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EDWARD WILLIAM NELSON

1855-1934

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MARGARET LANTIS

This is an appropriate time to honor E. W. Nelson. This year is the twentieth anniversary of his death and next year will be the one-hundredth anniversary of his birth.

Edward Nelson was born at Amoskeag, New Hampshire, May 8, 1855, eldest son of William and Nancy Martha (nee Wells) Nelson. He had one brother and at his death was survived only by his brother's two sons. He never married but in middle life made his home with his mother in Washington, D. C.

Nelson's family lived in Manchester, New Hampshire, until his father joined the Union Army and his mother went as a nurse to a hospital in Baltimore. Edward and his brother then went to live with their maternal grandparents in the northern Adirondack Mountains in Franklin County, New York. Here he attended a one-room rural school, learned to live a hard frontier life and to enjoy newly discovered, uncultivated land, with its wealth of wildlife.

Near the end of the Civil War his father was killed. His mother established in Chicago a successful dressmaking business, and in 1868 young Nelson entered school there. Chicago then had the aspect of a big country town and it was easy for the boy to roam the shore of Lake Michigan, collecting biological specimens. Several people with natural history interests encouraged him to collect a variety of material and taught him a little of the necessary techniques of skinning and mounting. In the confusion and looting following the Chicago fire of 1871, young Nelson lost his collection of insects. Otherwise, he might have become an entomologist. Although his family lost business and home in the fire, they managed to re-establish themselves.

For disconnected periods, 1872-75, Nelson attended Cook County Normal School and with its principal's help was able to make his first field collecting trip, at the age of seventeen. In the summer and fall of 1872, Samuel Garman, ichthyologist and herpetologist, took him and the principal's son on an expedition to Utah, Nevada, and California. At this time he met Henry W. Henshaw, who later edited Nelson's big publication on the Alaskan Eskimos. They were joined for a while by E. D. Cope, who interested Nelson also in paleontology. His attention, however, was already well fixed on ornithology, his dominant interest through the first twenty years of his career.

After normal school, while teaching at Dalton, Illinois (1875-76), Nelson continued his natural history studies. His first papers, on birds of Illinois, were published in 1876 and 1877. Deciding that he preferred field work to teaching and having got acquainted, by correspondence, with several important naturalists, he went to Washington to try to get employment in the Smithsonian Institution. He did not obtain that but, through efforts of Henshaw, Spencer F. Baird, and Robert Ridgway,

was accepted as a weather observer in the Signal Corps for assignment to Alaska. In April 1877, he sailed from San Francisco.

While waiting at Unalaska for another ship to take him to Norton Sound, Nelson visited Sanak Island with a party of Aleut sea-otter hunters. From June 1877 to June 1881, he headquartered at St. Michael, which then had two or three agents of the Alaska Commercial Company, a Russian workman, and a settlement of Eskimos. In his "Narrative," pp. 11-17 of Henshaw's report on Nelson's natural history collections made in Alaska, Nelson told of his travels there. His description of the weather on his voyage from Unalaska to St. Michael (made without stops en route) and of other trips is vivid, showing one of his strong qualities: he liked to write, and wrote well.

Later, he said regarding the Alaska sojourn, "The first object of the trip was to secure an unbroken series of meteorologic observations, and, in addition, to obtain all the information possible concerning the geography, ethnology, and zoology of the surrounding region" ("Narrative," 1877b, p. 11). Being a careful, thorough, and tenacious worker (sometimes to the point of stubbornness), Nelson proceeded to do all those things.

Caucasian fur traders from 1500 miles of Yukon Valley and from several coast stations came to St. Michael annually in June and July, bringing local crews. Nelson thus had opportunity to hear various dialects, observe sports and other elements of Eskimo and Indian life, and make ethnological collections. More important, he trained others to tend his weather station so that he himself could travel. In 1877, he explored the district immediately around St. Michael.

In 1878, starting December 1st with a fur trader, he went by dog-sled along the coast to the Yukon mouth, up the Yukon to Andreavski, then southwest across the upper Yukon Delta, by the eastern base of the Kuslevak (Kusilvak) Mountains. Reaching the coast just south of Cape Romanzof at a bay previously unnamed, Nelson named it for Captain C. L. Hooper, U. S. Revenue Marine. They went south along the coast to Cape Vancouver. He named Hazen Bay in honor of General W. B. Hazen, Chief Signal Officer, and Baird Inlet in honor of Professor S. F. Baird, who probably did more than anyone else to make possible Nelson's professional career. The large lake near the head of Baird Inlet he named Dall Lake in honor of W. H. Dall, Coast Survey, another famous naturalist. The highest mountain of the range that ends at Cape Vancouver he named Mt. Robert Lincoln. Later the island on which Cape Vancouver is located was named Nelson Island in his own honor by the Chief of the Geographical Division, U. S. Census Bureau. Nelson Lagoon on the Alaska Peninsula also was named for him.

