

the interpreters guide to:
**INTERPRETING THE RIVER
RESOURCE**

Forest Service
U.S. Department
of Agriculture

INTERPRETING THE RIVER RESOURCE

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THE CHALLENGE

While most river managers are blessed with an exciting interpretive resource, they are also faced with some special interpretive needs and problems. Water naturally attracts people, thus this provides a great opportunity to further educate them through interpretation. However, safety considerations, user problems, and competition between media and the natural magnetism of rivers, call for careful interpretive planning.

The mushrooming need for effective interpretation is evidenced in many ways. Visitors increasingly request information that will help make their river trip more enjoyable. Not helping a visitor to appreciate the resource's vulnerability along with the special management needs of the river results in action that is misguided, or no responsible action at all. Insufficient training of visitors in safe, comfortable, and low-impact use of rivers means that more of the manager's efforts and budgets go toward negative user impacts. Observations have also shown that a lack of appreciation by visitors for the effect of large numbers of users on the river resource and other users results in antagonism toward regulations and increased vandalism.

Dynamic interpretive programs can change all this, but it takes careful planning, creative design of media, and effective administration to have a quality program. Since detailed guidelines for interpretive planning and administration can be found in agency handbooks, these are discussed only briefly. The main emphasis of this booklet is on those media which are appropriate for use in river interpretation.

GETTING STARTED

There is an unfortunate tendency for managers to select the medium they want to use before deciding who their target audiences are and what they want to say to them. This has led to some costly mistakes. The "Communication Spiral," shown in Fig. 1, should guide all interpretive planning. Carrying out the steps in the sequence shown will produce a more effective communications program.

Audience analysis is the first step, and basic to everything that follows. A suggested checklist is shown in the Appendix. A lot of detail is required; but the more that is known about an audience, the better the resulting interpretation.

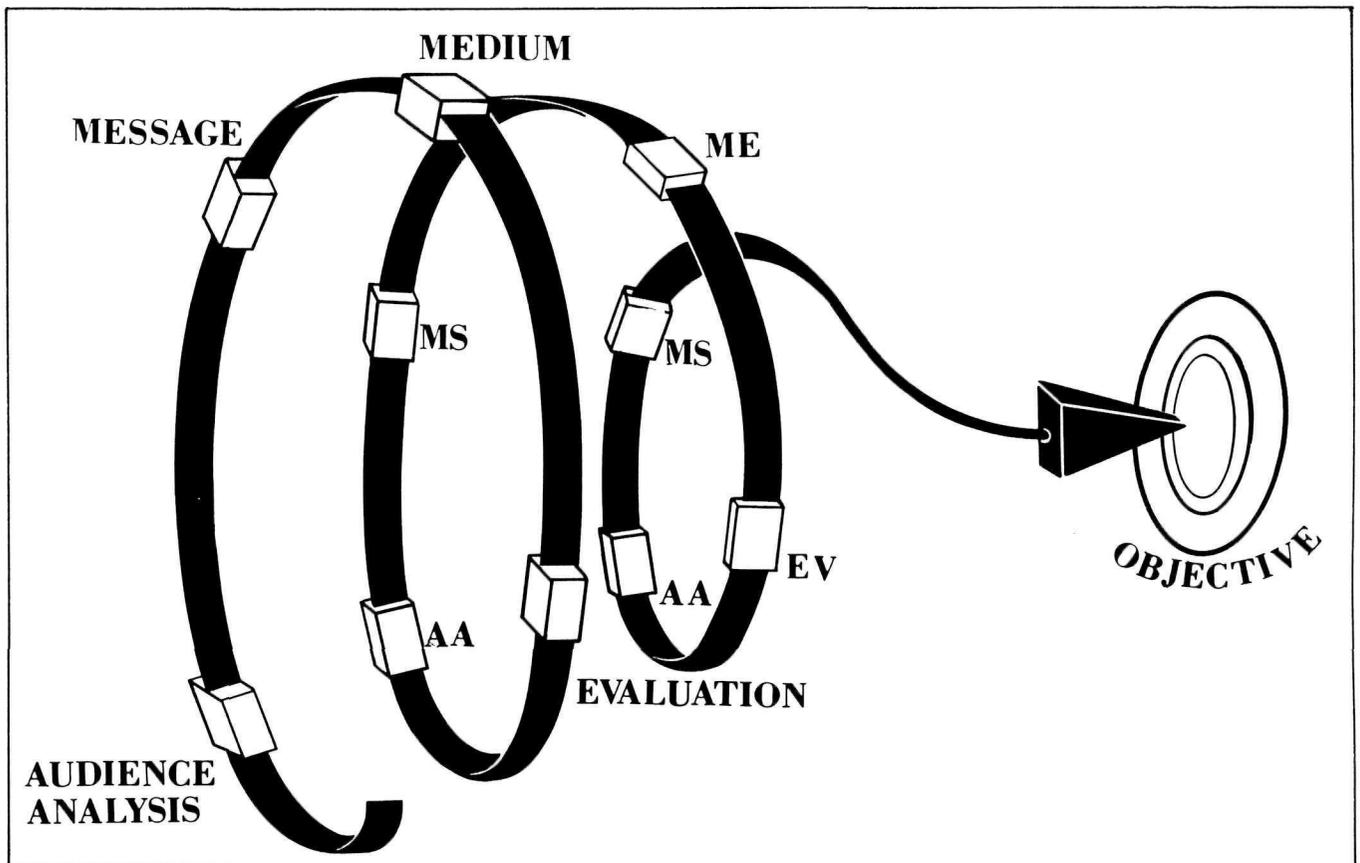


Fig. 1. Interpretive planning is an on-going process, providing for continual refining of the interpretation until the original (or revised) objective is met. This "Communication Spiral" shows the sequence of each cycle from audience analysis to evaluation.

