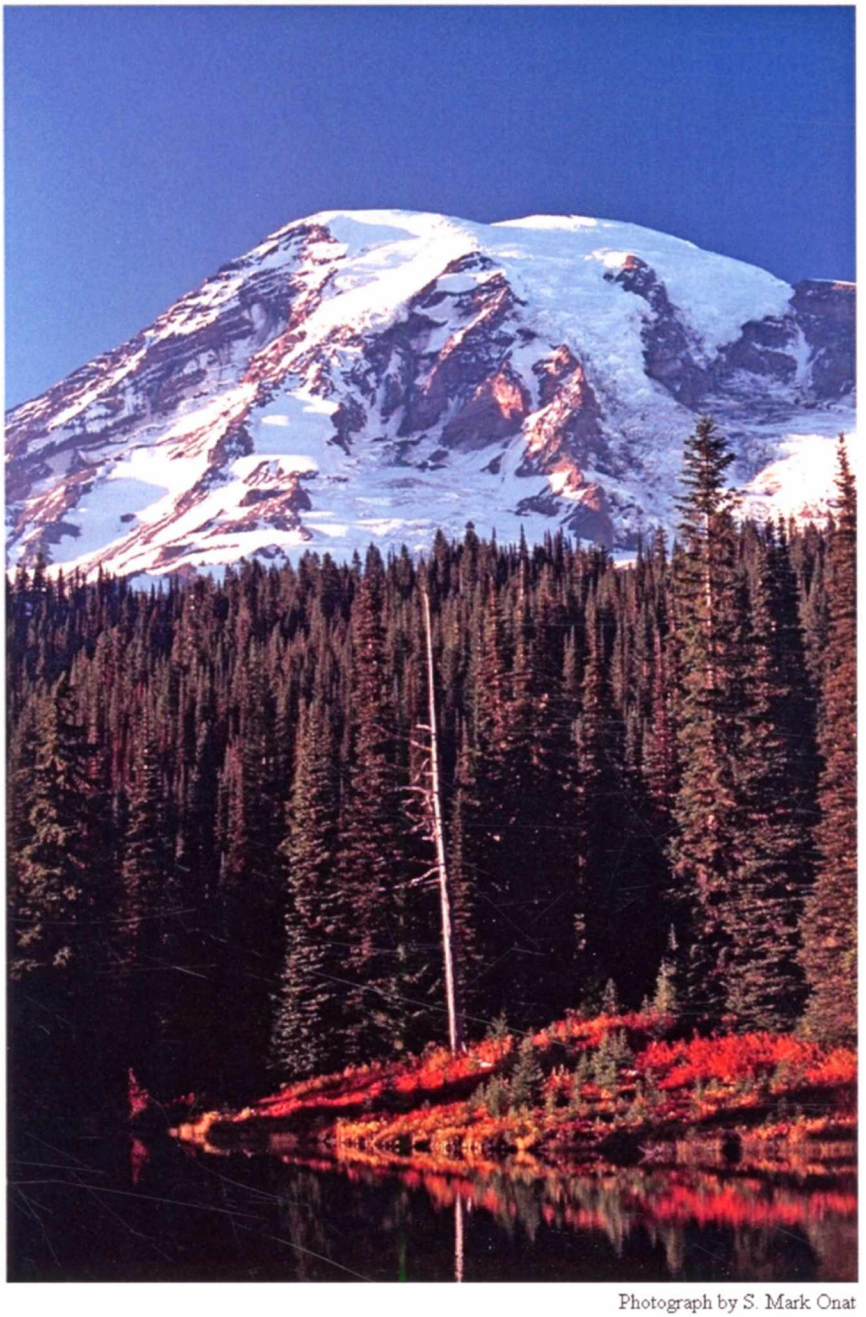
REVIEW AND ASSESSMENT OF THE ETHNOGRAPHIC LITERATURE OF MOUNT RAINIER NATIONAL PARK



Photograph by S. Mark Onat

by

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BOAS, Inc.
Seattle, Washington

Completed under contract
to the National Park Service
Seattle, Washington
1999

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Astrida R. Blukis Onat

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ABSTRACT

The contracted review of ethnographic data pertaining to Mount Rainier National Park has resulted in two separate volumes: this review of the published and unpublished literature pertaining to Indian use of the Park lands and a companion volume titled *Tahoma Legends*.. The literature review volume contains ethnographic data derived from published ethnographic and historic sources, cultural resource management documents, popular works, newspapers, audio tapes, and various unpublished materials. The materials reviewed are presented in a structure that compiles materials into specific data categories developed by Allan H. Smith in his 1964 study, *Ethnographic Guide to the Archaeology of Mt. Rainier National Park*. These categories are Native Toponomy, Tribal Identities and Tribal Boundaries, Village Sites and Structures, Economic and Other Uses, and Trails, Travel, and Trade. The literature reviewed includes materials that were available in 1964 but that were not incorporated by Smith, and materials that became available subsequent to Smith's study. A final assessment of the ethnographic data contains conclusions regarding the extant data. The conclusions are developed in the context of a discussion of the changes in methodology and standards in the field of anthropology that have occurred since the 1960s with the advent of cultural resource management studies, traditional cultural property studies, and expert legal reports and testimony. The assessment also contains an evaluation of data sets in terms of their utility with regard to federal cultural resources management obligations for the Park. Finally, a discussion of the gaps and inadequacies in the information base provides a base for recommendations regarding future ethnographic work.

Tahoma Legends is a companion volume to the ethnographic literature review in the sense that the review provides additional supportive data for the collection of legends. The companion work presents a collection of legends, derived from a variety of anthropological, historical, and popular sources. Discussion of the legends includes the relationship that two American cultures, the Indian and non-Indian, have developed to the mountain, and how each has adapted its own legends to incorporate elements of the other. *Tahoma Legends* was published in 2006 as a single volume 40:1, of the Journal of the Journal of Northwest Anthropology.

ACKNOWLEDGMENTS

I would like to acknowledge the National Park Service for providing the funds and time to thoroughly explore the ethnographic data pertaining to Mount Rainier. Dr. Frederick York has been very patient and helpful and allowed the original study to grow from an ethnographic overview into a two volume work, an extensive literature review volume and a volume about Tahoma legends and history (*Tahoma Legends*). *Tahoma Legends* was published in 2006 as a single volume 40:1, of the Journal of the Journal of Northwest Anthropology.

Several scholars were contacted in the course of the ethnographic review. They include Mr. David Buerge, Mr. M. Dale Kinkade, Dr. Jay Miller, and Dr. Allan H. Smith. Dr. Miller graciously assisted with some linguistic and etymological information. Access to valuable resources was provided by Jan L. Hollenbeck, Mt. Baker-Snoqualmie National Forest, Rick McClure, Gifford-Pinchot National Forest, and Susan Marvin, Wenatchee National Forest.

Three persons were instrumental in the production of this volume. Sheila Stump helped to separate one large volume into two separate works and, as usual, helped organize and edit my writing. S. Mark Onat provided the computer graphic expertise necessary to create and produce the illustrations in both the ethnographic literature review volume and in *Tahoma Legends*. He provided the photograph for the cover of this volume. Jerre Kosta took a widely diverse collection of legends and presented them as a unified whole in formatting the appendices for the *Tahoma Legends* volume. She provided the cover design for *Tahoma Legends.*

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LIST OF ABBREVIATIONS

ICC	Indian Claims Commission
NPS	National Park Service
USDI	Department of the Interior
NWUW	Northwest Collection, Suzzalo Library, University of Washington
USFS	United States Forest Service

INTRODUCTION AND DESCRIPTION OF THE STUDY

Objectives of the Study

The National Park Service (NPS), Pacific Northwest Region contracted with BOAS, Inc. (Contract No. 1443-CX9000-93-013) to conduct an ethnographic Overview and Assessment of existing information on the historical American Indian populations who inhabited or made use of Mount Rainier National Park (Park) (Figures 1 and 2). The purpose of the study was to synthesize and evaluate available data on American Indian land use and localities of cultural significance at the Park. Astrida R. Blukis Onat, Ph.D., was the Principal Investigator and primary researcher for the project.

The main objective of the study was to identify contemporary tribal groups and subgroups that were affiliated with the Park, and to describe the nature of that affiliation. The original design of the study was to document tribal activities at the Park and to evaluate the significance of the Park area to native cultures. The focus of the study was on American Indian land use and localities of cultural significance, including, but not limited to, natural resource procurement areas, ceremonial or sacred places, and sites potentially eligible for nomination to the National Register of Historic Places as traditional cultural properties.

The end product of the study was to be a document that contained an ethnographic data Overview and an Assessment that synthesized and evaluated the available data. The purpose of the Overview portion of the study was to compile and review published and unpublished ethnographic and related documents and to identify historical and contemporary users and uses of resources. The purpose of the Assessment was to evaluate the data sets collected in terms of their reliability and utility with regard to federal legislation (National Historic Preservation Act of 1966, as amended in 1992, 1998; American Indian Religious Freedom Act of 1978; Native American Graves Protection and Repatriation Act of 1990; and federal guidelines and policies; National Register Bulletin 38; NPS Management Policies of 1988). Additionally, the Assessment was to identify gaps or inadequacies in ethnographic information for specific geographic areas of the Park and make recommendations for future ethnographic studies that include problem-oriented, applied ethnography designed to meet the management needs of the NPS. The study report also was to be accompanied by an exhaustive and annotated list of published and unpublished sources consulted as part of the research.

Study Methodology

Early in the study, it was determined that BOAS, Inc. would not directly contact any of the tribes traditionally affiliated with the Mount Rainier area. Tribal

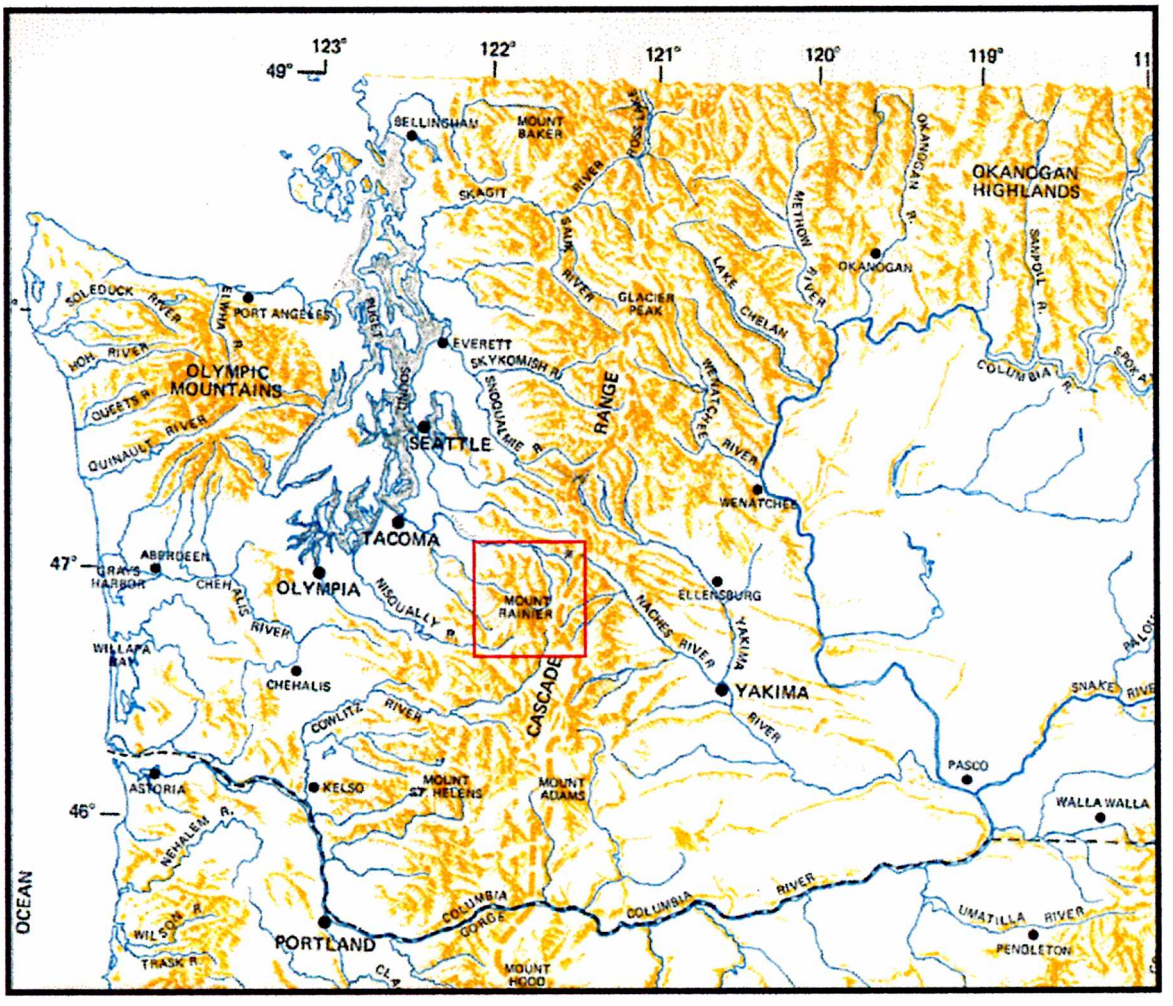

Figure 1. Location of Mount Rainier in the Central Cascades (adapted from Franklin and Dyrness 1973:2).

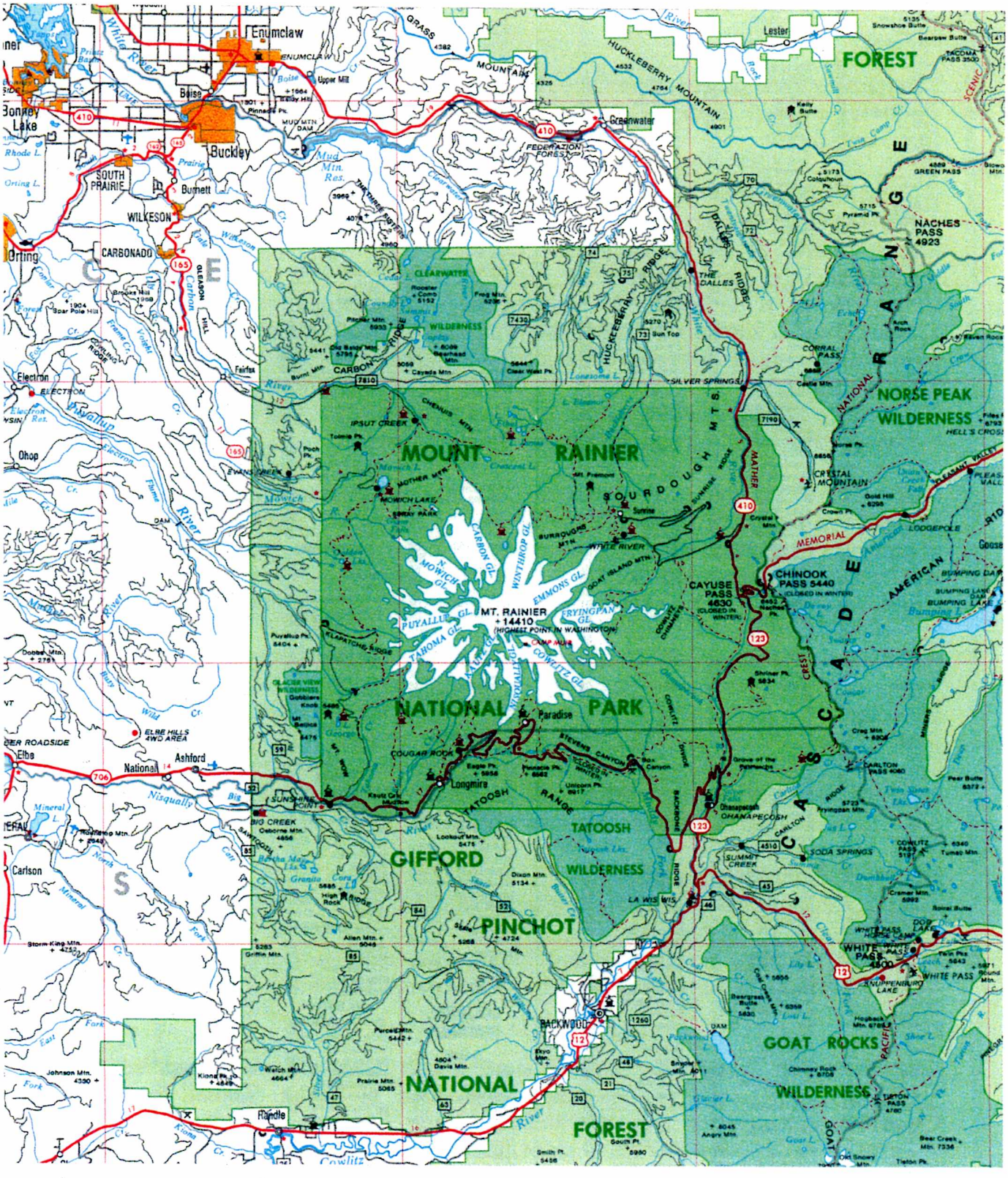

Figure 2. Mount Rainier National Park (Square One Map Company 1988: Scale 1"= 6 miles).

contacts were to be developed directly by the NPS. This decision impacted the manner in which both the ethnographic Overview and the Assessment were conducted.

The shift of the study away from direct tribal consultation led to a methodology that focused entirely on a review of ethnographic documents and an assessment of the documented information. The focus shifted from addressing contemporary tribal use through contacts and oral history interviews to a review of ethnographic and ethnohistoric documents. This report, then, is a review of ethnohistoric materials about Indian associations to Park lands, not an overview of the contemporary Indian use of the Park area. The Assessment is a synthesis of the ethnographic documentation and an evaluation of its usefulness for future decisions and work related to the management of contemporary ethnographic resources.

Because of the shift in project focus, a broad-brush approach was used to identify as many materials as possible that contained some reference to Indian people in relation to Mount Rainier. Both anthropological and non-anthropological materials were reviewed. All ethnographic data were collected and evaluated in terms of the context in which they were presented. Materials examined included scholarly ethnographic studies conducted by anthropologists; cultural resource management reports, both ethnographic and archaeological; written histories; government documents of exploration in the vicinity of Mount Rainier; popular written works, such as books, magazines, pamphlets, newspaper articles, diaries, and journals, and audio tapes that included materials about Mount Rainier National Park. Whenever possible, the original documents from which data in other published works were derived were reviewed for consistency of interpretation.

Allan H. Smith's *Ethnographic Guide to the Archaeology of Mt. Rainier National Park*, published in 1964, is the single anthropological work that has focused on the Park. Other published ethnographies have addressed the Park area only in passing. Smith's[1] document was used as a baseline from which to investigate other ethnographic materials and to structure the presentation of data in this report.

In the course of reviewing Smith's work, it was noted that he addressed the religious, ritual, and mythological significance of Mount Rainier to native peoples in the region only to a limited extent. The lack of such material in Smith's work appeared unusual since, in lieu of direct work with Indian people, the best information regarding the framework in which cultural practices can be interpreted lies in a people's mythology. In the course of reviewing other materials, it became apparent to this researcher that there is a significant

[1] In this document, Smith refers to Allan H. Smith. Other authors with the same surname will be differentiated by their first initial.

quantity of documentation with regard to the mythological and historic significance of Tahoma, the most common Indian name for Mount Rainier. Therefore, midway through the study, a second focus for the literature search and review became the mythology and legends about Mount Tahoma. Ultimately, this second focus led to a separate work, *Tahoma Legends*(Blukis Onat 1999b), which is a companion volume to this document.

Sources Consulted

The sources of ethnographic information consulted for this study are located in a number of repositories. Of these, the primary repository accessed was the Northwest Collection of the Suzzalo Library at the University of Washington (NWUW). Other repositories consulted were the Pacific Northwest Regional Offices of the National Park Service (NPS); the Federal Archives Center, and the Burke Museum in Seattle. The Washington State Museum, Washington State Historical Society, and the Washington State Office of Archaeology and Historic Preservation in Olympia were visited, as were the libraries of Washington State University in Pullman and the United States Forest Service (USFS) regional offices in Mountlake Terrace (Mount Baker-Snoqualmie National Forest) and Vancouver (Gifford Pinchot National Forest). Materials were requested from the Wenatchee National Forest in Wenatchee. Additionally, the BOAS, Inc. library contains a large number of sources.

The majority of resources consulted were texts or written materials. Most of these were in published form. Copies of certain original manuscripts were examined and compared to published versions. Although USFS cultural resource reports are exempt from public disclosure and are not available to the general public, most reports with an archaeological focus were accessible for this study. The Gifford Pinchot National Forest ethnographic study, Volume I, also was available (Hajda et al. 1995; see also Boyd 1993). However, as noted above, other tribally specific site data (Volume II) and select transcripts of the oral history audio tapes (Volume III) were accessible only with tribal permission and so were not available for this study. One set of audio tapes, not part of the Gifford Pinchot ethnographic study, was provided by the Gifford-Pinchot National Forest.

Personal contacts were made with a number of scholars in the process of literature and documents review. Anthropologists consulted included Dr. Allan H. Smith, Dr. M. Dale Kinkade, and Dr. Jay Miller. Mr. David Buerge, Historian, also was consulted. Forest Service personnel responsible for cultural resource matters were contacted. These were Jan L. Hollenbeck, Mt. Baker-Snoqualmie National Forest, Rick McClure, Gifford-Pinchot National Forest, and Susan Marvin, Wenatchee National Forest. Dr. Robert Whitlam, State Archaeologist, Washington State Office of Archaeology and Historic Preservation, also was contacted.

Research Strategy

As was noted above, the *Ethnographic Guide to the Archaeology of Mt. Rainier National Park* (Smith 1964) was used as the base document from which to begin the literature search. Throughout the project, the literature search focused on building the comprehensive annotated bibliography to accompany the study report. All references cited in Smith (1964) were consulted, annotated, and material relevant to the project entered or noted in computer files. This served as the base bibliography.

Subsequently, USFS cultural resource overviews for areas adjacent to the Park were reviewed and annotated for the bibliography. References cited in these documents were consulted and added to the base bibliography. The search then was expanded to locate all references considered relevant to an ethnographic overview for the Park, including unpublished materials, magazine and news articles, and audio tapes. These documents were reviewed and added to the annotated bibliography. The references in all documents were searched for additional materials to add to the bibliography for review. This process continued until no new references were found.

The base bibliography was sorted into three categories. The annotated bibliography contains only those sources that were considered in some way pertinent to the focus of the study. The extent of annotation depended on the content of the source. A second category of sources, those lacking ethnographic data relevant to the study or for which there were better sources contained in the annotated bibliography, was not annotated, but was submitted to the NPS as additional information. Finally, a much shorter list of sources included items that might have proved useful for the study but that were not accessible for reasons stated earlier. It is unlikely that these sources contain information not available in other materials included in the review, however, this list also was appended to the annotated bibliography.

The references cited in the report include most, but not all, items in the annotated bibliography. Some of the references cited refer to methodological studies and documents outside Mount Rainier National Park. Because these do not contain information directly related to the Park, they are not included in the annotated bibliography.

In addition to creating an annotated bibliography, all data relevant to the study focus were assembled in two forms. Notes and extended quotes were copied from some sources. When this became too time consuming, copies of document sections were made and placed in a file folder. The information was sorted into nine major categories as follows:

Lands	Tribes	Place-names	Animals	Plants
Uses	History	Mythology	Archaeology	

The categories were selected to parallel the data sets addressed by Smith (1964). The Lands category included references to the environmental setting that might be pertinent to the ethnography of the area. Tribes included references to groups that in some manner were and are associated with Park lands. Place-names referred to data regarding native toponomy. The Animals and Plants categories include all references to species found within Park boundaries that were known to be utilized by Indian people. Uses included all references to activities at the Park that were not specifically associated with animals and plants. The History category was added when it became apparent that much information regarding Park ethnography was to be found in the documentation of specific historic events. Most of this information relates to trails, travel, and trade. The Mythology category was created when it became apparent that there was considerably more written about this topic with reference to the Park than had been expected. The Archaeology category was developed as information from the concurrent NPS archaeological survey of the Park became available in 1997-1998. The reports by Burtchard et al. (1998) were used to compare documented ethnographic information with archaeological sites discovered in the field.

Organization of the Document

The document is organized into three sections. Additional information is presented on accompanying maps or figures. The **Introduction** presents the purpose and methodology of the study and contains a brief history of relations between Mount Rainier National Park and Indian people. The ethnographic **Literature Review** includes information from earlier sources not reviewed by Smith and sources that have been published since Smith's 1964 study. This section is organized according to the same headings that were used by Smith (1964). Although this is occasionally cumbersome, it allows for comparability in evaluating different categories of materials and in showing how the focus of ethnographic studies has changed over time. The information includes mapped locations derived from selected ethnographic references. The **Assessment** includes a discussion of Smith's summary and conclusions, the outcomes and conclusions of the study, an evaluation of the validity and utility of the data gathered, and recommendations regarding future ethnographic work in relation to the Park.

As noted earlier, a companion volume, *Tahoma Legends*, grew out of this study. The legends are analyzed in terms of core elements present in stories from those Puget Sound and Columbia Plateau cultures that had a relationship to the Cascade Range and Tahoma. The key role Tahoma had in unifying these regions is discussed. Finally, the role of Mount Rainier in local non-Indian mythology about Indian people and Indian cultures is addressed.

Administrative History of Indian Relations to the Park

Mount Rainier National Park was established in 1899 (USDI 1934; Catton 1996). Prior to that time, the Park area was part of the Columbia National Forest. Very little published information exists regarding any official relationship between the Park administration and the Indian tribes and groups who traditionally used the Park area, although several publications make note of the Indian relationship to Mount Rainier (Martinson 1966, 1986; McIntyre 1952; Thompson 1981; U.S. Department of the Interior 1935a, 1940). The Department of the Interior (USDI) work published in 1934 discussed some past Indian use of the Park area and included Indian myths. The 1940 publication is a reference bibliography of Indian mythology focused on the Park. McIntyre's (1952) work focused on the natural history of the Park, including impacts on the natural setting from grazing, hunting, mining, etc. The only mention of Indian activity was in relation to hunting. He noted that Indian hunting with firearms in the 1880s and 1890s was blamed for depleting game in the area. Martinson's (1966, 1986) works also note only the Indian presence in the past, the conflict regarding the names Tahoma and Mount Rainier, and a discussion of the first mountain climbers and their Indian guides.

In the 1990s, the National Park Service contracted with a number of individual scholars to conduct a series of studies about Mount Rainier National Park. Several of these studies included the relationship of the Park to Indian tribes and groups (Boxberger 1998; Burtchard et al. 1998; Catton 1996; Blukis Onat 1999a and 1999b). They have all been conducted in order to provide a more comprehensive data base for use by the Park administration in the management of Park lands and resources. The NPS also is giving more attention to developing relationships with Indian tribes that traditionally used Mount Rainier National Park by developing programs to renew the practice of traditional activities at the Park.

Studies that have contributed to the data base include this volume *and Tahoma Legends* (Blukis Onat 1999a, 1999b) and the recent archaeological study of the Park (Burtchard et al. 1998). The latter included an inventory of previously and newly discovered archaeological sites in the Park. A total of 38 sites and dozens of isolated prehistoric artifacts were recorded and mapped during this study. Prehistoric environments and land use at the Park were compared to those of prehistoric peoples elsewhere in the Cascade Range. The nature of the sites discovered and their distribution in the Park are discussed below.

Catton's (1996:9-26) work, entitled *Wonderland, an Administrative history of Mount Rainier National Park,* briefly summarizes the relationship between the Park administration and Indians. He noted that the Park literature about Indian people inevitably featured them as a part of the heritage of the area, a symbol of the past, and as part of the mythology of Mount Rainier (Catton 1996:9-12). As a National Park, Mount Rainier served as a showcase of the American past,

both in the wilderness character of the location and the Indian association with the mountain. Catton (1996:20-24) reviewed Smith's (1964) ethnographic study of Mount Rainier National Park and concluded that the purpose of that study was an effort to reconstruct the Indian past at the Park. He discussed the Indian names associated with many of the features of the landscape in the Park as a part of the development of American nationalism, since the names were local and not imported from Europe (Catton 1996:11-12). Additional discussion regarding this issue is presented in the section on place names (or toponomy), below in this report.

Catton (1996:16-20) presented a discussion of continued traditional Indian use of the Park for huckleberry gathering and hunting in the early portion of the 1900s. In 1915, a hunting incident involving Indians occurred that was widely reported in the press. According to the Yakama [2], they retained hunting rights in the Park because it was "open and unclaimed land." Official correspondence regarding this issue indicated that the Yakama did indeed have the right to hunt in the Park, however, public opposition and local authorities conspired to end Indian hunting within Park boundaries in 1917.

In 1925, an attempt was made to have Yakama Indians perform traditional activities for tourists (Catton 1996:14-16). This venture failed when the Yakama involved did not what to pose for photographs. Eventually, as fire suppression in the early 1900s diminished the availability of huckleberries (Catton 1995:25-26), Park officials discouraged even this traditional activity. By 1940, official relations between the Park and Indian tribes occurred only in a symbolic sense, having little to do with traditional access to the area.

Boxberger's 1998 study addressed the current relationship between the Park and the Yakama, Muckleshoot, Nisqually, and Puyallup, all federally recognized tribes. He also addressed the relationship of the Cowlitz to the Park, as a tribe eligible for federal recognition but with recognition pending (Boxberger 1998:5). Boxberger (1998:23) addressed fishing rights, hunting and gathering privileges, and issues related to Native American religions use of the Park. He also discussed the NPS responsibility to recognize and protect these rights in the Park, in consultation with tribes associated with the Park.

One result of recent NPS attention to Indian issues associated with the Park has been the Memorandum of Understanding (1443-MU9450-99-002) between Mount Rainier National Park and the Nisqually Indian Tribe, entitled *Regarding the Gathering of Plant Resources for American Indian Traditional Cultural-Religious Purposes from National Park Lands.* Because this Memorandum was developed as the other aforementioned studies were being conducted, it is discussed further in the ASSESSMENT section of this report.

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[2] This spelling is preferred by the Yakama Nation and is used throughout the report.

LITERATURE REVIEW

Allan H. Smith's (1964) Study

In 1963, Allan H. Smith (1964:1-2) was contracted by the National Park Service to conduct the first phase of a study designed to investigate the prehistory of Mount Rainier National Park. When Smith began his work, the prehistory of the Park was an unknown, and no archaeological sites had been recorded in the Park. The only archaeological information consisted of some collected and some reported finds of artifacts. At the time, it appeared to most archaeologists that archaeological resources would be limited, due to the ruggedness of the terrain and heavy forest cover, as well as a lack of documentation for any tribal claim to settlement within the Park. An exhaustive search for all ethnographic and historic data about the Park was considered necessary in order to maximize the effectiveness of planned archaeological investigations. The expectation was that the first phase of research would lead to greater success in carrying out the archaeological field research.

According to Smith (1964:17-19), there were three objectives for his study. The primary objective was to assist the archaeologists in locating archaeological resources at the Park, in defining significant problems for them, and in providing a meaningful context for resources found. The second objective was to demonstrate what could be done in a situation where native informants knowledgeable about the territory are few and where the ethnographic and ethnohistorical data are limited. The third objective was theoretical and is discussed below.

Theoretical Framework

At the time that Smith was preparing to investigate the Park, there was a consensus among anthropologists (both ethnographers and archaeologists) that the Cascade Range had been sparsely occupied in prehistoric times. Ethnographers had discussed the coastal and plateau tribes and traditions, but little was said of the mountain range that separated them. On the west side of the Cascades, human occupation was considered to extend only into the foothills (Haeberlin and Gunther 1930; M. Smith 1940). There were no indications of permanent settlements higher than 1,500 feet in elevation. Although there was evidence of limited human utilization of the mountain areas, most uses were considered to have been in the context of cross-Cascades travel.

Smith's approach to the ethnographic study was focused on addressing what might be called the "barren Cascades" model of the time. He had conducted field research among the Kalispel of northeastern Washington and had hypothesized that:

> ...aboriginal patterns of land utilization in the Pacific Northwest were so extensive as to have included even areas remote from recognized settlements, difficult of access, and topographically forbidding [Smith 1964:18].

However, this hypothesis of more extensive mountain use had not been tested beyond the Kalispel area. Smith thought that the Mount Rainier region met the geographical prerequisites for such an assessment and

> ...because of its extreme isolation, massiveness, and ruggedness, offered in fact an unusually rigorous test of the hypothesis. If utilization could be demonstrated for this region, the a priori assumption that any region, whatever its geographic characteristics, was without native use would appear highly debatable [Smith 1964:18-19].

Smith (1964:19) also thought that the Park area was known or had been visited by members of several aboriginal groups, including the Yakama, Taidnapam (Upper Cowlitz), Meshal (Mical), Nisqually, Puyallup, and Muckleshoot. He believed that there was information about the Park that could be gathered through ethnographic fieldwork and analysis of documents, both ethnographic and ethnohistoric.

Methodology

Smith (1964:27-30) was able to devote only nine days to field investigations (June 30-July 8, 1963). He spent a considerable amount of that time searching for appropriate informants. In the end, he spent some portion of seven days at the Yakama Reservation and approximately one and one-half days each at the Nisqually and Muckleshoot Reservations. Smith did not succeed in contacting the Puyallup, as "The Puyallup Reservation having been terminated[3] some time ago, they have dispersed widely in the Tacoma area..." (Smith (1964:29). Smith also did not find any Meshal informants.

Smith (1964:34-35, 267-275) focused his literature search on the works of several anthropologists, historians, missionaries, and others. The most prominent were Ballard (1929), Curtis (1911, 1913), Eells (1887a, 1887b), Haeberlin (1924), Haeberlin and Gunther (1930), Hodge (1910), Hulse (1957), Jacobs (1931, 1937), Meany (ed., 1916), Ray (1936), M. Smith (1940, 1941, 1949), Spier (1936), Swanton (1952), Teit (1928), and Winthrop 1916). The anthropologists had few direct references to the Park or Mount Rainier. But Meany, a meticulous historian, and Winthrop, a popular writer of the mid-1800s,

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[3] In actuality, the Puyallup Reservation was never terminated and the Puyallup never lost their federal recognition. However, by the time Smith conducted the study, the Puyallup Tribe had lost all reservation land that was held in trust. They had retained only scattered parcels, and were involved in litigation to reclaim at least part of these lands (Ruby and Brown 1986:168-69). Trust status for some reservation land was eventually restored.

provided considerable information relating to Mount Rainier. Meany's 1916 compilation of articles from the mid-1800s to the early 1900s was especially rich in ethnohistoric data. Smith also garnered much from the *Mount Rainier Nature Notes*, a newsletter published by the National Park Service (NPS) for Park staff and visitors. Articles from this newsletter, which was published in the 1920s and 1930s, often included information regarding continued Indian use of the Park, in the period soon after it was established.

Allan H. Smith's Data Categories

Smith compiled the information he collected in five chapters focused on different data categories: *Native Toponomy, Tribal Identities and Tribal Boundaries, Village Sites and Structures, Economic and Other Uses*, and *Trails, Travel, and Trade.* Smith's Introduction included discussions of the physical environment, tribal classification, and research design. The last of these was discussed above.

A summary discussion of each of Smith's data categories is presented below. Data sources available prior to, but not included in, Smith's 1964 study are addressed, and substantive information not contained in Smith is included in the discussion. Data sources published after 1964 are presented, followed by a summary assessment of the data category. Smith's data for each category are summarized, then updated.

Physical Environment

Smith (1964:6-8) compiled relevant environmental data because he was aware that this information would be needed for the subsequent archaeological study. He presented Life Zone information current at the time. Smith noted 14 mountain passes in the vicinity of Mount Rainier, from Snoqualmie Pass to Tieton Pass, with Chinook Pass located at the boundary of the Park and Cayuse Pass located within Park boundaries (Figure 3).

Smith also listed 27 parklands between 5,000 and 7,000 feet in elevation (Figures 4-7). These gently sloping tablelands and open meadows, dotted with clumps of fir and hemlock, sometimes contained mirror ponds and were likely areas for human presence. These parks extend around the peak of Mount Rainier in a discontinuous ring 2 miles wide and 50 miles long (Smith 1964:5, 11-13). Table 1 presents a list of the parklands and their elevations.

Smith cited a number of scientists who had written about the geology and natural history of the Park. He discussed the environmental and climatic differences between the east and west sides of the Cascade Mountains, noted that slight eruptions of Mount Rainier had occurred several times in the 1800s, and noted that Indian legends told of a great cataclysmic outburst at a much earlier time (Matthes 1916:650; Russell 1916).

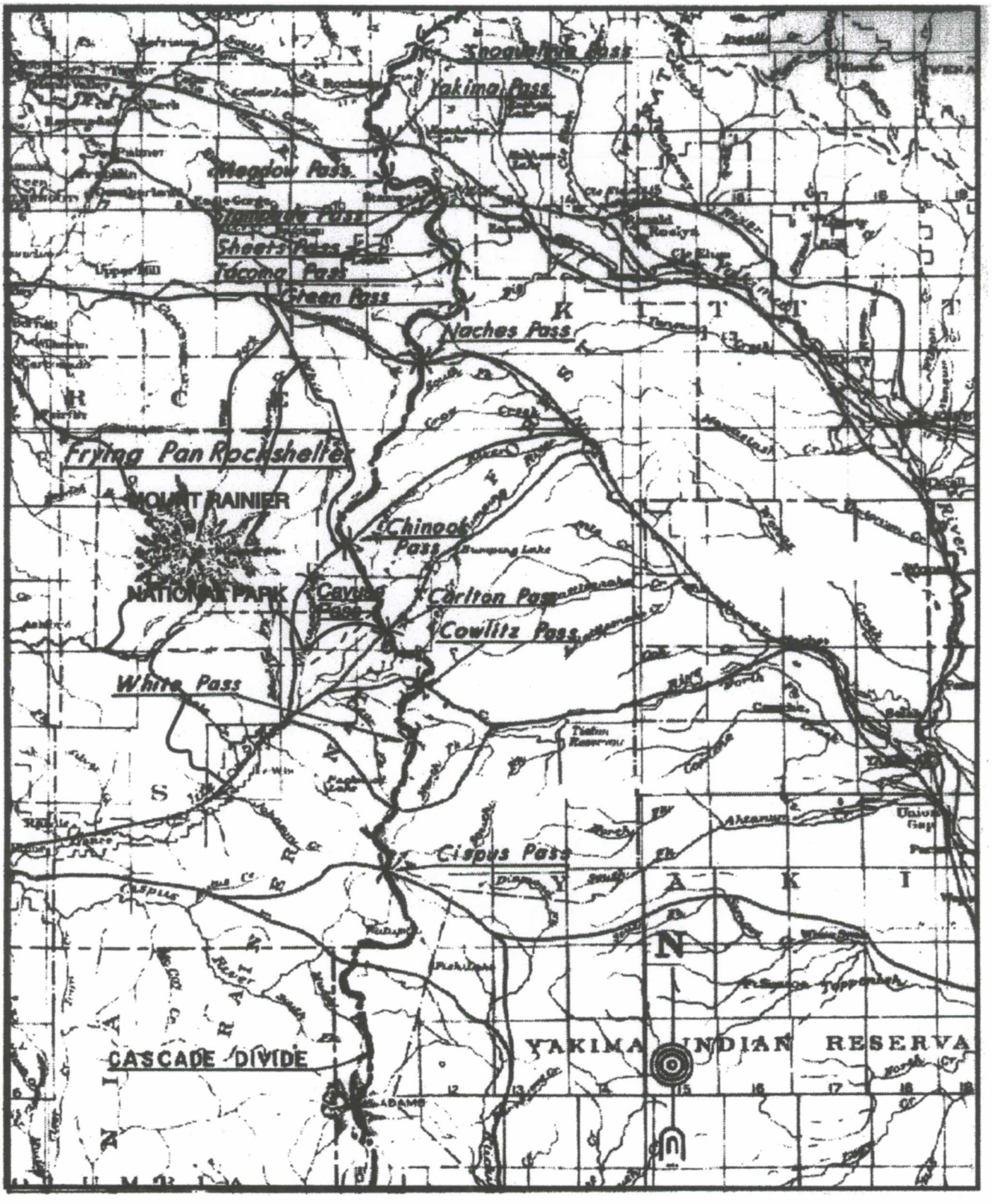

Figure 3. Mountain Passes, Trails, and Travel Routes in the South Central Cascades, Washington (adapted from Rice 1964:3).

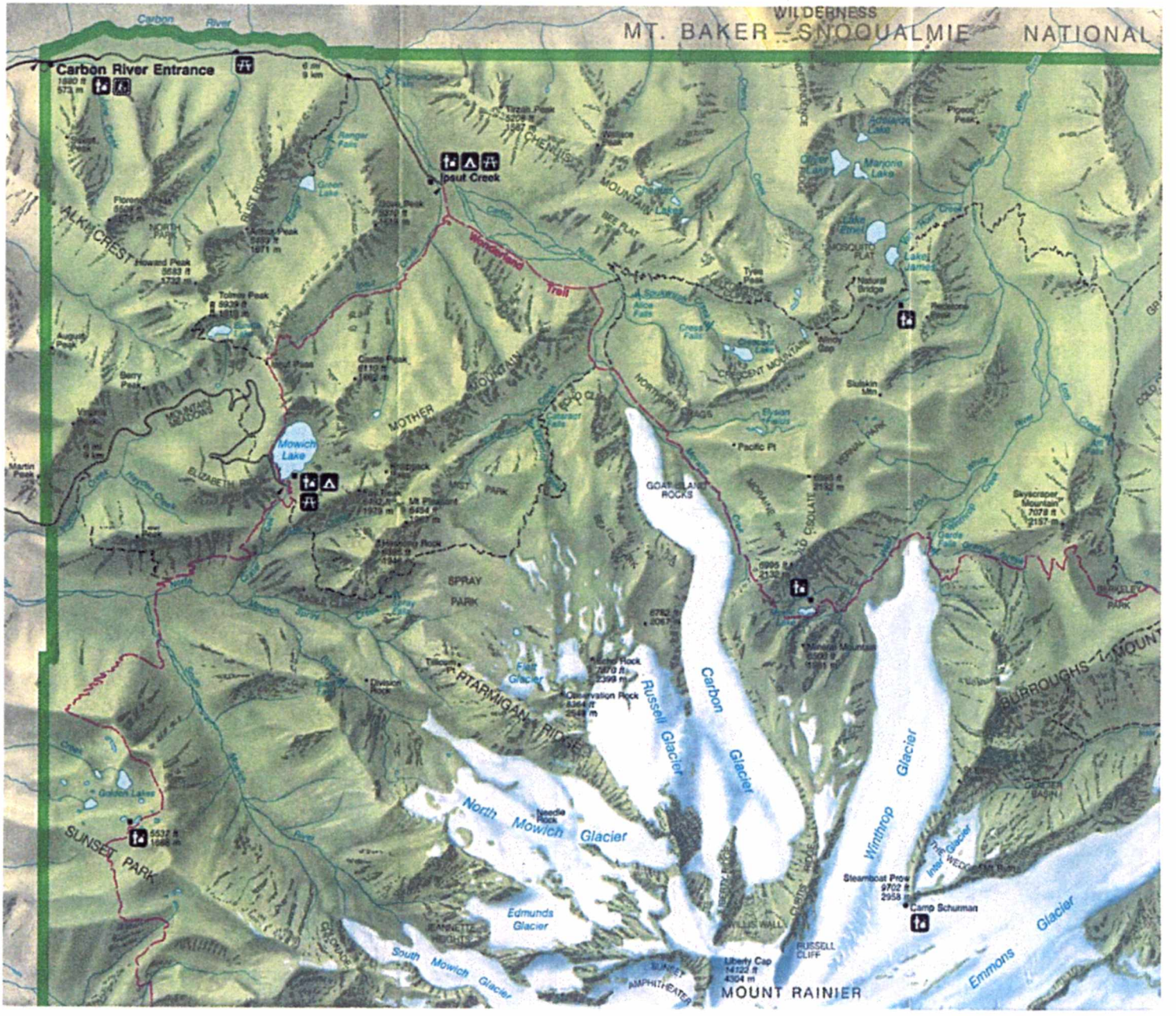

Figure 4. Mount Rainier National Park, Northwest Quadrant.

