

- Sign Sense -

Principals of Planning, Design,
Fabrication, and Installation



Richard F. Ostergaard
Center of Design and Interpretation
Rocky Mountain Region, USDA – Forest Service



- Sign Sense -

DRAFT

RICHARD F. OSTERGAARD

Center for Design and Interpretation

Rocky Mountain Region - Denver

SAN JUAN NATIONAL FOREST

PART 1 - Basic SIGN"OLOGY"

ASIGN is an inscribed surface or space, usually with a **SINGLE MESSAGE**, that provides, guidance (orientation), information or explanation, advertisement, interpretation, or, warning (safety).

There are six major types of signs commonly found in a Park or Forest: Orientation, Information, Trailhead, Interpretive, Traffic Directional, and Safety.

Signs can stir passions and create controversy. People need them, read them, and hate them. There are always too many signs until you need one to show you the way, or explain a question. They make more contacts than all other communication programs combined, are relatively inexpensive, and convey messages to many people at one time. They are on duty 24 hours a day, rain or shine, and do not need to be plugged in or turned on. They can alter or complement landscapes and vistas, as well as the visitor experience. And finally they are connectors to experience, thought, and education.

TO READ OR IGNORE?????

The 3/30/3 rule

Research shows that you only have three seconds to catch the customer's attention, thirty seconds is usually taken for them to make the decision to read the sign, and they only spend about three minutes in reading and digesting the entire sign message.

Why do people choose to read or ignore a sign? The appearance of a sign, and content are the reason they will either read or ignore the sign. Signs that provoke interest and are simple and inviting will read by more people. The success of a sign or the readership can be weighed with a formula by Wilber Shramm.

THE FRACTION OF SELECTION

$$\text{LOW SELECTION} = \frac{\text{Expectation of reward}}{\text{EFFORT REQUIRED}}$$

$$\text{HIGH SELECTION} = \frac{\text{EXPECTATION OF REWARD}}{\text{Effort required}}$$

Here the **LOW SELECTION** perception is it that will take substantial **energy** to read and the rewards will be **LOW**. In the **HIGH SELECTION**, a sign catches our interest and attention and the amount of **energy needed to read and understand it, is minimal and well worth the expenditure.**

CONSTANTS:

1. **Too many signs** clutter the view and detract from the visitor experience.
2. **Conflicting and redundant signs** lead visitors to doubt their value and diminishes our credibility.
3. **Inadequate information** leaves visitors frustrated. Unhappy visitors don't stay or return.
4. Signs can form a **lasting memory** and may be the only **impression** travelers ever have of the area, and its resources, or the administering agency.

IMPRESSIONS FROM THE PUBLIC:

In a popular western song of the 90's: "Mama Knows the Highway By Heart," Hal Ketchum sings the lyrics, "She can gauge a cafe by just looking at the sign." Here, the quality of food and service is conveyed by the appearance of the sign.

From looking at our signs, how does the public gauge us?

Would you consider buying a home if the real estate sign looks like it was done by a 2nd grader? What do our signs tell the public about our facilities, management and service? What type of agency or organization are we? Have we got our act together? What is the **FIRST IMPRESSION**? Do we make people feel **WELCOME**?

Too many of our signs greet the visitor with messages of **prohibitions and restrictions**: E.g. Don't do this! Don't go there!, No pets allowed!, NO!, NO!, NO! Oft times these are the only messages our visitors see. Rules and regulations need to be conveyed, but do it with sensitivity. It is far more important and effective to **WELCOME** the public than to hit them with the rules with the **first** sign they see. (E.g. A sign located as a "Gateway" to an area or byway in a prominent location may state; **WELCOME** To "YOUR" NATIONAL PARK / FOREST...ENJOY YOUR VISIT and **RETURN OFTEN**, in addition to the area's name.)

Design the experience from the beginning. The **PACKAGE** is the **PRODUCT**. Be consistent with all signs in an area, E.g. Scenic byway, trails, etc. **Continuity and unity leaves a big impression** with the public. Ask: where do you have a captive audience? Ultimately, your audience is the same one that goes to Disneyland...they want to have fun also. By visiting an area they want to leave their daily lives at home. They seek an experience separate from their daily lives.

