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Place Assessment: How People Define Ecosystems

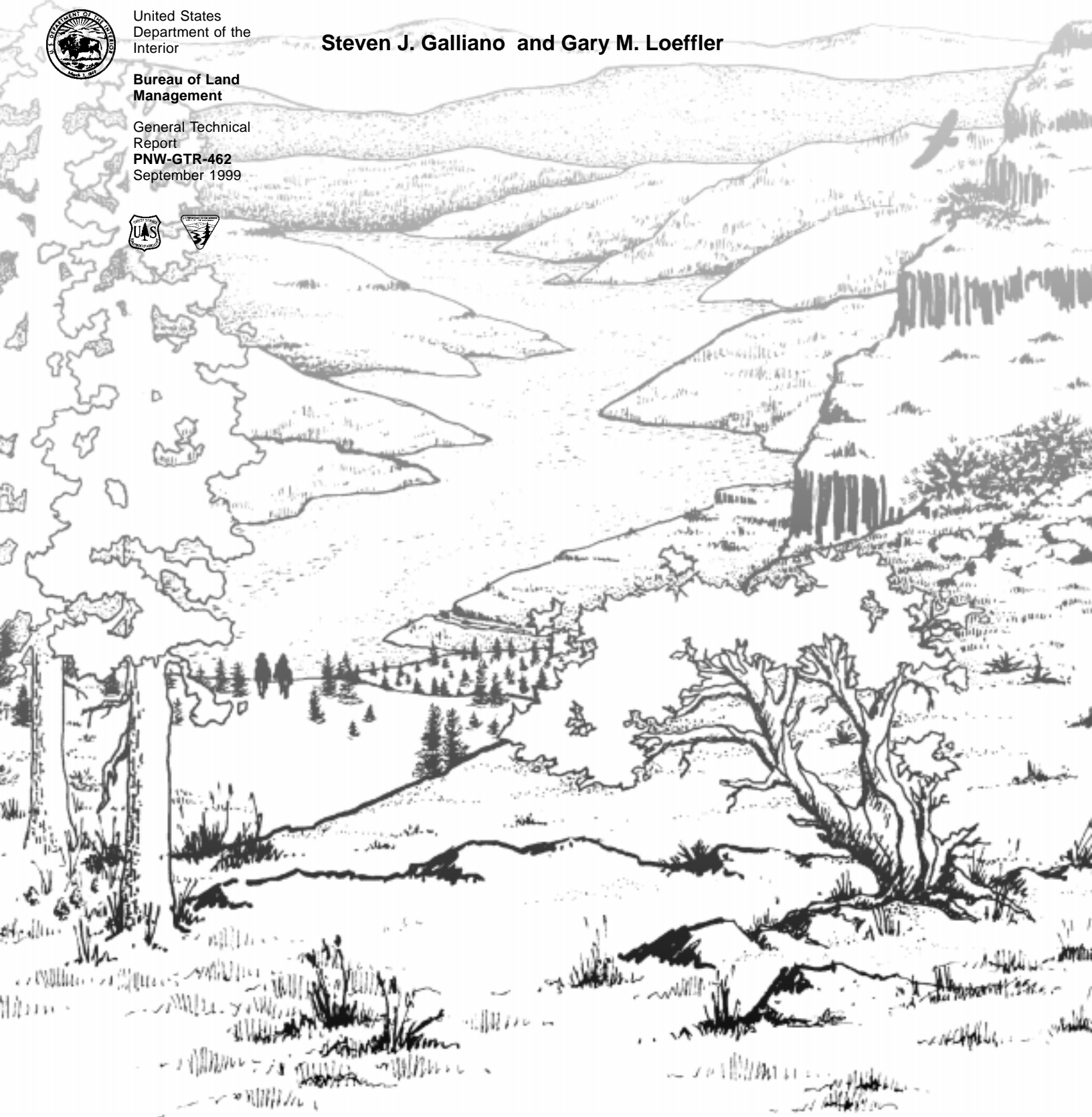


United States
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Steven J. Galliano and Gary M. Loeffler

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Authors

STEVEN J. GALLIANO and GARY M. LOEFFLER are landscape architects, Interior Columbia Basin Ecosystem Management Project, 112 E. Poplar Street, Walla Walla, WA 99362.



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Interior Columbia Basin Ecosystem Management Project: Scientific Assessment

Thomas M. Quigley, Editor

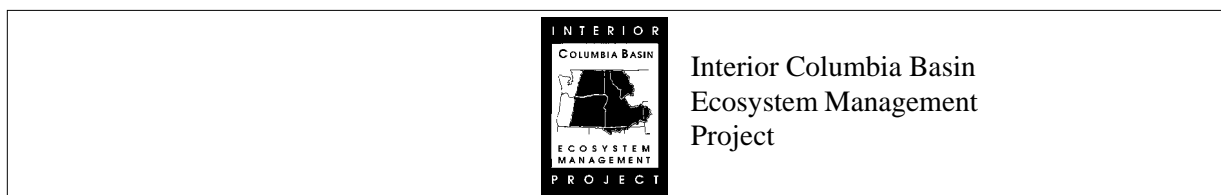
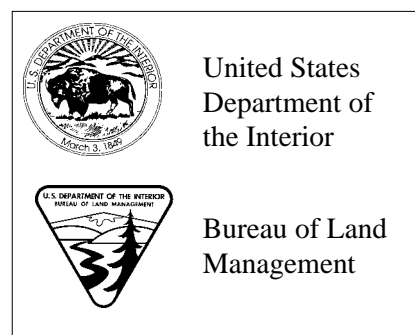
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Preface

The Interior Columbia Basin Ecosystem Management Project was initiated by the Forest Service and the Bureau of Land Management to respond to several critical issues including, but not limited to, forest and rangeland health, anadromous fish concerns, terrestrial species viability concerns, and the recent decline in traditional commodity flows. The charter given to the project was to develop a scientifically sound, ecosystem-based strategy for managing the lands of the interior Columbia River basin administered by the Forest Service and the Bureau of Land Management. The Science Integration Team was organized to develop a framework for ecosystem management, an assessment of the socioeconomic and biophysical systems in the basin, and an evaluation of alternative management strategies. This paper is one in a series of papers developed as background material for the framework, assessment, or evaluation of alternatives. It provides more detail than was possible to disclose directly in the primary documents.

The Science Integration Team, although organized functionally, worked hard at integrating the approaches, analyses, and conclusions. It is the collective effort of team members that provides depth and understanding to the work of the project. The Science Integration Team leadership included deputy team leaders Russel Graham and Sylvia Arbelbide; landscape ecology—Wendel Hann, Paul Hessburg, and Mark Jensen; aquatic—Jim Sedell, Kris Lee, Danny Lee, Jack Williams, Lynn Decker; economic—Richard Haynes, Amy Horne, and Nick Reyna; social science—Jim Burchfield, Steve McCool, Jon Bumstead, and Stewart Allen; terrestrial—Bruce Marcot, Kurt Nelson, John Lehmkuhl, Richard Holthausen, Randy Hickenbottom, Marty Raphael, and Michael Wisdom; spatial analysis—Becky Gravenmier, John Steffenson, and Andy Wilson.

Thomas M. Quigley
Editor



Abstract

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Understanding the concepts of place in ecosystem management may allow land managers to more actively inventory and understand the meanings that people attach to the lands and resources under the care of the land manager. Because place assessment has not been used operationally in past large-scale evaluations and analyses, it was necessary in the assessment of the interior Columbia basin (hereafter referred to as the basin) to apply theories based on available literature. These theories were used within two large test areas inside the assessment area boundaries. From the test area experiences, it was apparent that the most appropriate scale for place assessment was at the community level. Ecological subsections, however, can serve as acceptable surrogates for place identification when time constraints do not permit adequate place inventories at the community level. Subsections provide a method for establishing the identity and themes of relatively large places. The identities and themes of these large places are useful in public land and resource planning for encouraging public participation early in the planning process, for measuring the importance of a place relative to its neighboring places, and for predicting possible environmental changes resulting from management alternatives. Place assessment in the basin demonstrated the importance of place to humanity, illustrated how inventory concepts of place can be operationalized for ecosystem assessments, and suggested how place assessments may be used in subsequent levels of analysis, planning, and decisionmaking.

Keywords: Place assessment, place themes, place concepts.

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Executive Summary

Because people are part of ecosystems, human dimensions of ecosystems must be integrated into our land management practices. The values and meanings of the places in the interior Columbia basin (hereafter referred to as the basin) are a medium permitting such integration. A sense of place serves as a significant factor for reflecting the human dimensions of ecosystems and also functions as a link between social experiences and geographic areas. Sense of place concerns are really part of a larger set of concerns that might be called the science of place.

Ecosystem management is one response to the limitations of the so-called modern science of ecology, which seeks rational, comprehensive, but often placeless understanding of the world abstracted and removed from specific contexts. In keeping with ecosystem management as a spatial and historical science, human dimensions need to be similarly conceptualized. This paper focuses on mapping places and their meanings, and trying to capture the richness and humanity of a sense of place.

Human ecosystems are difficult to map. As soon as a new mapping approach is generated, its deficiencies are easily pointed out. Identifying geographic areas of importance to communities intrinsically results in the omission of both the global and the individual importance of those areas. Despite such difficulties, this paper provides a conceptual framework for operationalizing place assessment. It describes the significance of place concepts to humans, past and present. It suggests several important place elements for consideration in ecosystem assessments, analyses, and planning projects. And it shows that community-defined places are not only possible but practical in ecological assessments.

This paper also demonstrates the existence and identification of meaningful place themes. At large scales, place themes rely on traditional land use terminology as a way of assessing the interrelations among the general images of adjoining geographic areas. We speculate that such interrelations provide a means for decisionmakers to better understand the relative importance of the lands and resources they manage.

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Introduction to Place

Your province is not the wilderness, where the individual makes contact with the universe, but the farm, the neighborhood, the community, the town, the memory of the past, and the hope of the future—everything that is subsumed for you under the word “place” (Stegner 1992).

Place Definitions

Contained within the ecosystem management philosophy is the notion that an ecosystem is recognized by humans as a place. Simply stated, a place is a geographic area that has meaning to people. It is through the mental construct of place that people relate to and understand a geographic area.

Sense of place is a holistic concept that focuses on the subjective and often shared experience or attachment to the landscape emotionally or symbolically. Sense of place is a subjective experience or view of place description of the meanings, images, and attachments people give to specific locations. Sense of place refers to the perception people have of a physical area with which they interact, whether for a few minutes or a lifetime, that gives that area special meaning to them, their community,¹ or their culture.

Through association and interaction with geographic areas, whether physically, spiritually, or through various media, people form long-term attachments with places. Research shows that place attachment is customarily passed down through generations, becoming part of people’s heritage in a personal way. Thus, place assessment is a way to inventory the locations, names, and broad meanings of the attachments people share for geographic areas within the basin. The images people hold for larger scale places can be described with phrases that indicate degrees of naturalness or development. These phrases, called place themes, are similar to the terms sometimes used in land use planning professions.

¹ For the purpose of this paper, “community” refers to people with shared interests, concerns, norms, or values, usually centered around where they live but which may encompass shared values regardless of residence.

Why would natural resource managers be interested in the identification and meanings of places? Assessing place meanings addresses how humans identify, describe, and interact with the environment. Understanding the concepts of place in ecosystem management allows managers to more actively inventory and understand the meanings people attach to the lands and resources they manage. Place assessment may not eliminate clashes over resources and land uses, but it can help to inform natural resource managers of why certain conflicts occur and how to deal with them most effectively.