Encountering severe winter storms south of Cape Vancouver, the trader turned back while Nelson proceeded with an Eskimo. They were nearly caught by ice driven far onshore, a type of natural occurrence that has occasionally swept away villages in this area. After some delay,

they went on to the mouth of the Kuskokwim and about ninety miles upriver. They crossed over to the Yukon, reaching it about a hundred miles above Andreavski. After a trip upriver to Paimiut, they went back down the river to the coast and along it to St. Michael. Nelson estimated that in two months he had traveled about 1200 miles, most of the distance in very bad weather, the entire trip with the same dog-team. The last two days of his journey and after his return, he had a serious case of pneumonia, to which he attributed the beginning of the bad health that characterized a long period of his life.

Nelson's map of the area traversed was the first published map of the coastal region between Hooper Bay and the Kuskokwim River, and he wrote the first text description of the area from personal observation (1882). (Zagoskin had traveled the country farther inland). Ivan Petrof credited Nelson with the information for this area on his own map, published in the report of the 10th Census at nearly the same time as Nelson's own report. Map accuracy cannot be determined, as the area still is unsurveyed, but probably Nelson's map is more accurate. He also recorded observations of winter fauna. However, because Eskimo life has changed more since his time than have fauna and geography, he made his greatest contribution to knowledge by securing, besides several vocabularies, ethnological specimens from Eskimos over the entire route, many of which could not have been obtained by any later explorer. Many of the small tundra settlements visited by him between Hooper Bay and the Kuskokwim River still are seldom visited by Caucasians. There is no published account of them other than Nelson's. Besides several trading stations on the Yukon, Nelson visited thirty Eskimo villages and obtained sufficient information on at least sixteen others, which he passed near, so that he could include them on the map. As the Eskimos of most of these villages by 1878 had acquired little more of white man's culture than guns, tobacco, and a few trinkets, Nelson visited them at an excellent time, not only to obtain artifacts but to observe aboriginal ceremonies and festivals.

On May 9, 1879, with an Eskimo workman he started over the ice by dog-sled to the Yukon Delta to study water-fowl. After a few days at Kotlik, while the team and a driver returned to St. Michael, Nelson and his Eskimo companion went in a three-man kayak to an islet midway on the seaward face of the delta. A storm came, the ice broke up, and the men were imprisoned on the islet, very wet and cold. After the storm, Nelson made his ornithology collections and observations. On their way back to St. Michael, they had a narrow escape from drowning in a heavy sea. Nelson came through many such episodes by strong determination, by close attention to his problem, and by not being panicked. In some cases perhaps he was foolhardy, having undertaken journeys for which he had not adequately prepared; but because he often worked in unexplored country at a time when scientific and outdoor equipment was scarce and undeveloped, his difficulties could not always be foreseen.

On February 9, 1880, with a fur trader and two Eskimos, Nelson left St. Michael with two sleds. They traveled up the coast of Norton Sound in very cold weather for that area. Following the coast past Golovin Bay to Sledge Island, they found starvation along their whole route. Because no dog feed was available, they did not go beyond Sledge Island. The first white man to visit it in winter, they witnessed a dance and collected ethnographic specimens, then returned laboriously by the same route. Because of bad weather and scarcity of food, they wore out three dog teams but reached St. Michael by April 13. Nelson obtained geographic observations and vocabularies for four dialects, besides many specimens.

On November 16, 1880, with a fur trader, Nelson started on a trip across the mountains to the head of Anvik River, and traveled down it to the Yukon. They arrived at Anvik January 19, 1881. After a few days, Nelson went up the Yukon, crossed Shagaluk Island, and explored the country at the head of the Innoko River. He returned to St. Michael via the trading station of Anvik and the Yukon River. Although he did not mention the date of return, he must have spent several weeks in his river explorations. On this trip, as on the others, he studied ethnology, zoology, and geography. He estimated that he covered "in the three expeditions together" more than 3000 miles, besides the 1200 miles of his first expedition, to the Kuskokwim.

