

# **American Indian Use Of Mountain Talus Slope Topography In Central Idaho And Surrounding Area**

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**Talus Pit Associated with Housepit Features in Big Creek 10VY54**

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## **Abstract**

**American Indians were resourceful and adapted successfully to central Idaho's mountainous environment. Archaeological evidence found in the area of the Frank Church – River Of No Return Wilderness (FC-RONRW) suggests that American Indians have been living in the mountainous environment for the past 10,000 years. The Northern Shoshone were the last indigenous people to occupy the central Idaho Mountains, prior to their forced removal in 1879 (Corless 1990:121). This narrative does not define the variety of ways the Northern Shoshone utilized the environment, but focuses on how American Indians used selected landscapes, such as rock glacier formations and talus slopes, in mountainous topography for:**

- Shelters**
- Hunting blinds**
- Caches**
- Inhumations**

In 1975 and 1976, the United States Department of the Interior, Bureau of Land Management (BLM), in cooperation with Idaho State University Museum of Natural History, conducted two cultural resource inventories in the areas of Custer, Butte, and Clark Counties, Idaho. These cultural resource inventories were conducted in conjunction with the preparation of environmental impact statements related to domestic livestock grazing. At the time, I worked in the capacity of archaeologist on the survey teams. We identified the presence of American Indian-made "stone structures" in landscapes ranging from mountain ridges to the edges of the valley floors.

Before proceeding further with describing and interpreting the use of "stone structures", a brief geological description of mountain topography that applies to rock glaciers and talus slopes is necessary.

Rock glaciers and talus slopes are part of the geomorphology of the Northern Rocky Mountains. Rock glaciers described in the literature seem to be similar to geological formations found in the central Idaho Mountains. Rock glaciers in Idaho developed during a former glacial period when it was cold enough to cause bedrock to break into coarse angular rocks in mountain cirques. Examples in Alaska are tongue shaped, and the rocks flow as a result of interstitial ice. These rock and ice flows create concentric ridges, waves, terraces and plateaus (Hamblin 1975:165).

The primary cause of talus slope development is frost action of ice wedging in which expansion of freezing water within rock bedding planes fractures the rock (Hamblin, 1975:121). Gravity causes the talus to tumble downhill and accumulate at the terminus of the mountain slope. See Figure 1.

During the archaeological inventory of the Challis Planning Unit, ancient anthropogenic "stone structures" were found within rock glacier formations and within the toe of talus slope features. These stone structures appeared to vary in function, as will be discussed in this report. The stone structures found in talus slopes were numerous and were consistently found in the same topographic settings within the drainages and tributaries of the East Fork of the Salmon River, and the main Salmon River (Epperson 1977:28).

Epperson stated that the "stone structure" has seldom been mentioned or recorded in previous archaeological research. Epperson described these stone structures as follows:

"Most of the structures recorded (86.5%) were constructed in the coarse rock debris or scree found on many mountains and hill slopes, by removing stones to form a depression and piling the stones on the downhill edges of the depression. The result is an inverted cone-shaped structure generally about two meters in diameter and one meter deep, although the size varies"...(Epperson 1977:28).

Epperson went on to say...

"Of the 42 sites found in or near the Challis study area which have stone structures, all but two were recorded during the 1975 cultural resource inventory. A total of 96 structures were recorded, 21 of which are either isolated individual structures, or are individual structures associated with open lithic sites. The remaining 75 structures occur in 20 sites, in groups of 2 to 11 structures per site" (Epperson 1977:28).

Epperson continued to describe his observations...

"Most of the stone structures recorded in the Challis study area appear to be "hunting blinds" especially those located on scree slopes. However, this should be regarded as a hypothesis subject to further testing, rather than a statement of fact. About 20% of the structures are located near areas of known wildlife activity, particularly game trails, and many appear to be located at positions, which would be ideal for the ambush of wildlife. At least 15% of the structures have uprooted sage wood either in the structure or near the edge. The sagebrush could have been used for visual concealment, and its pungent odor may have masked the presence of the person(s) concealed in the blind. About 70% of the structures recorded on scree slopes were found toward the lower edge of the slope, and over 50% were within 5 meters of the bottom edge of the scree" (Epperson 1977:29).

