

## VILLAGE DESCRIPTIONS

### NORTHCENTRAL ATHAPASCAN INDIAN

#### ALLAKAKET

Allakaket, an Athapascan Indian village, is located in north-central Alaska just a few miles north of the Arctic Circle. It is situated on the banks of the Koyukuk River near its confluence with the Alatna River. Allakaket actually means "mouth of the Alatna". The village site was selected because of the good fishing for salmon, whitefish and ling cod.

While most of the inhabitants of Allakaket are Athapascan Indians, a few Eskimos, originally from the Kobuk and upper Alatna River areas, have also settled here. In the past the two groups remained distinct, but in recent years some intermarriages have occurred. The Kobuk Eskimos and Koyukuk Indians have had trade relations since long before the advent of the white man to the Arctic. The Indians sold various kinds of furs to the Kobuk Eskimos who traded them in turn to the coastal Eskimos at the annual summer rendezvous at Kotzebue Sound. In return Kobuk Eskimos traded to the Indians seal oil, ugruk rawhide and many other items obtained during their coastal sojourn.

The Koyukuk River Indians formerly ranged over a considerable area, moving their camps as dictated by seasonal hunting, fishing and trapping requirements, meeting only occasionally for "potlatch" celebrations. The first permanent settlement for the upriver group was at Arctic City, a fairly large village, seven or eight miles down river from the present village of Allakaket. Around 1907, one small group left Arctic City and established themselves at Allakaket, and later another group settled at Hughes and a third at Cutoff.

Allakaket is situated in a wooded area (spruce and birch), and the homes are, for the most part, one-room log structures. The village economy is still essentially one of hunting, fishing and trapping with the sale of beaver, mink and marten pelts the most important source of cash income. In the past year or two a few of the men have found summer employment outside the village. Seven men were thus employed during the summer of 1958. One man had four months and two men two months employment each at nearby gold mines; two men worked for two months each for



Since Huslia is in an area wooded with spruce and birch, the homes are of log construction and fuel is plentiful. Most of the homes have two or three rooms.

Income is derived from two main sources (1) from the sale of pelts, mainly beaver and muskrat with some lynx, mink and marten, and (2) from summer wage work in nearby mines and on river boats.

The yearly food cycle for Huslia, except for minor differences, is the same as that for Allakaket and other Athapascan villages in the same general area. Moose is by far the most important source of meat, but considerable amounts of beaver, muskrat, and ptarmigan are also seasonally important. Salmon is also an important food; and lesser amounts of whitefish are available. Most of the dried product is used for dog feed.

Gardening is possible at Huslia but only for those staying at the village during the summer. Most of the able-bodied men leave for wage work and the women go to nearby camps where they devote much of their time to fishing and drying the catch.

## **NORTHERN ESKIMO**

### **POINT HOPE**

Point Hope is located on a gravel spit that projects about fifteen miles out from the northwest coast of Alaska into the Chukchi Sea. It is approximately 190 miles northwest of Kotzebue, and approximately 103 miles north of the Arctic Circle. The spit on which the village is located has been continuously occupied for at least 1000 years. The village, its people and environs have been thoroughly studied by Rainey<sup>(9)</sup>, Larsen and Rainey<sup>(10)</sup> and Van Stone<sup>(11,12)</sup>. About half of the houses are of frame construction and the rest are constructed of sod and whalebone; the latter are mostly one room affairs while several of the frame dwellings have two or three rooms.

Since it is necessary to protect the houses against the cold winds and gales that often blow across the spit many of the frame houses are banked along the sides with sod blocks. During the winter added protection is secured by building long entrance ways made either with sod blocks or discarded oil barrels with a top covering of heavy canvas or other material. These are necessary expedients since fuel is at a premium, there being no driftwood in the immediate vicinity. Seal blubber, the traditional fuel of the past, is occasionally used by some to obtain a quick, hot fire for

cooking. Commercial fuel oil is used when families can afford it. Considerable heat is given off by the gasoline lanterns, the chief source of light in most homes during the long winters.

