

Smithsonian Folklife Festival

Herb Schroeder
Researcher and Environmental Psychology Expert
North Central Research Station
Evanston, Illinois

Interviewer - Susan Wright
June 2004

Susan Wright: Go ahead and introduce yourself.

Herb Schroeder: I'm Herb Schroeder and I work with the North Central Research Station in the work unit here in Evanston, Illinois and have been in this unit for twenty-four years, since 1980. And I came here directly from graduate school. I was in graduate school in Tucson, Arizona at The University of Arizona where I got my Ph.D. in environmental psychology and then was hired by John Dwyer to come and work here in what was then the Urban Forest Recreation Research Unit. And when I was in graduate school getting my degree in environmental psychology my major advisor was Terry Daniel in the psych department and he had gotten funding from the Rocky Mountain Experiment Station to do research on people's perceptions of the scenic beauty of the forest landscapes. And in particular to find a way of quantifying scenic beauty so that scenic beauty could be included in forest planning models on an equal footing with other resources such as timber and wildlife and watershed, all of which are measured quantitatively. And up until that point there really wasn't a way, a rigorous way of quantifying scenic beauty. So the Rocky Mountain Station came to Terry Daniel and asked him and talked him into developing a method, a psychological method for quantifying scenic beauty, which involved having people look at photographs of forest landscapes and rate them on rating scales from one to ten out there, their perception of scenic beauty. And then the ratings given by a group of people calculating a scenic index for each photograph and then doing statistical analyses and models to relate those scenic beauty indexes to measurements of the physical characteristics of landscapes like numbers of trees and amount of ground cover and downed wood.

And some of the research projects I worked on as a graduate student we actually spent time out in the field measuring trees and crawling around on the ground measuring downed wood and all of that kind of forest inventory type of stuff so that we would have that data to use for developing scenic beauty models. So I started out with that with a very quantitative approach to trying to understand people's perceptions of environments. And then when I was hired to come work here with John Dwyer at this unit, I took that same methodology and used it to study urban environments like park environments and streetscapes and to try to understand people's perceptions of the visual quality of those environments and also of a broader range of perceived characteristics of environments, like the quality of the environment for recreation, the perceived safety of the environment, the naturalness, and just an assortment of different dimensions, but still taking a very quantitative approach and trying to develop models. For example, I did some

models in Ohio working with Bill Cannon to try to predict the visual quality of residential streets based on the number of trees and the sizes of trees along the streets and in yards and then to relate that to the tree inventories that they were doing to try to see whether the urban forestry practices that were established in different communities were having an impact on the visual quality.

SW: Do you remember what cities those studies were done in?

HS: I can probably remember some of them. There was, let's see, Mansfield, Wooster, Delaware I think was one of the ones, Kent.

SW: Okay.

HS: Bowling Green.

SW: I sort of remember that study a little bit.

HS: Yeah, I came to Delaware and there were several, you know, research assistants that were part of the work that Bill was doing there that went out with me and we traveled around to these different communities and took pictures and collected street tree inventory information. But after doing that kind of work, a sort of really quantitative approach, my interests then sort of shifted towards trying to understand in a more qualitative way the experiences that lie behind those ratings. I began to feel like the numbers we were getting, while they're very useful for addressing certain types of questions and certainly can give very precise, valid information about the relationships between people's perceptions and physical characteristics of the environment, that they also leave something out and that there's a deeper sense of the value or meaning of the environments that people have that gets lost when you boil it all down to a number or a rating scale. So I started to get more interested in trying to get at some of those more nebulous and hard to measure types of values and experiences. One way that I did that and this is actually starting at the Morton Arboretum working with Charles Lewis who was a horticulturist there. We did a survey in which we had people rate with rating scales photographs of arboretum environments but then also asked them to think of places in the arboretum that kind of characterized what kind of place the arboretum is for them. Like if they were going to take a friend to the arboretum and were going to show them, take them to different places within the arboretum, what places would they really want people to see that would really kind of convey what the arboretum was for them. Then we just asked them to describe those places just by writing on a piece of paper and then to talk about or to write about the memories, feelings, meanings that they associated with those places. I found that people just gave us just wonderful, really evocative descriptions of these places and what they meant to them. And then later on I had the opportunity to do similar kinds of open ended surveys in different areas like with the Ottawa National Forest in northern Michigan in one of the areas, the Black River Area that they were planning for. They wanted to get information about what made that area special to people and so I did a similar survey there. I did a study with the Mead Paper Company with some of their woodland managers, sort of a demonstration to show them how you can get

information about these types of things and actually had their employees, their professional woodland managers, do a similar type of survey. That was really interesting because they revealed that, you know, that they have a pretty deep sense of connection and really strong emotional ties to the areas that they work in and live in. And then later and most recently I had a chance to do a similar study in the Calumet area in the Chicago Metropolitan Area, which the Calumet in that area is a heavily industrialized and urbanized area so that made an interesting contrast to some of the more pristine areas in the Northwoods that I had worked in.