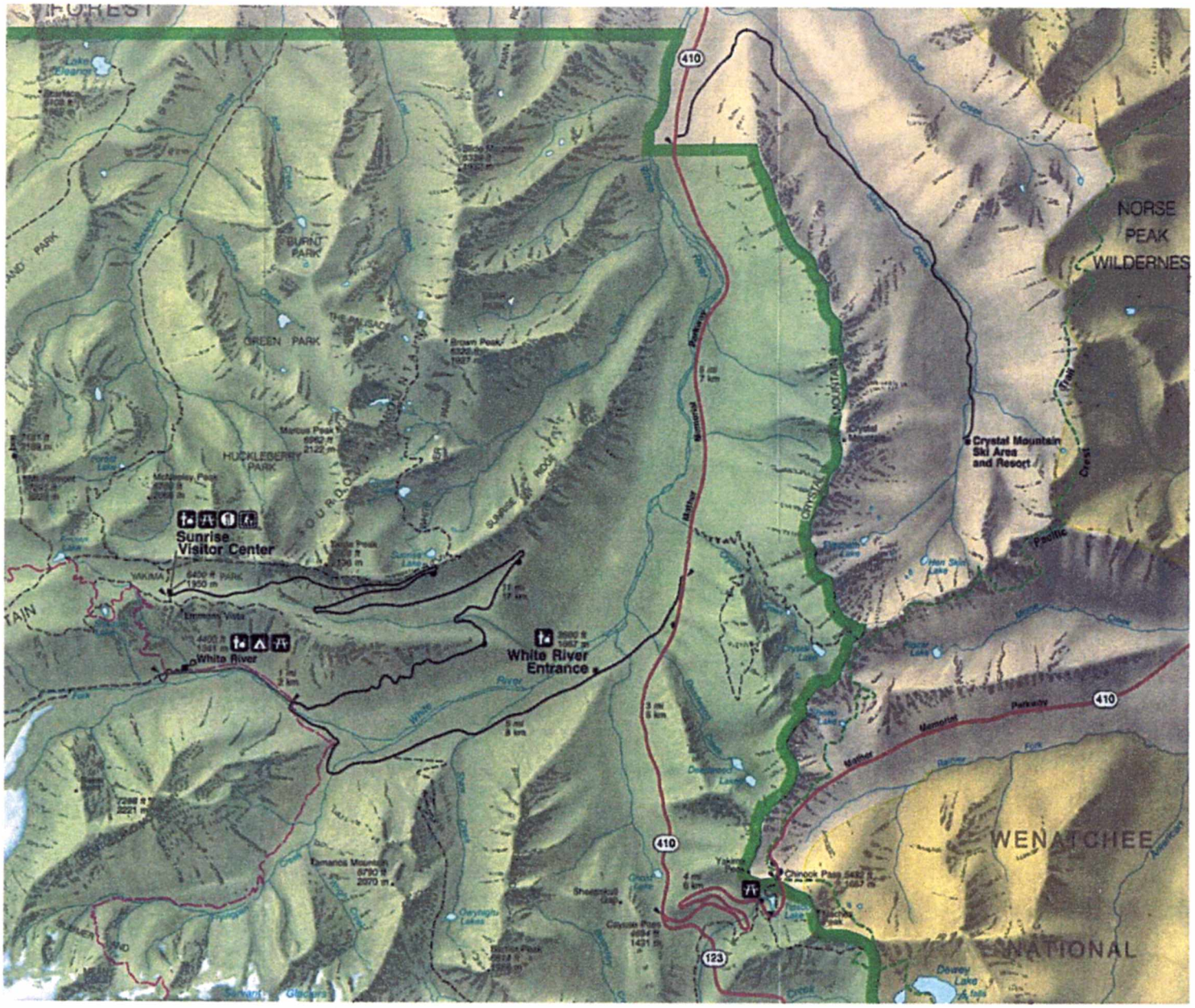

Figure 5. Mount Rainier National Park, Northeast Quadrant.

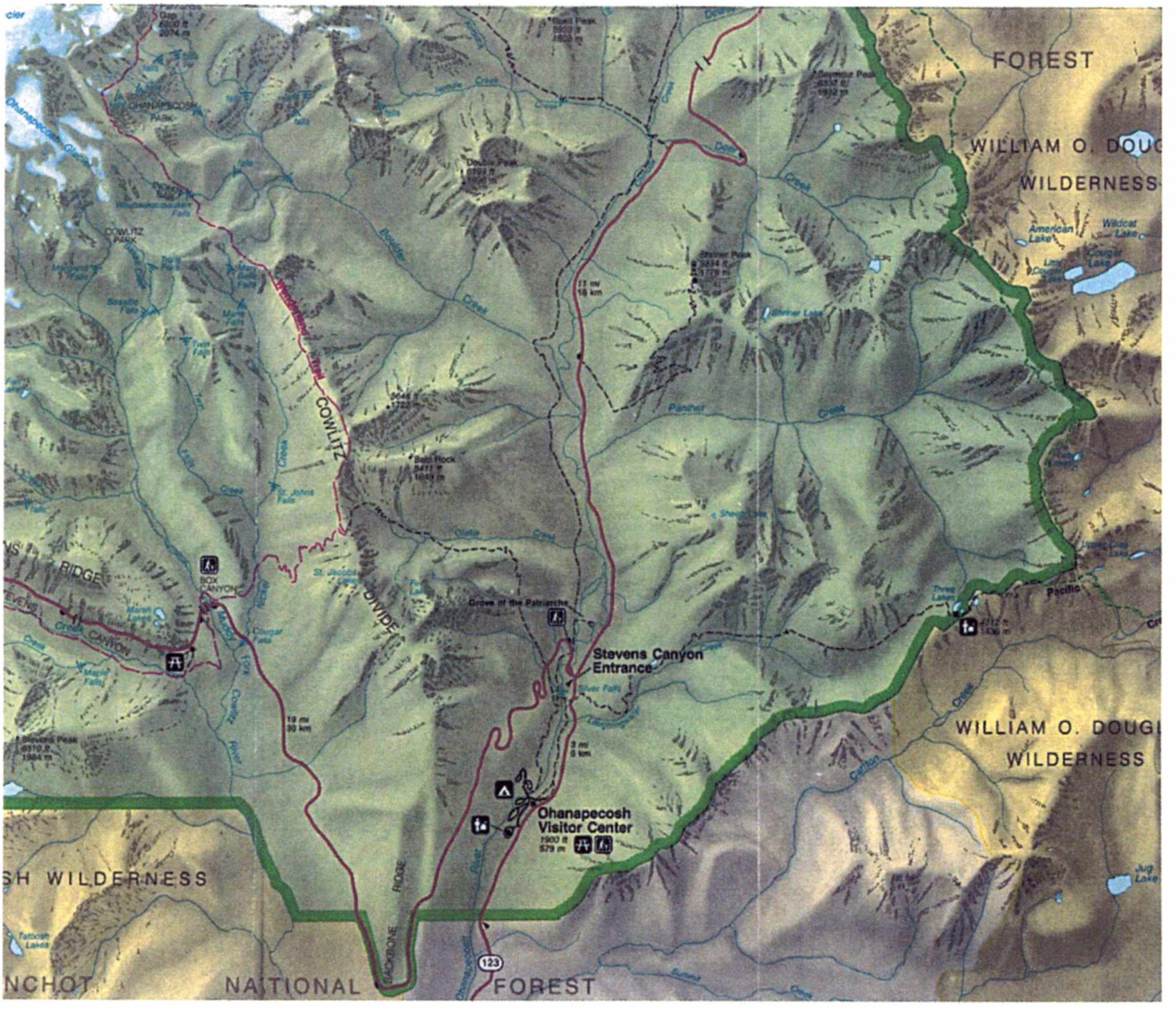

Figure 6. Mount Rainier National Park, Southeast Quadrant.

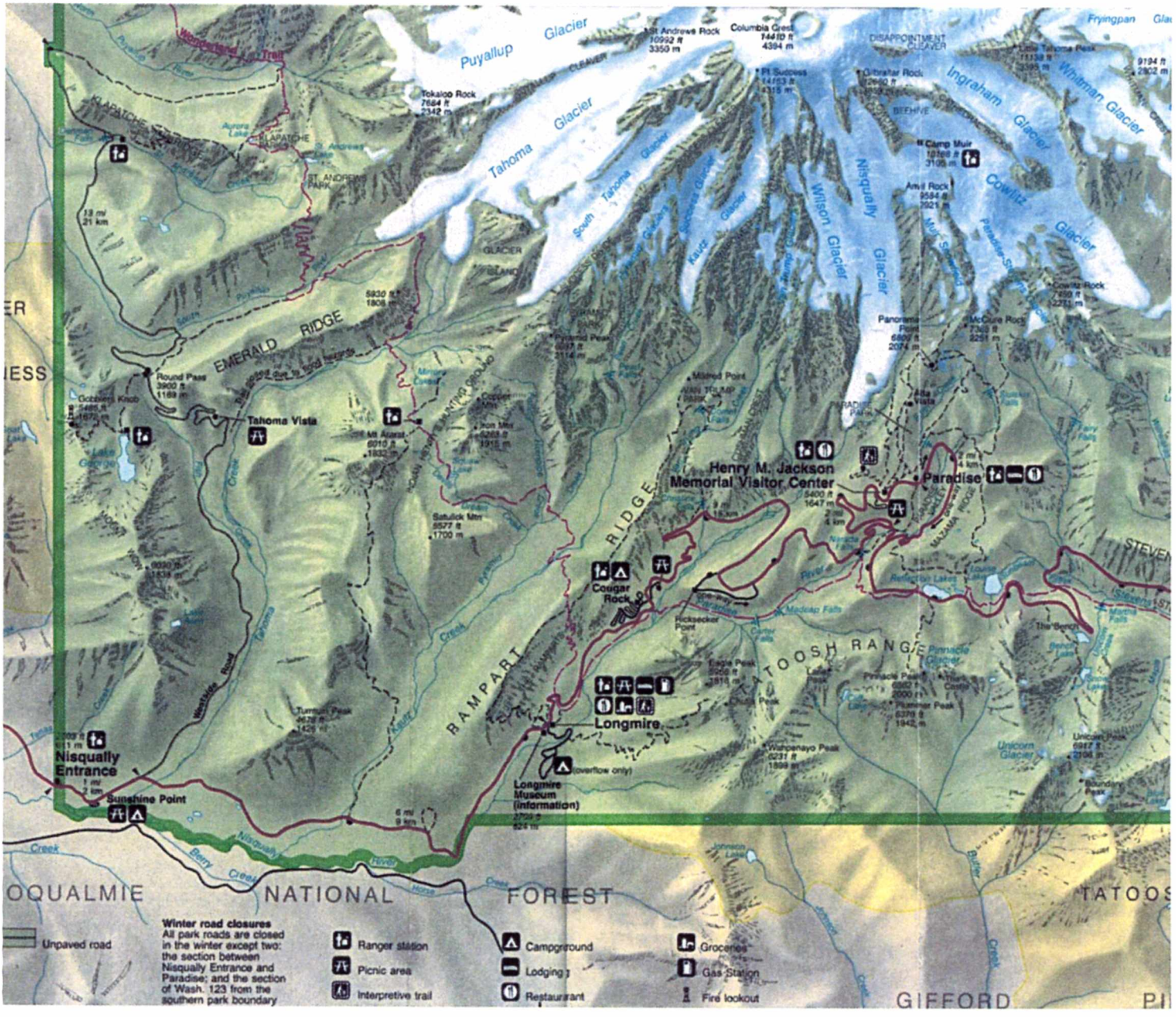

Figure 7. Mount Rainier National Park, Southwest Quadrant.

Table 1. Mount Rainier Parklands and Elevations.

Parkland	Elev.	Parkland	Elev.
1 Paradise Park	5,700	2 Cowlitz Park	6,300
3 Ohanapecosh Park	5,500	4 Summer Land	5,700
5 Yakima Park	6,400	6 White River Park	5,700
7 Bear Park	5,800	8 Huckleberry Park	5,700
9 Green Park	5,600	10 Burnt Park	5,700
11 Glacier Basin	6,000	12 Berkeley Park	6,000
13 Grand Park	5,300	14 Vernal Park	5,800
15 Elysian Fields	5,700	16 Moraine Park	5,500
17 Seattle Park	5,900	18 Mist Park	5,200
19 North Park	4,900	20 Mountain Meadows	4,300
21 Spray Park	6,000	22 Sunset Park	5,500
23 Klapatche Park	5,500	24 St. Andrews Park	5,700
25 Pyramid Park	6,300	26 Indian Henrys Hunting Ground	5,700
27 Van Trump Park	5,700		

Physical Environment Updated

Sources not Included by Smith

Smith did not address the wealth of information about the natural history of the area that could and did figure in the cultural landscape and life of the surrounding Native populations. Although it is not the purpose of this report to detail the natural history of the Park area, information regarding the physical and biological environment is relevant to the ethnographic study. It is possible to assess the ethnohistoric data available only if one has at least some familiarity with the landscape. Familiarity with the landscape was basic and essential knowledge to the Indian people who used the lands around Mount Rainier.

Even the earliest Euroamerican explorers in the Northwest region noted that Mount Rainier can be seen from almost anywhere from the Straits of Juan de Fuca, throughout Puget Sound, and south to the Willamette River valley (Gibbs 1854b:397) (see cover illustration). It is the largest of the Cascade volcanoes and the only one that is west of the Cascade Crest. Mount Rainier rises from the Puget Lowlands to a height of 14,526 feet, with the elevational change from 2,000 feet to the cone taking place within a distance of 10 miles (Coombs 1936:145). The Park is located on the western side of the Cascades, on a mountain platform with peaks at a constant elevation of 6,000 feet, regardless of their position in the Park (Coombs 1936:145).

East of the mountain in the Cascade Range, there is a rugged, deeply eroded, and forested country of several peaks between 7,000 and 8,000 feet. Two taller peaks, Mount Adams (9,570 feet) and Mount St. Helens (9,750 feet) are located

among high alpine plateaus to the east and south of Mount Rainier (Russell 1898:356, 358). The upland surfaces are a maze of pinnacles, spires, knobs, and knife-like ridges sculpted by small alpine glaciers (Coombs 1936:145). Among these, the area boasts a number of open, meadow-like areas at timberline. One of these, Paradise Park, offers a climb to the mountain summit that, according to Russell (1898:359) was not difficult. Although Mount Rainier can be seen from many locations in east-central Washington, its location on the west side of the Cascade Range makes it appear less imposing than the volcanic peaks on the east side of the Range.

Russell (1898:359-60), one of the first to record the geology of Mount Rainier, described the mountain as an extinct volcano, with residual heat coming from once molten rocks that still gave off steam jets in crevices in the partly snow-filled craters at the summit. The volcano is not considered extinct today, but merely dormant. The main mass of the mountain is of andesite and basalt. The cone is a composite, built mostly of material thrown out by explosions from the summit crater. The most recent extensive pumice sheet, probably from the last significant eruption of Mount Rainier, is about 500-600 years old (Fiske et al. 1963:2). Russell (1898:360-63) proposed that the original cone was probably 2,000 feet greater than the present summit. He thought that the explosion left a 2-3 mile diameter crater that now forms Peak Success and Liberty Cap and that other explosions filled the great crater and formed two smaller craters within it.

Most of the oral history of the area notes that smoke had issued from the mountain a number of times in recorded history, primarily in the mid-1800s (Brockman 1928:6(8)4). There are a number of springs around the mountain, the best known being the mineral springs at Longmire, along the Nisqually River (Brockman 1929:7(6):6; 1931:9(10)5). Just below Paradise Glacier are a series of warm water springs pouring over the sides of the glacial canyon, and there are springs along the northern scar of the Tatoosh Range. These springs, which arise from great depths, carry sulphur, copper, and other elements that are deposited as ore, and are located below the mine workings at Eagle Peak.

At present, the mountain is sculpted by glaciers and by the decay and erosion of rocks (Fiske et al. 1963:2; Mather 1922; Russell 1898:360-63). The mountain slopes are deeply dissected by erosion, with river sources in glaciers that flow in all directions from the permanently snow-covered dome. Streams and rivers erode slopes at the same time that the slopes determine the stream courses. The sculpting is continuous, as loads of stone contributed by glaciers constantly shift with heavy water flow and frequently divide and shift the channels of streams. The rivers on the west side flow in a westerly direction and emerge on the Puget lowlands. The valleys have low, flat bottoms, remarkably steep sides, and an extremely low gradient to within a few miles of the Cascade divide. Rivers on the east side flow roughly parallel and southeast, emptying into the Columbia River (Coombs 1936:145).

Because of its location high on the west side of the Cascade Range, the Mount Rainier vicinity is subject to considerable climatic variations. The mountain summit is bare of vegetation overall, with precipitation falling mainly as snow, which remains all winter and melts back in summer. However, the lower elevations on the west side receive more than three to five times as much rain as those on the east side. The prevailing winds along the coast are from the west. The moisture is mostly released along the western lowlands and in the mountains, with little reaching the Plateau. As a result, both summers and winters in the western lowlands are humid and mild. On the east side, the summers are long and hot, the winters mild and rainy. The west side is covered with evergreen forests, while the east side is comparatively treeless and covered with shrubs and grasses adapted to dry conditions. These climatic variations produce many microenvironments within Park boundaries, with seasonal changes in vegetation occurring not only according to elevational gradients, but also according to aspect and slope (Russell 1898:357). For example:

> The part of Stevens Ridge that one reaches after crossing the glacier is high, elevations ranging from 6000 to 6500 feet. Late in August, a deep snow bank still lies just east of the crest. The east slopes of ridges are, of course, the most protected from the afternoon sun. On the west slope of the same ridge, summer conditions prevail. At one place on Stevens Ridge the four seasons were found, side by side. It was less than a hundred feet from the snow bank of last winter to the budding gentians of autumn, yet in that hundred feet were found spring flowers (anemones, white and yellow avalanche lilies), summer flowers (potentillas, paintbrush, lupine) and fall flowers (hellebore and gentian).
>
> The rest of Stevens Ridge is lower, 5000 feet or so. Here the white rhododendron is abundant, and here we found the first ripe huckleberries of the season [S. Jones 1927:3].

The mountain is a dynamic landscape, with a succession of weathering and deforming processes acting upon it, such as glaciers, ice-caused erosion, avalanches, mud and rock flows, slurry floods of meltwater, sand, and rock, climatic variations, and winds (Fiske et al. 1963:2; Russell 1898:379-384). Sometimes the quantity of material moved downstream can temporarily block rivers where they enter less precipitous lowlands. Russell (1989:409) remarked that all of the glaciers of Mount Rainier appeared to be receding, giving evidence of a marked climatic change parallel to that found at nearly all known glaciers in the northern hemisphere.

Probably the best known and most dramatic features on the snow-covered mountain peak were ice caves (Schmoe 1924:2(7):4-5, 1924:2(7):5). Walls and terraces of ice formed canyons where water flowed from the glaciers. Several such cave-like structures were found at the terminus of Paradise Glacier. However, higher up the mountain, at the summit crater, there were thermal ice

caves (Flett 1912). These caves on the northeast slope of Crater Peak were warm enough that campers could sleep in them at night if they were tied to the sloping floors. These caves were large enough for several hundred people at one time. However, roof collapse was not uncommon. Flett describes the steam entering the caves at fixed intervals like the breathing of a large animal:

> The steepness of the slope, the danger of collapse, the puffing of the steam, the pitch darkness, and the general hell-like surrounding all taken together make indeed a novel situation which one will remember for a long time [Flett 1912:60].

Several kinds of moss and the common liverwort (*Marchnatia polymorpha*) grew near the thermal caves. The caves varied as the snow varied from year to year.

Brockman (1929:7(9):5) noted that an electrical phenomenon called St. Elmo's fire could be seen at higher mountain elevations. One effect of St. Elmo's fire is that all metal will appear to light up.

Some of the early Park naturalists noted that other features of Mount Rainier revealed natural cycles. Some of the advance and recession of glaciers was measured by the growth cycles on some 665-year-old Douglas fir trees, 5.5 feet in diameter, growing at an elevation of 3,100 feet (Schmoe 1924:2(2):2). The wet/dry cycles of the tree appeared to be 35-40 years in length.

The majority of the descriptions of the nature and structure of Mount Rainier have come from non-Indians, from studies done to describe and understand the volcano, its glaciers, and its potential for destructive activity. Indian people were aware of all of these aspects of the mountain and had descriptive names for features of the landscape. These are discussed in more detail in the companion volume, *Tahoma Legends* (Blukis Onat 1999b).

Data Compiled Since Smith's 1964 Study

A number of detailed environmental studies have been conducted at the Park since the mid-1960s. Only a brief summary is presented here. A geological overview of Mount Rainier was published by Crandell in 1983. In this and earlier work, Crandell (1969:5-10; 1983:11-17) presented data about the pumice eruptions on Mount Rainier over the past 10,000 years.

The first eruptions of Mount Rainier occurred over 8,750 years ago (Crandell 1969:5-10; 1983:11-17). Two eruptions, between 5,800 and 6,000 years ago, produced hot volcanic debris and mudflows. Several eruptions between 2,500 and 2,000 years ago first buried the floor of the South Puyallup River valley, created widespread deposits of pumice bombs, and climaxed in building the present summit cone. The cone is still warm in places, creating ice caves and

steam. The most recent series of small eruptions occurred over 100 years ago, between 1820 and 1858.

An additional tephra eruption was widely reported in the press in 1894 (Majors and McCollum 1981). Noticeable emissions of sulphurous gasses from the west crater of Mount Rainier had been occurring since at least 1870. In 1894 there also were "hundreds" or "thousands" of fumaroles of all sizes located along the edge of the east crater, with moss growing "quite abundantly on the warm rocks," and emissions of steam could be seen on the bare north slope (Majors and McCollum 1981). Between November 21 and December 30, 1894, black and yellow smoke and tephra-laden steam caused a darkening of the mountain slope. This was accompanied by differential melting of portions of the summit ice cap from increases in thermal activity, snowdrift accumulations from precipitation, avalanches, and minor changes in the structure of the dome through calving on glaciers and earth tremors.

However, some of the thickest volcanic deposits in the region did not come from Mount Rainier, but from the Mazama eruption to the south ca. 6,700 years ago and from two major eruptions of Mount St. Helens ca. 3,250-4,000 years ago and in A.D.1480. Due to prevailing winds from the west, the pumice materials from these eruptions fell predominantly to the east of Mount Rainier.

The most recent maximum glacial extent on Mount Rainier occurred in the late 18th and early 19th centuries (Burbank 1981). The most extensive glacier growth began 800 years ago. It reached maximum extent several times between the mid-14th and mid-19th centuries. There were numerous recessional periods between the times of glacial maxima. Different glaciers also grew and receded at somewhat different times. By 1950, glaciers covered only about two thirds of the area buried under ice a century before (Crandell 1983:19-31).

Records since 1857 indicate that the Nisqually Glacier receded until 1963, advanced for 5 years, then receded again in 1969. It appears that the glacier advanced again after 1975, however, Heliker et al. (1984:3) concluded that it appears to be in overall retreat, having lost 1,945 meters and gained only 294 meters since 1857. Almost 90 years after Russell (1898:409) noted that the glaciers of Mount Rainier were retreating, the study of the Nisqually glacier confirms his observations and extends them to the present. Although Crandell (1983:19-31) believed that the glaciers may be advancing again, there is no indication that the overall retreat has yet been reversed.

Landslides, avalanches, rockslides, mudflows have been so common on Mount Rainier that they regularly demonstrate the dynamic nature of the landscape (Unger 1969). The Osceola Mudflow, occurring about 5,800 years ago, swept all the way to Puget Sound south of Seattle and underlies the present communities of Auburn, Kent, Puyallup, and Sumner (Crandell 1983:32-36; Moir 1980:6-2-7). Mudflows and floods in the White and Nisqually River valleys raised the valley

floors about 80 feet higher than they are now (Majors and McCollum 1981) and buried at least one settlement (Hedlund 1976). These floors remain as terraces or benches along the modern valley floor. The Tahoma Creek and Round Pass mudflow occurred 2,800 years ago (Crandell 1983:32-36; Moir 1980:6-2-7). The several other flows were less dramatic.

The thermal caves noted by park naturalists in the early 1900s were more thoroughly investigated around 1970 (Kiver and Mumma 1971). They were deteriorating in the 1960s (Buehler 1989:3[1]) and were closed to the general public by the 1980s. The ice caves in the volcanic crater, discovered in the 1870s, were considered unique in the world. Climbers in 1854 claimed to have seen a lake in the crater of the summit (Haines 1962:18). The ash eruptions from Mount Rainier between 1820 and 1854 could have produced sufficient heat to form such a lake. Indian guide Saluskin claimed to have seen smoke coming from the mountain (Haines 1962:18).

The ice at the summit is replaced every few decades by a continuous process of snow melt and accumulation. Of interest in this respect are two objects found deep in an ice room sloping to the center of the crater. The badly decomposed body of a shore bird (greater hollowlegs; *Totanus melanoleucus*) and a red woolen glove were originally deposited on the surface approximately 50 years ago and gradually worked downward 79-91 meters as ice was melted from below (Kiver and Mumma 1971). An airplane that crashed in the 1990s also is embedded in the ice and periodically is partially exposed (Francois LeGuern 1999, personal communication).

The biology of Mount Rainier is discussed later, but note can be made of the influences that the living world has on the non-living physical environment and *vice versa*. Elevation, aspect, and slope have a considerable influence on the vertical and horizontal zonation of vegetation on Mount Rainier (Moir 1980:2-22). At any elevation, south- or west-facing slopes are warmer and drier than north- or east-facing slopes; lower slopes are usually wetter, and upper slopes and ridges are drier than the midslope norm. This situation produces diagonal distributions in the environmental plane and distinctive climates in each of the major watersheds radiating from the 14,000 foot mountain cone. For example, the Ohanapecosh is the driest and the Carbon and Mowich are the wettest of the river drainages (Moir 1980:2-24-5). The environmental character of the White River drainage, encompassing the greatest land area of the Park, has been studied in detail by the United State Forest Service (McCullough, 1970). The pass between the headwaters of the White and Cowlitz Rivers separates Mount Rainier from the Cascade crest.

The environmental differences exhibited by different drainages also are based in differences in soils, local topography, and the factors that produce disturbances in any given area. The most common disturbances are fires, snow avalanches, and lahars (Hemstrom and Franklin 1982:32). Lahars are flows of rock, debris,

and water that originate on the slopes of a volcano. Of the common disturbances, lahars are the least frequent. Avalanches are most frequent, occurring every 1-10 years. Fires that have burned thousands of acres, have occurred once every century or so (Hemstrom and Franklin 1982:48-49).

Hemstrom and Franklin (1982) compiled an extensive record of fire disturbances in each drainage around Mount Rainier. Drought appears to have played a crucial role in major fires in the Park (Hemstrom and Franklin 1982:47). Droughts lasting 5 year or more are common in western Washington and will produce fire conditions. The frequency of fires varies with the topography. Alluvial terraces, valley bottoms, and protected north-facing slopes have large stands of old growth and show little evidence of burning. However, the south-facing slopes and dry areas along the White, Cowlitz, and Nisqually drainages have burned most frequently. Avalanche activity tends to correspond with recent burns.

Studies of past fire effects need to take into consideration the fact that many of the fires apparent in the 10,000 year natural history of the area may have been set my human inhabitants (Hemstrom and Franklin 1982:35). Only recently has there been recognition that Indian people in the Pacific Northwest commonly used controlled fires to concentrate game, provide grazing habitat, increase berry harvest, and improve hunting visibility (Boyd, ed. 1999).

Summary

Location and landscape dynamics were significant in determining where human access and activity occurred on Mount Rainier. Although Smith compiled data regarding the physical setting of the Park, he did not integrate the setting with the ethnographic data categories, except in noting passes along routes used in cross-mountain travel by different groups. A tabular presentation of the parklands reveals some interesting distributions of very specific elevations, gradients, and aspects that are attractive for human use (Table 2).

Fully one third of the parklands within Park boundaries are located in the northeast quadrant of the Park within the White River drainage. Three parklands are at elevations greater than 6,000 feet, five between 5,500 and 6,000 feet, and one between 5,000 and 5,500 feet. The north central portion of the Park contains three parklands above 5,500 feet in elevation. The five northwest parklands are slightly lower, with one above 6,000 feet, one between 5,500 and 6,000 feet, one between 5,000 and 5,500 feet, one between 4,500 and 5,000 feet, and 1 below 4,500 feet in elevation. Almost two-thirds of the parklands are in the northern half of the Park.

Table 2. Mount Rainier Parkland Distribution

Elevation (in ft) (Number of Parks, see Table 1)	**Aspect**	**#**
6,400 (5)	NE	1
6,300 (2, 25)	SW SE	2
6,200		
6,100		
6,000 (11, 12, 21)	NE NW	3
5,900 (17)	NW	1
5,800 (7, 14)	NE NC	2
5,700 (1, 4, 6, 8, 10, 15, 24, 26, 27)	NE NE NE NC WC SW SC SC EC	9
5,600 (9)	NE	1
5,500 (3,16,22,23)	NC WC WC SE	4
5,4001		
5,300 (13)	NE	1
5,200 (18)	NW	1
5,100		
5,000		
4,900 (19)	NW	1
4,800		
4,700		
4,600		
4,500		
4,400		
4,300 (20)	NW	1

The three parklands in the west central and east central portions of the Park are all above 5,500 feet in elevation, but not over 6,000 feet. Finally, the southern portion of the Park contains two parklands in the southwest, one above 6,000 feet and one between 5,500 and 6,000 feet. The two south central parklands both lie above 5,500 feet. The two southeastern parklands are between 5,500 and 6,000 feet and above 6,000 feet in elevation.

From the above, it may have been expected that most ethnographic resource use sites within Park boundaries would be found across the northern and northeastern parklands. However, this has not been the case. The present literature search discovered considerably more ethnographic data pertaining to the southern and southeastern areas of the Park. It is quite likely that this is an artifact of the availability of ethnographic data for various portions of the Park. Most of the development of the Park for recreation has focused on the southern and eastern regions of the Park and at a more limited number of parklands than had been used in earlier times. It appears that this factor, as much as any other, has led to a richer ethnographic data base in the south than in the north.

However, most of the archaeological sites recently recorded by Burtchard et al. (1998:5) do fall within the northern and northeastern parklands. It is very likely that the Park developments in the south have obscured or destroyed at least some archaeological sites. Burtchard et al. (1998:110) reported that the majority of sites they found are at elevations between 5,000 and 7,000 feet, in subalpine and alpine environments, and with less than a 5 degree slope. Whether this distribution is an artifact of their survey and sampling strategy or a good approximation of actual site distributions will become clear with time and additional work on Park archaeology.

Landforms on which the archaeological sites were identified included side slope benches, ridge crests and saddle passes, and cirque basins, as well as cliff face and talus rubble rockshelters (Burtchard et al. 1998:113). Tablelands contained less than 5 percent of the site sample. In addition, solar orientation was more equally distributed than might be expected. Approximately 57 percent of all sites were found with a southern aspect and 44 percent with an eastern orientation. The smallest number of sites had northern exposures; none were found with a northwest orientation.

The dynamic nature of the Mount Rainier landscape has been commented on by most of those who have observed it for any time. Some of these observations are presented in the following sections of the report. In more recent times, human impact has added to that dynamic. The timber harvesting and fire suppression policies of the U.S. Forest Service and the fire suppression policy of the National Park Service have created physical impacts and effects on the environment of the Cascade Range that were unknown prior to 100 years ago. Within the boundaries of the Park, maintenance of roads, bridges, and trails also have left their mark. The somewhat precarious and shifting topography

necessitates continuous land altering new construction and renewal of these transportation features. Sections of old roads, parts of former bridges, and old trail fragments are evident at several locations within the Park. The age-old natural cycles and the Indian traditions that developed in this landscape since glacial times have been impacted by the practices of people new to this environment.

Native Toponomy: Naming Places and Place Names

Smith's (1964:38-44) first data category was Native Toponomy, or the names assigned to topography. The Indian name for Mount Rainier was Tahoma, or related linguistic variants. According to Smith's (1964:38) informants and data recorded by Curtis (1911:6.ft.1), Mount Rainier had the following designations:

ɬaxó·ma, tahóma, takhóma	Yakama/Klickitat
taqó·ma, Tkóbed [tkóbɛd],	Nisqually
taqó·bɪd	Muckleshoot
Tkómen [tkómɛn]	Upper Chehalis
Nutsèlip [nucelɪp]	Cowlitz

Smith (1964:42) found a number of designations for Mount Rainier documented in the literature, including those recorded by Curtis (1911:6), who listed a number of different designations for Mount Rainier from the east and west sides of the Cascades.

The Yakama word tahóma may be of Salishan origin (Smith 1964:38-40). Mount Rainier was known by the Yakama as "Pshwánoapami-tahóma [pšwánoapami-taχóma] (Pshwánoapam Snow-peak)." On the basis of additional linguistic data, Smith concluded that "tahóma of the Pcwánwapam" indicated that at least the eastern flanks of Mount Rainier fell within Kittitas (Pcwánwapam) territory.

Smith's informant, Billy Frank, stated that tacó·ma consisted of (ta)qó 'water' and -ma 'son, any young person.' This folk etymology was related to a legend:

> This relates that the mountain was once a woman who sat with the other peaks in the Olympic Range, but for whom the others decided there was not room. Sent away from that range, she left with her son, cautioning him sharply not to forget the water. Hence the name given the mountain. He, in fact, brought with him a great quantity of water, to which the many streams now flowing from the peak well attest [Smith 1964:43].

According to Teit (in Curtis 1911:6,ft.1), the Nisqually tkóbɪd means 'waterer' (Smith 1964:43), however, several other variants of Tahoma mean snow peak. The term also was applied by other groups to any snow peak (Smith 1964:43). Smith concluded these terms were "clearly cognate save for Curtis' Nutsèlip

[nucelɪp] for the Cowlitz and Longmire's "highly suspicious Nisqually nebɛd" (Smith 1964:44).

From linguistic and other data, Smith (1964:44) concluded that Salish (west side) language groups knew and/or occupied the Park area for some time before the Sahaptin (east side) language groups became familiar with it. For the sake of consistency, I will use the name Tahoma in the following discussions regarding native place names and etymology. The names presented in this report are the same as those discussed in the companion volume, *Tahoma Legends* (Blukis Onat 1999b), although that discussion has a different emphasis.

Native Toponomy Updated

Sources not Included by Smith

In his literature review, Smith included several anthropological sources and covered the basic native designations for Mount Rainier. However, he did not present the considerable data regarding the name of the mountain that were compiled because of an economic rivalry between the cities of Seattle and Tacoma (Conover 1917; Denman 1924; Evans 1889; Lyman 1919; Meany 1923; Sicade 1918; Steel 1890; Wickersham 1893; Williams 1910). The many articles, letters, and papers available on the subject are varied in scholarship and political agenda presented. In some of the published materials, stories about Tahoma were embellished with Biblical elements. The very public debate on this issue served to inform several generations regarding Mount Rainier, Indian mythology, and pioneer settlement of the region, as perceived by non-Indians.

Captain George Vancouver first saw the great snow-capped mountain as he entered Admiralty Inlet in May, 1792 (Vancouver 1916[1801]:1-3). He named the mountain after his friend, Rear Admiral Rainier. However, the early settlers in the region also knew the mountain by variations of its Indian name, Tahoma. Petitions to formally change the name from Mount Rainier back to its native Salish name of Tahoma started in the mid-1800s and culminated in a court proceeding in the 1920s. The city of Tacoma participated actively in this effort. Seattle chose to stay with the name conferred by Vancouver. In the discussion regarding toponomy, linguistic and tribal variants of Tahoma were widely published in a series of news articles and position papers. Position papers to retain Mount Rainier as a name were presented before the United States Geographic Board (Conover 1917).

Members of several Indian tribes were involved in these proceedings, on both sides, as witnesses to the native name of the mountain. According to the tribal testimony before the Tacoma Academy of Science in 1893, the Nisqually and Puyallup name for the mountain was Tacobet and that of the Klickitat was Tahoma (Denman 1924:31-35). One of the first popular publications about the mountain used the Indian name Tacoma, but noted that it was a generic term

applied to all snow peaks (Winthrop 1955:26, 78-83). The name meant "snow mountain," "heart food," or "breast food" (Denman 1924:7).

According to Denman:

> ....by far the greatest number of authorities gave the meaning of the word "nourishing breast", while the Yakimas say it means a "rumbling noise". Another version is that it means "the gods". My own impression is that it has reference only to the fact of its being a high, snow-covered peak; but I cannot refrain from making these few observations:
>
> Tak't a Nesqually word, means "inland" or "away from water". "Ta" is a Nesqually-Puyallup root, and is the base of "this", "that" and "what". Which of these Indian words is a part of the word "Tacoma" I do not know. The word "ko" means water, in the Nesqually-Puyallup, as well as in many other Indian languages. The word "ko-ma-chin" or "ko-0bt-chid" in Nesqually-Puyallup means "rainbow", while the word "ma-ko" means "snow". Here we find the syllables "ko" and "ma" having reference to water, rainbow and snow, and it seems but little trouble from this very imperfect analysis to determine that the word "Tacoma" is only plain Indian for "snow-covered mountain." [Denman 1924:36].

Ta-ko-ma also applies to the mountain as a term "generally used for one that is distinguished, or highly honored" (Denman 1924:41). Denman noted that Henry Sicade, a modern educated "full-blooded Indian, half Nesqually and half Klickitat" stated the following in 1916:

> The name Tacoma originated on Hood's Canal. This story I will tell you I was told by a very old Indian woman there a number of years ago. Tacoma, Tacobed, and Tahoma are practically the same name. It is simply the different ways of pronouncing the same name by the different Indians and tribes. The Nesquallies called it Tacobed. The Klickitats said Tahoma. The word means, "That place from whence comes the water.' That is, it is the place from where the rivers that flow away from it arise [Denman 1924:37].

Lyman (1919) also wrote about the toponomy of Mount Rainier. He used the variant Takhoma, but was aware of others. He also noted that "some Indians use a word generically and others use the same word specifically" (Lyman 1919:84).

> A very intelligent Puyallup Indian says that the name of the "Great White Mountain" was "Takhoma" with accent and prolonged sound on the second syllable, but that any snow peak was the same, with the second syllable not so prolonged, according to the height or distance of the peak.

> In reference to "Takhoma," a Puyallup woman told the writer that among her people the name meant the "Breast that Feeds," or "The Breast of the Milk White Waters," referring to the glaciers or the white streams that issue from them.
>
> Mr. Edwin Eells of Tacoma has written that he derived from Rev. Father Hylebos of the same city, the statement that the name "Takhoma" was compounded of "Tah" and "Koma," and that among certain Indians the word "Koma" meant any snow peak, while "Tah" is a superlative. Hence "Tahkoma" means simply "the great peak" [Lyman 1919:84].

Besides the variants of the name Tahoma, one other designation (and its variants) for the mountain was noted with relative frequency in the literature. Eells (1892:31-32) stated that the origin of the word Tacoma was uncertain, although a Puyallup Indian told him the name means "the mountain," Ta-kó-ba. However, this same man also stated that this was not the name by which the Indians originally called the mountain, as their name was Tuwakhu or Twa-hwauk. The name Tuwouk, sometimes applied to the mountain, also designated the head of the Puyallup River (Stanup [1893] in Denman 1924:31-34). Tisqauk and Twhauk were special local names among the Puyallup (Denman 1924:41). However, Sicade (1918:252) stated that a little valley on the western slope of the mountain was called Tiswauk and was inhabited by a small band of natives, called Tiswaukumsh.

Mount Rainier also was designated by a few other names (Denman 1924:41). It was Puskehouse to the Indians on Cowlitz Prairie. It was called Tu-ah-ku in Lummi, according to Reverend Father Boulet, a French missionary to the Lummi Indians. The Agent in Charge at the Tulalip Reservation, James Buchannan (1919:32), recorded a Lummi myth in which Tahoma is called Dhuhwahk, or "clear sky." Dhuhwahk may be a variant of Tuwakhu, noted above.

Arguments to retain Mount Rainier as a name were largely based in the practicalities of changing a name so long established. However, on occasion, explicitly racist arguments also were used (Steel 1890). In 1915, the Washington State Historical Society moved that, as far as practicable, old Indian names should be preserved where they can be pronounced and traced (Denman 1924:40). However, those in favor of retaining Mount Rainier as a name used the different names that the mountain was called by various tribes as an argument against calling the mountain Tacoma (Conover 1917).

There were attempts to use both names in some instances. The National Park Service used and explained both names in its publications about the Park for a number of years. However, this proved cumbersome, and, in 1925, the Geographic Board finally determined that the name conferred by Vancouver would stand, largely because it had been established as such in US place names for more than 100 years. There have been no other serious attempts to change

the name of Mount Rainier since that time. However, in any serious work about the history of the region, the original name of Tahoma, or another variant, is acknowledged.

Smith also did not address the considerable body of place names compiled by Jacobs (1927-1931, 1934:228-237) from Jim Yoke and Lewy Costima, Upper Cowlitz informants. Some of these names refer to places that are within or very close to Park boundaries. Jacobs (1934:234, 237, 243) recorded the name taχu'ma. Nor did Smith use McWhorter's unpublished and undated manuscripts from the early 1900s or his published work (1917, 1937; see also Ault 1959). Both published and unpublished documents by McWhorter included place names for Mount Rainier. McWhorter recorded the Yakama and Klikitat name *Ta-ho-ma* and noted the etymology of the word as:

> "...rumbling-as-thunder-near-the-skies," of (like) "noise-of-thunder-near-the-skies," referring to the sound made by avalanches. It does not apply indiscriminately to lofty mountains, as contended by some lexicographers, but to the one and only *Ta-ho-ma* [McWhorter 1937:28].

McWhorter (1917:98, 100) also noted that the Yakama Chief Sluskin called the mountain Tahoma, the big "White Mountain". According to Gibbs (1854b), Mount Rainier was called Ne-sháh-kwi-ukl (and Mt. St. Helens was l'ch-kwi-ukl) by the Upper Chehalis.

Smith did not directly address the several other Indian names within Park territory. Many locations within the Park were named for tribes traditionally associated with the area (Cowlitz, Mical [Mashel], Klickitat, Naches, Nisqually, Puyallup, Taidnapam, and Yakama) (USDI 1935a). A few other names, such as Bear Park, Cougar Rock, Eagle Cliff, Echo Rock, Huckleberry Basin, Longmire Springs, etc., could indicate places at which Indian people gathered to exploit certain resources. For example, mowich is the Indian name for deer (Anderson 1929:7(13)3). However, many of these names also derive from specific activities or incidents in the lives of the persons who administered the Park and assigned place names to many of the features of the landscape (USDI 1935a). Yet other locations with Indian names commemorate specific Indian individuals or Indian activities and were usually bestowed by non-Indians, for example Indian Henry's Hunting Ground, Nisqually Glacier, Sluiskin Falls, Squaw Lake, Wahpenayo Peak, Wapowety Cleaver, etc. (USDI 1935a). Of these, Indian Henry's Hunting Ground, Squaw Lake, and Wahpenayo Peak were named for Indian people who utilized the Park area (Haines 1962:42). Indian Henry, whose real name was Satolick, hunted at Indian Henry's Hunting Ground; his wife and other women picked berries and gathered bear grass in the vicinity of Squaw Lake, and Wahpenayo was Satolick's father-in-law.

Some place names within the Park were designated before the Park was established. Several were recorded in the 1800s in Chinook Jargon (USDI

1935b). They and other anglicized Indian names are probably derived from more ancient and traditional Indian names; these are given in Table 3. Quotation marks in Table 3 were included in the publication referenced and have been left as quotes. The remaining information has been summarized for tabular presentation. Figures 8-11 show the locations of these named places.

A number of place names along the southern portions of the Park, within the upper Nisqually and Cowlitz drainages, were recorded by McWhorter during the first three decades of the 1900s and by Jacobs in the late 1920s and early 1930s. As noted above, Smith did not use either the field note data or published work of McWhorter. He also did not use Jacobs' field notes (1927-1931) nor his 1934 published data. Materials from these field notes and publications were summarized by Hajda et al. (1995) and are discussed below.

Data Compiled Since Smith's Study

Sources including data on the toponomy of Mount Rainier compiled since 1964 are of three types: dictionaries of Salish linguistics and language (Bates et al. 1994, Hess 1976), cultural resources management (CRM) studies (Hajda et al. 1995; Hollenbeck and Carter 1986; Hollenbeck and Moss 1987), and popular histories (Buerge 1984a, 1984b, 1989, 1990, 1992a, 1992b, 1994; Carpenter 1994; Castile 1985; Clark 1966; Martinson 1966).