In June 1881, the Revenue Cutter "Corwin" (C. L. Hooper in command) picked him up on its northward voyage in search of the missing ship "Jeannette." He became the naturalist of the expedition, recording meteorological as well as other data (1833a). John Muir also was aboard. They visited the Diomed Islands, Plover Bay and the Siberian coast to North Cape, also St. Lawrence Island where Nelson had been instructed to investigate reports of starvation. Although he mentioned "accompanying disease" in his graphic description of the nearly complete depopulation of the Island (1899, pp. 20, 269-70), he seemed to conclude that the deaths were due to drunkenness, consequent failure to go hunting, and starvation solely. (It appears now that there was an epidemic.) On St. Lawrence Island, he collected Eskimo crania in addition to the usual ethnographic material. After a return to St. Michael, again on the "Corwin" he visited all of the Arctic coast from Bering Strait to Barrow, including Kotzebue Sound. The ship then sailed west. He stated that he and others from the "Corwin" were the first to scale Herald Island and the first to reach Wrangel Island. The landing on the latter island in the name of the United States after repeated failures, as described by Capt. Hooper (1884, pp. 54-66), was only one of the many excitements of discovery experienced by Nelson on his field trips.

He returned to San Francisco via St. Paul Island and Unalaska, arriving October 1881. Although his ethnographic collection contains specimens from Nunivak Island, there is no statement that he ever visited it. The "Corwin" with Nelson aboard must have sailed close to

Nunivak but Capt. Hooper's account of the voyage does not mention a landing. We do not know exactly how Nelson obtained his Nunivak artifacts and ethnographic notes.

The excellent basic collection of ethnographic specimens is in the U. S. National Museum, with duplicates in other museums. Nelson collected also birds, mammals, fish, and Lepidoptera. In one paper (1883a), he published notes on 192 species of birds. As a result of his field studies and collections, several species of animals were reported scientifically for the first time. The most notable discovery was the mountain sheep, *Ovis dalli*. Since his Alaskan period, his work has been equaled or surpassed by specialists in particular fields, but in his time he was unique among Alaska field workers in the fullness and accuracy of his observation, and probably has not yet been surpassed in effective range of interest. W. H. Dall, for example, had many interests but in his early days in Alaska was not so careful and sound a worker as Nelson, especially in ethnography. The latter also was outstanding among early field workers in not moralizing regarding aboriginal custom. He recorded what he saw and was told without passing moral judgment on the people any more than he passed judgment on the birds.

At the conclusion of his "Narrative," Nelson stated his indebtedness to L. Stejneger and W. H. Dall, besides the naturalists mentioned previously, for the success of his work in and pertaining to Alaska. Many years later (1920), when a Government official, he returned to Alaska on an inspection trip, accompanied by Olaus Murie, now head of the Wilderness Society, but never did further field work there. His interest and writing on Alaskan subjects, however, continued long after his travels.

On his return to Washington, Nelson worked too hard (as a contributing member of the Smithsonian Institution), preparing his Alaskan materials for publication, and developed pulmonary tuberculosis. This period was not unhappy, however. He and Henshaw, who was an ethnologist in the Bureau of American Ethnology from its formation in 1880, one of the early editors of the *AMERICAN ANTHROPOLOGIST* and after 1905 Chief of the Biological Survey, used to enjoy riding out around Washington with horse and buggy to study the birds. In 1883 they camped together and hunted birds around Colorado Springs and on the headwaters of the Pecos River in New Mexico. Nelson's account of his bird-identification contest with Henshaw sounds to us in the 1950's gay, child-like, and wonderfully remote from the troubles of the world (1932). But the late 1880's (six years) Nelson had to spend in Arizona where his mother nursed him slowly back to health. He and his brother staked homesteads and established a cattle ranch. He also was County Clerk of Apache County. His brother remained in the Southwest, becoming a successful banker. Edward Nelson recovered from tuberculosis but was considered

by his colleagues to be a "one-lunger" henceforward and had a heart ailment for the remainder of his long life.

In 1890-91, as Special Field Agent he went on the Death Valley Expedition organized by C. Hart Merriam, Chief, Division of Ornithology and Mammalogy, Bureau of Biological Survey, U. S. Department of Agriculture. Thus began the service that lasted nearly forty years. From Death Valley, Nelson pioneered one of the trails into Yosemite Valley and is said to have been the first to take a pack train down the Yosemite and Merced Rivers. On one of his Southwestern trips, he was accompanied by Clarence Birdseye, whose family later became famous for frozen food products.

