

THE SOCIAL VALUES OF WILDERNESS

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Abstract: The purpose of this paper is to describe the value of federally designated wilderness to Americans using social science measures. Social science in this case refers to non-economic values of wilderness to individuals and communities (and excludes intrinsic values). Specific objectives are to posit 14 specific social values accrued from the NWPS and create a preliminary taxonomy of values. The purpose of creating the taxonomy is to organize and communicate the social value of wilderness to policy makers and the general public (who might not have a substantial understanding of wilderness) in a usable format.

Introduction

The purpose of this paper is to describe the non-economic social value of federally designated wilderness (i.e., those lands placed under the National Wilderness Preservation System (NWPS)) to Americans. Social values include the noneconomic values of wilderness to individuals and communities.

Specifically, we address the human use and non-use values of the NWPS that are noneconomic and nonconsumptive. Wilderness provides social services to the public that are of the same stature as other federally subsidized social services. Services include, but are not limited to, the contributions of wilderness to individual and social well-being such as air and water quality, cultural and historic

preservation, spiritual pleasure, and personal growth. The NWPS provides for the well-being of individual, communities, and the American culture in the same way that the social security program provides for the well-being of older Americans. However, the values that reflect these services have not been embraced or accurately understood.

Previously, the total value of wilderness has been underestimated by failing to consider both the use and non-use values in decision-making (Stevens, Benin, & Larson, 1995). Use values of wilderness comprise direct, indirect, and option values while non-use values are derived from preserving lands in their pristine condition and include existence, bequest, and intrinsic values (Mountford & Kepler, 1999). While there have been attempts to provide economic estimates of these values of wilderness, such as contingent valuation (i.e., willingness to pay) and proxy/ substitution methods, only direct uses can be reduced to wholly economic terms (Rolston, 1985). In order for the NWPS to remain a healthy and viable system into the 21st Century it must be protected by legislation and endorsed by society (Dearden, 1989). A first step in this process is to identify and specify the range of values accruing to Americans of the NWPS.

Currently there seems to be a deficiency in the use of social values in policy and decision making concerning wilderness. Detailed, information rich decision making methods are less often used due to difficulty of collecting the data and unfounded lack of confidence in the results. Decision makers seem to have a staunch confidence in traditional economic measures of value. Traditional value measurements have a direct and strong relationship with wilderness decision-making. The metric of monetary values or other standard value measures associated with attributes such as board-feet (timber) and animal unit months (grazing) are more comfortable for policy makers to understand and justify than nontraditional social measures. History has shown that policy makers feel more comfortable with decisions based on an economic premise than on one that is based on a less tangible foundation such as the spiritual value or existence value of a wilderness.

Traditional measures often assume that the detailed values (represented by the 14 social values posited herein) have been adequately captured using

traditional measures. However, traditional measures often fall short of representing the true value of wilderness due to lack of specificity resulting from indirect measurement. Yet, the relationship to decision-making is direct and strong. A strong and direct relationship also exists between the list of 14 values and the social science measures on the right of the figure. These social values are currently or can be directly addressed in detail by the fields of psychology, sociology, and anthropology. These forms of science are capable of providing more detailed information on issues associated with these values. However, the relationship between these forms of science and decision-making is almost non-existent and the richest sources of information are ignored or left dormant.

Explanation of the Social Values of Wilderness

The purpose of this section is to posit 14 social values of wilderness that have been or should be used to understand, explain, and champion the value of wilderness to humanity. The list is an accumulation of knowledge up to this point. The current exposition of values has been constructed from historical values and an examination of the current state of our value system. The following list is not completely inclusive; an attempt has been made to provide a comprehensive umbrella of social values without allowing the individual values to overlap in definition. However, there is always room for debate over the inclusion or exclusion of individual items. When possible, specific values are supported using past research. Some values have not been researched at this time and are not supported by research examples and those that have been investigated largely reflect scientist intuition and limitations in earlier decades of methodology. The list of values is intended to provide a springboard for future research in the rubric of wilderness value.