One item needing close attention is visitor motivations as they relate to the river resource. In a recent study conducted at Dinosaur National Monument, Joseph Roggenbuck* found that it is important to understand the correlation between visitors' motives for taking a river trip and which types of interpretive media they preferred. Roggenbuck found that user motives varied and included stress release/solitude, autonomy/achievement, self-awareness, action/excitement, nature study, affiliation and status. He then correlated the relative strengths of these motives between various sub-groups (day vs. overnite users, experienced vs. inexperienced, commercial vs. educational, seasonal, etc.), and found that in certain settings, a group with one set of motives may have a different interpretive preference than those with another set.

Roggenbuck's findings are supported by the following situation that occurred at one Forest Service visitor center. The center staff offered to conduct canoe trips one season, which resulted in little or no public interest. The staff discovered that these trips, though offered in a wilderness-type setting, were in conflict with the visitors' stress release/solitude motivation. A switch to brochures and other self-guided media proved successful.

* Roggenbuck, Jos. "Socio-Psychological Inputs into Carrying Capacity Assessments for Float trip Use of Whitewater Rivers in Dinosaur National Monument". 1975 Unpublished Ph.D. dissertation, Utah State University, Logan, Utah.

After identifying target audiences, the manager must match the *message* with the audience and define *objectives* for each situation. The message and the objectives are based on the needs of both the audience and management, and are drawn from a comprehensive story inventory of the site.

The objectives can mean the difference between a "blah" and an exciting experience. After all, if the manager doesn't know what he wants to accomplish through interpretation, the visitor will most likely be lost in a haze. Therefore, objectives should be specific and measurable, and should be based on clear resource management goals. An example of good direction is seen in the river-oriented programs at Lord Stirling Park in New Jersey:

- To give visitors an enjoyable learning experience that is unique and beyond anything that can be achieved at any other kind of facility.
- To provide foundation experiences for youth which lead to positive attitudes toward the environment.
- To demonstrate that there are many possible uses of natural resources some of which will bring positive benefits to man, others which lead to negative consequences.
- To demonstrate how visitors can actively, effectively, and creatively involve themselves in correcting the abuses of their environment.

As they have at Lord Stirling, objectives should go beyond awareness and motivate visitors to action. (See Fig. 1 in Wagar's recent article in the *Journal of Interpretation*.)

The third step is the selection of that tool, or *medium*, which is best suited to delivering each message and meeting objectives. (Refer to those references by John Hanna and Grant Sharpe for discussions on the advantages of each medium.) Be aware, too, of the medium's appropriateness to the setting: i.e., a message repeater may work well in some urban river settings, but could only serve to irritate visitors to a Wild and Scenic river. The media which are finally selected should then be knit into an integrated and effective system. This system should be outlined in an Interpretive Plan for the Unit.

The fourth step in the refinement cycle is *evaluation* of the interpretive program's effectiveness. Guidelines for this critical step are discussed in articles by Dr. J. Alan Wagar and Dr. Chandler Screven.

UTILIZING INTERPRETATION AS A MANAGEMENT TOOL

One aspect of interpretation which managers often overlook in their planning is how it can alleviate certain user problems. Inventory your own user problems. What are they? Where and when do they occur? How extensive are they? Who creates them and why? How can interpretation reduce both the problems and the costs associated with them? Once these questions are answered, the manager is ready to define, in detail, his target audiences and message objectives.

For example, boating accidents were a problem on the Ashley National Forest in Utah. The Forest staff, in cooperation with the Coast Guard Reserve, set up a program in which three times a week boater safety talks and demonstrations are given at various campsites from a boat on a trailer. The Virginia Game Commission has another approach, using puppets to demonstrate elements of boating safety.

How about other water-related accidents? At the Park Service's Ozark Scenic River in Missouri, a large, back-lit transparency graphically shows water safety precautions. By using cartoon figures and *no* text, various problems and hazards (drowning, flooded campsites, waste disposal, etc.) as well as the proper response or preventive measures are illustrated. It is displayed in a river-side visitor center and its design draws viewers to search for all the

situations illustrated. A popular exhibit, it has excellent possibilities for showing rules and regulations in a more interesting and positive manner.

Is there a problem with user dispersal? The answer might be found in developing a canoe-orienting program which prepares visitors for safely leaving the major routes and traveling less congested areas; or, install a low-power radio transmitter along major highways and direct river users away from sites already at capacity by telling of other sections in the area which can still meet their needs. These radios can reach up to 80% of your visitors. Or you could adopt the Bitterroot National Forest's idea of a brochure which shows, by the thickness of the trail line on the map, the amount of traffic on each route.

If you anticipate strong public reaction when initiating a new regulation or prohibiting a popular activity at a heavily used site, consider what the National Park Service did. The quantity of fish that was wasted and dumped into garbage cans resulted in a loss of wildlife food, and made it necessary for the Park Service to prohibit fishing from the famous "Fishing Bridge" at Yellowstone. Using interpretation as a tool, they installed TV monitors at the bridge and showed video-tapes which discussed fisheries resource and the reasons for the prohibition. The anticipated outcry never came. The key was in explaining the "why."

INTERPRETIVE SERVICES

self-utilized media

Once the interpretive planner has gone through the planning steps and analyzed user problems, what is the likely outcome? The following pages describe several facilities and media which have been developed for visitors to river-oriented areas across the country by using this process. Contact the unit or agency mentioned for further details on those services which could add sparkle to your own programs.

PUBLICATIONS

Printed media are often the first to be considered by many interpreters who deal with river users. Publications have an advantage where visitors want to learn at their own speeds and in their own groups. They can often deliver more information than many other media forms. The pamphlets or brochures can also be taken home and studied in more detail. Printed materials are particularly good in those settings (wilderness, etc.) where conducted activities are not appropriate.

One major use of the publication is as a river guide for canoeists. Stress practicality by printing on waterproof paper and producing it in a pocket-sized format (about 4" x 8"). Pocket-size may necessitate printing it as a booklet showing sequential river sections on each page; on a single long sheet that accordion folds into a smaller publication; as a large road map, or rolled like a scroll. The last three forms may be preferred because they show a long, unbroken stretch of the river and are easier for visitors to use to orient themselves. The scroll is often preferred because of its obvious utility.

