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SOME THOUGHTS ON SEASONAL TRAINING

A couple of common sayings are that the shoemaker's children go without shoes and that the doctor's family goes undiagnosed and untreated. I wonder if the same idea applies to the ways in which training is administered for seasonal interpreters? Just as the shoemaker and the doctor are presumed to know how to accomplish their specialties, interpreters are presumed to know the principles of effective interpretation for park visitors. Are these principles of interpretation applicable to the training of interpreters? If so, are these principles being followed? My feeling is that training is a form of interpretation and that the principles do apply and should be followed.

I'd like to emphasize two principles of interpretation which I think are essential in training: (1) every audience is different and should be treated uniquely, and (2) the audience should be involved in the process of learning. The two principles are related, of course, because involvement helps us discover uniqueness.

I believe it's important to give newly-arriving seasonal interpreters special training that's adapted especially to their needs. For the last eight years in Yellowstone, I have had the good fortune of handling the first four days of training for newly arriving seasonal interpreters. There are usually 18-25 people in the group. There are several things I try to keep in mind as I conduct this training.

It's important for me to quickly become acquainted with the group, and each member with each other. To facilitate this, we begin the training with sweet

rolls and beverages at some central point in the park. We all put on name tags. and as we board the bus, the rule is established that no one may sit by the same person on the bus more than once, but each person must find a new seatmate at each stop. We're on the 145-mile loop road around the park for four days and each night every person has a different roommate in a double room.

As we tour the park, trainees observe a great variety of the types of activities they'll be doing later on. These activities--historical tours, campfire circles, conducted trips, visitor center operations, roving duty demonstrations and campfire programs--are all done by returning seasonals. Park visitors are also invited to participate in these conducted events in order to make them more realistic. I choose those who conduct these activities so as to provide a cross-section of the interpretive staff (old-timers, last year's beginner, male, female, etc.), to give orientation to the park itself, to demonstrate what the trainees will be doing

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during the summer, to show that interpretation can be accomplished in a great variety of ways. Each interpreter has his/her own style, and I want to encourage each trainee to develop his/her uniqueness in a way that will be most effective. This gives some on-site examples of interpretation from which principles of interpretation can be extracted.

After every conducted activity, the trainees sit down with the interpreter who conducted it and are involved in an analysis of the event. I usually start the discussion by asking the trainees to give the interpreter some feedback, to tell him/her what they thought was effective. (There is almost always something praiseworthy in every interpretive event.) We start by emphasizing the positive, an important concept. Then, suggestions for improving the activity are considered. The interpreter becomes actively involved in the discussion, many questions are asked, the trainees are provoked to discover the principles of interpretation for themselves, which I think is far better than listing the principles for them. Self-derived standards are more effective than those that are imposed from the outside.

At the end of the training period, a summary of interpretive principles is made. Then, the trainees are divided into small groups to practice the principles they've hopefully internalized. They are given territories to interpret and time to plan a conducted activity. Each presents their activity for the other and for evaluation. This process requires intensive involvement.

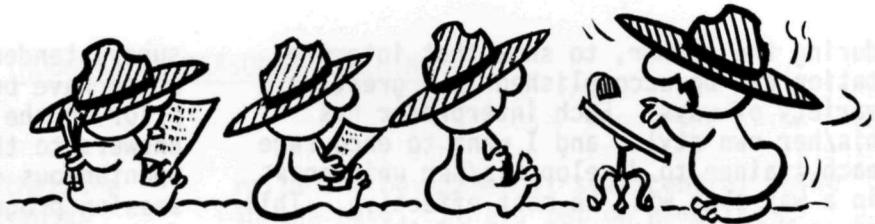
Three days after this initial training is completed, two all-day sessions for all park interpreters are held. I'd like to highlight one event which has occurred during this 2-day question and answer period given by the superintendent. The

superintendent is given a list of questions which have been gathered from seasonals prior to the training. His forthright answers to these questions, and to the spontaneous questions that occur as the session progresses, have been a vital factor in establishing an effective rapport with the seasonal. Since a primary function of interpretation is to support park management policy, it is essential that a harmonious relationship exist between the superintendent and the interpreters. The give-and-take with the superintendent is especially effective in establishing this relationship. During the process, the superintendent learns of the unique interests of the interpreters and the interpreters are afforded an opportunity to understand the rationale behind the decisions the superintendent must make. Just as the understanding of a park by park visitors promotes the protection of it, the understanding of a superintendent promotes a commitment to the support of park policies.