There are two stores in the village, a cooperative store with a manager appointed by the village council and one privately owned by a local Eskimo family.

Yearly cash income is variable for most families since it is derived primarily from summer wage work (construction jobs, mines, etc.). Only a few residents—a school janitor, the postmaster, the store manager—have year-round wage incomes.

The total estimated village income for 1958 according to the Bureau of Indian Affairs economic report<sup>(13)</sup> was as follows:

Sales of furs and hides	\$ 622.10
Arts and crafts	7,295.40*
Wages, including private business	30,770.00
Direct welfare (OASI, ADC, etc.)	11,451.00
Unearned Income (Social Security, Unemployment insurance, etc.)	10,495.00
	<u>\$60,633.50</u>

This amounts to an average income of \$1318.00 per family per year.

At one time furs, especially those of the polar bear and arctic fox, provided a good source of cash income. But the current price for arctic fox fur does not now warrant the effort to secure it, and the number of polar bear taken by resident Eskimos has dwindled steadily since the influx of winter sport hunters seeking bear trophies and skins for rugs began. However, several new local Eskimo-owned businesses which provide food and lodging and dog team transportation for the hunters and other visitors, have developed and may eventually equal the income usually realized by the sale of skins.

Ivory and whale bone carving, the making of baleen baskets and skin sewing (parkas and mukluks) continue to be a modest but fairly constant source of village income.

In 1958 the sale of artifacts was an important source of income for many families; in 1963 such income was at a minimum, for many of the igloos at old Tigara, where most of the artifacts have been found in recent years, are now used as meat storage caches, and to protect these from being undermined the village council has curtailed artifact digging in the general area.

There is a National Guard unit at Point Hope which also provides a source of income.

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\* This item includes arbitrary values placed on boats, sleds and skin garments used locally.

## NOATAK

Noatak lies 70 miles north of the Arctic Circle on the banks of the Noatak River, approximately 50 miles due north of Kotzebue.

Noatak people have not been studied to the same degree as have the residents of Point Hope. For this reason it seemed desirable to inquire into the seasonal food quest patterns of past times as remembered by the village elders. This information is included in the appendix.

Present day Noatak people follow essentially the same pattern of hunting and fishing as in the past except that now most families live almost continuously in the village from the time school opens in September until it closes in May.

Most fall and winter fishing is done at the village location or at most only relatively short distances away from it. The women also do considerable berry picking in this general area and may obtain sizeable quantities of mashu, the edible root of *Hedysarum alpinum*, from rodent caches. From late fall and throughout the winter the men, usually in small groups of 4 to 6, establish caribou hunting camps in the rolling hill country upriver from the village. They may be away from home for a few days or up to two weeks at a time depending on the movement of the caribou in the area. Occasionally an entire family may establish a hunting camp and carry on much as they did in the past but this is now uncommon.

Noatak residents still make traditional summer trips to the coast (Kotzebue Sound) where they stay from late May or early June to early September. Some families still go to Sealing Point; but most go directly to Sheshaulik. They still hunt for seal, ugruk, beluga whale, rabbits, and wildfowl; do some fishing and gather berries, but according to their own statements, not as assiduously as in the past. When the bulk of these activities is over, most families move to Kotzebue to trade, to visit friends and relatives and to engage in whatever wage work is available to them. Some families spend the entire summer at Kotzebue—usually those who are able to obtain summer wage employment in construction work as carpenters, day laborers or as deck hands on supply barges. Wage employment is unpredictable from year to year. The Bureau of Indian Affairs<sup>(13)</sup> estimate of income for the entire village for 1960 was \$36,000.

Regular wages are obtained by very few families. They include a family engaged in year-round reindeer herding (they care for a small herd of their own as well as the government herd lo-

cated in the general area); the school janitor; the postmaster; the manager of the local cooperative store; and the Eskimo pastor of the local church.