Place in Ecosystem Management

Ecosystem management offers several new strategies that allow land and resource managers to be more responsive to social concerns. In fact, one of the most significant characteristics of ecosystem management is its ability to validate human emotional and symbolic meanings of public lands and their natural resources. Rather than concentrating on single-value commodities, ecosystem management promotes a holistic management process that sustains both natural and social systems in which geographic specificity (place) is considered a key component (Williams 1995).

Successful implementation of the ecosystem management philosophy is dependent on the ability of decisionmakers and resource managers to analyze and understand local social concerns at both individual and community levels. The real value of using place concepts in ecosystem management is that managers can actively inventory and understand the meanings that people attach to the lands and resources they manage. The identity and meanings of place at both individual and community levels are, therefore, essential to the success of future management plans.

Places in the Interior Columbia Basin

The values and meanings of the places in the basin serve as both significant factors reflecting the human dimensions of ecosystems and as links between social experiences and geographic areas. Haynes and others (1995) acknowledge the vital

roles that people and cultural values play in ecosystem management. Specifically, they stress a strong alliance between ecosystem management and the social realities of place as one of its five primary objectives; “manage for the human sense of place.”

Goals and Objectives

Place assessment is a way to inventory the locations, names, and meanings of the attachments people share for geographic areas. It demonstrates the importance of place to people, illustrates how the concepts of place can be operationalized for ecosystem assessments, and makes suggestions for using place assessment in subsequent levels of analysis, planning, and decisionmaking. Place assessment is an introductory level discussion intended to (1) provide land and resource managers with a better understanding of the importance of geographic places within the basin, (2) show how the symbolic meanings and themes of important places can be used in resource decisionmaking, and (3) illustrate how places can be used to express potential changes that may occur through the implementation of management alternatives.

Organization

This paper first helps the reader to understand the basic concepts of place, the historical importance of place attachment in the basin, and the value of understanding place meanings to ecosystem managers. Next, it explains practical methods for inventorying place meanings at both the community and ecological subsection scales. Place themes and the possible interrelations among place themes are then discussed, followed by conclusions obtained from this work. Finally, recommendations are made for future work in assessing place meanings.

Place Concepts

“A sense of place restores one’s relationship to the land and the community, and therefore to oneself” (Simonson 1989).

Elements of Place

Sense of place is a combination of elements that, according to cultural geographer Ryden (1993), includes four essential qualities: personal memory, community history, physical landscape appearance, and emotional attachment. Although people tend to be unaware of their presence, these four qualities are often blended into life’s experiences through various media such as TV, movies, maps, art, and photography, as well as through folklore, traditions, experiences, and knowledge of past events that have given special meanings to a place.

People who have never visited a specific place may know it by name and value it. They also may maintain an image of that place based on what they have seen or heard. Various media may construct a sense of place that is different from what people who actually visit a place construct. We are all aware of the power of television, photography, and art in revealing the physical appearance of a place. The media might even be able to capture the mood and meaning of a place at a given time. Such portrayals, however, also may provide a misleading, stereotypical view of a place that may only be rectified by an actual visit to that place. Visiting a place that we have heard about often forms a completely different impression than the one we had originally formed about that place. Although the place may look the same as that presented by the media, the “feeling” we expect may never materialize. Thus a sense of place need not be authentic but is still real to the people who act on it.

The 1950s Disney movie “Davy Crockett” depicted the Alamo in the 1800s as a quaint adobe structure nestled into rolling grass-covered Texas hills, surrounded by clumps of oaks. In this award winning film, the Alamo’s historic significance, along with its picturesque setting, created an image of a place where one could go to meditate with a sense of emotional attachment. On visiting the Alamo, however, one will find that it is located directly across a busy San Antonio boulevard from a dilapidated Woolworth department

store, surrounded by urban walls, concrete sidewalks, and parked cars. Inside the Alamo are display racks filled with rubber tomahawks and other trinkets. The image of the Alamo that Disney created was actually very different from the place visitors may experience in San Antonio today.

A similar example, but with perhaps an opposite effect, is Yellowstone National Park following the catastrophic wildfires of 1988.

For the general public, the media frequently created an image of vast destruction and chaos in Yellowstone following the conflagration. An actual visit to the park, however, may reveal a rebirth of natural resources. Previous stands of dense vegetation are now broken by grassy meadows offering exceptional views of native flora and fauna that did not exist before the fire.

This example indicates that by visiting a place, the human experience can sometimes exceed the expectations created by the media. Thus, the interpretation of a place through direct, personal experience exposes identities, meanings, and images that may not have been expected.

Similarly, places to which people travel or relocate, and to which businesses transfer, are chosen on the basis of expected benefits (Deller 1995, Gottlieb 1994, Leicht and Jenkins 1994, Yuan and Christensen 1994). This means that people can have an attachment to a place, based on expectations, even before they have personally experienced that place. Although people travel or relocate to a place based on expected benefits, their actual evaluation and recommendations of its settings are based on direct experiences.

The Importance of Place

“Attitudes toward wilderness and the countryside, insofar as they are verbalized and known, are sophisticated responses to environment that have their origins in the city. They presuppose the existence and recognition of environmental types and a degree of freedom to choose among them” (Tuan 1974).

Historical overview—Humans have aspired to communicate about places that are important to them throughout recorded history. Maps of ancient Egyptian cities, preserved on clay tablets for thousands of years, show some of the earliest expressions of geographic places. Although more symbolic than realistic, the earliest maps showed illustrations of spirits associated with geographic areas as an indication of how the people of that time felt about some places. Images of dragons and demons often gave warning to potential travelers that those areas held some mysterious and perhaps dangerous qualities, often combining three-dimensional images with significant landforms. To those ancient societies, maps portrayed an experiential understanding of the Earth’s surface (Ryden 1993).

Our early American predecessors also expressed map features and boundaries in experiential terms. Early villagers distrusted the wilderness that lay just beyond their tilled fields and often showed their paranoia by illustrating the beasts and other dangers that lay beyond the villages on their maps and legends. Our biological and social needs to know the locations of resources, travel routes, suitable residential and meeting places, and the nature of lands and people beyond our own homelands compel us to learn and pass on our knowledge and experiences. Thus, since the beginning of written communication, maps have remained a prominent expression of places, their names and their meanings. Human resource extractive interactions not only gave these areas character and image but reflected the meanings people assigned to the landscape.

In a similar manner, the local names we assign places today can incorporate a local identity that helps provide insight into the ways in which people experience and interpret the geographic areas they have shaped: Pine Valley, Liberty Mining District, and Dusty are just a few. Compared to the ornately illustrated maps of bygone centuries, however, modern cartography is narrow and limited. Contemporary maps say nothing about the character or image of a place. Although their

meanings do not appear on today's automobile club maps, the dry land wheat fields of the Palouse, the gold mines of the upper Kittitas Valley, and the monoculture stands of pine resulting from past logging practices in central Oregon are expressions left on the landscapes of the basin by past generations. Human interactions with these places, mainly through resource extraction, gave these areas both character and image.

Just as TV, movies, maps, art, and photography may reveal the meanings of a place, human alterations on a geographic area may convey messages that speak of the feeling and significance of that place (Ryden 1993). From a historic perspective, it is common to find places where human cultures have altered landscapes in an effort to shape them according to their own ideological visions and, in turn, for these same cultures to be shaped by their environments.

The stringing of barbed wire fences along the property boundaries of early settlers in the 1800s forced geometric patterns and vegetative changes that exist today. These fence lines not only once made strong statements concerning a family's degree of wealth in real estate or livestock but also formed circulation patterns, tract boundaries, and biological alterations that have resulted in today's arrangement of travel ways, land uses, zoning ordinances, and other societal effects.

Native inhabitants of the basin are descendants of over 40 separate national groupings, with several different languages as different to each other as Chinese is to English. The heritage of these people is long, spanning more than 600 generations. The relations these people have to the lands within the basin are extensive and textured as one might expect from such a diverse, complex, and lengthy presence. Though changed and largely assimilated into the greater American society, these American Indian peoples inherit a cultural geography that is distinct and rarely shared with their non-Indian neighbors. Thus, the native perspective of place as an element of cultural geography needs to be considered along with other identifications of places and their meanings within the assessment process.

The Native American peoples of the basin generally differ by cultural area and ethno-historic groupings of Indian nations, reservation tribal groups, and family teachings (Hunn 1996). Their cultural teachings, values, traditional stories, and places have been largely retained through native languages; now often transferred to the younger generations in the borrowed language of English. In native ideology, people did not presume to invent names of places; rather they occupied the land allowing its own characteristics to remain dominant. The characteristics of various places often carried identities that were passed from generation to generation, often imbued with sacred significance. These identities may reference mythological stories, subsistence activities, physiographic-plant-animal features, or spiritual events and values.

The significance of place to these people has been described as follows:

The land is alive for traditional Indian people. Its life is seen in plants, animals, waters, soils, rocks, hills, mountains, places, spirit presence, sky, wind, clouds and the unseen measures of good and bad. The land and its places are more than a background for human activities and, together with its life forms, may be understood to communicate earthly facts as well as future conditions and human events. People's experiences may be viewed in the context of their unique cultural and symbolic interpretations and attributions of sacredness to places and landscapes even while involved in daily activities with modern dress and equipment. Such experiences may be as unspoken as the perception that one should not eat near cemeteries (a type of place), as subtle as that the sunrise is greeted with greater significance than the sunset, as specific as that a root field/berry patch (another type of place) may not include the full extent of its food plants' habitat, as disconcerting as witnessing an un-



Figure 1—Celilo Falls on the Columbia River, 1947. (Illustration courtesy of Traci Mc.Merritt [1995])

usual animal's behavior, or as profound as learning a "teaching and song" while camped on a known powerful mountain.²

An example of place attachment for some tribal members in the project area can be found at Celilo Falls (fig. 1).

Celilo Falls was one of the inland Northwest's premier fisheries and was historically controlled by Indian fishing interests. These once powerful falls were inundated by the completion of The Dalles Dam in spring 1957 and are now silent, slow waters. Yet, as a place, Celilo remains entwined in the lives of those families belonging

to the mid-Columbia River. Celilo's spiritual significance, past economic promise as a major fishery, and persisting community preserves this as a meaningful place even to the youths.

A village of about 30 families under the Yakama Nation's jurisdiction is all that is now evident at Celilo. Yet, as a place, Celilo may be perceived as it extends beyond the village site to the area of the former falls (and its fishing-crossing areas), a river stretch above and below, the community cemetery, the beach, and nearby food and entertainment establishments. The social and religious life values continue as evidenced by the community's annual observance to the first foods of the season, competition dances, longhouse Sunday services, and associated activities.

² Personal communication. 1995. Mary Keith, archeologist, Umatilla National Forest, 2517 S.W. Hailey Ave., Pendleton, OR 97801.

Attachment to this place is both sentimental and a genuine part of “The River” cultural perspective. People at Celilo bonded to other area river and reservation communities through strong kinship ties in a continuum of generations across time. Its native place name has origins in a legendary “Coyote” story, which humorously explains the origins of the falls, a prominent rock feature on the north side of the river (now destroyed), and how up-river people were assured supplies of salmon.

