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## **Passamaquoddy Indian Economic Development**

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ECONOMIC DEVELOPMENT ADMINISTRATION

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U.S. DEPARTMENT OF COMMERCE

# **PASSAMAQUODDY INDIAN ECONOMIC DEVELOPMENT**

**REPORT UNDER EDA CONTRACT O-35417**

**January, 1972**

CONTINENTAL-ALLIED CO., INC.  
1035 30th Street, N.W.  
Washington, D.C. 20007







PASSAMAQUODDY INDIAN ECONOMIC  
DEVELOPMENT

REPORT UNDER  
EDA CONTRACT O-35417  
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"This technical assistance study was accomplished by professional consultants under contract with the Economic Development Administration. The statements, findings, conclusions, recommendations, and other data in this report are solely those of the contractor and do not necessarily reflect the views of the Economic Development Administration."

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## Part I

### Introduction

Under EDA Contract No. 0-35417 we have made "a comprehensive study of the feasibility of economic development of lands and resources owned by the Passamaquoddy Tribe, with particular reference to the human resources of the reservation." The Passamaquoddy Indians, descendants of a Tribe that once occupied most of Northern Maine, now live on two Reservations near the Canadian border, in the extreme Eastern corner of the State.

One, called Indian Township, occupies some 19,000 acres to the North of the town of Princeton, including portions of a number of large lakes, and approximately 14,000 acres of timber land. The centers of Indian population are Peter Dana Point, on Big Lake, approximately three miles West of U.S. Highway 1, and "Princeton Strip", on the Western side of U. S. Highway 1, just North of Princeton.

Peter Dana Point (called Medakmigoog in the Passamaquoddy tongue) has a population of about 200. Princeton Strip (Odeneg) has a population of around 100.

The other Reservation, called Pleasant Point (Sibayig), occupies around 100 acres, approximately 1½ miles to the East of U. S. Highway 1, on the road between Perry and Eastport, Maine. The Reservation is on a hilly peninsula, with Passamaquoddy Bay on one side and Cobscook Bay on the other. The population is around 350.

Each Reservation has its own elected Governor. However, both Reservations consider that they are members of the same Tribe, and the Tribal Council meets jointly. As might be expected, there is a certain amount of more or less friendly rivalry and jealousy between the two groups.

While the total population of the three Reservation areas is around 550, the Tribe's membership is 1,200. Thus, over half do not live permanently on the Reservation. A small number live on the Reservations of the closely-related Penobscot Indians near Old Town, Maine, or of the Malecite Indians in neighboring New Brunswick. However, most members of the Tribe who live off the Reservation work in large New England cities like Boston, Hartford, etc., generally in semi-skilled factory jobs. Many return periodically to the Reservation to visit their relatives, vote in tribal elections, or escape temporarily from the rigors of city life.



A high proportion of the population of the Reservations consists of elderly people, children, mothers with dependent children, or persons in poor health, who are not able to seek employment in the outside world. Another significant proportion lives on the Reservation, but is either self-employed (as guides, fishermen, basket-makers, etc.) or works at jobs in the Princeton-Eastport area (in sawmills, etc.) A certain number have been unable to adjust to the modern world, and live on welfare, the charity of their relatives, etc. Some are afflicted with alcoholism or incapacitating mental problems.

Economic development is the expressed highest-priority goal of the Tribe, not only to provide opportunities for members who are unable to compete in the open market, but also to make it possible for those members who have "migrated" to the outside world to come back to their Tribal home, as many wish to do. The historical and social reasons for this strong desire of the members to remain with the Tribe will be discussed in Chapter 1, below.

The two chief economic development possibilities of the Passamaquoddy Tribe are tourism and more intensive use of the Tribe's considerable timber resources. Tourism as such will be discussed in Part II, below. During the summer tourist season, approximately 400,000 tourists pass near the Pleasant Point Reservation, while many others come close enough so that some could be induced to change their planned itinerary to visit the Reservation. In our opinion, more than nine out of ten would be interested in doing so. We recommend the establishment of a Passamaquoddy Indian Museum and Indian Village, not only to help revive and preserve the Tribe's culture, but also as money-making, job-creating propositions.

