



Story of a House
Don E. Dumond

*Katmai Mountain blew up with lots of fire, and fire came down trail
from Katmai with lots of smoke.... Everybody get in bidarka. Helluva job...*

~ Petr Kayagvak (American Pete), Severnovsk, 1912

◀ Front cover: University of Oregon student, Ken Luepke, excavating House C in 1967. The house entrance is not yet excavated and is shown in the basin-shaped dip in the sediments just to the left of Luepke. The profile or ground cut shows the surface slump above the entry, with the thick white Katmai Ash just below the sod and Ash C below it. House A is behind the transit in left mid-background, under early excavation and surrounded by backdirt. Mount Katolinat dominates the far background. Photo courtesy of Don E. Dumond.

◀◀ Back cover: The present prehistoric house exhibit (House A) under construction in 1968, after erection of the exhibit building and construction of the exhibit framework. The house entrance is to the right, with the main living room to the left. Photo courtesy of Don E. Dumond.

▶ Novarupta Volcano, National Park Service photograph taken in 1965.

October 2008

National Park Service

Katmai National Park and Preserve
Aniakchak National Monument and Preserve
Alagnak Wild River

PO Box 7
King Salmon, Alaska 99613
phone 907/246-3305



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering the conservation of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for enjoyment of life through outdoor recreation.

The Cultural Resource Programs of the National Park Service have responsibilities that include stewardship of historic buildings, museum collections, archaeological sites, cultural landscapes, oral and written histories, and ethnographic resources.

Our mission is to identify, evaluate and preserve the cultural resources of the park areas and to bring an understanding of these resources to the public. Congress has mandated that we preserve these resources because they are important components of our national and personal identity.



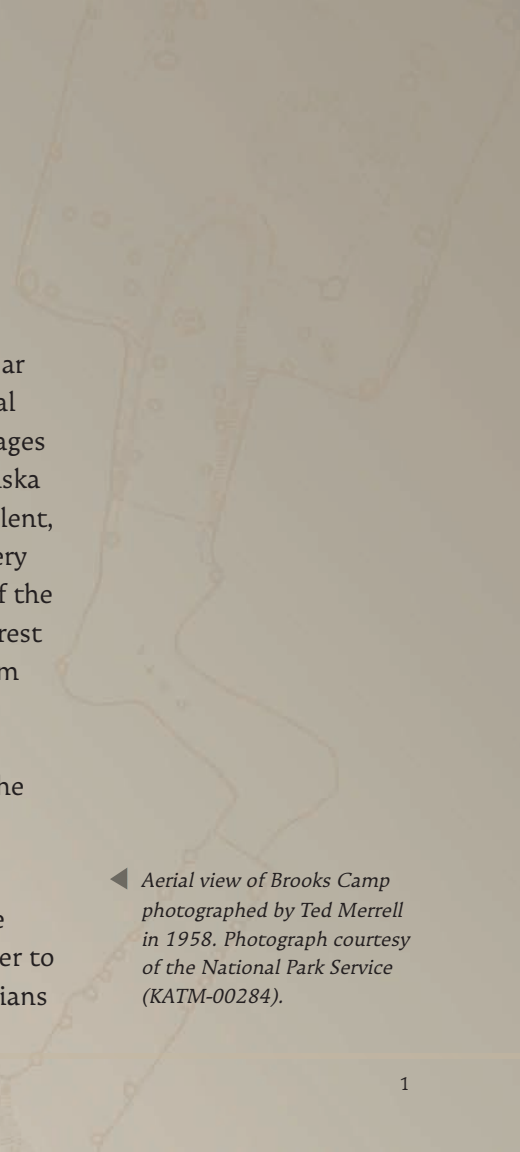




Story of a House

As a kind of background, we begin with happenings in the year 1912 that led to the creation of what is now Katmai National Park. At the outset of June of that year, people of Native villages on both sides of the Aleutian Range of mountains on the Alaska Peninsula felt the ground begin to shake. More and more violent, the tremors reached fearful crescendo on June 6, with the fiery onset of the world's most massive single volcanic eruption of the twentieth century. Jolt after smashing jolt spread from the crest of the Aleutian Range, and volcanic ash and pumice shot from the vent near Katmai Pass, rising thousands of feet in the air and closing out the daylight. In darkness, people of the two settlements on the Pacific, Katmai and Douglas, fled along the coast if they could — those who could not were picked up a week later by a rescue ship from Kodiak Island.

On the other side of the range, the two main villages on the upper course of the Naknek River tributaries were even closer to the violent action. These villages, called *Severnovsk* by Russians



◀ *Aerial view of Brooks Camp photographed by Ted Merrell in 1958. Photograph courtesy of the National Park Service (KATM-00284).*



and Savonoski by Americans, were perilously close as a pyroclastic flow of red-hot pumice sand roared down the valley of the Ukak River toward Iliuk Arm of Naknek Lake, the site of the largest Severnovsk village. The village chief, Petr Kayagvak (more commonly known as American Pete), would later exclaim:

Katmai Mountain blew up with lots of fire, and fire came down trail from Katmai with lots of smoke.... Everybody get in bidarka. Helluva job. We come Naknek one day, dark, no could see. Hot ash fall. Work like hell.

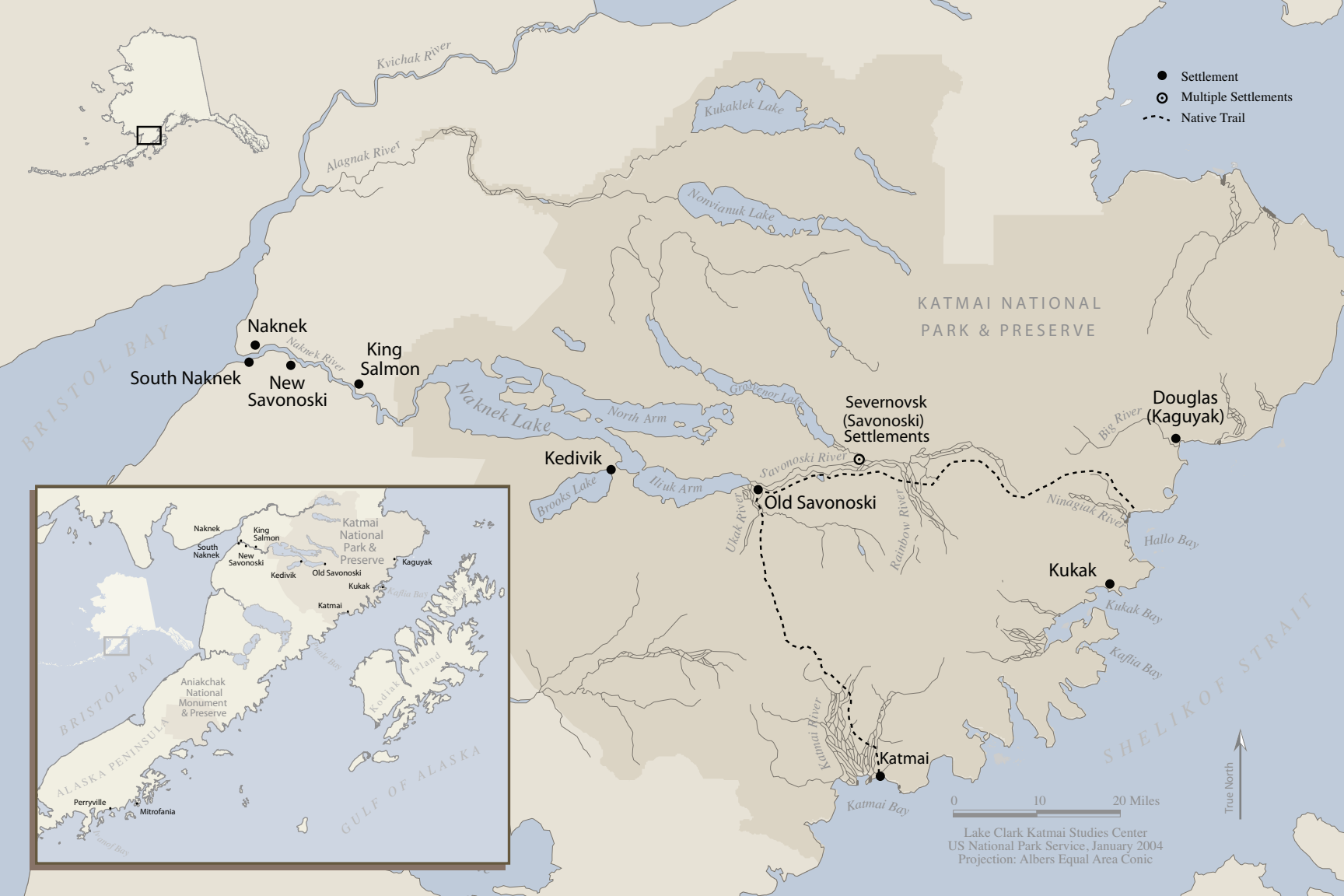
When the air finally cleared, could the people retrace the seventy miles toward home from their refuge at the mouth of the Naknek River? No, for at Severnovsk the white, dust-like volcanic ash was more than a foot deep – in some places much more. As American Pete Kayagvak lamented six years after the eruption,

