palette of 2400 colors. This discussion revealed the following key design parameters:

### **A) Information design:**

- the basic unit for presentation was a 'paint chip' containing eight gradations of one basic color with increasing density ;
- this unit had to be respected and would remain the main marketing tool; it could not be revised or altered;

- names had to be short (for printing purposes) and could not repeat names from the past two series of client colors;
- the colors were already established and could not be altered;
- paint chips should be treated as units and given a thematic continuity.

#### B) Affective design:

- emotional resonance was the main design objective, and would override purely logical considerations, though logic should also be respected;
- a range of rather contradictory themes were perceived as desirable: security and safety (in an unstable geopolitical climate); travel and adventure (especially in Italy and Mediterranean countries); domesticity (food, drink, home) ; exoticism and escape.

#### C) Demographic:

- the company's market data suggested that the main target was women aged between 35-55;
- the Ontario market was targeted for growth and the Quebec market for maintenance, while other anglophone markets were also seen as important;
- the names would be expected to serve for approximately five years, and should not be too closely tied to ephemeral cultural phenomena.

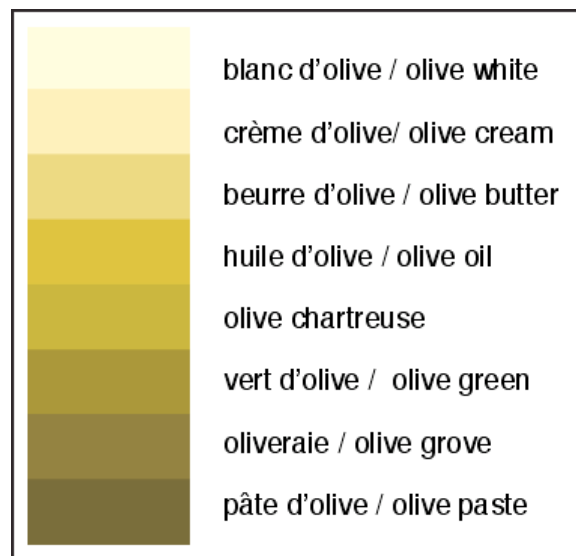
The final key issue was language itself. In Quebec, local design interventions must often take into consideration what information designers call 'localization,' the 'adaptation of a product to a target language and culture' in response to the 'difficulty of translating text from one language to another and conveying the original sense and content so that it is acceptable across cultures' (Perrault and Gregory 2000: 234). This proved to be a constantly recurring theme throughout the design process, as the poetics and pragmatics of French and English are not identical, and balancing the sensibilities was challenging.

These parameters guided the development of a phenomenologically-based method. The 2400 colors were already subdivided into 300 paint chips of 8 colors each. Based on the results of the two brainstorming sessions, the group made two key decisions. The first of these was that each paint chip would be treated as a family, and that all eight shades of the color would be thematically linked. This represented a break from past practice, since in all other cases, individual colors appeared to have been named in isolation, resulting in extremely heterogeneous paint chips containing eight unrelated names.

The second decision was inspired by the philosopher Edmund Husserl's famous phenomenological maxim 'To the things themselves,' which involves '[C]onfronting the essence and content of a being itself, that which truly constitutes a thing in its own identity' (Seifert 1987:13). It was determined that each set of colors would be approached as innocently and clearly as possible, and that the most striking or powerful color from each family be allowed to reveal

itself. This color would then serve as the lead color for that family. The process thus involved a subjective, perceptually determined selection of the dominant color from the family, a validation of the selection with other members of the group to ensure some degree of objectivity, and a process of reflection in which a space was opened for the color to evoke a resonance among members of the research team.

The following example, generated during the brainstorming session, illustrates the concept. In this case, the 'olive oil' color was the lead color which determined the theme for the entire family. Naturally, the colors are challenging to reproduce identically in any other medium.



**Figure 2. Sample of initial naming card with proposed names**

Once the concept had been put to the test, the team prepared to present the implementation strategies to the client. The initial brief called for the research team to name all 2400 colors. The second brainstorming session made it clear that for this to happen, many work sessions would be required. It was also evident that frequent reconfigurations of the team would be desirable, both to assure variety and to address an often difficult palette; shades of mauve, as it turns out, are particularly challenging to name, while multiple perspectives and changes in interpersonal dynamics helped to avoid creative blockages.