The guide to Oregon's Wild and Scenic Rogue River is an example of a complete river guide. Printed and folded as a large road map, this guide shows almost the entire wild and scenic section of the Rogue River on a single side of the sheet. Keyed to mileage points and landmarks, information which deals with river conditions and is of interest to boaters is printed in blue, while interpretive messages are interspersed in black. In addition to the river guide, the publication includes sections on outdoor manners, boating safety, recreation facilities, an overview of the history, vegetation, and wildlife of the Rogue River and sources for further information.

When publications include information on site and food selection, fires, equipment, and waste disposal, they become valuable in handling pre-trip requests and can be distributed at launch points or through outfitters, Chambers of Commerce, or sporting good suppliers.

Publications can also be used to interpret special features along the route — an old mill, miners cabin, or Indian site. If you want to avoid attracting increased river use to a remote area, while explaining the unique features to those who do visit, consider following the Bureau of Land Management's (BLM) example. BLM produced a small brochure, "Of Gold'N Men," and made it available at the register box which was located at an old cabin near a Rogue River campsite. The brochure is not available anywhere else; thus, only river users have access to it.

In developing all media, including publications, follow the principles of good advertising and design. Make sure the publication communicates rather than smothering the reader with words.

INTERPRETIVE TRAILS AND TOURS

In a sense, the above river guides are self-guided river trails. But, interpretive canoe trails are becoming increasingly popular. The St. Croix self-guiding canoe trip (Minnesota State Parks) which follows a popular wild river is a good example of this medium. Here, riparian ecology, aquatics and wildlife ecology have been interpreted for the visitor. To keep the interpretation in mood with the wild setting, brochures with maps keyed to mileage or numbered points may be the best medium. Landmark trail guides displaying photos of the area's unique feature are also good choices. Elsewhere, interest points may be marked with signs, buoys, numbered posts, or other structures, but *only* when these do not intrude on the visitor's experience.

Don't dismiss the unusual. At Virgin Islands National Park, an *underwater* trail has been set up. Visitors can take snorkel lessons before attempting the underwater route where they read the labels through their face masks.

The more common interpretive trail skirts the shoreline, adding to the visitor's knowledge of river ecology from shore through the use of labels, message repeaters and brochures. At Patuxent River Park in Maryland, a floating boardwalk traverses a marsh and features a 50-foot observation tower from which visitors can watch waterfowl (Fig. 2).

Before developing any trails, check your audience analysis. Does the medium meet the need? Are the message and location such that the visitor will use the interpretive resource? A canoe campsite could be the wrong location for a land-based trail, if the majority of boaters use the river because of its solitude or the challenge it offers. This group may not be receptive to interpretation.

When selecting and designing media for land-based trails, keep in mind such potential problems as vandalism, vulnerability of the tread to boat waves, and user conflicts. Some of these problems have developed at a streamside trail near Seattle where joggers and walkers have come into conflict; and, on a braille trail on the George Washington National Forest (Virginia) that was routed near a favorite fishing spot and has had its guide rope cut repeatedly by antagonistic fishermen. Remember, too, while drawing attention to unique features improves the interpretive resource, it may also encourage vandalism of the feature.

SPECIAL SERVICES

Wayside exhibits, interpretive signs, and self-activated recorded messages also have a place in the world of interpretation. Use them at launching points to orient users, along the river to interpret special historic or natural features to boaters, and at wayside stops along roads to explain the river to auto travelers.

The low-power radio transmitter offers exciting possibilities. The transmitter is installed at a strategic point along a highway, and visitors can tune into the special announcements by switching their car radios to a specified frequency. These messages can be changed hourly to give visitors current information. Studies show that over 75 percent of the visitors are reached through the use of this method, indicating the radios may be invaluable in delivering safety messages, diverting canoeists to lesser used routes, announcing fire conditions, and making other announcements essential to visitor safety and enjoyment. New equipment developments give the transmitter a range of up to five miles, increasing its usefulness.

Unmanned information stations provide more opportunities. Whenever possible, take advantage of existing historic or other unique structures for visitor contact stations (see Fig. 3).



Fig. 2. Floating boardwalks & waterfowl observation towers, such as these at Patuxent River Park in Maryland, expand your self-guided opportunities.



Fig. 3. Consider capitalizing on the interpretive values of historic structures. This mill house at Markham Springs, on the

Mark Twain NF in Missouri, was converted to a popular mini-visitor center. (Credit: Forest Service)

However, it may be necessary to build a facility which meets your special needs. One such facility is the Stream Profile Chamber located on a self-guided trail on the Tahoe National Forest (California). The Chamber attracts several hundred thousand visitors each year, giving them a first-hand look at the dynamics of a live stream and showing the importance of watershed management in maintaining a healthy stream (Fig. 4).

A WORD ABOUT VISITOR INVOLVEMENT

Although visitor participation is recognized as one of the best ways to promote effective and enjoyable learning, most interpreters feel interactive exercises are associated only with personal services. However, interaction should be a part of *all* media whenever possible. Excellent sources of ideas for self-guided media are the articles by Dr. Chandler Screven which have been published in *Museum News* and other publications. Dr. Screven's work with exhibits at the Milwaukee Public Museum and the Smithsonian Institution show the value of such tools as small, hand-held teaching machines with punch cards, rub-off response dots (see Fig. 5), "magic pens" that reveal answers, and other simple interaction devices. Visitors can use these tools to record their answers to questions asked on exhibit or trail labels, tour booklets, or tape-cassette messages. The results of pre- and post-tests and the extent of visitor interest have shown these interpretive tools to be highly effective.