*Never can go back to Savonoski to live again.
Everything ash.**

- ◀ *Novarupta in winter with lava plug in the lower part of the crater. The plug was steaming when National Park Service ranger George Peters took this photograph February 25, 1953. Photograph courtesy of Harpers Ferry Center loaned to the Katmai National Park (KATM-00310).*
- ▶ *Food caches at Old Savonoski photographed September 1940 by Victor H. Cahalane. Photograph courtesy of the National Park Service.*

* The Kayagvak comments are as quoted by Robert F. Griggs, *The Valley of Ten Thousand Smokes* (National Geographic Society, Washington, D.C., 1922), p. 17.





- Settlement
- ⊙ Multiple Settlements
- - - Native Trail

KATMAI NATIONAL
PARK & PRESERVE

Naknek
South Naknek
New Savonoski
King Salmon

Severnovsk
(Savonoski)
Settlements

Douglas
(Kaguyak)

Kedivik

Old Savonoski

Kukak

Katmai

0 10 20 Miles



Lake Clark Katmai Studies Center
US National Park Service, January 2004
Projection: Albers Equal Area Conic



Fifteen or twenty years after the eruption, the ash did settle and the ground healed, but by then the villages had been permanently relocated, and in 1918 their former sites were absorbed into the new Katmai National Monument.

This eruption was not the first such cataclysm for the region. Although the depth of pumice from the 1912 eruption is the greatest to be found around Brooks River, research has confirmed the presence of at least seven earlier layers of volcanic ash deposited after the time of the earliest-known campsites — that is, within the past 5,000 years — with other ash deposits still earlier.

Was the 700-year-old house now displayed near Brooks River part of a village like Severnovsk? An earlier village of homes that people abandoned in the teeth of a major eruption, never to return? The answer demands that we look into the past — as nearly as that past can be reconstructed.

So, to History

For some time after the 1912 eruption, the Naknek Lake area was used only by a few itinerant hunters and trappers. In 1918, Katmai National Monument was established around the Valley of Ten Thousand Smokes and the Novarupta Volcano, including parts of the lake, but National Park Service personnel seldom visited the region. In the 1940s, local change began when bush pilots Ray Petersen and John Walatka established a sport fishing



▲ *Illinois Governor Adlai Stevenson and son John fish at Brooks Falls, July 26, 1954. Photograph by Victor H. Cahalane, courtesy of the National Park Service (No. 66-253).*



Mt. McKinley ranger Dick Ward, seasonally based at Brooks Camp in 1954 and 1955, raising the flag in the Brooks River campground area, June 1955. National Park Service photo courtesy of Russell Todd.

Fish drying racks at Brooks River, September 1940. Victor H. Cahalane photo, courtesy of the National Park Service. (KATM-00284).

camp at the mouth of Brooks River. This was a tent camp with rustic accommodations, located on the low ground south of the present building that houses the Brooks Lodge office and store. At the same time, a framed tent was erected for a summer park ranger, detached from duties at McKinley (Denali) National Park.

By the 1920s, the research efforts of the National Geographic Society that had resulted in the creation of the monument had ended. It was 1953 before a coordinated program of exploratory research to evaluate resources of the region was organized, drawing on geologists and biologists from several federal agencies, as well as two archaeologists from the University of Oregon, to resume the earlier studies. The archaeology crew visited the abandoned settlements of Katmai and Douglas (Kaguyak) on the Pacific coast, and Severnovsk or Savonoski at the extreme head of Naknek Lake.

That same summer, workers at the Brooks River camp dug a cellar for storage near the north edge of the present lodge office and store, where they uncovered various artifacts of an earlier Native village. Examination of these items of pottery, stone, and bone led the archaeologists to excavate a careful trench into a separate area of the same higher ground (south and in front of the row of cabins that now face Brooks River). The additional artifacts from this new trench prompted the formal recording of the first prehistoric site discovered at Brooks River. Four more sites were found along the river and reported to the National Park Service, but for seven years there was no further work at Brooks River.



