

Running head: PRAXIS OF DESIGN

Non-Professional Sign Makers and the Praxis of Design

Elizabeth Boling

Kennon Smith

Instructional Systems Technology

Indiana University Bloomington

### Abstract

This study is a descriptive work centering on information design artifacts – specifically public signs - produced by apparently untrained designers from the perspective of praxis by examining the solutions these designers bring to their real life information problems. We are looking for the responses of non-professional designers to the problems known to exist in creating information displays, and hoping to use that descriptive knowledge for better understanding of our own students. Functional and formal analysis were conducted on a sample of 350 signs created by apparently novice designers. These designers appear to grapple actively and creatively with the primary issues of information design and representation and to struggle with technical and skill problems that interfere with implementing basically sound design decisions. They do not appear to employ processes that would help them to avoid unintended or undesirable outcomes of basically sound design decisions.

## Non-Professional Sign Makers and the Praxis of Design

### Introduction

Since the advent of affordable computing has placed the tools for doing so within the reach of people without formal training, more and more people without specific training are expected to engage in message design -- specifically the design information displays. However, these people are, at the same time, no longer in touch with what might be considered traditional patterns of information design (Mahar, 2002) because the design of information by professionals has become the standard expectation in technology-rich and information-rich cultures (Horn, Pettersson, Wurman). In a process analogous to that described by Alexander (xxxx) wherein knowledge of building structures has been lost to the untrained individual, the traditional patterns that people might have drawn on for creating information displays are no longer practiced and passed from one non-professional to another because sign making has become a profession, common signs are frequently mass produced, and the patterns of professional design are nearly ubiquitous.

The authors of this study have both been involved in teaching message design to adults without prior experience or training in design. In our experience these novice designers bring a sense of how information should look to the task of information design, and they do make rational decisions about design -- even when those decisions do not match the expectations of professional designers. However, we have also noted that non-professionals approach design tasks with trepidation. They seemed to be convinced that since they do not have prior professional training, they do not have any basis on which to begin making design decisions.

This study is a descriptive work centering on information design artifacts – specifically public signs - produced by apparently untrained designers from the perspective of praxis by examining the solutions these designers bring to their real life information problems. We are looking for the responses of non-professional designers to the problems known to exist in creating information displays, and hoping to use that descriptive knowledge for better understanding of our own students.

Why choose public signs as the object of study? First, public signs are similar in their functional goals to the products created by our own students. They are created for the purpose of communicating specific messages to specific audiences. Also, although many public signs attempt to invoke certain moods or affective responses in their viewers, these goals tend to be subordinate to the need for visibility, legibility and presentation of the appropriate content efficiently and effectively.

Second, public sign makers face a broad range of information design and representation issues which they must, consciously or unconsciously, address in the creation of any public sign. Thus, signs as artifacts offer a wide scope for examining such decisions on the part of non-professional designers.

Third, we expect that public signs created by non-professional designers will be created using as much skill as the designer can muster. These signs are produced to be viewed by the public, often in the hope that they will communicate information vital to the success or smooth running of an establishment. This is high stakes design, and we expect that the artifacts we are studying were created for the most part with a commitment to effectiveness on the part of the designer. For this reason, public signs as

artifacts allow us to study the non-professional's exercise of skill at the highest level that untrained individuals can muster.

Finally, public signs are particularly accessible for study.

What can public signs as artifacts tell us? Public signs serve as an index to the practical problems approached and solved by their makers. Traces of the decisions made and not made by these designers are intrinsic to each artifact. The evidence embedded in them is direct for decisions of form (content selection, typography, layout, color, embellishment, and so on) and indirect, but often compelling, for functional decisions (durability, message, impact).

What is the nature of the practical task facing the non-professional sign maker?

Public sign makers grapple with a three-part problem: 1) information design and 2) information representation (which may be thought of collectively as comprising message design as it is sometimes conceived within the instructional design arena), and the technical knowledge and skills involved in making the sign look the way the designer wants it to (what we often term "production").