Fig. 4. Through these windows, visitors to the unique Stream Profile Chamber on the Tahoe NF get a below-surface look at a live mountain stream and the trout and other life it harbors. (Credit: Forest Service)

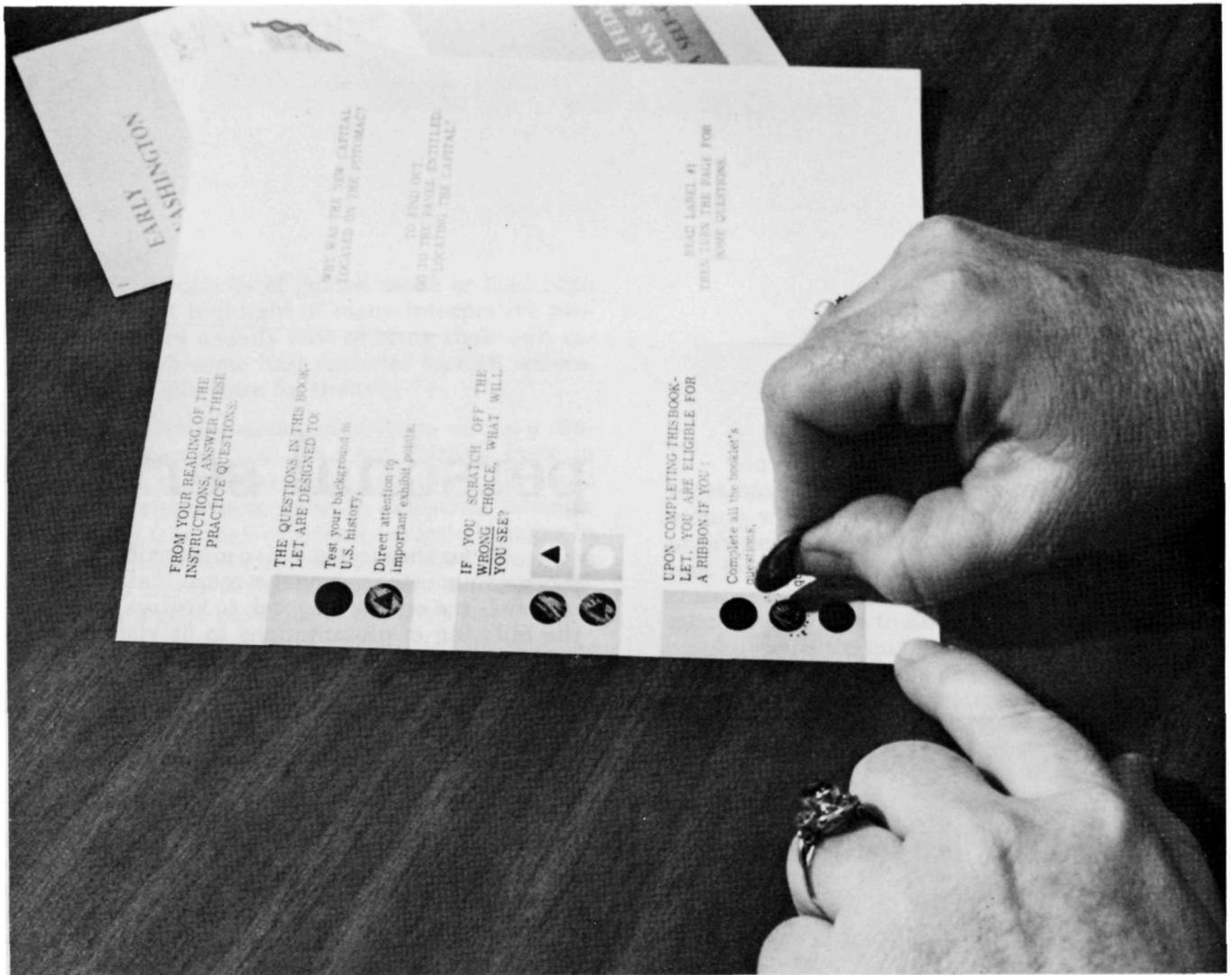


Fig. 5. Visitor interaction should be a major goal of interpretation. This self-guided tour booklet, used at the Smithsonian Institution in Washington, D.C., encourages learning by provid-

ing feedback. Visitors receive booklets or tokens as a reward for perfect scores. Such tools could be applied in all interpretation. (Credit: Forest Service)

personal services

By far the most effective and flexible interpretive medium is the personal contact. It allows for the use of all the senses; feedback to visitors' questions; the tailoring of presentations to fit visitors' backgrounds, abilities and interests; flexibility in providing changeable messages; guiding interaction with and among visitors; effecting attitude or behavior change; and, protecting unique features.

CONDUCTED TRIPS

ON FOOT

Guided walks and wades are common activities along rivers. They are easily arranged, involve visitors directly with the river, and rely on rather simple equipment and safety measures. By providing visitors with hand lenses, thermometers, dip nets and seines, collection bottles, water quality test kits and some guidance, they can have an exciting time doing their own interpretation of river systems (see Fig. 6). The water investigation, developed for use with Forest Service Environmental Education Workshops, is a very popular activity that leads visitors to their own conclusions rather than feeding them answers. Riveredge Nature Center near Milwaukee supplements similar field investigations with an excellent list of follow-up activities. Students are asked to find out how sewage affects water animals, to help clean up a pond, to encourage parents not to use detergents with phosphates, etc. Teachers report that the program's objective — to encourage groups to develop an action plan to resolve a local environmental problem — has repeatedly been translated into action.

In planning programs, consider ways to insure that visitors are properly prepared for the trip (good footwear, clothing, etc.). Also, keep in mind necessary safety precautions (i.e., avoiding slippery rocks, extremely cold water, steep drop offs, dangerous currents). Programs should not only result in heightened visitor enjoyment, but also in behavior that reflects respect for stream life, equipment, and regulations.



Fig. 6. Stream investigations often open up new horizons to visitors and school groups alike, leading them in to their own exciting self-studies and then into community action. (Credit: Nat'l Park Service)

BY CANOE

The popularity of guided canoe or float trips makes them a highlight of many interpretive programs. Visitors usually rent or bring their own canoes, although some host agencies furnish canoes, paddles, and life vests for the trip.

In urbanized areas, these trips can be a dramatic interpretive tool. At Lord Stirling Park in New Jersey, canoe trips range from two to six hours and visitors pass from rural to industrial settings. During the trip, they experience drastic changes in water quality. Visitors' subsequent involvement in flood plain zoning ordinances and water quality legislation is a good indicator of the trip's impact.

One variation of these trips are the popular inner tube and air mattress float trips offered at some National Park areas (Fig. 7). Groups study river ecology, comparing findings between quiet pools, riffles and marshy edges.