Training, then, should involve the trainees in a process which takes into account unique differences. It is to be hoped that trainees will not be lined up in rows and "lectured at," but that they will be allowed to know and learn from each other, that they will receive training which is specially planned for them, that they will be encouraged to become committed to the support of park policy by being involved in it.

Bill Lewis
Communication Specialist
Yellowstone N.P.

FORUM



"HERESY" TOUCHES NERVE IN TRUE BELIEVERS

The article, "Some Radical Comments on Interpretation: A Little Heresy Is Good for the Soul," which Dr. Kenneth Nyberg originally presented at the last Association of Interpretative Naturalists, and which we ran in the January '78 issue of IN TOUCH, apparently raised more hackles, and actually elicited more responses from our readers, than anything we have published in a long time.

In the following paragraphs we'd like to cite portions of a number of the letters we received on the topic, capped, at the end, by the entire letter from a non-Park Service employee.

We were pleased so many of you were impelled by Dr. Nyberg's remarks to think through, once again, your positions on the "state of the art" of interpretation within the NPS. It looks as if the author's purposes were achieved, to wit, to have his "remarks serve as a catalyst for this demand on thinking," and to inspire "the critical consideration of environmental interpretation."

"...as long as people are visiting national parks, the National Park Service has both a responsibility and an opportunity. We have a responsibility to answer people's questions. We have an opportunity to satisfy and even stimulate their curiosity

about the world around them in the park. If, however, in our zeal we make people feel like poor Dr. Nyberg, then we must fire the incompetent interpreters and hire better ones."

Jack de Golia
Environmental Education
Specialist
Everglades NP & Fort
Jefferson NM

"For Dr. Nyberg's 'Conclusions' let me also conclude: If he has hit home, God help us."

Robert H. Kelly, Manager,
Environmental Affairs,
Forest Preserve
District of DuPage County,
Illinois

"At last someone else is a believer in self-evaluation from a ground base level. It is always good to take a close look to see if we are as valuable as we think we are."

The Hatteras Renegade

What's happening? Why does everything in this world seem more important than the experiences which make us uniquely human. Humans were made to gaze at the stars and to speculate about the infinite possibilities not just to be concerned with covering their feces on a beach."

Art Cloutier
Clen Canyon NRA

"P.S. After 25 years of dirty dishes and four children, my husband let me loose on society. He has a Ph.D. As a family we have traveled all 48 states and most of Canada and enjoy interpretive programs everywhere. That's why I am here. In fact, you might say we are all 'graduates' of NPS interpretive philosophy. As an art historian, I challenge Mr. Nyberg to interpretive words at 20 feet."

Kate James, Park Technician
Sandy Hook Unit, Gateway NRA

"The definitions of interpretation are not unknown. The author's solicitation to examine the meaning and consequences of what he phrases as environmental interpretation is answered by the ongoing practice of the art. It is defined by experience. With added incentive from zero base budgeting goals, objectives, and activities it is necessary to continually examine the quality, extent, and need for interpretive presentations, but to question the intrinsic value of public interpretation is not worth more serious consideration than an interesting few hours in a classroom."

Glen O. Clark
Virgin Island NP

"...How Dare You! Thank you. A little heresy is good for the soul."

J.D. Young, Asst. Superintendent
C&O Canal NHP, Sharpsburg, Md.

"In next January's issue, just to be pragmatic, how about a nice article on the growing need for interpretive services and the countless benefits they deliver to the public?"

Joe Lawler, Park Ranger
(Interpreter)
President's Park, NCR

"...There's always room to improve interpretation and many things certainly don't need interpreting, but I believe that park interpreters and their art are the key to successful preservation of the areas we work in....Let's hope that Dr. Nyberg visits a National Park area and experiences a good interpretive program."

Richard B. Jones,
Appomattox Court House NHP

"No doubt, the reason for our previous misguidance was the downright annoying insistence of the parks' absentee landlords to be told things. Instead of giving a concise answer to the question, "Just how did these trees get petrified?" from now on I'll answer, "Sir, that's really something you should decide for yourself. Just use your imagination." Or better yet, if I'm not even here, he could just assume that's the way trees grew in the Stone Age."