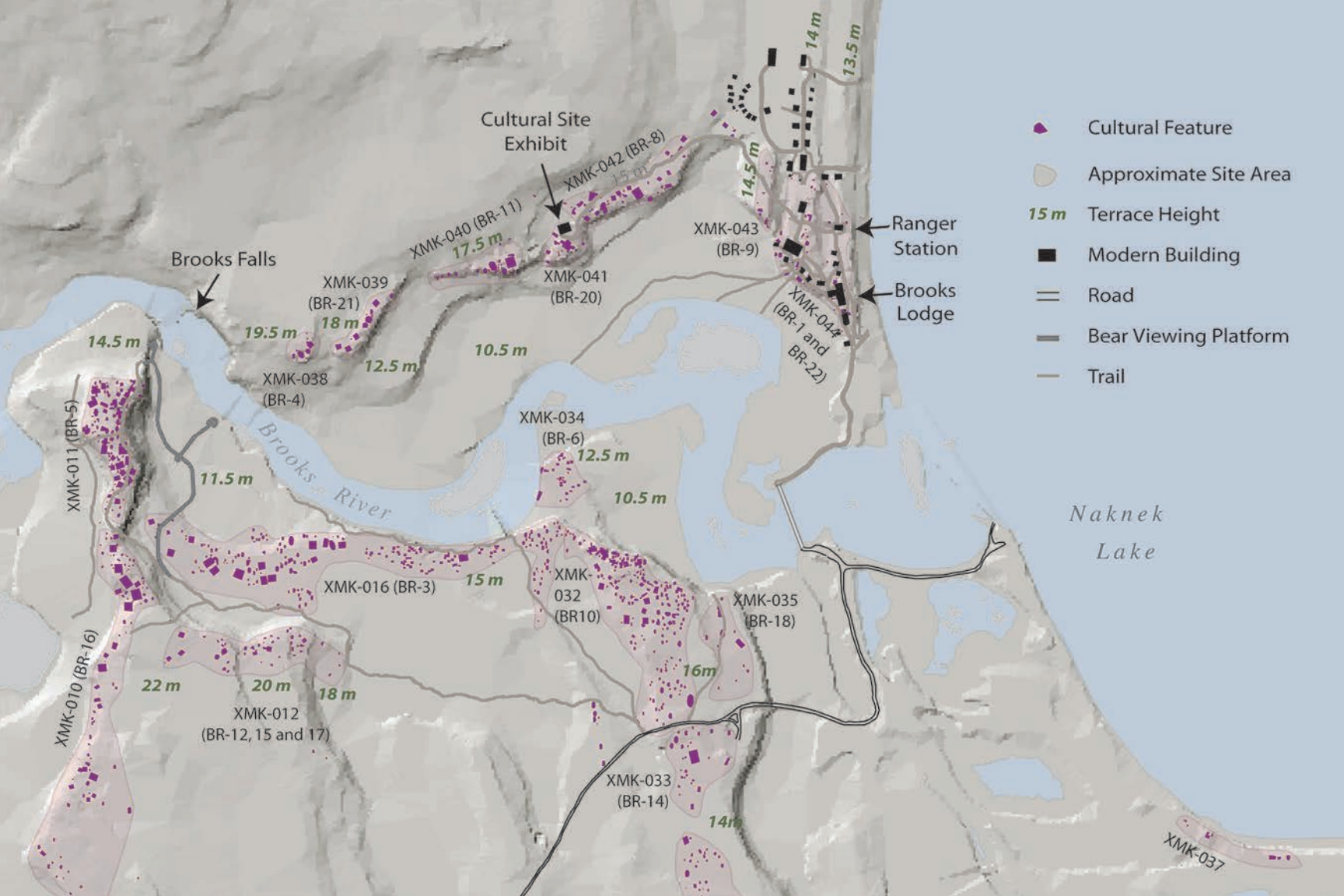


In 1960 archaeological research began in earnest. As an advanced graduate student at the University of Oregon, I was appointed to work with a single student assistant at the behest of the Fish and Wildlife Service. Our mission was to gather information about ancient fluctuations in the size of salmon runs through examining the history of people and their fishery. Largely confining ourselves to two of the untested sites reported in 1953, we also recovered artifacts displaced as Brooks Camp personnel excavated a second cellar for a new lodge and dining hall.

The following year our crew of three excavated a second trench in the site beside the trench of 1953. It was evident by now that this site at the mouth of Brooks River, dated to a few centuries around AD 1200, was one of the major ancient settlements on the river. However, excavations in it were inhibited by the presence of the lodge and its growing number of visitors. Meanwhile, other ancient settlement sites along the river continued to be recognized and tested. My own Ph.D. dissertation provided a preliminary account of the prehistory of the Brooks and Naknek River region over the time from about 2,000 BC to the beginning of the twentieth century.

- ▲ *John Walatka, superintendent of camp operations, raised his family at the Angler's Paradise camps. His daughter, Dillingham resident Johanna Bouker, became an angling enthusiast at an early age. Fifty years later, Johanna continues to return to Katmai each spring, sharing her enthusiasm for Katmai with visitors from around the world. As instructional coordinator for the local Elderhostel, Johanna has been a major supporter of the park's cultural resource program and has served as an advocate for education and rural development in the Bristol Bay region for nearly thirty years. Johanna is shown here near the Brooks River mouth with a recently-caught sockeye salmon in August 1955. National Park Service photo courtesy of Russell Todd.*
- ▶ *University of Oregon students in 1967, excavating House A, partially reconstructed in the exhibit. Ken Luepke is in the foreground working in the pathway area leading to House A and Bob Mace is in the background working on the floor of the same house. The pathway to House C (behind the viewer) is located to the right near Luepke's head. Joe Stewart works at the drainage trench, right background. Photo courtesy of Don E. Dumond.*



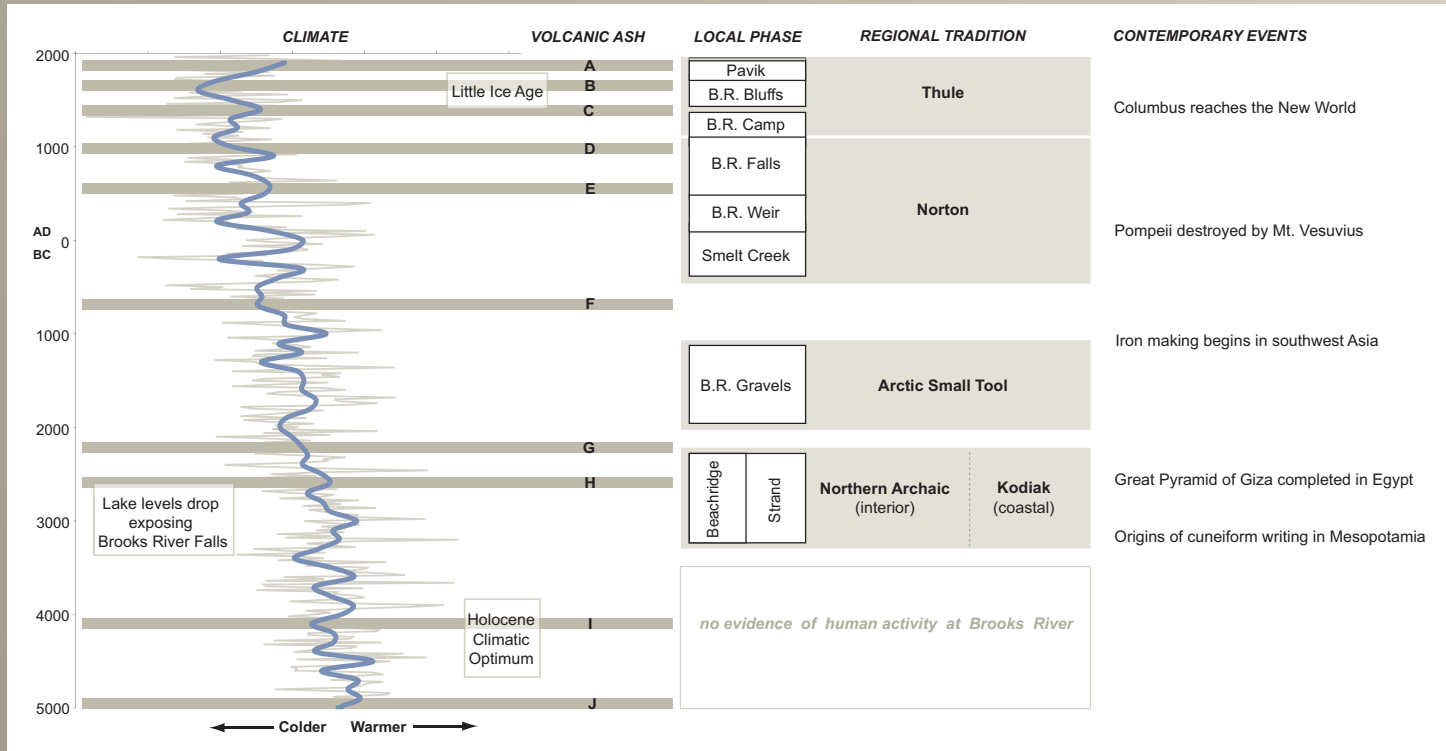


In 1963, I returned to Katmai National Monument as a junior professor of the University of Oregon with an archaeological crew of six graduate students to begin a three-year exploration of the immediate Brooks River region and of sites on the Pacific coast. The objective now was to understand relationships between people from the two sides of the Aleutian Range, which runs the length of the Alaska Peninsula. A major conclusion of the 1953 research, which had sampled sites both on the Pacific coast and within the Naknek River drainage on the Bering Sea side of the mountains, was that the people were culturally the same, hence could be considered a single society which spanned the Peninsula. My own research in 1960 and 1961, however, had suggested that the cultures were strikingly different before about AD 1000, at which time two very distinct sequences of artifacts seemed to converge. The difference was notable for all periods before the time of settlements such as that one underlying the modern Brooks Camp.