After his work in California, Nelson was sent on to Mexico. From 1892 to 1906, accompanied by Edward A. Goldman, he spent much of his time in field studies in Mexico, with some work also in Guatemala. (On his field travels in the Southwest, Nelson had found Goldman, a youth interested in natural history, and trained him). Despite physical disabilities and against advice of friends and physicians, he ascended the twelve highest peaks in Mexico and lived almost constantly under difficult circumstances in remote areas. He worked in every state in Mexico and on all its coastal islands. He traveled the entire length of Lower California and crossed it eight times. Although he lived among the Indians and learned much about them, he did not write about them. Primarily an ornithologist early in his career, he later worked more in mammalogy, writing many papers on the small mammals of Mexico and Central America.

After being Chief Field Naturalist, he became head of the Division of Biological Investigations, most important division of the Biological Survey, and then Assistant Chief of the Bureau. From 1916 to 1927, Nelson was Chief of the Bureau. He made virtually no field studies from 1908—except administrative ones—to 1930 when he did some work on the Florida Keys, at the age of 75. After 1929, although he had retired from all active work with the Bureau, he continued biological studies by himself.

"As Chief of the Biological Survey he initiated and fostered the development of new lines of activity and many measures bearing upon the conservation and general administration of wild-life from a national standpoint" (Goldman, p. 147). He was most instrumental in negotiation of the Migratory Bird Treaty with Great Britain (affecting Canada), Migratory Bird Conservation Act, Migratory Bird Hunting Stamp Act, and Alaska Game Law of 1925. He promoted bird-banding and other public measures for study and conservation of birds and other wildlife. While Chief of the Bureau, he wrote increasingly on conservation and wrote articles and books for the general public, such as "Wild Animals of North America." He especially encouraged others' study of birds. In the 1920's, with C. Hart Merriam, Nelson edited Charles Sheldon's journals that were published in 1930 under the title, "The Wilderness of Denali."

He was interested in both the domestic reindeer and the wild caribou in Alaska, for example in the problem of keeping the caribou free from cross-breeding with the smaller reindeer. In 1920, he established at Fairbanks the U. S. Reindeer Experiment Station, where Lawrence J. Palmer conducted basic experiments in the feeding of reindeer and other semi-domesticated or wild game animals. It was while Nelson was Chief of the Bureau, which then was in the Department of Agriculture, that Palmer began his well known long-term study of lichen growth, that is, "reindeer moss" forage. Nelson's regime cannot be blamed for the confusion and decline of the Alaska reindeer industry. Its administration was centered in the U. S. Bureau of Education, with special assistance from other agencies.

A 1925 publication on the status of prong-horned antelope was his last long paper, although in the seven years after his retirement in 1927 as Chief of the Biological Survey (he continued two more years in another capacity) Nelson wrote at least twenty-eight shorter papers. He published altogether more than two hundred books, articles, addresses to organizations, etc. In the last year or two of his life, he gathered material for a paper on quail, unfortunately not sufficiently advanced to be published posthumously. He died May 19, 1934.

Nelson received an honorary M. A. degree from Yale and an honorary D. Sc. degree from The George Washington University, both in 1920. He belonged to numerous scientific and conservation organizations. He was a Fellow and Past President of the American Ornithologists' Union, President of the Biological Society of Washington and of the American Society of Mammalogists, honorary life member of the National Geographic Society and of Alaska Pioneers.

Besides the geographic features in Alaska that were named for him, a short mountain range in southern California was named the Nelson Range. The following also were named for Nelson: 1 genus and 19 species and sub-species of mammals, 18 species and sub-species of birds, 2 species of reptiles, 1 amphibian, 5 species of fish, 4 species of land shells, 1 butterfly, 1 genus and 55 species and sub-species of plants (Goldman, 1935, p. 148).

Nelson apparently never was trained in modern laboratory techniques (probably his best work was done before 1920) and he was not an experimentalist. He was the kind of scientist who is rare today: a good all-round naturalist. As a wildlife administrator, he had sound judgment as to what could be expected or believed regarding number and behavior of most North American animals. His abilities in museum work, administration, and publication were good, but he was primarily and most successfully a field observer and collector. He was a keen observer of anything he undertook to study, whether animal tracks, bird habits, or Eskimo ceremonies, and is noted for the accuracy of his publications. To mammalogists—at least to those who have tried to evaluate his work—Nelson's best single contribution to science was "The Rabbits of North America." To ornithologists, he was most noted

for his sponsorship of treaties and national legislation protecting birds. To ethnologists, his greatest accomplishment was "The Eskimo about Bering Strait."