Roxanne Nersesian, Interpreter
Petrified Forest NP

A REACTION TO A DIVISIVE THESIS

Dear Editor:

My reaction to Dr. Nyberg's article which was printed in the January 1978 issue of IN TOUCH is enclosed. You may consider it appropriate for publication. I felt it important that someone should speak to the subject from the point of view of an interpreter, who does not, also, deny that there are problems.

My interpretive experience, in a nutshell, spanned 15 years in Alaska (I retired from Forest Service as Regional interpretive specialist in JUNE), and twelve years with the National Park Service in a number of assignments in four Regions. Currently I'm free lance (that means unemployed), and working into a small consultation business.

Dr. Kenneth Nyberg's "heresy" on the subject of environmental interpretation raised my hackles. It already had when he presented his paper at the AIN Workshop at Texas A & M last April. Frankly, being a literal person, I had difficulty in determining just what he meant to convey. Ken, if I'm too dumb to see through your act, forgive me. In any case, I will react to a number of your troubling assertions.

A red flag quickly unfurled on my mind when the inference was made that the interpreter's role, as so often was repeated, is to tell, meaning to give out answers and to explain all the mysteries of nature and meanings of history. This is misleading because the interpreter's role is not to fill the vast voids of misunderstanding but to help the public do this for themselves. I would observe that 1) the audience is present because it wants to be informed sufficient to

find its own way; 2) to many people in any audience, the information presented by the interpreter is not new - but they still like to hear the same news many times over; 3) and, of course, members of an audience, like shoppers at a department store, are attentive mainly to that which they're shopping for; that is, the information that they need, for whatever purpose. Also, like shoppers, park, forest, and museum audiences (or any other) are looking for guidance to new experiences and ideas to stimulate interest-- especially at areas with unique values.

As I heard and now re-read Nyberg's paper, I had to conclude that he must have experienced only incompetent interpreters. I add quickly, though, that after nearly three decades in this work, observing a diversity of activity that's passed as interpretation, I'm concerned about standards that are being accepted.

For example, recently I attended an interpretive program at a park, which might better have been uttered in church. Through emotion, along with information, the audience was swayed to believe what the interpreter believed. That, in my opinion, is not interpretation.

Another talk, in the forest this time, espoused the agency view of how a forest resource should be managed. That is not interpretation.

Other so-called interpretive programs came right out of Botany 210 or Geology 360. While I'd rather hear basic scientific information than a tear-jerking requiem to a vanishing species, it also is not interpretation.

As has been mentioned heretofore, an interpreter worthy of the title doesn't tell you what to think (conclusion), or how to feel (emotion). His or hers is the art of relating information that is relevant

to the audience seeking to discover for itself the meaning of a phenomemon.

The role of the interpreter is indeed a sensitive one. He does not have a custodial attitude; therefore, does not allude to the place as his to cherish and protect. Nor does he espouse the philosophy of the managing agency as if it were divine. He's there simply to help the people enjoy the merchandise, which they do better when they know what it is, how it works, and how it affects everything in the environment, including the so-called visitor. Visitor-now there's a term that impresses me as being both inaccurate and inappropriate (I agree wholeheartedly with the Professor here). Unfortunately, though, mankind over the years has become so remote from nature that when they (we) go back for a look at wild places they are in effect visitors. The Wilderness Act legalizes the distinction, making nature sacrosanct and man alien. Perhaps we deserve it.

But the interpreter should not accept or base his interpretation on that dichotomy. Rather he tells (if you will) the environment in such a way that trees, worms, clouds ...and people are comfortable together. Altogether, they comprise the same system.

By now, having reworked a number of ideas in my mind, and reread Dr. Nyberg's heresy again, I must conclude (again) that he can't mean what he says. Such as his claim that the way to counter increased use of overused areas is to discontinue interpretive programs. While this may seem practical when other management fails, it would no more serve the public's needs -yes, to want to understand is a need-than would be closing the schools in order to curtail progress that management can't apply constructively.