Within the Little Lost River Valley of eastern Idaho, five sites on the valley edge were found to have similar stone structures, referred to here as talus slope depressions (Kingsbury 1977:19). Kingsbury states that talus slope depressions found in the Little Lost River Valley are associated with five criteria:

- 1. Talus depressions were usually found within 10 meters up the slope from the terminus of the talus slope.
- 2. A water source in the form of a spring or stream was found adjacent to and in direct association with four of the five studied sites.
- 3. Active big game trails were found adjacent to the depressions passing below and in front of the depressions at all five sites.

- 4. The location of one talus depression frequently indicated the existence of other talus depressions in the surrounding landscape.
- 5. The talus depressions are similar in size and appear to be capable of concealing a single person.

Kingsbury suggests that these talus slope depressions functioned as "hunting blinds" because the predominant hunting techniques used throughout the Great Basin by the Northern Shoshone and Paiute included stalking, ambush, and driving animals past a concealed hunter or hunters (Heizer and Baumhoff 1962). However, it is likely that some talus pits had other functions. During the 1975 cultural resource inventory in the Challis Planning Unit, the author found a length of braided and color sorted horse hair rope in a talus pit in the area of the East Fork of the Salmon River. This suggests that talus pits likely had other functions such as for caching items. A hunter may have left the rope and never returned to retrieve it.

Another type of stone structure found in the Challis study area that did not conform to the general description of the "hunting blind" and appears to have had a different function was found on a level area of a rock glacier formation on the side of a mountain above the East Fork of the Salmon River. B. Robert Butler described this stone structure as a "house", as follows...

"It was built by prying rocks up from the surface of the rhyolite slope and piling them up around the pit thus created. The final shape of the structure was like that of an old-fashioned beehive with an open top, except that there is a definite ramp-way on the west side of the structure and indications that there was a covered roof. The structure is approximately 9.5 feet in diameter and 4.5 feet deep. The indications of a covered roof are in the form of (two) thick tree limb sections incorporated in the inner walls of the house and also (one) on the ground immediately outside the house. The limb sections are all Douglas fir. One of those incorporated in the house itself yielded a radiocarbon date of A.D. 1340 ±70 years (WSU-1587). Another limb lying on the ground outside the house yielded a date of A.D. 1510 ±70 years (WSU-1704)" (Butler 1978:73), See Figure 4.

There was another rock structure adjacent to and east of the described house. This was a dry-laid rectangular stonewall constructed with unmodified tabular pieces of naturally occurring rhyolite, three courses high. The outside dimensions are 2.30 meters north to south by 1.90 meters east to west. The entranceway was 50 centimeters wide, the same entrance width as that on the adjacent house. Lithic debitage left from stone tool manufacture was scattered within and outside of the structure (Epperson 1977:30). The above radiometric dates suggest that American Indians were occupying the site about 500 to 600 years ago. It is remarkable to realize that the wood associated with these ruins had been laying on bare rock for 500 to 600 years.

Located about two miles to the west is another rock glacier formation above Jimmy Smith Lake, a tributary to the East Fork of the Salmon River watershed. There is a talus pit situated within the center of a level area in the rock glacier formation. This talus pit is an inverted cone shape that measured about 1.20 meters in diameter and was about 60 centimeters in depth. See Figure 5. What is special about this feature is that there was a collapsed inverted conical arrangement of straight, prepared sticks within the talus pit feature. The sticks were likely used as supporting tent poles in providing a conical shelter, or a hiding place for a single hunter in the procurement of game. The author took B. Robert Butler to this site in 1976. Butler collected a sample of archaeological wood from the collapsed inverted conical arrangement of straight sticks for radiometric dating. The results of this yielded a date of A.D. 1290  $\pm$  70 years (WSU-1704). Butler states that the radiometric dates clearly establish Late Archaic bighorn sheep winter range hunting in the mountains of the East Fork of the Salmon River (Butler 1978:73).