Celilo is home to many “River Indians” (whether they reside there or not), as a place where living and making a living was entwined in family relations, regional kinship and economic networks, and daily religious life perceptions and practices. When Celilo Falls was first inundated, some elders refused to look upon it because of the pain it brought them; some wept; and others, even to this day, quietly mourn the loss of its former being.

Celilo serves as an anchor and reference for significant individual and the mid-Columbia River community life events, including the “good, sad, and light of life. Its cultural significance is complete” (see footnote 2).

The continuing process of cultural place destruction has social, religious, and spiritual costs as well as economic impact. The productive fishery of Celilo, so well known in the history books, served as a regional trade center and gathering place, a central node in a huge social, cultural, and economic interaction (BPA and others 1995).

Importance to communities—Various place meanings often cross physical boundaries and seemingly conflict with one another within a certain community or culture. Whole communities that depend on surrounding resources may form images of the place in which they live. The same value or meaning, however, may not be shared by all the people who value that place. For example, a family that obtains its livelihood by harvesting timber in the Wenatchee National Forest may attach meaning to a forest as a place that is primarily of economic benefit. Another family

that carries on a well-established tradition of hunting deer in the same place may have a different definition and perhaps a different emotional attachment to the place. Place definitions often differ from individual to individual and from family to family. One location often becomes “several places.”

At a larger scale, individuals within a community may interpret a place somewhat differently. Yet there are broad experiential patterns expressed in a collective sense by the members of a community. Thus, people frequently share a communal interpretation of place.

This communal interpretation of place is evidenced in the way in which various cultural groups tend to attach different meanings to a place. For one group, a place may be where they earn their living. That same place may be where another group goes to engage in recreational activities. For yet another, it may be a place of great spiritual significance, steeped in ancestral importance. For each group, however, there is a commonality among members of attachment to a place.

Tuan (1974, 1977) speaks of peoples’ attachment to places and settings as a collective expression of their psychological, emotional, and intellectual values. Along this line, Harris (1994) further suggested that place values can be both personal, reflecting peoples’ individual identities and histories, and social, in which they are defined symbolically by a community. Lopez (1989) speaks about place in a similar tone, saying that places bind people to one another and cumulatively to the landscapes that sustain and nurture them.

Whether Lewiston, Idaho, or Camp Sherman, Oregon, communities give places names that provide an illustration or image of a regional consciousness and a strong sense of ownership or attachment. Within the United States in 1970, 3.5 million places had been given names; an average of one “named place” for every square mile. An estimated additional million place names exist, which have never been recorded (Stewart 1970). Local place names can help create a feeling that may represent the community’s image of their

place. This image provides insight into the ways in which residents see, experience, and interpret their place. For individuals, place names signify specific geographic areas that are distinctively set apart from all other places. These places do not have to be centers of national attention but may be as simple as the overgrown site of an early settler's cabin (i.e., Settler's Grove, Idaho). To the people who live in, engage in recreational activities in, or otherwise value these places, they are discretely meaningful. As an example, a place in which a family lost their devoted pet was named Lost Pup Creek, although U.S. Geological Survey maps indicate it to be Cottonwood Creek, Washington. Although hundreds of creeks lined with cottonwoods exist, this place had extraordinary meaning to a particular family. The vernacular name was adopted when people in the community heard about the incident, showing how geographic locations maintain significance as distinct places to various people and communities.

Based on applications within the basin, it seems that the meanings people attribute to a given place are apt to change according to the context of various interactions with that place. Kruger (1996) suggested that places can become both meaningful and valuable based on the relations people have with other people and the interactions they share within these places. Each individual's perception of place may be altered somewhat by their personal experiences to conform to the definitions established as larger community patterns. Two different ways of perceiving a place exist: one obtained from their personal experiences and the other a shared perception with other people in their community, business, family, or group. This proved to be the case in the assessment of peoples' identification and understanding of places within the basin project test areas.³ Supporting this observation, Harris (1994) indicated that spiritual meanings associated with natural places often carry with them a sense of cohesiveness when expressed as a community.

³ The Sylvies area, near Burns, Oregon, and the Yakima area in Washington were selected and used by various disciplines for testing methods and hypotheses during the assessment.

Importance to natural resource managers—

Harris (1994) noted that many of the obvious deficiencies of past resource management planning endeavors can be directly attributed to a failure to tie human, natural, and physical systems to particular places. Land and resource planning models of the 1970s and 1980s frequently applied high-technology abstract economic models in an attempt to take a more scientific approach to resource management, yet provided few connections⁴ among lands, resources, and their meanings to people. Considerable attention was paid to biophysical "scientific knowledge" as a foundation for directing environmental management (Dustin 1994).

The integration of social science into natural resource management is still relatively new to many public agencies. Until recently, ecological approaches to managing resources on public lands have, by and large, ignored the input of social scientists because applying their suggestions was difficult in practical strategies. Thus, in the attempts of resource managers to approach complex resource management issues, social elements generally were slighted in favor of the more traditional biophysical approaches to public land and resource management. This resulted in an expanded detachment of people from the resource planning process and a seemingly stronger emphasis on commodity production. Although the emphasis on biophysical scientific knowledge was an aid to the tangible, commodity values of natural resources, it did little to affect the thinking of agencies about human relations to resources. Stated simply, "the value of the land was defined by its use" (Williams 1995).

Today, one of the greatest challenges of ecosystem management is to make the necessary connections between biophysical and social elements. Place, as a social reality, is a logical approach for establishing such a connection. To

⁴ The Forest Service's Recreation Opportunity Spectrum (ROS) and Visual Management System (VMS) were two examples of attempts to connect resources and their meanings to people.

sincerely apply ecosystem management principles, “place management” must become as essential as key wildlife habitats or productive timber sites to agencies like the Forest Service and the Bureau of Land Management (BLM) (Williams 1995).

Place Roles in Natural Resource Planning

Until the 1990s, planning approaches that recognize human values, emotions, experiences, benefits, and satisfaction were not prominent in resource managing agencies. Even today, some critics from both within and outside these agencies consider such social factors of little relevance in resource assessment, planning, and decisionmaking. Natural resource management has traditionally been perceived by its relations solely to the physical environment or economic systems: objective, tangible, and essential. Intangible features were relevant only if they could be commodified, turned into economic goods. This production-commodity metaphor resulted in the identification of primarily shallow, narrow place meanings.

A communication-integration tool—Places provide management with a “shared learning” opportunity among various disciplines (Kruger 1996). Places can present the necessary contextual setting to achieve collaboration and integration among various disciplinary functions by allowing scientists to display the human significance of places in a manner consistent with the spatial displays of other location-specific resource needs and preferences. Critical habitat for a given wildlife species within a certain geographic location can be compared to human significance and meaning of that same place. A place containing significant elk habitat, for example, also may have great significance to American Indians as a traditional root field. Places, and their human meanings, provide a common ground for displaying human habitat needs along with other needs, thereby allowing decisionmakers to compare tradeoffs for one species (elk or humans) that may be deemed more important than another within a given place. In a

similar manner, and at a larger scale, the application of place can foster communication and integration between the biophysical and social sciences in the ecosystem assessment and analysis processes by defining geographic spaces and their meanings to people. As a conscious interpretation of what humans experience, the reality of place may serve as a common denominator and “language of connectiveness” (Hiss 1991) among social, biophysical, and economic concerns. As an example, scenic beauty and biodiversity may be shared values of the same place.

Developing alternatives and decisionmaking—

A place can be as small as a single sitting rock or as large as a continent. In theory, the various sizes of places are boundless. In applying the reality of place to an actual assessment and planning project, however, it is necessary to define the most appropriate size of places to be considered. This is necessary to ensure consistency throughout the basin and complete coverage of an enormous assessment area within a relatively narrow timeframe.

In his discussion on scale, Williams (1995) said that “the most appropriate strategy is to discover the most effective scale empirically by starting at a relatively fine scale and work up with experience and knowledge.” Williams refers to Vayda’s (1983) method of working progressively upward in scale, starting with the smallest practical level, as “progressive contextualization.” Although progressive contextualization makes sense theoretically, it seems that any progression to scales larger than places defined at the community level (i.e., generally the size of places defined by community representatives in the test area applications), may be less meaningful to resource analysts and planners from a practical standpoint. This is because most place meanings at scales larger than communities tend to become abstract and may not be meaningful to the planning and management of geographically specific resources. Also, communities may be able to identify important, yet subtle, details concerning a place and its attributes that may be overlooked at larger scales.

Incorporating a community definition of place as a threshold for addressing diverse public values concerning public lands and resources within the basin is not only feasible but fundamental. In his discussion on national and global economic realities, Mayor of Missoula, Montana, Daniel Kemmis (1990) promotes this application, suggesting a conscious focus on place through building strong, local communities. He notes that the development of place-focused economies requires groups and individuals to cultivate new and stable patterns of cooperation that he calls “patterns of relationship.” Kemmis adds credence to community identification and meanings of place in public policy and decisionmaking by suggesting that members of a community are unified through their interpretation of a place as “valuable,” or simply because members of a community dwell in a place in a certain habitual manner. Such unification in the identity and interpretation of places is an obvious indicator of the importance of place considerations in planning standards and guidelines.

For land and resource management planning, standards and guidelines suggest the way in which management activities will achieve desired conditions and objectives. In preparing standards and guidelines, managers and planners must be aware of the significance of places because they are the media through which social and economic values associated with various geographic areas are described and later monitored. The assessment of places, especially when defined at the community level, is a logical way in which constituents can play active roles in defining the meanings and characteristics important to them. Standards and guidelines may not address every minute attribute used to identify a place and its meanings, yet repeated or conflicting values expressed for a certain place attribute would probably indicate such consideration.

Standards and guidelines that are vague or generic (i.e., that ignore the significance of being geographically specific or that are not shaped by the meanings and themes associated with places) will be difficult to implement. Additionally,

vague standards and guidelines will be even more difficult for stakeholders to understand or support.

A knowledge of places having high values to humans as well as an understanding of the significant meanings and images that places have to individuals within a community should allow planners, managers, and decisionmakers to better articulate standards and guidelines that will maintain the salient characteristics of those places. A wide range of alternatives often will imply a wide range of environmental effects within specific geographic areas. As long as planners understand the identity, meanings, and images of specific places, the effects of each management alternative are usually predictable. Following is an example of using place in the formulation of alternatives:⁵

The Little Naches River in the Wenatchee National Forest is a place that has historically been a popular recreational area of regional significance due to attractive fishing, camping, sightseeing, day hiking and off-road vehicle opportunities. Anthropologists have documented this scenic watershed to have been used by humans as a source for fish, roots, and berries, and for other human uses over thousands of years. Additionally, the river provides significant anadromous fish habitat for at least two threatened species (salmon and bull trout). Apparently recreationists are negatively affecting sensitive fisheries and cultural resources in some parts of the watershed, thereby causing land managers to consider changes in current management strategies.

Traditional alternative solutions for the future management of the Little Naches might address the recreational opportunities, unique cultural significance, and biological importance of this place and suggest a higher degree of importance for one or more of these important values. By using the traditional approach, each management alternative may suggest ways of emphasizing the importance of one valued resource at the expense

⁵ Personal communication. 1995. Sue Marvin, archeologist, Wenatchee National Forest, 301 Yakima St., P.O. Box 811, Wenatchee, WA 98807.

of down-playing the significance of others. Removing recreationists from the Little Naches is an alternative that would probably benefit fisheries and prevent degradation of cultural values. Many unhappy recreationists, however, would be displaced through such an action, and perhaps an acceptable substitute offering similar recreational opportunities does not exist. The traditional top-down approach consists of resource managers analyzing the situation, developing alternatives based on physical and biological scientific data, comparing the alternatives, then presenting the public a preferred management plan.