No outstanding arts and crafts are practiced at this village. Occasionally some ivory carving is done but the materials are not readily available although occasionally a mastodon tusk is extracted from the river banks. Total village income from this source for 1960 was estimated at \$1995.00.

The total income from welfare, mostly aid to dependent children and old age assistance, amounted to \$23,000. An additional \$23,000 came from unearned sources, chiefly social security and unemployment insurance.

The combined total income from these sources amounted to \$83,995.00, or an average of approximately \$1714.00 per family per year.

There is one store, a village cooperative in the village. However, since most Noatak families average about three months in the Kotzebue Sound area, purchases are made at the Kotzebue stores. In addition to the items needed daily throughout their residence in the area they also purchase considerable supplies of flour, sugar, canned milk and other food items to take back to the village. Most of these items are slightly cheaper at Kotzebue.

## **SHISHMAREF**

Shishmaref, an Eskimo village, is situated on a narrow sandy island just off the coast of Seward Peninsula, about 120 miles northwest of Nome. It is approximately 25 miles south of the Arctic Circle.

According to Shishmaref people, the original village site was inland on the banks of the Arctic River. They say there are mounds of whale bones there marking the site. The village has been located at or near its present site since before the arrival of Caucasians. The village faces the Chukchi Sea and immediately behind it is an eighteen-mile-wide lagoon or inlet into which flow two mainland rivers, the Arctic and the Serpentine.

The population of Shishmaref in 1957-58, was approximately 175. There is, however, considerable population movement back and forth between Shishmaref and Nome. Many families go to Nome for the summer only, primarily for wage employment with the mining company. An increasing number of families stay on in Nome permanently, although it is not unusual for some of them to stay a year or two and then move back to the village again. Fluctuation in available work probably accounts for

most of the shifting. A few Shishmaref families—those who are exceptionally good ivory etchers or who have become professional artists—have moved as far away as Anchorage and Seattle.

Besides wage work, which amounted to \$38,000 in 1958 according to Bureau of Indian Affairs estimates<sup>(13)</sup>, cash income is derived from the sale of furs and hides, ivory carving, skin sewing and the sale of archeological artifacts. The net total from this source was estimated at \$7,000, but this figure included the assessed valuation of new boats, sleds, parkas and mukluks made for family and local use.

Welfare assistance, such as aid to dependent children, old age assistance and general relief, totalled \$20,000. An additional \$7,000 came from unemployment insurance, social security and other unearned sources. On the basis of these figures the 1958 average income per family unit was approximately \$2181.

At the time of the study there was one trading post in the village, owned and operated by the village. Significant food purchases were made in Nome during the summer and intermittently at Teller throughout the year.

At one time reindeer herds were locally owned and operated, serving not only as an important source of meat but also furnishing skins for clothing and sleeping bags. These herds no longer exist locally, but variable quantities of reindeer meat are shipped in from Teller. During the study year (1957) the total shipped in amounted to no more than 1000 pounds. According to the Bureau of Indian Affairs village report<sup>(13)</sup>, the amount had increased to 5600 pounds during 1961.

## **SHUNGNAK**

Shungnak, an Eskimo village, is located inland on the banks of the Kobuk River, about 150 miles due east of Kotzebue and approximately 25 miles north of the Arctic Circle. The area is forested predominantly with willow, alder, birch and spruce. Shungnak is a comparatively young village having been established about 1920. Most of the families now residing at Shungnak originally came from nearby Kobuk or from Ambler, two of the ancient seasonal campsites for these people. Because of blood relationships there is still considerable population movement among the three places.

A resume of the yearly hunting-fishing-trading cycle of aboriginal times as remembered by the village elders is given in the Appendix. Essentially the same seasonal food quest pattern is followed today except that the people are in residence at Shungnak

village from September to the end of the school year in May. Consequently, hunters no longer roam over such large areas in search of caribou but confine most of their hunting and fishing to areas near the village. Many families still establish spring camps, usually on high ground near the village but very few go to Kotzebue for the summer. The few men that do go do so primarily to set up a jade shop where they make jewelry for the tourist trade. A few of the men also work in mines located near Shungnak. The women stay in the village or spend the summer at traditional campsites along the Kobuk River where they fish for salmon and dry it for winter use.