Consider the acronym: "**IVES**", IT'S the **VISITOR EXPERIENCE STUPID**

In the design of a sign, the elements that make up a sign are important to understand. Simply put, a sign has **sign face**, the **sign panel** or material on which the message is printed, and finally the **support** or sign base, which is used to hold up, in-frame, and

present the sign. Within the sign face there is a further breakdown of elements into the **header** or title, **body type**, **graphics** or photos and **credits**.

PART 2. - INTERPRETIVE SIGNS

Interpretive signs are what most people think of when they hear "interpretation." **They are the single most popular form of interpretation.** It is important to have a basic understanding of what interpretation is and how it applies to interpretive signs. One definition is:

"A communication process designed to reveal meanings and relationships of our cultural and natural heritage to the public. It tells a story and brings meaning and interest of a subject for the enjoyment of the visitor".

The communication process should be based on enduring interpretive principles, which state that interpretation must:

1. **Provoke** the attention and curiosity of the public. Grab interest quickly and keep it.
2. **Relate** your message to the everyday life of your audience. Why should it matter to them personally?
3. **Reveal** the essence of your subject through a unique viewpoint, a different way.
4. **Address the whole.** Show the connection of an object to a theme or storyline.
5. **Strive for message unity.** Use a variety of repetition of the subject to create or build the mood, feeling or atmosphere.

GOOD SIGNS, ESPECIALLY INTERPRETIVE SIGNS, DO NOT JUST HAPPEN.

Effective and successful interpretive **SIGNS ARE DESIGNED.** People who know and follow basic principles of planning, design, text development and fabrication create them.

A well-designed interpretive sign will:

- Encourage **resource understanding, respect, awareness, and ethical behavior** of the visitor. What do you want the visitor to know, understand, value, think about, and remember once they have left?
- **Define the site** as primitive, rustic, or urban.
- **Answer questions** that visitors have about a site.
- **Direct the attention of visitors** to features or natural relationships.
- **Explain the cultural significance** of a site. What happened here?
- **Communicate** across languages and cultures
- Increase visitor **enjoyment** through appreciation and understanding.

All of this is a complicated job for a tool that stands by itself and rarely has mechanical parts.

In addition there are some basic **INTERPRETIVE RULES of THUMB**:

- **Don't tell everything.** Leave something for the visitor to discover. Tell less, but tell it well.
- **Be the visitor.** When you are a visitor what are your expectations? How much **time** and **interest** do you have? What **value** does it have for you?
- Steer clear of **agency propoganda**. Visitors are interested in natural and cultural resources. They usually don't give a hoot how great your agency is. Management messages can be woven sensitively into the message if it has relevance to the site.
- **Don't interpret "NEAR HERES."** Stick to what is right at the site.
- **Get the detail.** Refine the level of detail until it has relevance to your audience.
- **Have a Hook.** You have only seconds to catch their attention. Graphics, titles, and appearance all contribute to a visitor's decision to read the sign.

In producing an interpretive sign, it is recommended that you follow four steps: **PLANNING, DESIGNING, FABRICATION, and INSTALLATION**. For the most part it does not make a difference whether the project is small or large, the process is the same. Obviously in a large project, each step can become a major element of its own. Each step is important. They are also closely related and one should not be done without full consideration of the others.

A. PLANNING:

Effective interpretive planning is the **KEY** to cost effective use of limited resources and to producing attractive and effective signs. Planning can be done in-house or by a consultant. If a professional is hired make certain that they are qualified and experienced and will listen to your input.

Planning should include:

- **GOALS & OBJECTIVES** – The first step is to define the **purpose of the sign**. What do you want the visitor to understand, ponder about, do (behavior), and remember after they have left? Set Educational, Emotional, and Behavioral objectives
- **AUDIENCE ANALYSIS** - Who are the visitors, Why are they there? Etc.
- **SITE DESIGN** – Will there be additional facilities such as trails, parking areas, benches, barriers? Is a site plan necessary?
- **THEME DEVELOPMENT** - What are you going to say? Address the area's major theme with clear thematic sentences rather than topic subjects.
- **BUDGET** – Consider immediate and long term constraints and cost analysis.