The social values listed are organized into four domains (self-centered, societal, human, and vehicles for acquiring values). Each domain consists of a group of values that have similar content. These groupings serve as a preliminary taxonomy of social values. Each set of definitions in the domains is preceded by a brief introduction describing the group of values. Rolston (1985) discusses the following seven, of the 14, values listed below: character building, therapeutic, spiritual, historical/cultural, esthetic, and

recreation. The descriptions below expand on Rolston's work and provide additional value topics, insight, and organization.

Self-Centered Values

Values that result in direct benefit to the individual are considered self-centered. Each of the values in this domain provides self-improvement qualities to the wilderness user. People who have relationships with the individuals experiencing self-centered values may also realize indirect benefits. This domain deals specifically with the assertion that wilderness has therapeutic qualities and that people can experience a positive and meaningful change as a result of spending time in wilderness.

Scherl (1989) asserts that an individual gains self-control by participating in wilderness based activities. The wilderness environment cannot be easily changed; attention must be shifted inward when seeking a means of maintaining a balanced person-environment relationship. As a result the individual must find a way to align him or herself with the environment in order to cope with situations. Many wilderness education programs depend on the trying conditions experienced in wilderness to promote personal growth. Experiencing an optimal stress level from matching personal skill level with fear, physical challenge, or emotional challenge is believed to promote personal growth by challenging the individual and allowing successful problem solving skills to be exercised. Coping with wilderness situations prepares the individual to remove previous psychological barriers that are reinforced in urban environments and prepare for confronting the unfamiliar and unexpected (Scherl, 1989). People become more aware of their capabilities and resources after exerting them in wilderness. The awareness that one can identify, confront, and successfully cope with challenging situations provides increased self-confidence, which influences all parts of life.

Wilderness provides a context for individuals to develop a sense of self-identity, self-reliance, and to shun social pressures. Pohl and Borrie (2000) posit that wilderness is a place "where women may go directly against the grain of what they have essentially been socialized to be" (p. 416). Gender roles are less inhibiting to women in wilderness, particularly on all women experiences. Women

identified four transferable outcomes from all-women wilderness experiences (Pohl & Borrie, 2000). First, self-sufficiency, the ability to rely on personal resources, is developed in a wilderness context. Self reliance helped assign self-worth, create a positive sense of self, and reduce socially imposed limitations. Second was a change in perspective, which is a shift in point of view in understanding and judging things. Noted third was a more meaningful connection with others. Relationships were more comfortable, centered on bonding and healing problems, and the ability to speak freely with improved communication skills. Finally, wilderness experiences lead to increased mental clarity, mental awareness and being more mindful of others. Overall, wilderness experiences promote greater freedom of thinking and improved mental health. The value of wilderness for character building, therapeutic purposes, personal well being, and self-enlightenment are further defined below.

Character Building

This value is the foundation for groups such as the Boy Scouts, National Outdoor Leadership School (NOLS), and Outward Bound. Humans have the opportunity to push themselves, learn about the environment, practice teamwork, hone skills, improve physical condition, and balance success and failure. The individual has the opportunity to spend time developing a sense of personal value. Character building is usually gained through the vehicle of a recreational activity. Calculated events, such as a solo backpacking trip, a skill-challenge match on a rock climb, or unexpected events, such as an electrical storm or avalanche, produce a person-environment relationship that is appraised as a challenge, which must be confronted and overcome. The positive outcome of successfully coping with the challenge is improved and strengthened character. However, not all character building wilderness experiences must be physically and emotionally challenging. The sublime nature of wilderness also has the ability to promote self-centered values. A sublime wilderness setting allows opportunities for self-reflection or to engage in character building activities that require concentration (such as painting, meditating, or photography).

Therapeutic

This is the basis for wilderness therapeutic

recreation programs. Again, the sublime nature of wilderness provides a therapeutic setting for recovery from traumatic events (e.g. sexual assault, loss of loved ones, divorce) or those suffering other afflictions (e.g. depression, mental illness). The pressures of society are removed and social situations are reduced to simpler terms in a wilderness setting. Problems caused by complicated and confusing daily life are expunged in wilderness. Daily routines in wilderness are simplified and primary survival activities have greater meaning (for example, gathering fire wood, boiling water to drink, or hiking to the next camp site). One has the time to “get back to basics” and heal by focusing on goal-oriented activities in the grandeur of a wilderness setting.

