On the Edge, Peering In
Defining and Managing the Near-Wilderness Experience on the Denali Park Road

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Abstract: Just as the notion of wilderness has evolved over time, so has the concept of a wilderness experience. In this study, we explore the concept of a “near-wilderness” experience at Denali National Park. Using qualitative interviews of visitors on the Denali Park Road, a number of potential indicators of quality for the near-wilderness experience are identified.

Introduction
A recent survey of National Park Service wilderness managers estimates that as many as half of all wilderness visitors are day users and that day users may have quite different motivations and expectations than “conventional” wilderness visitors (Abbe and Manning 2007). It is reasonable to assume that these day visitors confine themselves largely to the road corridors near the boundaries of designated wilderness. In a broader sense, the vast majority of Americans do not even set foot inside wilderness areas, but may appreciate them from outside of their borders. People who use wilderness resources, visually or otherwise, from just outside of the boundary of a wilderness area may be termed “near-wilderness” visitors. These near-wilderness visitors differ in the sites they access and how they access them, but common threads that link these people together are their proximity to wilderness and their dependence on the resources and resource conditions of wilderness.

What experiences are these near-wilderness visitors seeking? Substantive research has enhanced understanding of conventional wilderness experiences, and this has helped guide wilderness management (e.g., Glaspell et al. 2003; Lawson and Manning 2002; Watson et al. 2007). But conventional measures of the wilderness experience, such as trail encounters and campsite conditions, are probably not highly relevant to near-wilderness visitors. A substantial number of near-wilderness visits occur annually, likely even surpassing the number of traditional visits in places such as Alaska, where flightseeing aircraft, cruise ships, and bus tours bring hundreds of thousands of visitors to the edge of wilderness areas. As what may be the largest “client” group for wilderness managers, near-wilderness visitors deserve more research and management attention. This is particularly true given that an understanding of how visitors relate to wilderness can improve stewardship of the wilderness experience (Dvorak and Borrie 2007). The objective of this study is to explore one case of the near-wilderness visitor experience at Denali National Park.

The Study
Nearly 2 million acres (809,717 ha) of Denali National Park are designated wilderness. A 300-foot-wide (91 m) corridor that contains the 90-mile-long (145 km) Denali Park Road is excluded from this designation, and this road provides a vast majority of park visitors with their means of seeing the park and its wilderness (Tranel 2000). All park visitors (with a few minor exceptions) are required to ride on buses along the...
road. Visitors who ride the park’s Visitor Transportation System (VTS) buses are allowed to leave the buses and walk off the road corridor, but few do. In this sense, most visitors are “on the edge, peering in” to the vast wilderness that is the heart of the park. Visitation on the Denali National Road is an example of one type of near-wilderness experience.

To help define and manage the experience of visitors on the Denali Park Road, this study adopted the approach of management-by-objectives frameworks such as Limits of Acceptable Change (Stankey et al. 1985) and Visitor Experience and Resource Protection (National Park Service 1997; Manning 2001). These frameworks are built on the foundation of formulating indicators and standards of quality for park and wilderness resources and the quality of the visitor experience. Indicators of quality are measurable, manageable variables that help define management objectives, and standards of quality define the minimum acceptable condition of indicator variables. For example, Watson, Knotek, and Christensen (2008) found that gaining perspective of one’s size and scale relative to their environment, seeing climbers, and landing on a glacier were potential factors or indicators important to flightseeing experiences (one type of near-wilderness visitor) at Denali National Park. Since relatively little is known about the near-wilderness experience beyond flightseeing, this study focused primarily on potential indicators of quality for the Denali Park Road visitor experience and used qualitative research methods.

Exit interviews were conducted with Denali Park Road visitors during the 2006 peak visitor use season (July–August). Respondents were purposively selected so that road users on VTS buses, tour or commercial buses, and in RVs were included in the study. Interviews were conducted in a semi-structured format in which all respondents were asked a series of standard questions, but the interviewer was permitted to ask follow-up or exploratory questions. All interviewees were asked the question, “Did you feel you were in the wilderness during your trip along the road? Why or why not?” Responses to this question serve as the foundation for the examination of wilderness (or near-wilderness) experiences in this article.