Nelson's colleagues in the Biological Survey report that he was a determined, intense worker, with great restless energy. He apparently had no interests outside his work. He was optimistic, enthusiastic, forceful, unafraid. Since his greatest satisfaction was in achievement and he valued attainment of his goal above present self-consideration, he drove himself to the verge of exhaustion. Because of his strong convictions, brusque manner and tendency to make decisions without consulting others, he was no favorite of politicians and was sometimes disconcerting and irritating to co-workers, in fact quite often hard to work with. Nevertheless, he made life-long friends; and his courage and tenacity, which helped him overcome many difficulties, are still winning for him the appreciation of anthropologists who did not know him but who know his work.

"THE ESKIMO ABOUT BERING STRAIT"

Knowing that Dr. Nelson soon after his return from Alaska became seriously ill and that immediately upon his recovery he started out on arduous field work again, we feel charitable regarding any deficiencies that his great monograph may have. That he, Henshaw, and others at the Smithsonian Institution ever managed at all to publish "The Eskimo about Bering Strait" is impressive. Nelson apologetically justified the publication eighteen years after his return by explaining that even though John Murdoch had meanwhile published a monograph on the Barrow region, still almost nothing had been written by others about the area that Nelson knew best: Norton Sound and the Lower Yukon. Because of Murdoch's report, Nelson said little about the Arctic Coast, perhaps a regrettable outcome since he was a better observer than Murdoch of some non-material aspects of culture. Another ironic aspect of Nelson's explanation is that he need not have worried about his tardiness because, even to the present, on one else has done any comprehensive work in his core area. (Of course someone might have if the Nelson book had not been available, but the writer doubts it.) Both the Rasmussen and Curtis expeditions missed the little tundra villages that Nelson had known. Now with Wendell Oswalt excavating the past and a Walt Disney company filming the present ("The Alaskan Eskimo") of a village that Nelson visited in the winter of 1878-79, we are getting at last our second look at his territory.

His 518-page report on Eskimo life in a much bigger area than Bering Strait is lavishly illustrated, in comparison with necessarily parsimonious illustration in present ethnographies. At least forty-five villages are represented by the many specimens pictured, in addition to such generally designated areas as "Lower Yukon" and "Koyukon River." A recently prepared mimeographed list of all the artifacts shown in the plates, giving their page (text) references, requires

thirty-three pages. Probably everyone will agree that this presentation of the museum collection is the best part of the report. Nelson's ethnographic collection of about 10,000 specimens still is unequalled among Alaskan Eskimo ones in variety of material, geographic coverage, and specificity of notation regarding provenience, use, and construction.

Captain Hooper has described the collecting technique of "Mr. Nelson, who was always ready to catch up anything of ethnological interest, whether a specimen or a dry fact . . ." (1884, p. 75).

At Cape Hope, "We went on shore to examine their houses and learn something of their mode of living. Mr. Nelson, who was ever on the alert for anything of etymological (sic) interest, took his camera and a small package of trade goods. Upon reaching the settlement Nelson established himself under the lee of a turned-up oomiak near the shore, and signified through the interpreter his desire to buy any old worthless things they might possess. A general raid was made on the old collections or rather accumulations of the settlement. Carved images, drill bows (for making fires), and implements of various kinds, made of ivory and stone, were brought out and offered for sale by the natives, each trying to be the first to trade, as if afraid the supply of beads, calico, tobacco, etc., would not hold out, or that the market for articles of native manufacture might be overstocked. Each article offered was taken by Nelson and examined, and if of any value as a specimen the interpreter was told to ask what was wanted in return, and upon being told what the native most wanted a fair quantity was given" (Hooper, 1884, p. 107).

Hooper described also Nelson's persistent attempts to photograph people in nearly every village, not infrequently thwarted by their fear and suspicion or by bad weather. From Nelson's own narratives and those of his colleagues, we have a picture of a man self-motivating almost to the point of inner compulsion. According to our present knowledge of personality, we probably can call him a compulsive collector—although not an indiscriminating one—whose personal qualities happened to be exactly suited to the needs of his period.

Just what does the monograph contain besides the many text figures and 107 plates? About 250 pages of the text are essentially an annotated museum catalogue. The sections of this catalogue that describe the use of artifacts, for example techniques of trapping, are better than those that merely describe the artifacts themselves. An example of the latter is the section on masks. Instead of a 200-word description of a mask, listing the features that one can see anyway in the illustration, one would like to have more information regarding meaning and use of the mask. Of course in the conditions of collecting described above, it is remarkable that any notes were obtained and correctly related to specific artifacts. Most masks, however, came from Nelson's home territory, his core area, where he usually had more leisure to talk to people, and we must regret in this instance his tendency simply to obtain the thing without the explanation or accompanying story.