Personal well-being

Wilderness is considered a restorative environment (Kaplan & Kaplan, 1982), a place to get away to, or escape the pressures of the “daily grind”. In this case, the value of wilderness is to allow the individual to recover from the pressures exerted in un-natural environments (urban and social settings) and return with a greater sense of well-being. This value is a reflection of basic models that posit that time away is necessary to recover from weekday pressures and the worker will return more productive and ready to face the week after a weekend or vacation. It is also associated with other values pertaining to psychological health. For example, the amateur photographer may have increased self-efficacy after producing a pleasing image. This can be separated from character building in that one can have very strong character and poor psychological health. Therapeutic value is different in that it is more akin to a prescription from a doctor in response to an ailment; using wilderness to promote well-being is more psychological maintenance.

Self-Enlightenment

This is a higher order value (higher order is used with caution as this is not a hierarchy). This value represents the importance of entering wilderness with the intention of achieving a higher level of consciousness or to improve oneself in a metaphysical sense. Self-enlightenment differs from spiritual value. As a spiritual value, nature takes the role of representing God or a spiritual higher power; thus, there is a master-servant relationship with the human taking the role of

servant. The focus of the experience is on the individual person in a self-enlightening value. A person can use wilderness a respite from stress to address difficult questions or seek solace. Wilderness has value as a non-judgmental environment that naturally allows the best qualities in a person to surface. A person is free from the confines of urban life to achieve higher levels of consciousness in wilderness settings.

Societal Values

Values in this domain illustrate how wilderness contributes to America as a social entity. Wilderness is a vital component of the social fabric that displays the character of American citizens and culture. Wilderness is valuable as a means of producing productive, contributing, and well-adjusted citizens. Historically, these values extend beyond the first Euro-Americans setting foot on the continent and include wilderness values of indigenous populations to North America. Values that are realized by present-day society and are integral to the continued existence of a traditional American Culture are represented. Wilderness has value as a contributor to basic social institutions such as the education system, religion, family, and the American workforce.

Americans of all backgrounds can benefit from wilderness in the form of an increased understanding of community within close relations and society as a whole. On this topic, research has shown the value of wilderness experiences to the welfare of disadvantaged youth. Disadvantaged youth who have participated in wilderness backpacking programs, designed with an educational prerogative to promote citizenship and job retention, have identified the following values (Russell, Hendee, & Cooke, 1998). Wilderness experiences develop a positive self-image and strengthen friendships in youth. Group experiences in wilderness promote a sense of community, foster an effort to achieve communal goals, and teach respect for other members of the community. Wilderness experiences reduce inhibitions in communication with peers and promote effective communication with authority figures. Relief from daily stresses found in the wilderness allows citizens to return to work and family life refreshed and renewed. Russell, Hendee, and Cooke (1998), found that disadvantaged-youth hired by the Federal Job Corps were more likely to retain their

jobs if they participated in a wilderness based education program. Specifically, a 36% reduction in termination rates was found for those who did participate in the program when compared to those who did not participate.

The values of positive self-image, community, respect for peers, respect for authority, goal setting and achievement, and positive family relations are fostered through wilderness experiences and that these values are vital to America as a nation. In addition, any individual who seeks-regardless of advantage or disadvantaged position in society-can realize these values. The societal values promoted through wilderness that we hold dear today are the same values displayed throughout history. History is rife with examples of men and women challenging themselves in the wilderness, with personal goals and communal goals, then emerging from the experience a better person and producing benefit to the Nation. The values learned and displayed on a wilderness outing today are the same as values displayed by pioneers such as Lewis and Clark when confronting the American wilderness in 1803 or Sir Edmund Hillary and Tenzing Norgay the first men to summit Mount Everest in 1953. The social values of wilderness endure the test of time and still contribute to cultural development. Americans have assimilated many of these people and deeds into its history and national character. Wilderness has created the American heritage, history, and a national identity. This sense of American identity founded in wilderness provides a sense of future projects and possibilities (Hammond, 1985).