Information design requires the establishment of goals and desired messages, appropriate selection and organization of information, and consideration of the experiential qualities of the design (Shedroff, 1999). Information representation in the context of public signs requires: the consideration of human factors, context issues (for the sign), alphabet and symbol selection, typography, and functional factors that will affect the sign over time (Follis & Hammar, 1979); the use of appropriate design process steps, including establishing a grid and producing iterative and exploratory drafts of the design (Berryman, 1990); and attending to perceptual issues including figure/ground

relationships, grouping, variation, and contrast (Winn, 1993). Finally, technical knowledge involves selecting appropriate tools and materials and selecting appropriate techniques for using them, while skill involves manipulating those tools and materials to achieve the desired outcomes (Porter & Goodman, 1992).

### Method

The artifacts. We began collecting photographs of public signs made by apparently non-professional designers about four years ago.

Multiple individuals have contributed samples to the collection, which consists of approximately 350 samples at the time of this writing. The signs in the collection are included based on several loose criteria; 1) they are apparently made by non-professional designers, 2) they are handmade or made with non-computer technologies (stencils, wood-burning, press-on letters), and 3) they are visible to the public.

Why not include computer-generated signs? Use of computer to generate information displays often begins from a pattern set by the program the designer uses (e.g., PrintShop<sup>TM</sup>, Powerpoint<sup>TM</sup>), and therefore does not require or reveal the entire scope of decision-making that can be seen in signs made from scratch. Computers also mask all the skill issues and many of the spacing issues associated with type. In addition, issues of scale are less frequently seen in computer-generated signs since the most typical technology configuration for the non-professional produces a default 8.5"x11" page. The ease of editing information displays using a computer is also higher than ease of editing similar displays by hand, and therefore we would not see the traces of design decisions related to unintended effects and/or mistakes.

Analysis. Functional analysis was conducted by classifying the signs according to their apparent purposes in the context where they were observed. Formal analysis (analysis of the forms selected and used by these designers) was conducted by reviewing the existing collection of images repeatedly, forming and reforming categories of images based on the formal properties of the signs depicted. The framework for these categories grounded in the researchers' prior knowledge of the issues involved in designing information displays and, it may be argued, not entirely separable from that knowledge of the issues involved. Non-professional designers must address these issues in order to create displays, whether they are conscious of doing so or not. In other words, during the formal analysis we organized the traces of formal decision-making visible in the artifacts into categories drawn from our professional awareness of design issues.

### Findings and Discussion

We organize this section around the analysis of one or two exemplars that illustrate each of the findings. In each case, multiple examples exist within the collection and we have selected the ones in which the findings are readily apparent.

Non-professional sign makers appear to grapple actively and creatively with the primary issues of information design and representation. Information design requires the establishment of goals and desired messages, appropriate selection and organization of information, and consideration of the experiential qualities of the design (Shedroff, 1999). Information representation in the context of public signs requires: the consideration of human factors, context issues (for the sign), alphabet and symbol selection, typography, and functional factors that will affect the sign over time (Follis & Hammar, 1979); and attending to perceptual issues including figure/ground relationships,

grouping, variation, and contrast (Winn, 1993). (Process steps are also required for professional practice in information representation, but are discussed under the last finding in this section.)

The designer of *New and Used Movie Rentals* (see Figure 1) has created a sign that incorporates three common goals: identifying the place and type of business, communicating its hours of operation, and offering contact information. We infer these functional goals from the content that the designer selected for the sign, and from the placement of the sign on the outside of a building facing anticipated foot traffic. Although these items of information may seem to be the default, not requiring deliberate selection on the part of the designer, such is not the case. For example, it is not possible to tell whether the phone number given as contact information is that of the business or of someone who can be reached when the business is closed because the designer has not chosen to identify it specifically. One might imagine other information that could have been included (duration of rentals, specialties of the shop, business logo, and so on), and could certainly find such information on signs identifying similar places of business.