According to the 1959 Bureau of Indian Affairs economics report, approximately 58 percent of the estimated total cash income (about \$35,700) for this village came from wage work.<sup>(13)</sup> This was mostly from summer work in the nearby mines. The only village residents receiving a year-round salary were the local postmaster, the cooperative store manager and the school janitor. A number of the young men belong to the National Guard for which they receive a nominal stipend.

Additional income—less than \$1,000—came from the sale of jade, locally made jade jewelry, birch bark basketry and the sale of furs. Included in this total was the assessed valuation of new boats, sleds, snowshoes and fur clothing, most of which was made for local consumption only.

Just under \$6,000 came from welfare sources, and an additional \$10,000 from social security and unemployment insurance. On the basis of these figures the average cash income per family was estimated at \$2014.

## **SOUTHWESTERN ESKIMO**

### **AKIAK**

The Eskimo village of Akiak is located on the banks of the Kuskokwim River approximately 20 miles above Bethel, in a semi-forested (spruce, alder, birch) area bordering the foothills of the Alaska Range. At one time Akiak was a much more vigorous village than it is today. A Bureau of Indian Affairs hospital and the headquarters for a reindeer project were formerly located here, but these services were transferred to Bethel because of transportation difficulties (ocean going vessels can ascend the Kuskokwim only as far as Bethel).

Most of the homes in Akiak are of frame or log construction. A few are fairly large with several rooms, but most are

small with one to two rooms and an attached shed. There are also several sod houses still in use.

There are two stores in Akiak, one a village cooperative, and the other owned by a local Eskimo family. However, there is much traffic by dog team and plane in winter and by boat and plane in summer between Akiak and the trading center of Bethel and most families do some purchasing while there.

In aboriginal times Akiak was a winter headquarters—the place where river, tundra and mountain Eskimo met to trade and for winter fishing. A description of the old seasonal migratory pattern of the mountain Eskimo as remembered by one of the elders of the village is given in the Appendix. Most of the descendants of these people now spend almost the entire year in the village environs. The men, and only occasionally entire family groups, make short hunting forays into the foothills. The only extensive trips made are by the men who regularly trap beaver.

During the summer, the able-bodied men now seek wage employment in nearby mines, at Bethel or wherever available, often leaving the family in the village.

Many of the descendants of the tundra people follow more closely the aboriginal living pattern. Many of these families, for example, still establish spring and fall camps out on the tundra. Persistent encouragement of continuous school attendance by the children has curtailed many of these activities, and each year fewer families go to the camps.

In 1959, the study year for this village, the Bureau of Indian Affairs estimated the total cash income from the sale of furs and hides at \$5300 and from wages at about \$34,832, or an average of approximately \$1206 per family unit. Welfare assistance, totalling \$15,650, increased this to \$1712 per family.<sup>(13)</sup>

The manager of the village cooperative and the school janitor were the only residents receiving a yearly salary. Several individuals in the village had small local businesses from which they received a nominal recompense. These were the owners of a small retail store, a light plant, a tractor for logging and one family with mining interests.

## **NAPASKIAK**

Napaskiak is a small tundra village—population 137—located on the banks of the Kuskokwim River near Bethel. Most of the houses are of log or frame construction, sometimes with only one room, but usually with two and occasionally three rooms. The larger dwellings are sometimes occupied by two related family

groups. The majority of the village people are communicants of the Russian Orthodox Church; a few belong to the Moravian Church.

There is no store or postoffice in the village. Imported food and a limited number of other items are purchased at Oscarville directly across the river or at nearby Bethel. Most clothing items and equipment such as outboard motors are purchased from mail order houses. Mail is obtained directly from Bethel about 5 miles distant.

