Interpretive signs, trail panels, and wayside exhibits are connectors. They give meaning to the experience of the visitor. Their function is to communicate specific messages to visitors that may be educational or relate to management concerns. Interpretive signs are most commonly used for visitor information kiosks or orientation signs, for self-guiding trails, or as wayside exhibits at viewing areas or resource management areas.

Interpretive signs will vary greatly in content and design; therefore, this section will focus on interpretive planning, writing guidelines, and format suggestions.

It is not the intent of this section to control the visual look of the finished signs; rather, the intent is to provide guidance in developing interpretive signs. Interpretive signs need to reflect creativity and flexibility, as they relate to specific sites, themes, goals, and objectives.

Interpretive signs are to be used for interpretive purposes only. Interpretive signs will not be used to circumvent requirements for approval of, or as a replacement for, Danger, Caution, and Warning signs. Interpretive signs may be used to supplement information about hazardous areas.
It is important at the beginning to have an idea of what interpretive signs are, and what “interpretation” is. Interpretation is defined by Interpretation Canada as:

“A communication process designed to reveal meanings and relationships of our cultural and natural heritage, to the public, through first-hand involvement with objects, artifacts, landscapes, and sites.”

The Corps has used this definition, in modified form, to focus on its missions. The Corps defines interpretation as:

“Communication and education processes provided to internal and external audiences, which support the accomplishments of the agency’s missions, tell the agency’s story and reveal the meanings of and the relationships between natural, cultural, and created environments and their features.”

To be “interpretive,” the communication process should be based on Interpretive Principles. Freeman Tilden first developed six Interpretive Principles in 1957. Cable and Beck further developed the principles. The following are most pertinent to interpretive signage (Beck, Larry and Ted Cable, 2002, Interpretation for the 21st Century: Fifteen Guiding Principles for Guiding Nature and Culture (2nd Edition), page8):

1. To spark an interest, interpreters must relate the subject to the lives of the people in their audience.
2. The purpose of interpretation goes beyond providing information to reveal deeper meaning and truth.
3. The interpretive presentation -- as a work of art -- should be designed as a story that informs, entertains, and enlightens.
4. The purpose of the interpretive story is to inspire and to provoke people to broaden their horizons.
5. Interpretation should present a complete theme or thesis and address the whole person.
6. Technology can reveal the world in exciting new ways. However, incorporating this technology into the interpretive sign must be done with foresight and thoughtful care.
7. Interpreters must concern themselves with the quantity and quality (selection and accuracy) of information presented.

Focused, well-researched interpretation will be more powerful than a longer discourse.

8. Interpretation should instill in people the ability, and the desire, to sense the beauty in their surroundings – to provide spiritual uplift and to encourage resource preservation.

Unity is key. Interpretive signs should be integrated into the project’s sign plan and interpretive programs. They should not stand alone, but be part of a planned whole. There should be unity of themes and of design. In planning interpretive signs, it is recommended that the following planning model be followed:

1. Resource Analysis. Determine what resource, object, or concept you will be interpreting to visitors. Conduct research to find all the facts, interesting viewpoints, provocative information, etc., that you can about the subject or site.
2. Developing Objectives for Interpretive Signs. For each interpretive sign or panel, determine the objectives for interpretive message(s). These should include at least one each of the following:
   - Learning Objective. Facts or information you feel are important for the reader to remember. An example of a learning objective is “the majority of the visitors will be able to distinguish a salmon from a rainbow trout.”
   - Behavioral Objective. Behavioral objectives are the physical behaviors or actions that you want the visitor to do either while reading the interpretive sign (e.g. look for, see if you can find, listen for, etc.) or an action desired after the visitor has read the sign (e.g. attend more interpretive programs, be a safer swimmer, wear their PFD when in the boat, etc.).
   - Emotional Objective. The emotional objective is perhaps the most important objective. Unless the visitor is motivated to “remember” learned information, or “do” the desired behavior, those objectives cannot be accomplished. An example of an emotional objective is that “after reading the interpretive panel, the majority of the visitors will feel that it is important to wear a PFD while in their boats.”
3. Know Your Visitor. This section involves considering who the audience is that will be using the interpretive signs.
4. Develop an interpretive theme for the display. The theme must:
   - Be based on the goals and objectives for the trail, overlook, etc.;
   - Contain your key message;
   - Be a complete sentence;
   - Combine the tangible objects on the trail with the universal concepts or ideas that help people relate to this site so they find it meaningful in some way.
5. Determining How / When / Where to Use Interpretive Signs. Considerations include site location, how many signs to use, what size they should be, should they be permanent or seasonal, and if a sign should be used rather than some other interpretive service or medium.
6. Evaluate Effectiveness. The communication effectiveness of proposed interpretive signs must be evaluated prior to fabrication, so that necessary changes can be made without incurring major costs. This planning step is a review of the effectiveness of the interpretive sign including text, graphics, and total communication presentation. Are the objectives being met? To evaluate interpretive signs, some techniques include:
   - In-house review;
   - Review by a panel of visitors;
   - Review by experts (teachers, resource specialists, etc.).
7. Implementation and Operations. This section of the planning process can be used as a checklist for all the items needed to go from plan to reality. This includes concerns such as:
   - Funds available;
   - Actual versus desired production time;
   - Material selection. See the Natural Resources Management Gateway at
http://corpslakes.usace.army.mil/employees/interpretive/sign.html for the advantages and disadvantages of various materials;