Kingsbury (1977) reported a similar site with larger stone structures identified as talus pit depressions situated in an ancient rock glacier formation (Franzen and Swanson 1977). The rock glacier originated in a basalt cirque on the Challis National Forest at 6,600 feet above sea level and the rock flow extended to the valley floor at 5,556 above sea level. See Figures 2 and 3. At the terminus of the rock glacier is an American Indian archaeological site (10BT170). This site is large and measured 150 meters north to south by 200 meters

east to west. Several prehistoric human activities occurred here over thousands of years. There are 20 man-made depressions within the angular basalt rock deposits situated between concentric ridges. Seventeen depressions were observed, suggesting hunting blinds. Three depressions are too large for hunting blinds and may have been used as shelters (Kingsbury 1977:21).

Adjacent to the stone structures were areas of soil covered with sagebrush and grasses, and associated with five artifact scatters containing thousands of stone artifacts, including numerous projectile points ranging in age from Early to Middle to Late Archaic periods, as suggested by the type and variety of dart and arrow points found at the site. Other tools consisted of a teshoa (knife), several scrapers, a grinding stone, numerous utilized-expedient flake tools and wasteflakes representing a variety of introduced lithic materials. This site was larger than the previously mentioned sites. Also, this site was on the edge of the valley floor in a place where rock shelters were naturally absent. The rock structures at this site may have had several functions that possibly have included shelters, hunting blinds and caches.

B. Robert Butler states...

“By far the most common type of big-game hunting facility in the region is the hunting blind. Wherever there is a convergence of big-game animal trails, water, and suitable talus rock, especially in the Salmon River Mountains there are hunting blinds.” (Butler 1978:73).

I have hypothesized that not all man-made talus pits in the Salmon River Mountains were used as hunting blinds and house shelters.

During June and August of 1996, Steven E. Stoddard and I conducted a pedestrian cultural resource inventory over a period of 14 days along selected sections of the Middle Fork of the Salmon River on the Salmon–Challis National Forest. During that time a total of 63 previously reported cultural properties were revisited, described and photographed; nineteen newly discovered cultural properties were also recorded. Out of 82 cultural properties visited, 23 properties consisted of multiple housepit features. Eleven out of the

23 multiple housepit sites examined had at least one large talus pit in association. These properties are listed as follows:

10-LH-191/494	one talus pit
10-LH-28	one talus pit
10-LH-125	one talus pit
10-LH-82, 83, 84	four talus pits
10-LH-11	one talus pit
10-VY-451	one talus pit
10-CR-575 (875)	one talus pit
10-CR-643	one talus pit
10-VY-80	one talus pit

It appears that where a talus slope was found in close proximity to a multiple housepit feature site, there was at least one large talus pit. It is probable that this talus pit was not used as a hunting blind because it was larger in size than the typical hunting blind feature.

Hypothetically, the author suggests that this type of talus pit may have been used as a cache for the storage of surplus food such as dried and smoked salmon. All of the above sites were adjacent to the Salmon River providing an abundant salmon resource. A similar observation has been made on the Payette National Forest within the Big Creek Drainage, a tributary to the Salmon River at 10-VY-52 (PY-133), where there are three housepit features adjacent to a large talus pit, suggesting a function other than a hunting blind. This notion is supported from diary entries of Lt. Brown, who made observations in Big Creek during the Sheepeater Campaign of 1879...

August 17, 1879: Marched 13 miles. Camped on Big Creek two miles below where Catley first struck the river and four miles below the caves (Cave Creek). Passed several wickiups. Scouting party went three miles beyond the caves and camped. Salmon traps discovered near the caves.

August 19, 1879: Passed Indian camp at Soldier Bar. Caches discovered at summit of mountain to right. Camped above snowline.

August 23, 1879: Camped on the Middle Fork of the Salmon River near an Indian winter camp with six lodges.



August 27, 1879: Camped about two miles from the Indian camp abandoned on the flat. Found four caches.

August 30, 1879: Camped on Big Creek...Burned four wickiups.

Today, these winter lodges are what archaeologists refer to as housepit features. "Wikiups" are conical timber lodges that were likely used during seasons of milder weather (Kingsbury 1986).

What the author emphasizes from the above passages is that Brown identified fish traps and wickiups in the Big Creek Drainage, and winter lodges in the Middle Fork. Indian caches were recognizable. They were found high in the mountains and in the valley floors. Unfortunately, Brown did not provide a good description of the caches. It is likely that talus slope were used for the caches.