### **Approval of concept**

The compiled results of these meetings were presented to the client in December of 2002, and proved compelling enough that the team was engaged to take the project through to production. A budget was established based on an initial estimate of 12 work sessions, assuming that approximately 200 names would be

named at each session. The project plan was then formed, as shown in the following chart.

	client role	phase	design team	
<b>preliminary development</b>	client presentation	brainstorming	multidisciplinary team	
		development	core team	concept
	client evaluation	presentation	project leaders	plan
<b>production</b>		planning	project leaders	strategy
		initialization	reconfigured team	
	occasional client participation	naming sessions	reconfigured team	process
<b>completion</b>		revision	core team	
	client approval	delivery	project leaders	product

**Figure 3. Project plan**

## Production

For the production phase, the University research team was reconfigured once again, and a specific strategy developed for the naming sessions. It was determined that the 5 original concept creators would be team leaders, and each work session would include at least two of these lead designers. Four masters students and one linguist-artist were added to the pool of participants from which teams were drawn.

Two work sessions were held each week, lasting three to four hours each time and composed of between four and seven team members including at least one female, one male, one native anglophone, and one native francophone representing a spectrum of age groups. Individual styles and modes of working were accepted and woven into the design process. The mix of poetic, concrete, spontaneous and researched names was both accepted and encouraged. Individual team members would often arrive with possible themes, names and families of colors that they had come up with during the course of the week, as well as inspirational books and magazines.

Good food contributed to an amiable and supportive work environment, with the lead in the setup of each work session taken on by the authors. Initial sessions involved only members of the University team, but once the project was successfully underway and the session dynamics were well established, the

client's marketing team was invited to participate in the naming sessions. This helped the client track the team's progress and created buy-in with regard to both process and results.



**Figure 4. The project under way.**

It took 12 naming sessions to name the first 2100 colors; somewhat longer than originally estimated. This work was done from the beginning of March until the beginning of May, 2003. The client was kept informed of the process and approved the continuation of the work. Although the work seemed endless, in reality all 2400 names were named in 15 work sessions of 4-5 hours per session.

### **Validating the results**

During the naming process work sessions, each group of names was validated by all group members for content, suitability, and English and French coherence; when each family was complete, it was read aloud and critiqued by the group, then modified as required. At the end of the naming, one of the project leaders verified the naming for both content and translatability, with help from the translator in the group. Another colleague was asked to verify the French

accuracy, while still another researcher looked through the entire project as a final assurance of quality control.

The project was handed over as a completed document to the client in late June of 2003. At that point the client proceeded to fine-tune and test the names within their marketing department, resulting in modifications to approximately ten percent of the names. The product line was released in early spring of 2004.

## **Discussion**

Design research and development at the academic level must seek to be rigorous and forward-looking, as well as sufficiently flexible and general that it can be adapted for use in a variety of contexts. But at the same time, sponsored projects tend to be highly contextually determined. The broader applicability and general lessons of such projects are in the processes and methods employed, not the specific results.

The Color Naming Project was an successful experimental project inspired and guided by phenomenological theory . Through a structured unveiling of the affective meanings connected to words, phrases, and colors, researchers were able to create a concept which remained spontaneous and productive throughout a long and challenging design process.

The client was directly engaged with the design process at all stages of the project, and developed a deeper understanding of the creativity and complexity of design thinking. When the project was handed over, the client tested the names and made modifications within the framework established by the process. This meant that the client appropriated both process and result, which will be valuable in the long-term viability of the approach.

## **Conclusion**

The success of the project and the client acceptance of the process demonstrate the potential for forging academic design links with industrial partners. The project demonstrated the benefits of design processes in generating methods and methodologies, explored the process of creating emotionally resonant names, and provides an example of designers successfully engaging with researchers and experts from diverse fields to create research projects of benefit to the interior design profession.

The Color Naming Project helped contribute to the corporate perception of design as a comprehensible and transparent process that is nonetheless complex, challenging, time-consuming and rigorous. It is hoped that this will contribute to the disciplinary evolution of interior design toward increased rigor and enhanced relevance.

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