The dictionaries include the following designations:

> təqʷúbəʔ - permanently snow-covered mountain (Bates et al. 1994:332)
> təqʷúʔməʔ - what the elders called Tacoma (Bates et al. 1994:223)
> s.bádil - mountain (Hess 1976:16)
> xʷáq̓ʷ - Mount Rainier (lit. "(sky) wiper') (Hess 1976:558).

The first two names are variants of Tahoma, and the last is a variant of Tiswauk noted by Eells (1892:31-32), Stanup (1893, in Denman 1924:31-34), and Sicade (1918:252). The core of the word Tahoma is qwuʔ or qʷ'ó, which means water, especially fresh water, as opposed to sea water (Bates et al. 1994:193; Jay Miller, personal communication 1999). təqʷúbəʔ is any snow-capped mountain, or any permanently snow-covered mountain.

The overviews by Hollenbeck and Carter (1986) and Hollenbeck and Moss (1987) treat the ethnographic information relative to the lands of the Mt. Baker-Snoqualmie and Wenatchee National Forests as integral to management of cultural resources. Although neither work includes references to the Park area, they both provide data relevant to the forested boundaries of the Park.

Table 3. Place Names of Indian Origin (USDI 1935a).

Name	Language	Meaning
Alki Crest (1)	Chinook Jargon	"by-and-by"
Cayuse Pass (2)	Cayuse	Tribe of eastern Washington; Indian horse
Chenuis Falls, Creek, Lakes, & Mountain (3)	Probably Indian	Long ridge and landscape features east of the Carbon River; 4,000-6,000 ft in elevation
Chinook Pass and Creek (4)	Chinook Jargon	Name commonly applied to warm winds that sweep across the mountains
Ipsut Pass & Creek (5)	Probably Indian	Meaning unknown
Klapatche Park, Ridge, and Creek (6)	Probably Indian	Meaning unknown
Klickitat Creek (7)	Klickitat	Tribe of eastern Washington
Mount Wow (8)	Probably Indian	Mountain goat
Mowich Lake, Glaciers, Rivers (9)	Indian or Chinook Jargon	Tributary of Puyallup River; deer
Nisqually River, Glacier, and Vista (10)	Nisqually	Tribe of western Washington; Squalay is original name; nez added by French, meaning "flat nosed"
Ohanapecosh Glacier, Park, River, Hot Springs (11)	Probably Indian	"Deep blue stream," "deep blue holes," "clear stream," or, seeing a reflection in a pool, a vain man exclaimed "O-hanna-bagosh!", meaning "Oh handsome man."
Olallie Creek (12)	Chinook	Berry

Owyhigh Lakes (13)	Yakama	Name of Yakama chief
Puyallup River and Glacier (14)	Puyallup	Tribe of eastern Washington
Saghalie Illahe (15)	Probably Indian	Paradise Valley
Satulick Point/Peak (16)	Indian	Real name "Sotolick" of Indian Henry
Spukwush Creek (17)	Indian	Meaning unknown
Tamanos Peak (18)	Chinook Jargon	Great Spirit
Tatoosh Creek, Park, and Range (19)	Indian	Nourishing breast; refers to waters of shape of peaks
Tenas Creek (20)	Indian	Little
Tillicum Point (21)	Chinook Jargon	Friend
Tumtum Peak (22)	Chinook Jargon	Heart
Tyee Peak (23)	Chinook Jargon	Chief
Wauhaukaupauken Falls (24)	Probably Indian	meaning unknown
Williwakas Creek and Glacier (25)	Probably Indian	meaning unknown
Yakima Park and Peak (26)	Yakima	Tribe of eastern Washington; hunting, berrying, horse racing, and games area of Yakama chief Owhi; "me-yah-ah Pah" (Place of the Chief)

Numbers in parentheses refer to locations on Figures 8-11.

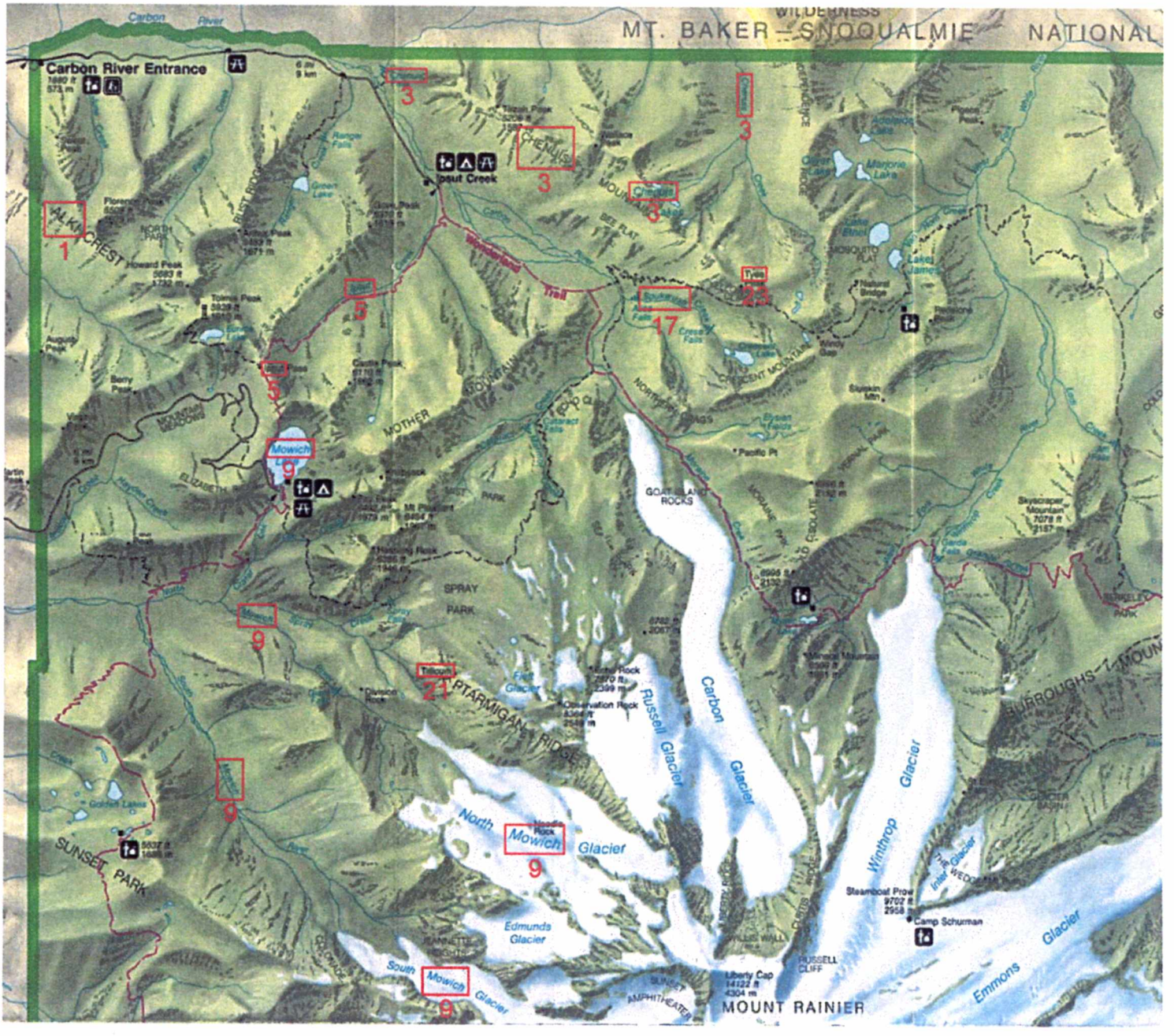

Figure 8. Mount Rainier National Park, Place Names of Native Origin, Northwest Quadrant.

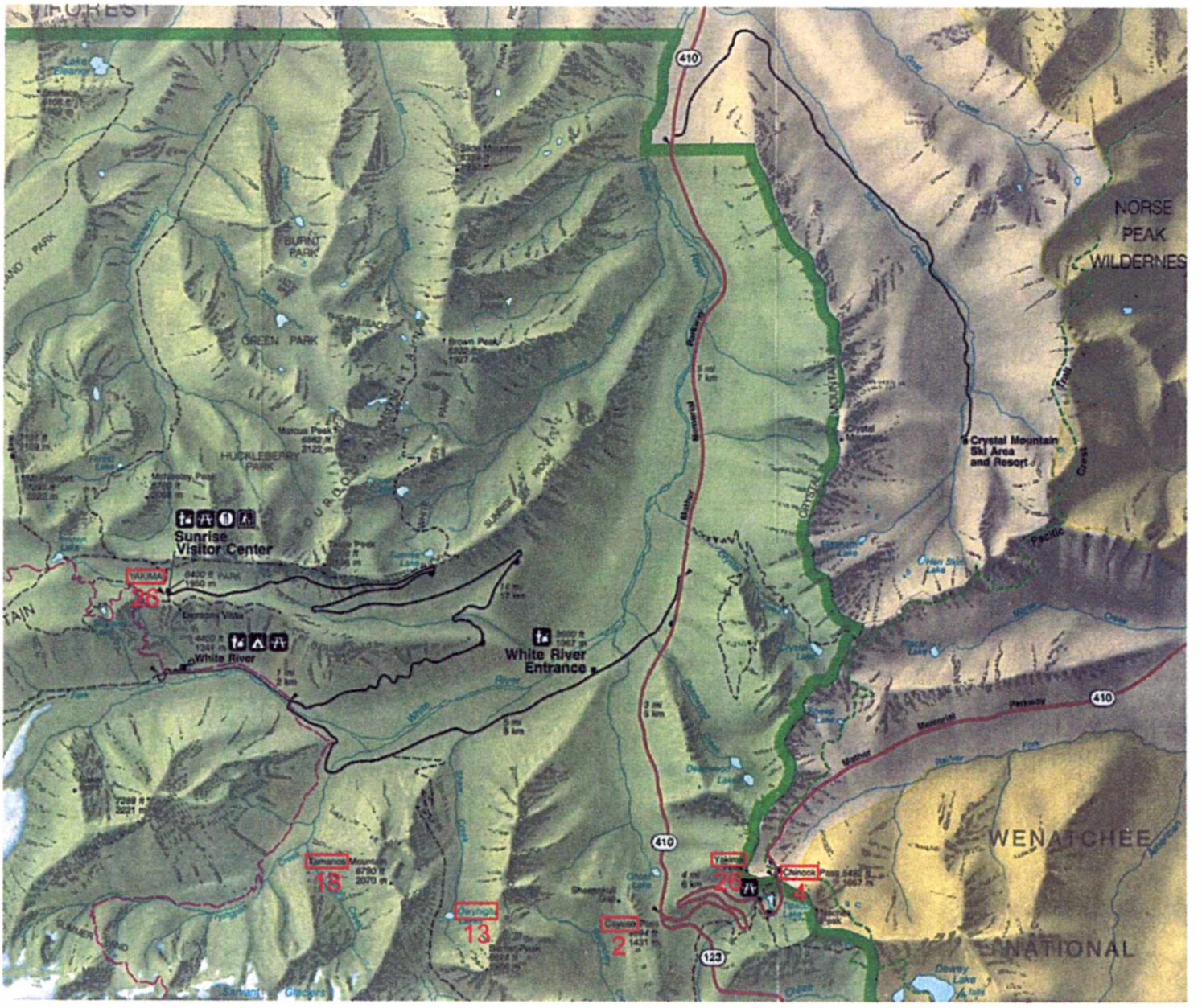

Figure 9. Mount Rainier National Park, Place Names of Native Origin, Northeast Quadrant.

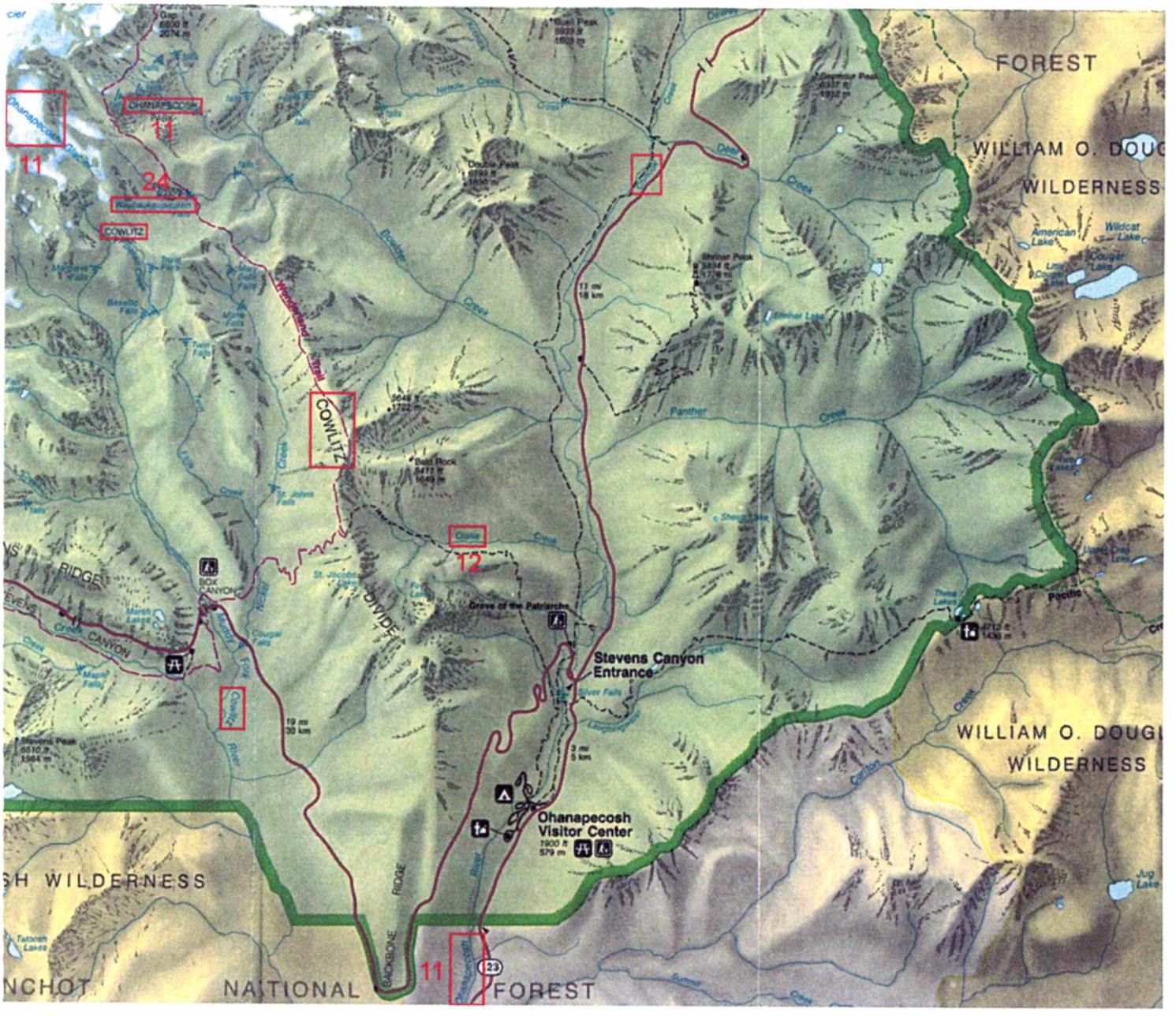

Figure 10. Mount Rainier National Park. Place Names of Native Origin, Southeast Quadrant.

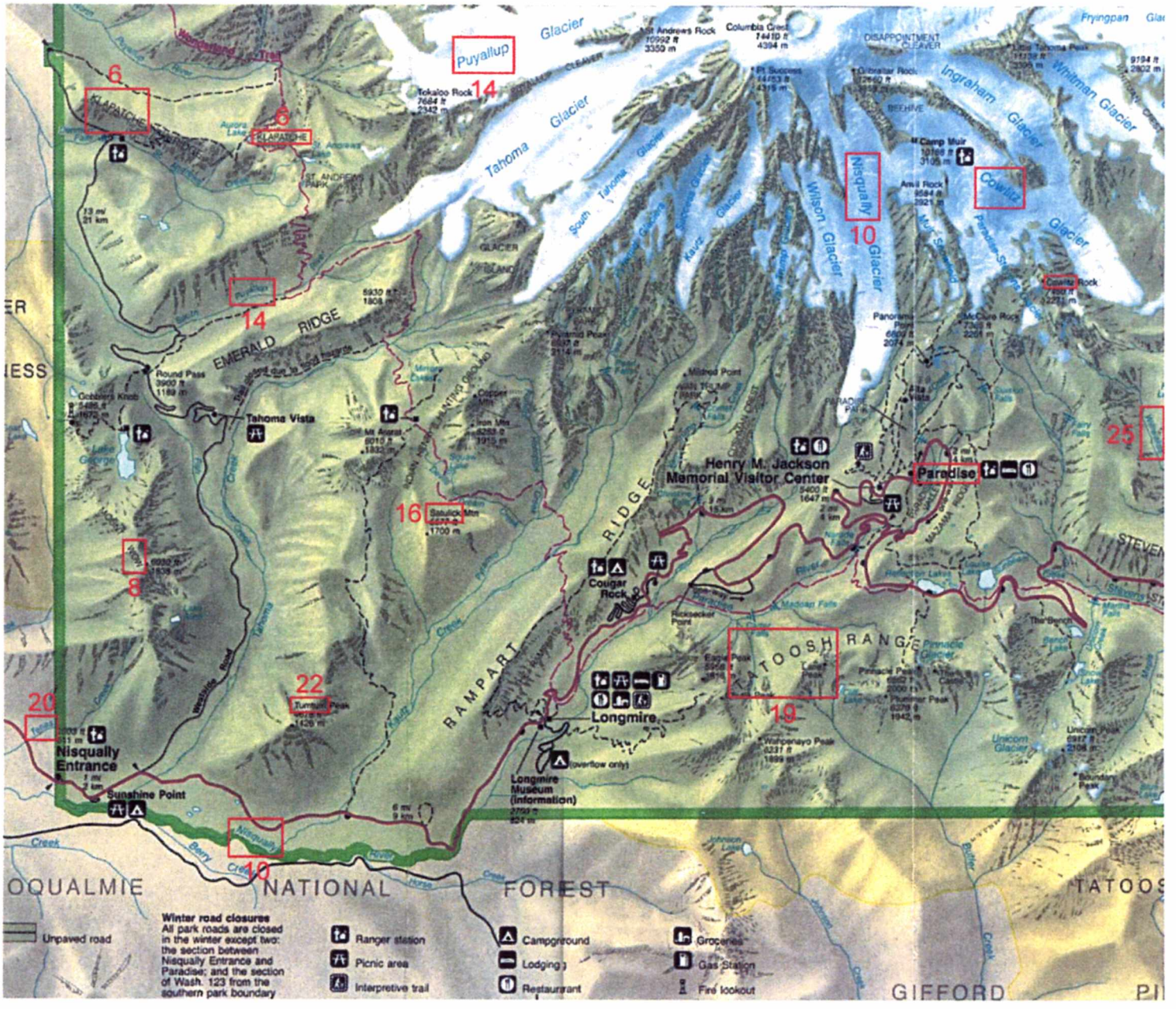

Figure 11. Mount Rainier National Park. Place Names of Native Origin, Southwest Quadrant.

In their Inventory of ethnographic sites on the Gifford Pinchot National Forest, Hajda et al. (1995) collected a number of names for Tahoma and for places in and adjacent to the Park. Many of the names came from Jacobs' works and much information was related by contemporary Indian people. Among them are:

> Mt. Rainier - pltxanaw; k'pas-as, "cold place" (McWhorter [n.d.]); txuma, a Salish name. Though lying north of the GPNF [Gifford Pinchot National Forest], the mountain was important to Taitnapams and others. It has many mythological and spiritual associations. The summit was a dangerous place, avoided by Indians (Van Trump, in Majors [1985:163]). Cowlitz burial grounds are located on the south side in the foothills; perhaps for that reason it is considered sacred and Indians avoid it. The mountain was a source of mountain goats, berries (including blackberries), cedar, and durable sweathouse rocks (Jacobs 1927-1931:vol. 15, 20, 1934:234; Kiona 1964-65; Onat and Hollenbeck 1981:507-508; 511, 513; C. Hunter, HJ; WJ; MK; LL) [Hajda et al. 1995:43-44].

In 1966, Ella Clark compiled some commonly known information about Mount Rainier and published a popular book about the Indian legends of the Northwest. Many of her sources came from the time when data were being gathered to support changing the name of Mount Rainier back to Tahoma. Clark (1966:27-28) found the designations Dahkobeed, Taceman, Tacob, Tacobud, Tacoman, Tacopa, Tahkobed, Takhobah, Takhoma, Takkobad, Takobed, Takober, Takobet, Ta-ko-bid, Takoman, Tehoma, T'koma, Tkomma, many from the same sources Denman (1924) had used. A Lummi man, Joseph Hilaire, said that Duk-hwahk was the name of the mountain and it meant "clear sky" (Clark 1966:28).

The historian David Buerge (1984a) recorded several variants in the literature he searched for Tahoma: Tuchoma, Tacoma, Tahkobed, Tkomma, Dah-ko-beed, and Takobet. He concluded that the name comes from Puget Salish tuh-KWOO-buh, a generic word for any permanently snow-capped peak. He also noted that T.T. Waterman (1973[1921]:220-224) recorded a Duwamish myth in which the mountain is called Dah-ko-beed (dah ko'bed). Waterman noted that the Nisqually called the mountain Tacobud (ta ko'bud); the Puyallup called it Takkobad (tak ko'bad).

Cecelia Carpenter, a historian who is also a member of the Nisqually Tribe, has written a number of books and other documents about the Nisqually, including a book about the Nisqually relationship to Mount Rainier (1994). Carpenter states that the Nisqually name for the mountain is Ta-co-bet.

Working from the notebooks of Myron Eells, Castile (1985) found that Mount Rainier was called Tacomal by the Twana. It was also called Tu-wak-hu or Twa-hwauk (Castile 1985:279). According to Colonel B.F. Shaw, treaty interpreter, Tacoma was a Skagit word and meant "plenty of food or nourishment" (Castile 1985:280). Andrew Joe, a Lower Skagit, said that Kobah means "high mountain

always covered with snow," and was the Skagit name for Mount Baker (Clark 1966:28). As Mount Rainier was "higher than Kobah," it was called Takobah.

The study by Hajda et al. (1995:34-55) included a number of place names or named features of the landscape within Park boundaries. Table 4 is a compilation of these materials. Most information presented in Table 4 was derived from Jacobs' 1927-1931 field notes and 1934 publication. A few references were taken from McWhorter and Forest Service documents The quotation marks in Table 4 were included in Hajda et al. (1995) and have been left as presented therein. The remaining information has been summarized for tabular presentation. Figures 12 and 13 show approximate locations for the named places in Table 4. It was not possible from the available information to sort out the individual peaks of the Tatoosh Range.

Summary

It appears from the data above that all of the early controversy regarding the Indian names of Mount Rainier was based in a lack of information about the distinctions between different Salish and Sahaptin languages and dialects, as well as the construction of the Chinook trade language. The Salish language distinction between the name of the largest mountain in the region and any permanently snow-covered peak also was not clear to early recorders of Salish names. The Sahaptin speakers east of the mountains apparently used the Salish name for the mountain. There were far fewer variants of Tahoma on the east side of the Cascades than on the west. The etymologies are similar, in that all include recognition of a lofty and permanently snow-covered peak.

For the most part, the names of specific places in the Park and vicinity are described in terms of setting, resources, or human activity. This observation has been made several times in the anthropological and popular literature (Denman 1924; Jacobs (1927-1931, 1934:228-237; Lyman 1919). Norton (1979, 1983) has used such place name data to investigate resource availability, use, and related activities at several locations.

By far the majority of the contemporary descriptions about Mount Rainier have come from non-Indians. However, place names reveal that Indian people were aware of features of the landscape and associated resources. Many of these were documented, either in the native languages or in Chinook Jargon (Jacobs 1927-1931, 1934:228-237) McWhorter (1917). Although much of this information was recorded in the first half of the 1900s, at least some of it is part of contemporary oral traditions among tribal groups. The Hajda et al. (1995) study, conducted on neighboring National Forest lands to the south, contains data for the Park. It is apparent from Table 4 that many specific locations in the vicinity of Mount Rainier and within Park boundaries that were known among Indian people in the past have continuity of use to the present. The information from the Cowlitz in Figures 12 and 13 is especially telling.

Table 4. Cowlitz Place Names (Hajda et al. 1995:34-55).

Indian Name	Etymology and Description
Alxayx(1)	"moon," the source of the Nisqually River; named by Coyote (Jacobs).
Asaasa-nmi#(2)	"of water moss," located "right across" from **t'apll** mountain in Tatoosh Range; name describes quantities of mountain goats; Sluiskin referred to Tatoosh Range by this name (Jacobs and McWhorter)
Ayay-ash*(3)	"trout place," in the Cowlitz headwaters on the Yakima Trail; waded across
Aypax-nmi-shchet; taitnapamikan ctet	Yakima Trail; Cowlitz Trail; trail branches from Cowlitz River to several mountain passes; one route led north to Naches Pass (Jacobs, Gibbs, Adamson, Sethe, Fechtner)
Backbone Mt.(4)	place for huckleberries and grazing horses; trail up Backbone Ridge to Mt. Rainier (Sethe Fechtner)
Likalwit(5)	Taitnapam village at junction of Clear Fork and Muddy Fork of Cowlitz River; furthest upriver settlement; major fishing site; Yakama and Upper Cowlitz people; gathered huckleberries, salal berries, blackberries in vicinity; hunted goats, bear, and deer in vicinity; prepared and dried at settlement; many "basket trees" in the area; mythical associations; current use
Ilwaxam-Ilwaxam*(6)	"little fire-cleared place," huckleberry gathering area near the Cowlitz headwaters
Iil-I-wi-kosh(7)	"jump across," at or near Sluiskin Falls on the Nisqually (McWhorter)
Luch'a*(8)	"bay or reddish-brown," mountain with a huckleberry patch near head of the Cowlitz River

Muk-muk(9)	"muddy fork" of Cowlitz River; Yoke had a camp on Muddy Fork
Nl'quit(10)	"breast," Tatoosh Mountain; named by Coyote; fishing camp located where salmon caught in Muddy Fork and Ohanapecosh Rivers; huckleberries and grass for horses in area; Yakamas camped here when fishing (Jacobs, McWhorter etc.)
Nuwaxam-insh(11)	"burnt place;" huckleberry place; mountain near Longmire Springs
Pachu-pama(12)	"for the middle," mountain near Longmire on the Nisqually River drainage
Paklnk-ash(13)	"place of the barrier," mountain goats hunted at the foot of Mount Rainier on the Cowlitz River
Paradise Valley(14)	Indians from the Yakama Reservation camped here when collecting huckleberries in the Paradise Hills
Qwnantlm; sqipqip-ash-nmi(15)	"large rock mountain;" "a place for mountain goats," in southwest corner of the Park in Nisqually River drainage, possibly Mineral Creek (Jacobs and Chittenden)
Shmlisha(16)	valley stream on the upper Nisqually where Yoke spoke of driving animals into water (Jacobs and Chittenden)
Sokhotash(17)	The Chittenden 1906 map of Mouth (sic) Rainier National Park located **sokhotash** on the border of the GPNF on the Nisqually River.
Sqipqip-ash-nmi(18)	"of devil's club bush," tributary of the upper Nisqually River near Longmire (Jacobs and Chittenden)
Suqels[#(19)]	Unidentified place on the upper Nisqually River
T'apll[#(20)]	"curved peculiarly," mountain in the Cowlitz River drainage opposite **waptash-insh** and across from **asaasa-nmi**
T'at'aLiya(21)	"basket-woman ogress" is name of palisades above Ohanapecosh
Timla-tlmla(22)	"little heart," a mountain "across a small stream" from **qwnantlm** mountain in the Nisqually River drainage; one of two places with this name (Jacobs)

Tpash(23)	"salt place;" open spot at the foot of a mountain (possibly **xit'ay**); huckleberry area
Tuli(24)	a large rock cave at **xit'ay** mountain where mountain goat meat was smoke dried
Waptash-insh#(25)	"having feather," name of mountain near Mt. Rainier between **suq'els** and **t'apll**
Wilawayk-ash*(26)	"jump across place;" myths said people used to jump across at waterfall near head of Cowlitz River; "large rock cave" here where mountain goat meat was smoke-dried
Xiiwna(27)	in the Cowlitz River drainage near **t'apll** mountain and **asaasa-nmi**
xit'ay*(28)	"big flat site;" mountain with huckleberry patch; located on Mt. Rainier as "there the source of the Cowlitz first appears"

Numbers in parentheses refer to locations on Figures 12-13.
Peaks in the Tatoosh Range could not be specifically located.

* All references to the headwaters of the Cowlitz River assume Mount Rainier as the source of that river, as noted by Yoke in Jacobs (1934).

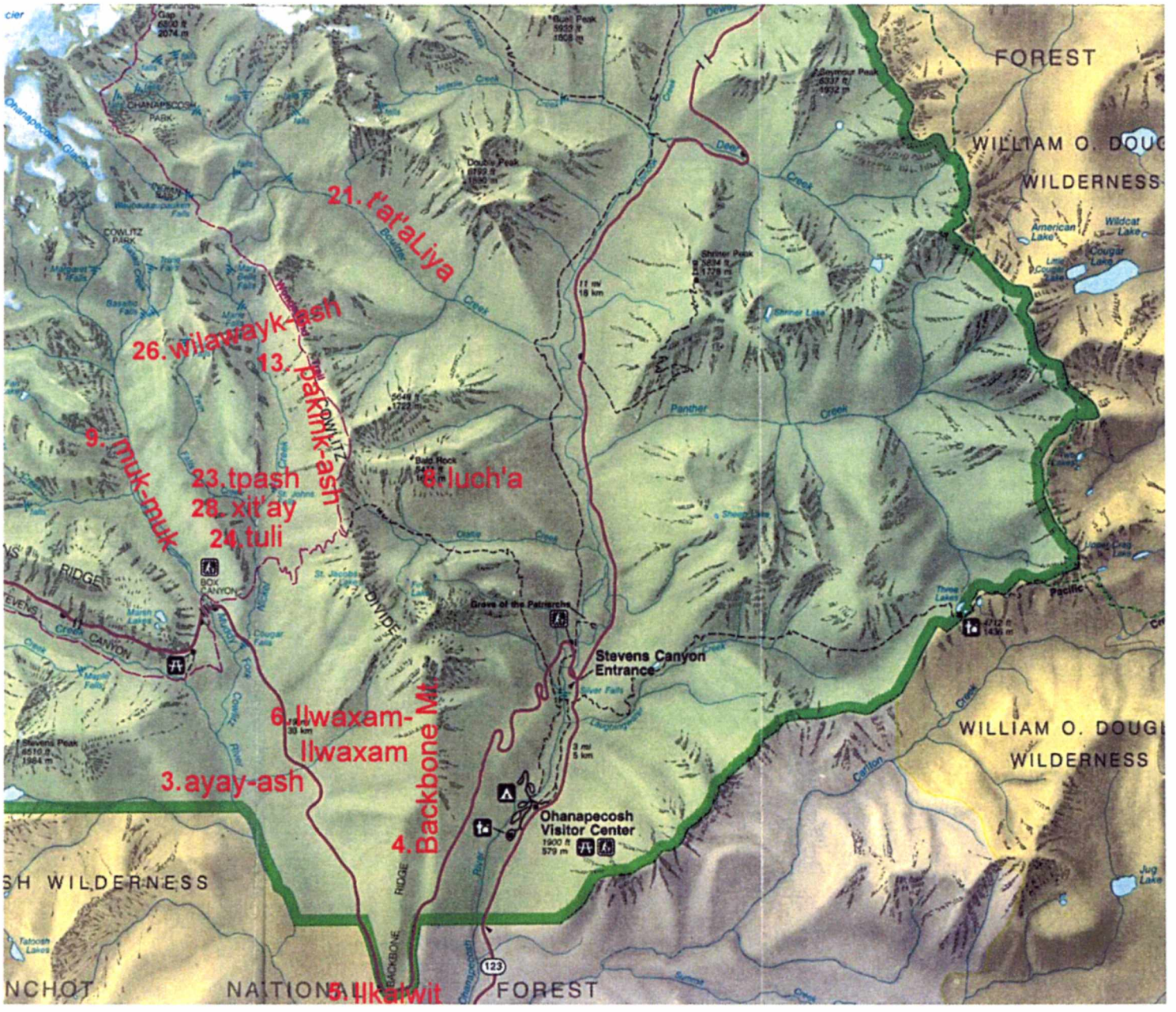

Figure 12. Mount Rainier National Park. Cowlitz Place Names, Southeast Quadrant.

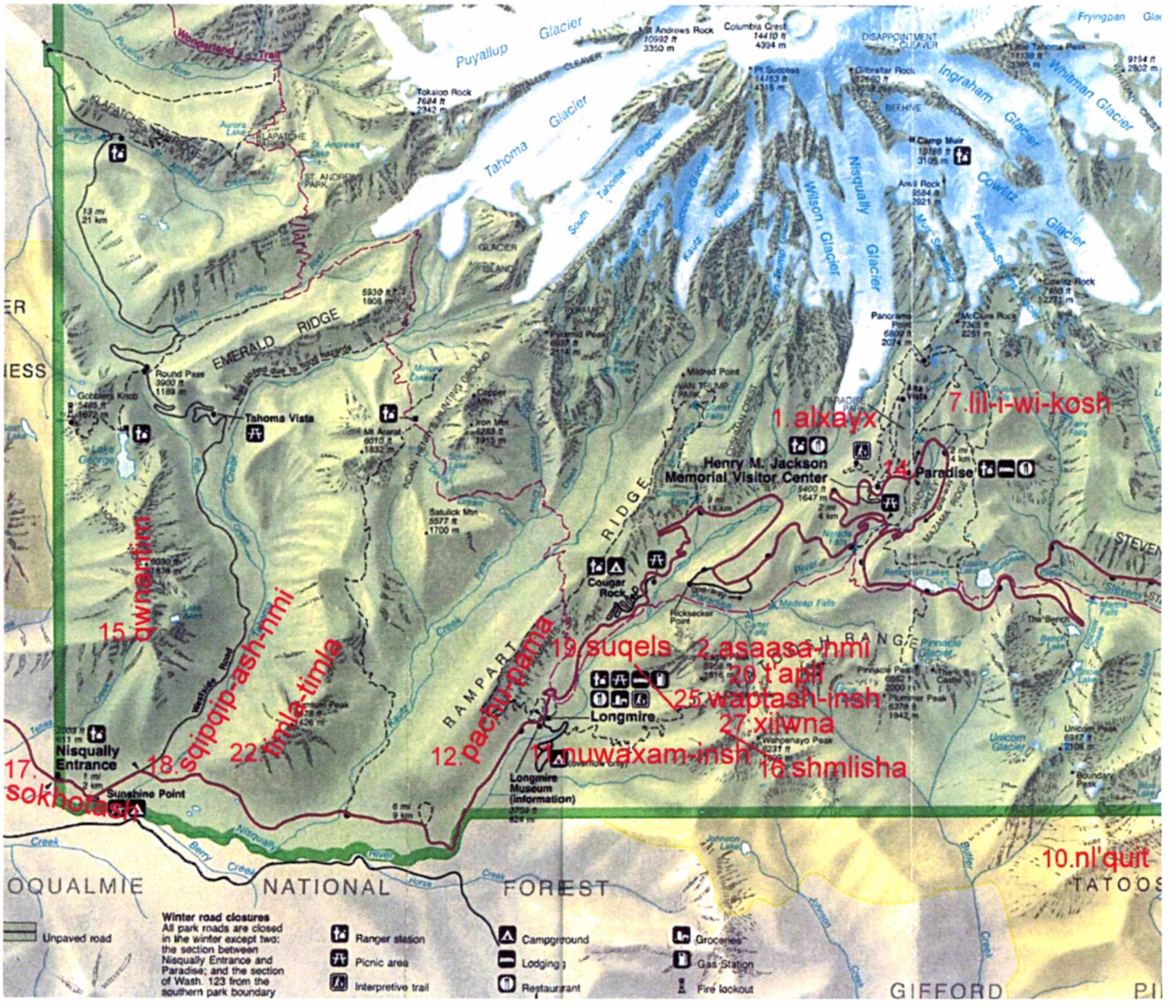

Figure 13. Mount Rainier National Park. Cowlitz Place Names, Southwest Quadrant.

Tribal Distribution and Tribal Boundaries

Smith's second data category was Tribal Distribution and Tribal Boundaries. This is the most extensive section of his report, being somewhat more than one third of the volume. He used most of the sources available in 1964 in his discussion of these topics in the context of the Park. In the discussion below, the original sources of specific information included by Smith are cited, as well as the context in which Smith used them. He used Spier's (1936:42-43) tribal distribution map as a basis for his discussion (Figure 14) and cited maps in Haeberlin and Gunther (1930), Ray (1936), Jacobs (1931:94, 1937:56), and M. Smith (1940, 1941).

Smith (1964:15) divided the tribes having some interest in Park territory into five groups by using a classification with three dimensions in the mode of topography and two dimensions in the mode of language. The topographic dimensions included the Interior, Puget Sound or Coastal, and Cascades areas. The two language dimensions were Salishan and Sahaptin. For purposes of discussion, Jacobs' (1937:56) map is included as Figure 15.

The groups categorized as Interior Sahaptin were the Yakama (paʔkyúṫłəma or wapataí·lmin) and the Kittitas (pɛwa'napam or pšʷánwapam) (Jacobs1937:56; Schuster 1975:22, 29, 36-37; 1998:327-31; Smith 1964:46-94). The Interior Salishan group were called the Wenatchi (wɪná'čəpəm) by their neighbors and are known by that name today (Smith 1964:52-54). They called themselves the Pisquouse. The Puget Sound or Coastal Sahaptin groups were the Taidnapam (táytnapam) or Upper Cowlitz and the Meshal/Mical (mica'l) or Upper Nisqually (Smith 1964:69,79). The Puget Sound or Coastal Salishan groups were the Nisqually, Puyallup, and the bands united as the Muckleshoot (Smith 1264:64-71). The single Cascade tribe, the Klikitat or Klickitat (x̱ʷáłx̱ʷayapam or x̱ʷáłx̱ʷaipam), spoke Sahaptin (Smith 1964:47-48). Klickitat territory extended both east and west of the mountains.

Of the groups noted, the Taidnapam, Meshal, Puyallup, and, to "a negligible extent" (Smith 1964:20), the Muckleshoot, occupied territory within the Park. Smith (1964:20-25) thought that the relatively easy slope from the east gave ready access to Mount Rainier for the Yakama. He thought that access to and crossing the Cascade divide from the east possibly was easier for them than for Coastal groups, who had to move up through thick timber.

Smith (1964:46-48) also addressed the problem of boundary definition, especially with regard to the Klikitat. In the literature he reviewed, the name Klikitat variously applied to all Sahaptin-speaking Indians of the eastern Cascade slopes, including the Taidnapam, Klikitat proper, Yakama, and Kittitas (1940:344). According to Haeberlin and Gunther (1930:9), the Klikitat lived east of the Muckleshoot and Nisqually, south to the Columbia River and east to the Cascade

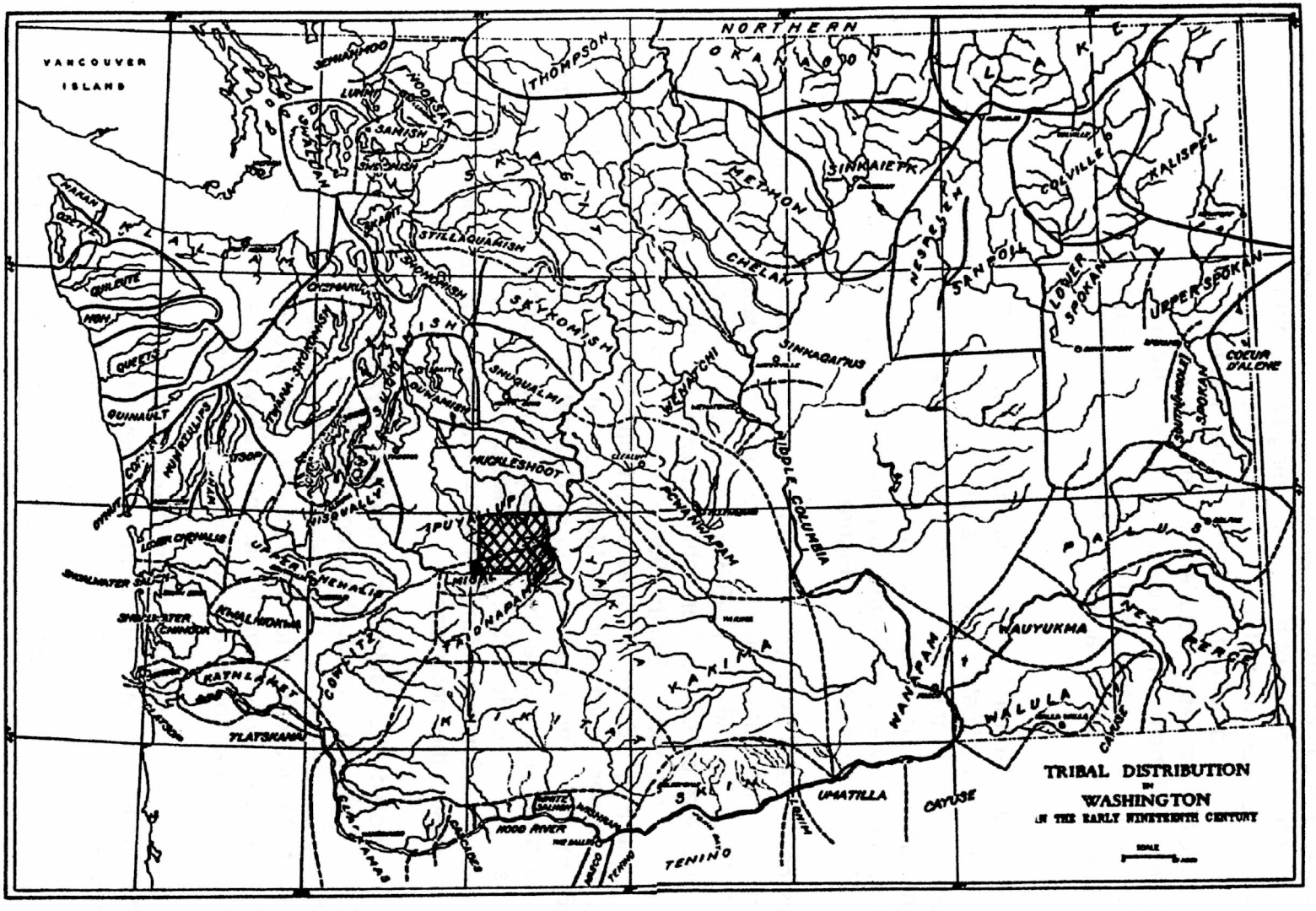

Figure 14. Tribal Distribution of Washington in the Early Nineteenth Century (Spier 1936:42-43).