By including the public in the identification of the general meanings of a place, it may become apparent to the land manager that significant places within the larger identity of a place exist. An entire watershed does not need to be allocated to recreational pursuits, nor does an entire stream need to be off limits to anglers and waders. The combinations of all attributes of a setting are expressed by the people who value a place and contribute to the real meanings of a place. As the meanings of a place are analyzed in terms of specific characteristics, opportunities for resolution become apparent. Some portions of the Little Naches will be especially significant for recreational opportunities. Various groups of recreationists would probably be happy to assist with the identification of these especially important places.

Places such as the “balance rock” at Salmon Falls, in Washington, may hold special cultural significance to American Indians. Other places within the Little Naches, such as key spawning beds along the stream, also will be of extremely high value. These significant places within larger places may sometimes be separate and may in other situations overlap. When significant places are separate or do not overlap, management alternatives can simply address each resource by using traditional “zoning” approaches. Overlapping place meanings often occur when human values and biological values are attached to the same place. When place meanings overlap, consistencies may exist among place meanings that

suggest resolution. For example, if recreationists are aware of the significance of the Little Naches as a key salmon and bull trout habitat, they may be willing to cooperate in ensuring its conservation. Interpretive signing, brochures, media announcements, and other techniques could be applied to educate recreationists concerning the sensitivity of other resources in the watershed. In overlapping situations, discontinuing the use of sensitive riverbanks by off-road vehicles to promote ecological values may be most acceptable because individuals have said that the salmon (and bull trout) are of significant value to them. Thus, a management alternative might deal with a combination of zoning various portions of the Little Naches for recreational uses and spawning grounds. Providing interpretive material to visitors in areas where overlapping values exist should help managers to educate the public about why a combination strategy provides for the maintenance of place characteristics for all overlapping values. As a bonus, interaction between communities of interest and agency planners often provides a shared sense of ownership in the general planning process and its outcomes.

Place management does not imply that a setting will always be managed to satisfy all the diverse expectations of that place. Obviously, when place meanings and values overlap, there may be winners and losers. However, by considering the images and themes associated with a place and by discussing the real meanings with communities of interest and other stakeholders early in the process, land managers can be better equipped to know how significant the various overlapping values are, where they are most likely to occur, and how they may best be resolved.

A medium for predicting change—A specific bioregion and its resources offer various possibilities from which a community can make economic and lifestyle choices. Choices are based on the occupational backgrounds, technological ability, and ideological visions of residents concerning how the landscape should be used and shaped. When identifying the visions of people concerning the use and shaping of human landscapes, place is a logical medium. Assessing place pro-

vides an approach that spatially models human perceptions and expectations as a form of “social interaction.” Such an assessment suggests that people interact with their environments physically, psychologically, and spiritually. For ecological planning and analysis projects, understanding place assessment is a significant tool for predicting changes to human environments.

The Interior Columbia Basin Ecosystem Management Project (ICBEMP) of the Pacific Northwest Research Station speculates that the identification of places, even at the relatively large scale of ecological subsections,⁶ can provide increased community cohesion, acceptance of others, and general understanding of potential changes in geographic areas. Discussions with community subjects showed an underlying concern: people do not want their places to change. Changes, according to several people interviewed, could be unsettling to communities if not handled with sensitivity. This concern alone is enough to suggest the importance of considering place in making management decisions.

When any of the attributes that comprise a meaningful place are threatened by any type of change, whole communities may come to the defense of their “place.” Brunson (1993) defended this point, suggesting that even carefully considered, scientifically justified management practices that change the characteristics of a place are unlikely to be accepted by people to whom that setting has special meaning or value. In fact, social impacts might even occur as a result of the mere announcement of a proposed change (Greider and Garkovich 1994).

Changes to place attributes that are unsolicited or that occur without consideration for the expectations and sensitivities of all the cultural communities that attach value to a given place can be damaging. For example, a sensitively designed

proposed campground along the banks of the Metolius River in central Oregon appeared to Forest Service recreation specialists as a simple modification to the natural environment, intended to meet increasing pressures for river experiences. To the people who hold stake in the Metolius River, however, any changes to this place may be viewed as a direct threat to the fundamental meaning of their cultural community. The true sensitivities of the proposed campground site were apparent in public meetings where the proposed “improvements” were displayed. Once public sentiment concerning the campground proposal was understood, the agency dropped the proposal. Without a thorough understanding of the meanings of a place to all the stakeholders, even well-meaning management decisions can create unintentioned results.

Natural changes that affect any of the salient attributes within a place, like the results of floods or insect epidemics in forested landscapes, are usually acceptable to people (Litton 1984). Brunson (1993) suggested that this is because natural disturbances, or “acts of God,” are not preventable and, therefore, must be acceptable. But there is no universal acceptance for changes in place attributes. The acceptability of any change, whether natural or human induced, must be considered within the larger context of each meaningful place and its general image. For example, power transmission towers and lines are generally accepted as part of an expected image or theme in urban areas but may not be acceptable by all people in a wildland forest setting because they cause undesirable changes to vegetation and other natural elements of a forested landscape.

Place themes are descriptions of shared meanings that apply to broad areas. In various levels of resource management analysis and planning, place themes are a baseline description for predicting the potential effects of a management alternative. For the broad scales used in ecosystem analysis and planning, place themes use land and resource planning terminology describing relative degrees of naturalness or human development. This terminology will be discussed in more detail later.

⁶ The ICBEMP realizes that assigning place names to subsections is not the same as inventorying community-defined places obtained through interactions with the public, yet it is a scale that does seem to be of value in ecoregion assessments.

Predictions can be made concerning changes in themes anticipated through the application of one management alternative over another. One alternative, for example, may suggest urban growth and a subsequent reduction in the acres of forested lands within places having similar combinations of characteristics. If such a change were assumed to be drastic enough to alter the major place theme from forested lands to agricultural lands (an example might be the creation of intensively managed tree farms), it might express a deviation in the way some people living within that place relate to or depend on their diminishing natural appearing settings. Some residents may move to other places that offer the setting being threatened or lost. Others may express discomfort with the changing image of their place⁷ but remain.

Place themes are used in ecosystem assessments and analyses to index the general images of a place based on its relative degree of development or degrees of naturalness. Other planning and analysis tools, such as the Forest Service's Scenery Management System (SMS) and Recreation Opportunity Spectrum (ROS) also incorporate this aspect of places in their descriptions of scenic character and physical setting indicators.

The local images or themes of a place are made up of both the physical environment (what it looks like) and a community understanding of the area (Ryden 1993). As previously pointed out, residents within a community tend to maintain an individual, personal attachment to a place but also maintain a somewhat shared feeling about that place within larger geographic and experiential patterns.

Other research (Ryden 1993) confirms this observation, thereby suggesting that people's sense of place involves themes, including conflicting themes such as those associated with the use of an area. As demonstrated earlier in the example of the logger and the deer hunter using the same

place in the Wenatchee National Forest differently, local definitions of a place are sometimes dominated by the economic or recreational pursuit of resources within or next to a particular place. This may be the reason people of a general region tend to develop a common set of themes (and interpretations of those themes). In other words, a place is often defined by its uses and by the activities occurring in it. Thus, it can be surmised that place themes are an indication of people's general interpretations (and perhaps their expectations) of a geographic area.

Each place is often redefined and molded to fit the various definitions of the people who experience it. The Metolius River in central Oregon is a good example of this. The Metolius is an extremely significant place to many people and has different meanings to various people. Although other physically similar rivers exist with equally attractive scenery and recreational opportunities, another river cannot possibly be substituted for the Metolius because traditional, spiritual, and emotional meanings to people are not the same.

Most people consider the image or theme of the Metolius as a primarily natural appearing, wild-land scenic stream. Yet, it has different and diverse meanings to the various communities who experience it. To the enthusiastic angler, it is a series of trout-filled, enticing pools connected by a ribbon of icy cold and crystal clear water. To the geologist, it is a classic example of the interplay of faulting, volcanism, and ground-water hydrology, and is listed in well-recognized field guides, college textbooks, and geologic literature. To the elder Warm Springs tribal members, it is the legendary weeping woman whose husband (nearby Green Ridge) chased away all the deer and elk in the area in a fumbled hunting endeavor.

To grandparents and their grandchildren, it is where lifelong pleasant memories of camping among the magnificent ponderosa pines and wading in chilly shallows along meandering banks can be perpetuated (fig. 2).

⁷ Personal communication. 1995. Keith Bennett, economist, Upper Columbia Basin Environmental Impact Statement Team, Interior Columbia Basin Ecosystem Management project, 112 E. Poplar Street, Walla Walla, WA 99362.

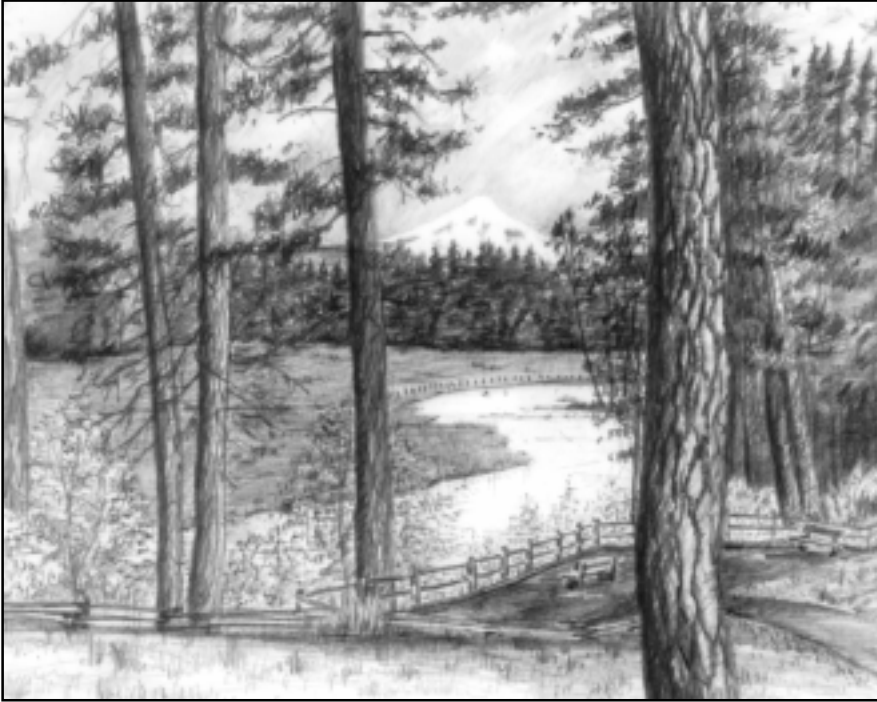


Figure 2—Metolius River in central Oregon. (Illustration courtesy of Traci Mc.Merritt [1995])

As stated before, the images or themes attached to various places throughout the basin assessment area and the importance they have to local communities cannot be overlooked. Without a sensitivity for the significance of both naturally and culturally altered landscapes to various communities, scientifically correct management decisions may unintentionally alter the salient elements of a place. To Liberty residents in Washington, for example, the obliteration of mining sites, perhaps as a well-intentioned landscape restoration effort, might result in eradicating a major component of their cultural identity.