In the 19<sup>th</sup> century, American Indian mortuary customs varied from tribe to tribe and from region to region. The Northern Shoshone of Idaho used several different types of mortuary procedures that varied from cremations and surface burial to burial in graves, rock cavities, rock-shelters and lava caves, to tree and scaffold burials. They also buried their dead in talus slopes.

Indians throughout the Rocky Mountains buried their dead in cairn-rock burials (Yarrow 1878:32). Dr. H. C. Yarrow reported visiting rock cemeteries in the middle of Utah in the summer of 1872. Yarrow states that the cemetery he observed had been used for a fifteen to twenty year period. Yarrow states...

"It was situated at the bottom of a rock slide, upon the side of an almost inaccessible mountain, in a position so carefully chosen for concealment that it would have been almost impossible to find without a guide. Several graves were open, a number of boulders had been removed from the bed of the slide until sufficient cavity had been obtained; this was lined with skins, the corpse placed therein, with weapons, ornaments, etc., and covered over with saplings of mountain

aspen; on the top of these the removed boulders were piled forming a huge cairn...(Yarrow 1878:32)."

The Shoshone of Nye County, Nevada, generally concealed their dead beneath heaps of rocks although occasionally they either burned or buried them. The Shoshone did this so as to prevent coyotes from eating the corpse and because they had no tools for deep excavations. The Paiutes of Oregon buried their dead in cairns (Yarrow 1878:33).

Kinney Creek is a tributary to the Snake River Canyon. At Kinney Creek it was reported that there was a very large Indian campsite with burials in the talus slopes (Pavesic et. al. 1963:4).

In 2000, Payette National Forest special agents and the Idaho State Historic Preservation Office personnel investigated burial remains of an ancient American Indian. The Indian was an 8 to 9 year old juvenile found eroding from the base of a talus slope where a road cut caused exposure of the human bones.

### **Closing Comments**

The hypothesis resulting from this paper is that not all talus pits are hunting blinds. Yet, all of these talus pit features are important archaeological features that need to be identified and described. Indians in the central Idaho Mountains used the sorted rock in rock glaciers and talus slopes for constructing temporary shelters, hunting blinds, caches, and for the burial of their dead. Since they did not have shovels, removing rocks from a talus slope was expedient and effective.

The identified habits of the ethnic groups utilizing talus pit features have yet to be fully established. Archaeologists have made some effort to extrapolate demographic and social implications, but usually only on the basis of brief field observations. Such inferences derive more from an uncritical dependence upon ethnography or ethnohistory than from an intensive analysis of talus pits, their

construction, morphology, content, age, and intra-site interrelationships.

Talus pit features are a valuable archaeological research subject, and can function as an unusually sensitive index to prehistoric site selection, settlement behavior, and population estimates. Serious archaeological investigation requires that additional data be sought and that physical evidence of every type be developed as primary data for the study of talus pit features and the landscapes that they occupy.

Age and cultural affiliation of talus pit features will be a greater challenge. Age, and sometime cultural affiliation, can be determined in some instances by radiometric dating. At the East Fork Lookout site and the Jimmy Smith Lake hunting blind site, B. Robert Butler (1978:73) demonstrated with the use of radiometric dates that hunting blind complexes in bighorn sheep wintering ranges were used during the Late Archaic period. Those radiometric dates range from A.D.  $1290 \pm 70$  years to A.D.  $1510 \pm 70$  years during the expansion of Numic speaking (Northern Shoshone) peoples into the Upper Snake and Salmon River Country from the Great Basin.

The above archaeological information was accumulated over a 25-year period. It may require another 25 years to accumulate enough information on talus pits in central Idaho and surrounding areas before we learn more about this archaeological manifestation. In the meantime, these potentially important features need to be protected from inadvertent management induced alteration.