Interviews were recorded and transcribed verbatim. A content analysis of each interview was then performed. In this analysis, interviews were coded based on procedures described by Patton (2002) and Miles and Huberman (1994). Coding segments data into simpler, general categories that can then be used to expand and tease out new questions and levels of interpretation (Corbin and Atkinson 1996). Codes assigned during the process were developed inductively—as they emerged from the text of the transcripts—but the structured questions were used as an organizing framework (Strauss and Corbin 1990). Potential indicators were then derived by examining codes and related text for variables that meet criteria for a good indicator (e.g., measurable, manageable, integrative, and related to visitor use) (National Park Service 1997; Manning 1999, 2007).

Three researchers participated in coding, but each transcript was coded by a single coder. However, several steps were taken to ensure an acceptable degree of coding reliability. First, a lead coder was designated, and he established all new codes. However, new codes were suggested by all three coders. Second, all coders independently coded the first five transcripts, compared the codes assigned, and discussed and resolved any differences. Third, inter-coder reliability was checked using the formula recommended by Miles and Huberman (1994): Cod reliability = number of agreements/(total number of agreements + disagreements). A conventionally acceptable intercoder reliability of 77.1% was obtained in coding of transcript data.

**Study Findings**

A total of 126 interviews were conducted with road users: 52 with VTS bus users, 59 with tour or commercial bus users, and 15 with RV users. Responses to the question, “Did you feel you were in the wilderness during your trip along the road? Why or why not?” were first categorized as affirmative or nonaffirmative. Of the codes assigned, 122 affirmed a feeling of being in the wilderness and 95 did not. (Many of the respondents considered multiple, sometimes opposing, reasons for feeling as if they were or were not in wilderness) Additional subcodes were assigned to characterize reasons for these feelings.

Affirmative subcodes suggested that the most frequently occurring reasons for respondents feeling as if they were in the wilderness was the “road was surrounded by a vast, natural landscape,” there was “not much traffic or use” on the road, there were “few buildings” along the road, or because of “the wildlife that was seen” while on the road (see table 1). A respondent characterized many of these subcodes when he said:

**Respondent:** Yeah, definitely.
**Interviewer:** Why is that?
**Respondent:** Um, because there, you don’t see habitation, human habitation. You don’t see a lot of vehicles. You don’t see hardly anything. A few buses, and we did see animals, so, and the wilderness is, it looks like it’s untouched.
In addition, some respondents reported that the “character of the road” and a “lack of street signs, traffic signals, or power lines found on other roads” contributed to a feeling of being in wilderness on the Denali Park Road:

**Respondent 1:** Yes. There were very few cars, very few people, then, you know, an occasional bus or other buses, but that’s it. You didn’t see people walking the roads, you didn’t see, you know, lots of buses or lots of cars.

**Respondent 2:** And also I think that the nature of the road, it was a little bit bumpy, but that contributes to the feeling that you’re in a wilder environment. If it had been a paved road with several lanes of yellow stripe down the middle, then that would have lessened the wildness, the experience.

**Respondent 1:** Minimal signage.

**Respondent 2:** Yes, that’s, I was just going to say for as far as you could see, you’re not seeing any development…

**Respondent 1:** Right.

**Respondent 2:** …you know, no houses. You’re just seeing land, and hopefully wildlife.

**Respondent 1:** Not McDonald’s.

**Respondent 3:** As the young lady said, you know, it’s the road. Don’t ever pave that road. It will eliminate a lot of the feeling that you’re out in the middle of no-man’s-land, if you pave it.