- Who will write the text and do the design?
- Who will review graphics and text?
- Approval steps;
- Who will fabricate the panels?
- Who will install completed signs?

Finding More Information:

For more help in developing quality interpretive signage, attend the Interpretive Services PROSPECT course or you may consult the interpretation page of the NRM Gateway at http://corpslakes.usace.army.mil/employees/interpretive/interpretive.html. Among other good references that you may consult are:


- *Interpreting Our Heritage* by Freeman Tilden, University of North Carolina Press

- *Signs, Trails, and Wayside Exhibits: Connecting People and Places* by Suzanne Trapp, Michael Gross, and Ron Zimmerman published by the University of Wisconsin, Stevens Point.
Self-guiding interpretive trails use two different types of signs: one large trail orientation sign and several smaller trail station signs located at various sites along the trail.

The role of the trail orientation sign is to give the visitor a general overview of what the trail is about and what kind of recreational experience to expect.

Based on this information, the visitors can decide whether or not to walk the trail. Every trail orientation sign should include:

- The name of the trail;
- Introduce the interpretive theme of the trail;
- A brief introduction to the trail length and walking time;
- A map of the trail so visitors can see where the trail may take them, and where the trail ends;
- Any necessary safety information (e.g., sturdy hiking shoes recommended, steep hills, etc.), or overview of the storyline the trail will be interpreting (e.g., provide a firsthand look at some of the ways we are managing forest resources).
In planning and developing signs for self-guiding trails it is important to remember that the interpretive story for the entire trail should be developed first. Then each trail stop interprets a part of that whole story. A self-guiding trail should not have more than 7-10 stops.

Each station sign should be considered a sub-theme of the main theme. These sub-themes reinforce the main theme and are part of the story being told. Like themes, sub-themes should:
- Be based on the goals and objectives of the trail;
- Support the key message in both its title and message;
- Be complete sentences;
- Combine the tangible objects with universal concepts or ideas that help people relate to this station on the trail or this part of the story.

The last stop on the trail should be the conclusion to your story. It should:
- Relate and restate the theme;
- Reveal and summarize the key points;
- Provoke the visitor to find additional information;
- Direct people, if necessary, to the starting point.

**Sweet and Sour Tree?**

It is well known that the sweet sap from the tree, a sugar maple, is used to make maple syrup. It may take up to 40 gallons of sap to make just one gallon of syrup. But the pioneers had another use for this tree. The wood ashes are high in pot ash and were used by the early settlers to make soap!
In general, the design of interpretive trail signs should follow the following guidelines:

- Size: 20" x 30"

- Content format will generally be left to the creativity of the planning team. Planning for the sign should follow the planning steps presented earlier. Sign content should employ the Interpretive Principles.

- Use the message pyramid. Text length should not exceed 50-60 words. If more text is required, it should be broken up into several paragraphs of 50 words or less.

- Graphic Selection should be chosen to best illustrate the concept being communicated, rather than duplicate what the visitor has already seen.