And now I'm trying to combine all of the separate surveys that I've done into a combined analysis to identify common themes and experiences that seem to emerge. And have found some really interesting commonalities between sort of the rustic pristine Northwoods environments and the urban metropolitan environments that I've studied in the Chicago area. There are some values and experiences that are very similar between those two areas and that people have very significant experiences of nature and contact with nature, even in extremely urban areas, which is interesting, which kind of says that those sorts of significant nature experiences are not limited to remote wilderness areas, that people have them also in urban areas. And that just points out the importance of protecting and providing those types of environments in urban areas. That even small nature areas can provide a very important benefit to people, to urban dwellers.

SW: Can you go through some of the common themes, some of the common comments or opinions that have emerged from these studies?

HS: Yeah, the two that really stand out across all of the surveys as probably being the most frequently mentioned are beauty and serenity, both of which are associated with nature, with the naturalness of areas. People talk about natural beauty and the beauty of the environment and also frequently connect that with peacefulness and quiet. Sometimes that's associated with a sense of refuge or escape, of being able to get away to an area to escape from the stress or the noise or the crowdedness of their everyday life in an urban area and get away to a place where they can experience beauty, where they can experience serenity without all of the pressures and the stress. There's especially in urban areas a sense of refuge, a sense that these, that nature areas and urban areas really are, that they may be small and surrounded by development on all sides but that they provide a really important sense of a place you can go into, sort of like a protected area, a refuge. One person in the Calumet area study made a comment that this area is only, it's only a seven minute drive from my home but here I am in Chicago in wilderness. So there's that sense really of distance even though it's not a physical distance or not physically far away but psychologically there's a sense of being remote from their normal everyday environment or their everyday existence. That seems to be very important

In the Northwoods areas people, a number of people commented on how important it was for there to be undeveloped, uncommercialized areas that they can go to, like in the Black River area which is minimally developed. That they come to that area because it doesn't have all the commercialism and it doesn't have all of the kind of urban elements that are present in many other areas and that makes the area very special. So there was a concern

there that increasing development and increasing tourism could threaten some of those qualities. So I think that's really important for managers and planners to understand that on the one hand there's kind of a push or an impetus towards providing more and more facilities for people to kind of meet the demand for tourism and to make places more comfortable for people by providing a higher level of facilities and so on. But I think it's also important to recognize that as that happens some qualities of areas can be lost and those qualities can be very important to at least some of the people who are coming to those areas.

SW: Why do you think it's important that the Forest Service be involved in this kind of research?

HS: Well, I think because in terms of managing Forest Service lands it's very important for managers and planners to understand all of the ways in which people experience and are connected with the lands that are being managed. Some of these types of values, these deeper hard to define, hard to measure types of values are extremely important to people. They're really a fundamental part of people's quality of life in many cases. And so if managers do something that changes an area or changes the ability of the area to provide those kinds of means and values to people, that has a really big impact on at least some people's lives. I think managers need to realize that. They need to have an understanding of that. The work that I've done, really what I've tried to do is sort of provide a channel of communication between people who have these sorts of attachments and feelings for these kinds of areas and the managers and the planners who are making decisions that affect those areas. And it's not always possible for me to say exactly what they should or shouldn't do with respect to an area but what I really try to do is to kind of help them develop a sensitivity or an awareness and to help them, give them a way of listening to what people are saying and to give people a chance to say what they need to say about why they value these areas, so that hopefully that will create more of an understanding and more of an ability to take those kinds of values and connections into account. So that's one reason with respect to the Forest Service and Forest Service lands.