As to interpreters being lackeys of the tourist business, he makes it sound all

bad, but is it? I'd venture that the interpretive experience, if well done, may be the most meaningful and memorable of any activity enjoyed by the tourist. The many acknowledgements of gratitude from people with whom I've been pleased to share Alaska (and many other places) convinces me that they come here not only to see thrilling sights but also to relate with new insight to them. This is where the interpreter applies his/her art-not ego, or wiles, or influence. With relevant information presented in a stimulating manner, he opens doors to interest which lead to observing and understanding-each participant arriving at his own point of view. And if tourism is the means to getting people where they can perceive the nature of man's role in this wilderness we call civilization, GREAT.

Dr. Nyberg avers that if God had envisaged interpretive services he would have put a lable on everything. Well, He did! Looking at the river, the "actor" as Dr. Nyberg perceives us, does interpret it, with or without the informational input of a naturalist. He reads the lables in terms of the sensations transmitted to him, and he relates what he sees to previous experience, all of which he sorts, correlates, and stores in the computer of his mind. Yes, Ken, God did put lables on everything and naturalists help us to read the language.

The statement is made that interpretive services are instituted to create a need, rather than to meet one. This denies inherent curiosity, the desire to understand the ways of nature and how to relate to it. It's true that many citizens feel they know so little about environmental things (in part because we tag them with such ponderous words) that they're reluctant to ask questions. But they'd like to know, make no mistake about that, the why-where-when-how-and what'll happen

in the future about a glacier, a high waterfall, an historic place, or a delicate wildflower in an overtly harsh environment. The interpreter didn't create the need for understanding. He knows that the seed of interest is there and he nurtures it with knowledge of the subject. If he does the job well, the thrill of the discovery, the new learning, finds a special place in the participant's mind.

If Dr. Nyberg caused others to think about the interpreter's role as he did me, I expect he feels his objective has been achieved. Certainly his "tiger of wrath" got me to biting back-and I remember well some far more reactionary screams and

snarls by outraged interpreters in the place where he first uttered his heresy.

Through the medium of his jungle of seemingly hostile ideas which threaten the very souls of us interpreters, Dr. Nyberg has been successful in stimulating thought. The dialogue should continue until we have regained confidence in what interpretation is all about.

Bob Hakala
Consultant in Wildland
Interpretation

Dear Editor:

Maybe it is because I have "latent interpreter tendencies" (stranger things have been known to happen to former Lake Mead Rangers!), but I find Keith Hoofnagle's cartoons not only to be very humorous, but thought provoking as well. I only hope that Keith will continue to use his incredible imagination and bring us tidbits from other humor producing sources including: government housing, the politics of interpretation, transfers, central offices, maintenance-ranger-interpreter relations, uniforms and rangers image (again!), job descriptions, and anything else that will shake our cages and keep us laughing at ourselves, especially when we begin to view things out of their proper perspective.

Keep up the good work, Hoofnagle.

Skip Prange
Cape Lookout District Ranger
Cape Lookout National
Seashore

RAP UP



CURATOR'S CORNER

THE LAST SAGA?

Or Welcome to the Wonderful World of Conservation

....The 58 caliber struck home in the Ranger's guts. He reeled back, clutching at the angry gash, blood streaking his hand from the pulsating wound....

Zane Grey could undoubtedly do something with such a scene; however, the Park Service can certainly do without it.

The likelihood of this scenario being played is becoming more plausible - not necessarily in the line of duty on some lonely park patrol, but rather in the dim confines of our museum collections.

With increasing frequency I am encountering loaded weapons being sent to my laboratory for preservation treatment. In the past month I've had three such pieces and there were no previous suggestions to watch for such an insidious intruder.

I think of the many times these weapons have been handled and marvel that there have been no injuries. We generally do not view museum specimens as potential lethal weapons and they are handled with no due precaution. Please, don't succumb to this trap!

Look at your collection; have your firearms been checked for loads? How do you check them safely?

When weapons come into the Museum Services conservation lab for treatment, our first concern is to check for loads. With breech loading weapons this proves no problem. Simply check the chamber and make sure there are no cartridges.

When confronted with muzzle loaders, the game changes. There is no easy access to the load. A muzzle loader is analogous to a one way street. To check it out you are going into the face of possible oncoming traffic; therefore, due precaution must be exercised.