Some respondents felt that it was the lack of cars or being required to ride a bus that made it feel as if they were in wilderness on the Denali Park Road: “I would say the thing that I, talking about feeling like wilderness, I would say that you feel it a lot more being on one of the buses than you do having your own car driving back in.” Other subcodes assigned (though with less frequency) to explain affirmative responses to feelings of being in wilderness were “not much litter,” “quiet,” “I walked along the road,” “primitive or undeveloped rest areas,” and “character of the bus.”

Reasons given for nonaffirmative responses to this question were most frequently characterized by the subcodes “number of buses and people,” “being on the bus,” or “the road itself” (see table 2). For example, the following respondent suggested that being on the bus, and particularly having to look through the windows, removed visitors from a feeling of being in wilderness:

**Respondent:** Well, on the drive it’s just the window. You know, you’re driving through it and there’s a window. It’s still a barrier, you know. Like, today we went up the mountain and we saw the Dall sheep and you know, like, they were mainly in front of the garbage can, and if there’s no barrier, you can kind of like primal instinct or what-

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**Table 1—Subcodes assigned for affirmative responses to the question, “Did you feel you were in the wilderness during your trip along the road? Why or why not?”**

<table>
<thead>
<tr>
<th>Code or subcode</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (further reason not given)</td>
<td>6</td>
</tr>
<tr>
<td>Road is surrounded by a vast, natural landscape</td>
<td>42</td>
</tr>
<tr>
<td>Not much traffic or use</td>
<td>18</td>
</tr>
<tr>
<td>Few buildings</td>
<td>15</td>
</tr>
<tr>
<td>Character of the road</td>
<td>11</td>
</tr>
<tr>
<td>Wildlife that was seen</td>
<td>11</td>
</tr>
<tr>
<td>Lack of street signs, traffic signals, or power lines found on other roads</td>
<td>7</td>
</tr>
<tr>
<td>Only buses, no cars on the road</td>
<td>5</td>
</tr>
<tr>
<td>Not much litter</td>
<td>2</td>
</tr>
<tr>
<td>Quiet</td>
<td>2</td>
</tr>
<tr>
<td>I walked along the road</td>
<td>1</td>
</tr>
<tr>
<td>Primitive or undeveloped rest areas</td>
<td>1</td>
</tr>
<tr>
<td>Character of the bus</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table 2—Subcodes assigned for nonaffirmative responses to the question, “Did you feel you were in the wilderness during your trip along the road? Why or why not?”**

<table>
<thead>
<tr>
<th>Code or subcode</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>No (further reason not given)</td>
<td>1</td>
</tr>
<tr>
<td>Number of buses and people</td>
<td>31</td>
</tr>
<tr>
<td>Being on a bus</td>
<td>28</td>
</tr>
<tr>
<td>The road itself</td>
<td>20</td>
</tr>
<tr>
<td>Facilities (rest stops) were present</td>
<td>7</td>
</tr>
<tr>
<td>Landscape wasn’t rugged or forested</td>
<td>5</td>
</tr>
<tr>
<td>Construction activities</td>
<td>2</td>
</tr>
<tr>
<td>Human created noises</td>
<td>1</td>
</tr>
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ever you want to call it. But if there’s a bus, I mean, it’s not happening, you know? It’s not going down, so… the excitement’s dead.

Interviewer: So, just the fact that you’re in a bus removes that wilderness feeling?

Respondent: Exactly, yeah, exactly, one hundred percent. Like I said, it’s just like in a zoo. I mean, it can be a gate or, it can be a window. It’s still there, it’s still a barrier.

Other respondents indicated the road and seeing many buses took away from their wilderness experience:

Respondent 1: You could always see the road in front of you. It’s when you’re in the middle of nowhere and you can’t see or hear anything. That’s wilderness.

Interviewer: So the road took you out of that feeling?

Respondent 1: Yeah, you know you’re still attached to civilization.

Respondent 2: Yes, and because you’re constantly seeing buses ahead of you or passing you.