On physical anthropology, Nelson has given only a traveler's general observations. On tribal relations and dialect boundaries, the traveler's information is more useful. We still are using his data, as

the boundaries still are undefined by good linguistic research except for L. L. Hammerich's 1953 field work in the southern part of Nelson's area.

His little description of each village is quite good (although the diagrams of house construction are inadequate), giving an interesting anecdotal account of the reputation of villages and the relations between them, including some information on warfare. From this part of the report, one can extract the proto-historic moral code of family and community. The type of occurrence that was most meticulously described and is most valuable for us today, now that the information is unobtainable except from failing and distorting memory and hearsay, is the village festival, the big public ceremonial. Here we see not only the paraphernalia of ritual and hear not only anecdotes of feast-givers and guests, but are given a witness's description of the ceremonial program. Here Mr. Nelson's "dry fact" has the heat and moisture of life.

His discussion of "totemism," which Nelson took for granted, not knowing that Eskimos were then supposed to have no such thing, is tantalizing. We learn from it something about ownership and inheritance, but the basic structure of kinship and community was missed—not surprising in the work of an untrained ethnographer in 1880. The only item that he might have been expected to include, even then, is the system of kinship terms. Also, except the temporary trading partnership, he missed the elaborate partnership system of the area.

As with family and "clan," the west Alaskan status system is glimpsed only in stories of noticeable village leaders and in general statements on such things as the old men's place of honor in the men's house. Even though there are many paragraphs on clothing, there is almost nothing on status and wealth differences in dress. Most cultural anthropologists today are not so much interested in knowing whether a fancy fur bonnet was decorated with marmot or with ermine as in knowing who wore it. On this aspect of culture, much information should and probably can be obtained yet in Nelson's area.

Another aspect that Nelson, the bachelor, did not or could not study adequately was the clothing of young children and in fact all aspects of childhood and child training except games and toys—quite well described although he illustrated no string figures—and the custom of infanticide.

His description of mortuary customs is good, also of beliefs regarding supernatural beings, and of shamanism fairly good. Not much of the emotion of shamanism and witchcraft comes through his tight-meshed writing; in fact probably not much emotion could come through his self-controlled personality. Whether Nelson's personality affected the selection of myths that he remembered and recorded, we can only guess. In comparing his collection of stories with three other Eskimo collections from west Alaska, the writer discovered recently that Nelson's was more sombre, with more violence and unhappy

endings. As his was also the earliest of the collections, it is possible that he obtained a truer projection of the proto-historic life, which was full of violence and fear.

Turning to the intellectual knowledge recorded, we find the Eskimo system of numeration and local units of barter but, surprisingly, almost nothing of the Eskimos' considerable knowledge of natural history, Nelson's own specialty. On his trips with them, he must have learned something of their knowledge of the stars, weather signs, anatomy, animal behavior, but perhaps, just because he was the young specialist on such subjects, he undervalued what may have seemed to him only meagre folk knowledge. Again, we can only guess at his attitudes and the selecting function of his own interests.

What must be our final evaluation of the report apart from the ethnographic collection, on this fifty-fifth anniversary of its publication? Aside from the weakness in specific topics, such as Eskimo knowledge of animals and plants, the greatest weakness is absence of detailed description of processes, for example any one hunt witnessed from preliminary preparations to disposal of the carcass or the preparation of a garment from skinning the animal to sewing on the final decoration. The report presents almost always the finished article, including the finished attitude of the village. One wonders whether to Nelson, in his early days if not later, life was a set of museum pieces.

Regarding good qualities of the report, the lack of moralizing has been mentioned already. Nelson's honesty and fairness, his sensible unhysterical behavior, his attitude of the rational scientist helped him avoid the biases of many of his contemporaries in foreign travel and exploration. Another good quality, to this reader, is the absence of theory regarding Eskimo culture. Nothing so dates a work and makes it suspect to future generations as a disproved theory, especially a grand one. Although Nelson had a few theories, small in scope, to account for specific circumstances that he observed, theory is so small a part of his ethnology that it does not deaden or obscure the narrative and description. The monograph is still fresh, still useful, and will continue to be, after E. W. Nelson's hundredth anniversary has passed.