In 1963, we carefully mapped Brooks River and found around a thousand surface depressions potentially indicating slumped, ancient habitations. With eight inches or more of the 1912 volcanic ash covering everything, these depressions were often the only hint of ancient human campsites or houses. While some depressions were of natural origin – wind erosion, bear wallows, or tree falls – careful testing indicated that at least 60 percent (about 600 of the depressions) hid the remains of 5,000 years of human occupation. In addition, many locations yielding traces of ancient human activity, even semi-subterranean houses, were found that were not marked by surface depressions. This area along the mile-and-a-half long river is now regarded as a single great site and recognized in the National Register of Historic Places as the Brooks River Archaeological District.

A “cultural phase” refers to a collection of artifacts that is recognized as distinct from collections earlier or later, and from collections outside of the immediate area. A phase designates the set of artifacts that a single localized society might use over a certain time period. A “tradition” consists of a number of such phases over a broader region and time, and may include distinct phases adjacent in time or space that show persistent similarities in key artifacts and in modes of livelihood.

◀ *Archaeological sites and the river and lake terraces around Brooks River.*



▲ Chronology of human occupation at Brooks River, showing the periodic deposits of volcanic ash. With the exception of the 1912 pumice, and the date of Ash G, the calendar dates are estimated from radiocarbon determinations run on charcoal associated with the debris of human activity. The climate curve represents annual variation in temperature and precipitation based on fluctuations in oxygen isotopes measured from the NGRIP ice core of Greenland.

Because of its association with the archaeological sites, the development of the river system was part of our research. Studies had revealed that with the melting of the glaciers in the decline of the Pleistocene Ice Age, a single great lake had covered what are now Naknek and Brooks lakes as well as others in Katmai National Park. Sometime between 20,000 and 15,000 years ago, the level of the lake began a steady drop as its outlet stream eroded downward. As the rocky ridge at the northeast corner of Brooks Lake was exposed, Brooks and Naknek lakes were separated — first by a narrows, then, as the level of Naknek Lake continued to fall, by a short river.



The excavations revealed a local chronology of ten volcanic ash deposits, including the one of 1912 — the earliest two falling before humans are known to have appeared at Brooks River. Certainly the eruptions responsible for these deposits must also have had impacts on humans and their history. An outline of this human story is set out in the figure at left.

▲ *Homer Melgenak and Nick Holstrom harvest red fish at Brooks River, October 1960. Photograph by Bill Heard, courtesy of the National Park Service.*

By 1965, the presence of people along Brooks River was known to date from about 3000 BC, when roving parties of caribou hunters began to camp at what was then the mouth of the river at Naknek Lake, still higher than it is at present. This use was intermittent, desultory, and by more than one person. Artifact similarities suggested that some of these visitors were from the Alaska mainland interior, while others traveled to Brooks River from the Pacific coast to the south and east. Quite different in terms of many of their artifacts, these two groups were alike in two things: in their hunt for caribou of the major herd that



migrates north and south along the Bering Sea side of the Alaska Peninsula, and in the presence of occasional thin and ephemeral campsites.

About 4,000 years ago, or 2000 BC, settlements became more numerous and began to be focused on the lengthening river itself as a resource. These were people of the Arctic Small Tool tradition, people who evidently arrived from the north where their characteristic artifacts appear earlier. Makers of fine and minute tools of chipped stone, their campsites were clustered along the river, as were the remains of their semi-permanent homes excavated partly into the ground and covered with a roof that included some sod and presumably moss. We recovered both salmon teeth and smashed caribou bones from their floors and stone-lined hearths, but the people were evidently drawn especially by the fishing, leaving their traces very heavily near Brooks Falls — which with the continued fall of Naknek Lake was only then emerging as a significant barrier to upstream migrating salmon.

Although fishing would remain the major attraction at Brooks River, human use was not continuous after 2000 BC. Remains of the Arctic Small Tool people vanished around 1200 BC, and there ensued a period of several centuries — perhaps as many as seven — when the area was apparently not visited at all. Salmon and caribou are subject to periodic fluctuations in numbers, and the apparent sudden absence of people in the Naknek region seems to suggest that some major crash disrupted their subsistence resources. In this unoccupied period there was at least one, more likely two, major deposits of volcanic ash, suggesting that recurrent volcanism may have caused people to continue to avoid the immediate Brooks River area.



▲ *Young gulls and egg in nest at Brooks Lake, June 29, 1953. Photograph by Victor H. Cahalane, courtesy of the National Park Service (No. 66-142).*

◀ *Alaska Peninsula caribou, photographed in 1973 by M. Woodbridge Williams, photo courtesy of the National Park Service.*



Reoccupation finally occurred sometime around 400 BC, this time by the largely coastal people of the Norton cultural tradition, again apparently from the north. Some of their stone tools are reminiscent of those of the earlier Arctic Small Tool people, suggesting they may in part have descended from those people, although Norton people also made pottery, an idea derived from Asia. By 400 BC, large Norton sites had begun to appear on the coast around the eastern Bering Sea, providing evidence of growing interest in hunting and fishing at the oceanside, while similar sites on interior rivers indicate a continued interest in traditional hunting and fishing. In both cases, homes were dug a foot or so into the ground, roofed with timbers and sod, and lighted by open, oil-burning lamps of stone, no doubt fueled by seal oil.

People evidently thrived at Brooks River; their habitations and slowly evolving artifact styles endured for almost fifteen hundred years – until after AD 1000. Here, as on other interior rivers around the Bering Sea, they fished and hunted much as had their Arctic Small Tool predecessors. But they certainly retained an interest in the resources of the coasts. This is indicated by their use of lamps fueled by sea-mammal oil, and by the fact that Norton-style projectile points and fragments of Norton-like pottery, with characteristic inclusions of fiber within the clay, began at this time to appear across the mountains as minor mixtures in sites on the sea-mammal-rich Pacific coast. The major inhabitants of these same coastal sites, however, were people whose direct ancestors had long been resident on the Pacific shores – people with their own distinct styles of artifacts. Thus, the sites with mixed Pacific and Norton artifacts suggest probable visits to the Pacific coast by Norton-tradition people in keeping with their coastal interests – visits that had clearly not been common among the earlier Arctic Small Tool people.



- ▲ *Finely-made artifacts of the Arctic Small Tool people.*
- ◀ *Nikolai Melgenak, known as One Arm Nick after a hunting accident, and second husband to Pelagia Melgenak, with boat frame at Brooks River September 10, 1940. Photo by Victor H. Cahalane, courtesy of the National Park Service (KATM-00284).*



Lance blades of polished slate ▲
characteristic of the Brooks River
Camp phase. Photo courtesy
of Don E. Dumond.

Mt. McKinley-based ranger ►
Dick Ward (right) and an
unidentified person at the
U.S. Fish and Wildlife Service's
Brooks River weir, which was
located at the outlet of Brooks
Lake. The view is to the
northwest with Dumpling
Mountain in the background,
taken during the summer of
1955. National Park Service
photo courtesy of Russell Todd.