Equipment for use in checking a muzzle loader is simple. A dowel rod smaller than the caliber and longer than the barrel is your only requirement; then follow these steps:

1. Place your weapon on a table with the muzzle pointed in a direction deemed least hazardous should the piece be fired.
2. Make sure weapon is not cocked.
3. Never, Never stand in front of the weapon.
4. Leather gloves and safety goggles should be worn as a precaution.

5. Take dowel rod in hand, stand to side of weapon and push dowel into muzzle until it stops.
6. Mark dowel at top of barrel, then withdraw dowel.
7. Place dowel on barrel with mark at barrel top.

If the bottom of the dowel reaches the full length of the barrel, the weapon is not loaded; if the measurement indicates the dowel stopped forward of the touch-hole, consider the piece as possibly loaded; table it conspicuously, and put it in a safe storage area.

Plan to get the weapon to us here at Harpers Ferry Center. We'll disarm it for you. Please make sure everyone involved in transporting these pieces are aware of the existing situation. Remember, the life you save may be mine!

Bart Rogers
Metals Conservator
Division of Museum Services
Harpers Ferry Center

A MUSEUM RECORD REPOSITORY

National park museum collections can be one of the most useful tools aiding interpreters in their efforts. The Division of Museum Services will soon create a central repository for museum records. This is one of the finest deeds our Harper's Ferry personnel can provide for park service interpreters because it can make a wealth of information easily accessible.

My objectives in this article are of two concerns. First, to focus on the present museum collection problems experienced by many of our parks. These problems may partially be alleviated by aid from the division of museum services. Secondly, to encourage expansion of the record repository to include research project reports done in the parks.

Several parks lack collections because there is a lack of interest on the part of the persons in charge of collections. At several parks where I have requested to examine specimens I have met with some disturbing responses. Two of the most disturbing came from chief naturalists. Both stated the specimens were all packed away in storage and were not readily accessible to even the interpreters. One continued to state that the goals of that park were to keep only rare and endangered specimens, along with those that were characteristic of that park or vicinity.

At Bryce Canyon National Park, where I am a seasonal interpreter, we have attempted to build our collections in recent years. Our collections emphasize animals, plants, and rocks. The area is one of little human history so artifacts of this type are few. In the past fifty years our collections show the interest of a few seasonal naturalists that have come and gone however, the present collections are better than those found in many of

the larger parks. I have added many specimens to the collections in my five seasons at Bryce. I have also used the many specimens that have been untouched since 1930. Some of these are now begining to show signs of wear, but they have also proved to be one of the most interesting experiences encountered by our visitors.

Collections can be useless conglomerates that occupy valuable space or they can be most valuable aids to some interpreters. If collections are not encouraged their values will remain obscure. The best encouragement that supervisors can offer are to support the efforts and proposals of interested seasonals. The seasonals are our greatest source for building useful collections in the parks. We must remember that our historians, biologists, geologists, and naturalists are more qualified in their fields than most supervisors are in those fields. This is why they were hired in the first place. Our best supervisors realize this and listen to the expertise knowledge of those they supervise. It's accepted by all supervisors that they can not grant all requests. Their help, however, will gradually snowball into something good and useful even if the supervisor does not share the interest or desires of the experts under his supervision. The museum service division can greatly help our parks by doing more than developing our showcase museums. They can help develop storage facilities and get equipment for collections that will be used by interpreters and visiting researchers.

My proposal for a central repository at Harper's Ferry for research papers concerning the parks may be the most useful source of information available to employees. Usually when a researcher is granted a permit it includes the opportunity to collect specimens. Often the

specimens collected are deposited in a museum completely separate from Park Service, such as an university museum. Even if the specimens are kept in the park museum a research report with its data will often be more useful than the individual specimen records.

Unfortunately, I am only familar with the destiny of research papers at one park. I imagine some parks have better systems or poorer systems for handling these papers than Bryce Canyon. Several of the papers are placed in the parks library. Many others are kept in files that are not accessible to seasonal employees. During my five seasons at Bryce I have written several research reports. Some have been published in journals, one was sent by request to the regional office, and others have been filed at the park. It has been the case with my reports as well as other peoples' to be filed in administration files that are inaccessible to researchers.