Educational

Wilderness is a warehouse of educational resources. Subjects such as geology, botany, zoology, and entomology rely upon untrammled wilderness to produce the necessary elements for their continued existence. These subjects are best displayed through examples in nature. Flora, fauna, wildlife, and physical conditions are represented in wilderness that cannot survive elsewhere. Teachers and researchers from the elementary to graduate levels depend on wilderness for educational subject matter. Wilderness has value as a research laboratory and in taking students out of the building and using wilderness as a classroom or using wilderness as a tool in the classroom. In addition, it has become apparent that learning

styles differ as we discover more about human learning ability. Often students are more adept to learning certain subjects in informal settings opposed to formal. Wilderness can compliment the formal classroom or in other cases wilderness is the best possible classroom. Educational value provides the base for institutions such as the Teton Science School, curriculums such as 'semester at sea' or life education programs such as Peace Corp.

Spiritual

The word wilderness appears 245 times in the Old Testament and 35 times in the New (Nash, 1982). Wilderness was a cursed land and associated with a forbidding character as defined in the Old and New Testament. The God of the Old Testament used the wilderness as a punishment for the unfaithful (Nash, 1982). However, current society is beyond such interpretations. A more palatable interpretation of the human relationship with wilderness in a religious/spiritual sense is represented by John Muir's attitude toward nature. Muir saw wilderness as a place of worship that was created by the hand of God. Damming of the Hetch Hetchy Valley in the wilderness of Yosemite surfaces Muir's pious attitude toward the spirituality of nature. "Dam Hetch Hetchy! As well dam for water tanks the people's cathedrals and churches, for no holier temple has ever been consecrated by the heart of man" (Muir, 1912). Wilderness stands "as a symbol of qualities beyond the structure of routine life. It competes with no religion; rather it suggests a new religion, the revelation of which is comprehension of the vast cosmos and the ultimate purpose and validity of life" (Adams, 1961, p. 53). Mountain peaks, the grace of grizzly bear fishing for salmon, and the calm or turbidity of the ocean foster a spiritual connection with larger powers. The beauty, grandeur, and mystery of wilderness inspire a reverence for a higher power responsible for its creation. Wilderness provides a church for those who do not pray indoors or with a liturgy. Three major types of spiritual groups help describe these values: Native American Indians, the wilderness enthusiast who "connects" with nature, and New Age type religions.

Family & Social

Family and fraternal bonds are created using the vehicle of wilderness based leisure outings. This is represented by adages such as "the family that plays

together stays together." Participating in wilderness-leisure activity allows family members to develop and express primary relationships (Mannell & Kleiber, 1997). Mannell and Kleiber discuss three values of this type of family interaction. The first realized value is family stability, seen as continuity of relationships and a reduction in the probability of separation and divorce. Interactions and communication among family members improve, fewer conflicts occur and those that do occur are easier to resolve, and there is a more equitable distribution of household tasks and family roles. Third, family wilderness-leisure outings promote both family and marital satisfaction. "Husbands and wives who share leisure time together in joint activities tend to be much more satisfied with their marriages than those who do not" (p.320). Family wilderness trips such as hiking or camping proffer opportunities to create positive role models and fortify family bonds that result in lasting family units and positive morale. Friendships are created and enhanced through wilderness-leisure social organizations such as the local hunting, fishing, hiking and mountain bike clubs. Wilderness provides a context to engage in controlled social interaction while experiencing benefits from other values. Thus, social bonds are strengthened while participating in wilderness activities with others. For example, sharing a religious or enlightening experience with another person fosters strong relationships resulting in positive social functioning.