Other nonaffirmative subcodes were “facilities (rest stops) were present,” “construction activities,” “human created noises,” and “landscape wasn’t rugged or forested.” The latter of these was mentioned by the following respondent:

Respondent: I just thought wilderness would be more snow-capped mountains, rugged-looking mountains, more forestation, because what looked nice was really a valley. I just didn’t have the concept of a smooth rolling green valley in Alaska. I thought it would be a riverbed with sheer drops to the riverbed, mountain drops.

Interviewer: So wilderness to you means trees?

Respondent: Mountains, trees, rivers, but more rugged looking than I think I saw here.

Characterizing the Near-Wilderness Experience

Study results indicate that a substantial portion of respondents felt as if they were experiencing wilderness while riding a bus on the Denali Park Road. Denali’s landscape and wildlife immediately surrounding the road undoubtedly play the primary roles in this finding. However, responses suggest some characteristics of the road itself—its bumpy, rugged character; its built features (or lack thereof) in comparison to other roads; low use levels; and the use of buses instead of automobiles—contributed to a feeling of being in wilderness. This suggests that Nash’s (2001) definition of wilderness as a mood or feeling assigned by an individual appropriately defines the concept of wilderness for many vehicle-based visitors at Denali. Nash (2001) calls for us to “accept as wilderness those places people call wilderness,” (p. 5) and the Denali Park Road may be one of those places where this call should be heard. It may be an example of a road that—limited in development and use and closely managed to protect the surrounding landscape—may be compatible with the concept of wilderness.

Not all respondents felt as if they were within wilderness while on the road. The road, built facilities along it, or the use of the road by buses or people detracted from a feeling of being in wilderness for some respondents. This segment of visitors seems to better align with the traditional concept of wilderness as a place devoid of roads and untrammeled by humans. Some interview responses suggest that these road users might increase their feelings of being within wilderness by either walking along the road or taking short hikes off the road. No permit is required for day hiking at Denali, and VTS buses will stop (barring safety concerns) to let off or take on passengers at most places along the road. However, few visitors take advantage of these opportunities to obtain a greater sense of wilderness. This may be in part due to a lack of awareness of the opportunity for such activities.

The study suggests the existence of an unconventional type of wilderness experience at Denali National Park, the experience of seeing and appreciating a vast wilderness landscape without actually setting foot in the area. The vast majority of visitors to Denali ride the Park Road through the heart of a 2-million-acre (809,717 ha) designated wilderness area and feel as though they had a wilderness experience. Moreover, through qualitative interviews, respondents were able to report several dimensions of this experience that affect its quality, including wildlife viewing, “solitude,” the quality of bus drivers, bus maintenance and comfort, vehicle-generated dust, and visitor compliance with wildlife observation rules.

It should be noted here that the near-wilderness experience is not universal, and that these dimensions are specific to the near-wilderness experience of vehicle-based visitors on the
Denali Park Road. For example, on the Denali Park Road, bus drivers provide interpretation that fosters (or does not foster) a sense of wilderness. Also, the maintenance and condition of buses influence a person’s ability to see the wilderness landscape through bus windows that are clean and can be lowered, and brakes that operate noiselessly permit visitors to focus on the wilderness instead of their safety in a vehicle. These same dimensions may or may not be valid for the near-wilderness experience on other roads, and are certainly not applicable for near-wilderness experiences on trails.

Closer examination of narrative responses associated with the codes in tables 1 and 2 suggests even more specific manifestations of the dimensions important to the near-wilderness experience on the Denali Park Road. For wildlife viewing, respondents often mentioned the importance of opportunities to see wildlife, particularly grizzly bears, and the distance of wildlife sighted from the road. These manifestations of wildlife viewing might be useful as indicators of quality for the near-wilderness experience on the Denali Park Road. For example, if a relationship exists between the presence of grizzly bears along the road corridor and the number of vehicles on the road, then a quality near-wilderness experience (which would include a high probability of seeing a grizzly bear at close proximity) might be provided by adjusting the number of vehicles allowed on the road. However, in the absence of this relationship (or the ability to quantify it), management efforts might focus on other potential experiential indicators.