Areas which offer longer conducted river tours have often found these trips to attract individuals who want the security of a guided trip, but aren't necessarily interested in interpretive activities. In these cases, the interpreter serves more as a resource person than as an instructor/facilitator, and must be sensitive to his audience so as to avoid an overkill with too much interpretation. These canoe tours help show visitors safety skills and low impact river use, and at the same time are an excellent opportunity to add to visitor understanding of river management.



Fig. 7. Float trips down the Merced River at Yosemite Nat'l Park have grown so popular that, in order to protect both the

resource and the quality of the trip, the Park Service has had to offer them by reservation only. (Credit: Nat'l Park Service)

Interpreters must give close attention to potential safety problems. On canoe trips at Lord Stirling Park (New Jersey), children under 12 years are permitted only if they travel with the parent in their own personal canoe, and all participants must sign a release of responsibility (see Fig. 8). Programs at other sites have additional rules: no more than two adults to a canoe; all participants must wear a life jacket and know how to swim; everyone must wear tennis shoes as protection from broken glass or sharp rocks; the naturalist travels the route within seven days before the scheduled trip to become familiar with the route and possible dangers; and, each trip must have an interpreter and an assistant who brings up the rear, and both people must be capable swimmers with water safety training.

DEMONSTRATION AND SKILLS PROGRAM

Many concepts can be interpreted in a dynamic way by using demonstrations. Workshops on river skills can't help but attract audiences. At Yellowstone National Park, a demonstration on fly fishing, fly tying, casting, and fishing strategy is a popular program with visitors and park managers. Visitors learn skills which help them to better enjoy their sport, while managers get a chance to introduce Yellowstone's fisheries management and catch and release program.

Family canoe workshops covering canoeing skills, safety, river reading, and ecology (Fig. 9) are becoming common and proving worthwhile. One such workshop, offered at a Canadian nature center by Edmonton Parks and Recreation Department, includes an actual canoe trip down the Saskatchewan River during one of the five skills sessions.

These workshops are of direct benefit to the visitor, placing him in the role of a river user and bringing him closer to the water resource. In these situations, resource interpretation takes on a new meaning for the user. At the same time, he learns how to be a better river user, how to better enjoy a water sport, and how he can help to minimize some river management problems.

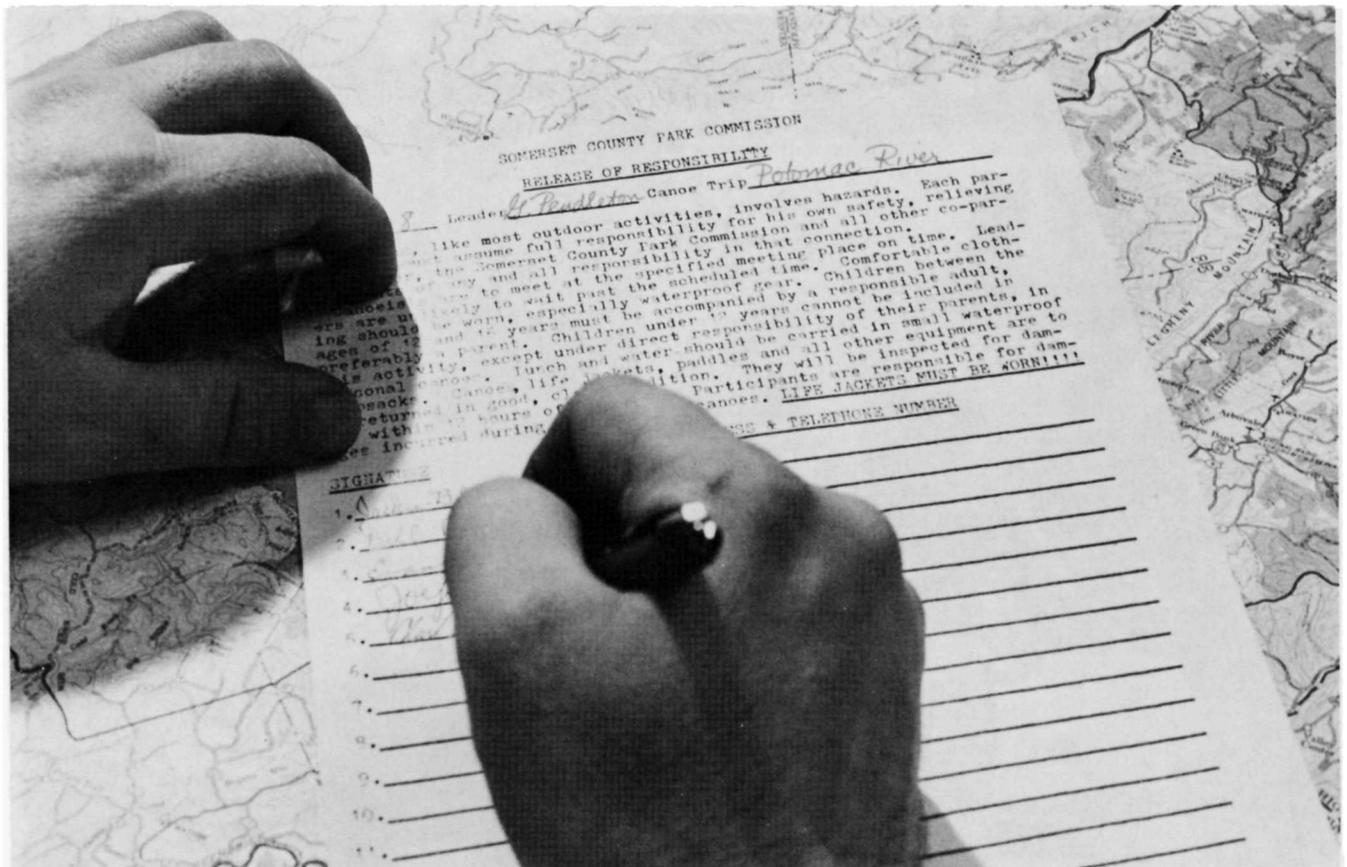


Fig. 8. River activities require special safety and liability considerations for the manager. But having visitors sign a release of responsibility may help the manager rest easier, but is no

substitute for carefully planned safety precautions. (Credit: Forest Service)

PRESENTATIONS

In contrast to guided walks and trips, group presentations while on a boat tour can allow the use of a wider range of media. Interpreters may present on-deck, audio-visual programs, children's programs, guided walks on-deck and on-shore, as well as developing exhibits, and providing general informational services.