Three types of people view our signs: **STREAKERS, STROLLERS, and STUDIERS**. Only about 20% of our visitors are in the last category. We have to plan and design well to capture the interest of the middle group, and especially the first group. It also helps to consider the pattern of circulation and travel. Where do we have an opportunity for a captive audience?

BEFORE YOU DECIDE TO DESIGN AN INTERPRETIVE SIGN:

- Is a sign the best **medium** or material to convey the interpretive message?
- Should the sign be **located** next to the feature it describes or would it take away from the viewing experience?
- Can **real objects** be used or incorporated in the design?
- Are there **funds** to maintain the sign once installed?
- What are the **expectation** of the visitors? Why are they there? Have we done an **audience analysis**?
- Who will **design** the sign? How much design experience do they have?
- Where will the sign be **located** and in what direction will it be oriented?
- Will the public be **reading the sign** from road or trail? Walking or from a bike?
Decide on one large sign or a series of small ones, depending on viewing distances and speed of the readers.
- Will enough visitors see the sign to make it worthwhile?
- Does this make one too many signs in the area?

B. DESIGN:

In this vital and challenging step, you arrange the visual elements of the sign, including: TEXT, GRAPHICS, PHOTOS, SIGN MATERIALS and SUPPORT / BASE. How these elements work together will make or break the effectiveness of a sign. Consider using **1/3rd graphic, 1/3rd in text, and 1/3rd in blank (white) space**. If one overpowers the other, then the smaller parts get lost and the larger may get more emphasis than was intended. However there are cases where the graphics may be designed as the major visual element to convey the theme boldly. Remember that **whatever decision you make about the appearance and combination of these elements will affect the public's desire to read or ignore your message**. Always remember that **a sign must be read and understood to be effective**.

1. Text ...

Common mistakes on interpretive signs are **too much text, too small letters, and continuous blocks of text**. Nothing looks more uninviting and loses the reader quicker than big blocks of small letters.

The **title should be bold, catchy, and draw attention** both in content, size and appearance. It needs to aggressively catch the eye and hold attention. (E.g. Instead of Peregrine Falcon, use the title "Nature's Torpedo!") It is important to follow basic rules for choosing typeface, spacing, and fonts for text. (E.g. Do not mix type styles excessively, etc). **Print**, as a rule should be **big, not small**. Using the same size type on an entire sign will lose 90% of the audience. **Use upper and lower case**.

For a sign that is going to be read by the pedestrian the recommended point size on a std. 24"X 36" interpretive sign is 36 pt in the main text, captions italicized at 24 pt, photo credits italicized at 18 pts, and headers large, at 90 -120 pts. or larger, if you have room, but be careful with the visual balance of the sign face.

People do not want to read an encyclopedia. **A sign is not a book nor should it pretend to be.** Ask yourself a question, which comic strips do you read, which do you scan, and which do you avoid? The more the amount of copy, the less likely it is that people will read it. Trying to fill up all the space trying to tell too much turns people off before they even get close enough to read it. Research has shown that people do not want to read more than 125 words, 75 words being most effective on any panel. Leave them hungry for more, don't overdo it. Keep sentences brief but provocative. Break the text up into blocks of 40 or so words.

SOME KEYS TO TEXT:

- Text needs **order** and hierarchy of importance or information. "All emphasis" is **no** emphasis. The headers (title), subheads and captions should tell the general story.
- Focus on **one theme** per sign with only 1 or 2 ideas explored.
- Should be written with the "**3-30-3**" **Rule** in mind. Use a hook in the header (title).
- **Research your themes** and topics then write your text. Write a draft of the text, then **edit, edit, edit**, and edit again. Bring extra eyes in at the beginning. **Check and recheck** the facts.
- Avoid unfamiliar terms or bureaucratic jargon. Make your text readable to a wide range of visitors.
- Use **active verbs**. (Words that end in "ED" instead of "ING")
- Use **colorful language**. (No, I don't mean swearing)
- Evaluate the final content by applying a couple of questions: **SO WHAT?** And **WHY** should I want to know this INFORMATION?
- **Write to human beings** as if you are talking directly to them. The best messages often are what you don't say rather than what you do say.
- If it is unnatural or awkward for you to say, then don't say it.
- **Be concise**, as **few words and simple** as possible. Just state it, you don't need to explain it.