Similarly, handicraft production (discussed in Part III) can help to renew the Tribe's important and impressive culture, and at the same time can provide good-paying jobs on the Reservations for members of the Tribe. The Tribe has already established a basket-making cooperative, and we recommend that this receive financial and other assistance. At an appropriate time, this cooperative should expand into the manufacture of a number of other traditional articles for sale to tourists, collectors and museums.

The Tribe's forest resources (considered in Part IV) are not now being used to best advantage. We recommend a number of changes in the way that the forest resources are now being managed. We also recommend that the Tribe consider the establishment of a saw mill, cedar fence plant, or other woodworking enterprise, to make more profitable use of its own forest raw materials, while creating jobs on the Reservation for a number of its members.

Several other possibilities have been considered (see Part V), including agriculture and fishing. Opportunities in these fields seem to be limited.

Last but not least, the Tribe needs to improve its organization for economic development. A good start has been made, with the help of an OEO grant. However, some additional technical assistance is recommended.

If a number of our recommendations can be implemented, there should be an important change for the better in the average income of the people on the Reservations, and a substantial increase in the resources available to the Tribe as an entity, to be spent for administration, general welfare, or further economic development. All our recommendations involve some use of the Tribe's natural resources (including its location in a tourist area). All involve skills that some members of the Tribe already possess, at least in part. All are related in some way to the history and culture of the Passamaquoddy Indians. We believe they are all practical, requiring financing and technical help which is well within the realm of reason.

However, this report can only suggest a number of possibilities. The Tribe must decide which - if any - of these suggestions it wishes to accept. Furthermore, the Tribe must do certain things if anything is to come of the acceptable suggestions. Fundamentally, the suggestions made in this report are suggestions for Tribal self-help. For the most part, they require some outside resources, but only in the form of loans that can be repaid out of earnings. If our work helps the Tribe to make practical decisions, and to carry some of them out for its own benefit, we will consider that our efforts have been richly rewarded.

## Chapter 1

### History and Social Characteristics

The Passamaquoddy Indians of today are the product of a long and troubled history. Like all American Indians, they are descendents of Asiatics, who may have crossed the Bering Straits some time after 50,000 B.C. The name "Passamaquoddy" is said to mean "many pollock (fish)", and suggests that they have lived in the St. Croix River-Passamaquoddy Bay area for a long time.

Maine is the only New England State where Indian Tribes continue to exist and Maine has only two: the Passamaquoddy Indians and the closely related Penobscots, living near Old Town. Small groups of Indians from other related Tribes can be found near Houlton, and elsewhere in the State.

The Indian Tribes of Maine are part of the Abenaki branch of the Algonquin Nation.<sup>1)</sup> They lived in Maine and New Brunswick, and numbered about 25,000 at the time of the landing of the Pilgrims. The closest relatives of the Passamaquoddy Indians are the Penobscots in Southern Maine and the Malecites in Southern New Brunswick. Relations continue to be close, and a number of modern family names that originated in these Tribes are now common in the Passamaquoddy Tribe. Further to the north in Canada are the two Algonquin, but non-Abenaki Tribes; the Micmacs of New Brunswick and the Beothuks of Newfoundland.

At first, the Indians of "New England" welcomed the white colonists, not only at Plymouth Colony, but also at Passamaquoddy Bay. The French explorer Champlain sailed up the St. Croix River in 1604, and spent the winter on an island near the present town of Calais. Before sailing away, he converted the Passamaquoddy Indians to Catholicism, and Catholicism remains the religion of most members of the Tribe.

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1) Experts on Indian history and culture differ on almost every possible detail. Eastern Indians did not have a system of writing (although they did use notched sticks and strings of wampum beads as memory devices, similar to knotted cords of the Incas). Early white settlers usually attached little importance to Indian culture. Consequently it is no longer possible to resolve the differences between the experts. In the following analysis, we have chosen those interpretations and accounts that seem most logical to us, without trying to enter into the debate between experts. We apologize in advance for any resulting errors.



The isolation of the Passamaquoddy area from major New England settlements, and French political and military support helped to preserve the Passamaquoddies from the extermination that befell many Atlantic Coast tribes to the south.