Around AD 1100, there was yet another influx of people at Brooks River. Apparently again from the north, these newcomers brought revolutionary changes in artifact styles and houses. Suddenly, portable tools were almost completely made of polished slate rather than the earlier chipped stone; pottery was heavier, of different shapes, with a great increase in gravel inclusions in the clay. Houses, although still set somewhat into the surface of the ground and not unlike those of the Norton people in overall plan and dimension, had much more massive support posts and roof timbers. Further, the entrance was no longer a simple sloping passage from the surface but was a tunnel with its floor excavated well below the level of the floor of the house itself, so that entering people were required to climb up at least a short way to get into the major room; this “cold trap” served to aid in keeping the interior of the house warmer. The central fireplace was also retained, but the oil-burning stone lamps used for lighting were replaced by lamps of clay, the clay sometimes hardly fired at all. This occupation is referred to as the Brooks River Camp phase — named, of course, for the location of the artifacts first discovered in the cellars of growing Brooks Lodge.

An area of major occupation was an ancient beach ridge, which had formed the bank of Naknek Lake at the mouth of Brooks River around 3000 BC and in later times provided an inviting area behind and higher than the lake margin of AD 1100. Modest testing in the early 1960s had shown that major traces on the site were of the same culture and age as those of the site beneath the facilities of Brooks Camp, an area avoided for excavation because of its steadily increasing development and use. This ancient beach-ridge site begged to be excavated, and set the stage for the prehistoric house display now seen there.





The House of the Exhibit

In early 1967, the National Park Service asked the University of Oregon to excavate a series of ancient houses and choose one suitable for an exhibit that would expand visitor understanding of the rich prehistory of Brooks River. And so we worked that year on both sides of Brooks River, but it soon became clear that the large area on the ancient, elevated beach ridge, conveniently near the expanding tourist facilities at the mouth of Brooks River, should be favored. In the end, two houses there were excavated completely.

First, four separate depressions suspected of concealing former houses at the site were tested by the excavation of small pits in the center. These were simply called Depressions A through D. On the surface, Depression A was the more interesting: rising as a symmetrical mound more than two feet high, the center held an equally symmetrical depression, the whole looking very much like a pretty little miniature volcano with its center crater. We had noticed it long before and admired it, but had not had resources to excavate it completely. Once started, it needed to be excavated to a finish and fully recorded, for excavation would ultimately destroy the record as it lay in the ground.

Of the other three, the less-glamorous Depression C provided the most immediate evidence of solid occupation debris and a recognizable floor, and so depressions A and C were focused upon and became Houses A and C. As excavation proceeded, each house was found to have an entrance passage with a floor that dipped below the level of the main house floor, forming a “cold trap” that allowed the house to more easily retain the warmth of its central fire. The outer ends of these passages faced one another, and each opened

◀ *View of the excavation from the present Brooks River floodplain. The elevation of the house area on the beach ridge is shown clearly. Surrounding brush is now about twice as high as that shown here, in 1967. Photograph courtesy of Don E. Dumond.*








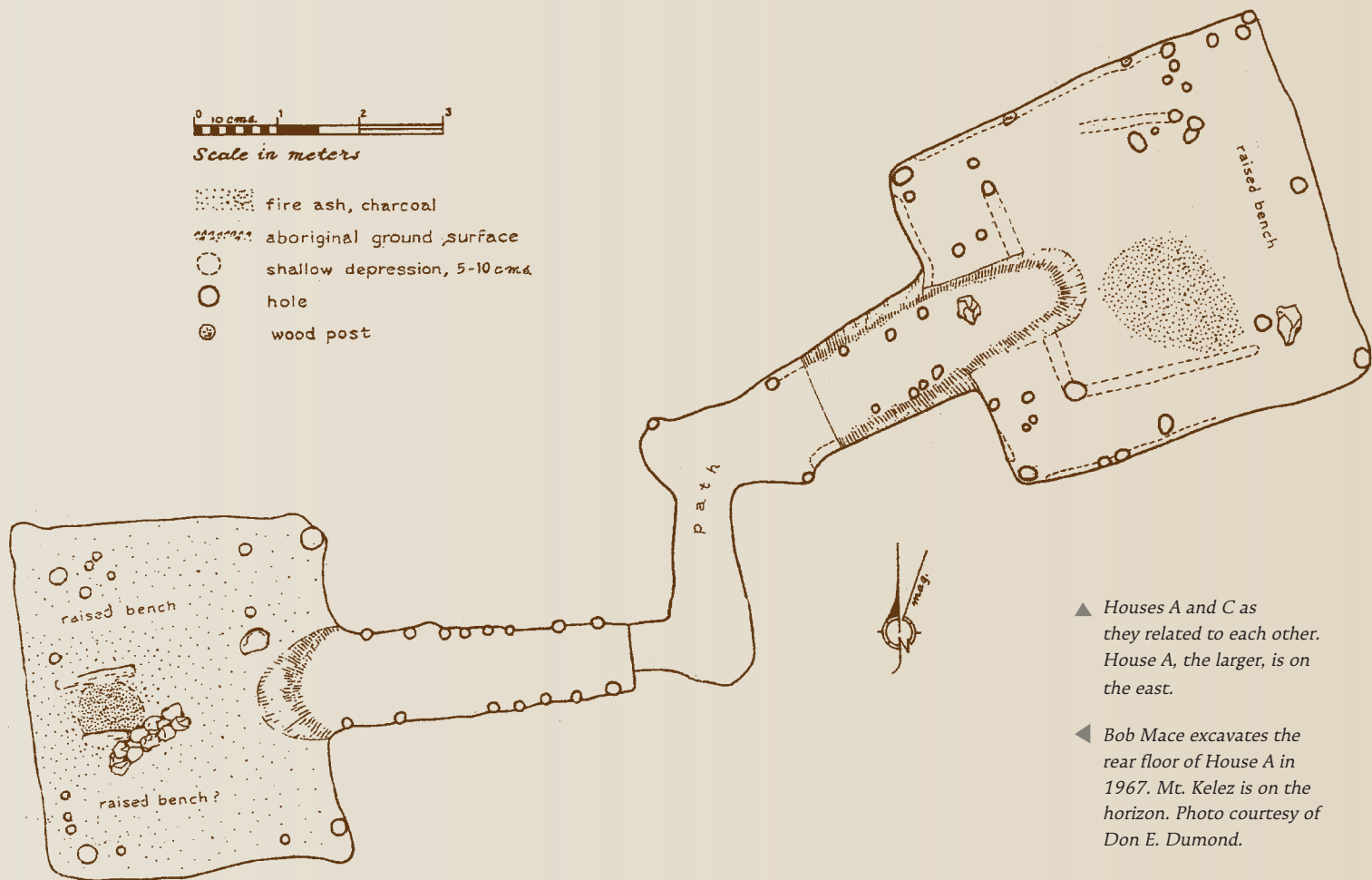
onto a recognizable pathway, with the two pathways clearly joining; obviously the latest occupations of the two were exactly contemporary. On the main floor of each house was evidence of a fireplace, situated roughly below the location of a hole in the center of the roof from which the smoke escaped, and which could be covered with a thin split skin or a sheet of animal gut to admit a bit of light when the fire was out. On one or more sides of the earthen floor a section was raised half a foot or so, apparently to provide a platform for sleeping.