- Nonverbal communication: remember that the colors, label type style, and label size all affect the visitor a communicate part of the message. For example, a sign about poisonous plants would be more effective with red than green because red connotes danger.

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The Plant that’s a Lifesaver!

- Cattails provide food, shelter, and even fuel: three of the five basic survival needs!
- The cattail marsh supplies food and shelter for its residents. Mushrooms feed on cattail roots. Songbirds use nests, grases and cattails as nesting material.
- Among the dense cattails and other marsh plants animals find excellent shelter.

1. Flower heads visible in spring pollin in early summer seeds late summer.
2. Dried heads can be used for starting fire.
3. Dead forms can be boiled.
4. Stems can be woven into mats.
5. Rootstalk edible throughout the year.
Wayside exhibits are located at points of interest such as powerhouses, forest management areas, locks and dams, roadside pull-offs, or vistas and viewing platforms.

Developing interpretive exhibit panels follows the same interpretive planning steps and use of interpretive techniques as does developing interpretive trail signs. In general, interpretive exhibit panels should follow the same guidelines.

- Avoid square panels or large rectangles. A 5 to 3 or a 5 to 4 ratio is more visually appealing. Use materials that are appropriate to your site.

- Content format will generally be left to the creativity of the planning team. Planning for the sign should follow the planning steps presented earlier. Sign content should employ the Interpretive Principles.

- Text should be kept short. Create a message pyramid: Title (no more than 5 words), subtitle (up to 25 words), text. Each text block should not exceed 50-60 words.

- Graphic images have more impact than words. Their selection is key to successfully communicating the concept or topic to the visitor. The graphics should best illustrate the concepts, or serve to achieve one or more of the stated objectives of the exhibit panel.

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A door that's never locked!

Look for the large mound of sticks in the water in front of you. An underwater doorway leads to the inside of this beaver lodge.

During the day, the beavers paint and dry store on a bed of shredded wood inside their lodge. With their teeth high and dry, and the tunnel entrance underwater, the beaver never have to worry about locking their door.

Beaver Facts
- Beaver dams can be 24 hours after they’re built
- A full-grown beaver can weigh up to 70 pounds.
- Beavers build dams of materials to keep water levels steady.

A door that's always locked?

Most natural rivers could not be navigated by boats without using a lock system. Locks help by removing potential river hazards (such as snags and shoals) by maintaining water levels.

Boats can then travel on the river, in any direction, safely, above any dangerous sites.

This system of locks and dams allow commercial and pleasure boats to use the entire length of many rivers, using special doorways that are always locked!

The Key to Locking
- Boat enters lock
- Water is lowered (or raised)
- Boat continues on its way.
Interpreting Cultural Resources

Care must be taken when interpreting any cultural resources or sites because of the potential for theft and vandalism problems.

Corps resource management staff should seek the advice of their district archaeologist in determining how best to interpret sensitive cultural resources. Sometimes it may be best not to interpret at all.

Remember the Visitor

In planning and designing interpretive signs, it is important to remember how people learn. Consider the following:

- People learn better when they are actively involved in the learning process;
- People learn better when using as many senses as possible;
- People retain about:
  - 10% of what they hear,
  - 30% of what they read,
  - 50% of what they see, and
  - 90% of what they do.

Remember this when planning the graphics and writing the text for interpretive signs or exhibit panels.

Hints for Writing Text for Interpretive Signs

2. Avoid using technical or unfamiliar terms, abbreviations, acronyms, and jargon.
3. Write about what visitors can see or experience.
4. Use active verbs.
5. Add touches of humanity. Use first person quotations, make references to people's common experiences, and write with warmth and emotion.
6. Encourage visitor involvement.
7. Use colorful language such as metaphors, puns, quotations, etc.
8. Use Interpretive Principles as developed by Tilden, Cable, and Beck.
9. Do not try to influence the visitor. Present the facts, benefits, and rationale of the activity and let the visitor decide.
10. Remember to stay focused on the theme so your writing does not stray from the key message in the story.
11. Consider having different themes for the same trail for different seasons or different interests (e.g. birding trail, botany trail, history trail, all on the same trail) with different guides for each.
12. Consider access for people with disabilities in all aspects of trail design.
13. Keep it simple. Make it fun!