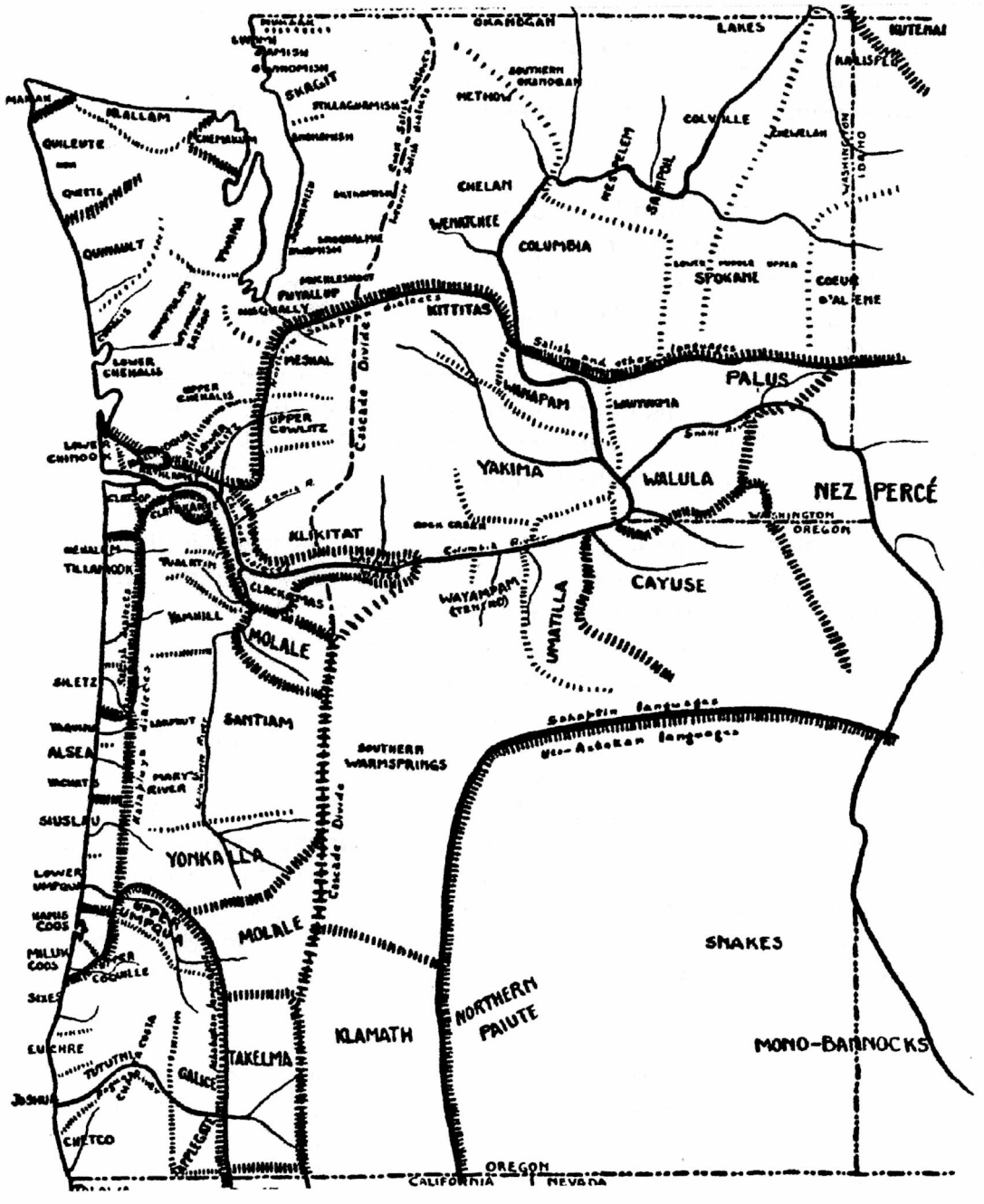

Figure 15. Linguistic and Tribal Boundaries in the Northwest (Jacobs 1937:56).

Range. However, according to Jacobs (1931:94, 96) and Spier (1936:24-26, 42-43), the Klikitat lived to the south and southwest of the Yakama and on both sides of the Cascades. Finally, Ballard (1929:147) gave the name Klickitat (naxtce'spam) to people living in the Naches River valley, in the northern part of Yakama territory.

The term Yakama also appeared to be used in a variety of ways (1964:49-50). The minimum definition included those people living along the middle Yakama River and tributaries below Union Gap. Other groups considered by some to be of equal standing were the Naches (naχčípəm), Wenatchi, Kittitas, Klikitat, Wishram (sƛinʔa), and Celilo Falls (wayə́mpəm). A broader definition encompassed all groups lying between the Kittitas on the upper Yakima River and the Klikitat to the south; this definition included the Naches (1964:51). The maximum definition included the people of the middle Yakima River, the Naches River, the Kittitas, and part or all of the Wenatchi (1964:52-59).

All of the groups noted by Smith had been documented as tribes in the historic record. However, bands and families within the larger named entities were not united by a political organization or a single leader. Rather, each group considered itself autonomous (1964:45-46.) At the same time, and for specific reasons, individuals and families might identify with a band or a larger group.

Smith concluded that whether the Interior groups designated as having a presence in the Park and in using its resources were called Yakama, Klikitat, or by a band name, "probably the band or bands closest to the Park boundaries were those primarily involved, specifically probably the Naches band " (1964:59). Smith (1964:70) also concluded that the territorial claims of the Yakama within the Park would be difficult to define with precision, possibly because the topography offered unequal access to the mountain area. He considered that the coastal groups had somewhat greater precision of boundary delimitation, again because of the topography.

Like the Interior groups, Puget Sound groups were politically autonomous. If one settlement exerted influence over neighboring communities, it was through the personal character of its leading man, something that could change with his death (1964:59). This autonomy is consistently noted in the historic record (Curtis 1913:14; Gibbs 1855, 1877). Smith made an interesting observation regarding the possible reasons for settlement autonomy:

> When villages are organized by ethnographers into larger entities, the results differ widely according to the principles followed and set of data used. As noted below, these different formulations may, in fact, reflect a native view that villages clustered differently according to the nature of the criteria applied. In any event, according to the usage of the moment, a particular "tribal" designation may be applied to these few villages or to a different small set of communities or to even a much larger cluster of

> settlements than both together. In short, it is not always obvious precisely which village or group of communities is referred to under a "tribal" term [1964:61].

On the west side of the Cascade Mountains, Smith (1964:61-62) concluded that tribal limits corresponded to the crests of the mountain ranges and that the limits in the deep mountains were more theoretical than of daily concern. However, it was expected that mountain slopes that faced a tribal center or settlement would be utilized by the local group. Smith (1964:64-67) followed the concept of tribal boundaries proposed by M. Smith (1940:24), who held that that tribal boundaries extended to the summits of the Cascade Range; that coastal possession was highly localized; that interior land ownership was little developed; and that mountain territory was determined by use-ownership. Smith (1964:67) also concurred with M. Smith (1941:197-198) that a "loose and oblique concept of territoriality" was held by Puget Sound groups. The concept was based in the sense that settlements in a single major stream drainage were thought of as a unit with a commonality of interest. For example, the Nisqually and Puyallup were identified primarily on the basis of geographic river-basin location (1964:124-134). They each were found throughout the total length of their respective river drainages. These drainage-based relationships created a higher rate of social contacts than existed among people of different drainages.

Smith (1964:68-69) also discussed the manner in which resources could be allocated, citing Haeberlin and Gunther (1930:12) and M. Smith (1940:24). Basically, fishing, hunting, and berry picking grounds were tribal property. One tribe could ask permission to use the territory of another, a favor that was rarely refused. If, however, a tribe used the territory of another tribe without asking permission, the act was regarded as an invasion and war might follow. The territory over which a particular group hunted "was divided into tracts lying between the rivers" (1964:70). Smith noted that M. Smith seemed to make a subtle distinction between "hunting territory" limits and "tribal territory" limits, as though the former would not necessarily coincide with the latter where the outer borders of the area claimed by a "tribal" group were involved. Smith's (1964:71) informants were unanimous in their assertion that the mountains were free to all to use for berrying and hunting. They also talked of several tribes jointly harvesting and drying in one small area and of the intertribal contact enjoyed because of opportunities for tribal intermarriages.

The topic of intermarriage was central to the discussion of tribal boundaries and movements. Apparently, the Yakama intermarried with other Sahaptin and with Salishan groups to the north (Wenatchi) within the Plateau region (1964:86). There also was much intermarriage among Puget Sound tribes. However, cross-mountain intertribal marriage tended to be one-sided, with movement from east to west. There was little movement from Puget Sound to the Plateau for women and none for men (1964:78-84). However, there was much movement from the Plateau to the western mountain flanks above Puget Sound. Both men and

women from Sahaptin groups married into Coastal groups and took up residence west of the Cascades. However, they also were proud of their connections east of the mountains. This was especially true for the upper Nisqually and Meshal Sahaptins. The upper Puyallup, White River Muckleshoot, upper Chehalis, and upper Snoqualmie experienced this Sahaptin "invasion" by marriage. Among these groups, bilingualism was a village characteristic, not an individual personal accomplishment. It may have been this extensive intermarriage that also allowed for the free use of the Park area by several groups (1964:86).

According to Jacobs (1937:55-74), speech drifts were mainly through intermarriage and in the direction of wealthier or more attractive communities. These took place along the more sparsely populated areas upriver. Distance was not a limiting factor if a more attractive situation was to be found on the other side of the mountains. Families and bands traveled into and across the mountains each year to hunt and collect berries. Jacobs (1937:55-74) believed that the mountains provided less of a barrier to speech drifts than did the populous waterways.

Taking all the above factors into consideration, Smith (1964:95) noted some tentative tribal boundaries within the Park area. He concluded that the Yakama used locations in the vicinity of White and Naches Passes along the eastern slopes of Mount Rainier. The Naches and Tieton Rivers and the upper and middle reaches of the Yakima River and its tributary streams to the west were included in the traditional use area of the Yakama. According to Ray (1936:115), the Yakama had a feeling of responsibility for the safety of any member of another group while within Yakama territory. Any visitor was given safe convoy to the Yakama boundary, and scouts were located at strategic points in the interest of the group as a whole. However, the greater the distance from population centers, the more vague the lines of demarcation (1964:63).

According to Jacobs (1931:94), the southern slopes of Mount Rainier were the territory of the Meshal (*mica'l*) (1964:98). The Taidnapam (*ta'idnapam*) claimed the area from the southern borders of the Park to the Tatoosh Mountain summit. The line between the Taidnapam and Yakama lay at the summit of Mt. Adams (1964:101). Smith noted that the route used by Sluiskin, one of the guides for early non-Indian mountain climbers, has implications regarding territoriality (1964:103-109). Sluiskin was a Taidnapam. Taidnapam territory extended north to the watershed between the Nisqually and Cowlitz River basins and included the flanks of Mount Rainier immediately to the east. The Ohanapecosh River watershed, between Mount Rainier and the Cascade Divide, was used by both the Yakama and the Taidnapam for berry picking and hunting.

Indian Henry, with the Indian name *sútɛlɪκ* (also written as Sotolick and Satolick), was a Nisqually from the uppermost Meshal settlement. The people of this settlement spoke both Salish and Sahaptin (1964:109-114). In the 1870s, Indian Henry hunted mountain goats in the alpine park on the southwest slope of Mount

Rainier, in the vicinity of what is now known as Indian Henry's Hunting Ground (Meany, ed. 1916:310). Indian Henry was identified as Cowlitz both by Meany (ed., 1916:310) and by Park naturalist Schmoe (1926: 4[13]:4-7).

Smith (1964:114-115) noted that another Meshal-Nisqually man named Wahpowety guided Kautz (1916:75) up Mount Rainier in 1857. Wahpowety was recommended to Kautz by Chief Leshi of the Nisqually. They traveled by way of Meshal Prairie and the Nisqually River up to Nisqually glacier, or up Kautz Creek and Wahpowety Cleaver ridge between Kautz and Wilson Glaciers. The latter was said to be an old Indian trail.

Muckleshoot access to the Park was along the upper reaches of the White River and those tributaries that drain the northeastern corner of the Park (1964:134-137). The Muckleshoot utilized this river system to its headwaters in the high mountains. The demarcation line between Muckleshoot and Yakama territories was along the divide between the Ohanapecosh and White Rivers.

Tribal Distribution and Tribal Boundaries Updated

Sources not Included by Smith

Smith primarily relied on the data compiled by earlier ethnographers and historians. He did not directly cite documents by explorers and government officials, such as Gibbs, Tolmie, Wilkes, etc., or access original historic documents regarding tribal territorial claims. However, the sources that he used did cite such ethnohistoric records, are considered reliable, and continue to be cited in research conducted with respect to tribal distribution and boundary issues within the Park area. Of special note are the works by Gibbs (1854b; 1855; 1877). Gibbs (1877:224) wrote that the Klikatat and Yakama, both Sahaptin speakers, had pushed their way into lands formerly occupied by Salish speakers. He also noted the presence of the Tai-tm-pam on the western side of the mountains and that the Yakama traded horses for Nisqually hiaqua shells (*Dentalium*) and dried clams at Fort Nisqually (Gibbs 1854b).

Data Compiled Since Smith's Study

A large body of data has been compiled regarding tribal distribution and boundaries since 1964. A number of papers and expert reports were assembled for the U.S. Indian Claims Commission (ICC or Commission) hearings conducted in the early 1960s (Fried 1974 [1960]; Horr 1974; Ray 1974 [1966]; Taylor 1974 [1953a], 1974 [1953b]; Taylor, ed. 1974[1954]). Much of the ICC testimony was being completed at the time Smith was conducting his 1964 study. Spier's work of 1936, used extensively by Smith (1964), was used as background information by the Commission in the series of volumes published about the ICC proceedings in 1974. Figure 14 is from this work.

The papers presented to the ICC sought to precisely define tribal boundaries. Each party to the proceedings claimed areas of land by right of aboriginal possession at the time of the Medicine Creek Treaty of 1854 (South Puget Lowland Tribes) and the Yakima Treaty of 1855 (Mid-Columbia Tribes). The territory so claimed included Park lands as follows:

Yakama: The treaty with the Yakama in 1855, also called the Camp Stevens Treaty, included the Yakama, Palouse, Pisquouse, Wentschapam, Klikatat, Klinquhit, Kow-was-say-ee, Li-ay-was, Skin-pah, Wish-ham, Shyiks, Ochechotes, Kah-milt-pah, and Se-ap-cat (Kappler 1972:698). The groups noted by Smith as Interior and Cascades Sahaptin were included in this treaty. The lands ceded by the tribes included Mount Rainier:

> Commencing at Mount Rainier, thence northerly along the main ridge of the Cascade Mountains to the point where the northern tributaries of Lake Che-lan and the southern tributaries of the Methow River have their rise; thence southeasterly....Columbia River....east....main Palouse River....Snake River....Columbia River....thence down the Columbia River midway between the mouths of White Salmon and Wind Rivers; thence along the divide between said rivers to the main ridge of the Cascade Mountains; and thence along said ridge to the place of beginning [Kappler 1972:698-699].

During the ICC proceedings, the Yakama Tribes made five separate claims (Ruby and Brown 1986:59-62) for areas they considered lost after the treaty. None of the tracts included portions of the Park. However, claims did reach to the crest of the Cascades along the east boundary of the Park. The demarcation line runs approximately along the Pacific Crest Trail (Schuster 1975:29, 223).

The claims made by the Medicine Creek tribes did include Park lands:

> Muckleshoot: Commencing at the southwest corner of Township 21, Range 5EWM; thence north.... thence to the peak of Mt. Lindsay; thence to the peak of Goat Mountain; thence to Stampede; thence along the crest of Cascade Mountains to Naches Pass, to Chinook Pass to the peak of Mt. Rainier; thence north to the headwaters of the West Fork of White River; thence along the divide between tributaries of the White River and tributaries to the Puyallup River to a point one mile south of the town of Buckley; thence to the place of beginning....[Horr 1974; ICC 1955:Docket 98].

The Nisqually claim included Meshal/Mical or Upper Nisqually territory.

> Nisqually:...Commencing at the point on the eastern side of Admiralty Inlet....; thence running in a southeasterly direction, following the divide between the waters of the Puyallup and Dwamish, or White Rivers, to the

summit of the Cascade Mountains; thence southerly, along the summit of said range, to a point opposite the mains source of the Skookum Chuck Creek; thence to and down said creek, to the coal mine; thence northwesterly, to the summit of the Black Hills; thence northerly, to the upper forks of the Satsop River;....[Horr 1974; ICC 1969:Docket 197].

Puyallup: Beginning at a point along the eastern shore of Puget Sound..., thence southeasterly to the Town of Kapowsin on Lake Kapowsin, thence to the Ranger Station of Lake George, thence to the crest of Mt. Rainier to the 6000 foot level and thence to Fairfax; thence to Carbonado; and thence to Wilkinson....[Horr 1974; ICC 1966:Docket 203].

The Cowlitz were included in the 1855 treaty negotiation for lands in southwestern Washington. However, since Governor Stevens did not accede to the requests of the various tribes in this area, no treaty was consummated. During the ICC proceedings, the Cowlitz made claim to their aboriginal lands. The Commission findings regarding the aboriginal lands of the Cowlitz were as follows:

Cowlitz: Beginning at Naches Peak, thence southward to Old Snowy Mountain, thence southwesterly along the divide between upper Cispus River and upper Cowlitz River to the mouth of Adams Creek, thence southwesterly in a straight line to the mouth of the Kalama River, thence northwesterly along the middle channel of the Columbia River to the upriver end of Fisher Island, thence northeasterly and along the divide between Coal Creek and Clark Creek to the divide separating the waters of Tucker and Delameter Creeks from Monahan Creek, thence northwesterly along said divide to Abernathy Mountain, thence northerly in a straight line to the mouth of Dillenbaugh Creek, on the site of the present town of Chehalis, Washington, thence easterly to the southeast corner of Section 30, Range 1 W., Township 14 N., thence northeasterly to the confluence of Johanson Creek and Skookumchuck River, thence northeasterly to Bald Hill, thence due south to the divide separating the waters of the Nisqually River and the Cowlitz River and thence easterly and northeasterly along said divide to Pinnacle Peak, thence northeasterly to the point of beginning [Horr 1974:ICC:Docket 218].

Ray (1974[1966]) provided testimony for the claimants and included a series of maps that showed Upper Cowlitz, or Taidnapam, and Klikitat occupation within aboriginal Cowlitz territory, as follows.

1. Eastern Boundary: As mapped, the eastern boundary follows the main divide of the Cascade Mountains from a point between the sources of the Cowlitz, White, and American Rivers southward to Old Snowy Mountain, then veers westward to eliminate the headwaters of the Cispus and uppermost Lewis Rivers. At an earlier time--pre-1830--this was Cowlitz

territory, but it subsequently was held by the Klikitat. Likewise, the Klikitat came into possession of lands further to the south, the full drainages of Wind River and Rock Creek. Previously the more northerly part of this area had been held by the Cowlitz, while the part closer to the Columbia River had been occupied by people of Upper Chinookan speech.

....6. Northern boundary (eastern portion): This part of the Cowlitz boundary curved eastward and northward from the present town of Chehalis to encompass the headwaters of the Skookumchuck River, then followed the divide between the Cowlitz and Nisqually Rivers to Mt. Rainier. Cowlitz neighbors to the north were the people of the Nisqually tribe, with whom they were traditionally friendly although not intimate. Both tribes had numerous upstream villages on their respective rivers, especially the Cowlitz, but the intervening divide was high and rugged. The common boundary line was a notably stable one, not having changed within the memories of the oldest persons from whom knowledge had been gained by the Indians serving as informants for officials, historians and ethnologists (this being the definition for the term "time beyond memory" as used in this Handbook) [Ray 1974(1966):249-252].

Ray (1974[1966]:253) also noted the linguistic shifts and intermarriage of Sahaptin women with Salish men across the Cascade mountains that resulted from exogamy and patrilocal residence. He presented considerable information on the degree to which the Klickitat, or at least the Sahaptin language, had spread throughout the area that included the Park and assembled documents from the Wilkes expedition that made note of the fact that the Upper Cowlitz or Cowlitz Taitnapams also were called Klackatacs (Ray 1974[1966]:303).

Legal proceedings in the early 1970s also touched on issues of tribal rights and territories, especially those related to usual and accustomed fishing practices. However, none of these included the Park area. Recently, related proceedings concerning shellfishing practices did include the Yakama. The Yakama conducted research to show that they traveled on a regular basis through the Park area for the purpose of gathering shellfish in Puget Sound (Norton 1992, 1993). Although the legal claim was dismissed in the shellfish hearings of 1994, the research documented Yakama presence west of the Cascades.

In addition to the legal work, Norton (1979, 1983, 1990) has assembled data regarding upland use and cross-Cascades travel, specifically travel across Park lands from east to west, by peoples who are of Yakama and Klikitat ancestry. She confirms the linguistic data presented by Jacobs and Rigsby through the use of BIA census data from several reservations on both sides of the Cascades and by use of inventories and other records at Hudson's Bay Company trading posts, especially Fort Nisqually (Norton 1992, 1993). The latter suggest the frequency with which different tribes encountered each other in the early 1800s. At Fort

Nisqually, the tribes traded with each other, as well as with the Hudson's Bay Company.

In addition, these ethnohistoric records indicate that the Yakama or Klikitat hunted fur-bearing animals and elk on the west side of the Cascade crest (Norton 1992:9-10). Both Norton (1992:13) and Fried (1974[1960]:222) noted that Yakama people visited a site on the Upper Chehalis River for the purpose of catching eels.

The BIA enrollment, land allotment, and tribal census records also provide evidence for extensive cross-mountain contacts. Of note is Gibbs' (1855:426) report that the mother of Chief Leschi of the Nisqually was Yakama. However, Norton (1993:7) did not find that either men or women predominated in the move to the west, as suggested by some earlier investigators. E. Allen (1976) had noted that the same was true among groups to the north, although at any one point in time there might be more women or more men moving in one direction or the other.

A few works that include the Park area have been published since 1964 in academic research reports and dissertations (Norton 1983; Rigsby 1965; Schuster 1975, 1986). Norton's work included resource use along trails in the Cascade Range south of the Park. It is useful as a comparative document for trails in similar environments through Park lands. The place names along the trails have an etymology that reflects environments and resources, and could be used to create site use categories that could be investigated in the field (Norton 1983).

Rigsby's (1965) fieldwork to update information on Sahaptin languages collected by earlier linguists was limited by the fact that he was unable to locate informants among upper Cowlitz, upper Nisqually, and Klikitat groups and had to rely upon the earlier data in his own work. He agreed with earlier writers that many Sahaptin speakers were familiar with more than one dialect, as well as with Salishan languages (Rigsby 1965:62-63). He attributed this multilingualism to the extensive trading relationships and the common bilateral kinship system that proscribed marriage within a large group of kindred, thus encouraging marriage with neighboring peoples, even those of different languages and from distant territories. It is only in recent times that researchers have addressed the issue of depopulation in the 18th and early 19th centuries that might have contributed to this circumstance (Boyd 1990).

Schuster (1975:22, 29, 36-37) noted that Northwest Sahaptin speakers included the Yakama and the Upper Yakama or Kittitas, who lived east of the Cascades; the Klikitat, who lived in the Cascades; the Taidnapam, who lived on the upper Cowlitz River; and the Meshal, who resided on the upper Nisqually River. She noted that most of the people speaking this dialect lived on or near the Yakama reservation.

A few popular works about Washington tribes include information about the Park area (Carpenter 1994; Kirk 1968; Ruby and Brown 1976, 1981, 1985, 1986; Schwartz 1976). The popular works tend to repeat and summarize other published information. As a Nisqually tribal member and historian, Carpenter (1994) provided some insights regarding the role of Mount Rainier in traditional tribal lore. Kirk's (1968) overview regarding land claims for an area as outlying as Mount Rainier also focused on the relatively easier access to the mountain from the east. She concluded that the Yakama were more seriously interested in the mountain as tribal land in terms of resources and, like Smith (1964), believed that the western tribes were oriented more toward the ocean and areas of easier travel. Ruby and Brown (1976:55, 1986) summarized much of the anthropological and historical data in short sketches regarding the history of each tribe and confirmed that the influence of the Klikitat was felt even by the peoples of western Puget Sound. Schwartz's (1976:117) map showing the tribal distributions in the Cascades area about 1790 is a good presentation of basic data.

A few cultural resource study reports also have included discussions of tribal distributions. Hedlund (1973:14, 28-29) reported that the Muckleshoot considered their territory to range to the headwaters of the White and Green Rivers in the Cascades and to Mount Rainier. He noted that the tribes did not consider the Cascade Range as an insurmountable barrier and that the Salish and Sahaptin speaking groups had considerable contact. Hollenbeck and Carter (1986:109-110) reported that the Yakama from the Plateau area also frequented the upper reaches of the Naches River. Masten (1980:8-9) noted that a Muckleshoot band on the upper White River were strategically located to serve as middlemen in trade between Puget Sound and the Columbia Plateau. Because the Smalh-kamish were fluent speakers of Coast Salish and Sahaptin and knew the passes well, they also were aware of the resource availability and needs on both sides of the Cascades.

Summary

The data above suggest that much information is available regarding the tribes and bands that utilized Mount Rainier and the surrounding area. Also of interest is the fact that some groups, the Taidnapam, Mical, and possibly some bands of Klickitat, appear to be closely associated with the high Cascades territory. Consequently, though it is commonly stated that high mountain areas were open for all to use, like elsewhere in the Pacific Northwest, actual use was a matter of traditional access and kinship connections.

Gibbs (1855, 1877), who wrote the first ethnography of the region, noted both the insistence on open use of the area and jealousy of accustomed use. Fried (1960:III-4-7) thought that there were three categories or types of land ownership. Permanent winter settlements belonged to recognized families and

groups. Their environs, including specific fishing places along rivers and shorelines, also belonged to the people who lived in the vicinity and worked at the locations. Families and groups had traditional use rights at locations more removed from winter settlements, such as prairies, berry patches, and certain littoral areas. The large tracts of forested land that were used sporadically were considered open territory.

Ray (1974[1966]:253-54) saw yet another aspect of ownership demonstrated in linguistic shifts, which were not uncommon. He did not think such language shifts (from Salish to Sahaptin) indicated migration of groups, but resulted from intermarriage of Sahaptin women with Salish men. Ray believed that two other factors enabled such linguistic shifts to occur with no tribal disruptions. First, nearly all Indians on both sides of the mountains were bilingual, and many were trilingual. Secondly, the Chinook Jargon, a trade language, blurred any lines separating linguistic divisions.

In addition to the linguistic factors, historical circumstances, an attachment to the soil of one's ancestors, and geographic specializations provided full freedom for individuals, families, or groups of relatives to change residence at will (Ray 1974[1966]:54). This potential for social mobility may have been especially important as depopulation occurred in response to introduced diseases.

I have concluded that, in addition to the above, each individual and family saw the territory of "their" group from the perspective of their own genealogy (Blukis Onat 1997). It was the relations that one could claim in other tribal groups that allowed one access to areas otherwise not considered as home grounds. Yet each family and named group considered a certain territory or use area as belonging to them. In a real sense, that included responsibility for its care and maintenance, including degree of access by relatives and strangers. Such issues of tribal access are further discussed below in the section on Economic and Other Uses.

Village Sites and Structures

Smith (1964:138-145) did not locate any permanent habitation sites closer than 5.5 miles from Park boundaries. From both ethnographic data and the literature, there was no indication that any of the above named groups lived year-round within the Park. There also was no indication that any group utilizing the Park area constructed more than temporary and portable overnight shelters (1964:145-146). There were known distinctions between the temporary structures of the Yakama and those of the Nisqually. The former had tule-mat tipi structures, and sometimes a lean-to, with the mats or skins fastened to the ground with rock, forming a ring in the instance of a tipi. The Nisqually summer house was tipi-shaped or square, with a gable or shed roof. It was covered with mats, skins, and some brush, with a fire placed outside the structure.

Smith also detailed the differences between the Yakama and Puyallup or Nisqually sweat lodge use and type (1964:146-147). The Yakama sweat lodge was a small structure, but could accommodate two to four persons. Hot rocks were rolled or carried into it and water was sprinkled on them for steam. Dirt and grease were rubbed off the skin once the body surface was saturated with moisture. This was followed by a plunge into a nearby cold-running stream. The procedure was often repeated. Hunters also bathed in water in which fir boughs had been boiled, and they rubbed themselves with leaves so they would have no human scent and could more readily approach animals.

The Puyallup and Nisqually sweat lodge was hemispherical and suited for one person (M. Smith 1940:121). The frame of vine maple limbs, stuck in the ground and tied together at the top, was covered with evergreen boughs. Loose earth was placed around the outside base of the structure. Cedar boughs covered the floor. A hole was dug in one side to receive stones. The stones were heated by fire inside the lodge. Sweating was followed by a plunge into cold water.

Smith (1964:226) thought it was possible that traces of such shelters would be found within Park boundaries. He also thought that berry drying racks, accompanying trenches and mounds, and steaming pits might leave traces. The drying racks often were dismantled and stored for the next season of use. The shallow trenches and adjacent mounds were between 5 and 20 feet long; they often were renewed and reused, although new ones were probably created, as well. Large and deep steaming pits, 5-6 feet in diameter, also were reused. Though these were not structures as such, Smith expected (1964:226) that traces of their presence could be located.

The archaeological survey that followed Smith's study (Daugherty 1965) only located isolated artifacts and one rockshelter (Rice 1965) (Figure 3). Although rockshelters are natural features of the landscape, rather than constructed dwellings, they are commonly known to have served as more or less permanent places for shelter and storage in eastern Washington for millennia.

Village Sites and Structures Updated

Sources not Included by Smith

There are no sources in addition to those included by Smith (1964) that could add information regarding village sites and structures within the Park area. However, the first few parties that climbed Mount Rainier did describe temporary shelters encountered on their journeys. Tolmie (1963) took shelter in a rock overhang. Kautz (1916 [1857]) encountered a camp where cedar bark had been used to construct a shelter. It is possible that the several camps at which the explorers stopped were locations well known to their Indian guides.

Data Compiled Since Smith's Study

The recent archaeological survey (Burtchard et al. 1998) did not result in the identification of village sites in the Park. Although additional data regarding permanent habitation sites has been gathered on Forest Service lands adjacent to the Park, most such sites are a few miles from the Park boundaries. However, Burtchard et al. (1998:117-118) did locate evidence of temporary structures at the Park, as well as additional caves or rock overhang shelters.

Since the 1980s, the locations of seasonal camps, berry drying features, and sweat lodge features, together with evidence for a variety of economic activities, have been recorded in the subalpine and alpine meadows throughout the Cascades. However, no evidence of berry processing features was found during the archaeological survey (Burtchard et al. 1998).

Summary

At various times there may have been permanent settlements and structures at elevations below the subalpine zones at the Park, perhaps at Longmire (Longmire and Treadway 1864). However, such locations were within the floodplains or along terraces of rivers that regularly alter their banks. Park boundaries begin at higher elevations than those at which habitation sites usually are situated. However, a number of temporary structures, located along the lower forested zones around Mount Rainier, have been documented in the literature. Several of these are mentioned in the later discussion regarding travel and trails.

Locating evidence for structural features of camps, processing locations of different types, and other cultural features, will continue at the Park. Some features, such as berry drying trenches and berms, tend to degrade over time to such a degree that they are difficult to locate. The trenches fill with debris and localized erosion, and the berms overgrow with vegetation. If the berry fields have been maintained or available for traditional berry gathering, certain locations show evidence of being favored as drying places and may be used for a long time. However, if the berry fields have not been maintained or available, such locations are soon lost to ecological succession. On-site ethnographic fieldwork can help identify locations used in the past by comparison with similar locations outside the Park that are used by tribal people today (Blukis Onat 1997).

Economic and Other Uses

On the basis of all documentary and informant data, Smith (1964:149-151) concluded that the Park area was used only in late summer by various tribes, from both the east and west sides of the Cascades. The major activities were centered on food procurement: collecting plant foods, hunting game, and fishing.

Other activities included collecting technological plants and medicinal flora, and questing for guardian spirits.

Food Plants

Smith (1964:155-224) presented information regarding plants used for food, as well as some data regarding technological and medicinal uses of plants. Smith derived much of this information from the *Mount Rainier Nature Notes* series (Brockman 1928:6(6)3, 1928:6(6)4, 1932:10(2)5, 1932:10(11)2-3, 1933:11(6)6-7; Fogg 1925:3(8)1; Hoverson 1936; Landes 1925:3(8):1; Schmoe 1924:1(5)1, 1924:2(4)2, 1924:2(7)2-3, 1926:3(19)4, 1926:4(4)1, 1926:4(6)2) and various botanical studies (G. Allen 1916; Brockman 1928:6(8)1, 1930:8(9)2-3, 1931:9(5)4-5, 1934:12(6)6-7, 1934:12(8)8-10, 1947; G. Jones 1938; Piper 1916; Schmoe 1924:1(1)1, 1924:2(4)1-2, 1925:3(8)3, 1926:3(15)1, 1928:6(2)2-3). From these data, Smith concluded that huckleberries were of greatest interest to Indian collectors, at least by volume harvested.

Several types of berries were known, although some were favored over others. *Vaccinium ovalifolium* (blueberry), *V. membranaceum* (high-bush huckleberry), and *V. deliciosum* (low-bush huckleberry) all were favored. *V. parvifolium* (red huckleberry), although common, was not as desirable (1964:156-163). The best berries were found at the higher elevations of the Park, in Canadian and Hudsonian Life Zones in middle altitudes, 3,000 feet or slightly higher to 5,500 feet, or the upper limits of the parklands.

Previously burned areas were especially good locations for berries. It was well known that Indians started fires on the slopes and summits to promote the growth of berries (Plummer 1900:135). Prior to the fire suppression policies implemented at the Park in the early 1900s, fires were set in the Park, as well, at the end of the harvesting season, as Indians returned home from berrying. The Indians burned to maintain the berry fields and to open up country for deer. The fires also kept down brush and made berrying areas more accessible (Schmoe 1925; and Landes 1925:3(8):1; 1964:168-69). Fires kept the berrying areas open for a long time, since reforestation at higher altitudes is extremely slow and a century is required to replace killed groves of trees (G. Allen 1916:5).

The Muddy Fork burn, an area of 20 square miles between Reflection Lakes and Ohanapecosh Hot Springs, north to the glaciers, and south beyond the Park nearly to the Cowlitz River, took place before white settlement began in the area. The ridge between Huckleberry Creek and White River and the ridge between Tahoma Creek and Kautz Creek below Indian Henry's Hunting Ground were partly reforested by 1925 (Schmoe 1925:204-205).

The season for picking berries started in mid-August and lasted into September, although the harvest was more plentiful some years, and the length of the berrying season could vary. Women and children picked berries while men

hunted alpine animals. The seasonal camps were located at the higher altitude to facilitate both berrying and hunting (1964:171-175).

Berries were collected in coiled baskets by all persons participating in the harvest, however, methods used in berry processing varied between western and eastern groups. The western groups placed the berries on racks to dry. Two small fires were built under the racks at each end of the structure. The racks were covered with mats of split cedar roots and female cattails woven with cedar bark. The cedar was resistant to rot, so the mats were rolled up at the close of the berrying season and hidden for use the following year (1964:177).

The Yakama processed berries along an elongated earth mound. One face of the mound was covered with mats, upon which berries were spread. Small fires were built in front of the mound (1964:178). The dried berries were like raisins and could be rehydrated when boiled in water. Dried berries were stored in baskets woven for that purpose.

The Yakama transported dried berries to the villages in cedar bark sacks (Smith 1964:217-218). They were transported to the Coastal areas in large and small, hard, coiled cedar-root baskets, covered with leaves. In historic times, pack horses were used for transport. Curtis (1911:5) also noted the use of flat wallets in large sizes, woven from a hemp-like native fiber. M. Smith (1940:246) recorded the use of deer or elk skin packages.

Apparently, huckleberry harvesting, together with high mountain hunting, was conducted at the Park well into the 1930s. Park rangers commented that transport of berries had changed by then from horses to cars (Hoverson 1936:82-86).

> ...Today the huckleberry is the most abundant shrub in the higher altitudes and still offers the beauty of its airy graceful foliage and tempting berries to all who will but see. Seven different species are located within the park area. Most of them are found from Longmire up to an altitude of 5500 feet. In places, the bushes are so numerous that it is hard to distinguish any other type of foliage...Probably the most famous huckleberry area is that known as "Indian Henry's Hunting Ground" [Hoverson 1936:86]

Other berries also were found in the Park. Salmonberries were found along the streams and swamp lands in the lower altitudes of the Park (Schmoe 1926:4(4)1), although the berry grows up to altitudes of more than 5,000 feet. Salmonberries were especially abundant around Longmire and both above and below Comet Falls. Red elderberries were common on burns (Warren 1926), and east bunchberry, mountain ash, and baneberry also were present.

The Yakama name for huckleberries is wiúwno·, wiwúno, the Taidnapam name was a-tit (1964:155). The Yakama word for blueberries is ililmúq, alilmík^{w}. A number of specific berrying places at the Park had been recorded in the literature, although Smith's Yakama informant stated that "where his family used to gather berries is now all grown up" (1964:165). Places named as huckleberry areas are shown in Figures 16-19.

Smith (1964:166-169) recorded six berrying places within Nisqually territory: Indian Henry's Hunting Ground; the ridge south of Mt. Ararat with the "great burn;" a four-mile field along Rampart Ridge between Kautz Creek and the Nisqually River; the hills along Nisqually Glacier Canyon; Ricksecker Point on the upper Nisqually River; and Paradise Valley on the upper Paradise River in the "silver forest" burn between Glacier Bridge and Narada Falls (Figure 19).

Two berrying areas are on the border between Nisqually and Taidnapam territories, one at the southern end of Reflection Lake between Mazama Ridge and the Tatoosh Range and the other in the immediate neighborhood of Lake Louise, just east of Reflection Lake and in the high saddle between Mazama Ridge and the Tatoosh Range (Figures 18 and 19). One berrying area, Stevens Ridge, was within Taidnapam territory (Figures 18 and 19). Two areas, Mountain Meadows below Mowich Lake and Sunset Park, were within Puyallup lands: (Figures 16 and 19).

In addition to berries, Smith (1964:180) recorded the use of the tuberous root of *Claytonia lanceolata*, a native food commonly found on the dry grassy slopes in the Hudsonian Life Zone. In addition, white-bark pine, *Pinus albicaulis,* which grows on high wind-swept ridges and summits, has cones that yield edible nuts. They were favored by the Klickitat (G. Allen 1916:27-28). Smith noted that there may have been other food plants available in the Park, but their use had not been recorded.

Technological plants

Xerophyllum tenax (also known as mountain lily, pine lily, elk-grass, turkey plume, bears-paw, bear-grass, squaw-grass, and Indian basket grass), was found between 2,750 feet and the timberline in all Life Zones but the Arctic (Haeberlin and Gunther 1930:33; 1964:221-223). It was used in basket making for white imbrication. This plant grows in open, sunny areas, on dry, volcanic ash soil, where the trees are small. It favors burns and meadows between 4,000-6,000 feet, the same elevations at which huckleberries grow.

Smith's data regarding locations for *Xerophyllum tenax* was derived from Brockman (1931:9(5)4-5, 1933:11(6)6-7, 1947); Flett 1910, 1916; Landes 1929: 7(8):5; Piper 1916; Richards 1930a:8(9)5-6; and Schmoe 1924:2(4)2, 1925, 1926:3(19)4. Fields of the basket grass were found in the upper part of Paradise Valley, on the ridge west of Sluiskin Falls, near the timber line; in the "silver

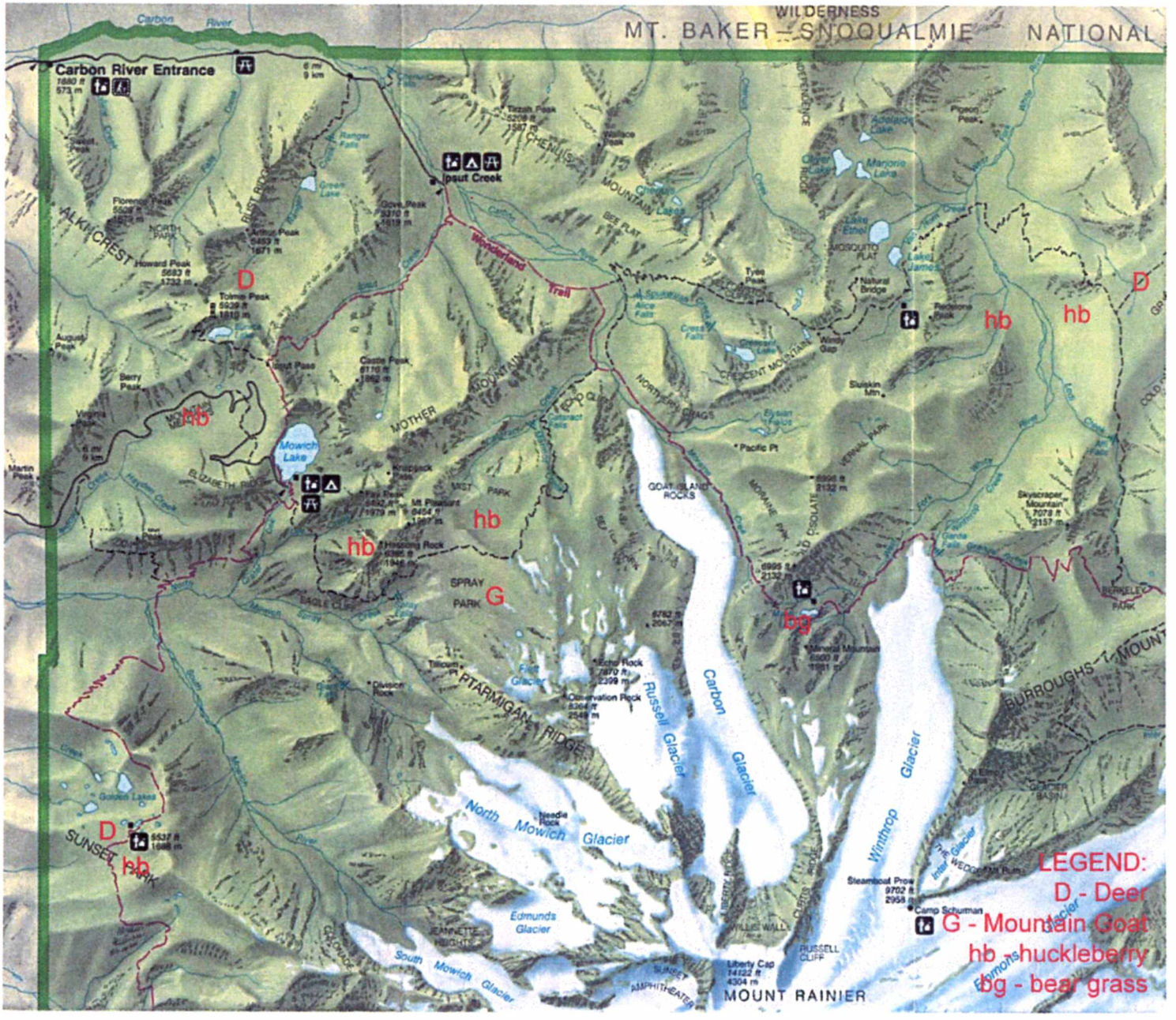

Figure 16. Mount Rainier National Park. Plant and Animal Resources, Southwest Quadrant.

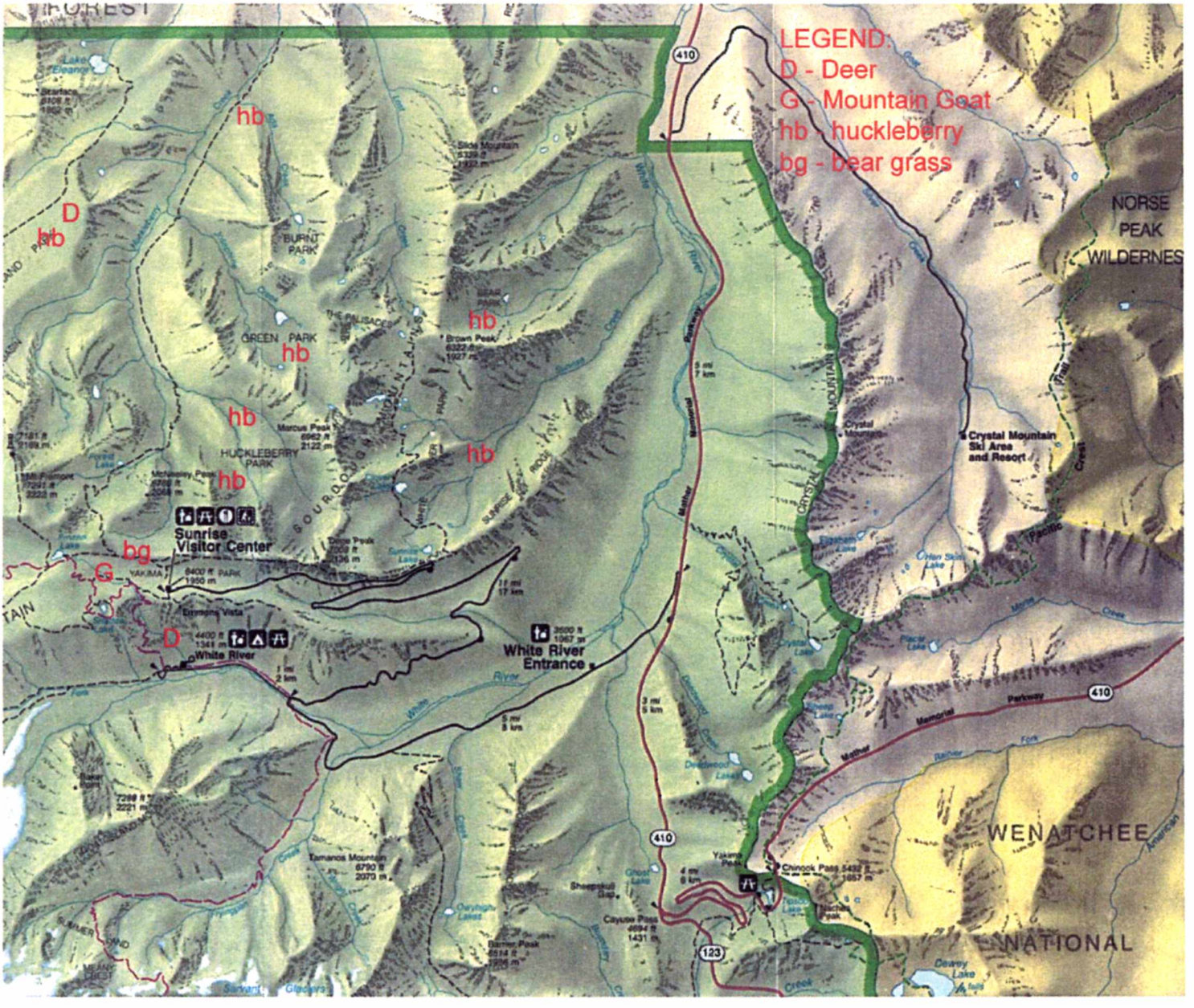

Figure 17. Mount Rainier National Park. Plant and Animal Resources, Northeast Quadrant.