But it's also very important beyond national forest lands in particular because any place where you have natural environments or environments with natural features in connection with people, that are being used by people and that are a part of people's lives, there are going to be these kinds of attachments. The professionals who are making decisions about managing those natural features or environments, whether it's an urban forester in a small community or a state park manager or a county forest preserve manager, they really I think it's really important for them to understand those connections. And many of those managers at kind of the lower levels, the more local levels don't have the resources to get that information on their own. So that's where Forest Service research I think has made and can make a really important contribution because we have the staff, we have the people with the experience and the expertise, and we have the connections with researchers at universities with the whole research community, and we can bring all of that to bear on issues that are important to local managers. Just as an example of that, an urban forester in the Chicago area, Steve Ruffalo who was an urban forester for the community of Downers Grove, they were trying to make decisions about what species of

trees they should plant in different neighborhoods. And they really didn't know; they wanted to base that on how people experienced those trees, what kinds of benefits and annoyances people got from different species of trees. And they didn't really have the means to do that on their own but we able to work with them to apply a method that had been developed by a researcher in California, Bob Sommer, at the University of California at Davis, had developed a type of survey that would give them exactly the information they wanted. And I was able to work with Steve Ruffalo to do that survey in Downers Grove to help him with the analysis and provide them with some very specific information about the benefits and the annoyances from different species of trees. And so the Forest Services research had the resources to do that and the fact that our unit was located in an urban area like Chicago was what enabled that to happen. Otherwise, those connections couldn't have been made and that study couldn't have been done.

SW: A few minutes ago you made some comments about why it's important to Forest Service managers of national forest land. Have you seen any examples in the course of your career in which we seem to be paying more attention to the non quantitative issues, the economics and things and paying more attention to what people feel and want about the natural environments?

HS: Yeah, I think there was a general shift in that direction. You know, when I was sort of personally going through my shift in interest from the rating scales and numbers to a more qualitative approach that was part of kind of a general shift in the research community and the management community in the interests. The early '90s there was kind of a surge of interest in what has variously been called spiritual values or deeper values or hard to define values. Some people at the Rocky Mountain Station organized a workshop to bring together authors who wrote, ultimately cooperated to write a book called {Nature and the Human Spirit} that was about these types of deeper values. And I think managers also began to recognize the importance. I wrote a paper on spiritual values and I was getting all kinds of invitations to come and give talks about spiritual values by—

SW: Church groups? [Chuckles]

HS: No, actually not by church groups but by national forest management groups.

SW: Okay.

HS: Ecosystem management workshops on, the Chicago office of the Environmental Protection Agency asked me to come down there and give talk about spiritual values. There was just sort of this interest in this whole kind of softer and deeper side of the human experience at the environment that came up. And as I say, it resulted in at least a couple of books focusing on that side of things and it resulted in invitations. And I think quite a bit of research, qualitative research, began to be done around that same time looking at sense of place The whole notion of sense of place kind of came out of that whole movement towards a more qualitative and deeper way of understanding and I think that's persisted. There was sort of a flurry of activity and attention, which you know

seems like maybe it's died down a little bit but I think it really has become part of the way of thinking about these things. People kind of routinely talk about sense of place and special places. Those have sort of become standard terms in our way of talking about and thinking about what natural environments mean for people and what sorts of issues we have to think about when we're managing natural environments for people.

SW: One of the interviews I have coming up are with a group of people that are involved in the Living Memorials Project in which they're creating, if that's the right word, groves of trees or places within a park or existing, in most cases an existing natural area, to commemorate the people who died or were injured in 9/11. Is it possible to create a special place? I mean to say we're going to go out and create a special place?

HS: I think a created place can certainly become a special place.

SW: Okay.

HS: I'm not sure that you can always just decide to do it and have it happen. I think it has to be, it has to tie in somehow with people's lives in a particular kind of way and sometimes it's not always in a predictable way. But I mean I think in particular about the Oklahoma City bombing of the federal building there, in which there was a particular tree that was close to the blast site, which was damaged but survived. And I remember in some of the earlier news reports that I think one of the doctors who was attending to the victims on the site, was tying ribbons onto a tree. I'm not sure if it was that same tree but to commemorate the people who were injured or who died there. That tree later became, it sort of spontaneously became a memorial and people began to look to that tree. I think they called it the survivor tree.

SW: Uh-uh, I remember that.

HS: Because it had survived the blast and eventually it was incorporated into the memorial that was built there. So sometimes people will sort of spontaneously attach meaning to a tree or some other natural feature and that can become part of a special place or part of a memorial. I think when trees are planted for the sake of a memorial then it's quite likely that they can then develop, that can become a special tree or if it's a grove, a special place.