Salmon is the most important of the locally available foods and is included in the daily menu throughout the year. The fresh product is used in season, but for the greater part of the year dried fish are used. Other foods listed in the food quest sequence are used for limited times and in limited amounts seasonally. Many of these seasonal foods are not used to the extent they were formerly; this is illustrated by the fact that during 1958, the year food records were collected at the village, only three family groups went to spring camp. The usual diet of the villagers at this time consisted of dried salmon or fresh whitefish, bread or hotcakes, coffee or tea. The typical diet of those at spring camp included fresh wildfowl, fresh fish, bird eggs, bread or hot cakes, coffee or tea, edible greens and such berries as remained on bushes throughout winter.

Cash income at Napaskiak as in all Eskimo and Indian villages, is extremely variable from year to year. The Bureau of Indian Affairs estimate<sup>(13)</sup> of cash income from the sale of furs, mostly mink, in 1958 was \$10,000, and that from wages, chiefly summer employment, \$10,500, for an average of approximately \$630 per family. Welfare assistance, which totalled \$29,945, raised this average to approximately \$1565 per family.

## **KASIGLUK**

Kasigluk, a tundra village in Southwest Alaska, is located about thirty miles northwest of Bethel on the Willidulli Slough near the Johnson River. This village is of recent origin, most of the residents having come from the nearby tundra village of Nunachuk. In 1957-58 the total population was about 140.

The entire area around Kasigluk is characterized by lakes, ponds, sloughs, rivers, and sphagnum bogs which makes it a good winter fishing area. Able and energetic families can obtain sufficient fresh whitefish and blackfish which, along with their dried salmon stores, furnish the bulk of the nutrients in their winter diet. Salmon is not available in the immediate area, but in May

or early June, just after the ice goes out of the rivers, most of the families go to traditional fish camp sites near Bethel where they stay until late summer or early fall. Only a few families remain at the village during the summer. They depend on whatever white-fish they can obtain from the surrounding sloughs and lakes.

Fuel shortage is a constant problem at Kasigluk. The supply near the village has long since been exhausted. The men and older boys must go almost daily to the Johnson River, several miles from the village for meager supplies of river driftwood, or they gather willow wherever they can find it on the tundra. In Kasigluk it is not unusual even in winter, for fires to be limited to the cooking period only. A few families with young able-bodied men who work for wages during the summer, may use limited amounts of fuel oil. Seal oil, available only by purchase from coastal Eskimos, is never used for this purpose.

There is no trading post at Kasigluk. All store purchases are made at either the nearby village of Nunapitchuk or at Bethel. Most dry goods and other items are obtained from mail order houses.

Cash income varies widely from family to family and within the family from year to year. In recent years a few men have succeeded in obtaining summer employment, mostly in the Bethel area or at the canneries. There is a National Guard contingent at Kasigluk and this contributes materially to the village income. Trapping for mink and muskrat is limited in the area and is an important source of income to only a few families. Little attention is given to arts and crafts because of the unavailability of suitable materials. Welfare payments, including Bureau of Indian Affairs general welfare, aid to dependent children, and old age assistance, are a major source of village income. No total income figures are available for this village, but they would be approximately the same as those for Napaskiak. These villages have similar local resources except that income from mink and muskrat is considerably greater at Napaskiak. Wage earning opportunities are also similar.

## **HOOPER BAY**

Hooper Bay is located on the Bering Sea Coast about half-way between the mouths of the Yukon and Kuskokwim Rivers. It is one of the larger Eskimo villages with a population of 460<sup>(14)</sup>.

The village is built on a series of three hillocks formed by a combination of sand, old vegetation and the refuse from past dwellings. The immediate surrounding terrain, extending many

miles inland, is a low-lying area interlaced with tidal sloughs and rivers and dotted with lakes, ponds, bogs, and swamps.

This whole coastal delta area is sometimes flooded by incoming tides. Petroff<sup>(15)</sup> describes the severe storms of this area as follows: "long continued and heavy gales from the south raise the water on Norton Sound at least 10 feet above ordinary tide-mark—while whole villages with much loss of life, have been destroyed in the past by these storms, those occurring in spring and early summer are responsible for depositing the huge supplies of driftwood on shore, which until recent times was the only fuel and building material available."