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HUMAN HAIR AS A DECORATIVE FEATURE IN TLINGIT CEREMONIAL PARAPHERNALIA

EDWARD L. KEITHAHN

The incentive for writing a paper on the use of human hair as a decorative feature in Tlingit ceremonial paraphernalia is due to the presence of thirty-three objects so embellished in the Alaska Historical Museum collections and, secondly, from the discovery that they are all of Tlingit origin. This, in itself, would not be unusual since the museum possesses considerably more Tlingit material than Tsimshian or Haida and contains nothing of the Kwakiutl or Nootka. However, examination of the plates and figures in a number of studies dealing with Northwest Coast decorative art reveals additional evidence that such a use of human hair on the Northwest Coast is a Tlingit trait, almost exclusively.

Davis (1949) figures thirteen objects decorated with hair, presumably human. Of these, ten are Tlingit, two are Kaigani Haida, and one is labeled simply Haida. The Kaigani are known to have adopted many Tlingit traits.

Niblack (1888) figures nine objects decorated with hair, six of which are Tlingit, three being Haida.

Inverarity (1950) figures seventeen hair-decorated objects, six of which are Tlingit, one listed as probably Tlingit, seven are unknown, one is Nootka and two are Haida. Of the unknown, three, having been collected by Emmons are likely Tlingit, being of the typical Tlingit killer-whale motif.

Several other authors writing on Northwest Coast decorative art have figured hair-decorated objects but none have given this style of decoration more than casual mention, if it was mentioned at all.

In decorating wooden objects with hair the usual procedure was to drill rows of small holes at uniform distances varying from one quarter inch to two inches or more apart depending on the size of the object being decorated. The tuft of hair to be inserted was then bent in the middle across the end of a short wooden peg which, when driven flush, held the tuft upright securely. When thus properly set, all were clipped to a uniform length. These clipped tufts appear so coarse and bristly they have sometimes been described as "horse tail." In fact, two of the hair-decorated objects in the Alaska Historical Museum, a baton in the form of a Winchester rifle and a very large rattle, are actually decorated with horse tail hair.

In decorating ceremonial batons in the typical killer whale fin and paddle designs, the hair embellishment appears only on the back edge. In this instance the hair is not clipped but drapes gracefully, the locks being six inches or more in length.

A few specimens examined revealed the hair tufts had been stitched down the middle as though the hair were parted, and then glued to the wood. In decorating cloth or felt hats and caps the hair was sewed on with cotton thread.

Laboratory¹ examination of hair specimens taken from thirty examples in the Museum showed that human hair had been employed in twenty-four instances, horse tail in two, cow's tail attached to hide in one, blue-pelt² bear hair in another, and ordinary black bear fur in two. In each instance where hair other than human was employed, the object had been manufactured within the last fifty years.

That the practice of using human hair to decorate ceremonial paraphernalia is old on the Northwest Coast is demonstrated by two hair-decorated objects collected by Captain James Cook, one at Nootka and one from an unnamed place in 1778, figured by Inverarity (1950, plates, 139, 140). These probably antedate by a hundred years most of the specimens now in the Alaska Historical Museum yet the technique employed in applying the hair remains essentially the same.

In speculating on the origin of this use of human hair for decoration or to represent hair on masks or carvings it is significant that the near neighbors of the Tlingit used other materials and techniques. To the south, the Haida and Tsimshian represented hair in wood and argillite figurines and maskoids by carving a representation of it in great detail, portraying coiffures, knots, braids and ornaments. Farther south the Kwakiutl made great use of dyed and shredded red cedar bark to portray hair and to otherwise embellish ceremonial paraphernalia.

North and east of the Tlingit the Tahltan made use of hide fringes and porcupine quills for decorative purposes and to the northwest the Eskimos found tufts of caribou hair and feathers to suit their taste for ornament where the Tlingit chose human hair.

The Aleut in historic times seem to have favored the use of sea lion whiskers for decorative purposes and the use of them is reported by the earliest European navigators who visited the Aleutian Islands. However, Martin Sauer, secretary to the Billings Expedition (1785-94) figures six masks used by "Oonalashkans in their Dance" each decorated with hair, presumably human. Some of the tufts appear to be pegged in after the manner of the Tlingit, others being glued on (Billings, 1802, p. 272).

Lisiansky, describing a Kodiak shaman says in part, "He then disguises himself by a wig of human hair, to which two feathers are attached, one on each side, to resemble horns" (Lisiansky, 1814, p. 208).