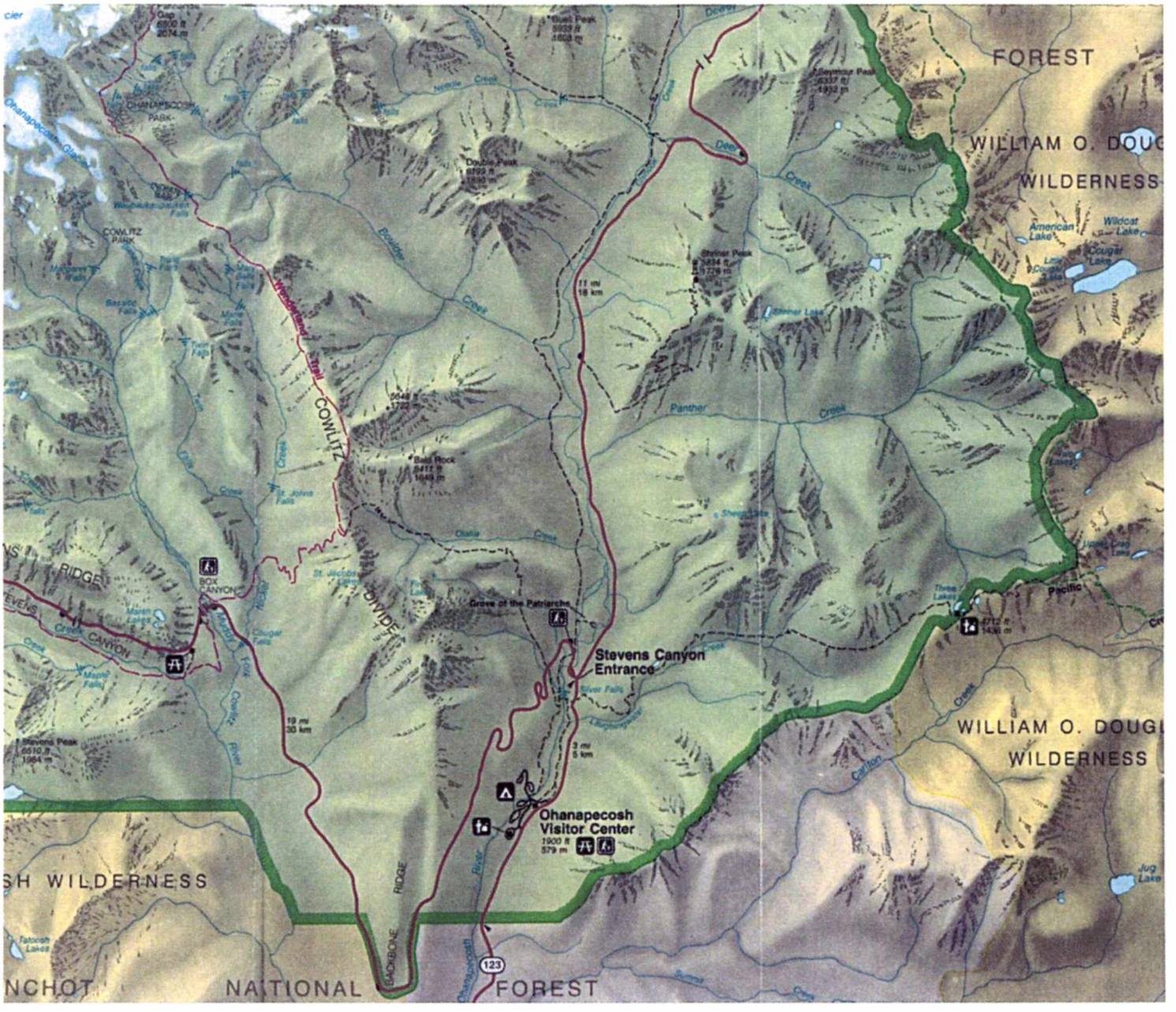

Figure 18. Mount Rainier National Park. Plant and Animal Resources, Southeast Quadrant (none identified).

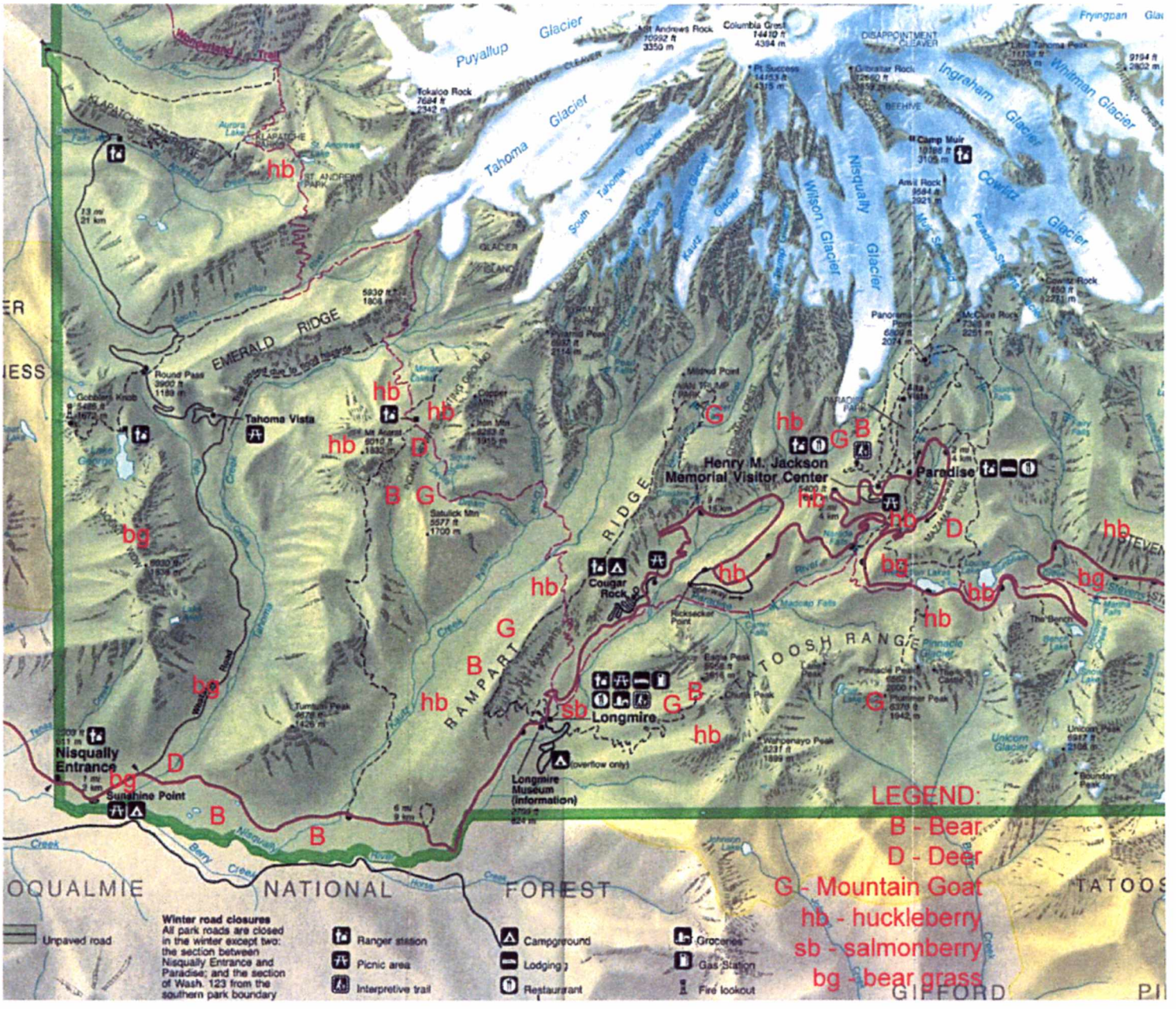

Figure 19. Mount Rainier National Park. Plant and Animal Resources, Southwest Quadrant .

forest" area of Paradise Valley; at the top of Eagle Peak, near the western end of Tatoosh Range; along the top of Rampart Ridge, on burned-over land; and in the old burn on the ridge top at the southern end of Indian Henry's Hunting ground (1964:221-222).

Medicinal Plants

Smith (1964: 224) cited little information on medicinal flora found in the Park. However, he did state that medicinal plants found in the Park may not have been available elsewhere and were likely to have been of considerable significance in traditional medicine. He cited medicinal use for only two plants found in the Park (1964:224). A compound distilled from the leaves of the giant hellebore *(Veratum vitride)* was used as a heart depressant in cases of convulsions and for other purposes (Fogg 1924a:2(8)1-2). It was used as an insecticide, as well. The crushed white blossoms of Valerian (*Valeriana* sp.) were reported to have value as a sedative. Arnica (*Arnica* sp.) was used as a liniment for external application to sore muscles and bruises. Smith (1964:224) gave only one example, from Yakama informants: the áiyʊn root (unidentified sp.) was a medicine for colds, cough, and croup. It apparently grows in the mountain berry fields and has a strong odor. Normally, a 3-4 year supply, or 20 lbs, was dug at a time and was stored. The dried root was scraped with a knife and mixed with tobacco. The healing smoke was drawn into the lungs.

Spirit Questing

Smith (1964:226) included two references regarding known spirit power quests to Mount Rainier. One is a mythic reference attributed to the Taidnapam by Haeberlin (1924), the other of an actual occurrence recorded by Ballard (1929:142-144), as told by a Puyallup man. The latter climbed to the summit of Mount Rainier, spent the night, and received his vision. More discussion regarding this topic is found in *Tahoma Legends* (Blukis Onat 1999b).

Animals

Smith compiled a considerable body of data regarding hunting in the mountains and at the Park. He stated that while the women harvested the fruit resources in the Park, the men hunted in nearby mountains and forests (1964:183). He stressed that the men's activity was secondary to berrying. Smith (1964:183-219) derived much of his information from the *Mount Rainier Nature Notes* (Anderson 1929; Brockman 1928:6(7)4, 1928:6(8)1&4, 1929:7(2)2, 1929:7(4)4, 1929:7(5)8, 1930:8(3)5-6, 1930:8(5)4, 1934:12(1)9-10; Homuth 1934:12(8)11; Hoverson 1936:14(2)82-86; Landes 1925:3(8)1; Richards 1930a:8(9)5-6; Schmoe 1924:2(1)1-4, 1924:2(5)3-4, 1924:2(6)3, 1924:2(12)2-3, 1924:2(13)1-4, 1924:2(13)5, 1924:2(14)3 1925:2(16)2, 1925:2(20)2-4, 1925:3(1)3, 1925:3(2)1, 1925:3(4)2, 1925:3(10)2, 1925:3(10)3, 1925:3(13)2-3, 1926:3(14)3, 1926:3(18)3, 1926:4(3)1, 1926:4(11)2, 1926:4(13)2, 1927:4(15)4, 1927:5(5)1, 1927:5(6)1,

1927:5(9)2-3, 1928:6(1)3-4, 1928:6(3)2-3). Additional information was gathered from historic references (Allen 1916; Meany, ed. 1916; Stevens 1916), from biological studies (Dalquest 1948; Kitchin 1939; Willis 1916), and from anthropological works (Curtis 1911, 1913; Haeberlin and Gunther 1930; M. Smith 1940). Table 5 lists the animals hunted, the tribal origin of the information, the hunting strategies, and the areas where the hunting took place. In the name column, the Salish or Sahaptin name and tribe are given, then the Latin, then the common English name. Figures 16-19 show known locations where the larger mammals (deer, bear, goats, and elk) were hunted. These animals had been sighted early in the history of the Park and were referenced in documents compiled by Smith (1964:183-219).

As was the case with berries, dried meat was transported to settlements in cedar bark sacks by the Yakama (1964:217-218). The Coastal groups packed the meat in large and small, hard, coiled cedar-root baskets, covered with leaves. In historic times, packhorses were used to carry the meat and other products of the high mountains back to the permanent settlements. Curtis (1911:5) also noted the use of flat wallets in large sizes made from native hemp fiber. M. Smith (1940:246) recorded the use of deer or elk skin packages. According to Smith (1964:217), the main attraction of the Park area was berries; meat was an important but secondary resource. The Park itself was not a major hunting area.

Artifacts found at the Park were interpreted by Park naturalists as evidence of goat hunting by the Indians (Fogg 1924c:2(9)4). An arrow point of volcanic glass was found within a few feet of the top of Plummer Peak along the crest of Tatoosh Range. Flint arrowheads on goat beds above the timberline in Van Trump Park and a broken arrowhead and shaft on the upper slopes of Spray Park, on the northwest slope, also were considered evidence for goat hunting.

Black bear meat was cooked in a pit 3-4 feet in diameter on a floor of hot rocks (Smith 1964:183-219). Chokecherry or other branches were placed across the pit as a rack. The rack was covered with red fir branches and leaves, meat was placed on top, then more branches and leaves were placed on top of the meat. Finally, an earth cover 3-4 inches deep covered the pit. A stick was placed vertically in the middle of the steaming pit. It was pulled out and 4-5 gallons of water were poured through the hole to steam on the hot rocks. Yakama called this preparation *tamәs*. Muckleshoot also prepared bear meat in this manner, but without water. The fat from the bear dripping on the rocks was thought to create sufficient steam. However, many Muckleshoot regarded black bear meat as too strong, owing to the fat condition of the animals at this season (Smith 1964:183-219). Some Yakama avoided killing black bears because of guardian spirit restrictions.

Smith (1964:220) reported that fish were relatively scarce in the Park. Anadromous fish did not ascend to such high elevations. Native fish resident in the Park were not abundant, but included rainbow *(Salmo shasta),* cutthroat

Table 5. Mammals Used as Food Resources.

Name/Tribe	Hunting Strategy and Preparation	Area Hunted
ẏamáš, Yakama sqáigʷəc, Muckleshoot skégwəc, Nisqually *Odocoileus hemionus columbianus* **Columbia Black-tail Deer**	stalked with bow and arrow; hunted in late summer and early fall; meat cut up, sliced, and dried; roasted on sticks before fire or dried on racks like berries; hung higher to dry slowly; would keep a long time; cached in trees, covered with mats to keep dry	Muckleshoot: West Fork of White River headwaters; Tolmie Peak; along Cowlitz Divide, in Sunset Park; around Indian Henry's Hunting Ground; Grand Park; Mazama Ridge; Winter range: in southwest of Park, at mouth of Tahoma Creek; below snowline, outside Park, in winter; late summer as high as 8,000 ft.
ṅčí wínst, Yakama wínat, Taidnapam Baiyɛc, Nisqually *Cervus canadensis, roosevelti*, or *C. c. occidentalis* **Elk**	Yakama, Taidnapam, Nisqually hunted in summer; meat cut up, sliced, and dried; roasted on sticks before fire or dried on racks like berries; hung higher to dry slowly; would keep a long time; cached in trees, covered with mats to keep it dry	some confusion regarding introduction of *C.c. nelsoni* or Rocky Mountain elk in this century after near extermination of native elk in the last; descended below snowline, outside Park, in winter
ɬnáxʷi, anahúi, Yakama ščɛtwɪt, Muckleshoot *Ursus americanus* **Black bear**	killed if chanced upon in berry patches; available until berries gone; meat cut up, sliced, and dried; roasted on sticks before fire or dried on racks like berries; hung higher to dry slowly; would keep a long time; cached in trees, covered with mats to keep dry	found through the forests of the Park; abundant in Humid-Transitional, Canadian, and Hudsonian Zones; from lowest elevations to approximately 6,000 ft; especially abundant in Nisqually watershed; variation in numbers from year to year; in huckleberry season they congregate in the berry patches; hibernate after berries gone; bear get fat from eating berries

wáu, Yakama sx̣ʷìʔai, Nisqually sxʷíʔai, Muckleshoot *Oreamos americanus americanus* **Mountain goat**, (historic mention of "mountain sheep" often means "mountain goat")	Sluiskin hunted them; Indian Henry's Hunting Ground; sought by Nisqually, Muckleshoot, Yakama, and Klikitat; difficult to hunt; wary of hunters; Mt. Wow sometimes called Goat Mountain; wow is popular rendering of Sahaptin term for 'mountain goat,' Yakama term; favorite traditional hunting ground for Indian tribes; within Nisqually territory; goat hunted by Muckleshoot to north of Park, on west side of White River	in grassy belt of mountains above timberline; Arctic-Alpine and Hudsonian Zones; descended to Canadian Zone to extensive, open rocky areas; greater numbers at headwaters of White and Ohanapecosh Rivers; in inaccessible country among glaciers, rocky crags, precipitous cliffs, and pumice fields; on ice fields; goats post lookouts while feeding; climb high vantage points when resting; as high as 9,000-10,000 ft.; mountain goat areas during winter season at southern part of Park
Ovis canadensis **Mountain sheep**	Hunted by Muckleshoot in Mount Rainier area; terms for sheep and goat in Yakama are same	were native to eastern Cascade; extinct for some time
ẇáušiɬʊn, Yakama *Marmota caligata cascadensis* **Hoary marmots**	Hunted by Yakama, summer and fall; little specific documentary evidence for hunting of marmot; same range as berries; active during berrying season;	between 5,000-6,500 ft. subalpine meadows, summer and fall; hibernate in winter; most in Hudsonian Life-zone, at lower edge of Arctic-Alpine Life-zone; among rocks and loose boulders; common on flanks of Mount Rainier; rocky slopes and upper altitudes between 4,500-6,000 ft.

(Salmo clarkii), Dolly Varden *(Salvelinus malma),* and silver trout *(Oncorhynchus nerka kenerlyi).*

A number of birds were available in the Park. Those commonly taken as food included two species of grouse (Smith 1964:212-216). The Oregon ruffed grouse *(Bonasa umbellus sabini)* is also called a native pheasant, bush pheasant, partridge, or drummer. Oregon ruffed grouse inhabit the lower forest on the southern boundary of the Park, at the Nisqually Entrance to Longmire, and the Nickle Creek Burn between Tatoosh Range and Cowlitz Divide. They live in alder thickets and dark shady places (Smith 1964:212-213).

The sooty grouse *(Dendragapus f. fuliginosus),* also known as blue grouse, wood grouse, or hooter, is found throughout the Park below the snowfields. Their habitat ranges from high alpine meadows to thick timber, but they most often are found in meadows between 4,000-6,000 feet in elevation (Smith 1964:213-215). The northern area of the Park is the favored breeding ground, especially the vicinity of Mystic Lake. Sooty grouse are commonly found in Yakima Park, along the Westside Highway and the slopes of Mount Wow, in the vicinity of Reflection Lake, throughout Stevens Canyon, and in the Nickle Creek Burn. They are seen during the summer and fall feeding on huckleberries, mountain ash berries, and other small fruit in mountain meadows. The berries have an alcoholic effect on the birds, so they are easy to hunt. They perch on mountain hemlock and burned stumps and limbs in the Hudsonian meadows and appear to be fearless; they rarely fly away when approached. For this reason, sooty grouse also are known as "fool's hens." The sooty grouse migrates to lower altitudes in winter.

Other birds may have been taken for feathers, if not for food. They also became gorged and drunk from berries and were easy to capture. Robins, flickers, bluebirds, thrushes, sparrows, and even band-tailed pigeons *(Columba f. fasciata)* were noted by Smith (1964:215-216).

By the 1960s, data were beginning to be published regarding ecological relationships at the regional level. Such data also suggested that seasonal migrations of deer were closely correlated with a minimum relative humidity of 40-60 percent (D. McCullough 1964:255). Smith concluded that the Park served as an important breeding reservoir for animals hunted in the Cascades (Smith 1964:219). All the mammals and birds noted above seasonally migrated out of the Park to lower elevations. If the Park became overpopulated, the animals would move out of it. If the outer areas became depopulated, animals from the Park would replenish the dwindling species.

Economic and Other Uses Updated

Sources not Included by Smith

Smith did not use the ethnobotanical work of Gunther (1945) in his summary of plant use at the Park. Though Gunther did not address Mount Rainier directly, much of her information on plants used for food, technology, and medicine came from upper Cowlitz informants or the work of M. Smith and Ballard, who worked with Nisqually and Puyallup individuals who also had access to high mountain plant resources (Gunther 1945:10-11). Some of Gunther's data overlapped with those presented by M. Smith. Notable in this context is the fact that Gunther did not present any data regarding huckleberries (*Vaccinium* spp.) from informants who might have known the mountains. However, Gunther collected considerable data regarding plants used for technological and medicinal purposes.

The data derived from Gunther's (1945) work is presented in Tables 6-9, appropriate to each plant use category. In these tables, the plant names are presented as follows: column one gives the Indian name and the second column gives the Latin name and the common English name. Tribal reference and Gunther's (1945) page references are given in parentheses in the third column of each table. Data about plant use are presented in the fourth column.

Food Plants. Although Smith did not include in his discussions a great many food plants that would have been available within the boundaries of the Park, many of these can be found in the various botanical inventories cited by him. Some plants may be much less common at the Park than at lower elevations, and others may be found more commonly in the Park within specific slope, aspect, and elevational zones. Smith also did not cite studies of Indian land use in high mountain areas to the south of the Park (Filloon 1952; Schmoe 1926:3(15)3). Table 6 includes the food plants inventoried by Gunther (1945).

Technological Plants. Smith did not note the use of cedar as a technological plant within Park boundaries, although this use was noted in the *Mount Rainier Nature Notes* (Brockman 1932:10(1)6, 1932:10(2)5; Schmoe 1924:2(11)1-2, 1924:2(12)1, 1926:3(14)1). Park naturalists knew that Indians obtained planks from standing cedars by splitting out a section of tree. Use of yew wedges was known, as well. Gunther (1945) included many technological uses for a number of plants (Table 7). These plants are available at locations within Park boundaries.

The predominant technological plant was cedar. In fact, cedar can be considered the defining material in Pacific Northwest Indian technology. It is an environmentally specific botanical resource and had a wide range of functions. Every portion of the cedar plant was used in some manner. Cedar logs served as house posts, were carved out to make canoes, and were carved in the round into poles for totems, grave markers, and other commemorative artworks. Cedar

logs were split for house planks, roof boards, and storage boxes. Cedar bark was shredded for padding, pads, towels, clothing, mats, tinder, and torches. Unshredded cedar bark was cut in strips of varying widths. The broader ones were plaited to serve as dishes or as individual plates, or they were interwoven with maple to make larger platters. The bark was used to line cooking pits and make canoe bailers. Cedar limbs were used for rope and open baskets. Cedar roots were used as the base for coiled baskets. Cedar was used as an aromatic to remove the odor of fish. It was used to dye fishnets. There were many other uses for cedar, which are described below.

The large cedars for house posts, planks, and shingles and for canoe construction were just as available closer to the settlements where they would have been used, as they were within the Park. However, it is likely that cedar bark, roots, and limbs were gathered within Park, as people traveled through the forests during the berrying season (G. Allen 1916:11; Hajda et al. 1995:21). Cedar bark could have been collected and woven into mats to be used at the berry grounds or elsewhere (Filloon 1952:4-13).

Medicinal Plants. A number of other plants present in the Park have medicinal qualities. It is more than likely that these plants were collected by tribal herbalists with special knowledge about their use and the spiritual power to make them effective. However, such plant use was not confirmed by Smith's few informants. Gunther (1945) confirms the use of medicinal plants among the upper Cowlitz, Nisqually, and Puyallup. Many of these plants can be found in the Park. Medicinal plants are presented in Table 8.

Other Plants. In addition to the above, Gunther (1945) recorded a few plants that were used as charms or had no apparent use, but were part of the native vocabulary. They are presented in Table 9. Several of these may have served to inform of seasonal movements of other resources at different locations on the mountain (Landes 1924:2(10)1-2; Fogg 1924b:2(8)2; Schaeffer 1933).

Spirit Questing. Additional information regarding spirit questing at the Park can be found in the myths and legends about the mountain, many of which were collected prior to 1964. Longmire Springs may have served this purpose (Brockman 1931:9(10)5). This topic is treated in more detail in *Tahoma Legends* (Blukis Onat 1999b).

Animals. Smith did not discuss several animal species that can be found in the Park. These include the bobcat, cony, chipmunk, lynx, porcupine, weasel, and wolf and species of bats, mice, moles, rabbits, rats, pika, and squirrels (Brockman 1930:8(3)5, 1930:8(5)6, 1930:8(8)6, 1934:12(1)9-10; Schmoe 1924:2(6)4-5, 1924:2(11)4, 1924:2(12)2-3, 1924:2(13)1-4, 1924:2(13)5, 1925:3(4)2). Although most of these do not have much of a role in recorded Northwest culture, some are present in mythology and folklore. For example,

Table 6. Food Plants.

Indian Name	Latin and English Names	Tribe	Preparation, Storage, and Use
ts'kwai	*Dryopteris dilatata* **Wood fern**	Cowlitz (14)	Baked overnight in a pit; inside eaten
tc'a'latca, upper part; tc'a'kum, rhizome	*Pteridium aquilinum* **Brake fern**	Cowlitz (14-15)	Rhizomes roasted in ashes, peeled; center eaten for starchy element in diet; tops of young plants eaten raw; Coastal tribes burned areas to lure elk and deer to feed on the young fern shoots; fern paste bread also
sikwsi'k smu q'; xumxu m, roots	*Equisetum hyemale* **Scouring-rush** *Equisetum Telmateia* **Giant horsetail**	Cowlitz (15)	Dry cone-like top of the stalk of *E.h.* mashed and mixed with salmon eggs; later in the season, the little bulbs of the rootstock of *E.t.* are eaten after being cooked with whale or seal oil; some bulbs are eaten raw
sisku'pas	*Tsuga heterophylla* **Hemlock**	Cowlitz (17-18)	small tips of branches used as flavor when cooking bear meat
ta'xsa, big tree; ta'xsa ta'xsa, little tree	*Pseudotsuga taxifolia* **Douglas fir**	Cowlitz (19)	pitch chewed like gum
	Allium cernuum **Nodding onion**	Nisqually Cowlitz (24)	An article of food and commerce
ka'ilet, whole plant; dipdi·'p, seed stalk;	*Lysichitum americanum* **Skunk cabbage**	Cowlitz (22)	stack blossoms alternately along the side of a stick; bury it and build a fire on top overnight; two or three are eaten; they are so strong that more would make one sick
sχa'dabs; sxα′dsαm; wak'amo	*Camassia quamash* **Camas**	Nisqually Puyallup Cowlitz (24)	widely traded; grows in prairies; dug in late spring; cooked in pit; dried in sun after cooking; cached in baskets lined with maple leaves; set up in trees; used when traveling

sa'gwɪtc	*Lilium columbianum* **Tiger lily**	Puyallup (25)	corm or bulb steamed and eaten; widely traded as food; grows in prairies; dug in the late spring; cooked in a pit
k'ko'sas, tree; yuka'yuka', catkin	*Corylus californica* **Hazelnut**	Cowlitz (27)	nuts buried for winter in a cylindrical type fish trap; nuts eaten fresh and also stored for winter
ts'u'nips	*Quercus Garryana* **Oak**	Cowlitz (27-28)	used acorn as food; buried acorns in the mud to leach them
(ɬ)k'wa'ukwus	*Berberis* **Oregon grape**	Cowlitz (30)	berries eaten raw or boiled; never dried for preserving
ɬmuxwas	*Ribes divaricatum* **Common gooseberry**	Cowlitz (32)	berries gathered while still green; dried and stored for winter use; also eaten fresh
tca'pama·c	*Rosa nutkana* **Wild rose**	Cowlitz (34)	only birds eat rose hips
kuku·'cnas	*Rubus parviflorus* **Thimbleberry**	Cowlitz (34)	berries eaten fresh
e'twanac, plant;, e'twan, berries	*Rubus spectabilis* **Salmonberry**	Cowlitz (35)	eaten fresh; sprouts prepared in a pit with a fire are eaten with dried salmon
ca'χatac, bush; ca'χat, berries	*Rubus leucodermis* **Blackcap**	Cowlitz (35)	eaten fresh; dried in the sun or over a fire; stored in a maple-bark basket for winter use
wisi'kas, bush; wisi'k, berries; wiskalai, "little stickers"; gwɑ'dbiaq	*Rubus macropetalus* **Blackberry** or **Dewberry**	Cowlitz (35) Puyallup/ Nisqually (36)	eaten fresh and dried; tea as a beverage from vine with leaves attached, fresh or dried; combined with blackcaps
šusapana's, plant; susapa'n, berry	*Fragaria bracteata* **Wild strawberry**	Cowlitz (36)	eaten fresh and dried; leaves are used for a tea
t'e'lɑqu	*Fragaria* **Strawberry**	Puyallup (36)	fresh and mashed before eating; dried

t'skwani'yas, whole plant; tmuc, berries	*Osmaronia cerasiformis* Oso **Berry, Squaw plum, Indian plum**	Cowlitz (37)	dry for winter use; eat fresh
	Amelanchier florida **Serviceberry**	Yakama (38)	dry berries
ku'mtlas, plant; kumɬ, fruit	*Pyrus diversifolia* **Crabapple**	Cowlitz (38)	fruit cooked a little first before storing it; softened by storing in baskets
tcna"ai	*Oxalis oregana* **Wood-sorrel**	Cowlitz (39)	leaves eaten fresh or cooked; taste "just like apples"
χtsχu'ts	*Oenanthe sarmentosa* **Water parsley, wild celery**	Cowlitz (42)	stems eaten while they are young and tender
tci'tkwalo'h or xotxo'ts	*Hydrophyllum tenuipes* **Waterleaf**	Cowlitz (45)	root broken and eaten; familiar only to Cowlitz
t'cu'matas	*Sambucus callicarpa* **Red elderberry**	Cowlitz (47)	steamed on racks and put in container, which is stored underground or in cool water; eaten in winter

Table 7. Technological Plants.

Indian Name	Latin and English Names	Tribe	Processing and Use
tsli'mai	*Polystichum munitum* **Sword fern**	Cowlitz (13)	used for lining baking pits for camas, wapato; used with maple bark for mattresses
qa'lqali	*Athyrium Filix-femina* **Lady fern**	Cowlitz (14)	cover for camas while baking
sikwsi'k	*Equiset um hyemale* **Scouring-rush**	Cowlitz (15)	used for polishing arrow shafts; black root for imbrication on coiled baskets
ẇawani'nc	*Taxus brevifolia* **Western yew**	Cowlitz (16)	wedges used in splitting logs; digging stick for roots and clams; combs; bows and drum frames
ta'xsa, big tree; ta'xsa ta'xsa, little tree	*Pseudotsuga taxifolia* **Douglas fir**	Cowlitz (19)	firewood, especially bark; spear and harpoon shafts
nuɳk, tree; lot'sa'kəs, bark; pa'lumkwi, shredded bark	*Thuja plicata* **Western red cedar**	Cowlitz (19-20)	The variety of uses for logs, split cedar, bark, limbs, and roots was noted above.
tstci'yux	*Typha latifolia* **Broad-leaved cattail**	Cowlitz (21)	mats of varying types
ya'k^{w}	*Xerophyllum tenax* **Pine lily, bear grass, squaw grass**	Cowlitz (23)	used dried for overlay or decoration on basketry; found chiefly in the Hudsonian zone; good article of trade
x̣u'px̣p	*Populus trichocarpa* **Cottonwood**	Cowlitz (26)	hearth board of the fire drill
d^{z}ux̣sha'u	*Salix lasiandra* **Willow**	Cowlitz (26)	drill of the fire drill
	Alnus oregona **Alder**	Nisqually (27)	boughs as covering for temporary shelters

ts'u'nips	*Quercus Garryana* **Oak**	Cowlitz (27)	use wood for making digging sticks and combs; fuel
ala'la	*Urtica Lyallii* **Nettle**	Cowlitz (28)	did not use nettle twine; secured Indian hemp from eastern WA
(ɬ)k'wa'ukwus	*Berberis* **Oregon grape**	Cowlitz (30)	dye from root
sa'xit	*Philadelphus Gordonianus* **Mock orange**	Cowlitz (31)	Combs
t̓muxwas	*Ribes divaricatum* **Common gooseberry**	Nisqually (32)	thorn used for tattooing; charcoal for coloring matter
kuku·'cnas	*Rubus parviflorus* **Thimbleberry**	Cowlitz (34)	bark boiled and used as soap
cuk'ums	*Acer macrophyllum* **Broadleaf maple, Oregon maple**	Cowlitz (39) Nisqually (40)	bark for making rope and tumplines; temporary houses from the boughs
n̓umtac	*Fraxinus oregana* **Oregon ash**	Cowlitz (45)	wood for canoe paddles and digging sticks
t̓ialaxo'xo	*Fomes* **Bracket fungus**	Cowlitz (50)	draw pictures on it

Table 8. Medicinal Plants.

Indian Name	Latin and English Names	Tribe	Preparation and Use
qa'lqali	Athyrium Filix-femina. **Lady fern**	Cowlitz (14)	rhizomes boiled and tea drunk to ease body pains
sikwsi'k	*Equisetum hyemale* **Common scouring-rush**	Cowlitz (15)	stalk broken up, boiled, for washing hair infested with vermin
ẇawani'nc	*Taxus brevifolia* **Western yew**	Cowlitz (16)	impart strength; leaves moistened and ground; pulp applied to wounds; bark peeled, dried, and boiled, liquid drunk as lung medicine
sisku'pas	*Tsuga heterophylla* **Hemlock**	Cowlitz (17)	pitch used to prevent chapping; boiled as a wash for sore eyes or sores on the skin; bark tea to stop a hemorrhage
ta'xsa, big tree; ta'xsa ta'xsa, little tree	*Pseudotsuga taxifolia* **Douglas fir**	Cowlitz (19)	pitch put on sores; boiled and drunk as a cold medicine; needles mixed with cedar to make a tea for colds
nuɳk, tree; lot'sa'kəs, bark; pa'lumkwi, shredded bark	*Thuja plicata* **Western red cedar**	Cowlitz (20)	buds of cedar chewed for toothache; boiled tips mixed with some roots for cold medicine; boiled for tuberculosis; helps menstruation; infusion for kidney trouble and to break fever; body scoured in bathing for ordinary and ceremonial preparation; association with death; sweeps away ghosts
ka'ilet, whole plant; dipdi·'p, seed stalk	*Lysichitum americanum* **Skunk cabbage**	Cowlitz (22)	blossom heated and applied to the body for rheumatism
mimu'n	*Veratrum Eschcholtzii* **False or green Hellebore**	Cowlitz (24)	secured only from tribes with direct access to mountains; belongs in Hudsonian zone; poisonous, not used internally; leaf tied around arm to relieve pain
hwik'hwakuɬ	*Clintonia uniflora* **One-flower Clintonia**	Cowlitz (25)	smashed and juice applied to a cut or to sore eyes if the lids stick together on awakening

mli'smli's	*Peramium decipiens* **Rattlesnake plantain**	Cowlitz (26)	made into a tea that is used as a tonic
	Alnus oregona **Alder**	Cowlitz (26)	rotten wood rubbed on the body to ease "aching bones"
ts'u'nips	*Quercus Garryana* **Oak**	Cowlitz (27)	bark boiled as a cure for tuberculosis
ala'la	*Urtica Lyallii* **Nettle**	Cowlitz (28)	sprout crushed, used as a poultice for paralysis and rheumatism; nettle tea to relax muscles during childbirth
te'lwa'cus	*Rumex* **Dock**	Cowlitz (29)	stalk boiled; water used as antiseptic wash for leg sores
ɬnipaswa'kuɬ	*Claytonia sibirica* **Spring beauty, miner's lettuce**	Cowlitz (29)	stem rubbed between palms in cold water; then water is rubbed on the hair as a tonic
lu'ɬa'	*Anemone* **Anemone**	Cowlitz (29)	tea for tuberculosis; dose small; too much would burn the stomach
(ɬ)k'wa'ukwus	*Berberis* **Oregon grape**	Cowlitz (30)	bark boiled for infusion to wash sores on the skin and in the mouth
t'satsu'ms spama' tautmi'kʷ	*Tolmiea Menziesii* **Youth-on-age**	Cowlitz (31)	applied to boils; "medicine for boils"
sa'xit	*Philadelphus Gordonianus* **Mock orange**	Cowlitz (31)	soapy lather of the bruised leaves and flowers for toilet use
ṫmuxwas	*Ribes divaricatum* **Common gooseberry**	Cowlitz (32)	woody stem burned and pulverized; charcoal rubbed on sores on the neck
tca'pama·c	*Rosa nutkana* **Wild rose**	Cowlitz (34)	baby bathed in water in which the leaves have been boiled; to strengthen, whether ill or well
kuku·'cnas	*Rubus parviflorus* **Thimbleberry**	Cowlitz (34)	dried leaves powdered and applied to burns to avoid a scar

šuspana's, plant; suspa'n, berry	*Fragaria* **Strawberry**	Puyallup Nisqually (36)	whole plant tea for diarrhea
tcna"ai	*Oxalis oregana* **Wood-sorrel**	Cowlitz (39)	fresh juice squeezed from the plant is applied to sore eyes
k'lɑta'ni	*Rhamnus Purshiana DC* **Cascara**	Cowlitz (40)	Laxative
šqaipqa'ipas	*Oplopanax horridum* **Devil's club**	Cowlitz (41)	thorns cut off as they may cause inflammation; bark peeled and boiled; infusion drunk for a cold or used to wash a limb affected with rheumatism; dry bark pulverized for perfume or baby talc; plant is poisonous
	Trientalis latifolia **Star flower**	Cowlitz (45)	Specimen found only in Cowlitz territory; informant knows no name but said the juice in water was used as an eye wash.
n̓umtac	*Fraxinus oregana* **Oregon ash**	Cowlitz (45)	bark boiled and infusion drunk for worms
cu'x̌acu'x̌a	*Mentha* **Mint**	Cowlitz (45)	Leaves for tea as a cold remedy; two kinds
q̓weɬuxwastsuts "marriage relation of nettle," i.e., brother-in-law	*Stachys ciliata* **Hedge nettle or woundwort**	Puyallup (45-46)	used for healing boils
t'cu'matas	*Sambucus callicarpa* **Red elderberry**	Cowlitz (47)	Leaves ground and put on a sore joint to reduce the swelling; bark dipped in hot water and applied to a swelling
tsati'mas	*Adenocaulon bicolor* **Silvergreen**	Cowlitz (48)	Leaves bruised and applied to a boil to draw it out
ẇəpənwə'pən	*Achillea Millefolium* **Yarrow**	Cowlitz (49)	well known tonic; leaves soaked for a hair wash; tea effective for stomach trouble
ṫcuktcu'k	*Arctium minus* **Burdock** (introduced)	Cowlitz (50)	roots boiled and the infusion drunk for whooping cough

Table 9. Plants used as charms.

Indian Name	Latin and English Names	Tribe	Use
ta'xsa, big tree; ta'xsa ta'xsa, little tree	*Pseudotsuga taxifolia* **Douglas fir**	Cowlitz (19)	charm: cones put close to the fire with a prayer for sunshine
ƙamati'	*Galium Aparine* **Bedstraw**	Cowlitz (46)	charm: poisonous; if a woman, using the right incantations, rubs herself with this while bathing, she will be successful in love; if she fails to repeat the incantation correctly, she will get blotches on her face
t'u'mts	*Aquilegia formosa* **Columbine**	Cowlitz (30)	name: no use given
Xwoixwoi'as, plant; tumla'tumla', "little hearts"	*Dicentra formosa* **Wild bleeding-heart**	Cowlitz (31)	name: no use given
t'a'tcanminad'it	*Lonicera ciliosa* **Orange honeysuckle**	Cowlitz (48)	name: no use given

Schmoe (1924:1(11):4) noted that the Indians of the Northwest called the cony, pika, which meant "Little Chief." This name and description are used by Salish speaking Sauk people in the northern Cascades. Smith also did not discuss fur-bearing mammals, such as beaver, foxes, marten, mink, and raccoon (Landes 1924:2(10)3-4; Schmoe 1924:2(20)1, 1925:5(9)2-3). Beaver were especially abundant at the Park (Schmoe 1924:2(20)1).

The number of birds that migrate to the high mountain meadows is considerable (Kitchin 1939; Schmoe 1924:2(12)2-3, 1924:2(13)1-4, 1924:2(13)5). Two species of eagles frequented the Park (Schmoe 1924:2(13)5, 1925:2(21)3). However, as with smaller animals, ethnographic data regarding birds are not abundant in any documents.

Mountain goat and bear hunting often were associated with mythology and power (McCulloch 1949:62). The goats were taken for their hair, as well as their meat. Most Park naturalists thought the artifacts found at the Park related to goat hunting (Fogg 1924c:2(9)4l; Richards 1930b:8(11)7; Schmoe 1926:3(15)2). Bear were hunted for grease and as food. In the recorded information available for the animals of the Park, mountain goats were by far the most frequently noted animal. In describing hunting on Mount Rainier in the 1850s, Chief Sluskin of the Yakama noted the presence of both mountain goat (yee-tah) and mountain sheep (wou) (McWhorter 1917:98, 100).

Deer and elk were taken in traps, drives, nets, and jumps, as well as hunted with bow and arrow (McCulloch 1949:63). Both the dried meat and antler were traded downriver, the former as food, the latter for tools.

Additional information regarding hunting in the Cascade forests was compiled by McCulloch (1949) and Morris (1934). McCulloch (1949:44) noted that much of Indian hunting was associated with burning. David Douglas, who traveled North America in 1823-1827, noted in his journal that natives told him the burning was done to encourage deer to frequent certain areas that were left unburned (Morris 1934:314-316). Morris studied the fire history of Oregon and Washington from 1826 to 1933. He concluded that in the early years Indians burned the lower valleys each year. The settlers drove the Indians out of the valleys and prevented burning at some locations. At the same time, while traveling in the mountains and away from settlements, the explorers and pioneers left campfires burning and sometimes set fires intentionally to clear land. The biggest fires in the region were recorded in 1868. After 1902, it became unlawful to set fires, although burning of slash was permitted. By 1933, both commercial logging and fire control had been organized throughout the region (Morris 1934:338).

Data Compiled Since Smith's Study

Much information has accumulated since 1964 regarding Indian economic use of the Cascades. However, the information is scattered, has not focused on the

Park, or has been presented in studies of cultural geography and cultural ecology (Hunn 1990; Uebelacker 1980, 1984, 1986).

Hunn's (1990) work included extensive sections on Plateau ecology and animal and plant resources. His study extended in area from the flat plains to snowcapped peaks. His appendices for Sahaptin animal and plant names and an appendix listing uses of medicinal plants are quite extensive. However, Hunn did not state whether any of the terms were more commonly known in some groups than others, although he did state that most of the Sahaptin speakers he worked with came from the Middle Columbia area. Many groups with permanent settlements in the Middle Columbia area traveled seasonally to the Cascade mountains. It is likely that they utilized the plant and animal resources of the Park as well.