In California, Forest Service naturalists give presentations during boat tours of Lake Tahoe, where they encourage discussion of water management and obvious pollution problems. On the other hand, the Helena National Forest in Montana stretches its limited budget by cooperating with private river-boat tour operators. Forest staff provide private tour guides with basic information and training assistance, while showing them the need for specific messages regarding fire safety, resource management, and user problems. As a result, passengers hear land management messages from the private sector which adds a degree of acceptability.

Campfire programs at canoe campsites are another possibility. Sites for these programs must be selected with caution when in wilderness-type settings, so as to make sure presentations are patronized, but that they don't infringe on the visitor's back country experience.



Fig. 9. The 75 participants who showed up for a canoe skills workshop at Trees for Tomorrow Camp in northern Wisconsin required a staff of about 17 instructors, most of whom were

experienced volunteer instructors. Such skills sessions are extremely popular and can be valuable in encouraging low-impact river uses.

Don't limit the use of audio-visual presentations to interpretation alone; they also offer countless training opportunities. In one successful slide program on canoe skills, each visitor is given two cardboard cards — one green and one red. After showing a short series of informational slides, a question slide is flashed on the screen and visitors are asked to answer the question by holding up the appropriate colored card: for example, a slide showing two alternative routes through rapids, the green route and the red route. The audience's understanding of the subject is noted by the number of correct colored cards held up. The interpreter then encourages group discussion which clarifies the subject or otherwise adjusts the emphasis of the presentation. This process has proven beneficial to the visitors and the interpreter.

OTHER PERSONAL CONTACTS

Roving contacts by canoe rangers is another way to reach river users. On the Current River in Missouri, Park Service interpreters travel the river in decked canoes, equipped with seines, minnow traps, and other equipment for use by any visitor who wants to participate in informal river studies.

Environmental work projects can also have great educational value. Whenever a group is out cleaning up trash at a canoe campsite, building stream channelization structures, or working to halt pollution or erosion, they become very receptive to interpretive messages.

program balance

When designing the overall program, remember that balance is the key to effective interpretation. Visitors come with all sorts of backgrounds, abilities, and needs. It takes a carefully designed composite of media to effectively communicate your message to all of them.

The comprehensive program at Lord Stirling Park is a good example of balance. Their "Marsh Mullers" (4-7 year olds) investigate marshes and streams. There are also the "Swamp Stompers" (8-12 year olds), "Indian Lore" groups (which study Indian canoe skills, food gathering along rivers, etc.), "Conservation Corps" (open to grades 7 through 9. They deal with management techniques, water sampling, stream clearing, erosion control, wildlife management), and the all day "Wetland Ecology" canoe sessions for grades 10 through 12. These are supplemented by a wide range of workshops and tours for adults and family groups.



Patuxent River Park (Maryland) offers a wide variety of less structured activities. Two boats are available for river studies (Fig. 10), while twelve canoes can be reserved for recreational use. A wetlands boardwalk, mobile bio-van (equipped to monitor river environments), river orienteering course, fishing trail (requiring a special permit for use), and homemade raft regatta are just some of the program's activities designed to appeal to a wide spectrum of visitors.

Fig. 10. Group tours by boat are just one phase of an exciting river-based interpretive program offered at Patuxent River Park in Maryland. Their wide range of activities reach all age groups and interest levels.

GETTING THE JOB DONE

Listed among the references are several books which will help guide development of interpretive programs. General guidelines can be found in the publications by Tilden, Sharpe, and Alderson and Low. These contain information basic to planning, media development, and program administration, as well as basic interpretive philosophy. For specific ideas revolving around water related activities, consult books by Van Matre, Hammerman, and others. For content and for some beautiful examples of the magical side of interpretation, be sure to read Mae Watts' book (it's a classic), as well as those by Eckert and Dillard.

Having the knowledge is one thing, but get-

ting the job done is quite another. A major barrier to program development is the retaining of knowledgeable personnel. Try to hire trained interpreters, either full-time or seasonal who have the necessary media and communications skills. However, budgetary, personnel, or other limitations may force you to turn to other sources for help. To accomplish initial planning for interpretation on the Eleven Point River, the Mark Twain National Forest contracted with a University. The school did the inventories and made recommendations on media and facilities. The Siskiyou National Forest in Oregon turned to local volunteers for the production of a trail log for the Rogue River.

Many other Forests have found volunteer interpreters to be an invaluable source of help, with one visitor center having trained a cadre of about forty individuals. There are few if any limits on where these giving people can be utilized — programs, presentations, demonstrating pioneer river skills and crafts, producing media, or as specialty experts to help outline story opportunities along the river route. Staff at the Voyageur Visitor Center on the Superior National Forest (Minn.) turned to volunteers for help in reaching Boundary Waters Canoe Area visitors. The call for assistance was answered by members of an Outward Bound group who were looking for a chance to use their skills while serving others. The group conducted two-hour skills sessions for BWCA visitors. The audiences were split into small groups which moved from station to station, learning and practicing the various skills taught by two Outward Bound volunteers located at each station. They picked up tips on paddling techniques, camp and cook fire safety, low-impact camping, portaging, map reading, and many other skills.

Special University programs such as student internships, senior practicums and work-study are other excellent sources of trained assistance.

One source of outreach help that is often overlooked by remote resource units are interpretive organizations within the areas from which most of their visitors come. Interpreters can contact these groups, invite them on a show-me trip through the resource unit, point out user problems, and then suggest possible ways in which the visiting interpreters might incorporate some of the resource management needs of the area into their urban programs. Some at home possibilities include a trip planning workshop for wilderness travelers and a message campaign aimed at educating city dwellers about how their consumptive habits and activities directly effect the management of distant resource units. These interpretive organizations may represent county and metro park systems, private nature centers, state and federal agencies, universities, and museums. These groups can often reach several hundred people with one program and are thus invaluable in reaching potential visitors *before* they leave home.