In his proposed “spirituality opportunity spectrum,” Harris (1994) supports the inventorying of place themes. He suggests an expansion of the Forest Service’s ROS to include the identification and classification of places (along with other ecosystem elements) as a way of showing relations and interactions between people and places. Harris also proposes a systematic process for identifying a taxonomy of diverse settings to accommodate a spectrum of personal and spiritual experiences within the spiritual, emotional, and experiential realms of people-nature interactions.

A similar range of themes has been established in the basin assessment as a means of identifying and logically grouping the symbolic meanings of a particular area or place based on its degree of naturalness.

As stated earlier, places do not have to be national centers of cultural attention to be significant. Local residents in the Yakima, Washington, area have their “special places” that they do not publicize because they do not want to encourage people from outside the area to visit these places and thereby alter their settings. Virtually any physical place has the potential to symbolize many different experiential places (Greider and Garkovich 1994). Every place has importance to somebody, and every place has at least one identifiable theme.

Ryden (1993) not only supports the idea that various large geographic areas have identifiable place themes but states that such themes are an indication of how people perceive their environments in a general sense. People traveling through a portion of the Kittitas Valley tend to have a general impression of what the major landscape theme is for that area. They are probably aware of the geometric orchards and planted

fields, rolling grasslands and shrub-covered hills surrounding the valley floor, and commercial hubs like the city of Ellensburg, Washington. Individuals also are able to describe the agricultural sounds and smells of the place, and their experiences in this environment are not only identifiable but meaningful.

Changes in place themes can be used as a medium for identifying the relative significance of broad social expectations. One way this can be accomplished is by considering the juxtaposition of one place (or subsection) with its surrounding neighbors. For example, people living in the Ellensburg area might have a multifaceted image of the Kittitas Valley as a place. Their image may be composed of both the natural and the cultural landscapes surrounding the valley. Residents may be aware of the working landscape, the urban or agricultural aspects of their place, and the natural appearing forested lands adjoining the valley. They might depend on the working landscape as a part of the place in which they earn a living, whereas the natural landscape is the place in which they seek recreational experiences. To most people in the Ellensburg area, one environment cannot be separated from the other, neither place is more important than the other, and they feel comfortable in either setting.

Place Assessment Methods

Williams (1995) defines four approaches for classifying, inventorying, and spatially delineating landscapes based on the salient meanings or properties of place. They are (1) **scenic-aesthetic**—the use of formal models from landscape architecture and environmental psychology to map physical characteristics, place themes, visual character, and scenic integrity of various landscapes; (2) **activity-goals**—the traditional, utilitarian philosophy behind natural resource management in which meanings are assigned to geographic units by assessing their capacity to promote behavioral and economic goals; (3) **cultural-symbolic**—the human emotional, spiritual, and symbolic identification with place, often referred to as the sense of place, where natural resources are valued not only for functional

purposes but also places to which people, as a community, are attracted and become attached; and (4) **individual-expressive**—the potential for people to assign highly individualized meanings to places as a mechanism by which they construct and affirm a “sense of self.” These are not merely inventory terms, or static place attributes.

These four approaches can be viewed as different methods for assessing place meanings ranging from the very broad (scenic-aesthetic) to the more familiar, often personal (individual-expressive). A Forest Service or BLM unit manager may consider all four levels when preparing a watershed or site analysis where the geographic area is relatively small and the desired level of specificity is high. At larger scales like the basin ecoregion, where place inventories are comparably extensive, it would probably be unreasonable to attempt to identify individual-expressive place meanings.

There is an inherent difference between the identification of places and their overall meanings. The task of resource managing agencies is both to reflect the place meanings that are “out there” in the public’s mind or on the ground, and to participate in constructing those meanings. Thus, planning becomes a place-meaning creation process (Williams 1995). Communities share consistent definitions of places and their overall meanings. Although not all members of a community will have the same depth of understanding, neither will place boundaries defined by various members always align; there is a shared compassion for both the natural and cultural aspects of their landscapes. Later, this section will discuss broad classifications that emphasize degrees of naturalness or development. These classifications are simplified for this ecoregion assessment into a range of place themes.

Place assessment establishes place meanings by using an integrated approach between agency representatives and some of the people who value the places of the basin. Place assessment has been applied in the basin at two different levels: community-defined places and somewhat larger places at the ecological subsection

level. This section describes each of these levels, their application, and their broad meanings in terms of how places are perceived within the basin.

Community Perception of Place Meanings in the Test Areas

During the past two decades, several researchers and social scientists have done inventories on places and their meanings on public lands. For the most part, however, these inventories seem to have been activity-goal oriented and have focused on identifying the boundaries and meaning of individual, site-specific places (the Forest Service's timber stand inventories and site indices are two examples). The application of place as a pragmatic assessment and planning instrument in the Yakima, Washington, and Silvies, Oregon, test areas is perhaps the first large-scale use in ecoregion assessment and planning. These test areas were used by various disciplines for testing various methods and hypotheses.⁸ Although the test area application was not conclusive in every respect, it provided substantial insight into how place assessment can be used in various levels of resource analysis and planning.

Identification of places—Interview procedures were developed for the two selected test areas and then applied. In addition to more than 30 BLM and Forest Service employees, 53 public subjects were interviewed. The 53 subjects included resort employees, motel managers, employees at chambers of commerce, state fish and game personnel, American Indian representatives, individuals engaging in recreational activities, and individuals or small groups visiting portions of each test area.

Community contacts were approached directly in or near recreation sites, community businesses, and chamber of commerce offices. These included individuals associated with businesses

⁸ Two additional informal test areas also were analyzed by Forest Service personnel using techniques similar to those used in the test areas: Hells Canyon National Recreation Area and the western portion of the Blue Mountains (Umatilla National Forest and adjacent BLM land).

and chambers of commerce and individuals merely walking by such sites. Interviewers first approached subjects, asked for a few minutes of their time, briefly explained the context of the questions that would be asked, then went on with questioning in an informal manner. Each person, family, or group interviewed was told that their names were not needed, that their participation was purely voluntary, and that anything they wanted to say would be confidential (i.e., not attributed to them as individuals).

Once individuals understood what was being asked of them through a simple oral explanation by interviewers, they were quite willing to volunteer the names, locations, and meanings associated with places within the study areas. Not every place mentioned was indicated on composite maps for each test area. Generally, if a place was mentioned by only one person or family, it was considered too specific for the project assessment but may be of value at other scales of land and resource management analysis and planning. If two or more individuals, families, or groups described the same general location for a place that had meaning to them, it was noted as a "community-defined place."

The following seven open-ended questions dealing with the identification of places by individuals was developed:

1. Do you live in this area? If not, where do you live?
2. Are there locations or places in this area, or elsewhere in the (Silvies or Yakima) area that you think of as a "special place" for whatever reason?
3. Are some of these locations or places also considered important to your friends, neighbors, relatives, or other people in your community? (If the person or group was obviously engaging in an activity that gave him or her an identity with a specific group, such as anglers or off-road vehicle riders, this question was expanded to include other flyfishers, motorcyclists, etc.)

4. Could you take just a minute to show us where those places are? (A schematic map⁹ of the general area showing roads, land ownership, landmarks, cities, etc., was handed to each individual, family, or group, attached to a clip-board when outdoors, along with a pencil).
5. What do you call those places? Do your friends, relatives, neighbors, etc., have the same names for these places, or do they call them something else?
6. If you could describe what you feel is important about each of those places you have talked about or have shown us on the map in just a few words, what would you say?
7. Can you tell us anything about how you would like to see each of those places handled in the future? (Rather than “managed,” the word “handled” was used to incorporate management activities, consumptive and non-consumptive uses, administrative controls, etc.)

The maps on which people penciled place locations were compiled manually. Two notebook-sized maps were handed to individuals as part of the interview method. One was a black and white copy of the state road map for the general area, illustrating the general location and major roads and attractions in the area. The other was a colored Xerox map that showed the test area enlarged so that more detail was discernible.

After making several community contacts, collective patterns within various responses began to emerge. In some locations, the similarities among the patterns in the comments of community representatives were remarkable. For example, although its name does not appear on maps of the area, a geographic place referred to as the “Nile” was identified by several separate Yakima community members and apparently had a great deal of shared significance to each of them. Interviewers never found anyone who would tell them where the name “Nile” originated, although the

area seemed to have significance as a favorite fishing and day use recreational area. Although the boundary lines that people identified were not always the same, the general areas they described were quite similar. Apparently, to several communities within the Yakima test area, the “Nile” is a meaningful place.

It was not possible to delineate all community-defined places in the entire basin given time constraints. The application of this idea for the two test areas within the basin has been completed and establishes a reliable method for others to follow in subsequent planning endeavors.

Examples of community-defined places for the two test areas are provided in figures 3 and 4.

Interview results—Following is a summary of the interview results, based on the seven questions asked by interviewers.

1. Of the 53 individuals interviewed, 38 (72 percent) lived in the general area where the interview was conducted. The remaining 15 individuals (28 percent) were visiting from locations outside the area, usually several hours’ travel time away.
2. Fifty individuals (94 percent) were able to describe places that were significant to them once they understood what the interviewer was asking for. More than half of the people who described places of importance to them began by describing very small, detailed places of individual importance. Further discussion with the interviewer was necessary before individuals were able to understand that the identity of larger places was sought.
3. Nearly all (83 percent) of the places identified by people were thought to be of importance to their friends, family members, and communities. This may have been due to the way in which the description of “larger places” was expressed by the interviewer.

⁹ Colored maps were at a scale of 1:1000000 and were 8.5 by 11 inches in size.

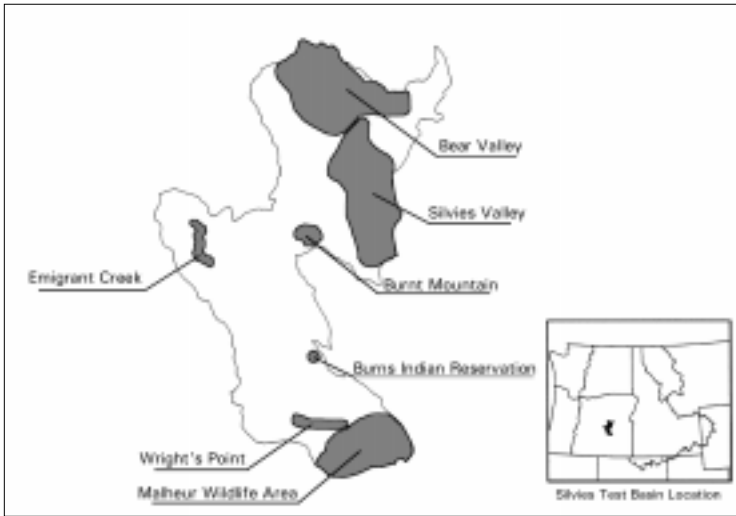


Figure 3—Community-defined places in the Silvies area.