Uebelacker's (1980, 1984, 1986) studies centered on the cultural geography of the territory and people of the Yakama Nation. In his report on the Naches River Basin, he stated that the foragers of the Columbia River Basin may have reached a population maximum about 1,500 years ago (Uebelacker 1980:147-158). He noted that the archaeological deposits at anadromous fish spawning areas are very large, that sites representing spring root processing camps and fall hunting camps occurred at almost all major springs along the forest edge, and that highland valleys showed a resource mosaic that was culturally maintained. In the mountains, sites were common in crestal uplands, passes, saddles, and gaps, along ridges, on flat places along ridges, at rockshelters below ridge lines and on canyon edges, and at lakes, streams, and springs. Many sites were associated with huckleberry fields, while others were associated with driving and trapping large mammals.

In 1984 Uebelacker, with guidance from Yakama elders, compiled data regarding the cultural geography of the Yakama people and their land. The resulting book, *Time Ball,* was published by the Yakama Nation. In this work, Uebelacker (1984:158-61) detailed how the ancestors of the modern Yakama manipulated the resource mosaic of their territory by the use of fire and how, at the turn of the century, fire was a major element of forest ecology.

> The Ancestors manipulated the resource mosaic with fire; to my knowledge no one has ever addressed the relationship of fire to Lomatium, camas and carrot meadows, Indian potatoes or other major resources; most of The Ancestors' foods, medicines, and technological materials occur within a few feet of ground level and are primarily herbaceous and shrub species. It is the same level most of the game resources also require. As a forest develops, more and more of the growth moves out of reach of the Ancestors and their game resources and often, if nothing interrupts this growth, these old growth forests can become virtual resource deserts from The Ancestors' perspective. Fire is one way to stop this from happening. It is one way to bring the growth to

> ground level and place it in plants that are more directly useful as food and indirectly to the game resources. With fire The Ancestors could influence the location, density, and diversity of resources [Uebelacker 1984:160-161].

In his dissertation, Uebelacker (1986:169-177) provided information about resource zones used by the Yakama people near, and probably at, the Park. He discussed Yakama knowledge of both lowland and upland microenvironments in some detail. In the summer, the people traveled to the Cascades to dig roots, catch native fish, hunt bighorn sheep and mountain goat, and trade at inland wet meadows. In the fall, they gathered pine nuts, medicinal plants, fat large game, such as elk and bear, migrating birds, huckleberries, and more roots. They collected rock for tools and processed their food products for travel and storage.

Much of the above material has now entered the popular literature in summary form as very general histories about the Park (Kirk 1968; Martinson 1986). The popular histories summarize the commonly accepted views regarding native economic involvement at the Park. They tell about the meaning of the name of Tahoma and note specific areas used by certain tribes (Martinson 1986). These works provide the public with information regarding Indian berry picking, processing, storage, and use, including the important role of women in this economy (Kirk 1968) and about the systematic burning of the berry meadows at the end of the season to maintain habitat favorable to huckleberries. They also note that women also collected bear grass and other plants in the mountains and that men hunted deer, elk, mountain goat, marmot, and sooty grouse. At the end of the season, equipment was stored in place and the dried berries and meat were taken to the permanent settlements. This practice continues in the Mount Adams area (Blukis Onat 1987), although it has not been allowed at the Park since the 1950s (Kirk 1968).

Plants. A number of ethnobotanical works have been compiled since 1964 (French 1965; Hunn 1990; Norton 1979). Although few of them directly apply to the high Cascades, it can be assumed that cultural practices used in similar neighboring environments with similar resources could also be expected to have occurred on Mount Rainier.

Hunn's (1990:333-350) Sahaptin plant names appendix includes categories of cultural relevance for each plant, much like those used by Gunther (1945) and Smith (1964) (e.g., food plants, medicinal plants, poisonous plants, and plants with technological applications). He also listed plants whose only relevance was as ecological indicators or as mythological references and noted whether they were cultivated, introduced, or regarded as weeds. Hunn's (1990:351-358) appendix of medicinal plants gives only their uses, not their names. Plant information in his appendices is too extensive for representation in this report and is readily available to the interested reader. A detailed compilation of known Park flora and the ethnobotanical data collected by Gunther, Hunn, and other

ethnobotanists would provide a useful list of plants, their function, processing, storage, and use by tribal groups on both sides of the Cascades.

The recently published work by Pojar and Mackinnon (1994) provides a very useful guide to the plants and their native uses along the Pacific Northwest Coast. This well illustrated guide includes the Pacific Northwest Coast from Alaska south to Washington and Oregon. The list of references in the work provides additional information regarding specific plants or plant communities. Several of these references apply to the plants of the Cascade Range, although most of the ethnobotanical citations refer to Turner's (1998) work in British Columbia (Pojar and Mackinnon (1994:511-512).

For example, Gunther lists columbine and orange honeysuckle (Table 9), but does not specify a use for them. Pojar and Mackinnon note that, in other areas of the Pacific Northwest, columbine is known for its medicinal properties in treating sores (1994:180) and orange honeysuckle stems were used for weaving, binding, and lashing (1994:69).

Few studies have considered the fire management practices of tribes who used the Park, although Uebelacker (1984) suggested that this was commonly done. Only one major study of the forests of the Park has developed a fire history for the area (Moir 1980:4-5-6, 5-15-20) and mapped the vegetational gradients, associations, and zones throughout the Park (Moir 1980:2-21). McCullough (1970) also made observations about fire history in the White River Drainage of the Mt. Baker-Snoqualmie National Forest to the north and east of the Park.

In 1928, Ed Wells, a Forest Guard, told McCullough (1970:37-38) about Muckleshoot Indians who still made annual pilgrimages to Huckleberry Mountain, on the northern boundary of the Park, to pick and dry berries. They arrived in the middle of August. An old Indian man had told Wells that, when he was a small boy, the Muckleshoot had burned off this mountain. Evidence that the area had been burned before was noted by Lt. Johnson in 1841 (Johnson 1916 [1845]). Huckleberry Mountain is a typical example of an area of repeated burns.

McCullough (1970:35-37, 70-71) noted that the White River valley contained evidence that infrequent fires had occurred there for countless centuries. Wells also told him of the practice of sheep herders setting fire to lichens on the alpine firs to enlarge alpine meadows and produce additional grass for their flocks prior to implementation of Forest Reserve regulations in the early 1900s. The tree-grass-tree cycle was speeded up by overgrazing the grasses that became established after a fire.

McCullough (1970:74) noted the difference between a fire set in high mountain areas and a fire at lower elevations. The former fires were mostly small and were confined to a small clump of trees, containing a downed log or two. Occasionally, such fires could create an extensive burn. This would occur when

a fire was sparked in an old alpine forest with an abundance of Spanish moss growing in the tree crown. Such a crown fire would spread quickly when there was low humidity and an east wind. As these fires moved through lower elevations, they destroyed ten or twenty times more wood than high country fires. The older the forest, the more duff (decomposing vegetation) had accumulated on the forest floor. Though this duff was spongy and moist most of the time, circumstances including an east wind and low humidity caused the duff to act as a tinderbox. The bigger fire resulted because of the large quantity of fuel on the ground.

When McCullough (1970:73) was a child, forest fires were common in the summer, mostly resulting from the unintended effects of logging activity. He had lived inside the boundary of the Mount Rainier Forest Reserve and knew that the September rains would clear the air of smoke. He also noted the differences in land management policies by different land managers. In the White River drainage, a National Park, a National Forest, and an industrial Tree Farm were arranged from the source of the river downward along the drainage (McCullough 1970:126-127). The National Park has been administered by the Park Service under a strict preservation policy, with forest resources considered noncommercial. The National Forest has been administered under a flexible multiple use policy, with a sustained timber yield considered the greatest good. The industrial Tree Farm has the single-purpose policy of supplying raw material on a continuing basis to woodworking plants for a profit. The suppression of forest fires has been practiced under all three land management policies, if not always successfully.

Most studies of the invasion of subalpine meadows by trees have not taken Indian burning practices into account as a strategy to keep alpine meadows open (Franklin et al. 1971), although some have noted the practice by Indians (McCullough 1970). One study detailed an attempt to experiment with different treatments to enhance the berry and bear grass (or basket-grass) yields, and included the use of fire (Minore et al. 1979). The experiment was not particularly successful, perhaps because it included the use of flame-throwers and chemicals. The report on the experiment noted that additional research was needed regarding the rhizome system and root structure of the huckleberries, as well as the relationship between berries and basket-grass (Minore et al. 1979:24). A by-product of the study was the discovery that high huckleberry abundance was related to an optimum soil pH of 5.5 and the presence of seven associated plant species.

During the 1980s and 1990s, the Indian use of fire as a resource management tool became of interest to several anthropologists and historians (Boyd, ed. 1999; French 1965; Turner 1998; Uebelacker 1984, 1986). The Indian use of fire and native cultural ecology are at present the focus of a number of investigations.

It is quite likely that traditional Indian lore describes all the associations noted above and that Indian people were, and still are, aware of them. As Uebelacker found in working with the Yakama:

> I encountered one man who observed the beargrass in glacial valley bottoms to determine when the huckleberries were ripe in the high Cascades. When beargrass sets seeds in the Glacial Valleys the huckleberries are ready. The Ancestors must have been masters at such interrelationships, monitoring and correlating the behavior of plants, animals, fish, birds, and insects to predict the condition of things widely separated [Uebelacker 1984:155].

Specialist publications on basketry (Kuneki et al. 1982:21) discuss the respect of the basket makers to all the mountains, including Mount Rainier, because of their gift of berries and roots. However, most of these books have a technological or an art history focus, and do not contain many references to resource locations. However, most Indian basketmakers knew precisely where they would acquire their basketry materials and would track the relative abundance of the specific resource (e.g., cedar root, cherry bark, bear grass) from year to year.

Spirit Questing. The act of spiritual questing, and locations at which spiritual questing might occur, has received considerable attention since the passage of the American Indian Religious Freedom Act in 1978. An *Inventory of Native American Religious Use, Practices, Localities, and Resources on the Mount Baker-Snoqualmie National Forest* (*Inventory*) sought to record spiritual sites on Forest Service lands north of Mount Rainier (Blukis Onat and Hollenbeck, eds. 1981). The *Inventory* was conducted under National Park Service guidelines that were published in 1980 as Draft Bulletin 38, Traditional Cultural Properties. The final form of the Bulletin was published in 1991. It is the document used to guide such studies today.

As the *Inventory* was being compiled, it became apparent that the protocols of the traditional Siown religion limited the degree to which ritual and religious activities could be divulged to outsiders (Blukis Onat and Hollenbeck, eds. 1981:518-571). This was especially the case with site-specific information regarding spiritual questing locations. It is generally regarded as extremely dangerous to one's spirit to reveal the place where one has received that power. Spirit questing is an intensely private process. Precise locations of spiritual places are not given to anyone.

Whereas spirit questing locations are private, other locations and some general areas are regarded as imbued with special powers. The Park was not part of the *Inventory*, but two sites not far from Park boundaries to the northwest and northeast were identified as spiritual locations for persons affiliated with the Duwamish (Baenen 1981:461-466).

One of the participants in the Mt. Baker-Snoqualmie National Forest study was Cecelia Carpenter (1981:472-517), a Nisqually tribal member and historian. In the *Inventory*, Carpenter reviewed the religious significance of the high mountain areas to the Muckleshoot, Puyallup, Nisqually, and Cowlitz. She concluded that all of the tribes respected the mountains and forests for their spirit potential (Carpenter 1981:480, 491, 500-502, 509-510). She noted that all the tribes considered the Mount Rainier summit to be sacred and the home of certain spirits. She listed Mount Rainier, Paradise Valley, and Longmire Mineral Springs as sacred sites to the Nisqually people (Carpenter 1981:505).

Carpenter's *Where the Waters Begin* focused on the significance of Mount Rainier to the Nisqually people. She stated that Indian guides to the mountain did not go beyond an "invisible line" where spirits were thought to reside (Carpenter 1994:81). Carpenter (1994:105) also said that contemporary Nisqually people pick huckleberries and search for herbal plants on the lower slopes of Ta-co-bet, but that Nisqually people still will not attempt to climb the upper slopes above the sacred line. This would be looked upon as competing in strength with the mountain spirits who guard the hallowed ground. It is believed that those who do go into this area will die.

The Nisqually attitude toward the mountain was interpreted as actual dread or as superstitious fear of the mountain summit by most non-Indians who heard of it. This is apparent in all the writings about Indian views of Tahoma from the time of early exploration to the present (Meany, ed. 1916; Molenaar 1979; Stevens 1916; Winthrop 1863). However, in the instances when the actual words of Indian people have been documented, Tahoma is regarded with overwhelming respect for, rather than a fear of, the summit. It is true that, because the mountain peak is a place of power and spirit, only those individuals possessing the appropriate spiritual knowledge and strength could be expected to access the mountaintop. However, it is also true that the entire topography of Tahoma was known to the native people. This is apparent in Indian descriptions of the nature and structure of the mountain as told in place names and mythology. The manner in which this respect has been interpreted in the literature is discussed at some length in *Tahoma Legends* (Blukis Onat 1999b).

The ethnographic study by Hajda et al (1995:34-55) compiled information about a number of locations with spiritual significance, including some in the southern regions of Mount Rainier National Park. The study makes clear that mountains are sacred as places to acquire power and as homes of special beings. The mountains are places of meditation, peace, and where one can feel closer to God (Hajda et al. 1995:28-29). In addition to having special attributes, they are the source of many resources, including water, clean air, and foods. Medicinal plants grow there, where they are not bothered by people. And some persons find what they need for spiritual well being through revisits to questing places. Respect for the mountains includes being quiet, taking only what is needed, not

destroying or sporting with mountain resources, and leaving a gift in return for what is taken or for just being there.

> ....traditional foods and medicines remain an important part of the diet and health care. A few people still collect beargrass and cedar bark for making baskets. These things are of symbolic as well as practical importance in times of change. Cars, trucks, and roads mean that trips can cover longer distances in less time, though with jobs and other obligations seasonal gatherings of people may be smaller and last for a shorter time. Huckleberry feasts are again being held in the mountains as well as on the reservation. Efforts are still being made to pass on knowledge of resources and where to get them to young people. Consultants [tribal members] frequently mentioned taking children or grandchildren with them when they went to gather berries, dig roots, or just travel around and visit the places they remembered as children. Special trips to show children the places to get medicines used by their own family or sex are still made. An indication of the strong attachment still felt to the mountains and forest is that when asked why they traveled into the GPNF most consultants [tribal members] talked about going there for spiritual refreshment and guidance as well as for food, expressing pleasure at getting out in the woods, being somewhere where quiet reflection or prayer is possible. Clearly, the [Gifford Pinchot National Forest] lands continue to play an important part in the lives of Indian people [Hajda et al. 1995:64-65].

Academic works relating to the religious traditions of tribes that used the Park have been relatively few. Schuster's (1975) doctoral dissertation focused on Yakama Indian traditionalism, with emphasis on the continuities and changes in the traditional religion of the longhouse, or *washat.* With the exception of information regarding the importance of the berrying treks, Schuster (1975:75-97) did not include the Park area in her discussions.

Elmendorf (1993:16, 215) recorded that the spirit power (tamánamis) of a Twana woman was on Mount Rainier:

> So sxʷa'xʷacaɬ sang his doctor song again. And now he stopped and said, "I've discovered that woman's tamánamis way up to the mountain - dəxʷwa'kʷ' (Mount Rainier)." Now this woman's power had got mad at her because she never came to the mountain to pick berries. Her power was ɬal'a'bIxʷ, it belongs to that mountain, and the purpose of that power is to pick berries. And that ɬal'a'bIxʷ got mad at that woman because she never went to the mountain to pick berries. That's the food of that power - berries. And now he had left that woman and made her sick.

> And now sx^{w}a'x^{w}acaɬ brought that tamánamis back to that woman and made her sing it. And the people danced and sang all that night and all the next day before that sick woman could sing her song right [Elmendorf 1993:17].

He also noted that the owl spirit power of a Nisqually doctor, puyu'ix^{w}, was captured on Mount Rainier:

> And now Doctor Charley stopped and told the people, "This man's power is up dəx^{w}wa'k^{w}', up Mount Rainier. Four slaha'l hand-game bones have it tied up there. And it was another doctor, a slaha'l man, took his power. That doctor's slaha'l power took this man's power. That doctor wanted to kill him. And this man's power has been up the mountain a long time, it's getting dry up there. But now I've found it" [Elmendorf 1993:215].

At the request of the Nisqually doctor, Doctor Charley killed the four slaha'l bones spirit that had been holding his owl power captive (Elmendorf 1993:215-216). The Nisqually doctor asked that the slaha'l be killed because the doctor that had captured his owl spirit was always trying to kill him.

The instances of spirit power sickness documented by Elmendorf are of interest because they imply that the relationship of Mount Rainier to tribes at a considerable distance from the mountain was spiritually significant. First, the Twana name of the mountain was dəx^{w}wa'k^{w}', (the Tiswauk noted earlier), not Tahoma. Perhaps people farther from the mountain had other names for it. A power to pick berries, called ɬal'a'bIx^{w}, belonged to Tahoma. An individual that stopped berry picking would have problems with her power, if that power was associated with picking berries. Apparently, her power needed berries for food or it would leave her. Third, a spirit power could be captured and placed on Mount Rainier by an Indian doctor, who would hold it there with his own spirit power.

Animals. Data about regional ecology has been compiled by non-native biologists in recent years. These data often tend to support the oral history that tribal groups possess regarding the ecology of their traditional territory (Uebelacker 1984). Among such studies are a guide to the mammals of Mount Rainier (Schamberger 1971) and a detailed assessment of the history of native elk at the Park (Schullery 1983).

Schullery's work, conducted under contract with the National Park Service, is particularly interesting because of the thorough review of all documents that mention native elk in the Cascades and in the Park. He used ethnographic data to document the use of elk among the Cowlitz, Klickitat, Muckleshoot, Nisqually, Puyallup, Snoqualmie, and Yakama (Schullery 1983:13-16). He noted that archaeological sites on both sides of the Cascades have contained elk bones and artifacts made of elk antler. From these data, he determined that elk were abundant in the Cascades prior to settlement.

Schullery (1983:19-26) remarked that the early explorers in the Cascades did not note the presence of elk or other game to any extent and that non-Indian explorers assumed that Indians had killed off the game. This assumption is inconsistent with the fact that populations of native peoples had been dramatically reduced due to introduced diseases in the years prior to contact with Euroamericans (Gibbs 1854b; Boyd 1990). Schullery (1983:100-108) also noted the contradiction between this assumption and the records of the explorers of Mount Rainier themselves, as presented in their original journals and papers written in 1852-1896. In these records, there was considerable reference to mountain goat, mountain sheep, deer, and bear. However, references to elk were scarce (Schullery 1983:40-41). Therefore, Schullery concluded that elk were never very common inside Park boundaries, although they were present.

Schullery (1983:19-39) also detailed the sequence of events and the reasons why elk became extinct in the Cascades. The fur trade, access to firearms, and horses had no appreciable impact on the elk populations in the first half of the 1800s (Schullery 1983:29-31). However, the introduction of cattle and sheep was another matter. Cattle and sheep used all available prairie lands in both lowlands and uplands and were driven to the mountain meadows, as well. By 1870, the grazing behavior of these herd animals had changed the local habitat. Elk herds disappeared from any settled area, although individual elk were seen in the mountains well into the 1900s.

As a byproduct of Schullery's research, he discovered data regarding mountain sheep. The early records sometimes appear to interchange the terms sheep and goats, however, it is clear that, in some cases, hunters had seen both animals (Schullery 1983:100-102). Sluiskin, an Indian hunter, was familiar with both animals. Hunn recorded the name for mountain goat in Sahaptin as *waw* and for bighorn sheep as *tnuun* (Hunn 1990:332). Hines (1992:420, 422) recorded separate names for mountain goat (*Wow*) and mountain sheep (*Te-noon*) from Yakama people. Yakama people had relatives at great distances, some of whom spoke different languages. They also had distant trade relationships. It is not surprising that they had different names for two such different animals.

Schullery (1983:11) makes note of the fact that the animal bones recovered from Fryingpan Rockshelter were bighorn sheep. Apparently, the decline of the mountain sheep resulted from disease brought by domestic sheep, common in the mountains by the 1860s (Schullery 1983:109).

Hunn's (1990:31-332) appendix of Sahaptin animal names included several genera of worms, many insects, mollusks, many fishes (both anadromous and resident), amphibians, and reptiles. He collected names of individual species of birds and names of many rodent species, as well. Fur-bearing mammals also were named by species, as were coyotes, wolves, and cats. Even introduced domestic animals (donkeys, mules, cattle, pigs, and goats) had Sahaptin names. Horses were named according to color. Deer species, elk, moose, antelope,

buffalo, bighorn sheep, and mountain goat were all named. Both deer and elk were distinguished in Sahaptin by additional terms bull, cow, calf and spike bull (Hunn 1990:139-140).

Other cultural resource studies also have provided details specific to native economic activities. Hearne and Hollenbeck (1995) detailed the contemporary Muckleshoot use of the Huckleberry Divide Trail, to the north of the Park, as an area for hunting deer and elk.

Summary

Additional information on food plants has not been collected for the Park area, although Hajda et al. (1995) listed a number of places with similar environments and plants in the Gifford Pinchot National Forest and discussed the more commonly known plants, among other mountain resources. Uebelacker (1984, 1986) also treated these resources in the context of cultural geography, but did not add additional plant data.

From conversations and personal experience with Cascade basket maker Edith Bedal (1903-1995, Sauk-Suiattle elder), I have concluded that any location where cedar grew was a potential location for cedar root and limb collecting. Sometimes cedar roots are present close to the ground surface; often they are found exposed along a river or stream. The latter source, where easily approached, was favored by older women, because the roots only had to be cut, not dug, and they were already quite pliable. Cedar bark also was available for stripping on both living trees (preferred source) and fallen timber. In addition, any downed cedar was an excellent source of dry firewood, especially in winter. Although data of this type specific to the Park are not available, basketmakers in tribes on both sides of the Cascades can readily identify favored cedar root and bough gathering locations and demonstrate the appropriate manner in which the materials can be removed without damaging the living tree.

In the past ten years, the interest in medicinal plants has grown substantially, with herbalist knowledge being sought from native records about the area. However, there have been no anthropological studies conducted to address this topic at the Park. Because Mount Rainier is, in itself, a sacred location, medicinal plants from the mountain had special and important spiritual qualities (Jay Miller, personal communication 1999). The ethnobotanical data are limited in the extent to which exact medicinal use of the various plants is really known. However, there undoubtedly are tribal herbalists who use medicinal plants for healing.

It is possible that additional information regarding mountain goat, bear, elk, and possibly other animals is available in the context of undocumented tribal histories, even for Park lands. Acquiring the power to hunt goat and other animals is still part of modern tribal religious life, hence knowledge about these

animals, especially those located on Mount Rainier, would be within the spiritual realm of certain individuals. Although hunting at the Park is prohibited, knowledge about the habits of such animals does exist as one element of contemporary Indian culture. Individuals can acquire the spirit power to hunt such animals. The degree to which the hunting knowledge is shared with non-Indians, other tribal members, or even family members is limited.

Trapping fur-bearing animals in the mountains was a common practice in the past. Sauk-Suiattle elder Edith Bedal told me that, in the 1920s and 1930s, she had set trap lines, by herself and with her brother, in the high Cascades (personal communication 1988). Comparable information about fur-bearing animals probably is present among tribal members having an interest in Mount Rainier. Such activity continues among tribal people, where possible, although it may not be as common today. For example, it is not unusual to see the pelts of a variety of animals displayed for sale by vendors at most large contemporary Indian gatherings in the Northwest.

Trails, Travel, and Trade

Smith's (1964:229-251) final section addressed intertribal contacts. He presented more detailed informant data regarding the several mountain passes through and adjacent to the Park (Figure 2). He stated that Chinook Pass, the only east-west pass that leads directly into the Park, was well known by the Yakama (Smith 1964:230). The cross-mountain pass used most frequently by the Nisqually was Cowlitz Pass, southeast of the Park (Smith 1964:243-235). Trails branched in a number of directions along the ascent to all the passes (Figure 3). Cayuse Pass, the only pass within the Park, led north and south along the eastern side of Mount Rainier. People from both Plateau and Coastal tribes were known to use these and other passes (Smith 1964:238).

In addition to the cross-mountain trails that led to the passes, a number of trails led directly into the Park, specifically to the berrying and hunting grounds (Smith 1964:238-241) (Figures 16-19). Although Smith was not able to verify use of many of the trails, he considered their use entirely likely. Trails led up the main stem of the White River, along the West Fork of the White River, and up Huckleberry Creek. Ridges also were favored for mountain travel. Huckleberry Ridge led to Grand Park and Fern Ridge led to Bear, White River, Green, and Huckleberry Parks. These trails are within traditional territory claimed by the Muckleshoot.

The Nisqually trails included the Skate Creek Trail and branches of it between the upper Nisqually and upper Cowlitz Rivers (Smith 1964:240). The trail led to Bear Prairie and to Indian Henry's Hunting Ground. A Taidnapam trail along Lookout Mountain, the Tatoosh Range, and Reflection Lake led to the Paradise Glacier area. Another trail along the Carbon River and Tolmie Creek led to the Mowich Lake, Mist Park, and Spray Park area. A trail used by the Yakama led

across Carlton Pass, into the Park, then down Laughingwater Creek, across the Ohanapecosh River, and up Olallie Creek to the Cowlitz Divide. G. Allen (1916:5-6), Fechtner (1939), Plummer (1900:89), and Smith (1964:241) note that, wherever possible, the trails kept to ridges and more open areas, in contradiction to what some of the earliest explorers experienced.

There were several reasons for cross-mountain travel, including harvesting of mountain resources, trade, and socializing with relatives and friends (Smith 1964:242-250). Many items were traded back and forth. The middle Nisqually and upper Puyallup areas were important trading centers (Teit 1928:122). Dried roots, skins, skin clothing, and pipes (and later horses) from east of the Cascades were traded for dried seafood and varieties of shell money from the Coast. The Chinook Jargon term for dentalia (*Dentalium protiosum*) was *hiqua*, also known as tusk-shell money, shell money, and "Iroquois" (Schuster 1975:97). The shell would be traded farther to the east by the Yakama and Klickitat.

Most of the trade involved people from east of the Cascades traveling to locations on the west side. There are far more records of Yakama and Klickitat peoples in Nisqually, Puyallup, and Muckleshoot settlements than the reverse. However, west-to-east travel did occur (Smith 1964:247).

Smith (1964:248-250) briefly noted that some of the impetus for mountain travel included arranging marriages and visiting geographically distant relations. Berrying areas were important places where relations met after long separation and shared in the harvesting process. The extent of intertribal marriage was discussed previously. Smith also noted that sometimes groups traveled specifically to gamble and may have traveled on occasion for war and raiding. Summer gatherings that include bone-game gambling are certainly a common reason for travel today.

Trails, Travel, and Trade Update

Sources not Included by Smith

In 1938 and 1940, Sethe made a small collection of historical information regarding trails on the Gifford Pinchot National Forest (Figure 5). The trails map (Sethe 1940) and information (Sethe 1938) concern the upper Cowlitz area and the Skate Creek Trail. The trail leading to Cowlitz Pass was known as the Yakima Trail. Another trail connected the Cowlitz and Nisqually valleys by passing over Skate Mountain to the head of Skate Creek. Sethe stated that the Backbone Trail extended to Mount Rainier, where the Indians killed goats and picked blueberries and that a trail extended from the Cowlitz to Goat Rocks. Sethe noted the presence of fur-bearing animals along the trail network. Additional historic information on Park trails was included in some older trail guides (Weldon and Potts 1950).

Smith did not discuss minerals available or Indian knowledge of mining sites in the vicinity of Mount Rainier (Daily Tacoma News 1884; Fechtner 1939:3-4; McCulloch 1949:45-47). However, it is well documented that white men searching for mines often were led to surface ore deposits by Indians (McWhorter 1917:99). Copper, traditionally used for wealth display, was available in the area, as was gold and silver. Trade in these minerals would have been important in traditional Indian cultures. Ochre, hematite, and limonite could be found at hot mineral springs, common in the mountains. Traditionally, ochre produced in mountain regions was traded to the coast (McCulloch 1949:48-50). Clays of yellow, white, blue, and red were used by doctors, artists, and artisans Clay was used medicinally for diarrhea. It was used as a paint for application on a variety of surfaces. Borates in the White River area in landslide boulders and in brecciated granites contained sulfur that was used as a medicine (McCulloch 1949:50-51). Pumice was used as an abrasive for shaft straightening tools and other applications.

Although Smith used data from the excellent compilation of historical articles about Mount Rainier published by Meany in 1916, he did not detail all of the expeditions led by Indian guides to Mount Rainier discussed in Meany's book. Instead, he relied on interpretive data from anthropologists regarding the early explorations (Ballard 1929; Haeberlin 1924; Haeberlin and Gunther 1930; M. Smith 1940; Teit 1928), observation from Park naturalists, such as Brockman, Landes, and Schmoe, and data collected from his own informants. The actual transcripts of the historic expeditions reveal considerable data regarding the culture of Indian people who regularly accessed Mount Rainier and provide some detail regarding the relationships of different tribal groups to Tahoma. The major focus of these accounts is on the trails, reasons for travel, goods traded, and trading customs, although additional ethnohistoric information also is present.

Vancouver viewed Mount Rainier from Puget Sound in 1792 (Bagley 1915). In 1805-1806, Lewis and Clark saw the mountain from the Columbia River (Thwaites 1969[1804-1805]). However, the earliest recorded exploring expedition to Mount Rainier occurred in 1833 (Tolmie 1963:230-234) (Figures 4 and 7). William Fraser Tolmie engaged several Indian guides for a botanical expedition to the mountain. The transcript of the journal containing references of ethnographic interest is presented below.

> Tuesday, August 27:...Have engaged 3 horses from a chief living in that quarter [Mount Rainier] who came here tonight & Lachelet is to be my guide. Told the Indians I am going to Mt. Rainier to gather herbs of which to make medicine, part of which is to be sent to Britain & part retained in case intermittent Fever should visit us - when I will prescribe for the Indians.
>
> Wednesday, August 28:....No horses appeared. Understand that the mountain is four days journey distant, the first of which can only be

performed on horseback. If they do not appear tomorrow, I shall start with Lachalet on foot....

Thursday, August 29:....the guide arrived with 3 horses. Started about 3 - mounted on a strong iron grey stallion - my companions disposing themselves on the other two horses - except one who walked. We were 6 in number. I have engaged Lachalet for a blanket & his nephew Lashima for ammunition to accompany me & Nuckalkat, a Poyalup (whom I took for a native of Mt. Rainier) with two horses to be guide on the mountain & after leaving the horse track & Quilniash, his relative, a very active, strong fellow has volunteered to accompany us. The Indians are in great hopes of killing Elk & Chevreuil & Lachalet has already been selling & promising the grease he is to get. It is in a great measure the expectation of finding game that urges them to undertake the journey. Cantered slowly along the prairie & are now at the residence of Nuckalkat's father, under the shade of a lofty pine in a grassy amphitheatre beautifully interspersed and surrounded with Oaks & through the gaps in the birch we see the broad plain extending southwards to Nusqually - in a hollow immediately behind, is almost one sheet of water lilies about to flower. have supped on Sallal & at dusk, shall turn in.

Friday, August 30:....Started about sunrise, I mounted on a spirited brown mare & the rest on passable Animals except Nuckalkat, who bestrode a foal. Made a northeasterly course thro' prairie. Breakfasted at a small march on Bread, Sallal, Dried Cockles & a small piece of Chevreuil saved from the last night's repast of my companions (for I cannot call them attendants). The point of wood now became broader & the intervening plain degenerated into prairions. Stopped about 1 P.M. at the abode of 3 Tekatat families - who met us rank & file at the door to shake hands. Their sheds were made of bark resting on a horizontal pole supported at each end by tripods & showed an abundance of Elk's flesh, dried, within. Two kettles were filled with this & after smoking, my Indians made a savage repast on the meat & bouillon. Lachalet saying it was the Indian custom to eat a great deal at once & afterwards abstain for a time - he however has eaten twice since. Traded some dried meat for 4 balls & 3 rings - mounting, rode off in the midst of a heavy shower....came to the Poyallip - Lashima carried baggage across on his head....about 7 p m dismounted & the horses & accoutrements were left in a wood at the river's brink. Started now on foot for a house Nuckalkat knew & after traversing woods & twice crossing the torrents "on the unsteadfast footing" of a log arrived at the house which was a deserted one & encamped on the dry part of the river bed - along which our course lies tomorrow....Lachalet has tonight been trying to dissuade me from going to the snow on the mountain.

Saturday, August 31: Slept well. Fine morning. Two salmon trout caught on which are to breakfast before starting. After breakfast Quillihiaish stuck

the gills & sound of the fish on a spit which stood before the fire so that the next comer might know that salmon could be obtained there. Have travelled nearly the whole day through a wood of cedar & pine, surface very uneven & after ascending the bed of river a couple of miles are now encamped about 10 yards from its margin in the woods. Find myself very inferior to my companions in the power of enduring fatigue - their pace is a smart trot which soon obliges me to rest....

Sunday, September 1, 1833: Bank of Poyallip River. It has rained all night & is now 6 a m pouring down - are a good deal sheltered by the trees. My companions are all snoozing - shall presently arouse them & hold a council of war - the prospect is very discouraging - our provisions will be expended today & Lachalet said about one he thought the River would be too high to be fordable in either direction. Had dried meat boiled in a cedar bark kettle for breakfast. I go rigged out in green blanket without trowsers in Indian style & trudged on through the wood - afterwards exchanged blanket with Lachalet for Ouvrie's Capot, which has been on almost every Indian at Nusqually. However I found it more convenient than blanket. Our course lay up the river, which we crossed frequently - the bed is clayey in most parts....Have been flanked on both sides with high pine clad hills for some time - a short distance above encampment snow can be seen. It having rained almost incessantly have encamped under a shelving bank which has been undermined by the river - immense stone only held in site by dried logs from the roof - the floor is very rugged. Have supped on berries which when heated with stones in kettle taste like sowens [?]. Propose tomorrow to ascend one of the snowy peaks above.

Monday, September 2: Summit of a snowy peak [immediately], under Rainier Passed a very uncomfortable night in our tooglodytic mansion. Ascended river for 3 miles to where it was shut in by amphitheatre of Mountains & could be seen bounding over a lofty precipice above. Ascended that which showed most snow. Our track lay at first through a dense wood of pine but we afterwards emerged into an exuberantly verdant gully closed on each side by lofty precipices. Followed gully to near the summit & found excellent berries in abundance. It contained very few alpine plants - afterwards came to a grassy mound where the sight of several decayed trees induced us to encamp. After tea I set out with Lachelet & Nuckalkat for the summit which was ankle keep with snow for 1/4 mile downwards. The summit terminated in abrupt precipice direct Nwards & bearing NE from Mt. Rainier, the adjoining peak...Collected a vasculum of plants at the snow & have examined & packed them - shall turn in. Lachalet by his own request is to be my bedfellow....

Tuesday, September 3: Woody islet on Poyallip....Lay shivering all night - roused my swarthy companion twice to rekindle the fire. At sunrise,

> accompanied by Quilliash, went to the summit & found the tempr. of the air 33° - the snow was spangled & sparkled brightly in the bright sunshine. It was crisp & only yielded a couple of inches to the pressure of the foot in walking. Mt. Rainier appeared surpassingly splendid & magnificent....
>
> Wednesday, September 4: Are tonight encamped on a small eminence near the commencement of prairie. Had a tedious walk through the wood bordering Poyallip, but accomplished it in a much shorter time than formerly.
>
> Thursday, September 5: Nusqually. Reached Tekatat Camp in the forenoon & regaled on boiled Elk & Shallon. Pushed on ahead with Lachalet & Quillihiaish & arrived here in the evening, where all is well [Tolmie 1963:230-234]

Tolmie used horses owned by Indians for the expedition, rather than horses owned by the Hudson's Bay Company, and expected to be guided by an Indian, a Puyallup man who was a "native of Mount Rainier." The distance and time of the journey were known, as were the places to cross rivers and streams and where to begin the climb on foot. Tolmie was aware of the presence of useful medicinal herbs on Mount Rainier, information not likely available except from Indian people. He was expecting to prescribe the medicines for Indians in case the intermittent fever [malaria] struck. Tolmie undoubtedly knew of the malaria epidemic that was devastating the native populations of the Fort Vancouver vicinity in the early 1830s (Boyd 1985, 1990:139-140).

The next documented exploring expedition to the Mount Rainier vicinity occurred in 1841 and was part of the United States Exploring Expedition led by Captain Wilkes (U.S. Army, Corps of Engineers 1889; Wheeler 1889; Wilkes 1916, 1925a-d). Several individuals participating in the expedition kept journals or wrote reports of their observations. Readings were taken to make maps of the area explored by the expedition.

The expedition started at Fort Nisqually, traveled up the Carbon and White Rivers to cross the Cascades at Naches Pass, proceeded to Fort Colville and the Lapwai Mission at Walla Walla, and returned to Fort Nisqually, all within 60 days. On the east side of Naches Pass, the trail followed the Naches and Yakima Rivers. This route led between the river bar and the dense forest and had been used by trappers when the fur business was the only non-Indian economic enterprise in this part of the world (McCullough 1970:1). Although the trail was in disrepair when French Canadians Pierre Charles and Peter Bercier guided the party in 1841, it had been well traveled in the past. The French names given to prominent landmarks suggest the frequency of use by French-Canadian trappers from the Hudson's Bay Company. It is possible that Chenuis Mountain is derived from the French, rather than being an Indian name (Table 3).

Figure 20 shows the Cascade Range, with Mount Rainier, as mapped by the expedition (Wilkes 1925a-c). The journal entries relevant to the ethnography of the Park have been excerpted and are presented below. Information in parentheses and brackets was added by editors of the original manuscripts. Lt. R.E. Johnson led the expedition across the Cascade Range. The other accounts parallel his to a large degree.

> In making preparations for such a journey, the Indians were to be bargained with, and, as I have before had occasion to remark, are enough to tire the patience of Job himself. First, the Indian himself is to be sought out; then the horse is to be tried; next the price is to be discussed, then the mode of payment, and finally the potlatch: each and all are matters of grave consideration and delay, during which the Indians make a business of watching every circumstance of which they can take advantage. No one can be sure of closing his bargain, until the terms are duly arranged, the potlatch given, and the horse delivered.
>
> May 21st: ...encamped at the junction of the Puyallup with the Upthascap (Carbon R.). Near by was a hut, built of planks of the Arbor Vitae (Thuja), which was remarkably well made; and the boards used in its structure, although split, had all the appearance of being sawn: many of them were three feet wide, and about fifteen feet long. The hut was perfectly water-tight. Its only inhabitants were two miserable old Indians and two boys, who were waiting here for the arrival of those employed in the salmon-fishery.
>
> ....On the 22nd, their route lay along the banks of the Upthascap, which is a much wider stream than the Puyallup (up Carbon River and branch called South Prairie Creek). A short distance up, they came to a fish-weir, constructed as the one heretofore described, on the Chickeeles (Chehalis River), though much smaller.
>
> 23rd: They had now reached the Smalocho (White R.), which runs to the westward, and is sixty-five feet wide: its depth was found to be four and a half feet, which, as it was also rapid, was too great for the horses to ford and carry their loads. The Indians now became serviceable to them. Lieutenant Johnson had engaged several that were met on their way, and they now amounted to thirteen, who appeared for a time lively and contented.
>
> ....Lieutenant Johnson remarks, that although he was frequently desirous of shortening the road, by taking what seemed a more direct course, he invariably found himself obliged to return to the Indian trail.

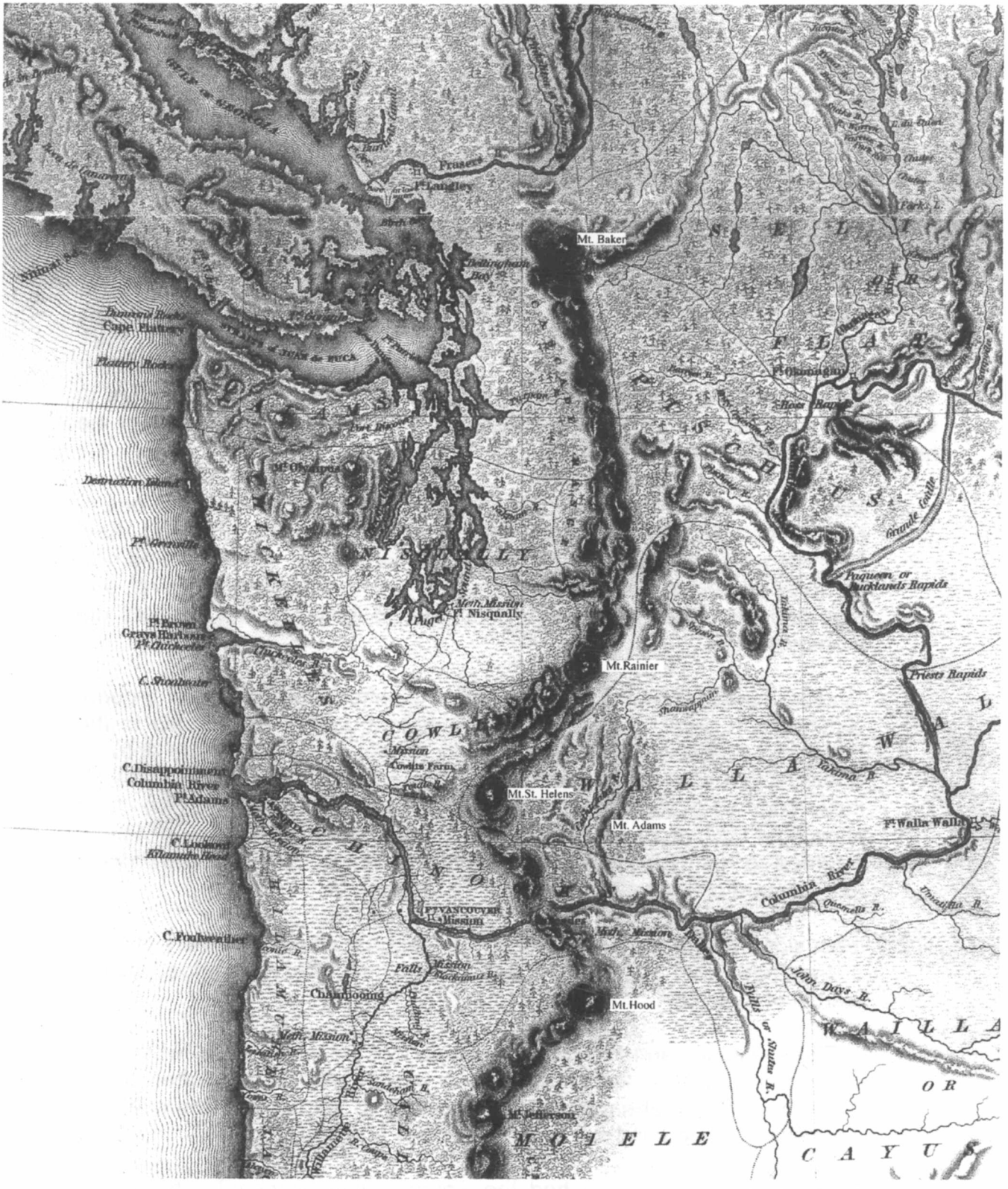

Figure 20. Cascade Range (adapted from Wilkes 1841).

May 24 :...The animals, in consequence (no food) seemed much overcome, as did also the Indians, who had travelled the whole day with heavy loads. Lieutenant Johnson, by way of diverting the fatigue of the latter, got up a shooting-match for a knife, the excitement of which had the desired effect.

May 25: According to the natives, although the wood on the mountains [in White and Greenwater area at La Tête] was destroyed many years since, it was still observed to be on fire, in some places, about two years ago [Johnson 1916:14-32].

There were numerous difficulties encountered on the journey, not the least of which was a persistent lack of appropriate food for the people and grass for the horses to sustain the level of endeavor.

May 29: more signs of fire to west....Although the horses had, with one or two exceptions, reached the eastern side of the mountain, yet they, together with the Indians, were very much exhausted. The time had now come when the Indians, according to agreement, were to be paid off, and they had done much more than they agreed to do, having crossed the mountain twice.