WHERE TO GO FOR HELP

- Alderson, W. T., and S. P. Low, *Interpretation of Historic Sites*, Nashville, Tenn.: American Association for State and Local History, 1976. 189 p.
- Brown, William E., *Islands of Hope*, Washington, D.C., National Recreation and Parks Assn., 1971, 194 p.
- Dillard, Annie. *Pilgrim at Tinker Creek*. 1974. Harper's Magazine Press.
- Eckert, Allan W. *Wild Season*. 1967. Bantam Paperback. Boston
- Hammerman, D. R., and W. M. Hammerman, *Teaching in the Outdoors*, Minneapolis, Minn., Burgess Publishing Co., 1964, 120 p.
- Hanna, John W. *Interpretive Skills for Environmental Communicators*, 2nd Ed., 1975. Texas A&M Univ. Press.
- Lockley, R. M., *Animal Navigation*, New York City, Hart Publishing Co. Inc., 1967. 205 p.
- Screven, Chandler G. "Exhibit Evaluation: A Goal-Referenced Approach." *The Curator*, Vol. 19, No. 4, 1976.
- _____, "Learning and Exhibits: Instructional Design." *Museum News*, Jan.-Feb. 1974. pp. 7-10.
- Sharpe, Grant, ed., *Interpreting the Environment*, New York, John Wiley and Sons, Inc., 1976. 566 p.
- Tilden, Freeman, *Interpreting Our Heritage*, Chapel Hill, N.C., University of North Carolina Press, 1957, 110 p.
- Van Matre, Steve, *Acclimatization*, Martinsville, Ind., American Camping Association, 1972. 138 p.
- _____, *Acclimatizing*, Martinsville, Ind. American Camping Assn., 1974. 225 p.
- Wager, J. Alan, "Evaluating the Effectiveness of Interpretation," *The Journal of Interpretation*, Summer 1976. Vol. 1, No. 1; The Ass'n of Interpretive Naturalists, Inc.
- Watts, Mae T., *Reading the Landscape*, N.Y. Macmillan Publishing Co., 1957. 230 p.

APPENDIX

AUDIENCE ANALYSIS CHECKLIST

Descriptive Data

Origin

- Urban or rural?
- Local or distant?

Occupation & economic level

Size and nature of group

Personality traits (if applicable)

Age

Sex

Education

Types of questions asked

Attitudinal Data

Interests

Expectations and basic motivations

Beliefs & prejudices

Values

- Hard to get a handle on without stereotyping

Goal-oriented vs. receptive

- When & where are they in either state?

Present knowledge of subject

Interest in subject

- Hostile or Apathetic?

Attitude toward Forest Service

Attitude toward interpreter!

Behavior Data

Mode of transportation

- Any access problems?

Purpose of visit

- Restrooms?
- Along for ride?
- Definite goal?

Length of stay

Attendance:

- Daily, weekly, and seasonal cycles

Frequency of visits

- Repeater or first time?

Traffic flow pattern

- Sequence of visitation;
- Route

What is their destination?

Points of visitor concentrations

Where do they stay during visit?

- Confined to specific area?

What are their expected activities during their stay?

What other activities are related to their on-Forest visit?

Special event?

Attraction?

Who *does Not* participate in VIS services?

Why not?

Access?

Inability?

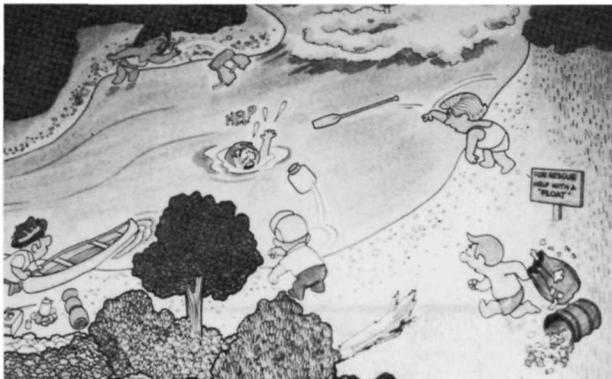
No interest?

What impact do they have?

Do you want to reach them?

GUIDELINES

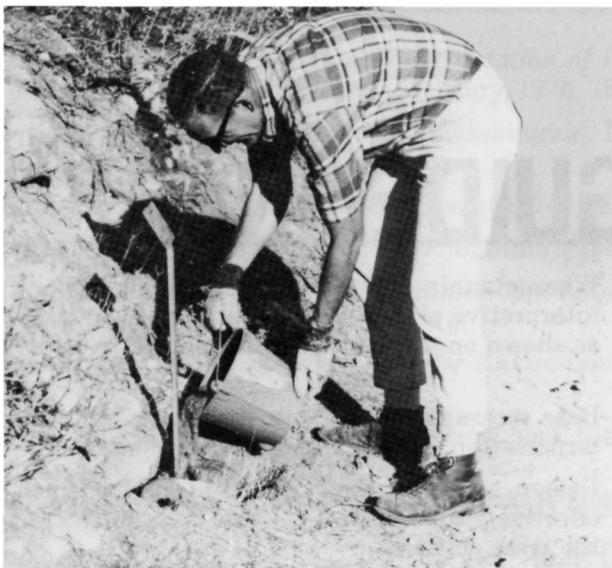
- When planning the overall program, follow the interpretive planning steps in proper sequence as shown on the "Communication Spiral" (Fig. 1).
- Base messages on Tilden's six principles of interpretation, outlined in his book.
- Design a unified combination of media which effectively communicates while it complements the river setting.
- Whenever possible, use participatory activities or skills sessions to convey resource concepts.
- Strive to motivate and prepare visitors to do their own interpreting.
- Make quality and effectiveness of interpretation the primary concern:
 - Provide for careful personnel selection, training, and periodic evaluation to assure quality of contacts.
- Keep all in-place media maintained in a good quality condition.
- Inventory hazards and provide FULLY for visitor safety in all river activities.