Some years, however, the storms carry the driftwood well past the village causing real hardship for the people, for today, as in the past, driftwood is still the major source of their fuel supply. Occasionally the high water makes a virtual island of the village.

Nelson<sup>(16)</sup> describes the weather along this portion of the Bering Sea as "the most disagreeable in the world." The winters are long and severe and while the snow fall is not excessive, the winds cause it to drift heavily. Getting around the village at such times is difficult.

Sudden changes in the weather off the coast during the sealing season are always of grave concern to the villagers until all seal hunters have been accounted for. Hooper Bay has many stories of men lost because of the drifting of the ice pack during these storms. It is probably because of these hazardous conditions that the young men at Hooper Bay do not begin seal hunting until they are 18 or 19 years old. In Shishmaref and some of the other more northern coastal villages they may accompany their elders as early as 12 to 14 years of age.

Hooper Bay as described by Brandt<sup>(17)</sup> is located "in the center of a vast waterfowl breeding ground—in one of the largest deltoid regions of the world". In the flats adjacent to the village and on the upland areas beyond—20 to 100 feet higher—are the breeding grounds of ducks, geese, loons, cranes, swans, ptarmigan, curlews and a host of smaller birds. In addition, in later winter and early spring (April and May), hordes of transient birds fly to the north over the area, returning in late summer and early fall on their southbound trip.

Many of these birds, especially ducks, geese and ptarmigan combined may have equalled fish and seal as important items in the food economy of these people. Fur animals are relatively scarce in the area and are limited chiefly to a few mink, muskrat and seal. Waterfowl were and still are a major source of protein in

the diets; in former times the skins were regularly used to make winter parkas.

In the early years most families moved from campsite to campsite, usually four or five times a year, in order to secure sufficient family food resources. In spite of the frequent moves they experienced occasional periods of starvation which are recalled by some of the people living today. One informant mentioned such an occasion in her youth, and told how the people who ate from a stranded whale became ill and died. In recent years several men also became ill and two died from eating meat from a stranded whale. The cause of death was found to be botulism, type E<sup>(18)</sup>(<sup>19</sup>). Food shortages are most likely to occur during late winter and early spring.

The majority of the present day inhabitants of the village remain in residence the year 'round. The hunters make relatively short trips, usually of a few days duration, but occasionally lasting as long as two weeks or more, out into the neighboring tundra areas. Formerly, many of these people lived together the greater part of the year in much smaller groups of 3 or 4 related families at more scattered locations. When Nelson visited this area in the 1870's he reported finding many such small settlements<sup>(16)</sup>. At appropriate seasons it was customary for related family groups to establish fishing, hunting and berry camps sometimes at considerable distances from the village, returning to the village for ceremonies and other group activities such as wildfowl round-ups.

There are now very few families who still follow the old camping sequence. The most important camping period now is in the fall for berries and even then it may be for a period of a few days only, with a maximum of two weeks.

For the majority of the able-bodied men of Hooper Bay, the opportunity for wage earning is limited to summer work at the Bristol Bay canneries. Some years, the spring storms previously described prevent the men from leaving the villages in time for the start of the canning activities. In 1958, the dietary study year, the weather was favorable, and those who did obtain work earned take-home pay in amounts from \$200 to \$700 dollars for the season.

Total income from wages in the village this same year was estimated by the Bureau of Indian Affairs to be \$28,000.<sup>(13)</sup> Included in this was \$13,000 for local school employees. The remaining \$15,000 included payments to the local representatives of the Alaska Department of Health and Welfare Sanitation Aide Program; the manager of the local cooperative store, a village owned business; the earnings of the owners of two local retail stores;

boat rentals and wages for lightering the annual supplies, as well as the cannery work already mentioned.