What was life like at this settlement? Houses almost identical to these were still used by Native people of the Bering Sea coast in the 19th century, when life must have been much the same; they provide clues. The two Brooks River houses, with cold-trap entrances, must have been occupied in winter. Historically such houses had a bad reputation for summer living; water tended to collect in them during spring thaws and in the rain-heavy months of July and August. Traditionally, southwest Alaskan Natives moved out of such houses into summer tents, and that this was the case at Brooks River when these houses were built seems clear in that nearby traces of campsites with apparently open campfires are evidenced in greater number than are the more solidly constructed houses. Indeed, almost every depression in Camp phase sites,



Scale in meters

-  fire ash, charcoal
-  aboriginal ground surface
-  shallow depression, 5-10 cm.
-  hole
-  wood post



▲ Houses A and C as they related to each other. House A, the larger, is on the east.

▲ Bob Mace excavates the rear floor of House A in 1967. Mt. Kelez is on the horizon. Photo courtesy of Don E. Dumond.

including those that are the slumped remains of earlier houses, can be expected to yield indications of campsites on the sod-covered ground surface of the time.

Summer would have been a time for salmon fishing in productive Brooks River, with masses of fish dried for winter use. Among the very limited number of artifacts of antler or bone preserved are a few simple barbed harpoon points presumably used in spear fishing. There is no direct evidence of the use of nets, such as the presence of small notched pebbles used as weights, which might imply a more consistently communal effort.

As fall came on and the ground froze, people would have moved again into the semi-subterranean houses, snug for the cold season. Commonly today, freezing temperatures arrive here in October and last until May, with snowfall relatively light but consistent for the same period. Although winter extremes of -40°F are certainly not unknown, most winters see relatively few temperatures much below zero. There is no indication that things were much different 700 years ago.

As it does today, the Alaska Peninsula caribou herd would probably have converged to the southwest for the spring calving season, then spread in fall and winter migratory movements to cover the entire peninsula. Fall and winter, then, would have brought caribou within reach of people passing those seasons at Brooks River. We found salmon and caribou bones in plenty in the houses, along with significant numbers of bones of beavers and porcupines, which evidently supplemented the diet. Evidence revealing hunting practices was limited, with a few barbed arrow points of bone and antler pointing at least to the use of the bow and arrow.

Bone and antler artifacts of the Brooks River Camp phase. All are arrow or dart heads; those with the slotted tip were designed to accept a small slate blade, one of which is shown here. Third from the left is the single certain example of a small harpoon head (possibly for fish), although the fragment to the left of it may represent another. Photo courtesy of Don E. Dumond.



Of the two houses excavated, the smaller House C attracted us much more strongly because of the complexity of its use and its more plentiful artifacts. Two distinct floors, one above the other, were separated by several inches of sterile earth. Obviously the house had been once used and later reoccupied and repaired, with a secondary line of posts put across part of the rear of the room, presumably to support the older, sagging roof. The edges of the floors were irregular, with the earthen side-walls evidently dug outward here and there while the house was in use.

Both houses gave clear evidence of having been set into ground that had been once occupied by earlier people. As we cleared the sites, beginning in the center of each and following the floors carefully outward to their edges, outer walls suddenly appeared with visible sections of older clay-lined pits and occupation floors, and with ancient layers of volcanic ash, all of which had been dug through when the houses were made. Both Norton and Arctic Small Tool cultural remains could be identified in the walls of the houses.

True to the surface depression that had concealed it, House A was considerably the larger and more symmetrical, with traces of base logs around the roughly square floor, and an area at the rear of the room raised six inches or so, apparently to serve as a platform for sleeping. There were a pair of lightly fired clay lamps on the floor, but hearth remains were thin, barely yielding enough carbon to provide a date of around AD 1300. The house appeared scarcely to have been used. For purposes of the exhibit, this was a plus, simply because House A was much less tattered and worn than House C. But why was it abandoned? Before we attempt to suggest an answer, the story of the excavation must be finished.

► *Bob Mace clearing the floor at the rear of of House A, 1967. The trench opening out of the room at the right is the remains of the original transverse trench cut to aid in locating the house walls, as the floor of the room was relatively indistinct. The same trench was later used as part of the drainage system. Outside the house, working in what was the major drainage trench, is Joe Stewart, barely visible. Photo courtesy of Don E. Dumond.*

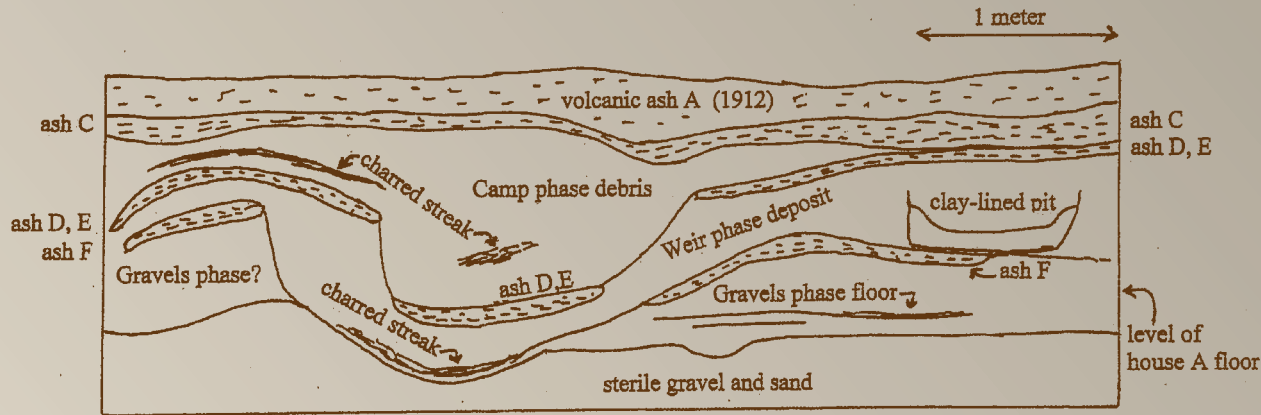




An End to the Season

In 1967, the Alaska Centennial celebration was staged with major exhibits on grounds along the Chena River in Fairbanks. And in late July of that year, it rained. And rained. The Chena flooded, washing out much of the celebration. Alaskans remember this flood.

At Brooks River, the rains hit with two and one-half inches in one night, pounding through roofs and walls of tents. Just behind the crest of the beach ridge and upslope from the houses being excavated, rainwater ponded. Within a day, water rose inside House C – on ground higher than House A – filling it almost level with the ground surface. Slightly downslope in House A the water rose only high enough to fill the sunken entrance tunnel.



House A floor completely excavated in 1967 and ready for partial reconstruction for the exhibit. The house walls where the transverse trench was excavated are repaired. Major post holes from the original house support posts are shown as open holes. The floor of the house entry here shows the gravel embedding the drain pipe for the exhibit. The ledge around House A marks the ground level when the house was originally built. Photo courtesy of Don E. Dumond.

Schematic diagram of the rear (east) wall of House A, showing evidence of earlier occupation traces cut through when the builders dug the excavation for the house.



Although the floodwater receded within a few days, if anything was needed to confirm the choice of House A over House C for preservation as an exhibit, this was it – rainwater.

Drainage was demanded to lower the water table in the immediate vicinity, and trenches became the order of the day. The plan was to lay flexible, perforated soil drainage pipe in a trench upslope of House A, dug somewhat deeper than its lowest part, the sunken entranceway. Routing the trench through the already-excavated House C would save some digging, and provide for the turn alongside and south of House A, with the pipe finally emptying near the base of the ancient beach ridge below the site. A second trench and pipe would drain the floor of the entryway.