[Insert Figure 1 about here]

Having selected the content for this sign, the designer has organized that information hierarchically. We infer this decision from the multiple formal treatments applied to the various items of content on the sign apparently to signal their hierarchical relationships. The name of the business is rendered in larger, more bold and more fancy characters than the other information, and placed in the upper left part of the sign, the

left-right/top-bottom reader's position of implied prominence. In contrast, the hours of operation are written in very small characters, clearly separated from the rest of the text, and confined to a strip along the bottom of the display. Although the placement of the phone number is ambiguous in terms of the overall display (is it top level or bottom level information?) it has been set apart from the rest of the content and in fact risks running off the surface of the sign because it is set so far from the nearest part of the store title.

The designer also appears to be attending to the experiential components of the design. The letterforms used for the name of the business are carefully elaborated with curves, and an attempt has been made to apply this elaboration consistently to the characters that afford such treatment (the "N," "W," "S," "M" and "A"). We read this treatment as an attempt both to set the information off as high importance, and an attempt to impart some quality of special-ness to the visual appearance of the sign and therefore to the experience of encountering it.

Some of the same treatments that signal attention to information design issues also serve to convince us that this designer is considering issues of information representation. The letterforms of the primary text are carefully drawn; their outlines are distinct and the contrast between them and the background surface is high. This is less true for the secondary information, but that information is also rendered in careful printing. The designer has worked to keep the text even on the horizontal (and may have elected to place the secondary text at the bottom in order to use the base of the sign as a guide for doing so). Viewed in context, the sign is large enough to infer that the designer meant it to be viewable from the distance at which foot traffic passes a building and the primary content in particular is visible from a half block or so away. The effort that has

gone in to make the primary text bold, and the clear separation in space of the primary and secondary text, suggests that the designer is attending to its perceptual quality as well.

In many samples from the collection we see not only active but creative attention paid to issues of information design and representation. The designer of *Curiosity Shop - Ice Cream Parlour* (see Figure 2) has applied visual elements to this sign that are not strictly required for communicating the sign's content, but that add to the recognition of viewing the sign as an experiential event. These elements include the ad hoc alignment of text in order to place the two Os together to form the eyes of a "curious" face complete with irises and eyelashes added on, and the fitting of text into an ice cream cone shape. The designer seems to be striving for an element of fun over and above what might have been possible in the way of directing attention through more typical manipulations of the text (size, color, letterforms).

[Insert Figure 2 about here]

Non-professional sign makers appear to struggle with technical and skill problems that interfere with implementing basically sound design decisions.

At the same time that non-professional designers appear to be working hard on information design and representation, they appear to be hampered in their efforts by difficulties with the selection and skillful manipulation of tools. The designer of *Slaton Hair Design* (see Figure 3) has selected the window of the shop itself as the background for the sign, and then selected a brush too small to create letterforms that will stand out

sufficiently against the curtains inside to provide good visibility for the sign. Although we cannot know from studying the artifact whether the designer added a white highlight effect to all the text in an attempt to correct this problem or not, we can see clearly that a lack of skill in manipulating the brush has created highlights that interfere with readability more than they improve it. This designer's information design decisions are reasonable; the name of the business is more prominent than the rest of the information and is clearly separated from it by the intervening window frame. The letterforms are carefully drawn and clearly an attempt has been made to make them uniform. The color of the text contrasts with the background of the sign(at least when the curtains are drawn). The title of the business would have been laid out in a regular format if the designer had not miscalculated the type size needed to fit the last two words onto one line. All these reasonable decisions are diminished in effectiveness by the evident problems with materials and skill.

[Insert Figure 3 about here]

In *Free Estimates* the difficulties raised by problems with tool selection are also evident. Here the designer is making a reasonable decision to emphasize the word "free" as the content element topmost in the information hierarchy. The formal treatment attempted was to make the letterforms bold, but the tool used had too small a tip to form letters at this height with the desired weight. The designer appears to have gone over the letters several times (and also the letters in "estimates") and then decided to use another pen, also with a thin tip, to add contrasting color and thicken the letter forms further.