Citizenship

The seemingly innocent protests of the 1960's are over. Citizens have moved to new methods of enacting social reforms in addition to protests. Wilderness has generated a following that is willing to take civil action when necessary. Increased citizenship is shown through the number of letters written to political representatives, organizations joined, special interest magazine subscriptions, monetary donations, and protests. A significant population has been motivated to take part in the governmental process as a result of the wilderness cause (for and against the cause). The value of citizenship is in the fact that regular citizens who might otherwise have been politically dormant have been called to duty to do their part for the good of society. A sense of responsibility for both environmental and social community has been created by wilderness.

Historical & Cultural

Wilderness is a watershed of cultural and natural history. The development of American heritage is intricately linked to wilderness and nature (pioneers, cowboys, pilgrims...). History is a combination of reality and romanticism. Thanksgiving cannot be celebrated without the romantic vision of pilgrims living on the edge of a wild and undiscovered continent. Wilderness provides a living memory of American heritage (e.g. the wild west, Louis and Clark, Buffalo Bill Cody, and Seward's Icebox). It also provides living evidence of how things were for most of recorded and unrecorded time (before human presence). Losing wilderness results in the loss of a tangible, real, and accurate example of American history. Once lost that example can never be recovered. Nash (1982) provides an excellent description of how wilderness has shaped American and other cultures; the details of such a discussion are limited here.

The definition offered here is concerned with the value of wilderness to American culture in the present day. Our culture has changed from one that fears wilderness to one that actively engages wilderness, even taunts wilderness, using hi-tech equipment (e.g. Gore-Tex and synthetic insulators). The phenomenon of wilderness activities reshaping culture is represented by the popularity of eco-races, extreme sports, and the ease of introduction to once elite activities such as climbing Denali in Alaska or Mount Rainier in Washington. Debates concerning the commercialization of wilderness experiences and the modification of historical methods of interacting with nature illustrates that Americans are rooted in traditional wilderness experiences and traditional methods of wilderness recreation have great value. In addition, many basic cultural traditions that shape our society and are of high value endure; for example, a family camping trip, a summer vacation to a National Forest or National Park, or weekends at the family cabin. The act of a parent teaching a child to fish or how to make a campfire is still a culturally rich experience. Using wilderness as a means to pass cultural and family traditions between generations must endure. In addition, other cultural values of society are conveyed by use of wilderness and attitude toward wilderness management. For example, consider the diverse cultural values represented by the interest groups involved in the debate over snowmobile use in Yellowstone. Thus,

wilderness develops the character of American culture and wilderness acts as an agent to socialize people into American culture.

Human Values

Some wilderness values transcend American culture and are valuable to humanity as a whole. This domain addresses such values in a global and cultural light. Wilderness has value simply because it is esthetically pleasing to the eye, it has value as a source of art that motivates humans to greater purposes. Wilderness also helps humans understand the world they live in. Art has played a role in the preservation of wilderness since the early 1800s. Fear of complete destruction of wilderness by "ravages of the axe" beckoned Thomas Cole. In 1836 Cole saw the destruction of the remaining North American wilderness as eminent. To awaken the American public and cease the destruction of wilderness over a century ago, he wrote "we are still in Eden; the wall that shuts us out of the garden is our own ignorance" (Cole, 1836). The photographs of William Henry Jackson were shown to the United States Congress during the debate to designate Yellowstone as a National Park. Photographer Ansel Adams served on the Sierra Club board for 37 years. He met with former Secretary of the Interior Harold L. Ickes and used photography to advocate the designation of Kings Canyon National Park. Adams was invited to the White House by former president Gerald Ford and had an opportunity to use his art to persuade the President concerning the wilderness cause. He also spoke with former president Jimmy Carter and congress on the issue of the Alaska National Interest Lands Conservation Act.

Artistic representations of wilderness are an internal event. Reducing the grandeur of nature to attributes and descriptions often produces lacking results. Artistic representations of wilderness embody esthetic values and are a manifestation of our understanding of the world around us (epistemology). They conjure spiritual, emotional insights while communicating deeper meaning and understanding of experience. "The artist's function is not to produce mere pretty pictures and continue the euphoria which tame men so often develop in the presence of wild nature, but to stir the deepest concern about our hazardous tenure on this planet" (Adams, 1961, p. 58). As a Nation and a global community, esthetic and artistic values are

formed that influence the way the world is understood. Not only are these esthetic, artistic, and epistemological values represented in wilderness, but wilderness has also shaped these values.