The Passamaquoddy Indians, who had lived in the vicinity of St. Andrews (New Brunswick) until the expulsion of the French from North America, were forced by British settlers to move to Indian Island, near Eastport (Maine). Here they entered into friendly relations with the colony of Massachusetts, and became allies of the United States during the Revolutionary War. Forty Passamaquoddy Indians died fighting for the United States. As a reward, the State of Massachusetts granted their request, and sent a Catholic priest ("black robe") to provide them with spiritual guidance and education.

The final boundary settlement put Indian Island under Canadian jurisdiction. The Passamaquoddy Indians moved again, this time to new Reservations granted to them at Pleasant Point and Indian Township. In 1794 the State of Massachusetts signed a treaty with the Tribe, guaranteeing them possession of these Reservations in perpetuity.

However, these treaty obligations were not formally assumed by the State of Maine, when it became a separate entity in 1820. Since then, the rights of the Passamaquoddy Tribe have suffered severe erosion. The Passamaquoddy Tribe sank into a period of exploitation, neglect and discrimination.

It is hard to say that they were treated worse than many Tribes that came under the jurisdiction of the Federal Government. However, discrimination lasted longer against the Passamaquoddies and other Indians that became wards of the State of Maine. Maine Indians were the last in the United States to become full citizens, receiving the right to vote in national elections only in 1954 (and obtaining full voting rights in State elections only in 1967).

Today, the 33,000 acres of Indian Township that originally were provided by the Treaty of 1794 have shrunk to 19,000 acres. Much of the difference was transferred to white ownership by the State of Maine under 999 year leases, unprecedented in Anglo-Saxon jurisprudence.

In 1965, the State of Maine formally changed its Indian policy. A separate Department of Indian Affairs was established, and the State sought to encourage rather than discourage its Native American population. However, this change in official policy has only begun to overcome the results of past repression.

Widespread prejudice, reinforced by remnants of discrimination in schools and other official agencies, cannot fail to

have a depressing effect on the Passamaquoddy Indians. Individual Indians who feel that they do not get a fair chance cease to make maximum efforts in school or at work. Prejudice against Indians, with its claims that Indians are lazy, live off welfare, etc., thus becomes a self-fulfilling prophecy.

On the other hand, there are clearly important cultural differences between Indians and the majority of the population. Many Passamaquoddies have difficulty in expressing themselves in English, but almost all are fluent in Abenaki. All are aware that they are Indians. And while many are willing to work and live outside the Reservation, most do not want to leave their Tribe and its remaining homeland forever.

One of the most significant Indian traditions concerns the organization of economic life. The original Indian society simply was not capitalistic. Before the white conquest, neither individuals nor collective institutions owned property, or invested substantially in capital goods.

Like most Eastern Woodlands Indians, the Algonquins were migrants, and possessed as personal property only what they could carry on their own person or could move in a birch-bark canoe. Even their houses were temporary, and to some extent portable. There was little to accumulate, and very little possibility of keeping more than the bare minimum of things.

The Passamaquoddy Indians were migrants not only by land, and by rivers, but also by sea. The Tribe (or its very close relatives) ranged along the New Brunswick-Maine coast from the St. John River to Mt. Desert Island (Bar Harbor). They hunted seal, porpoises and even whale in the open sea (the English are said to have learned whale-hunting from the American Indians). The annual migratory cycle of Maine Indians has been described as follows:

"In spring, our Penobscots stayed by the rivers to take the alewives, shad, salmon and sturgeon when they ran up the streams to spawn. They then planted their corn and beans and a few potatoes. About the first of June the black flies and mosquitoes drove them out of the woods, and they went to the seashore for seal and porpoises, to get the oil and the skins; also in earlier years, to get the eggs and nestlings of seabirds. They also dried quantities of clams and lobsters which they stored for winter use. In September, they went up river to harvest their crops. In October they moved on into the big woods and prepared their lines of traps for the fall fur-hunt. Before Christmas they came back to their villages and feasted for not less than two weeks. Then they went into the woods again, moose-hunting

in the deep snow and trapping. Before the ice broke up, in March or April, they made their spring catch of otter and beaver, and when the rivers were clear, they came down in bark or skin canoes to the villages again ready for the spring catch of muskrat and the fisheries and planting..."1)

Population was not dense; the Passamaquoddy Tribe alone ranged over several hundred miles. Any member of the Tribe who wanted to cultivate a larger area, or put in more fur traps, or cut more poles for his wigwam, had only to make the necessary effort, and in doing so would not deprive any other member of the Tribe. Thus, natural resources exceeded man's ability to use them, and the concept of individual or collective ownership of land, timber, hunting or fishing rights, or minerals simply did not exist.