In the Alaska Historical Museum is a Tlingit shaman's cap made of a human scalp to be worn as a wig. The similarity of the Aleut masks and Kodiak wig to Tlingit workmanship and usage suggests borrowing in that quarter, one way or another. Eight very early Aleut (?) masks, also in the Museum, which come from a cave at old Savonofski, also support the view that this practice was borrowed from the Tlingit, for none of them show any evidence of having been decorated with

¹Hair was determined through the courtesy of the Federal Wildlife Research Laboratory, Denver, Colorado by Charles C. Sperry, Biologist.

²Blue pelt is a term used by the trade to indicate a black bear pelt of unusual quality.

hair. Since Eskimos living adjacent to the Aleuts do not follow the practice either, it seems reasonable to assume that the Aleuts borrowed the idea from the Tlingit.

The use of human hair to embellish the heads of human figurines, or masks portraying men, seems so natural a course it is remarkable it is not a universal practice. A deterrent could be the fear that the hair might fall into the possession of a sorcerer who might use it to work evil against the owner if alive, or his people if dead. Swan quotes Haidas as saying that they practiced cremation in enemy country to prevent enemies from digging up the body to make charms with which to destroy the Haida tribe (Swan, 1874, p. 9). Ordinarily Northwest Coast "witches" worked their hexes only on the person from whom they had obtained intimate objects such as parings, hair, perspiration, or sputum. Oberg states: "Sometimes the hair of dead slaves was fastened to the end of the batons" (n.d.). Slaves, dead or alive, are often given as the source of hair used in such decorations by Tlingit today, yet, upon close questioning they admit exceptions. In fact, in no case examined, where the source of the hair was known, had it come from the heads of slaves. It is a well-known fact that the Tlingit required their slaves to be shorn at all times. This was necessary, that free men would know how to address them. Because their hair was short the first white men who visited this coast were believed to be slaves.

Oberg further states: "At betrothal women of the *anyeti* (noble) class sometimes cut their hair and present it to the bridegroom's family; this hair is later displayed at the wedding ceremony and finally becomes an emblem of the bridegroom's clan . . ." (n.d.).

In speaking of the Tlingit dead, Oberg says in part, "through the sacred emblems and names he is still part of the community, and food is put into the fire at each potlatch so that the dead ancestors can enjoy it, for they are taking part in the proceedings going on in the sacred house—the center of the Tlingit world . . ." (n.d.).

It is the concept of hair as a sacred emblem or magical tie with deceased relatives in the spirit world that probably accounts for its use in most instances. A common belief is that the dead relative whose hair is used to ornament ceremonial batons is thereby enabled to share in the joy and happiness of the occasions on which these objects are used or displayed. And since these objects never were allowed to get out of possession of the clan there was little danger that witches could obtain them to work their evil will.

In describing some Tsimshian portrait busts or images of men who died on the trails and had been cremated, between Kitwankool and Nass River, and between Hazelton and Kigagass, Emmons says in part, "These figures are called *Kitumghun*, 'Man of wood,' and were rare on account of their expense . . . In some instances the hair of the deceased was cut off and locks thereof inserted and pegged into small holes in the head of wood . . ." (Emmons, 1914, p. 64).

Niblack quotes a description of a Tlingit funeral by an anonymous writer as saying, "on one side of the room a young brave was busily

engaged with a pair of scissors cutting off the long, black hair of all the near relatives, male and female . . . " (Niblack, 1888, p. 358). He does not state to what use the hair was put, if any. There is considerable evidence that scalps were taken in war as trophies but nothing to show that the hair was ever used to embellish ceremonial objects.

The hair used to ornament the heads of two canoe figures now in the Alaska Historical Museum was taken from the heads of two slain chiefs "to give to the canoe spirit," according to an heir who had inherited the objects. The shaman rode in this specially-built war canoe on the expedition organized for the purpose of avenging the killing of the chiefs several years earlier. Thus, a magical power was ascribed to the hair employed in this instance.

Recently, according to an informant, an old Tlingit woman who had exceptionally long and beautiful hair died in a village near Juneau. Upon her death her hair was carefully cut off and put away by relatives as a keepsake.

Another informant (from Kake village) recalls a baton in Kake decorated with reddish-brown hair. It was his understanding that this particular shade of hair was considered proof of a line of Tsimshian ancestry from which this Tlingit clan was proud to have descended. The hair was preserved in the baton and displayed on auspicious occasions with the view to advertising this distinguished lineage.

From the information at hand it now appears that the history of each object decorated with hair must be sought out individually since there seems to be too many special reasons for its employment to generalize beyond Oberg's statement that the dead are still a part of the Tlingit community.

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