While I was surveying bird populations for one report, the chief ranger informed me of a bird banding study that was done a few years earlier. It was at that time I learned that many such reports are filed away. Since I don't have access to the files, I am still unaware of what treasures exist in hidden places. My three bird surveys, a report on Bryce Canyon plants proposed for endangered species classification, and others are now filed where few people will ever know of their presence. The filing system is not meant to be a secret file, but it is nonetheless.

If research papers were kept on file along with the specimen records at Harper's Ferry this information would be retrievable by those who can use it. I strongly suggest efforts manifest in this area.

Steven J. Mueller
Biology Instructor
Bemidji State University
Bemidji, Minnesota 56601

PERSPECTIVES ON SENIOR CITIZENS

You broke your leg! How awful! -and your vacation plans are all made! How will you ever be able to leave tomorrow? So many places in your plans are in areas and have activities much too difficult for you to manage! Why, you will have only a half of a vacation! -not a whole one!

A National Park Interpreter would usually be most understanding and helpful as possible to a person who had such an experience before arriving. The heavy cast and difficult movements with the crutches showed the effect required by the visitor in participating in the enjoyments of the park sites. Learning that the accident occurred after vacation plans were made would elicit a full understanding of the disappointment being experienced by the visitor at having only a half of a vacation, because of the handicap. Yet many a Senior Citizen has experienced only half a vacation in our parks. Very little consideration of their problem or an awareness of their special needs is as yet apparent so far as I can determine. During visits to various parks and at a meeting attended by park personnel from many other parks, I could discern no effort being made in this direction. Plans are needed now for this group, and the need will increase in the future.

Our total population is two hundred and thirteen million. Twenty-two million are Senior Citizens and by the year 2000 this group is projected to have a total of between twenty-nine million and thirty million. If past experience is used as a criterion, these people will continue to the parks as they do today.

On reaching age 65, people are usually free of family responsibilities, are no longer clock-watchers, and can travel. In 1974 a survey showed the average income of the American family was \$12,935 a year,

but the average income of the Senior Citizen family was only half of that figure. Because of the need for economy, many Senior Citizen choose to visit parks, historic sites and government buildings for their vacations. Are we prepared to accommodate them now, and even more of them in the future? I think we are not. In talking to other park interpreters, I have not, as yet, found a single one who has given any thought to the possibility of Senior Citizens' needs being any different than those of other park visitors.

Because many Senior Citizens visit the Lincoln Home where I work, I recently took a course in Gerontology at Sangamon State University in Springfield, Illinois. Though many aspects of the course are not applicable to the work of the park interpreter, I gained many new insights into the problems older individuals encounter in our National Parks.

Stereotyping is a problem. Senility is not automatically a part of advancing years. Research has proven that a lack of mental agility can result from the senses becoming impaired so a lesser amount of input is received. If our older visitors are to have enjoyable, satisfying experience in our parks, they must be able to hear as much as possible. It is our responsibility to speak distinctly, look directly at them, and keep our voices at a low pitch but a bit louder than for other groups. When a hearing loss occurs, the tones at the higher levels are lost first. A man can be heard easiest because of the deeper voice, but women interpreters will need to make a special effort in this area.

The same type of concern applies to sight impairment. Again the interpreter must assume the responsibility for adjusting to Senior Citizens' needs. Do not point out the difference in the shape of the

needles of various coniferous trees when they are 10 feet away. If the group is too large to bring them in close, then center your interpretation on the whole tree. Signs also are a problem when they are posted too high in an exhibit or on a post. They can not be read with bifocals without throwing the head back at a very uncomfortable angle. In most cases, when too much effort is required to read them, they are skipped. Lighting in the exhibit area also causes problems when the light shines directly into the viewers' eyes while they have their heads back. They can not see through the glare. Without the signs and labels that give the accompanying information, many exhibits are meaningless. Not reading a sign in some areas where precautions are necessary, can be dangerous. Serious accidents could occur. So be aware of Senior Citizens' handicaps and adjust your performances to their abilities. Don't deny them the full enjoyment of the parks.

Park personnel agree that programs geared especially for children are necessary because of children's lower level of understanding of concepts and words.

Many Senior Citizens may also have a need for this consideration. A survey taken, in 1974 showed that 47% of the population over 65 completed less than 5 years of school. However, these people are not stupid. They know a great deal just from living. They have had access to publications, radio, television, museums, and knowledge from their childrens' studies. If, however, they are not responding to your talk, consider the possibility that they may have a lower level of comprehension than you are using. But, remember! Never talk down to them. Let them retain their dignity.