Thus, Indians developed traditions that are completely different from those of the textbook "economic man." They lived in a "non-acquisitive society". Compared to our materialistic world, this had certain advantages. No Indian - member of the Tribe or peaceful stranger - ever went hungry while there was food available.

Like most people from what we choose to call "under-developed societies", Indians lived as members of the "extended families". They "took care of their own", and in the process did not develop the rugged individualism which has made our country wealthy.

Though economic motivation as we know it was absent, there was a very powerful motivation for craftsmanship - art for art's sake - which has declined in importance in our modern world.

When it is only possible to carry one bowl, it becomes important that this be the best possible bowl, with the most pleasing design. When it is not possible to own several pairs of shoes, it does not matter that the production of a beautifully-decorated pair of moccasins takes weeks.

To make the cultural difference crystal-clear, we need only add that there was no such thing as money in the American Indian culture. To be sure, the Abenaki Indians produced and named wampum (wampumpeak - white beads on a string). However, wampum was a decoration, and a memory aid to record treaties or legends; the use of wampum as money was invented by Dutch settlers in what is now New York.

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1) Fannie H. Eckstrom, "Handicrafts of the Modern Indians of Maine," Bulletin 111, Abbe Museum, Bar Harbor, 1932.

This conflict of cultures has never been resolved completely. During the past century or so, many Passamaquoddy Indians found a compromise between their own migratory, non-pecuniary traditions and the demands of the white man's society; they worked as migratory workers, on seasonal jobs such as lumbering, and blueberry and potato harvesting, or as seasonal fishing guides. However, such activities only helped to postpone the inevitable confrontation with the economy.

More recently, Indians have begun to find industrial jobs near the Reservation. However, many local industrial jobs pay fairly low wages (e.g. \$1.76 an hour at a local sawmill). When commuting costs are deducted, the net return may be too small to be attractive. In addition, some members of the Tribe are still not accustomed to working indoors, and feel uncomfortable in normal factory jobs.

Last but not least, a number of members of the Tribe have had experience as factory employees at good wages in metropolitan areas of New England. They have begun to consider it undignified to work for less than (say) \$2.50 per hour. To them, lower wages carry the connotation of anti-Indian prejudices. They would rather draw unemployment benefits...or move to urban areas where their Indian origin is not considered a handicap. Again, non-economic values have had an important influence.

We have dealt at some length with this fundamental difference because it is at the root of much of the "Indian problem" today. Indians on the Reservation do not act purely as "economic men". Indeed, they sometimes act in what might be called an emotional way. In particular, they are sometimes concerned with justice, either together with or instead of a concern with money alone.

An example is the decline of the traditional art of basket-making. Some three or four decades ago, many Indians on the Reservations made baskets for a living. As time went on, the retail prices for their products doubled and tripled, along with the general price level and the increasing interest in artisan work. However, the limited number of middlemen who dealt in Passamaquoddy products did not increase their buying prices accordingly.

Passamaquoddy basketmakers, socially and geographically isolated, found that they were continuing to earn as little as 25 cents an hour. This was reasonably good money in the depression of the 1930's, but bought only one-third to one-fourth as much in the 1960's.

Under these circumstances, basket-making ceased to be



economically attractive, and production declined drastically. During the last few years, the remaining basketmakers have become increasingly "militant", and have insisted on higher prices for their work. Middlemen have doubled their prices, and the production of "fancy" baskets - small, decorated items for the tourist trade - again seems to be reasonably profitable.

In the meantime, however, the number of active producers has declined, and few young people have taken the trouble to learn this traditional art. The mere fact that it is again reasonably rewarding in money terms is not enough to overcome past resentments of unfair treatment. Furthermore, there is a growing feeling among younger people that traditional handicraft arts are "degrading".

Similarly, lumbering had long been an important source of income for the Passamaquoddy Indians. However, as modern machinery was introduced into the woods, Indians tended to lose out to better-educated and more experienced white men.