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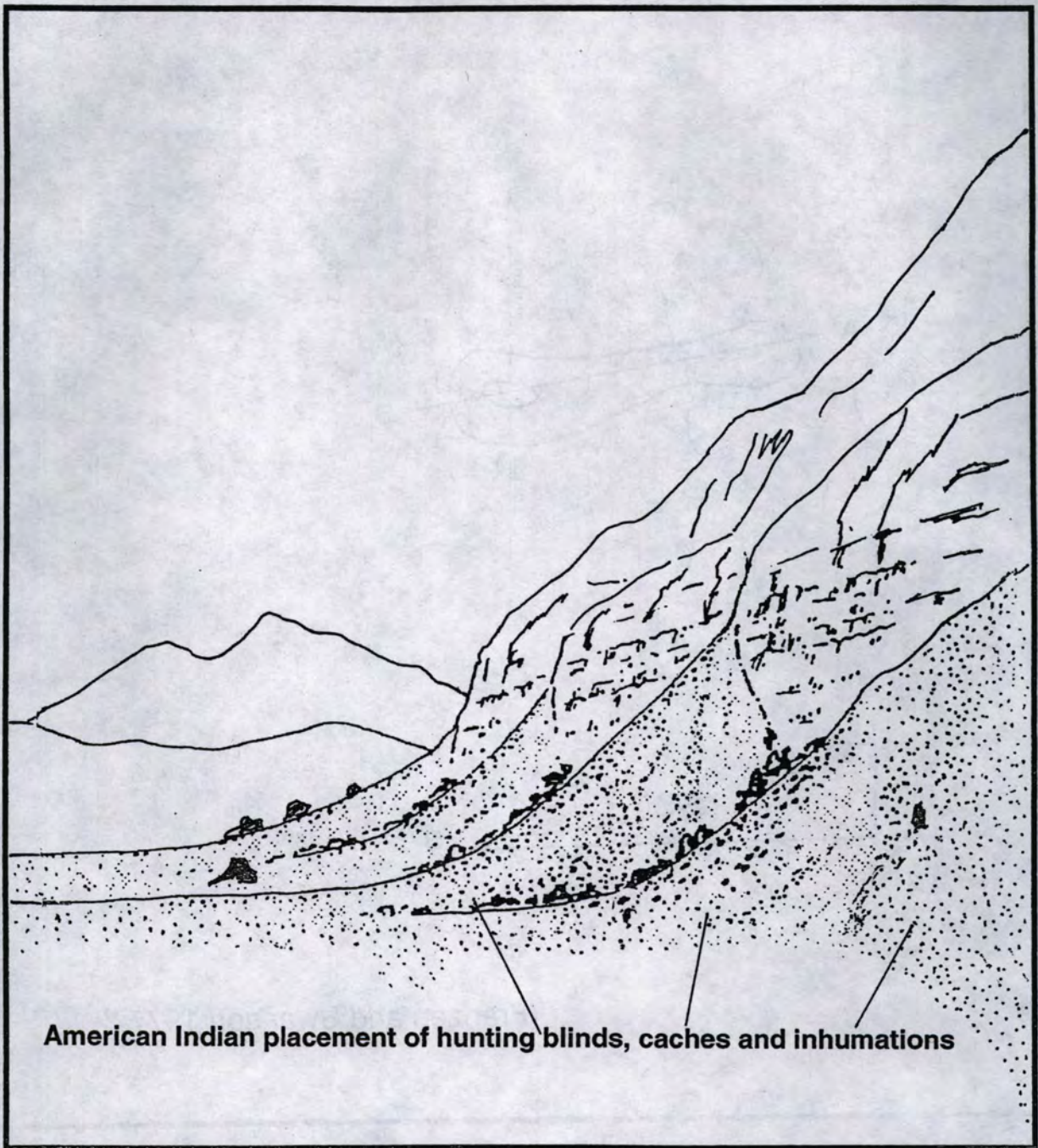
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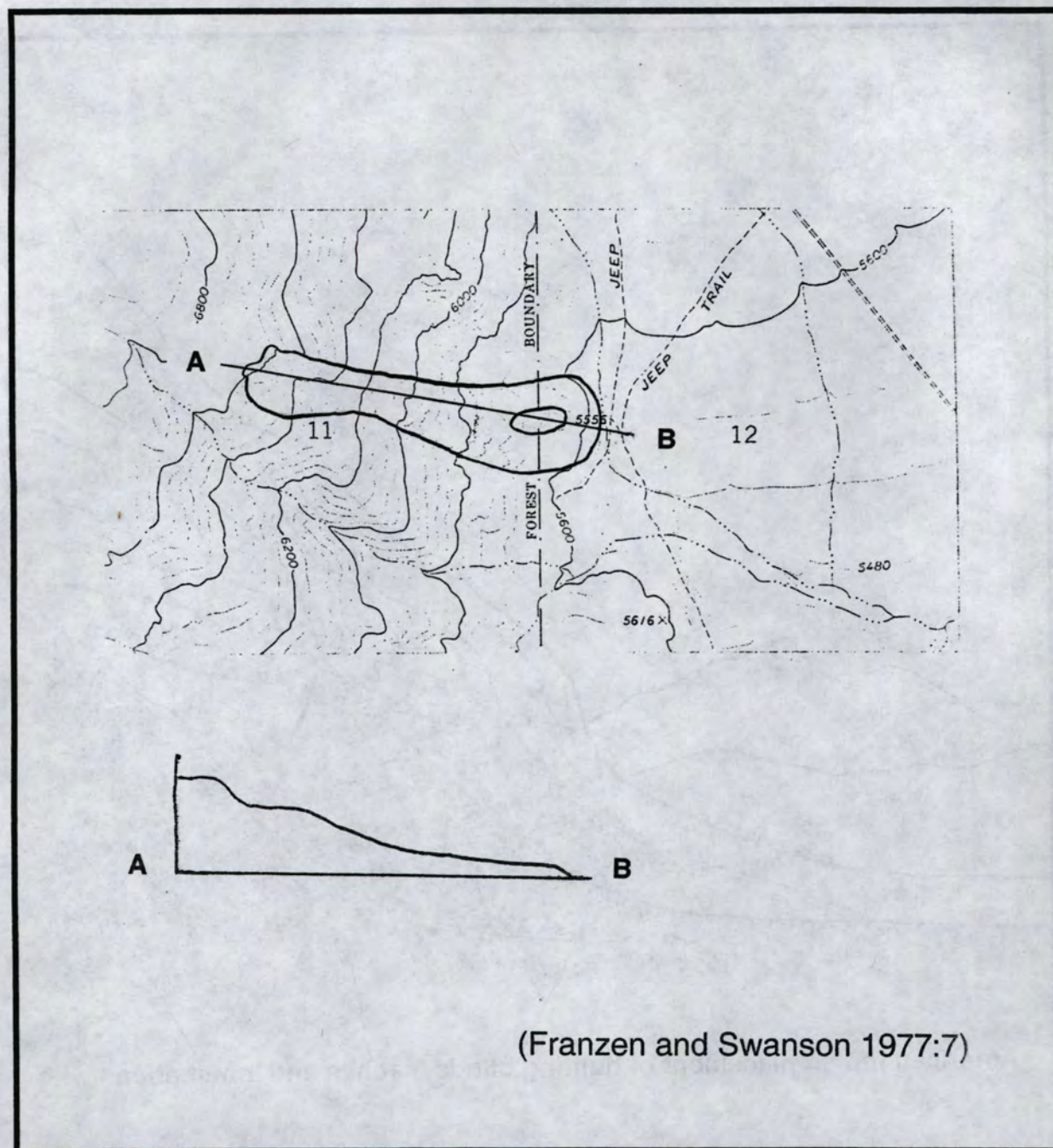
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**Figure 1.**  
Talus: Sorted rock fragments that accumulate in fan shaped piles at the base of a slope or cliff.