Once this was done it may have seemed that the second line of the primary message was no longer bold enough, hence the addition of the red quotation marks around it. The letters themselves are formed comparatively well for a non-professional sign and the decision to emphasize this part of the message is a reasonable one. It is clear that the designer is grappling with issues of dominance and striving to apply appropriate formal treatments in order to create the desired relationships. However, the tools that have been selected and the manipulation of them are not adequate to support those decisions.

[Insert Figure 4 about here]

Non-professional sign makers do not appear to employ processes that would help them to avoid unintended or undesirable outcomes of basically sound design decisions.

The designer of *Master Kouvakas' Mix Martial Arts System School* clearly ran out of room at the edge of this sign and had to either start over or simply squish the information into the available space, which latter choice was evidently made. In addition, the secondary information on the sign is fitted into a somewhat inadequate space left over after the primary information was rendered. However, this designer was not careless about creating the sign.

[Insert Figure 5 about here]

Examination of the letterforms in the primary text suggest that a lot of thought and work went into elaborating them with serifs and variable strokes, perhaps suggesting the exotic

quality of the arts taught here. The designer also used a bright red paint for the job. We cannot know if this paint was just ready to hand or if the choice was more deliberate, but it does seem to be paint for the outdoors – liable to resist fading or coming off the board. While this artifact illustrates clear problems with skill in manipulation of tools, the main obstacle for this designer seems to have been in the lack of process knowledge. Development of roughs (mock-ups at full size or near full size) and establishment of an underlying grid for the sign would help this designer avoid the problems that now undermine what were essentially reasonably good decisions. Even if the skill problems were not overcome, the design decisions that were attempted here would have resulted in a more viable information display if the designer had employed better process.

#### Limitations of the Study and Directions for Further Research

Expert vs. novice analysis of design praxis via artifacts. The analysis in this study was carried out by trained designers. We cannot separate our knowledge of professional principles and our own praxiological understandings from the interpretations we make of these artifacts. We might further our understanding of the novice designer in the future by asking untrained individuals to study signs from the collection themselves,

Authentic vs. interpreted praxis of the non-professional designer. The examples available for analysis in this study are not accompanied by any information from the designers themselves, which does not allow us to benefit either from the designers' own insights into their praxis, or from our interpretations of what they say about their design decisions. We plan to extend this study first by asking non-professional designers to produce simple public signs (e.g., "Back in 5 minutes," "No food or drink allowed in the store") in situ and to address as they do so the design decisions they feel they are making

at the time. Although our own experience suggests that these designers may not be able to address overtly all the decisions they are making, their explanations will be enlightening and will also serve to ground our own speculations regarding the collected samples for which we do not have any access to the designers' thinking. We would also like to interview non-professional sign makers when they can be found in the context of discovered signs. These interviews would be separate in time from the creation of the signs, but would provide reflective data regarding the non-professionals' understanding of their own praxis. It is possible, for example, that many non-professional designers are consciously mimicking patterns they see in professional signage to a greater degree than our analysis assumes, and therefore making fewer unique decisions about form as they work while simultaneously devoting much more time to the selection and manipulation of tools.

Connection to the education of novice designers. How does the study of praxis among non-professional designers of public signs influence the education of novice instructional designers? We anticipate building on our understanding of design decisions made by non-professionals in authentic situations to create a rich understanding of the baseline praxis that exists among novice designers in our classes. This understanding may be presented to the students themselves as a starting point for their awareness of the design decisions they already know how to make, and for their anticipation that they will be able to master professional design. In addition, the specific understanding of how the non-professionals' praxis differs from that of the professional, and eventual description of that gap, can help us to diagnose the problems novices are having in class and provide effective feedback.