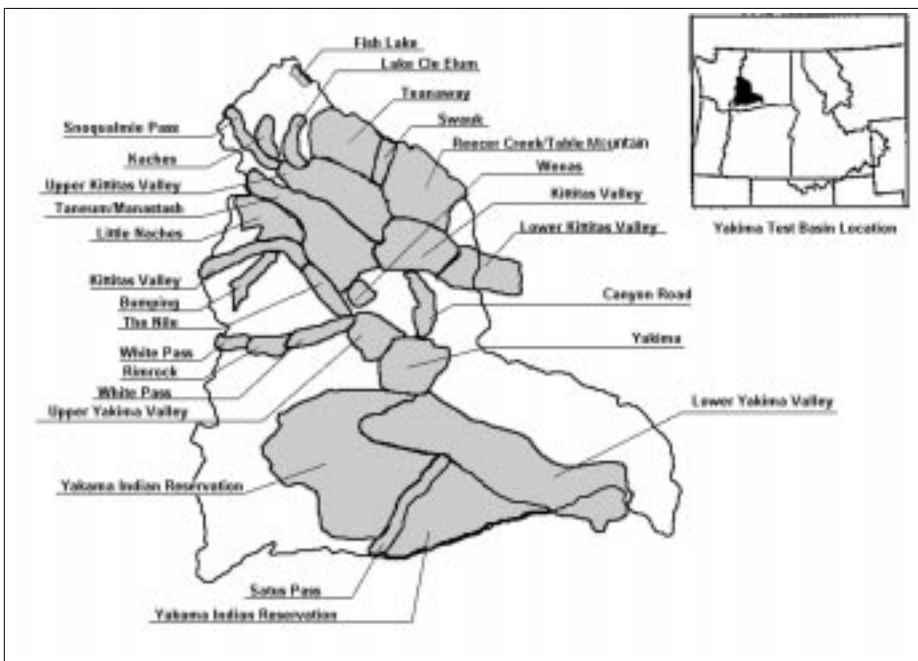


Figure 4—Community-defined places in the Yakima area.

4. Most, 46 individuals (87 percent), of the people interviewed were willing to indicate the locations of places important to them on a map, although only 43 percent of the people interviewed actually drew on the maps provided. It was common for people to use the eraser end of a pencil to sketch the general vicinity of a place, leaving an eraser-dust trail that was less precise (and certainly less permanent) than a hard line. People seemed more willing to discuss the overall images of places they described, and the people who live there, rather than feeling compelled to indicate locations on a map.
5. People interviewed usually described places using descriptors other than basic landscape elements. While the interviewers were attempting to identify place locations on their maps with topographic features or vegetative changes, community members were talking about the type of people who recreate and live in the location, or the condition of the roads.
6. Most people interviewed, 46 individuals (87 percent), were able to attach names to places with which they were familiar, and felt that their friends and neighbors would probably use the same names. Spellings of place names seemed to differ, however.
7. Nearly half, 26 of the people interviewed (49 percent), discussed degrees of human alteration when they were asked to describe the general meanings of places they identified. Many described places on public lands as being “natural,” “wild,” or even “wilderness” even where some degree of human alteration was noticeable. On private lands, people described current land uses as the “meaning” of places. The “wine country” in the lower Yakima Valley, and the orchards around Ellensburg were mentioned by several individuals.
8. All but 26 individuals (51 percent of those interviewed) said that they did not want the places they described to change, although many felt that they probably would change over time, even if human activity was minimal.

Identification of place themes—

Changing everywhere, America changes fastest west of the 100th meridian. Mining booms, oil booms, irrigation booms, tourist booms as at Aspen and Sun Valley, crowd out older populations and bring in new ones. Communities lose their memory along with their character. (Stegner 1992)

This section focuses on an alternative mapping approach. It describes how the scenic-aesthetic meanings of place are also identified and mapped in an ecoregion assessment. In this discussion, the **scenic-aesthetic** meanings of place are considered a component of the **cultural-symbolic** meanings of place.

Interviews with community representatives suggest that people often begin to identify themselves with a place through extensive interaction with that place and with the people who live in or visit that place. In several instances, people interviewed could not express who they were without expressing the setting within which they live, work, and play.¹⁰ This geographic component in personal identity becomes apparent in discussions with people from a specific place like Mill Creek, or a general place like the Idaho Panhandle. Typically, such an identity often becomes a community’s self-definition of what may potentially dominate a region for generations (Greider and Garkovich 1994). To the land and resource manager, it may be regarded as an indication of sensitivity concerning how people feel about a certain place and its resources. Similarities in how people expressed such an attachment led interviewers to believe that the scenic and symbolic definitions community representatives used also could be used to classify large areas under a set of place themes.

¹⁰ Personal interviews with public participants conducted by Jon Bumstead of the ICBEMP in February 1995.

Although not everyone agreed all the time, people interviewed described places of importance to them with words and meanings that generally were similar. From their words and comments, conclusions may be drawn to describe all basin landscapes within a range of themes¹¹ that describe the physical (scenic-aesthetic) and experiential (cultural-symbolic) meanings of places to the people who value them. Although they are more land use oriented, the following five themes portray a spectrum of place images from nature dominated, like wildernesses and wild and scenic rivers, to those that are culturally dominated, like cities and suburban developments.

4. **Forest and shrub-grasslands¹² (naturally evolving)** consist of lands that have a vegetative cover of either forest species (large trees creating the walls and ceilings of visual space), shrub, forb, or grass species that are in a naturally evolving state (Pollock 1981). This means that human intervention (manipulation or development, etc.) is at a very minimum or nonexistent level; natural processes appear to dominate visually. Examples are wilderness areas or Research Natural Areas.

5. **Forest lands (natural appearing)** consist of lands that have a vegetative cover of forest species (large trees creating the walls and ceilings of visual space) in a natural appearing state or condition. In other words, human intervention may be evident but does not necessarily dominate the natural landscape. Examples include the scenic or recreation portions of wild and scenic rivers, scenic byways, etc.

¹¹ Place themes are based on comments obtained from the survey and applied to a common set of landscape themes originally described in the Forest Service's Scenery Management System (SMS) (USDA Forest Service 1995). Survey comments paralleled the "land use" oriented themes of the SMS so closely that the authors made the decision to use one spectrum to describe the place images expressed by people interviewed.

¹² This theme is actually two themes forest lands (naturally evolving) and shrub-grasslands (naturally evolving), but was combined due to the very small amounts of naturally evolving shrub-grasslands occurring in the basin.

6. **Shrub-grasslands (natural appearing)** include lands that have a vegetative cover of shrub, forb, or grass species (small trees and plants that may create small walls of visual space, but no overhead plane or ceiling) that are in a natural appearing state or condition. Human intervention may be evident but does not dominate the natural landscape. Examples might include national grasslands or open range lands where fencing does not create visually dominant geometric patterns.

7. **Agricultural lands** consist of "working landscapes" having geometric patterns that visually dominate the landscape, usually because of fencing or monocrop planting and cultivation patterns. Examples include irrigated croplands and some dry land crops (if their field sizes are small enough to create discernible geometric patterns). Also, the agricultural theme includes intensively managed timber lands that have a cultivated appearance. This cultivated appearance is most commonly apparent as geometric visual patterns.

8. **Developed areas** have gridded street patterns, commercial areas, and suburban residential areas. They can range from small developed areas with a gas station, general store, restaurant, and a few surrounding homes (i.e., Cle Elum, Washington) to larger towns or cities with gridded street patterns, commercial hubs, and several residential developments (i.e., Ellensburg, Washington). It should be recognized that ICBEMP economists may be using a different definition than what is expressed here when discussing urban developments.

Ecological Subsections as Places

In the Forest Service's national hierarchical framework of ecological units (McNab and Avers 1994, USDA Forest Service 1994), four major levels of planning and analysis are identified: ecoregion, subregion, landscape, and land unit. These correspond to appropriate ecological units, each having a general size range and purpose. Planning and analysis at the subregion level (like

the basin) corresponds to two ecological units: sections and subsections. These normally range from tens to thousands of square miles and are the most useful units for strategic, multiforest, statewide, and multiagency analyses and assessments.

Initially, it was decided in early January 1995 that the place concept would be used in the basin assessment project; however, place assessment would only occur for portions of the project outside the test areas at a larger, more general scale. Suggestions were made to consider places like central Oregon, the Blue Mountains, or the Idaho Panhandle. We agreed to apply place concepts at these larger scales, but learned that the resolution was too coarse to be meaningful for an ecoregion assessment.

Other possibilities, such as hydrologic units and administrative boundaries, were considered during the test area field work, but proved to be somewhat awkward for any place taxonomy that would be meaningful to people. Because ecological units were being mapped for the basin, they were evaluated to see if they could be used in place assessment. On examination, these were found to be the best geographical reference units (within the given timeframe) for place assessment.

Ecological units are the basic components of Bailey's (1980, 1988) national hierarchical framework that stratifies the earth into progressively smaller areas of increasingly uniform ecological potentials. In this framework, areas can be mapped according to associations of biotic and environmental factors including climate, physiography, water, soils, air, hydrology, and potential natural communities (ECOMAP 1993). The factors that are used for the mapping are not always the same but differ with the scale of the mapping. The subsection mapping was done at a scale of 1:500,000. The principle mapping criteria were geologic materials, landform and topography, and vegetation.

Ecological units were mapped at the subsection level for the basin. This mapping was accomplished by an interagency team from the Forest

Service, Natural Resources Conservation Service, BLM, and the U.S. Geological Survey.

Place themes and names were identified at the ecological subsection scale for the entire basin. Fully aware of the fact that ecological subsections might lack the traditional, spiritual, and emotional meanings of places defined by individuals and communities in the test areas, ICBEMP decided to develop place names and themes for the 394 subsection polygons within the basin. Before using subsections in the identification of large-scale places, physiographic names had been assigned to each ecological subsection. Biophysical descriptions for each subsection also were developed. The biophysical attributes became the foundation for developing place names and themes for the subsections.

As previously discussed, it became apparent in the test area interviews that people often describe places that are important to them using similar characteristics. It was common to hear people refer to places with similar references to "farmlands," "forests" or "rangelands" when they were asked to describe what they felt was important about the place they identified or how they would like to see those places handled in the future. With these similarities in mind, ICBEMP developed initial themes for all subsections based on narrative descriptions of certain attributes.

The meanings of place themes—Themes are essentially a combination of the natural attributes comprising the physical character of a place and current condition, which includes human or cultural attributes. They are not goals for future management, but merely show what currently exists within a broad spectrum of degrees of naturalness or degrees of development.

Because several themes may exist for each subsection, due to their relatively large size, up to three themes were allowed for each subsection, with the most dominant listed first and others in descending order. An example showing inventoried subsection places and their associated themes is shown in figure 5.