2. Layout and Graphics...

Sign **Layout** should consider the following:

- Make the sign the **right size**. Consider the location and distance from which it will be read. Use standard sign sizes for cost effectiveness. Make them no larger than necessary and use rectangular, rather than square or unusual shapes
- Allow the right amount of **space around text**, graphics and headings. Do not crowd the text. Leave room for the frame or mount.
- **Avoid diverting attention from the message**. Don't use odd colors, awkward designs, and unusual symbols or words.

Graphics will attract and involve the visitor **more than anything else**. They convey stories in concise and dramatic ways. A single **graphic can replace many words**. They also focus attention and lead the eyes through a design sequence. They add beauty and interest to a sign face. Select or produce artwork that is appropriate, professionally executed, and realistic. High contrasting graphics are recommended to easily read by all populations. Use to interpret not to decorate the sign face. Professional graphic artists and designers are highly recommended for layout and illustrations.

3. Photos

Photographs are most effective in signs of a historical nature. They tell a wonderful story and add great human interest to the sign message. As a rule, photos and graphics should seldom be mixed on the same sign. Don't overdo the number and size. They should balance with text to tell the story. Accuracy of the photo credits is critical. It is very difficult to correct a finished product and we usually end up living with the embarrassment for years.

4. Sign Support/Base

You need to give as much consideration and thought to what will support the sign as you do the sign itself. Supports do more than just hold up the sign. They can also imply permanence and respect for a site and provide a link with site features. It should be attractive, functional, and durable. The understanding of site character is critical here. For example; would you use galvanized steel in a forest setting, or logs along a paved urban trail? Supports are most aesthetically pleasing when they relate to their surroundings.

They may also convey the sign and area interpretive theme, but should blend into and become part of the total site design. The base can make a dramatic contribution and draw attention to the sign. **It is appropriate to use materials that are natural or indigenous to the site.** Seek the advice or services of a landscape architect and consult with the graphic designer of the sign to make sure the **sign support will visually blend** with the sign and environment and not visually dominate and be approachable with 2" for all populations.

Low profile diagonally faced signs are appropriate for trail and overlooks. They should be installed at a height of 24-30 inches with a 30-45 degree angle toward the viewer. Other signs, that may be read from a car or a an introduction and orientation point, easier read at a 90-degree angle

C. MATERIALS AND FABRICATION

Consider the final selection of the sign material based on research. **No material is a panacea**, and all have their pros and cons. Which material is the best for your application is as controversial to many as religion and politics? The final selection should be based on the major factors of:

- Aesthetics of the material
- Ability to convey the interpretive theme or sign objective effectively
- Durability and maintenance
- Budget (Cost) - both existing and anticipated
- Site character and the ability of the material to blend into the selected site
Development Level, Recreation Opportunity Spectrum (e.g. primitive, rural or urban site)
- Amount of vandalism historically occurring in the area
- The amount of people presence or patrols going on in the area

All signs can be vandalized, some more than others. In areas of high incidence of vandalism, an inexpensive "replaceable format" system maybe a good option.

Don't use a high cost material that does not withstand abuse in a remote area. On the other hand, don't use a cheap, less attractive material, in a show-case or major use area. If a sign is not going to be maintained, or receives frequent vandalism, then maybe other interpretive media choices should be considered and would be more cost effective. Perhaps a brochure, guide, or personal interpretive programs (walks and talks) would be more effective.

A few scenarios:

- 1) If the site in which you want to locate the sign is in an urban interface, heavy traffic area, such as a nationally recognized scenic byway, or a major destination site, then porcelain enamel, embedded fiber glass, anodized aluminum, digital laminates, embedded digital, or stone imaged materials will do well.
- 2) If the site is remote and off the beaten path with few visitors, then digital laminates or sheets, screened wood laminate, or replaceable format materials of vinyl or elasticized materials are some of the better materials.
- 3) In a site of archeological, or geological resources, then stone imaged materials, ceramic, or even anodized metal may convey the theme and reflect or complement the physical character of the site well

Refer to the attached “**Comparative Guide to A Dozen Interpretive Sign Materials**” and its “**Appendix A**” for a detailed comparison of varied sign materials and how they generally respond to variables of scratch and abrasion resistance, graffiti removal, life expectancy, etc. The ratings are not intended to be absolutes and are those which the author has either personally observed or researched. The intent is to give a general idea of what to expect as the qualities and limitations of varied materials and aid in the consideration and selection of materials that would perform well considering their own criteria.