The sale of mink and muskrat skins is a moderate and variable source of income for some of the village men. The Bureau of Indian Affairs estimate of income from this source for 1958 was \$2,000 and for 1960, \$2,800. Welfare assistance was also a significant source of village monies, amounting to \$27,000 in 1958, a year when a significant number of individuals were hospitalized for tuberculosis. This figure was reduced to \$11,000 by 1960<sup>(13)</sup>. The average yearly family income from all sources in 1958 was \$948.

## **NEWTOK**

Newtok is a small village in southwestern Alaska located on the tundra mainland in the vicinity of Hazen Bay near Nelson Island. The present village site was established in the early 1950's on a former seasonal campsite. The site was chosen because mink and muskrat trapping and black and needlefish fishing were known to be fairly good in the general area; and the location was considered far enough inland to afford protection from destructive coastal storms and yet not too far from the traditional coastal sealing and fishing grounds.

Most of the inhabitants came from the old village of Keyaluvik which was nearer the coast and to the source of fish, seal and wildfowl. The old area, however, was occasionally devastated by floods with considerable loss of life and property.

Petroff<sup>(15)</sup> describes the Bering Sea Coastline thusly: "The ordinary tides are small and give a rise and fall of only about 2 to 3 feet, but the winds from either north or south produce a striking variation. A long continued and heavy gale from the south raises the water of Norton Sound at least ten feet above ordinary tide-mark and overflows large stretches of the coast. Some of the heaviest of these gales occur during winter—and whole villages have been destroyed along with many of the inhabitants." This was the situation at Keyaluvik and the major reason for moving the village farther inland.

In 1958-59, transportation in and out of Newtok was mostly by small boat from late spring after the ice moved out of the sloughs and bay until it began to form again in the fall. In winter dog teams were used. There was no regular plane or mail service nor were radio facilities available. Since then these services have been established and a new school built.

In 1958-59 most Newtok families lived in sod igloos, all of

them quite small because of the sparsity of locally available building and heating materials. Driftwood, found near the channel that flows between Baird Inlet and Etolin Straits, was the major source of building material and fuel. Trees in the general area were limited to a few scraggly willow patches. Transporting the drift logs to the village is both exceedingly difficult and time consuming, for they have to be dragged by boat through winding sloughs that rise and fall with the tides.

Sod igloos were used only from about mid-October, when the fall wind storms begin, until April. For the remainder of the year most families lived in tents, either at their sealing and fish camps on the shores of Hazen Bay or at the village site.

The advantage of sod igloos is that they can be kept warm and snug during cold freezing weather with a minimum of fuel. Their main disadvantage is that since they are dug several inches into the tundra, they are exceedingly damp the rest of the year. The ground on which Newtok is built is especially wet and boggy. Walking about the village was very difficult and one was forever retrieving ones' boots from the waterlogged sphagnum.

Since 1958, because of the increased number of men obtaining summer cannery work, more and more families are having building materials shipped in for building frame houses with floors raised well above the tundra level. These dwellings require considerable more fuel than do the sod structures but they are relatively free of drip and dampness during the non-freezing portion of the year.

In April almost the entire village goes to the sealing camp at Nlulugak, six miles from Tununak on Nelson Island. Here they do their spring sealing and later, herring and flounder fishing. Many families stay on at this camp until late summer.

There are three stores in the village, one a native cooperative and two owned and operated by local families. In 1958-59 they all had similar yearly inventories totalling about \$2500 each. A considerable proportion of both summer and winter purchases are still made at Tununak on Nelson Island as in the past.

Cash income is chiefly from the sale of muskrat, mink and seal skins; from locally owned retail businesses (2 in number), summer wage work (mostly in canneries) and from National Guard salaries. Revenue from the sale of grass basketry and ivory carving provides a minor contribution. The Bureau of Indian Affairs<sup>(13)</sup> estimated total income from all these sources for 1959 at \$18,673, or an average of approximately \$889 per family unit. Welfare assistance mostly to families with tuberculosis or other health problems increased this to approximately \$1294 per family.