Finding the necessity of retaining all the blankets that had been brought with them in order to buy horses, Lieutenant Johnson proposed to the Indians to receive an order on Nisqually, in lieu of the immediate delivery of the blankets. This they readily assented to, and so willingly gave up those that had already been paid them, on receiving a similar order, - thus showing a spirit of accommodation highly praiseworthy. Only two of them returned to Nisqually, to whom were entrusted the botanical specimens, and the care of the horses left upon the road.

[east side travel easier] The Indians, although loaded with ninety pounds of baggage, kept up with the rest. At nightfall they encamped at the margin of the snow.

....There was no danger in walking except near the young trees, which had been bent down by the snow, but on passing these they often broke through, and experienced much difficulty in extricating themselves, particularly the poor Indians, with their heavy burdens.

At three o'clock they reached the Spipen River [Naches], where they encamped: this camp was found to be two thousand five hundred and forty-one feet above the level of the sea.

Mr. Waldron had, on arriving at the camp, sent Lachemere, one of the Indians, down the river to an Indian chief, in order to procure horses.

Those that remained after providing for the baggage, were consequently assigned each to two or three individuals to ride and tye on their route.

May 31: During the morning, they met two Indians, who informed them that the chief of the Yakima tribe was a short distance in advance, waiting to meet them, and he had several horses. At noon they reached a small prairie on the banks of the river, where old Tidias, the chief, was seen seated in state to receive Lieutenant Johnson; but this ceremony was unavoidably broken in upon by the necessity of getting the meridian observations. The chief, however, advanced towards him with every mark of friendship, giving the party a hearty welcome. In person he was tall, straight, and thin, a little bald, with long black hair hanging down his back, carefully tied with a worsted rag. He was grave, but dignified and graceful. When they had been seated, and after smoking a couple of pipes in silence, he intimated that he was ready for a talk, which then followed, relative to the rivers and face of the country; but little information was obtained that could be depended upon.

This tribe subsist chiefly upon salmon and the cammass-root: game is very scarce, and the beaver have all disappeared. The cammass-root is pounded and made into a sort of cake, which is not unpleasant having a sweetish taste, but it is very dry, although some of the party took a fancy to it.

Tidias has with him an old man almost blind, who claimed much respect, and two young men, whose dress of buckskin, profusely ornamented with beads, was much admired by the party. During the talk, the old chief expressed himself delighted to see the white men, and spoke of his own importance, his immense territory, etc., in a style of boasting, to which the Indians are very much addicted. He said that he was desirous of affording all the accommodation he could to the party. But although he had eight or ten fine horses with him, he would not agree to part with them, as they were all his favorites. He was presented with a variety of articles, in return for which he gave the party a few dried salmon.

Towards evening, old Tidias took leave of them, saying that it was not proper for an Indian to encamp in the same place with a white man, and with a promise that he would have horses by ten o'clock the next day; but he had a game to play by procrastinating, in which he thoroughly succeeded.

In the morning they reached the Indian camp below, but no horses had arrived. It was far, they said, to Tidias's house; a man could not go thither and return in the same day; no horses or salmon could be brought; no one could be permitted to go. Lieutenant Johnson was then told that the road he had to follow was a "hungry" road. At last the Indian was induced by

high offers to exchange good horses for a great number of bad ones, and finally consented to part with two more. On quitting him they became thoroughly aware that all the difficulties were owing, not to any indisposition to sell, but were created for the purpose of inducing high prices to be given.

The party now branched off at right angles to their former route, Lieutenant Johnson heartily sick and tired of his friend Tidias and his people. Two more of the Indians here left them.

June 1: On the top of the ridge they fell in with a number of Spipen Indians, who were engaged in digging the cammass and other roots. The latter were those of an umbelliferous plant, oblong, tuberous, and in taste resembling a parsnip. The process used to prepare them for bread, is to bake them in a well-heated oven of stones; when they are taken out they are dried, and then pounded between two stones till the mass becomes as fine as corn meal, when it is kneaded into cakes and dried in the sun. These roots are the principal vegetable food of the Indians throughout the Middle Oregon. The women are frequently seen, to the number of twenty or thirty, with baskets suspended from the neck, and a pointed stick in their hand, digging these roots, and so intently engaged in the search for them, as to pay no attention whatever to a passer-by. When these roots are properly dried, they are stored away for the winter's consumption.

June 2: [reached Yakima R.] At this place were found twenty migrating Indians, who have their permanent residence on the banks lower down.

The chief, Kamaiyah, was the son-in-law of old Tidias, and one of the most handsome and perfectly-formed Indians they had met with. He was found to be gruff and surly in his manner, which was thought to be owing to his wish to appear dignified. These Indians were living in temporary huts, consisting of mats spread on poles. Among them was seen quite a pretty girl, dressed in a shirt and trousers, with moccasins of skin very much ornamented with fringe and beads. They had a number of fine horses, but could not be induced to part with any of them.

Lieutenant Johnson had now succeeded in purchasing venison and salmon, and the party again had full allowance.

5th.... At a short distance from the place where they stopped was a small hut, composed of a few branches and reeds, which was thought to be barely sufficient to contain a sheep; yet under it were four generations of human beings, all females, seated in a posture, which, to whites, would have been impracticable. They had just procured their subsistence for the day, and their meal consisted of the berries of the dogwood. The scene was not calculated to impress one very favourably with savage life. The

oldest of these had the cartilage of the nose pierced, but the others had not; leading to the conclusion that the practice had been discontinued for some years in the nation, who still, however, retain the name. [seen before juncture of Naches and Yakima R.]

8th [July]: They stopped at the camp of old Tidias, whom, it will be recollected, they had encountered after crossing the mountains, and from whom they obtained some horses. They soon afterwards arrived at the path where they had turned off to the north. The river had fallen very much during their absence, and there was a marked difference in the season, the vegetation being much more backward than in the parts they had recently visited. The berries were just beginning to ripen, while in the plains, not twenty miles distant, they were already over. Old Tidias determined to accompany them to Nisqually, taking with him his son, and lending them several horses. The Spipen, up which they passed, was now hemmed in by mountain ridges, occasionally leaving small portions of level ground. They encamped at the place they had occupied on the 30th of May.

9th: They encamped the same night at the little prairie before spoken of, at the foot of the western slope. Before reaching it, they met a party of men and women carrying a sick chief over the mountain, who was evidently dying. It was affecting to see him stretching forth his hand to them as they passed, as if desiring to be friends with all before he died. He died the same night [Johnson 1916(1845):14-32].

The account of the expedition naturalist, Dr. Charles Pickering, varies in some detail from that of Johnson (Barry 1929:54-63). Pickering noted that natives from Nisqually, with two Canadian interpreters, were to accompany the expedition across the Cascades.

The path we followed had been but once previously traversed by civilized man. It leads over the crest of the Snowy Range, which at a point about twenty miles north of Mount Rainier, seems practicable for horses during four or five months of the year; and indeed the chief obstacle arises from young spruces, that prevent the snow from settling around them in a solid mass. The passage was accomplished by transferring the luggage from the horses to the natives, an extra number being then engaged for this purpose. It did not appear to have been remarked that there were slaves in the party; and I afterwards had some reason to suspect that one man had been overloaded. However they got through wonderfully well, and were admitted by general consent to have surpassed the Polynesians. The mode of carrying burdens was the same so general in America, by means of a strap around the forehead.

> Most of the horses eventually got through in safety. But in the mean time Lachemere, a native, was sent forward to find a chief, who resided at some distance below; and from whom we proposed to purchase additional horses. Lachemere, although, according to his own account, is part Walla Walla, considered himself as belonging to the Nisqualli tribe. He bore a high character among the residents; and accompanied us through the whole of our journey; and proved, with Pierre Charles, the Canadian, the main reliance of our party [Barry 1929:55].

The party followed the banks of the Naches River (then called the Spipen). At an open ground, the party met with a chief who provided them with horses, then turned north over high rolling country. The higher reaches were arid and barren, however, the party did encounter an encampment of about fifty natives on the "first elevated ground," where women and children were procuring and drying biscuit-root. They met Indian men on horseback in the valley of the Upper Yakima and noted the number of languages spoken at this lower encampment. Five interpreters were needed to communicate with everyone. At the river bank encampment, the expedition traded for salmon. They also observed the watertight baskets used by the inhabitants (Barry 1929:55-56).

The expedition returned to the Naches River on July 7th, 1841. They saw the chief again on the 8th. He joined the party returning to Nisqually. Pickering did not think he was an important chief, as his "town consisted of only five or six cabins" (Barry 1929:63). After they had regained their earlier path a few miles above the chief's town, they had no difficulty in crossing the mountain ridge, since the snow was almost gone from summit. They met a party of Indians carrying a dying man and encountered a camp where a portion of the Nisqually tribe had established themselves. They returned to Fort Nisqually on July 15th, 1841 (Barry 1929:54-63).

Brackenridge, the Wilkes' expedition horticulturist, also kept a journal. His observations would be of more interest had he been more interested in determining the native use of many of the plants he observed and collected. As it is, his remarks simply parallel those of other expedition participants, although he adds detail to the conditions of the trail and effects of the poor weather on the return journey, effects he regarded as much more detrimental than did Pickering. Brackenridge's major concern was for the collection and care of his specimens.

> July 8th. We had a great many difficult passes to make along the rocky banks of the river. Crossed over to its south bank where we came upon the Camp of the old Chief Tobias, who had on our way out sold us some Horses, recrossed the river again and at 10 got up to the path where we struck off on our way to Okanagan. The water in the river we found very much subsided from what it was at that time.

9th. The Old Chief Tobias, his Son and four horses joined our party in order to accompany us to the Nesqually. The pack Horse carrying the Botanical specimens got into the river and before we could drive him back swam to the opposite side. One of our Indians threw off his coat and crossed after him, & by a good deal of trouble succeeded in getting him over again to the party. The plants being in Gum elastic bags were not the least injured, which was fortunate.

At one o'clock P.M. arrived at the place on the Spipen at the base of the range of Mts. where the first party encamped on the 17th of May to await Mr. Johnsons arrival; here we halted for a short time and then set forward to reach if possible the summit of the ridge before dark, which we effected. The snow had entirely disappeared with the exception of a few lumps under Spruce trees. The plants were now in all their beauty, Ranunculus, Cla[y]tonia, Caltha [marsh marigold], Menziesia [fools huckleberry], Vaccinium, and Helonias tenax [*Xerophyllum tenax*], all vied with each other. The height of this range at the highest point we pass'd close upon 6000 feet, while that near the Eyakema, where the Baromiter got broke[n], is 6000 in full.

10th. On the west side of the range we found the snow more plentiful than on the east, although vegetation on both sides appeared much in the same stage of advance. It rained very hard today so that by the time we reached the small prairie where the parted [party?] halted to recruit the horses on the way out - we were all drenched to the Skin.

11th. Near Mid-day before we struck our tents, on account of the morning being wet, which gave us a chance of picking up a few plants, there being no opportunity to do so on the march from the rapidity with which we proceeded, all having enough to do taking care of his person and Horse among a multitude of Logs, Rivers and precipices. The weather still continues to be wet; found the river had fallen very much.

12th. Continued to rain in torrents, which made the roads very bad & broke down several of our Horses, as also that of the Old Chief which we were compelled to leave in the bush.

13th. Weather much the same as yesterday; every thing except what was in Gum elastic bags was wet through, so that at night we all fared very uncomfortable.

14th. Cross'd the Smalocho [White River], and reached the flat meadow land which borders on the Nesqually plains, here we encamp'd for the night, this day was very fine, which dried all our clothes.

> 15th. On the afternoon of this day the party reached Fort Nesqually, being absent exactly sixty days from the Ship [Sperlin, ed. 1931:56].

This journey became part of the oral history of the Muckleshoot tribe (Pierce County Pioneer Association 1906). Apparently, Chief Koquilton described the pass and trail across the mountains for the expedition. Chief Koquilton's brother, Lasimeer, and nephew, Pattiewow, went with the expedition. The journey was commemorated at the Pierce County Pioneer Commemorative Celebration on July 5, 1906, at which Slugamus Koquilton, son of the chief, was present and honored.

In 1852, John Edgar, a former Hudson's Bay Company shepherd, was in the party of four explorers in the Mount Rainier vicinity. No Indian guide has been named for this group. However, Edgar was married to a Klickitat woman and had in-laws across the mountains (Haines 1962:13; *Olympia Columbian* 1852). He would have been familiar with some of the Klickitat trails. He may have made several undocumented trips across the mountains.

In 1853, three different expeditions crossed the Cascades and Naches Pass (Meany 1913(5):40-41). During the month of August, the private journey of Theodore Winthrop overlapped with that of engineer McClellan's search for a railroad route. A pioneer wagon train expedition followed in October. Although none of these expeditions entered the Park area, they do suggest the frequency with which cross-Cascades travel occurred in the vicinity and the nature of the environment encountered.

Winthrop (1955) wrote a popular and dramatized account of the trip called *Canoe and Saddle,* which was first published, posthumously, in 1862. The manuscripts he left were edited at least three additional times; the final edition (Winthrop 1955:v-xiv) has been used as a reference herein.

Although Winthrop's (1955) works contain ethnographic data, they are couched in very dramatic Victorian prose, and it is difficult to distinguish what was actually seen from what was created through literary license. Schullery (1983:100-108) attempted to determine to what degree Winthrop and his editors changed the manuscript and published information about a lack of game in his travels from that that had been recorded in his journals. Schullery concluded that Winthrop had overstated the hardships of the journey and the lack of food.

McClellan had been charged to explore the Cascades, but did not satisfactorily accomplish the task (Albright 1921; McClellan 1854; Meany 1913). Winthrop encountered the McClellan expedition on the Naches River trail (Winthrop 1955:116) and observed the party taking measurements of the pass (Overmeyer 1941:31). McClellan named Mt. Stuart, a peak to the northeast of Mount Rainier. However, the McClellan party did not go more than one mile west on the Naches trail beyond the pass. In fact, the party missed several Cascade passes by

staying out of the mountains due to a fear of snow. Scholars of the period have concluded that the expedition director, McClellan, while well liked and well outfitted, was timid (Overmeyer 1941:54-60).

McClellan thought the mountains nearly impassable (McClellan 1854), and Winthrop called his route the "Via mala" (bad road) (Winthrop 1955:113-123). Neither explorer credited Indian knowledge of the territory sufficiently to follow it. Thus began the myth of the impregnability of the Cascade Range, despite all other evidence to the contrary, both Indian and non-Indian (Bancroft 1890:384-386). However, as Meany pointed out, Naches Pass was not so impassable if the pioneers who crossed Naches Pass in October of 1853 managed to cut a wagon road over the pass in three weeks, even if some of the wagons had to be lowered by ropes down some steep descents (Meany 1913). One of the pioneers was James Longmire, possibly the first settler within the boundary of the Park and a man who apparently had some respect for Indian knowledge. Longmire left some interesting observations regarding early relationships between settlers and Indians:

> All relished them [salmon] but my wife, who was indisposed, but she was fortunate enough in finding an Indian who had just killed a pheasant, which she bought - her first purchase on Puget Sound, and which caused more merriment in our party, as the Indian was a perfect nude [Longmire 1932:133].
>
> We crossed the river and went to Yelm Prairie, a beautiful spot, I thought, as it lay before us covered with tall waving grass, a pretty stream flowing through it bordered with shrubs and tall trees, and the majestic mountain, which the Indians almost worshipped, and to which they gave the name Ta-ko-bed, as it seemed standing guard over all in its snowy coat [Longmire 1932:134].
>
> Arriving at home, we found a large number of Indians camped nearby, and about thirty of them came the first night to examine things new to them, which they did, expressing surprise, or satisfaction, by grunts and guttural sounds, which were Greek to us.
>
> I will refer more particularly to the Nisqually tribe, whose chiefs were Leschi, and Quiemuth, this being the tribe with which I was associated more than any other. Matters seemed to go smoothly till the Treaty was made in the fall of 1854. A council was held at Medicine Creek, at the mouth of the Nisqually, for the purpose of making this treaty, the terms of which are familiar to every pioneer of the new State of Washington. From day to day they met, till the treaty was made by which the Indians were to receive certain lands of their own choice, reserved from the public domain for them and their children so long as the tribe should exist. This seemed satisfactory for a while, but emigrants coming in larger numbers caused

> the Indians to grow jealous and encouraged by persons unfriendly to the settlers, they began to appear less friendly to us, frequently telling us that the Klickitats were getting ready for war upon the whites, but assuring us that the Nisqually's would never join them and would always be friendly to the white settlers. In the spring after the treaty, Quiemuth and Stayhi came to us and complained that the settlers did not give them enough for their work, saying in Chinook that the "Bostons" were bad people, but the King George Men, as they termed the Hudson's Bay Company, were good, and had been here a long time and had never stolen land; now the "Bostons" come and were fencing, and stealing the land from the Indians [Longmire 1932:135].

Relationships between settlers and Indians and among Indians from several tribes had been deteriorating in the late 1840s and early 1850s, as the Hudson's Bay Company and British rule were replaced by American settlers and the United States government. The frequency of cross-Cascades travel that resulted from the unrest is apparent in a number of documents from the time (Bagley 1980 [1905]; Denny 1909; Meany 1913). Names of Indian leaders commonly reported in west-side newspapers during this time include Lahalet, Leschi, Quiemuth, and Wyampch of the Nisqually, Pat Kanem of the Snoqualmie, Owhi and his son Qualchin of the Upper Yakama, and Kamiakin of the lower Yakama (Denny 1909). All these leaders were familiar with mountain travel and with the vicinity of Mount Rainier. It is likely that they crossed the mountains along trails and passes that they had used traditionally. Cayuse and Chinook Passes were considered to be controlled by the Yakama (Brown 1920; Hines 1992).

In the summers of 1855 and 1856, several parties of army troops also crossed Naches Pass during the "Indian war of 1855-56" (Meany 1913). Though some crossings were successful, other attempts were not completed due to events associated with the war or because of snowfall on the east side of the pass.

In 1856, Kautz served as a guard for Chief Leschi and learned about Mount Rainier from him (Haines 1962:21-27; Kautz 1875:393-394). Since Leschi could not act as a guide because he had been convicted of insurrection and murder, Kautz hired Wapowety as a guide on Leschi's recommendation. In July of 1857, the Kautz party followed an old Indian trail to the forest between the Nisqually Plains and Mount Rainier. The trail passed along prairies, first a camas prairie called *Pawtumni*; then another called *Koaptil.* They followed a small stream flowing from the present Tanwax Lake, called *Tanwut,* and camped at Mishawl Prairie, where Wapowety hunted for fresh meat. However, Wapowety did not know the high territory, and the party did not ascend all the way to the summit. They had a difficult journey and suffered from hunger, due to a lack of sufficient provisions, at times eating only berries, where they could find them.

Kautz (1875) was the first to record several geologic processes and observe the dynamic nature of the landscape:

> For several miles before camping the bed of the stream was paved with white granite boulders, and the mountain gorge became narrower and narrower. The walls were in many places perpendicular precipices, thousands of feet high, their summits hid in the clouds. Vast piles of snow were to be seen along the stream - the remains of avalanches - for earth, trees, and rocks were intermingled with the snow [Kautz 1875:397].
>
> We followed thus far the main branch of the Nesqually, and here it emerged from an icy cavern at the foot of an immense glacier. The ice itself was of a dark-blue tinge. The water was white, and whenever I waded the torrent my shoes filled with gravel and sand. The walls of this immense mountain gorge were white granite, and just where the glacier terminated, the immense vein of granite that was visible on both sides seemed to form a narrow throat to the great ravine, which is much wider both above and below. The water seems to derive its color from the disintegration of this granite [Kautz 1875:398].
>
> The noise produced by the glacier was startling and strange. One might suppose the mountain was breaking loose, particularly at night. Although, so far as stillness was concerned, there was no difference between day and night, at night the noise seemed more terrible. It was a fearful crashing and grinding that was going on, where the granite was powdered that whitened the river below, and where the bowlders were polished and partially rounded [Kautz 1875:401].

During the descent from the mountaintop along the Nisqually Glacier and River, the party stopped at an old Indian campsite. They improvised a shelter from cedar bark left at the location.

> We passed another of our camps, and finally stopped at what evidently had been an Indian camp. The cedar bark, always to be found in such places, we anticipated would make a shelter for us in case of rain, which the clouds promised us [Kautz 1875:402].

The first recognized ascent of Mount Rainier did not occur until 1870 (Haines 1962:207-215). It was accomplished by Hazard Stevens and Philemon B. Van Trump with Sluiskin, a Yakama Indian, serving as a guide (Stevens 1916 [1876]). James Longmire led the party as far as Bear Prairie, just south of the Park boundary. A third member of the party, Edmund T. Coleman, only ascended as far as Bear Prairie (Haines 1962:208). This is probably the most detailed account of the exploration of Mount Rainier that includes an Indian guide and his perspective on the situation. The rather lengthy account is both summarized and quoted below and contains a considerable amount of ethnohistoric information. The ascent also had a significant role in developing non-Indian perspectives

about Indian relationships to Mount Rainier. These are discussed in *Tahoma Legends* (Blukis Onat 1999b).

Longmire pointed out locations to the travelers where events had occurred related to the Indian war of 1856 and the locations of former Indian residences (Stevens 1916[1876]:517). Longmire also assisted in finding an Indian guide for the party.

> Bear Prairie....The following day Longmire and the writer went down the canyon [Nisqually] to its junction with the Cowlitz River, in search of a band of Indians who usually made their head-quarters at this point, and among whom Longmire hoped to find some hunter familiar with the mountains who might guide us to the base of Takhoma [Stevens 1916(1876):518].
>
> With extreme toil and difficulty we made our way, continually wading the torrent, clambering over broken masses of rock which filled its bed, or clinging to the steep hill-sides, and reached the Cowlitz at length after twelve miles of this fatiguing work, but only to find the Indian camp deserted. Further search, however, was rewarded by the discovery of a rude shelter formed of a few skins thrown over a frame-work of poles, beneath which sat a squaw at work upon a half-dressed deer-skin. An infant and a naked child of perhaps four years lay on the ground near the fire in front. Beside the lodge and quietly watching our approach, of which he alone seemed aware, stood a tall, slender Indian clad in buckskin shirt and leggings, with a striped woolen breech-clout, and a singular head garniture which gave him a fierce and martial appearance. This consisted of an old military cap, the visor thickly studded with brass-headed nails, while a large circular brass article, which might have been the top of an oil-lamp, was fastened upon the crown. Several eagle feathers stuck in the crown and strips of fur sewed upon the sides completed the edifice, which, not withstanding it components, appeared imposing rather than ridiculous. A long Hudson Bay gun, the stock also ornamented with brass-headed tacks, lay in the hollow of the Indian's shoulder.
>
> He received us with great friendliness, yet not without dignity, shaking hands and motioning us to a seat beneath the rude shelter, while his squaw hastened to place before us suspicious-looking cakes of dried berries, apparently their only food. After a moderate indulgence in this delicacy, Longmire made known our wants. The Indian spoke fluently the Chinook jargon, that high-bred lingo invented by the old fur-traders. He called himself "Sluiskin" and readily agreed to guide us to Rainier, known to him only as Takhoma, and promised to report at Bear Prairie the next day. It was after seven in the evening when we reached camp thoroughly fagged.

Punctual to promise, Sluiskin rode up at noon mounted upon a stunted Indian pony, while his squaw and papooses followed upon another even more puny and forlorn. After devouring an enormous dinner, evidently compensating for the rigors of a long fast, in reply to our inquiries he described the route he proposed to take to Takhoma. Pointing to the almost perpendicular height immediately back or east of our camp, towering three thousand feet or more overhead, the loftiest mountain in sight, "We go to the top of that mountain to-day," said he, "and to-morrow we follow along the high, backbone ridge of the mountains, now up, now down, first on one side and then on the other, a long day's journey, and at last, descending far down from the mountains into a deep valley, reach the base of Takhoma." Sluiskin illustrated his Chinook with speaking signs and pantomime. He had frequently hunted the mountain sheep upon the snow-fields of Takhoma, but had never ascended to the summit. It was impossible to do so, and he put aside as idle talk our expressed intention of making the ascent [Stevens 1916(1876):519].

Sluiskin led the way. The load upon his shoulders was sustained by a broad band passing over his head, upon which his heavy, brass-studded rifle, clasped in both hands, was poised and balanced. Leaving behind the last vestige of trail, we toiled in single file slowly and laboriously up the mountain all the afternoon. The steepness of the ascent in many places required the use of both hand and foot in climbing, and the exercise of great caution to keep the heavy packs from dragging us over backwards.

Sluiksin led us along the side of the ridge in a southerly direction for two miles farther, to a well-sheltered, grassy hollow in the mountain-top, where he had often previously encamped. It was after dark when we reached this place. The usual spring had gone dry, and parched with thirst, we searched the gulches of the mountain-side for water an hour, but without success. At length the writer, recalling a scanty rill which trickled across their path a mile back, taking the coffee-pot and large canteen, retraced his steps, succeeded in filling these utensils after much fumbling in the dark and consequent delay, and returned to camps. He found Van Trump and the Indian, anxious at the long delay, mounted on the crest of the ridge some two hundred yards from camp, waving torches and shouting lustily to direct his steps. The mosquitoes and flies came in clouds, and were terribly annoying. After supper of coffee and bread, we drank up the water, rolled ourselves in our blankets, and lay down under a tree with our flags floating from the boughs overhead. Hot as had been the day, the night was cold and frosty, owing, doubtless, to the altitude of our camp [Stevens 1916(1876):520].

Sluiskin led the two climbers on the highest ridge between the headwaters of the Nisqually and Cowlitz Rivers, where some snow could still be seen among many

wildflowers (Stevens 1916[1876]:520-21). The party repeatedly ate berries. The countryside was obscured by smoke from heavy fires in the Cowlitz valley.

> ....After an hour's rest and a hearty repast we resumed our packs, despite Sluiskin's protests, who seemed tired out with his arduous day's toil and pleaded hard against traveling farther.....[at Clear Creek]....We camped, as the twilight fell upon us, in an aromatic grove of balsam firs. A grouse, the fruit of Sluiskin's rifle, broiled before the fire and impartially divided, gave a relish to the dry bread and coffee. After supper we reclined upon our blankets in front of the bright, blazing fire, well satisfied. The Indian, when starting from Bear Prairie, had evidently deemed our intention of ascending Takhoma too absurd to deserve notice. The turning back of Mr. Coleman only deepened his contempt for our prowess. But his views had undergone a change with the Day's march. The affair began to look serious to him, and now in Chinook, interspersed with a few words of broken English and many signs and gesticulations, he began a solemn exhortation and warning against our rash project.
>
> Takhoma, he said, was an enchanted mountain, inhabited by an evil spirit, who dwelt in a fiery lake on its summit. No human being could ascend it or even attempt its ascent, and survive. At first, indeed, the way was easy. The broad snow-fields, over which he had so often hunted the mountain goat, interposed no obstacle, but above them the rash adventurer would be compelled to climb up steeps of loose, rolling rocks, which would turn beneath his feet and cast him headlong into the deep abyss below. The upper snow-slopes, too, were so steep that not even a goat, far less a man, could get over them. And he would have to pass below lofty walls and precipices whence avalanches of snow and vast masses of rock were continually falling; and these would inevitable bury the intruder beneath their ruins. Moreover, a furious tempest continually swept the crown of the mountain, and the luckless adventurer, even if he wonderfully escaped the perils below, would be torn from the mountain and whirled through the air by this fearful blast. And the awful being upon the summit, who would surely punish the sacrilegious attempt to invade his sanctuary, - who could hope to escape his vengeance? Many years ago, he continued, his grandfather, a great chief and warrior, and a mighty hunter, had ascended part way up the mountain, and had encountered some of these dangers, but he fortunately turned back in time to escape destruction; and no other Indian had ever gone so far [Stevens 1916(1876):520-521].

The party established a base camp the following day, where they observed an unusual event, commonly known as St. Elmo's Fire:

> Our camp was pitched on a high knoll crowned by a grove of balsam firs, near a turbulent glacial torrent. About nine o'clock, after we had lain down for the night, the firs round our camp took fire and suddenly burst out in a

vivid conflagration. The night was dark and windy, and the scene - the vast, dim outlines of Takhoma, the white snow-fields, the roaring torrent, the crackling blaze of the burning trees - was strikingly wild and picturesque.

In honor of our guide we named the cascade at our feet Sluiskin's Falls; the stream we named Glacier Creek, and the mass of ice whence it derives its source we styled the Little Nisqually Glacier [Stevens 1916(1876):523].

On August 17, 1870, Stevens and Van Trump began the ascent. They described perils encountered, including much loose falling rock, ice fields, ridges, wind, and smoke seen around the base of the mountain. They reached a windy Peak Success and found warmth by steam jets in an ice cave formed from the heat, where they spent the night. They deposited a brass plate at Crater Peak, found an additional crater, and named a third peak Takhoma to perpetuate the Indian name of the mountain. Van Trump was injured descending from the peak, not far from the base camp (Stevens 1916[1876]:524-527).

....thither with great pain and very slowly he managed to hobble. Once there I soon started a blazing fire, and coffee, and roasted choice morsels of a marmot, Sluiskin having killed and dressed four of these animals during our absence. Their flesh, like the badger's, is extremely muscular and tough, and has a strong, disagreeable, doggy odor.

Towards the close of our repast, we observed the Indian approaching with his head down, and walking slowly and wearily as though tired by a long tramp. He raised his head as he came nearer, and, seeing us for the first time, stopped short, gazed long and fixedly, and then slowly drew near, eying us closely the while, as if to see whether we were real flesh and blood or disembodied ghosts fresh from the evil demon of Takhoma. He seemed both astonished and delighted to find us safe back, and kept repeating that we were strong men and had brave hearts: "Skookum tilicum, skookum tumtum." He expected never to see us again, he said, and had resolved to start the next morning for Olympia to report our destruction.

We found many fresh tracks and signs of the mountain-sheep upon the snow-fields, and hair and wool rubbed off upon rocks, and places where they had lain at night. The mountain-sheep of Takhoma is much larger than the common goat, and is found only upon the loftiest and most secluded peaks of the Cascade Range. Even Sluiskin, a skillful hunter and accustomed to the pursuit of this animal for years, failed to kill one, notwithstanding he hunted assiduously during our entire stay upon the mountain, three days. Sluiskin was greatly chagrined at his failure, and

> promised to bring each of us a sheep-skin the following summer, a promise which he faithfully fulfilled [Stevens 1916(1876):527].

Because of Van Trump's injury, Stevens and Sluiskin left him with some marmot to eat. Stevens insisted on a new route to Sluiskin, and it only took them six hours to descend. From this Stevens concluded that Sluskin knew the territory very well and chose to guide the party according to his own purposes (Stevens 1916[1876]:528-29).

> Without his help on the shorter route, too, it would have taken me more than twice the time it did. For the manner in which, after entering the defile of the Nisqually, Sluiskin again took the lead and proceeded in a direct and unhesitating course, securing every advantage of the ground, availing himself of the wide, rocky bars along the river, crossing and recrossing the milky flood which rushed along with terrific swiftness and fury, and occasionally forcing his way through the thick timber and underbrush in order to cut off side bends of the river, and at length leaving it and striking boldly through the forest to Bear Prairie, proved him familiar with every foot of the country. His objections to the route evidently arose from the jealousy so common with his people of further exploration of the country by the whites. As long as they keep within the limits already known and explored, they are faithful and indefatigable guides, but they invariably interpose every obstacle their ingenuity can suggest to deter the adventurous mountaineer from exposing the few last hidden recesses that remain unexplored.
>
> At daylight next morning, Sluiskin, with his little boy riding one of his own ponies, himself riding our little calico-colored pack-horse, now well rested and saucy, started back for Van Trump, with directions to meet us at the trail on the Nisqually. A heavy, drizzling rain set in soon afterwards. Mr. Coleman, who had gone early to bring in the contents of his mountain-top caches, returned about noon with a very small bundle, and, packing our tarps upon Sluiskin's other pony, we moved over to the rendezvous, pitched Coleman's large gum-sheet as a partial shelter, made a rousing fire, and tried to be comfortable. Late in the afternoon the pony set up a violent neighing, and in a few minutes Van Trump, and Sluiskin with his little boy behind him, rode up, drenched to the skin. By following the bed of the river, frequently crossing and recrossing, the Indian had managed to ride to the very foot of the Nisqually defile, when, leaving the horses in his boy's care, he hastened to Van Trump and carefully led and assisted him down. Despite the pain of his severe hurts, the latter was much amused at Sluiskin's account of our trip, and of finding Mr. Coleman safe in camp making tea, and for long after would repeat as an excellent joke Sluiskin's remark on passing the point where he had attempted to mislead me, "Skookum tenas man hlyu goddam" [Stevens 1916(1876):529].

At the end of the journey, it appears that both Stevens and Sluiskin had achieved respect for one another. Because they had survived the climb to the summit, Sluiskin probably thought that the white men had strong spirit power. Stevens' assessment of Sluiskin was to regard him as an unusual personage:

> Sluiskin was an original and striking character. Leading a solitary life of hardships amidst these wilds, yet of unusual native intelligence, he had contrived, during rare visits to the settlements, to acquire the Chinook jargon, besides a considerable stock of English words, while his fund of general information was really wonderful. He was possessed of a shrewd, sarcastic wit, and, making no pretense to the traditional gravity of his race, did not scruple to use it freely. Yet beneath this he cherished a high sense of pride and personal independence. Although of the blood of the numerous and powerful Yakimas, who occupied the country just east of the Cascades, he disdained to render allegiance to them, or any tribe, and undoubtedly regarded the superintendent of Indian affairs, or even the great father at Washington himself, with equally contemptuous indifference [Stevens 1916(1876):530].

In 1858, William Packwood and James Longmire explored the old Indian trail up the Nisqually River to Bear Prairie for the purpose of building a road across the Cascades south of Mount Rainier, from Yelm Prairie to the Naches River (Packwood 1859). Blazes along the trail served to guide travelers on the Old Packwood Trail [in later years the Yelm Trail] to Mount Rainier for more than 20 years (Haines 1962:29-30) (Figure 3).

In 1883 and 1884, Indian Henry guided Longmire and other settlers up Mount Rainier. Indian Henry was sometimes described as a Chief of the Klickitats (Lindsay 1933). Between 1884 and 1892, Indian Henry and his relations also helped Longmire clear the trail and, later, to build a road, from Mashel Prairie to Longmire Springs (Haines 1962:79, 160).

> The origin of Indian Henry's "white" name is given in Herbert Junt's History of Tacoma (p. 337), from which it appears that James Longmire, James Packwood and Henry Windsor were returning from a trip over the Cascade Mountains during the sixties when they met an Indian of the upper Cowlitz band of Klickitats on Skate Creek, south of Mount Rainier. Upon asking his name, they were told it was "Sotulick." Windsor then asked his "Boston name" and was told he didn't have one, whereupon Windsor gave him one - Henry - because he thought the Indian name too difficult [in Haines 1962:222[4]].

Indian Henry had a farm at Mashel Prairie, 18 miles from Yelm. In 1888, a climbing party that stopped at Indian Henry's farm described him as a "mild-

[4] Note 10: Nels Bjarke, "The Indian Henry Trail," mimeographed by the Fern Hill Historical Society (Tacoma, 1940), p. 6.

looking, smallish man with three wives, three fields, and horses, oats, wheat and vegetables" (Haines 1962:87-129). Mountain climbers in 1888, 1889, and 1890 stayed at Indian Henry's farm in the barn. The trail to Mount Rainier from the farm was later known as Indian Henry's trail (Brockman 1929:7(13)3-4; Landes 1924:2(8)3). Indian Henry frequently interacted with early settlers and explorers and hunted in what became the Park (Haines 1962:87-94). It is likely that this interaction earned him a named place, Indian Henry's Hunting Ground, within the Park. Over time, Indian Henry entered the realm of myths and legends about the Park (McCully 1910; Schmoe 1926:4(13)4-7).

One additional event that provided evidence of intimate Indian knowledge of Mount Rainier occurred in 1886, when a young white man, A.L. Brown, went on an annual hunting trip with about 30 Yakama Indians (Brown 120:49) (Figures 17 and 18). The hunting party crossed the Cascades through Packwood Pass, going north up the Ohanapecosh Valley to the Cowlitz Divide. This was considered one of best hunting grounds, although lack of game that year led the party to hunt near the snow line. The more adventurous young men suggested going up to the top of Mount Rainier. Seven or eight men, including Brown, made the climb. They followed the Indian Trail on the Cowlitz Divide to the lower end of Whitman Crest, skirting the end of Ohanapecosh Glacier. They ascended to the ice field now called Whitman Glacier, crossing it and the ridge between the Whitman and Ingraham Glaciers and dropping down onto Ingraham Glacier. At an elevation of 8,500 feet, they crossed to the south side.

The group used horses as far as the near side of Ingraham Glacier, then sent the horses back to the camp at timberline (Brown 1920:50). The men climbed up the west slope of Cathedral Rocks on Ingraham Glacier, following well-defined goat trails. They followed one very narrow ledge, 40-60 feet long, and climbed over snow to the top. They did not try to reach the highest pinnacle. The snow was rough and granular, and walking was comparatively easy. The men wore Indian moccasins; some had alpenstocks cut from mountain ash and other shrubbery along the wooded spots. They took rations and axes and carried one or two lariats to use in case of an emergency.

The group descended by retracing their steps. They spent one night at the base of a rock called Gibraltar, where they found a sheltered place. The following morning, they descended to rejoin the hunting party and continued hunting in the mountains for six more weeks. Brown (1920:50) noted that all the Indians had been educated at the Yakama Reservation and had no superstitions regarding the spirit of the mountain.

> ...as far as I was concerned this mountain climb was just a lark with me. I was out with a crowd simply to be doing something. It has never occurred to me as being of any historical value, and it is reasonably certain that the Indians never gave it a thought [Brown 1920:50].

The remaining expeditions to Mount Rainier did not use the services of Indian guides. By the late 1800s, enough non-Indians had ascended the mountain that Indian guides were no longer used. A non-Indian mythology about Indian fear of the summit also had developed by then (see *Tahoma Legends* [Blukis Onat 1999b]), a myth that obscured the actual knowledge that many Indian people held of the mountain.

Data Compiled Since Smith's Study

A number of studies relating to cross-mountain travel have been conducted since 1964, most of them in the context of Forest Service cultural resource management studies. Work in native oral history on the use of the Cascades began in the mid-1960s and provided data about the economic use of the mountains. Although much of the recorded information is for Forest Service lands beyond Park boundaries, data regarding Mount Rainier did filter into these works (Hajda et al. 1995; Hearne and Hollenbeck 1995; Kiona 1964-65:Cassette 4B, 5A, 5B) (Table 3 and Figures 8-13 and 16-19). The data make clear the great extent to which people on both sides of Mount Rainier interacted with each other, of necessity crossing passes in and near the Park.

Norton (1990) compiled documentation of cross-mountain travel by various tribal groups in the early 1800s from the commercial records of the fur trade at Fort Nisqually. Among the products traded were the skins of small fur-bearing mountain mammals, the meat and skins of elk, deer, and bear (also bear sinew), and dried berries and camas. At Fort Nisqually, all the tribes in Puget Sound also traded with the Klickitat, Okanagan, Pishwanapum, Wanapum, and Yakama. Norton's (1992, 1993) research regarding Yakama tribal fishing rights west of the Cascades added to the information regarding cross-Cascades travel.

Information regarding Yakama access to the summit of Tahoma was noted in legends (see *Tahoma Legends* [Blukis Onat 1999b]). A Yakama Indian identified as Jamaiakan by McDonald, the Hudson's Bay Company factor at Fort Colville, claimed that, many years before, he had climbed the mountain and fasted five days and nights on the summit (Martinson 1986:6). In the context of data about Indian knowledge of Mount Rainier, there is no reason to dispute this claim. Snowshoes made by Indians were found during at least one of the surveys of the Cascade summit (Clark 1955:312). They may have been stored in the tree in which they were found for use by individuals crossing the mountains, although the surveyors believed they had been left as a propitiatory offering.

Miners entered the high mountain areas shortly after the fur traders (McCullough 1970:40-49). As noted previously, they were usually guided by Indians familiar with the mountain areas. Silver was mined at the head of Silver Creek in the Gold Hill and Crystal Mountain areas to the northeast of the Park. One such mine was located at Glacier Basin on Mount Rainier.

Turek and Keller (1991:2-7) examined a number of myths about the role of Indian guides to Mount Rainier, their attitudes to the mountain, and the confusion in the historic record regarding the similarity in the names of a few of the guides. Turek and Keller related an incident that happened in late summer of 1915 in Yakima Park that had been widely reported in the press as "illegal hunting" by the Indians. Apparently a band of about 30 Yakama, led by an elderly chief named Sluskin, were preparing to hunt, gather food, and conduct ceremonies at Yakima Park. When approached by federal rangers, Sluskin insisted that his people reserved access to traditional hunting, fishing, and gathering at areas such as Yakima Park, and he showed the rangers a copy of the treaty. He also stated that he had led two white men on an expedition to Mount Rainier when he was a young man. In the press, Sluskin was described as the man who served as guide for the ascent of Stevens and Van Trump's 1870 expedition (McWhorter 1917:96; Turek and Keller 1991:4). The press assumed that Sluskin was claiming he had been the guide for the expedition and implied that he had lied about leading non-Indians on an expedition to Mount Rainier. The press did not compare the difference in the route described by Sluskin and that taken by Stevens and Van Trump (Turek and Keller 1991:4), nor did the press check the number of climbers in each party. Stevens and Van Trump, with four, later three persons in the party, had approached the mountain from the west, up the Nisqually River. Sluskin recalled leading two white men, although he reported that one was probably a Mexican and the other was of mixed blood and that they rode cayuses, or Indian horses (McWhorter 1917:97). The two non-Indians told him they were Governor Steven's employees, sent to survey a reservation. Sluskin led them to the mountain where game was abundant, fishing was good, and the hunting was excellent. This would date the expedition to approximately 1854 (Haines 1962:207).

Sluskin clearly described a route up the Tieton Valley, then up Bumping River and across the Cascade crest to the White River drainage. He led the climbers around to the south slopes of Mount Rainier, then north for an ascent on Emmons Glacier via the Winthrop Glacier (Figure 5). After the men ascended the mountaintop, Sluskin left them at the camp they had made at the foot of the north side of the mountain (McWhorter 1917:98-99). Compared to other journeys, this one appeared to have been easy and covered considerably more of the area around Mount Rainier than any other.

Sluskin was aware of another exploring party of four white men, a few years later, that ascended the Cowlitz River (McWhorter 1917:99-100). The party, which included "old man Longmire," was searching for a mine found by an Indian named Poniah. Sluskin met with several other Indian chiefs regarding the exploration of the territory. He also noted that he was not related to the Sluiskin who guided Stevens and Van Trump in 1970. However, Sluiskin was related to Sluskin's wife; he was her half-brother on the father's side (McWhorter 1917:100).

Turek and Keller (1991:6) also found that David Longmire, son of pioneer James Longmire, knew three different Sluskins/Sluiskins. Sluiskin, the guide in 1870, had married three wives and had drowned in the Yakima River at the turn of the century (Haines 1962:50). Sluskin, the Yakama hunter and son of a chief named We-owkt, was apprehended by the ranger in the Park (McWhorter 1917:100; Turek and Keller 1991:6). A Columbia River Indian named Sluskin was hanged in 1878 for involvement in murders in Yakima County.

McWhorter, an ethnohistorian who spoke Sahaptin, interviewed Sluskin the hunter four times, with two interpreters, and attempted to set the record straight (McWhorter 1917; Turek and Keller 1991:6). McWhorter became Sluskin's friend and collected the chief's speeches and enough information to write a biography. He also petitioned for the Indian name, Tahoma, for the mountain, during the hearing in the early 1900s. In one of the speeches collected by McWhorter, Sluskin spoke eloquently of his feelings for and relationship to Mount Rainier:

> Back here is a great mountain, Tahoma, where it starts the water; the Yakima River. A greater water, is below here, the N'che-wanna [Columbia] where the fish come up from the ocean. From Tahoma the water starts cold and clear. This water is to keep the salmon from dying. They cannot live in bad water. The pure water is sent from Tahoma for the fish and for the life of every thing here. The whole earth was created with the law of light and darkness. Laws were given for the Indian. Laws governing the food. When a child is born, it knows these laws - roots and berries. When he becomes a man, he knows how to hunt; how to get fish from the water, how to get yah-mas from the mountains. The law was made with the earth and we keep them on our minds always [Turek and Keller 1991:6].