Not long after excavation of the trenches began, we were surprised to uncover evidence of two more Camp-phase houses – similar in size and form to House C – for which there had been no recognizable surface indications. But this was not the only unexpected discovery. The trenches were eight feet deep in places, especially below the floor of House C where they delved a couple of feet into the dense and sterile gravel of the beach ridge under the houses. And this gravel was not so sterile after all!



- ◀ *The wall of the excavation as the drainage trench near House C was expanded to reveal the campsite of people of the Brooks River Strand phase. The 15-cm (6-inch) ruler rests within the deposit of partly cemented gravels containing the occupation, near a large bayonet-like point of polished slate amid some gray charcoal stains. Spots of yellow volcanic ash, probably Ash G, lie well above it. Photo courtesy of Don E. Dumond.*
- ▶ *The trench draining the entry of House A in operation below the site, 1967. The drain was found to be a success, with no substantial water rising into the entry of House A, although the excavation of the Strand level occupation below the house was flooded out. Photograph courtesy of Don E. Dumond.*

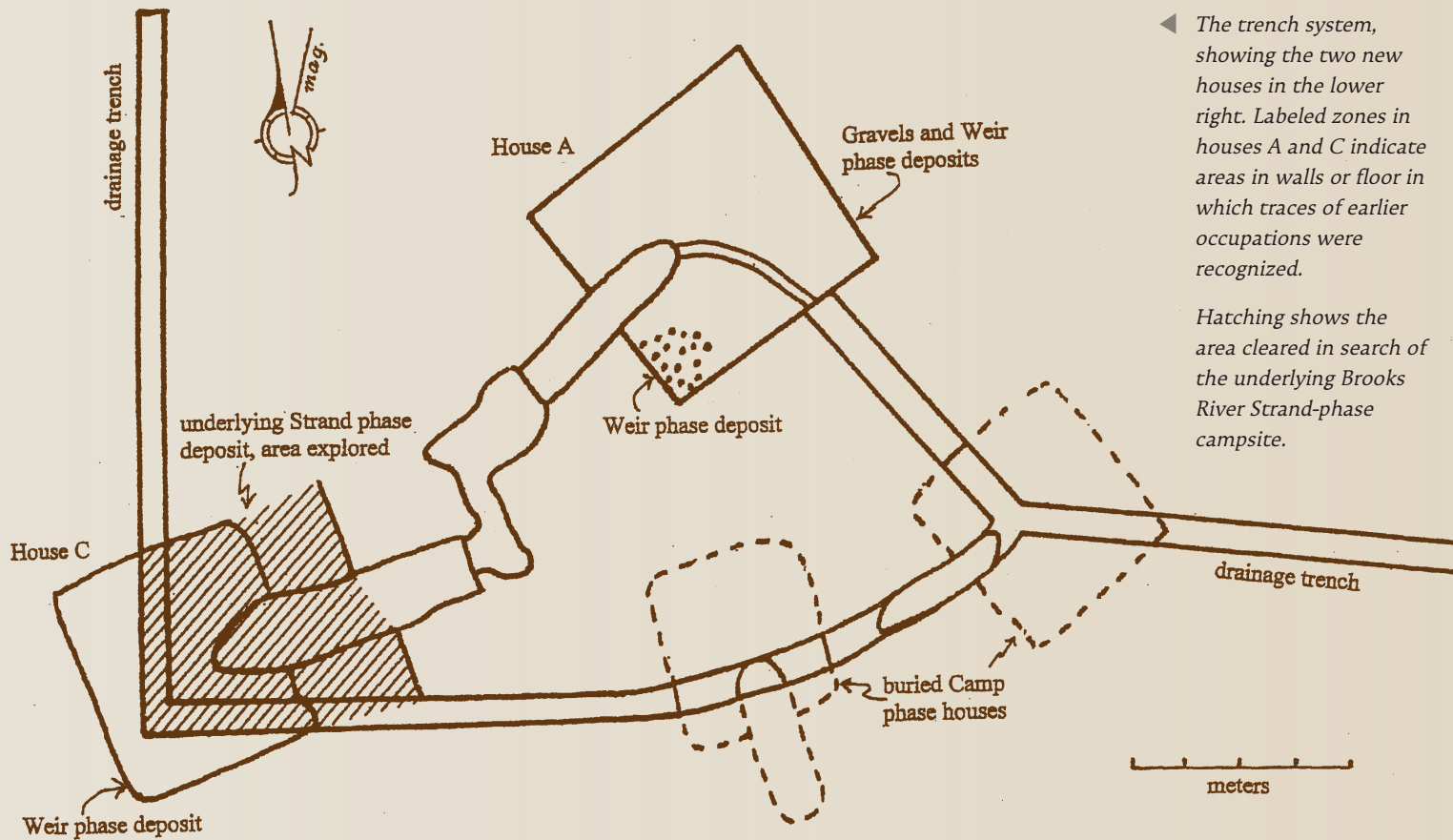


Artifacts of the Brooks Strand ▲
phase. Photograph courtesy
of Don E. Dumond.

The first chipped-stone artifact turned up more than seven feet deep in heavy gravels near where the trench moved east and away from the remains of House C. Similar artifacts and fragments of large, bayonet-like points of polished slate, began to be found deep under House C itself, together with pieces of broken stone lamps. Sections of the trench were widened to follow an ancient level that had once been the floor of a campsite at the side of Naknek Lake, a camp that later — or perhaps abruptly at the time — was covered by gravel bulldozed ashore by waves in what must have been massive storms. Scattered hearth remains appeared. Radiocarbon dates showed that the camp was used around 5,000 years ago (3000 BC), as early as any occupation known at Brooks River.

Who were these people? Not of the Camp phase, certainly, nor were they Norton or Arctic Small Tool folk. They were still earlier, some of those very early hunters who had made occasional stops at Brooks River. Confirmed by artifacts and radiocarbon age to be related to people of the Pacific coast of the Alaska Peninsula, these were of the Brooks River Strand phase culture — a campsite of Pacific coastal people spending the late summer or early fall at what in 3000 BC was the mouth of Brooks River on Naknek Lake. With caribou migrations confined to the Bering Sea slope of the Peninsula, these oceanside people, carrying their oil-burning stone lamps, are known both here and elsewhere on the Peninsula to have moved seasonally across the mountains to intercept the important herds.

The area of expansion in chasing the limits of this deep campsite is indicated in the hatched zone of the figure at right. Still more area at this level would have been cleared — except that the rains came again, and the waters resumed their rise. Although the trenches held the water below the level of House A, they were not enough to keep the new and



◀ The trench system, showing the two new houses in the lower right. Labeled zones in houses A and C indicate areas in walls or floor in which traces of earlier occupations were recognized.

Hatching shows the area cleared in search of the underlying Brooks River Strand-phase campsite.



much deeper excavation below House C dry. By the time the exposed Strand-phase area was finally troweled clear and the work abandoned, the team was in waders, the rising water lapping around our ankles.

But the drama of this storm-buried campsite of Strand-phase people had come earlier than the appearance of House A by more than four thousand years. Was the end of House A also from a cataclysm of some sort? The question will be returned to, but the next immediate problem was to rebuild the rudiments of House A as a display.

To Build a House

In 1968, we rebuilt a skeleton of the house — a framework to show the house in three dimensions, but with most of the roof including normal finishing layers of moss and sod left off to permit views from a platform outside the dwelling. Working at Brooks Lodge that summer was Joseph Kameroff, a young Native man from Aniak, a village of Yupik Eskimos and Athabaskan Indians located on the Kuskokwim River well to the north of Katmai. Almost every day he came to sit at the edge of the excavation and talk, and fortunately he gave advice. He had been in lots of similar houses, he said, though he had never built one.