In 1968, a large paper mill sponsored a course for Indian lumbermen, partly to meet the demands of the Tribe that its members be employed for any timber-cutting on the Reservation. With the help of U. S. Department of Labor funds, trainees were paid for their time. They were also given credit to buy power saws. However, all but one trainee quit before finishing the course (and the latter took a job in a government agency).

A number of explanations have been advanced for the failure of this program. However, at least some of the blame must be put on bad relations between the paper company and the Tribe.

The immediate cause was the failure of the company to keep its promise to hire an Indian foreman for its operations on Reservation property. The more fundamental cause is the fact that the paper company is the legal owner or occupant of large areas that once formed part of the Reservation, which the Passamaquoddy Indians now consider were stolen in violation of the Treaty with the State of Massachusetts. As the Tribe has become increasingly aware of its history, bitterness against the company has grown (even though the company acquired its rights "in good faith" from third parties, and was not directly involved in the original loss of Tribal lands). The possibility of making a reasonably good income at union wages as lumbermen seems less important than the resentment of past injustices.

A suit to rectify past wrongful transfers of Indian lands is now pending in the courts. According to some observers, the Tribe has a good chance of winning a settlement amounting to many

tens of millions of dollars. In the meantime, however, Indians refuse to work in the woods, and the Reservation's own timber resources remain largely unused.

In much of the forest area that still belongs to the Tribe, mature timber is available and must be harvested promptly before it goes to waste. Primarily for the historical or emotional reasons which have been discussed above, the Tribe would rather risk some neglect of this resource than compromise with its non-economic feelings.

However, there is also a good economic explanation for the reluctance to exploit timber resources. In the past, stumpage payments for Reservation timber have gone into a state-run "Trust fund". This was not always used for the exclusive benefit of the Tribe (some funds financed a bridge to Eastport, whose bonds were subsequently defaulted). Even when the funds generally benefitted the tribe (as in 1956, when a number of individual homes were built) it was not made clear that they were the Tribe's own funds, and the Tribe had little voice in how they were applied. It is at least possible that the Tribe would be more anxious to have its timber resources exploited if it knew for sure that there would be a direct tangible benefit for the Tribe as a whole.

Whether through TV or otherwise, the "revolution of rising expectations" has come to the Reservations of Eastern Maine. Just as so many rural Negroes of the South were forced by economic pressure to migrate to the cities, over half of the members of the Passamaquoddy Tribe have moved off the Reservation in search of income. In both cases the result has been social turmoil, the break-up of family structures, and the weakening of respect for the Tribal, church or other leadership.

Today, the Passamaquoddy Indian Tribe has reached a cross roads. It is torn apart by forces of social dissolution. At the same time, it is being brought back together again by the new awareness among its members of their rights, and of their identity as Indians. The Tribe has taken some uneconomic decisions, based on non-economic motives. On the other hand, it has also given highest priority to economic development, and it probably could be influenced by fair economic incentives.

After one and one half centuries of oppression and neglect, the Tribal organization is again assuming some importance. At last, the State of Maine has a Department of Indian Affairs, and seeks to deal with the Indians as a Tribe, rather than as a group of individuals on welfare. At last, the Federal Government is seeking to aid the Passamaquoddy Indians as a Tribe, acting through EDA, OEO, and several other agencies. At last, it is the firm, declared policy of the U. S. Government to encourage Indians to be Indians, and to control their own destiny.

"It is long past time that the Indian policies of the Federal Government began to recognize and build upon the capacities and insights of the Indian people. Both as a matter of justice and as a matter of enlightened social policy, we must begin to act on the basis of what the Indians themselves long have been telling us. The time has come to break decisively with the past and to create the conditions for a new era in which the Indian future is determined by Indian acts and Indian decisions."1)

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1) President Nixon's Message to Congress on "New Proposed Goals for American Indians", dated July 8, 1970.

## Part II

### Tourism

Tourism is one of Maine's biggest businesses. The State Department of Economic Development estimates that tourists spend \$400,000,000 a year in Maine. There are approximately 2 million visitors a year to the Bar Harbor area alone.

As will be indicated below, more than nine out of every ten tourists would like to visit and learn more about Indians. According to employees of the State tourist information bureau at the entrance to the Maine Turnpike, a large number of tourists ask for information on Maine's Indians, and are disappointed because there is none available. However, many, if not most tourists simply are not aware that Maine has any Indians at all.