Esthetic

Esthetic value is when nature is pleasing to the eye; for example: an eagle soaring, patterns on a sand dune, a murky swamp, the setting sun, shapes in irregular glacial till, or the prowess of a cheetah. Many of these visually pleasing elements are dependent on wilderness. This includes the feelings that one gets from interacting with the environment. For example an esthetically pleasing feeling might result from standing on the edge of the Grand Canyon, summing a difficult peak, braving a violent electrical storm, or watching clouds while lying in a pasture. These are experiences that cannot occur in a non-wilderness context. Beauty is in the eye of the beholder and is the result of intimate contact with the environment. Wilderness provides innocent and pure pleasing images and feelings enjoyed by humans. The aesthetics of wilderness are long lasting and provide stability for people forced to cope with an unstable world. One can rely on the consistency of the beauty of wilderness across generations. The esthetic value of wilderness will be weakened if wilderness is allowed to deteriorate.

Artistic

Thomas Cole and the Hudson River School used the medium of oil painting and artistic impression to birth the modern environmental movement we are part of today. Ansel Adams has extolled the artistic value of wilderness through photography. Artistic value is differentiated from esthetic in that esthetic value is dependent on direct contact with the resource. The artistic value is dependent on an image that is an abstraction of reality. There are multiple layers of abstraction that may modify the reality of the wilderness. This may add or detract value (add a romantic history or portray an environment inhospitable to humans). Artistic value can be illustrated by the depth and beauty of a black and white photograph of Half Dome that is hung in your home. Photographs and paintings of wilderness have a definite market value. However, the true value is only realized in the meaning that the image conveys to the viewer. The artistic value of nature is used to communicate or

accentuate other anthropocentric values. As seen when an image of Mt. Baker in Washington State represents a cherished moment during a father and son climbing trip.

Artistic value is not only individual, cultural consensus exists for the value of some images. Art may also deliver a message more powerful than words. For example, an anti-pollution advertising campaign in the 1970's used a powerful image of a Native American Indian crying with a polluted Manhattan Island in the background. The Wilderness Society has used Ansel Adams' photographs of varied wilderness scenes in appeals to members. The power of wilderness to convey a message is also portrayed by the silhouette of Half Dome that has been trademarked by the National Park Service to represent Yosemite National Park. The allure of wilderness is also used in advertisements for commercial products. Wilderness is used to sell products to Americans on the premise that the product will bring the individual closer to wilderness or that the product represents the wilderness ideal or way of life. Ironically, wilderness preservation rarely profits from the sale of these products and many products are damaging to wilderness. The value or power of wilderness as a consumer attraction is not clearly defined. Additional guidelines are needed to protect wilderness from exploitation by marketing and wilderness preservation should be compensated for the value added to products by wilderness.

Epistemological

Epistemology is a way of understanding the world or the science of seeking the origin of knowledge. Human understanding of the world and knowledge base has been historically related to nature and wilderness. Thus, our current understanding of the world is dependent on the historical value of nature. Humans use natural processes as a reference group or point for evaluation of unnatural products and phenomena. For example, the tinsel strength of a single strand of spider web might be compared to a nylon strand of the same diameter to evaluate the petroleum-based product against the perfect natural product. Humans are yet to replicate a perfect circle with any material and nature is capable of producing them day after day. The scarcity of Wilderness is causing two additional influences on epistemology. First, as the Wilderness movement gains

momentum the epistemology created through Wilderness is also gaining significance. Second, epistemology is not static; it evolves with culture and society. As more Wilderness is lost to development (it becomes more scarce) our epistemology changes and diverges from one based on natural processes to one based on unnatural modifications of natural resources that are internalized by culture. Thus, wilderness has value in the ability to provide an accurate understanding of the world we live in.