I had hesitated to rebuild the house with a framework of spruce. We knew that spruce forest had not encroached on Brooks River by AD 1300 — such trees as were there would have been birch or cottonwood. For another thing, spruce is hard to split, and tends to split in a corkscrew pattern. At this my advisor said,

◀ *Preparing House A for reconstruction for the exhibit, 1967. The floor has been trenched for the drain from the entry (the inner end of which shows at the right) and repaired. The wall where the original transverse test trench exits House A is being repaired with layered dirt consolidated with Pencapsula, by Bob Mace. Ken Luepke works on the front wall. Joe Stewart is outside in the trench. The earthen ledge at Mace's right hand runs around the house, marking the elevation of the ground surface at the time House A was constructed. Photograph courtesy of Don E. Dumond.*

Use cottonwood. It always splits straight.

And he was right. And as the split cottonwood logs were assembled,

Put the flat side toward the dirt, because if the round side is against the dirt, the dirt wants to push the beams apart. If the flat side is out, it doesn't do that.

And for the roof?

Go out and cut rolls of sphagnum moss for the roof. You can roll it up like linoleum, and then unroll it right on the roof.

That's what we did at one corner of the roof to show how the whole thing would have been covered. And then put sod on top.

There would have been enough dirt in the sod that the grass would continue growing. The builders would end up with a house that on the outside would look like a grassy mound, with smoke coming out of the middle of it through the smoke hole on top.

With the entrance tunnel lower than the main floor, the warmer air would rise into the house. We speculated that living in the house must have been a bit like living inside a stove. The open, sunken entrance would have allowed a draft to come up for the fire, and the heated air would rise, keeping the room warm, especially on the usual raised sleeping place at one side or the back. The draft was controlled by shifting the translucent cover of the smoke hole on top. In its way, the engineering is impeccable.

But if it was so successful, why did it end?

Partially reconstructed House A. ►
This 1968 photograph shows
sphagnum moss and sod placed
over split cottonwood logs.
Photograph courtesy
of Don E. Dumond.



Fate of the House

House A seemed unusually large in comparison to House C and to the houses discovered in the drainage trench. This comparison holds also to a Brooks River Camp-phase house excavated by Park Service archaeologists in the early 1970s (to allow for an expansion of Brooks Lodge), and to a third house on the beach ridge above Naknek Lake that we had heavily tested but incompletely excavated in 1964.

Why was it bigger? Direct evidence is lacking. One possibility is that House A was a men's house. By the time of the Camp phase it was customary around in the Bering Sea area for men to spend most of their waking (and sleeping) hours in a larger village house separate from the houses occupied by their families. In these houses, men practiced the crafts that permitted survival, making equipment and implements of all sorts (including those used by their wives), weapons of the hunt or warfare, and parts for boats. This activity would have left traces of manufacturing waste if the men's house was occupied long enough. Yet there was no telltale amount of such debris in House A, which seemed, indeed, to have seen little use of any kind. Both House A and House C were apparently abandoned very soon after House A was built.

Clearly it was not because of storms on the lake, such as must have brought an end to the 5,000-year-old Strand-phase beach camp. The Camp-phase houses of this same ancient beach were built on what in AD 1300 was a high ridge with Brooks River lapping at its base — more than a quarter-mile from the storm-washed gravel edge of receding Naknek Lake.



The profile drawing of the outer edge of the excavation of House A (page 29) reveals the most reasonable answer. For above everything in the site, and closely overlying both Houses A and C, is the telltale: Volcanic Ash C, the third ash deposit counting from the modern surface. It is the second-heaviest of all the ten such deposits recognized at Brooks River and consistently at least 4 inches thick as it is now compacted. Ash C overlies all known Brooks River Camp phase deposits, separating the Camp phase from the next later (and last prehistoric) cultural phase, the Brooks River Bluffs phase – named for the location where it was first found in 1960, the eroding bluff on the south bank of Brooks River. Radiocarbon ages of Camp-phase occupation debris immediately below Ash C, including those from houses A and C, seem to indicate calendar dates no later than about AD 1300. Once houses A and C were abandoned, there is no evidence that they were ever used again.

Use of the Brooks River region and of the Naknek River drainage as a whole, however, was resumed around AD 1350, after the fall of Ash C. But this was clearly not by Brooks River Camp phase people, with their apparent ties northward around the Bering Sea toward Bering Strait. Instead, the new people of the Brooks River Bluffs phase showed ties to people of Kodiak Island to the southeast. These Kodiak-related newcomers returned the use of oil-burning lamps of stone, rather than clay, to Brooks River, employed distinct styles of polished slate implements, and built houses with multiple rooms, in which subsidiary rooms or apartments radiated from a central room with a major stone-lined hearth. Bluffs-phase sites have yielded small pebbles bearing lightly engraved designs – sometimes anthropomorphic – the function of which is unknown: suggestions have ranged from some ritual use to their employment as gaming pieces for gambling, but whatever their purpose,

◀ *Designs engraved on pebbles of the Brooks River Bluffs phase, recovered from the Cut Bank site along the Brooks River. Illustration by Barbara Bundy.*



the engravings were characteristic of Kodiak. In all events, the contrast between collections of artifacts from the Camp phase and those of the immediately succeeding Bluffs phase, despite the apparent short time between the two, is substantial.

Why this change in the people after an interval of only a few decades? The eruption that deposited volcanic ash C was possibly cataclysmic, but the newcomers of the Bluffs phase should have been as affected by it as were the Camp-phase people who did not return. Around AD 1300, a shift in temperatures began a colder period, but could this be a reasonable trigger, when the subsistence practices of the Camp- and Bluffs-phase peoples appear to have been extremely similar? This is one of the many mysteries still hidden in ancient history at Brooks River. In any event, the most satisfactory explanation today seems to be that the abandonment of the houses on the ancient beach ridge in AD 1300 was caused — like the abandonment of Native settlements in 1912 — by an eruption.

Where would this eruption have occurred seven hundred years ago? A geologist who has studied the Alaska Peninsula volcanoes suggests that it may have been one of a series of cataclysmic eruptions from Aniakchak Volcano, located nearly 150 miles southwest of Brooks River: ash from Aniakchak, given the right wind conditions, could easily have reached the Naknek River drainage in an amount to have for a time ended human occupation at Brooks River, and indeed on much of the Alaska Peninsula.

As American Pete said of the Severnovsk villages after 1912, “Never can go back to live again. Everything ash.” So also, possibly, with the Camp-phase people of Brooks River and their new home — finished, but nearly un-lived in.

◀ *Novarupta volcano, September 1963. Photograph courtesy of the National Park Service.*



Further Reading

Don E. Dumond, *A Naknek Chronicle: Ten Thousand Years in a Land of Lakes and Rivers and Mountains of Fire* (Research/Resources Management Report AR/CRR-2005-54, U.S. National Park Service, Katmai National Park and Preserve, King Salmon, Alaska, 2005).

- ◀ *Don E. Dumond in 1964, when he and Jim O'Connell tested the first house of the group to which Houses A and C belong. Photo courtesy of Don E. Dumond.*
- ▶ *Brooks River and the Aleutian Range looking east from Mt. Dumpling. The river, about a mile and a half in length, drains Brooks Lake (right) into Naknek Lake (left). Bob Mace stands at the left with his fieldglasses. 1967. Photo courtesy of Don E. Dumond.*