(Franzen and Swanson 1977:7)

**Figure 2.**

Topographic map illustrating the rock glacier formation in the Little Lost River Valley, Butte County, Idaho. The rock glacier originates at 6,600 feet above sea level (asl) and extends to 5,556 feet asl. American Indians utilized the terminus of the formation.

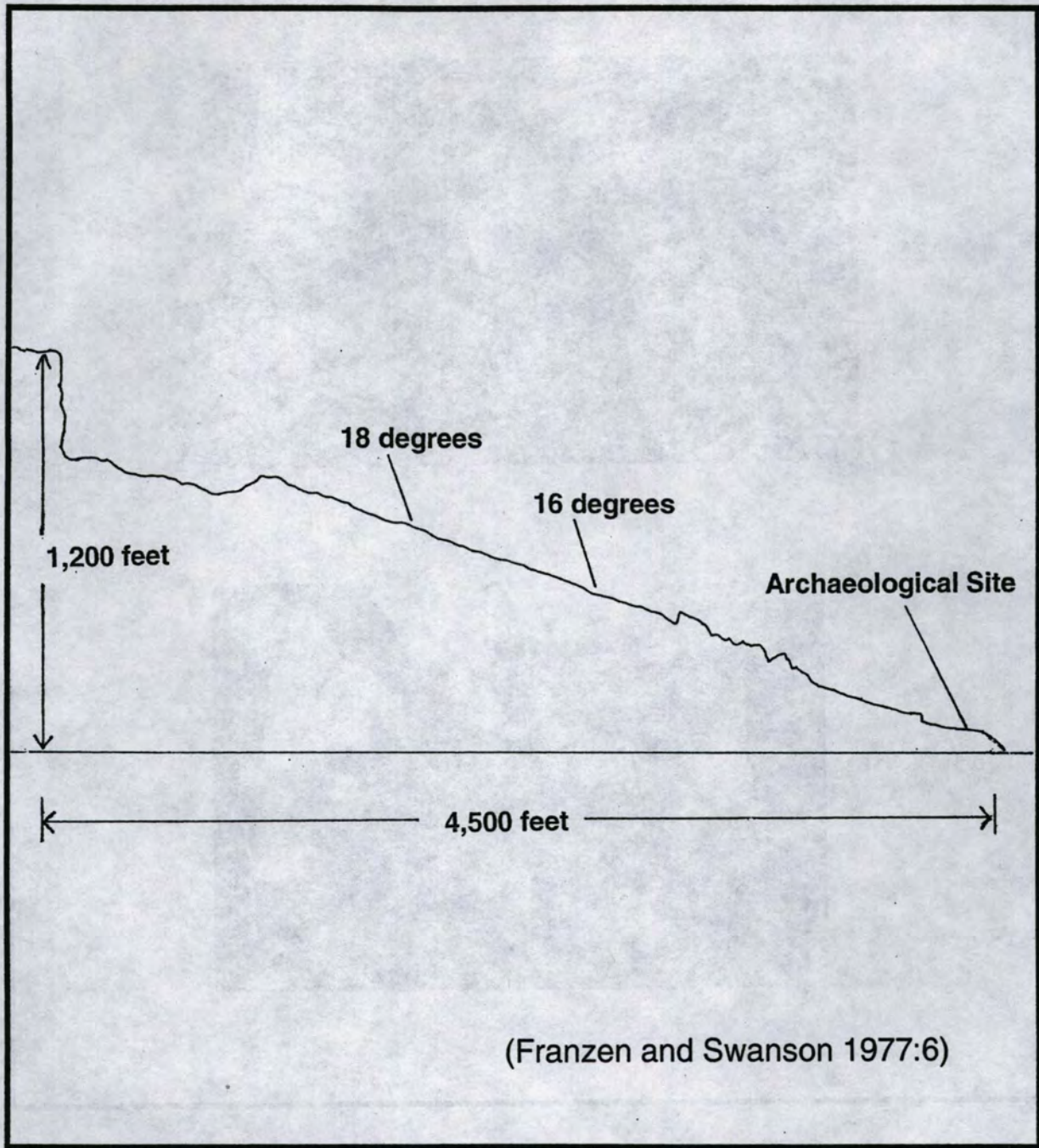


Figure 3.  
Rock glacier elevation profile.





Figure 4.

East Fork Lookout Stone House.

Mark Sant is standing inside the ruin pointing to the north. In the lower photograph, Sant is pointing to a piece of structural wood inside the ruin. This piece of wood yielded a radiocarbon date of A.D. 1340  $\pm$ 70 years (WSU-1587). This photograph was taken by the author in October 1975, and first published by B. Robert Butler (1978:Figure30).



Figure 5.

Jimmy Smith Lake Talus Pit, a likely hunting blind feature. A piece of structural wood from the inside of this ruin yielded a radiocarbon date of A.D.  $1290 \pm 70$  years (WSU-1704).

Photo taken by the author in October 1975, and first published by B. Robert Butler (1978:Figure 30).