You know there are instances in which, I think of one particularly poignant story of an urban forester who was going around identifying trees that had been hit by the Dutch elm disease that were going to have to be taken down. And they were marking trees to be removed and then going up to the house and knocking on the door and informing people that their tree had Dutch elm disease and was going to have to be removed. And they went to one house and marked the tree and went to the door and told the person inside they were going to have to take down the tree and the person immediately just broke into tears and then explained that that tree had been planted the day that their son was born or their child was born and that they had just recently, that child had died and they just recently had the funeral for that child. So obviously that had a real strong emotional

impact for them because that was a special tree that had a special meaning. And so the urban forester [chuckles] then, of course, you know, they went back and removed the mark from that tree and said we'll leave the tree up for a while at least for as long as we can before we take it down out of consideration. But, yeah, trees become very important when they're planted for memorial purposes. I think you've probably seen on the news cases of very old trees that are, you know, that commemorate some event. There was one tree, I forget where it was, that was vandalized. Somebody during the night had girdled the tree and they were struggling to try to save the tree and people were coming and were leaving, you know, cans of chicken soup and all kinds of, you know, leaving gifts for the tree to try to express their concern for it and hope that it would survive.

SW: Right. On a very individual basis, what is it about a person and a tree? I mean what, you've talked like a researcher. When you sit here and talk everything you say makes sense. But when it really gets down to the special place and a memorial tree, what is the connection between me and a tree? And Lynn talked a little bit about this only from a community perspective that people seem to have these attachments to trees or gardens or whatever it is they plant. What is the connection?

HS: Well, I mean I cannot, I guess some of this is speculation more than anything but I mean a tree is a living thing I think first of all. It's a living organism and so people can feel a connection with it that way. Actually you can see it grow and the fact that you can see it grow and it grows slowly over a period of years means that you can develop a bond or sense of connection with it over a long period of time. You know, it's not like a bouquet of flowers, which is very beautiful and can be very meaningful, but you know it's there and then you know very quickly it's gone. You know, a tree is a living thing. It's a vulnerable thing. It can die. I mean there's a lot of characteristics of trees that can make them very powerful symbols. The fact that a tree, you know, it has its roots in the earth and it has its branches in the sky, in a tall tree in particular. You know, you look up and it's like the tree is, you know, its top part is way up there in the sky and at the same time its roots are down under the ground. And that in religious and spiritual traditions across the world, that I think has given trees a symbolic role as sort of something that connects heaven and earth, so there's symbolic meanings. It's just the fact that trees are beautiful. You know, there's the form of the tree can be very graceful the way that the leaves move in the air, the way the light reflects off of the leaves, this can be very fascinating and aesthetically a very attractive thing. I think the fact that if a tree is part of a person's home, if there's a tree on their property or in front of their home, if they're around it every day, they have contact with it on a continuing basis. Big trees in particular seem to evoke awe, the way any large, very large natural object can do. So there's that sense of just of awe and wonder that seems to be part of a spiritual kind of experience that can be, big trees in particular are very good at evoking. So there's a lot of stuff that goes on. If a tree happened to be planted by your grandfather or your great grandfather, then that gives you another connection, a connection with your family.

SW: Or if you're the one doing the planting, you have a sense that you're leaving something for the next generation.

HS: Yeah and that way, you know, it's a connection with the future and you can think about how that tree will be appreciated by your grandchildren or your great grandchildren.

SW: For some of us who aren't planning to leave a lot of wealth or philanthropist that could be the only thing that we have a sense of leaving behind for the enjoyment of others.

HS: Right, yeah. So, I don't know, in some ways it's an individual thing too you know. You could probably talk to people and find many reasons. But one particularly interesting little study that we did, I guess it was an opportunistic study came from a contest that was done by the Open Lands Project here and it was called Tremendous Trees. It was a contest to identify the largest individuals of each, you know, species of trees within the Chicago area and it was to promote people's awareness of trees and to kind of get them excited and interested in trees. The idea was there was an entry form where you could nominate a tree and you were to say what the species of the tree was and give some measurements and estimate of its height and its diameter and all of that. Then there was also a space for comments and what they found was that people were writing in the comments space really interesting things about what these trees meant to them. And so they came to us, to our research unit here, and a couple of us, Sue Barrow and Paul Gobster collaborated with Open Lands to do a qualitative analysis of the comments that had come in through that contest and found a lot of interesting things about what made these Tremendous trees special to people and found it wasn't just the size, just the bigness of the tree, but a lot of other things that people were talking about. And some of it is the same type of things I was talking about before, the beauty of the tree, the way that the tree changes through the seasons, a sense of connection to the past history of the place but also almost a tendency to personify the tree, to think of the tree as an individual with a history of its own and to talk about significant events in the life of the tree and to feel protective towards the tree and to be proud of the tree, to want it to be recognized and for other people to see what a special tree it is, just a lot of very personal kinds of things.

SW: Okay, I think we covered all the bases. Do you feel?

HS: Yeah, I think.

SW: Anything we haven't talked about?

HS: There's nothing that I can think of that we've left out that really needs to be said, so we can...

SW: Yeah, good. We got some good stuff there.

HS: Yeah.