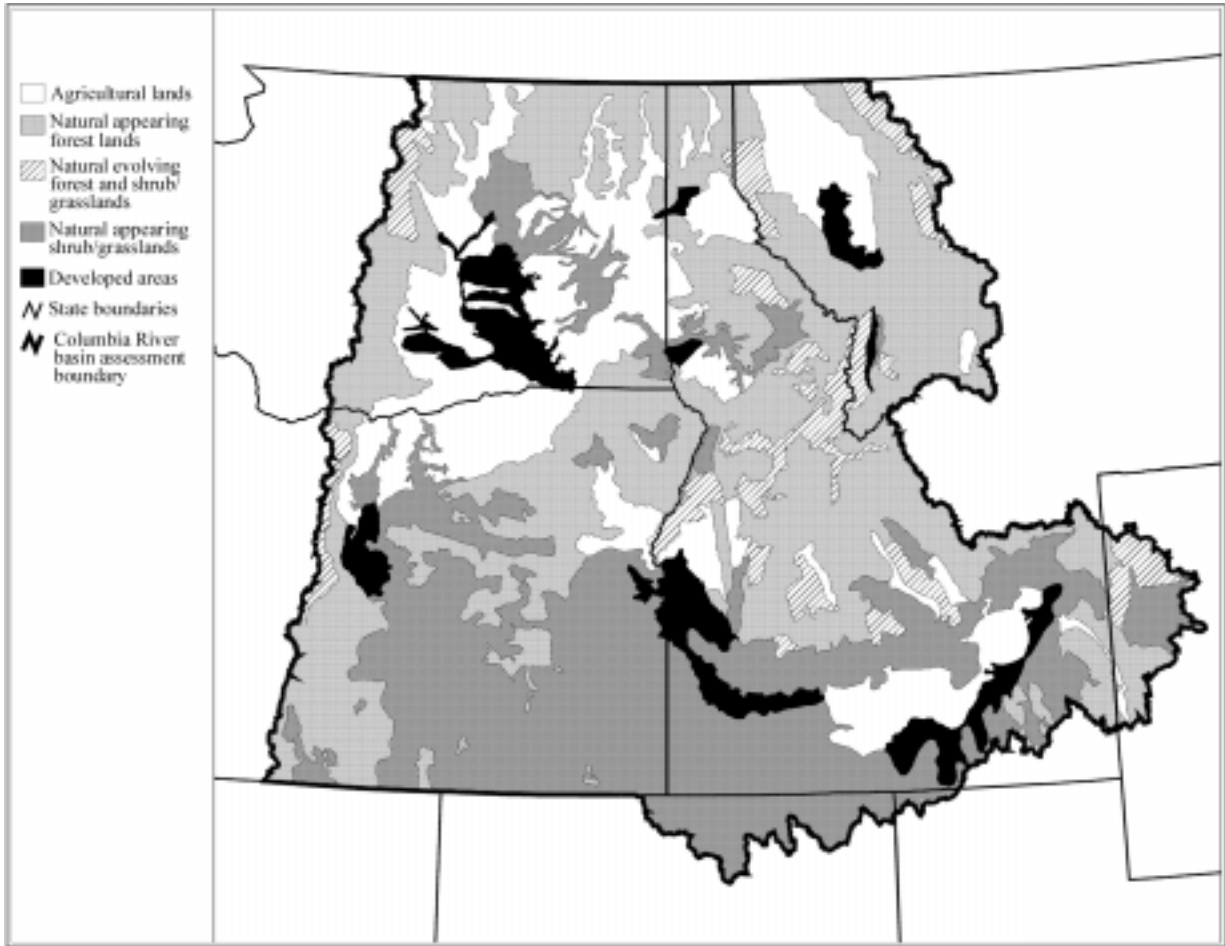


Figure 5—Primary themes for subsections in the interior Columbia basin.

Similar to the biophysical descriptions used, place names for subsections were based on local physical attributes. A team of 32 Federal employees who live and work within various subsections reviewed tentative place names. With fellow employees and long-time local residents, these employees made necessary name adjustments and identified the major themes for each subsection place based on aggregated local knowledge. Place names, themes, and physiographic subsection names are currently stored in a geographic information systems (GIS) data file specifically developed for this portion of the assessment. In an analysis of this magnitude, GIS approaches offer some obvious advantages over manual analysis techniques. Besides the graphic capabilities of such a system, tabular data reports also can be produced for specific queries for use in further analyses (fig. 5).

Place theme interrelations—Research indicates that people prefer diverse landscapes (USDA Forest Service 1995). Landscapes that contain high degrees of diversity, where there is also a high degree of harmony among various visual elements, have the greatest potential for high scenic value. Geographic areas containing high degrees of scenic diversity and harmony often influence neighboring geographic areas. The degree of contrast between adjacent places is an indicator of the uniqueness or “importance” of interrelated places (Bennett 1994). For example, although the city of Ellensburg is a **developed area**, the surrounding lands within the valley contribute to the major theme of **agricultural lands**. The subsections to the north and west of the valley are the scenic backdrops of the valley itself and have major themes of **forest lands**

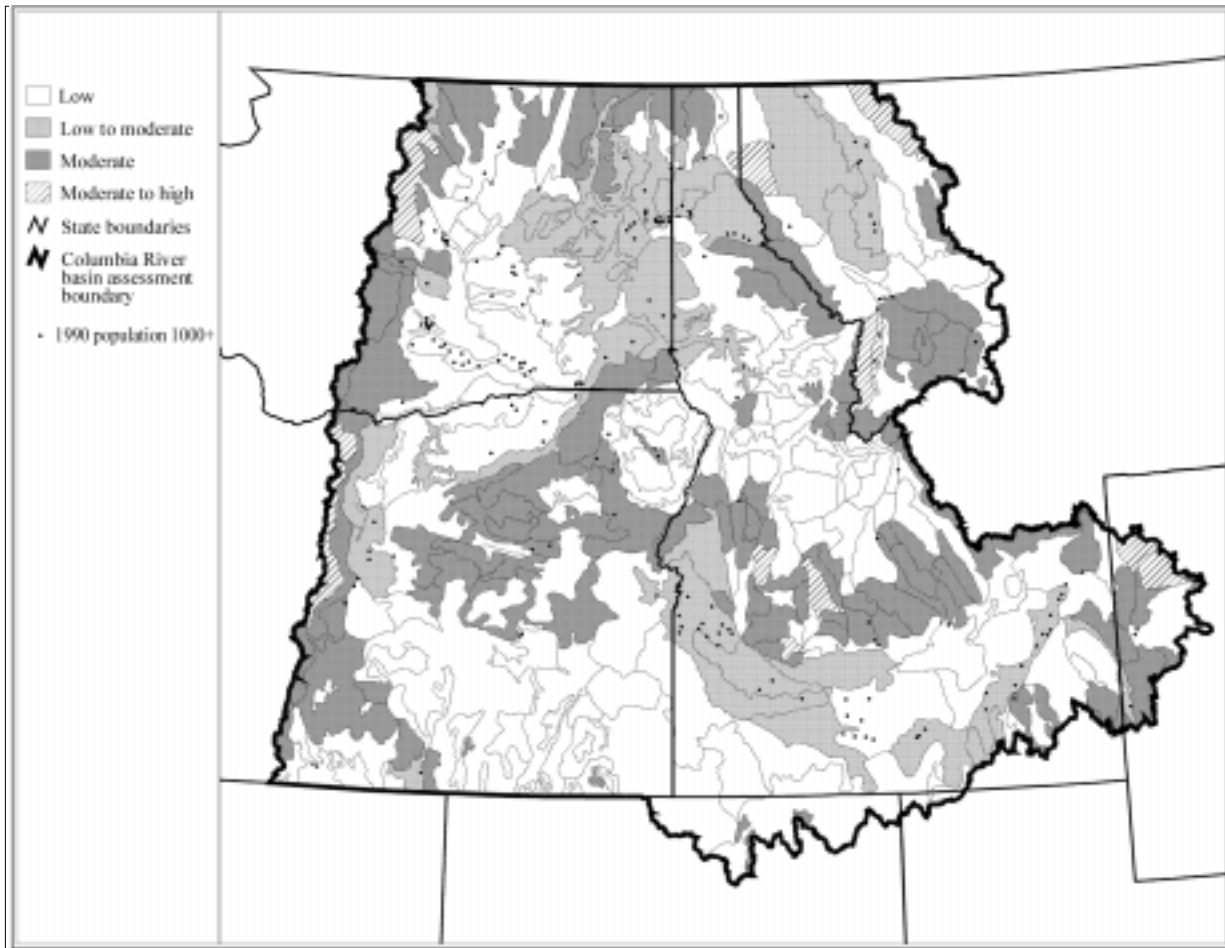


Figure 6—Theme interrelations for the interior Columbia basin.

(**natural appearing**). If the valley and all its surrounding “backdrop” subsections had the same theme, say **agricultural lands**, then the importance of the backdrop would be diminished. Conversely, naturally evolving **forest lands** adjacent to a **developed area** might have a greater degree of importance than it would if it were next to another naturally dominated theme.

A simple matrix (fig. 6) has been developed to display degrees of relative importance between two or more adjacent subsections and their current overall place themes. In general, it can be used as an indication of relative contrasts in attributes. The theme interrelationship matrix illustrates relative degrees of contrast between a given place and its neighbors based on current overall images or themes that have been inventoried. A place with a theme that is culture dominated, such

as **developed areas**, has a relatively high degree of contrast when compared to a neighboring place with a nature-dominated theme, such as **forest and shrub-grasslands (naturally evolving)**. Conversely, the distinction between two adjoining places whose themes are similar will have a relatively low degree of contrast.

The authors postulate that places having higher degrees of contrast have implied higher values, human dependencies, and expectations for maintenance of existing characteristics. These areas also may have higher potential for conflicts because of the diverse values and expectations of people.

Relative degrees of contrast can be used by land managers as an indication of place priorities when considering the implementation of alternatives. For example, a designated wilderness

Table 1—Theme interrelation matrix^a

Place theme	Degrees of contrast				
	Developed areas	Agricultural lands	Shrub-grasslands (NA)	Forest lands (NA)	Forest and shrub/grasslands (NE)
Forest and shrub-grasslands (NE) ^b	High	Mod.-high	Mod.-low	Mod.-low	Low
Forest lands (NA) ^c	Mod.-high	Mod.	Mod.-low	Low	Mod.-low
Shrub-grasslands (NA)	Mod.-high	Mod.	Low	Mod.-low	Mod.-low
Agricultural lands	Mod.	Low	Mod.	Mod.	Mod.-high
Developed areas	Low	Mod.	Mod.-high	Mod.-high	High

^a The theme interrelation matrix displays relative degrees of contrast between a place and its neighbors, based on inventoried current images or themes. A place with a theme which is culture-dominated, such as developed areas, has a relatively high degree of contrast when compared to a neighboring place with a theme that is nature-dominated, such as forest and shrub-grasslands (naturally evolving). Conversely, the interrelation between two adjoining places whose themes are basically alike will have a relatively low degree of contrast.

^b NE = naturally evolving (essentially unaltered by humans).

^c NA = naturally appearing.

(theme: **forest and shrub-grasslands, naturally evolving**) may be considered a higher priority for more detailed analysis and planning when that wilderness is located adjacent to an urban area (**theme: developed**). Conversely, whereas a rangeland (**theme: forest and shrub-grasslands, natural appearing**) among thousands of acres of similar rangelands (same theme) may be an important place to some people, it may not have the same degree of relative significance when compared to its neighboring places.

Using the matrix shown (table 1), GIS programs allowing delineation of the relative importance of places were prepared. By using the ecoregion subsections as a proxy for place identification, and by using a simple weighting technique in situations where more than one significant theme exists within a place, the matrix analysis generated a graphic display indicating five classes of relative contrast for all subsections within the basin assessment area. An example of this is shown in figure 6.

Conclusions

Burdened with increasingly complex social roles, we need places that support rather than fragment our lives, places that balance the hard, standardized, and cost-efficient with the natural, personal, and healthful. To secure this kind of environmental quality in a rapidly changing world, we must put the principles emerging from the multidisciplinary science of places into practice on local and global levels (Gallagher 1993).

Knowledge gained from test area and other experiences within the basin indicates that places are not only possible but quite meaningful in ecoregion assessments. Several meaningful conclusions can be drawn from the application of place assessment.