If no large crowds are present, don't rush Senior Citizens from one spot to another. They no longer need to watch the

clock. They have all the time in the world. Let them savor what they see, absorb the beauty, wonder at the wonders and have their "I remember when".

People of this age bracket are no longer as sedentary as they were in the past. They are receiving better health care which helps them to remain active, but problems such as heart trouble, arthritis and lack of muscle tone can make movements in our parks difficult. Facilities to meet their needs are necessary. Sudden movement from a very light area to a very dark one can be difficult because their eyes do not adjust quickly. Long walks from parking areas or between buildings or exhibits can discourage them from using the parks to their fullest. Rough uneven paths and walk ways are especially dangerous because of a lesser ability to quickly recover their balance. All of these things though, are the responsibility of administration. The interpreter can do little to change them. But with a little caring, a little additional effort and a little more understanding, we can give them a richer experience in our parks than many have known in the past.

The concern for the Senior Citizen can not wait until tomorrow. We need to address ourselves to their problems without any further delay. The National Park Service has announced that plans will be forthcoming for the provision of special services and accommodations for the handicapped. But the handicapped are not only those we picture in our minds when we see the wheelchair on the parking lot sign denoting the special parking places. Stop a moment and think. Is the lack of ability to walk the only handicap to be considered? Not if the Park Service is to respond in full to the mandate to provide full use of all facilities of the parks to all the visitors. Remember the Senior Citizens in your planning.

Eloise Meiners
Interpreter
Lincoln Home N.H.S.

ENVIRONMENTAL EDUCATION

On Systems...The Game of REAL KIND

Instead of the usual kind of activity given in this section, this time we'd like to help along your thinking in the direction of systems with a game that helps us think in systems fashion. It can be played as easily by yourself as with a small--or even large--group.

This game can help develop ability to think about the interplay of two or more systems, we think. -- But first, we'd like to preface the game's explanation with two paragraphs from William Eblen's Total Education in the Total Environment (Yonkers, N.Y., Hudson River Museum, 1971, p.17).

"All systems are goal-directed. Self maintaining systems are organized to continue achieving their goal-directed results despite changing conditions. They manage this by readjusting the inputs of their parts to counterbalance changes which otherwise would throw their results off-target. However, if the individual factors within a system are required to change beyond certain limits in trying to maintain equilibrium, system-breakdown occurs.....

"To insure that man's actions do not upset his life-supporting natural and human eco-systems, he must make sure that his goals and actions are in tune with the natural goals of the environmental systems."

That's pretty abstract. But concrete examples that might go with it are endless, and that's what this game is about

--imagining examples of systems that cross each other and interact.

The game depends on real situations and real contexts in the real world, in the time frames of past, present, or future. (In the beginning, however, it will probably be best for you to stay with past time frames because you can actually check out yourself in the last section of the rounds.)

We'll call the game REAL KIND. It is made up of "rounds" (as in boxing matches) which we call Situations, but unlike fighters' rounds, these have no set time limit other than one you might impose. Each situation may last a whole evening, two weeks, or half an hour. The number of players is your decision, also. And you may use paper and pencil, or merely your memory as you ask your Questions.

Each round of REAL KIND has four parts: (1) The First Line--a factual statement upon which everything else builds; (2) the Insinuation--a statement of fact that indicates some kind of change that will cause still other changes by interacting with the First Line's statement; (3) the Questions--the statement of two to four questions which will help you decide what kinds of interactions might and must occur between (1) and (2) above; and (4) the Follow-On's--the sure and likely consequences that are "answers" to the Questions.

You'll probably get the idea faster by trying a sample, which we'll call REAL KIND: SITUATION #1.

REAL KIND: SITUATION #1...
HOUSES ON THE MISSISSIPPI

(1) First Line: In the system of a watershed, all rain (and melted snow) seeks the lowest level that will contain

it.

(2) Insinuation: Humans build houses-- thousands of them between 1825-1975-- along a river 2470 miles long that moves in a southerly direction and empties into the Gulf of Mexico.