Vehicles for Acquiring Values

Vehicles are simply mechanisms that people use to realize the previously discussed social values. Recreation is specifically noted above as a vehicle for realizing character building, therapeutic, personal well-being, self-enlightenment, family & social, historical & cultural, and artistic values. Research provides information necessary to competently manage wilderness and can improve quality of life outside of wilderness. Recreation and research are valuable in themselves and as conduits to receive benefits associated with other wilderness values.

Recreation & Leisure

Recreation is a vehicle for, or provides the context in which, humans acquire other values of wilderness. For example recreation may be the primary component of a therapeutic wilderness curriculum but, the participant may not perceive the activities as recreation, or an amateur photographer may represent an artistic value while capturing images of mountains on film. Thus, the true anthropocentric value of recreation is not in the activity, it is in the vehicle that allows one to acquire additional values. Stated differently, the leisure experience (regardless of recreational activity) provides value. Recreation managers often use the Recreation Opportunity Spectrum (ROS) to describe resources as existing along a continuum ranging from the most developed urban recreation environments (e.g. RV parks) to the most primitive wilderness (Driver, Brown, Stankey, & Gregorie, 1987). Wilderness has value as the primitive anchor along the ROS continuum (Manning, 1989). Wilderness is necessary as an anchor and standard by which other natural resources are compared. Allowing wilderness to degrade or be modified will reduce the breadth of the ROS continuum and result in the loss of primitive recreation opportunities.

Research

Manning (1989) stated, "I have concluded that the greatest value of wilderness for social research is as a laboratory to study man's relationship to nature" (p. 120). By definition the NWPS provides excellent opportunities for primitive and unconfined forms of recreation (1964). In an unconfined environment people are more likely to relax and allow their true emotions and relationship with nature to surface. In addition, wilderness environments provide a more controlled and comfortable social setting. People are more comfortable and social interactions feel less stressful in controlled social situations that occur in wilderness (Kaplan & Kaplan, 1982). Behavioral scientists have an opportunity to investigate human behavior in a setting that is free of social inhibitions. Wilderness can also be a very stressful setting. Wilderness recreationists may seek stress in activities such as mountain climbing or a wilderness may be rather stressful if the environment is alien to the individual. Thus, researchers have an opportunity to understand human response to stress (Schuster, 2000). Wilderness is often considered the antithesis of the urban world. In this case, the value of wilderness to reduce the affects of stress from everyday life can be investigated (Iwasaki & Mannell, 2000). Wilderness is ripe with opportunities for social research, provided basic safeguards are taken to preserve the spirit and character of the wilderness experience. There is great potential for wilderness to teach humanity secrets of successful coexistence with each other and nature. Finally, the most appropriate source of information to guide wilderness policy is information from research conducted within wilderness. However, wilderness is underutilized as a research laboratory despite the myriad of possibilities (Manning, 1989).

Closing Statement

Only when social values are completely imbedded in the decision-making process, and maintain equal stature with other values, will decisions be informed and American citizens realize the true value of wilderness. The present decision making system tends to underrepresent the widespread, diffuse social values and overestimate the concentrated economic values (Rolston, 1985). Without the use of social values it is unclear if present actions truly represent the needs of society today and generations to come. Diverse

populations of citizen's benefit from the wilderness values discussed herein. Concentrating social values as a single unit to be discussed in policy negotiations is complicated by the variety of values derived from diverse populations. However, the diversity must be embraced. America is a melting-pot of cultures, which translates to a melting-pot of wilderness users. It is a constitutional right of all Americans to have their values represented by public policy concerning public land and to have an opportunity to realize desired values on public land. Thus, policy-makers who neglect social values of wilderness are also neglecting their duty and obligation to the public. The application of social values is a difficult task. This paper is not expected to single-handedly modify the belief systems of researchers, policy-makers, and citizens socialized to comfortably rely on tangible and economic measures for rationalizing behaviors. Consistent collective action across time must be directed toward: defining and quantifying social values, the ability to accurately communicate the importance and relative strength of values, and identifying and informing agents capable of influencing wilderness management. The process of applying social values is a political, academic, and civic process.

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