Emergence of the concept of solitude (and the opposite concept of crowding) in interview codes in tables 1 and 2 (e.g., “not much traffic or use,” “number of buses and people”) suggests that vehicle-based visitors at Denali expect and value one of the primary characteristics of wilderness that attracts more traditional users. However, based on the respondent narratives associated with the codes mentioned above, solitude for vehicle-based visitors is characterized in less conventional terms. Some respondents expressed their perceptions of solitude as having few encounters with vehicles either along the road, at rest stops, or at wildlife stops. Being on a bus with other people, even if they are not part of a personal group, may not substantially detract from a sense of solitude for many Denali Park Road users. Other respondents suggested that it
was the number of other vehicles within view, regardless of whether they were directly encountered, that most affected their perceptions of solitude. Methods to manage these indicator variables to enhance the near-wilderness experience on the Denali Park Road might include adjusting road-use limits, altering bus schedules to reduce vehicle encounters or sightings, or implementing and enforcing policies to mitigate encounters or sightings. An example of the latter might include requiring that the first bus that arrives at a rest or wildlife stop move along after a certain period of time when other buses begin to queue behind it.

Dust generated by vehicle traffic can be substantial along the Denali Park Road, particularly during drier periods. Dust affects the ability of visitors to see wildlife and scenery. The National Park Service currently uses a liquid spray to reduce dust on some portions of the road. However, it is uncertain if applications of this liquid are adequate (in frequency and scope) to reduce dust levels to a point necessary to protect the experience of road users. Also, reducing bus encounters would further lessen impacts of vehicle-generated dust on the wilderness experience of road-based visitors.

Actions of other users when viewing wildlife may impact the wilderness experience on the Denali Park Road. For example, bus riders who call out to wildlife or extend themselves out of a bus window when observing wildlife may reduce both opportunities for viewing wildlife for others and the naturalness of observations that do occur. Both of these actions are not allowed while observing wildlife from buses. However, visitors sometimes ignore these rules, as indicated by some respondents.

Management Implications
Denali’s 1986 General Management Plan established a use limit of 10,512 vehicle trips annually on the Park Road to protect the park’s natural and experiential resources. This limit was determined by adding 20% to use levels observed in 1984. Visitor demand for vehicle-based trips on the
Park Road is now nearing this use limit. This has created a need to reexamine the current limit to see if it is appropriate for balancing protection of wilderness resources, experiences, and access.

Findings from this study suggest that many Denali Park Road visitors feel as if they are experiencing wilderness, at least to some degree. But, several factors do take away from a feeling of being in wilderness. Monitoring and actively managing potential indicators identified in this study could protect or enhance the quality of the near-wilderness experience on the road while maintaining the current use limit. It may also be wise to monitor these indicators while the current use limit is adjusted up or down to test the effect of these changes on the quality of the near-wilderness experience. However, study findings reported here do not suggest if or how much the current use limit could be increased without unacceptably degrading the Denali Park Road near-wilderness experience. Additionally, experiential concerns are just one of several considerations on the Park Road. Impacts to wildlife, vegetation, abiotic resources, and management resources (e.g., budget, personnel, and facilities) need to be fully considered in planning for any changes to the current use limit.

Conclusions

Findings from this study of vehicle-based visitors on the Denali Park Road suggest that either indirect use (through viewing) or use of the edges of wilderness constitute a perceived but authentic wilderness experience for many visitors. Many other examples of this type of wilderness experience may exist, such as scenic drivers on roads in most national parks and public lands or even participants in flightseeing over these areas. Many of these people may experience wilderness without setting foot in or on it. This suggests that wilderness experiences can be viewed on a continuum, ranging from the conventional (e.g., multiday backpacking) to the unconventional, which may still be evolving. Because of its growing prevalence, unconventional wilderness (or near-wilderness) experiences should be given serious consideration—and even managed for—in the operation of wilderness areas. This article represents a step toward better understanding the near-wilderness experience and the indicators of quality needed to define and manage such experiences.

References


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