1. A Connection Between People and Ecosystems

Sense of place, when applied as an ecosystem management concept, serves as a medium for resource managers to interact with the people

who live in, play in, or otherwise value the basin. Reversing this idea, place assessment also permits constituents to better understand management goals and potential changes to the lands they value.

As social scientists and biophysical scientists examine the influence of environment on humans versus the effect of humans on their environment, the application of place can focus the discussion. The test area experiences indicated that human-environmental interaction is not unilinear; rather, it is perhaps an interchange between humans and their environment. Clarke (1971) referred to this phenomenon as “an interactive unity of people and place.”

The basic idea behind ecosystem management, which stresses a similar circularity between people and their environment, requires new responses from managers whose decisions often rearrange peoples’ surroundings. In line with the ecosystem management paradigm, today’s managers must be aware that natural resources are no longer considered simply raw materials to be cataloged and manipulated as commodities, nor is one resource or species subliminally considered of higher value than another when making management decisions (Dustin and others, in press). Today’s managers must not only understand the contrast of the interactive unity between people and place but must also know how their decisions affect people and place.

Test area experiences in the basin provided a better understanding of the importance of place concepts. These experiences provided insight into the emotions people experience concerning potential changes to places they consider significant. Whereas some test area residents draw their livelihood from resource extraction on federally administered lands, others only visit these lands for recreational pursuits. For yet another group, the meaning and importance of these lands may expand dramatically through historic and spiritual significance. Moreover, for the environmentalist living in New Jersey, who may never venture into

the basin’s diverse places, simply knowing that significant or special places exist gives them existence value. These are examples of interactive unity between people and places.

Any given place allows various human interactions. At first glance, divergent expectations might seem to collide when management objectives do not seem to satisfy the expectations of different interests. Places are almost always multifaceted, serving as several places for several different people or communities, often with different meanings for each. To a logger, the landscapes of the Ochoco National Forest that provide him sustenance also may provide him with interactive unity having other ramifications. For example, the place where his saw creates clearings may very well become the place where 2 years later he teaches his young child to hunt. For individuals, there is no singular reality of place. Neither the logger nor the environmentalist puts a greater or lesser degree of importance or meaning on a place (Hovee 1995). Contradictory interactions within places do not indicate a greater or lesser degree of contrast or value among disparate groups.

Interactive unity between people and places, however, is often shared by several members of the same cultural group. This was especially true during the test area experiences when people discussed the meanings of identified places. Obvious similarities in overall images or themes appeared among community individuals who had similar backgrounds. Greider and Garkovich (1994) confirmed this finding, saying that the experiences of people in a given place tend to be similar to experiences of other people who have similar cultural backgrounds.

The visual images that places contain have significance in the general assessment process for the basin because there are strong links between the **scenic-aesthetic** (Williams 1995) meanings of place and the **cultural-symbolic** meanings of place. For communities, there is not only an identifiable common taxonomy of places and their meanings but also a generally consistent identifi-

cation of images or themes for large-scale places. Incorporating community definition of places and their themes as a threshold for addressing diverse public values concerning public lands and resources within the basin is not only feasible but necessary.

2. Community Scale for Place Assessment

The community-defined place approach applied in the test areas, in which people were asked to identify places and their boundaries without any preconceived notions concerning their extent, permitted a meaningful contribution to place identification.

The test area application found that the best scale for identifying places and their meanings for ecological assessments is ultimately at the community level. The size range of places defined by communities within the test areas (Silvies and Yakima) and in other portions of the project area generally range from 5,000 to 250,000 acres. Several individuals talked about places that were significantly smaller, such as their favorite fishing hole near a bend in the river, or much larger, such as the Blue Mountains, but these were exceptions.

Clearly, individual members of a community expressed personal characterizations and understandings when they were asked to describe a place on a National Forest or on other federally administered lands. When these same individuals, as part of a group, were asked about their understanding of the same place, their replies tended to conform to the group's response. Some individuals asked to change the information provided after other members of their group became involved in the interview and offered a different point of view concerning a given place location, name, or meaning.

It became apparent to interviewers that community members identified places as named geographic locations. Murphy (1991) describes this occurrence in his discussions concerning when a space becomes a place. The ideological landscape, according to Murphy, has to do with how people

identify with places emotionally and symbolically and must be discovered empirically. As the interviews in the Yakima and Silvies basins indicated, the emotional and symbolic meanings of places cannot be overlooked.

The 1994 Yakima and Silvies test area work suggests several other significant findings concerning community-defined places:

- An apparent shared sense of place among the members of a community exists, although not all members have the same depth of understanding for all places within a region.
- Various members of a community often define a given place consistently, although boundaries may be slightly discordant.
- Individuals expressed a shared compassion for both the natural and cultural aspects of their landscapes.
- People often described the meaning or images of large-scale places by using general phrases (i.e., "forests, ranges, towns," etc.), which described degrees of naturalness or development.

Although all the implications associated with these four common elements have not been fully investigated, there does seem to be a common thread, thereby suggesting that the community definition of place in ecosystem assessment be of substantial importance. The identification, taxonomy, meanings, and general images of the places described in the test area interviews were, at the very least, an expression of relative importance for the people who know those lands. Such indications of important areas or resources should be of interest to decisionmakers when considering alternative management strategies and potential resulting changes to those places. Understanding community definitions of places is essential to any subsequent planning efforts.

3. Subsection Scale

Subsection analysis provided a general way of establishing the identity, character, and themes of relatively large places within the basin. Time

constraints did not allow an adequate survey of community representatives throughout the 144-million-acre assessment project. Thus attempts to use place assessment at a larger, more practical scale, resulted in an acceptable compromise.

Although defined by a relatively large scale (100,000 to 500,000 acres), ecological subsections, combined with the names and themes that local contacts have given them, became effective surrogates for community-defined places (which are comparatively smaller at 3,000 to 100,000 acres). Subsection identities and themes are useful in public land and resource planning for predicting possible environmental changes resulting from management alternatives, for measuring the importance of a place compared with neighboring places, and for encouraging public participation early in the planning process. When subsections are used to identify places of importance to communities, they are somewhat limited because of their relatively large scale, mainly because ecological units tend to be limited in traditional, spiritual, and emotional meanings of place. Ecological subsections do seem to have value, however, when used as a cornerstone for individual and community involvement in place identification.

4. A Medium for Expressing Change

Place themes can be used as a means of identifying the relative contrast of broad social expectations resulting from resource management decisions.

As already stated, themes are an indication of the general expectations of people for future management of a place. At the core of Williams' (1995) **scenic-aesthetic** meaning of place, they serve as a general baseline for measuring possible long-term land use changes. They suggest a vision of how people believe a place ought to be managed and shaped. Changes in themes usually occur over several decades or more. Replacing apple orchards with subdivision housing developments might result in converting **agricultural lands** to **developed areas** if done in a manner where the developments are extensive enough to dominate the image of a place. Local people who wish to

use resources now may see their needs affected by management decisions that favor preservation of certain resources, thus altering the themes of the places for which they hold stake.

Theme changes in one place may have conspicuous effects on neighboring places. This interrelation of place themes must be a consideration in making management decisions that could result in long-term changes to place themes. The map shown in figure 6 may serve as a basis for identifying portions of the basin having a relatively high degree of importance to neighboring places. It graphically presents the parts of the basin that have the greatest relative degrees of contrast based on contrasting themes of neighboring subsections. It also may suggest the highest potential sensitivities where thematic changes may be disruptive to humans. At subsequent levels of planning, a similar approach at finer resolutions (such as community-defined places) should be meaningful to land and resource managers. The GIS programs used in this analysis have been designed for application in such work at finer resolutions.

Research Limitations

The identification of places and their meanings at the typical scales associated with ecoregion assessments is not an easy undertaking. Besides the enormity of the basin, time constraints and a limited number of people to accomplish the task of identifying places at the community level presented obstacles to universal application of the techniques applied in the test areas. The following are other limitations on this research

- Test area experiences led interviewers to believe that people have "secret" or special places of such intimate importance that they may not be revealed in any type of interview. This is probably because peoples' feelings about a place, their divergent personal definitions of that place, and their knowledge about and their own experiences in that place are very private. It seems reasonable to assume, however, that most "special places" are probably smaller and more intimate in nature than

could be considered in an ecosystem assessment of the magnitude of the basin project. In similar studies at finer resolution, this may be a more significant limitation.

- Some subjective decisions were made to include or exclude identified places during the analysis of data collected during test area interviews. For instance, if only one individual mentioned a place that he or she felt was of importance to their community, it was not indicated on the resulting composite map. This “cut” was necessary because of time constraints and because of the massive scale of the project. A larger sample size may have resulted in further duplication of places mentioned, thus adding a few places to the test area composite maps.
- More comprehensive interview methods may have provided more concise place data. The test area interviews were somewhat limited due to short timeframes. Whereas over 50 individuals and small groups contacted provided meaningful data for validating place assessment at the community level, larger samples may be necessary to fully substantiate the approaches suggested in this paper.
- Once places have been identified, field verification to validate their actual locations and themes seems reasonable. Time constraints did not allow such field verification, although identified places were reviewed on maps by several experienced employees of Federal agencies.
- Participation by all unit representative resource management agencies did not occur as planned.¹³ This forced the ICBEMP to provide estimates for several place names and themes in the southern Idaho portion of the project area.

¹³ Twenty-nine management agency units participated in the identification of place names and themes. Only one unit did not participate.

Recommendations and Future Research Needs

This paper does not suggest that the **cultural-symbolic** approach to place inventory is fully operational at this point. It merely suggests that peoples’ sense of place is identifiable at the community scale and is also meaningful within larger ecological units. This paper identifies the significant findings of the test area experiences and makes recommendations for future research needs by raising the following questions that may warrant additional research.

- What are the appropriate surveying techniques and means of other data collection for assessing places, meanings, and expectations for various communities and user groups? What is the appropriate sample size for this scale of analysis? How can a representative sample best be obtained? How are people who do not live or play in the area, yet who value its places, reached in a survey?
- Is the range of themes (from nature dominated to culture dominated) adequate to define the overall images of large-scale places on publicly managed lands?
- Does the GIS application of place themes and their interrelations serve as a predictive model for alerting the resource manager of high-priority areas where social dependencies and the potential for conflicts are likely to be higher? What value does this analysis technique have in subsequent levels of planning?

Closing Thoughts

Because any management decision that affects resources eventually involves location specificity, places and their meanings can no longer remain intangible and skeptical elements in the ecosystem management approaches of agencies to resource analysis and planning. As long as human landscapes and habitats remain viable considerations in the management of public lands, places

will be major factors in measuring the degree of success or failure of the management strategies of agencies. The consequences of any management action also may involve the humans who interact with the places affected by that action. As Hiss (1991) states, "The human connection to place is not merely a close association but a continuum with all that we are and think we are."

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Understanding the concepts of place in ecosystem management may allow land managers to more actively inventory and understand the meanings that people attach to the lands and resources under the care of the land manager. Because place assessment has not been used operationally in past large-scale evaluations and analyses, it was necessary to apply theories based on available literature. From experiences in two large test areas, it was apparent that the most appropriate scale for place assessment was at the community level.

Keywords: Place assessment, place themes, place concepts.

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333 S.W. First Avenue
P.O. Box 3890
Portland, Oregon 97208-3890