D. INSTALLATION

This process may be simple or complex. The designer and landscape architect should always be involved in this stage to maintain the overall design integrity. This stage is often thought of as minor and too many times has resulted in a catastrophe. It should not be left to an installer without any instructions or direction.

Location and placement of interpretive signs are critical to their effectiveness. Signs should be installed at locations with sufficient visitor traffic to justify the effort and expense. Consider the resource it is interpreting. Don't use a huge sign in a small spot or tiny sign where it needs to be noticed from the highway. Do not block the feature or ruin the view that is being interpreted. E.g. use of a vertical sign when you're interpreting the view behind it. Other factors must be considered, such as suitable parking, and barrier free accessibility. Popular locations are overlooks, recreation areas, unique features, cultural sites, and water features. Consider sun and glare, wind, shadows, orientation, shelter needs, traffic, and safety when determining the proper placement of the sign.

OTHER FACTORS:

Weather will affect all signs. Some materials such as porcelain enamel, cast metal, and metal microimaging are largely unaffected by the elements. Life will be longer and the signs will be most effective if we use materials that are designed for outdoor use. Indoor materials will not hold up in outdoor applications. Sun and moisture will fade and destroy the images and material. Consider shade or shelter if appropriate. Color photos are susceptible to fading, except on porcelain enamel.. Use proven materials and design techniques to guarantee the effectiveness of the sign.

SUMMARY

If we keep our visitors interest always in mind and do our best to give them an opportunity to see and learn about our resources, we will have taken an important step in conserving those resources for future generations. Information and interpretation presented on signs must be in a form that is meaningful to the audience and that gains and holds attention to be most effective. We need clear objectives that specify what we are trying to accomplish and feedback that indicates to what extent objectives are being achieved.

Like anything of worth and value, an effective sign will only result of the application of right principles, so much the better with the right people. Involve interpreters, graphic designer / illustrators, writer / editors, and landscape architects and others as appropriate. It is better to be very thorough than to race through the proven steps and principles and have to live with a mistake. Your sign is successful if you make it one that visitors will enjoy and remember with pleasure.

BIBLIOGRAPHY:

Trapp, Suzanne; Gross, Michel; Zimmerman, Ron. SIGN, TRAILS and WAYSIDE EXHIBITS -Connecting People and Places, 1991, UW-SP Foundation Press, University of Wisconsin, Stevens Point

Graphic Solutions: BASICS OF INTERPRETIVE SIGNAGE, 1989, Graphic Solutions, P.O. Box 1288, Hagerstown, MD 21741

Interpretive Exhibits, Inc: ARE YOU READY TO ORDER AN INTERPRETIVE SIGN? Interpretive Exhibits, Inc., 1865 Beach Ave. NE Salem, OR 97303

U.S. Forest Service, Northern Region Public Affairs Office; Video: INTERPRETING WATCHABLE WILDLIFE, 1992, U.S. Forest Service, P.O. Box 7669, Missoula, MT 59807

U.S.D.A., Pacific Northwest Region, Curtis Edwards: INTERPRETIVE PROJECT GUIDE BOOK, P.O. Box 3623, Portland, OR 97208, 1994

Ostergaard, R.F: San Juan National Forest: A GUIDE TO MATERIALS FOR INTERPRETIVE SIGN FABRICATION, 2001, San Juan National Forest, 15 Burnett Court, Durango, CO 81301

National Park Service, Federal Highway Administration: LESSONS FROM THE ROAD, 1998

U.S. Army Corps of Engineers: USCOE NATIONAL SIGN/GRAPHIC STANDARDS MANUAL 1990 and INTERPRETIVE SERVICES MANUAL

USDA and USDI: DESIGN GUIDE FOR ACCESSIBLE OUTDOOR RECREATION, Draft, September 1990

USDA - Forest Service: EM 7100-15 STANDARDS FOR FOREST SERVICE SIGNS AND POSTERS 1994

SHARPE, GRANT W. INTERPRETING THE ENVIRONMENT, 1982. John Wiley And Sons

Tilden, Freeman: INTERPRETING YOUR HERITAGE