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- (1) (Ozark National Scenic Riverways, Missouri)—This section of a larger exhibit shows an effective approach to interpreting river safety, regulations, etc.
- (2) (Clearwater National Forest, Idaho)—Wayside signs, properly located and maintained, can effectively deliver on-site information at the point of interest, and are always available for visitors.
- (3) (Coronado National Forest, Arizona)—Here families of a Junior Women's Club pool talents to construction on interpretive trail. Volunteers can boost programs in a variety of ways.
- (4) (Ozark National Scenic Riverways, Missouri)—A retiree/volunteer demonstrates john boat construction for visitors to the Current River.
- (5) (Nicolet National Forest, Wisconsin)—Short-range radio transmitters reach visitors enroute, over their car radios, giving latest camping weather or river conditions, local events, interpretive messages, etc.
- (6) (Monongahela National Forest, West Virginia)—Utilize non-traditional opportunities, such as routing messages in the tread of boardwalks.
- (7) (University of Washington, Arboretum, Seattle)—Urban interpretive trails are an important link between the synthetic and natural environments.
- (8) (Ashley National Forest, Utah)—This automatic question-answer board contains recorded answers to five commonly asked questions. Mounted in recreation areas, this flexible unit can be changed daily for up-to-date information.
- (9) (Ashley National Forest, Utah)—Where boating accidents are a problem, safety demonstrations, such as this one at Flaming Gorge NRA, may be the solution. Scheduling, location and program format are critical to the success of these programs.
- (10) (Old Fort Williams, Thunder Bay, Canada)—Living history is effective when it's appropriate to both site and the interpretive message. Here the story of the voyageurs is told at the reconstructed Old Fort Williams, their rendezvous point.
- (11) (Proposed Fathom Five Provincial Park, Canada)—For intensive underwater interpretation, try some of the ideas from this development plan for Fathom Five: surface and underwater boat tours; snorkeling lessons; guided snorkeling tours; underwater interpretive room; flexible underwater walk thru tunnel made of individual observation units; underwater TV cameras focused on feeding areas, etc.
- (12) The Scroll-type river guides (on water repellent paper) is one popular format for publications for canoeists. Guides could also be printed on plastics, doubling as rain gear or ground cloth.



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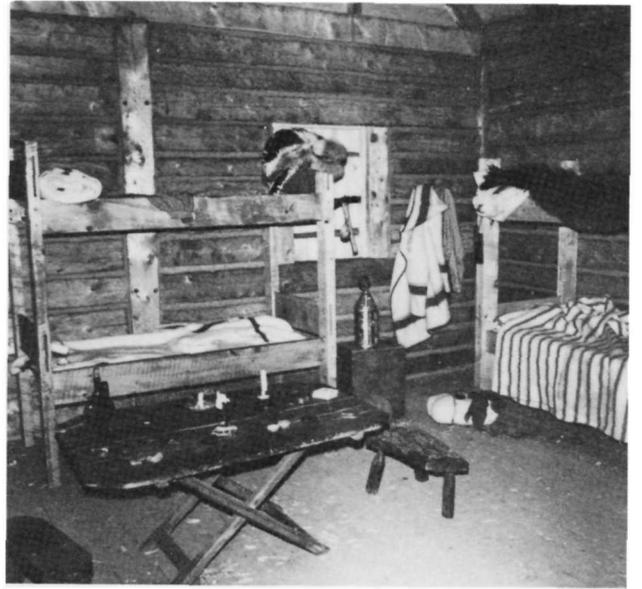
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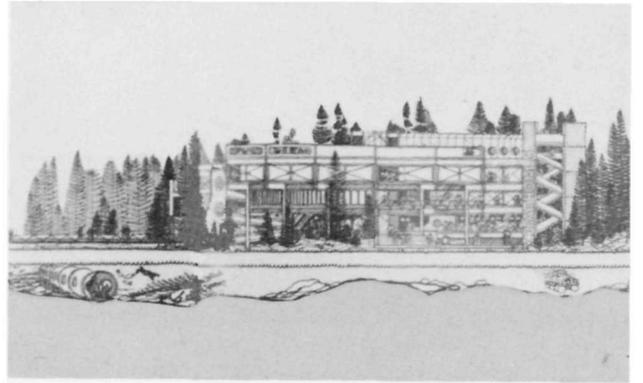
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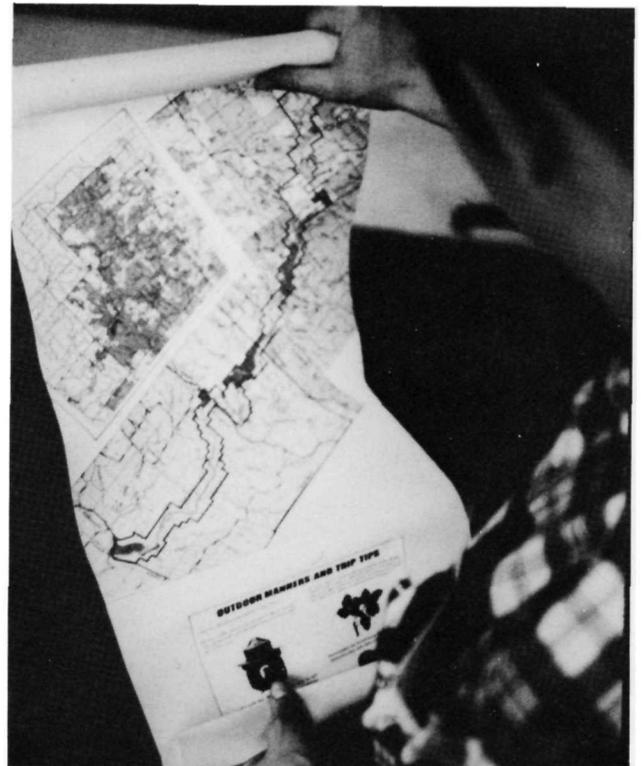
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