### Acknowledgements

The authors would like to acknowledge the contributions of: Daniel and Ellen Boling; Charles and Jane Boling; Malinda Eccarius; Jack Kent; Deborah Robbins; Rick, Karin and Jim Schwier; Fleet Walker; and especially Earl Misanchuk, all of whom have contributed samples to and/or assisted in the collection of samples for the collection used in this study.

References

Alexander, C. (xxxx). *A Timeless Way of Building*.

Berryman, X. (xxxx). *Notes on Graphic Design and Visual Communication*.

Follis and Hammar

Mahar

Pettersson, R.

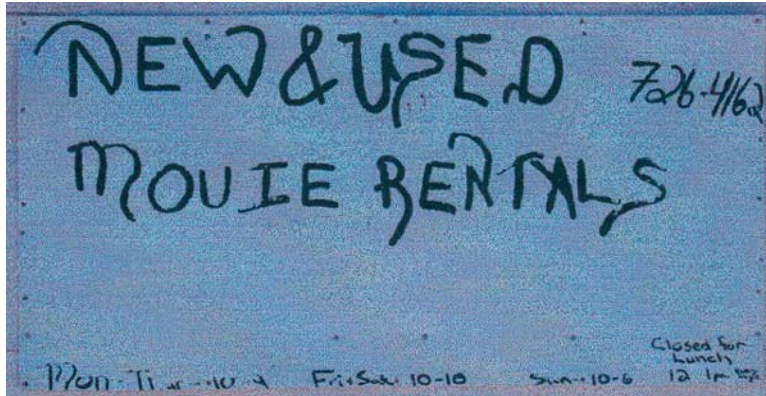
Porter and Goodman

Shedroff, N. (1999). Information interaction design: A unified field theory of design. In *Information Design* (R. Jacobson, Ed.). Cambridge, MA: The MIT Press, 267 – 292.

Winn, W. (1993). In *Instructional Message Design*. (M. Fleming and Levie, Eds.). XX, NJ: Educational Technology Publishers, xxx-xxx.

Wurman, R.

Figures



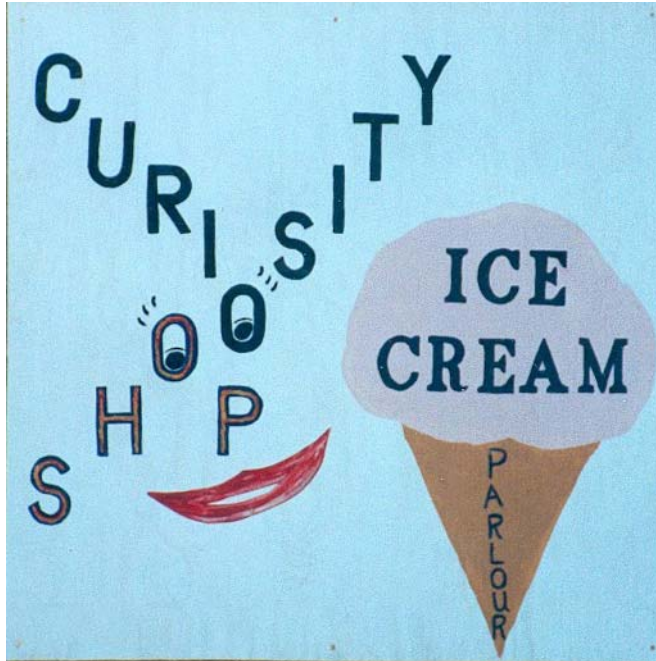








Figure captions

Figure 1. *New & Used Movie Rentals* collected in Ashmont, Alberta.

Figure 2. *Curiosity Shop - Ice Cream Parlour* collected in Mannville, Alberta.

Figure 3. *Slaton Hair Design* collected in Slaton, Texas.

Figure 4. *Free Estimates* collected in Saskatoon, Saskatchewan.

Figure 5. *Master Kauvakas' Mix Martial Arts System School* collected in Albuquerque, New Mexico.