The area Sluskin was so concerned about, then known as Yakima Park, became a tourist development called Sunrise. The old name has been retained for the end of the road at Sunrise.

Turek and Keller (1991:5) found that there were similar problems of misidentification or errors in communication regarding Indians and Indian names in the non-Indian press. They found that information regarding Indian guides to Mount Rainier was either in error, misleading, or entirely absent. They compiled a timeline of expeditions, with the names of Indian guides and their tribal affiliation. Table 10 is based on Turek and Keller's (1991:3-4) information and includes information derived from several other published timelines of the 19th century exploration of the Mount Rainier area (Buerge 1984b; Carpenter 1994:82-93; Kirk 1968:44-50; Martinson 1966:10).

Summary

The journals of early explorers to Mount Rainier contain excellent ethnohistoric data regarding Indian knowledge of the mountain. However, as noted previously, some familiarity with the mountain environment is necessary to interpret this information. The data can be subdivided into a few categories, which are discussed below.

Foods and other resources. Although each group that encountered the mountain did not experience the full range of the foods available on the slopes of Mount Rainier, animals hunted and consumed included deer, elk, mountain goat and sheep, marmot, grouse, and salmon trout. Huckleberries, sallal berries, shallon, camas, and wild parsnip were available. Berries and meats were eaten fresh, dried, and in cakes. The latter sometimes were obtained from Indians along the route and sometimes were taken along as provisions. Some foods not native to the mountains, such as dried cockles, dried salmon, coffee, and bread also were taken along as provisions. Foods were prepared by boiling in cedar bark kettles or roasting on spits. Medicines also were to be found in the mountains, both below and above the timberline.

The explorers regularly made note of recently burned areas or areas where there appeared to be fires in the distance. It is quite possible that, as many expeditions took place in the late summer, huckleberry areas were being set on fire to improve yield in subsequent years.

Shelters. For the most part, there is little mention of the kinds of shelter available during the journeys. Occasionally, camps were shared with Indians met along the route in the lower valleys, and permanent resource harvesting locations and rock overhangs were known, and temporary structures were created from cedar bark found at reused camp sites along the route.

Reasons given by Indians for acting as guides. Some Indian individuals apparently accompanied the expeditions for wages, acting as porters and carrying large loads. However, one of the primary reasons for Indians to accompany the exploring expeditions appears to have been the opportunity to combine wage labor with hunting. The locations where game of different kinds could be expected were known, even when the game was unavailable during the few days expended on journeys focused on climbing a mountain. Most hunting trips took longer. Although Sluiskin did not manage to provide Stevens with a mountain goat during the 1870 expedition, he provided Stevens with mountain goat skins from a later trip, when hunting was the focus of activity. Meat, skins, and grease were all important items for trade.

Table 10. Indian Guides to Mount Rainier.

Date	Name	Tribe	Expedition
1833	Lachalet, his nephew Lashima; Nuckalkat Quilniash, his relative	Nisqually; Puyallup natives of Mount Rainier area	Tolmie botanical expedition; traveled up Mowich River, climbed Mount Pleasant
1841	Pierre Charles, Indian and French Canadian	Hudson's Bay Co. employee	Wilkes Expedition; Lt. R. Johnson; Naches Pass
1852	no mention	no mention	R. Bailey, S. Ford, J. Edgar, and B. Shaw
1853	Loolowcan, son of Owhigh	Klickitat	Winthrop expedition
1854 or 1855	Saluskin	Yakama	two surveyors up Tieton drainage
1857	Wah-pow-e-ty, instructed by Leschi	Nisqually	Kautz travelled the Nisqually route above Mashel
1870	Sluskin/Sluiskin	Klickitat/Yakama	Stevens and Van Trump; first successful summit ascent
1870	no mention	no mention	Longmire and Evans
1883	group from Yakama hunting party nearly climbed the peak	Yakama	Allison Brown
1883-84	Sotolick or Indian Henry	Klickitat	Longmire, Bayley, Van Trump, Ewing; discovered Longmire Springs

Another reason for the activity was the opportunity to engage in trade. Initially trade included many items of food and clothing and could continue the length of the journey. Purchase or use of horses for hire was of considerable significance, especially for peoples of eastern Washington. All tribal traders were known as persons who bargained and negotiated with intensity. In the early days, all agreements also had to be acknowledged with a potlatch.

Finally, some travel across the mountains included visits by families intent on passing on the knowledge of resources and traditions. Some of these resources were located in the Park. Some traditions included the cross-mountain transport of the sick and elderly to wherever they wished to be at their time of death.

Indian knowledge of available resources, shelters, and travel routes. Optimum camping spots apparently were reused and well known. It is likely that, due to the dynamic nature of the landscape, such locations altered quite frequently. However, one of the functions of an Indian guide was to identify adequate shelter from the elements. Another function was to provide food beyond that that could be carried as basic provisions. Apparently some individuals knew the mountains better than others, although it may be that only some individuals were interested in acting as guides to non-Indians, especially to non-Indians who wanted to ascend beyond the snow line.

Apparently, knowledge of travel routes by any one Indian person was focused on an area traditionally used by his ancestors. Sluiskin traveled the route within Taidnapam/Yakama territory up Mount Rainier, but took a shorter route descending, probably entering traditional Upper Cowlitz or Nisqually territory. Stevens assumed that Sluiskin was trying to be guarded about unexplored areas. Though that may have been partially true, respecting tribal boundaries probably was also important to Sluiskin. Tribal boundaries were not considered important to the explorers, who had come to regard all the territory as theirs after the treaties were signed in the 1850s. Similarly, the Yakama tended to access the higher slopes of Mount Rainier only on the east.

Distances of journeys and the time of travel were known to most explorers. Although the ascents recorded include much travel along rivers, many Indian trails follow ridge crests. Sluiskin knew how to cross rocky bars on rivers and where to leave the rivers and travel through the forest and underbrush. In the mountains of the upper Sauk River, I have been led across swift-flowing streams and upstream of riffles and low cascades by Sauk-Suiattle elder James Enick (now deceased). Edith Bedal (1903-1995), another Sauk-Suiattle elder, has led me up ridge crests and along rocky shelves on steep mountain slopes. Such detailed knowledge of the environment was apparent to the early explorers; they found that whenever they ventured away from the trail outlined by their guides, they always had to return to it, having lost time and effort in trying to find a shorter route.

There is also the issue of the reluctance of all Indian guides to attempt an ascent of the summit of Mount Rainier. Practical reasons for this abound. Without proper knowledge of the mountain and the terrain, such a climb is dangerous and can be deadly. Even now, both experienced and inexperienced climbers lose their lives on the summit nearly every year.

The sacred nature of the mountain also would require special powers for access. Although there were Indian individuals who possessed that power and could convey the knowledge, they were unlikely to lead others on such a journey without sufficient justification. It is possible that Sluiskin's songs prior to Stevens and Van Trump's ascent were prayers of apology for the disturbance to the

powers residing in and on the mountain that would be caused by the climbers, who were unaware of the effects of their actions and were not spiritually prepared. The sacred nature of Mount Rainier is discussed further in *Tahoma Legends* (Blukis Onat 1999b).

Carpenter's (1994) words of introduction to *Where the Waters Begin* describe today what has been the traditional perspective of the Nisqually people regarding Mount Rainier. That perspective addresses the sacred nature of Tahoma, the resources available on the mountain flanks, and the unique relationship that each tribe, in this case the Nisqually, had to the mountain.

> Through this writing I am going to take you up the Nisqually side of Mount Rainier and share with you my knowledge as together we climb to that part of the mountain where the trees stop growing and the eternal snowfields lie deep - to that spot marking the sacred demarcation line that encircles the entire mountain. From that vantage point we shall look upward to the three peaks of lofty Tahoma, sacred Ta-co-bet, and I shall tell you why Indian people do not desire to trespass on the holyland that lies above that sacred line.
>
> I shall share with you the beliefs of the traditional Nisqually Indian people who lived in times long past. I shall tell you of the appreciation and fear of this great mountain that my people so greatly respected. I shall relate the historical uses of the natural resources of the lower mountain slopes and identify our foothill village areas that were established on the mighty Nisqually River that feeds from its glacier high on the mountainside.
>
> My historical narrative will deal almost entirely with the Nisqually side of the mountain. It is my belief that while I may know of the historical accounts of my neighboring tribes, I cannot speak for them. I speak, therefore, only as one of my people, the Nisqually, whose moccasins have trod the paths up the mountainside in centuries past and whose memories have been passed down through the ages to the generation in which I live. I shall write this account so that my children and grandchildren will look mountainward and not forget. I shall write this account so that you, the reader, will understand why the Nisqually Indian people revere the beautiful mountain we call Ta-co-bet [Carpenter 1994:4].

ASSESSMENT

This section is divided into four parts. The first addresses conclusions regarding the ethnographic data, including both conclusions presented by Smith (1964) and conclusions that are a result of this study. The data are assessed in terms of changes in professional standards over nearly 40 years and in the context of the theoretical and methodological outlooks current in the disciplines of anthropology, native studies, and ethnohistory from 1960 to 1999. The disciplines have focused considerably beyond academic studies and research. Specialists in the areas of cultural resource management, traditional cultural properties, and courtroom experts now dominate these disciplines in the United States.

The second part includes evaluations of data sets in terms of their utility with regard to the following cultural resource management obligations under federal laws:

- American Indian Religious Freedom Act of 1978;
- Native American Graves Protection and Repatriation Act of 1990; and federal guidelines and policies;
- National Register Bulletin 38;
- NPS Management Policies of 1988 (see also USDI 1993).

The third part is a discussion of the gaps and inadequacies in the ethnographic information available for Mount Rainier National Park. The relevance of existing ethnographic documentation with respect to natural resources, cultural resources, and specific places within the park also is discussed.

The final discussion consists of recommendations. The recommendations include discussion of the specific kinds of future ethnographic studies that would include investigation of problems in ethnographic method and theory as applied to the Park. They also address applied ethnography studies that could be designed to meet the management needs of the NPS. Finally, suggestions are made regarding studies conducted in the context of tribal heritage, designed to build a permanent record of written materials and audio tapes for tribal use.

Conclusions Regarding the Ethnographic Data

Smith's (1964) Conclusions

Allan Smith (1964:30-34) was disappointed in the results of his field ethnography effort. He concluded that the meager amount of data he collected resulted from two circumstances. The first is perhaps the most significant. He

stated that he had too little time in which to identify the appropriate informants. The second related to what he called "the character of the aboriginal utilization of the Park region" (Smith 1964:33). The primary purpose for visiting high mountain territory--to pick huckleberries and to hunt mountain goat, bear, or elk--had been hindered by the Park proscription against Indian berry-picking or hunting within Park limits for many years. Because the nature of these activities involved only small groups in a continuously changing setting, he thought that extended absence from the activity location would rapidly dim the memory of its use (Smith 1964:34). Because of the proscription, he thought that few informants were likely to have information regarding the area except as a travel corridor.

Smith was surprised regarding the amount of ethnographic and ethnohistoric data that he found in the literature regarding Indian use of Park lands and resources. He concluded that additional work with informants, over a much longer period of time, would have been more productive (Smith 1964:153). From the wealth of documented data, he concluded that the first objective of his study, compiling data of use for the discovery of archaeological sites, had been met.

Smith (1964:259-65) also met his secondary objective. He demonstrated that fragments of data from varied sources, when pieced together, provided enough information to construct a fairly complete and coherent picture of Indian use of the Park. He concluded that his hypothesis regarding exploitation of even the most remote and physically rugged regions of Mount Rainier for economic pursuits was supported. Members of tribes surrounding the Park did indeed use these lands and were indeed familiar with Park topography. The Park landscape was significant as a reservoir area for deer, elk, and bear. Because these animals were less frequently hunted in high mountains than in lower areas, their populations were more readily replenished in this environment. He confirmed that, although it appeared that no group had any settlements within Park boundaries, Park lands served as a travel corridor, linking regions where human populations were more concentrated. In addition to information regarding economic pursuits, Smith (1964:265-66) found that the Park also occasionally served religious ends.

Unfortunately, the large body of ethnographic and ethnohistoric data collected did not appear to assist the archaeologists in the field work conducted later that summer. The archaeological report by Daugherty (1965), which serves as a companion study to Smith's study (1964), is very brief by comparison. The archaeological field work produced the discovery of only one rockshelter and one isolated artifact. Reasons for the apparent disparity between the wealth of Smith's data and the paucity of archaeological discoveries may rest in the assumption, common in the discipline of archaeology at the time, that the higher reaches of the Cascade Range were not utilized by native peoples except as travel corridors. This assumption is discussed further below.

The Literature Search

Very early in the project, it appeared that there would be limited substantive ethnographic data about the Park that could be added to the information that Smith had presented in his 1964 study. This was especially the case after direct work with tribes was eliminated from the project. In the course of this study, Dr. Smith was contacted by telephone in order to discuss his study and to request any additional information or thoughts he had about his 1964 work. During the conversation, Dr. Smith stated that all the data he had collected are in his 1964 report. He also stated that he had no additional field notes or materials and has not worked in Mount Rainier National Park since 1963.

Because Smith had not conducted any additional work at the Park and it was not possible to determine if the information he had collected extended into a contemporary cultural context, the focus of this study shifted from contemporary ethnography to the search for and review of ethnographic literature. The focus of this study was then to compile and review all of the sources Smith had consulted, search for and assess sources he had not included, and find and review materials and studies relating to the Park available since 1964. As was noted above, this search included all documents that had some bearing on Indian use of Mount Rainier National Park or Indian knowledge and information about Mount Rainier.

The review of Smith's sources proved to be time consuming, but not difficult. The primary location for most of these materials is the Northwest Special Collection at the Suzzalo Library of the University of Washington (UW). Although a number of documentary sources located at the UW can be found elsewhere, in the past ten years, the Northwest Special Collection has expanded its holdings and has assembled reproductions of materials that include the majority of ethnographic information relevant to the Park. For example, the Collection has a complete set of the *Mount Rainier Nature Notes*.

A few documents were accessed at the Pacific Northwest Regional Offices of the National Park Service; the Federal Archives Center in Seattle; and the Washington State Museum, Historical Society, and Historic Preservation Offices in Olympia. Many of the sources available at these institutions also could be found in the Northwest Special Collection at the Suzzalo Library.

Personal contacts were made with a number of individuals in the process of literature and documents review. Mr. David Buerge, Dr. M. Dale Kinkade, and Dr. Jay Miller were consulted. Neither Dr. Kinkade nor Dr. Miller were able to provide material regarding the Park from their own studies. Dr. Miller assisted with some linguistic and etymological information. Mr. Buerge referenced his works on Mount Rainier.

Individuals charged with cultural resource matters at the regional U.S. Forest Service offices were consulted, including Jan L. Hollenbeck, Mt. Baker-Snoqualmie National Forest; Rick McClure, Gifford-Pinchot National Forest; and Susan Marvin, Wenatchee National Forest. The author was provided with the most recent information regarding ethnographic data for each Forest. Most of the data was in the context of cultural resource management studies. These materials were located in the libraries of the Forest Service (USFS) offices in Mountlake Terrace (Mount Baker-Snoqualmie National Forest), Vancouver (Gifford-Pinchot National Forest), and Wenatchee (Wenatchee National Forest), Washington. Several of the studies reviewed make note of Mount Rainier. The only audio tapes available for the study came from the Gifford Pinchot National Forest.

Most of the USFS cultural resource studies were conducted in heavily forested lands. Because the lower elevations of Mount Rainier National Park are also forested, it can be expected that ethnographic use of forest lands adjacent to Park boundaries extended into forested lands within the Park. In addition, although few USFS lands approach the elevation of Mount Rainier, those of the high alpine plateaus around Mount Adams and Mount St. Helens on the Gifford Pinchot National Forest are at comparable elevations with the alpine zones of Mount Rainier. Hence, ethnographic uses found on lands around the volcanic peaks to the south of Mount Rainier could be expected to occur in similar environments on Mount Rainier.

Another body of data was discovered in the context of legal proceedings. Papers and reports prepared as expert testimony in the Indian Claims Commission (ICC) dockets and supporting documents, the Boldt decision, and other instances are voluminous. Much of this information is extremely useful for ethnographic research, as it often contains statements made by native people about the legal issue in question. There is also oral history data that was gathered for the proceedings that was never used and has never been published. Unfortunately, much of this information is scattered in various archives, the Bureau of Indian Affairs offices, and the offices of attorneys and tribes. Because the documents were gathered for legal proceedings, they are difficult to access as complete sets of data. The many documents and exhibits cited in the proceedings are not always available, due to loss, manner of filing, and manner of referencing that pertains to legal presentations rather than documentation of research. For this study, the ICC documents and Norton's reports for the Yakama in the shellfish proceedings in 1994 were the most useful.

The number of sources reviewed for this project were considerable. The number of sources that contained useful ethnographic or ethnohistoric information about the Park also was more than might be expected. Although it appears that the point of redundancy was achieved with respect to data regarding Indian use and mythology of Mt. Rainier, it is entirely possible that

additional material exists in a variety of places and guises. It is possible that combing through the ethnographic field notes of all anthropologists who have worked in Washington, Oregon, and British Columbia would reveal additional information, especially with respect to mythic elements and even entire myths regarding Mount Rainier. The fact that people on the Olympic Peninsula and at the northern reaches of Puget Sound had myths about Tahoma leads one to believe that any people who could see the mountain would have noted it. Were one to take this approach, the libraries and records in the Portland, Oregon and British Columbia area might also be of value. However, such a search might be akin to looking for a fish bone vomited up by Tahoma. It is there and well preserved, but the search for where it is hiding could end up in a bottomless lake (see *Tahoma Legends*, Appendix A [Blukis Onat 1999b]).

Changes in Methodology and Standards

Anthropological Models

In the tradition of the discipline of anthropology, ethnographic information of any kind should be collected in a manner that would produce an accurate representation of how any people would have related their culture and history. In this anthropological model, the ethnographer acts as a true scientist gathering data (Bean and Vane 1987:28). Native people become a research resource, and the studies are done in order to understand native culture. Within this model, the anthropologist feels that:

> The Native American has a body of data that is often quite separate and distinct from that which the ethnographer and ethnohistorian may present, hence, it is necessary for investigators and Native Americans to work in tandem. Native Americans are particularly effective in providing sensitivity training and a sense of cultural reality while investigators can provide hard data and scientific interpretations, and place the information in a larger context [Bean and Vane 1987:29].

This need to understand native people is an example of the objectification of the Indian in the context of non-Indian culture. In the perspective of most native people, such studies have a purpose contrary to their interests. The anthropologist's need to understand is seen as function of maintaining dominant social, political, and economic status, rather than as a function of integrating with existing traditional Indian practices and circumstances.

The more recently popular human ecology model adds the environmental setting of an area to the same need to understand and objectify (Crespi 1987:24-25). In this instance, the object of inquiry is a culture interacting with a specific natural setting. Because most anthropological study (ethnohistory and ethnography) focuses on minority groups (including native groups), these fields of study, especially in recent times, are seen by native people as most directly

impacting, or having the potential to impact, native culture and society. There is a sense that the information being gathered by non-Indians is being "taken" for purposes over which they have little control.

In the past, the objectification of the anthropologist held sway over the rarely stated objections of the Indian people. In recent times, the situation has undergone considerable change, in that many anthropologists are now working for Indian people, as well as doing studies about them. Just how this has impacted the field of ethnography is discussed below, in the context of a growing number of different types of investigations that use ethnograhic data.

Cultural Resource Management Studies

Smith's (1964) study was a pioneering work in the arena of cultural resource management (CRM) studies. The earliest CRM studies were concerned primarily with archaeological sites. The Park study, with its ethnographic (Smith 1964) and archaeological (Daugherty 1965) components, was an early venture into the realm of interdisciplinary studies, which became more common after the 1970s. Beginning in the early 1980s, more and more CRM studies included ethnographic data and traditional cultural sites and resources.

The ethnographic study by Smith (1964) was unique at the time, because it focused on a property with specific boundaries, rather than a human group or culture. While property-specific studies had become more common within the discipline of archaeology, through the river basin surveys conducted prior to construction of large dams and reservoirs, at the time they were unusual for the discipline of ethnography. The ICC studies, while focused on territorial boundaries, defined those boundaries according to cultural parameters, not arbitrary property lines.

Smith (1964:3-13) also included considerable information regarding the physiography and life zones of the Park. He placed much greater emphasis on identifying and describing very specific settlings for cultural events and activities than was common in other ethnographic publications. While the field notes of many ethnographers include such locational information, aspects of social-structure have been the focus of most published reports. The next ethnographic study with this property-specific focus was also conducted for the NPS, but not until 1988 in the North Cascades, and again by Allan Smith.

Until the mid-1970s, before the advent of CRM work, archaeology sites in the Cascade Range of Washington were virtually unknown. Although numerous sites had been found in the relatively low gradient floodplains and prairies and along rivers that flowed from the mountain crests, the forests and mountains themselves appeared barren of signs of human activity. A few attempts had been made to survey the dense forests, but the ground cover of thick duff or

underbrush was forbidding. It was accepted as archaeological fact that human occupation in the forests of the Cascades was highly unlikely; that all the activities noted in the ethnographic record that related to mountain resources were transitory and unlikely to leave much material evidence; and that evidence of human presence would be limited to remains of cross-mountain travel activities, most of which were thought to have been established after white contact. The development of this perspective among the general public is discussed at some length in *Tahoma Legends* (Blukis Onat 1999b). It was a perspective that influenced the anthropological community as well, at least in the first half of the 20th Century.

Although information was available in ethnographies and earlier histories that contradicted these assumptions, it did nothing to alter the above noted perceptions among the general public or archaeologists. The perception was not often articulated, as it is in Daugherty's (1965) study. However, this perspective continued to be prevalent and was articulated in one of the first cultural resource overviews conducted for the United States Forest Service for the Gifford Pinchot National Forest in 1976.

> As was perhaps evident from a previous discussion of Native subsistence/settlement patterns and inter-tribal relationships, the Cascades probably served as one of the principal avenues of travel and trade between the Plateau and the Puget Lowland. However, the Cascades, in general, are not characterized by the most altogether traversable terrain. Therefore, it is not at all surprising that travel was primarily concentrated along certain avenues or trails [Jermann and Mason 1976:140].

Several events converged to shift the archaeological paradigm in the 1980s. Of primary importance was the enactment of federal legislation regarding the inventory and protection of archaeological sites, followed by implementing regulations and guidelines (e.g., the National Historic Preservation Act, Executive Order 11593, the Archaeological Resources Protection Act, and others, and regulations such as 36 CFR 800). Although the earliest of applicable federal laws were enacted just before and after the turn of the century, the effects of the legislation began to be felt in the mid-1970s with the need to coordinate cultural resource concerns with the consideration process required under the National Environmental Policy Act. The legislation affected all federal land holdings, including the vast tracts of the National Forests and Wild and Scenic areas administered by the federal government. Many cultural resource inventories and overviews were conducted to assess archaeological, ethnographic, and historic resources. At the same time, the Forest Service began the sale of considerable old and second growth timber due to economic pressures both within and outside the Pacific Northwest. And finally, studies for hydropower development were initiated on hundreds of small mountain streams and lakes at the same time that major hydropower installations

constructed in the early 20th century were being relicensed. All these events led to the production of a considerable number of CRM studies by the Forest Service, the National Park Service, and many small private hydropower developers who needed federal permits to license their proposed operations.

In the process of conducting these studies, the true wealth of cultural resources in the Cascades became apparent. Hundreds of archaeological and ethnographic sites were recorded, tested, and, in some instances, excavated (cf. Blukis Onat et al. 1988; Blukis Onat, Bennett, and Hollenbeck 1980; Greengo 1983; Hedlund et al. 1978; Hollenbeck and Carter 1986; Hollenbeck and Moss 1987; McClure et al. 1985; Mierendorf 1986, 1993; Mierendorf et al. 1991; Mierendorf et al. 1998; Nelson 1994; Rice 1969; Samuels 1993; Thompson 1981; Zweifel and Reid 1991). Site locations were commonly associated with lakes, rivers and streams, and prairies and alpine meadows. They ranged in extent from large permanent settlements, to small ridgetop and hillside lithic scatters, to drying logs, berms, and burns associated with berry harvesting. They ranged in age from immediately postglacial times to recent recorded history. They ranged in elevation from the foothills of the Cascades to the timberline margins.

The considerable CRM work conducted on USFS lands along the immediate boundaries of Mount Rainier National Park and within the Reservation and traditional territory of the Yakama is the major source of new information regarding the ethnography and ethnohistory of the Park area. The works of Hajda et al. (1995) and Uebelaker (1984) are especially of note. Most CRM overviews, although they contain ethnographic summaries, have added little new data to that available to Smith in 1964. The overviews have been superficial compilations of data readily available in the anthopological literature. Because the overviews have been conducted in order to provide data for development of management strategies for cultural resources, the emphasis has been on those resources with a tangible and bounded presence, i.e. archaeological sites.

The recent archaeological study of the Park used a totally different approach to archaeological survey and data (Burtchard and Hamilton 1996; Burtchard et al. 1998:4). Whereas only one archaeological site and one isolated artifact were discovered by Daugherty (1965), Burtchard et al. (1998:4) discovered 14 sites and 18 isolated artifacts. The Burtchard et al. (1998) study gives a very thorough presentation of other studies relevant to archaeology in the Cascades. The observations linking environmental setting and site location are particularly telling, and correlate well with Smith's (1964:219) observations regarding the Park as a resource reservoir.

Traditional Cultural Property Studies

A second set of regulations also has an impact on the archaeological paradigm, at first indirectly, and more recently quite directly. In 1978, passage of the American Indian Religious Freedom Act mandated that the right of Indians to practice their traditional religions should not be hampered by federal policies, including those related to land use. As a result, major Native American religious use studies of National Forest lands were conducted to inventory sacred and ritual use sites and resources in order to safeguard them. It was evident from the religious use studies that the forest regions and resources were of considerable significance to Indian people in their spiritual life (Blukis Onat 1990, 1994; Blukis Onat and Hollenbeck, eds. 1981). Smith (1964:265) had concluded that the Mount Rainier area served religious ends during his study.

Prehistoric sites were readily recorded by archaeologists, but both past and present sacred locations are considered private and within the spiritual care of individuals and groups. In addition to specific locations that are considered sacred, certain aspects of landscape (e.g., water quality, cedar) and resources (e.g., medicinal plants, minerals) also have a sacred quality (Blukis Onat and Hollenbeck, eds. 1981). Sacred aspects of the landscape were often presented by Indian people as descriptions of locations with specific environmental qualities, rather than as ownership-bounded locations.

Some aspects of the traditional practices were public and often joined with Christian beliefs. In the Indian Shaker tradition or in the Catholic church, many aspects of the traditional practices were, and still are, considered personal and private (Blukis Onat and Hollenbeck, eds. 1981:521-540). At the request of tribal entities that were consulted on the religious use studies, many sites were not recorded except where they already had been noted in the extant literature (Blukis Onat 1990). The traditional, intertribal Siown organization (see p. 90) at present guides and coordinates many of the ritual activities in the northern Puget Sound area and in the southern reaches of British Columbia. The organization coordinates the wintertime rituals, arranges for the initiation of new members into the religious practices, seeks out alternative spirit questing locations as traditional areas are impacted by timber harvesting or other non-Indian developments, and organizes fund raising events to help maintain the ritual buildings located on each reservation. The latter are often referred to as "The Smoke-house." The Yakama have their own traditional religious organizations, as described in Schuster (1975). The Indian Shaker Church has many members throughout Washington, with many congregations that gather at churches both on and off reservations.

By the late 1980s, federal, some state, and occasional local agencies began using the consultation protocol outlined in Bulletin 38, Guidelines for Evaluating Traditional Cultural Properties (Parker and King 1990). Bulletin 38 is a guide

used by many organizations, groups, and tribes to safeguard sacred locations and resources having spiritual significance. The major problem in working within the context of the protocol is the basic difference in perspective about what is sacred and the significance of sacred things in Indian and non-Indian world views. Another problem is the basic difference in perspective that exists in the administration of public lands *vis a vis* traditional Indian practices in maintaining a landscape. The cultural differences are apparent in the language structure and vocabulary used by Indians and non-Indians to address these issues. These perspectives are discussed at some length in *Tahoma Legends* (Blukis Onat 1999b).

In the 1990s, many studies have been conducted to record and safeguard Traditional Cultural Properties on public lands. Sometimes they have been limited to specific projects (Blukis Onat 1990), and sometimes they have included entire National Forests (Hajda et al. 1995) or National Parks (Boxberger 1996 and the current study). In these studies, the emphasis has been on the nature and extent of traditional cultural practices within specific land holdings.

Expert Reports and Legal Testimony

Ethnographers have worked in the context of legal proceedings since treaty time (cf. Gibbs). Gibbs' (1854a, 1854b, 1855, 1877) data were used by government entities to determine the identity of tribes with whom treaties would be signed. These data were used to establish reservations and thus determine the fate of tribal groups. Such studies were conducted in the 1800s and the first half of the 20th century. They consisted of ethnographers gathering data and then writing reports. These reports were used to substantiate decisions made within the legal structures of the U.S. government.

Ethnographic study conducted for the purpose of legal proceedings has become even more common since the 1950s. However, in some instances, ethnographic data have been used to support tribal claims (cf. ICC proceedings). By the 1960s, more ethnographers appeared to be working to support tribal claims than were working for non-Indian entities. The ability of any ethnographer to conduct field research has always rested very much on long established relationships with specific tribal groups. Those ethnographers who chose to oppose Indian issues rarely were able to work in the same area again (cf. Riley).

At the time Smith (1964) was conducting his work, a number of fellow scholars were compiling the work of earlier historians and ethnographers, as well as their own data, into expert reports that would be used by Native American tribes and bands for a variety of purposes (land claims, compensation for lost land or resources, fishing rights, tribal recognition, etc.). Most of these claims involved

tribal people *vis a vis* the United States government or various state and local governments. Such legal proceedings continue today.

Starting in the 1980s, a number of legal proceedings have involved intertribal claims to lands and resources. Such claims have inevitably pitted ethnographers working for one tribe against ethnographers working for another. In the earliest of these proceedings, the data available to both sides was comparable and the ethnographers made every effort to remain "objective" in their interpretations. However, the final presentation of data is within a framework that is entirely non-Indian. The judgements rendered regarding the data are also made in a non-Indian context by judges who, while they may become well versed in the topics presented, are making judgements outside an Indian value system.

The inevitable outcome of the legal proceedings has been that any ethnographic work may be subjected to scrutiny in a context that can be favorable or unfavorable to a given group. Most tribes and tribal groups are well aware of this situation now and are not willing to divulge oral history data to ethnographers who wish to remain removed from the interests of the group with which they are working. Consequently, a number of ethnographers (and archaeologists) have become informally or formally affiliated with one tribe (or with more than one tribe, but only if the groups are far enough removed that the potential for conflict is minimal). Once such an affiliation has been effected, the ethnographers rarely work with neighboring groups with whom there might be a conflict. On the positive side is the fact that such affiliation allows much greater depth of study than available to an "outside" ethnographer. The negative aspect is the lack of access to comparative information from other, often nearby and culturally similar, areas and groups.

I believe this situation is one that is an excellent example of how traditional Indian societies in the region operate to provide the specialists needed to keep the group balanced both internally and externally by acquiring specialists (e.g., ethnographer, archaeologist). The tribal governments can take care of newly developing external concerns by making sure their specialists are qualified in the non-Indian world (Ph.D.s, expert witnesses) to act in the interest of the community they are representing.

Assessment of Federal Resource Management Obligations

The data compiled in the review above, and in the companion *Tahoma Legends* volume (Blukis Onat 1999b) can only briefly be evaluated in terms of utility with regard to the federal resource management obligations under federal laws (U.S. Department of the Interior 1988). The major problem herein lies in the fact that the review does not contain contemporary data regarding Indian beliefs, interests, access, and concerns about Mount Rainier and Park lands. The study does make apparent that there is a wealth of documentation

to support any contemporary assertion that Indian tribes and some individuals may make regarding their traditional uses of the area. This situation is likely to continue as long as Tahoma persists in being the highest mountain in the Cascade Range.

In the context of management of ethnographic resources, this study meets the requirement for preparation of a special resource study (U.S. Department of the Interior 1993:174), required as an information base for consultation with people who traditionally were associated with Mount Rainier National Park. From the study, it is apparent that several tribes have had associations with the Park and that these associations have endured for several generations. Contemporary technical assistance and data are needed to complete the study process. These can be obtained only through direct communication with the tribes concerned (U.S. Department of the Interior 1993:175). Such communication will probably be initiated in the context of one or more laws and regulations cited below. Some of the issues that could be addressed in the context of direct communication are suggested as well, although direct communication with tribes will add considerably to these.

American Indian Religious Freedom Act of 1978

Mount Tahoma, or Mount Rainier, and thus the entire Park area, fall within the definition of a significant religious site. Tahoma is a major mythic feature of the landscape that unites communities and people to whom it is visible. The mountain has been a creator, a destroyer, and a source of wealth. According to documented reports, a climb to the summit of Tahoma was undertaken by Indian people only in the context of a spiritual endeavor. From this, one may reasonably conclude that Indian people would consider that access to the summit should not be allowed except under very special conditions. It is not that access should be denied, but that the mountain should receive more care and respect than is perhaps given it by simply climbing for recreation. This suggestion is basically a hypothesis and would need confirmation from several tribes. Virtually all tribes that have traditional lands that include Mt. Rainier, as well tribes that know Tahoma from a distance, would need to address the issue of the religious significance of the mountain and the conditions of access to its summit.

In addition to the summit, several of the lakes, promontories, waterfalls, and other features of the landscape may have specific spiritual significance to Indian individuals. The documented record speaks of the power of certain locations, however, the precise boundaries, nature of the power, or traditions of use have not been recorded. This kind of information tends to lie within the private realm of traditional Indian religions. Although specific locations may be known and even bounded, expressing the power of a location in terms of measured boundaries is not within the native tradition. Again, maintaining a respect for the features of the landscape would serve to address the specific

location in the context of a policy that included preservation of certain environments. As with access to the mountain summit, the issue of the religious significance of portions of the landscape would need to be addressed in a tribal context. In the overall Indian perspective on the sacred, this would include all of the Park and areas beyond it.

Native American Graves Protection and Repatriation Act of 1990 and federal guidelines and policies

The ethnographic study of Mount Rainier National Park has not uncovered information that would indicate that there are grave sites on Mt. Rainier. Grave sites were not found during the archaeological survey of Burtchard and Hamilton (1996). Note can be made that talus slopes are not uncommon burial sites throughout the Pacific Northwest and that such slopes do exist on Mount Rainier. However, they tend to be more unstable overall than other such features in the region. It is possible that, at some future time, burial locations associated with summer settlements may be located, but insufficient information is available at present regarding native traditions associated with death at summer encampments. Since none of the legends about Tahoma mention grave sites on the mountain, it is unlikely that any significant burial tradition is associated with the Park.

National Register of Historic Places, Bulletin 38, Traditional Cultural Properties

A variety of traditional resource and other use sites can be determined to be eligible for inclusion in the National Register of Historic Places as Traditional Cultural Properties (Blukis Onat 1997; King 1996; Parker and King 1990; U.S. Department of the Interior 1993:177). However, attempts to conduct Traditional Cultural Property studies in the same manner as archaeologically based National Register studies are usually met with frustration, for both ethnographers and tribal members. One problem is the concept of measured boundaries needed by non-Indian property managers, a concept not a part of native traditions. Further, an important issue is the Euroamerican assumption, implicit in the guidelines, that properties must be significant to an entire group in order to have real cultural significance. This is directly contrary the nature and practice of traditional belief systems in Pacific Northwest Indian cultures. Another issue specific to the Park is an apparent lack of continuity of access to traditional lands.

Traditional resource activities, such as hunting and berrying, have been denied Indian people at the Park for at least two generations. Because of study limitations, it is not possible to determine if any traditional resource use is associated with the Park at this time. As noted previously, it also is contrary to religious traditions of personal privacy regarding spiritual power to indicate personal power locations to any person, whether Indian or not (Blukis Onat

1990). The Memorandum of Understanding (1443-MU9450-99-002), signed by the Park administration and the Nisqually Tribal government, is the first step to engaging in direct communication regarding Park resources.

Mount Tahoma certainly is a Traditional Cultural Property (TCP) as a feature of the landscape that figures prominently in tribal culture (King 1996:13-21). Tahoma has no precise boundaries, but its significance is tied to the natural and cultural landscape of the region (U.S. Department of the Interior 1993:177), as expressed in the mythologies of several tribal groups. However, a TCP study, by definition, must involve at least the tribe for whom the traditional cultural property might be of significance (Parker and King 1990). In addition, TCP eligibility documents and nominations must be signed by the official governing body of the affected tribe. In the instance of Park lands, this would need to include, at the very least, the tribes discussed in the ethnographic data review, above. Until the tribes are involved in the process, Mount Tahoma, perhaps the most obvious mythic site in the region, will not receive sufficient consideration as a National Register eligible property.

National Park Service Management Policies of 1988

The landscape of Mount Rainier National Park is defined in terms of its function as a public park, under jurisdiction of the NPS. The NPS manages those lands under policies and guidelines established by the United States government (U.S. Department of the Interior 1988). These policies have changed over time, however, they have always included an attempt to control human impact within the precisely defined Park boundaries, while making the same landscape accessible to human recreation. The Park is managed as a special kind of wilderness. It is thus viewed as being at one end of a spectrum regarding human impact. The urban landscape would be at the other end. The wilderness is viewed as ultimately natural and not controlled by humans. It is the place where nature takes precedence over human manipulations.

The requirements of the NPS management policies include conducting studies to identify significant cultural resources in order to assist in their preservation (U.S. Department of the Interior 1988:2:1). The present update of ethnographic and ethnohistoric data has served one of the purposes of NPS Management Policies. Consultation with Native American authorities regarding Indian use of the Park in a traditional context is another requirement (U.S. Department of the Interior 1988:8:8-10). The ongoing consultation has produced one Memorandum of Understanding to date (1443-MU9450-99-002) between the Nisqually Tribe and the Park administration.

In the interest of public information, *Tahoma Legends*, the companion volume to this report (Blukis Onat 1999b), could be used to teach a somewhat different perspective on how Indian people traditionally saw the region and the mountain than is popularly presented. The documented legends in the Appendices of

Tahoma Legends represent the oldest continuous mythic traditions associated with Washington state. Additional legends could be added by contemporary tribal people. It at least would be a step forward to show the intensity with which the Mount Rainier area was actually known to Indian people and used by them. Mount Rainier is already an icon for the state of Washington. The Indian mythology would provide it much greater depth of meaning.

Gaps and Inadequacies in Ethnographic Information

The major gap and inadequacy of this study lies in the lack of contemporary information regarding Indian perceptions, uses, and issues regarding Mount Rainier and Park lands. Unless this situation is rectified, the same documents will tend to be reassessed *ad infinitum*, and the Park will still appear to be unknown to Indian people. Indian people will continue to symbolize only the past to non-Indians. In a recently conducted administrative history of Mount Rainier National Park, Catton made the observation that:

> Inasmuch as the national park is a celebration of American heritage, it has made Indians like Sluiskin and Henry into symbols. Although Indian use of the area predated the establishment of the national park, the national park reshaped the Indians' relationship to Mount Rainier by profoundly influencing the way the Indian past was reconstructed. Indian legends concerning Mount Rainier and anecdotes concerning Indian use of the area were distorted at the same time that they were amplified by the existence of the national park. Furthermore, contemporary Indian use of the park was denigrated at the same time that past Indian use of the area was romanticized [Catton 1995:30].

Catton's (1995) administrative history is a first step in addressing the relationship between Indian people and the Park. Boxberger's (1998) study goes one step further and discusses the legal relationships between Park administration and tribal governments. However, there are undoubtedy documents relating to tribal interactions with the Park available in tribal documents and records. This gap can be filled by conducting a study specific to that relationship. However, it may be the individual tribes that will want to guide such a study.

It is apparent that there is a discrepancy between the amount of ethnographic information available for different regions of the Park. Along the northern boundary, there is much information regarding Indian use of the White River drainage outside Park boundaries. This information corresponds well to the wealth of archaeological sites recorded in the northern two quadrants of the Park in 1995 (Burtchard and Hamilton 1996). However, there is very little in the ethnographic record regarding that area of the Park.

There is considerably more locational information available in the documented ethnographic record for the southern quadrants of the Park and much information regarding traditional and contemporary Indian used of the adjacent Gifford Pinchot National Forest lands around Mt. Adams and Mt. Saint Helens. However, relatively few archaeological sites were found in the southern areas of the Park (Burtchard and Hamilton 1996). It may be that, since many of the more developed recreational facilities and areas are in the southern quadrants, many archaeological remains have been disturbed and destroyed by construction and maintenance of these facilities and attendant roads.

In terms of ethnographic resource types, Figures 8-13 and 16-19 and the accompanying tables give some indication of use areas at the Park (U.S. Department of the Interior 1993:177-178). The ethnographic resources do not include structures, although sites and objects of an archaeological nature can be located. Objects of a spiritual or ceremonial nature have not been noted. It appears that the primary ethnographic resource type at the Park is the landscape itself, with berry gathering and hunting playing an important secondary role. As discussed previously, the landscape of Tahoma is significant to several tribes for a number of reasons, as is told in the mythology.

It may be possible to discuss in greater detail the regions of the Park for which there is more or less ethnographic information, however, unless Indian people are brought into the discussion, I do not believe much more of note will be discovered. Allthough Indian people appear to have been resigned to the fact that they had lost access to the Park lands and have focused their traditional resource activities elsewhere, the very prominence of Tahoma is a perpetual reminder that the mountain is no longer accessible and why. Thus the ritual and mythic traditions can continue at a distance, with perhaps a Coyote story or two thrown in about how the mountain swallows airplanes and a few climbers now and then. It evens things out.

Recommendations

This study has met the requirement for conducting an Ethnographic Literature Review and Assessment, an Ethnographic Landscape Study, and an Ethnohistory of Mount Rainier National Park (U.S. Department of the Interior 1993:181-183; U.S. Department of the Interior 1988:5:11-12). It can serve as a basis from which an Ethnographic Resources Inventory (ERI) may be developed. In order to develop the ERI, it is recommended that any future ethnographic studies should focus on field research in coordination with tribes that have a traditional interest and/or treaty right in Park lands.

The ability of families with traditional orientation to access the sites of their ancestors has definitely been limited by both non-Indian persons and government decrees (Uebelaker 1984). At the same time, anthropologists have recorded descriptions and names of places where these ancestors

carried out specific tasks and activities (Hajda et al. 1995; Jacobs 1934:228-237). More recently, archaeologists have become familiar enough with the Park landscape to be able to locate material remains of these past activities (Burtchard and Hamilton 1996). Many Indian people, even within a contemporary context, have the traditional approach to landscapes that would enable them to follow the data provided by their ancestors in ethnographic documents (Blukis Onat and Hollenbeck, eds. 1981; Kiona 1964-1965; Uebelaker 1984; Corliss and Keith 1993). Archaeologists could assist in pinpointing the remains of activities in space and thus fix place names to particular locations with some degree of accuracy. At this time, it is not possible to do so from the very general place name data in the ethnographic and ethnohistoric record.

Such a field ethnography can include academic research, problem orientation, or applied ethnography approaches. The study should have a strong ethnobotanical and ethnozoological component. It can be designed to meet the management needs of the NPS through compliance with relevant laws and policies. However, the interests of Indian people with regard to all these efforts need to be addressed.

If Indian people are to be included in these studies, the myth of the Indian fear of Tahoma, so often described in the popular histories of the Park, will need to give way. The reality is that native people knew Tahoma well, both directly and indirectly. Further, their traditions have continuity and currency, and the Park landscape has an active part in maintaining them. I trust that future ethnographic efforts will be conducted in a context in which affected tribes can feel that the studies will be of truly mutual benefit.

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ABBREVIATIONS

BAE	*Bureau of American Ethnology*
CCHQ	*Cowlitz County Historical Quarterly*
MRNN	*Mount Rainier Nature Notes*
NARN	*Northwest Anthropological Research Notes*
OHQ	*Oregon Historical Quarterly*
PNQ	*Pacific Northwest Quarterly*
UWPA	University of Washington Publications in Anthropology
WHQ	*Washington Historical Quarterly*

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