(3) Questions: (a) What pleasantries and problems are likely to exist for the persons who live in the houses along the last 300 miles of that river? (b)...for the governments of the states that border that river the last 300 miles?

(4) Follow-On's: Generalized possibilities for (a): ...flooding of farms and homesteads; ...great losses of human and animal life; ...attempts at levee building ; ...building of port cities; ...ship commerce out to Atlantic Ocean;
etc., etc., etc.

Now you see how it's done. Below is another example, but one without the Questions or Follow-On's; you can supply these. -- As a matter of fact, we'd really like you to send in to us your Questions and Follow'On's for SITUATION #2 for possible publication in a later issue of IN TOUCH.

**REAL KIND: SITUATION #2:
BARBED WIRE FENCING**

(1) First Line: In the mid-1800's the Americans living in the semiarid grassland frontier of the West used the natural systems there to support two major occupations: farming and cattle raising.

(2) Insinuation: In 1874 Joseph Glidden invented a double-strand barbed wire which kept the barbs in place; In 1874 and by 1883, 80 million pounds of it were being bought annually by both cattlemen and farmers.

(3) Questions, and (4) Follow-On's:

(As we've already said, we'd like you to try your hand at these, and, if you like, send them to us. Unlike the sample given, be as specific as possible.)

Audrey Dixon
Division of Interpretation
and Visitor Services, WASO

"Correction: In the January issue of IN TOUCH, the article description under Spherical Solar Cooker should be credited to Keith Rogers."

PART ONE

Seasonals

-USED AND ABUSED?

TYPICAL
SEASONAL

WORRY
AND
FRUSTRATION
WRITTEN
ALL OVER
HIS
FACE!

UNIFORM
NOT ALWAYS
TO STANDARD,
BUT GENERALLY
THE BEST HE
CAN DO ON A
MINIMAL,
PRORATED
UNIFORM
ALLOWANCE!

YES, I KNOW RHODA HAS BEEN A LOYAL
SEASONAL FOR FIVE SUMMERS AND I REALIZE
HOW MUCH SHE WANTS TO BE PERMANENT...
BUT, NOW THAT WE'VE GOT A NEW PERMANENT
POSITION TO FILL I'D RATHER HIRE SOMEONE
ELSE. THERE ARE LOTS OF CRACKER JACK
INTERPRETERS OUT THERE TO CHOOSE FROM
AND WE ALL KNOW THAT RHODA WILL COME
BACK NEXT SEASON, ANYWAY...

SHE ALWAYS HAS !!



IT'S EVALUATION TIME, MR. NURD, OR
IS IT MR. BURD? NOW LET'S SEE. YOU
DO WORK FOR ME, DON'T YOU? AH, YES
- I'VE JUST COMPLETED YOUR
DETAILED EVALUATION. LET'S
SIT DOWN AND TALK ABOUT IT.

HMM... HE HAS ONE THING
RIGHT. I DO WORK IN HIS
DIVISION. BUT HE HASN'T
LAID EYES ON ME ALL
SUMMER. HOW'S HE
GOING TO EVALUATE
ME ??

THANX FOR THESE
IDEAS: TOM →
PITTINGER,
ORGAN PIPE CACTUS
↓ N.M.

TWO LEFT
HANDS AND FEET.
EVERYONE KNOWS
A SEASONAL HAS
NO 'RIGHTS'!

YEAH, I KNOW
YOU'VE ALWAYS HAD
THAT APARTMENT, BUT WE
NEED OFFICE SPACE FOR OUR
NEW GS-12'S AND 13'S, SO YOU'LL
HAVE TO FIND YOUR OWN
APARTMENT IN THE LOCAL
COMMUNITY!
GOOD
LUCK!

GOOD
GRIEF!
THEY WON'T
EVEN LET ME
HAVE MY
DEFICIENCY
APARTMENT BACK!

LOOK, I CAN WALK
ON WATER - MAYBE
I'LL BE HIGHLY
RECOMMENDED
FOR REHIRE

Become a
SEASONAL
WITH THE NPS!
HERE ARE SOME OF THE
WONDERFUL BENEFITS YOU
WONT GET:
NO STEP INCREASES
NO BLUE CROSS/BLUE SHIELD
NO SECURITY
NO FUTURE!!

ANOTHER ONE OF
THEM THERE ONP
TROUBLE-MAKERS