Washington County, Maine, is traversed by perhaps 1.5 million tourists a year. However, the majority are on their way to or from someplace else. Since Washington County has relatively little to offer these tourists, on the average they spend little time - and money - during their passage. Tourists spend something like \$12 per person per day, wherever they stop. If Washington County can stop more of the tourists that are going by, and attract some that now go elsewhere, it can increase its income considerably.

In our opinion, Washington County's most important potential tourist attraction is to be found in its Indian population and traditions. These could stop more tourists than anything else that the County could possibly offer.

Be that as it may, our primary concern is not with the possibility of increasing the income of Washington County. On the contrary, it is our job to see what can be done to improve the income - and quality of life - of the Passamaquoddy Indians.

Certainly this cannot be accomplished if they are merely exploited as a come-on for non-Indian tourist enterprises. Certainly it cannot be accomplished by converting some of the remaining Reservation property into free picnic grounds or other non-paying facilities for the general public. Certainly it only can be done if large numbers of tourists are available, able and willing to pay money to visit an Indian attraction. And, just as certainly, the Tribe will not accept tourist money unless it can be honestly earned, with dignity and pride. Whatever we may suggest, therefore, in no way can resemble either a commercial tourist trap, or a human zoo.

Our first step in examining the Tribe's tourist potential



is to estimate how many tourists now go through the Tribe's area, and which of the two Reservations is nearest to the present flow of tourist traffic. Next we must seek some idea of tourist opinion and interests, particularly as these relate to the tourist potential of the Tribe.

## Chapter 2

### Tourism in Eastern Maine

The "Down East" coast of Maine has an important tourist industry. Unfortunately for the Passamaquoddy Indians, however, at present this is concentrated toward the Western end, closest to the Boston-Portland metropolitan area. The Bar Harbor area, host to several million visitors a year, is the most important tourist center, while towns to the East - Machias, Eastport and Calais, - receive only a small fraction of Bar Harbor's tourist revenue. Tourist traffic to the East of Bar Harbor is largely in transit to Canada, and the average tourist spends relatively little time and money in the area.

Coastal Maine's tourist season is sharply limited. Large-scale tourist traffic begins in June and ends in September, with a major share in the two months of July and August. The highly seasonal nature of traffic makes it difficult to support motels, restaurants or other tourist facilities (except in areas that have a basic year-round commercial demand). On the other hand, the shortage of attractive facilities tends to limit the area's appeal to tourists.

Because of its highly seasonal nature, tourism is not necessarily a good industry for the area. In particular, it would not be economically desirable to use manpower and other resources for tourism that might otherwise find year-round employment in some other activity.

To be sure, much of the tourist labor force in the Bar Harbor area is purely seasonal, consisting of college students and others who have alternative occupations during the rest of the year. However, with the very significant exception of the high school age group, such purely seasonal employment would tend to displace - rather than to supplement - existing occupations of members of the Passamaquoddy Tribe. For example, the peak tourist month of August coincides with the blueberry and potato harvests. These are important sources of seasonal work for Passamaquoddy Indians at the present time, paying relatively high wages per day (though only for short periods of time). It is doubtful that equally high daily wages could be paid by a tourist enterprise (although the total income for the summer season should be at least as high, if not higher.)

Total traffic between the Calais-Eastport area, the rest of the United States and Canada, is indicated by annual average figures for the State highway system as a whole. These are shown on a map published by the State Highway Department. In general, traffic increases as each major inhabited place is approached, and

falls off to minimum levels between major population centers. This, of course, indicates the relative importance of local and through traffic. By taking the lowest estimate between important trade centers, we obtain some approximation of long-distance traffic, in which tourist traffic will tend to have an important share.

A simplified version of the detailed State map is given in Table 1. As this indicates, the heaviest flow of through traffic runs North of the area, along Interstate 95 through Houlton. Some of this crosses into Canada towards Woodstock, N.B., while much of the remainder turns North towards Presquile.

There is also a border crossing point at Vanceboro. However, this seems to feed most of its traffic through State Road 6 to Bangor. (This is confirmed by U. S. customs officials at Calais, who state that most Vanceboro border-crossing traffic follows Route 6).

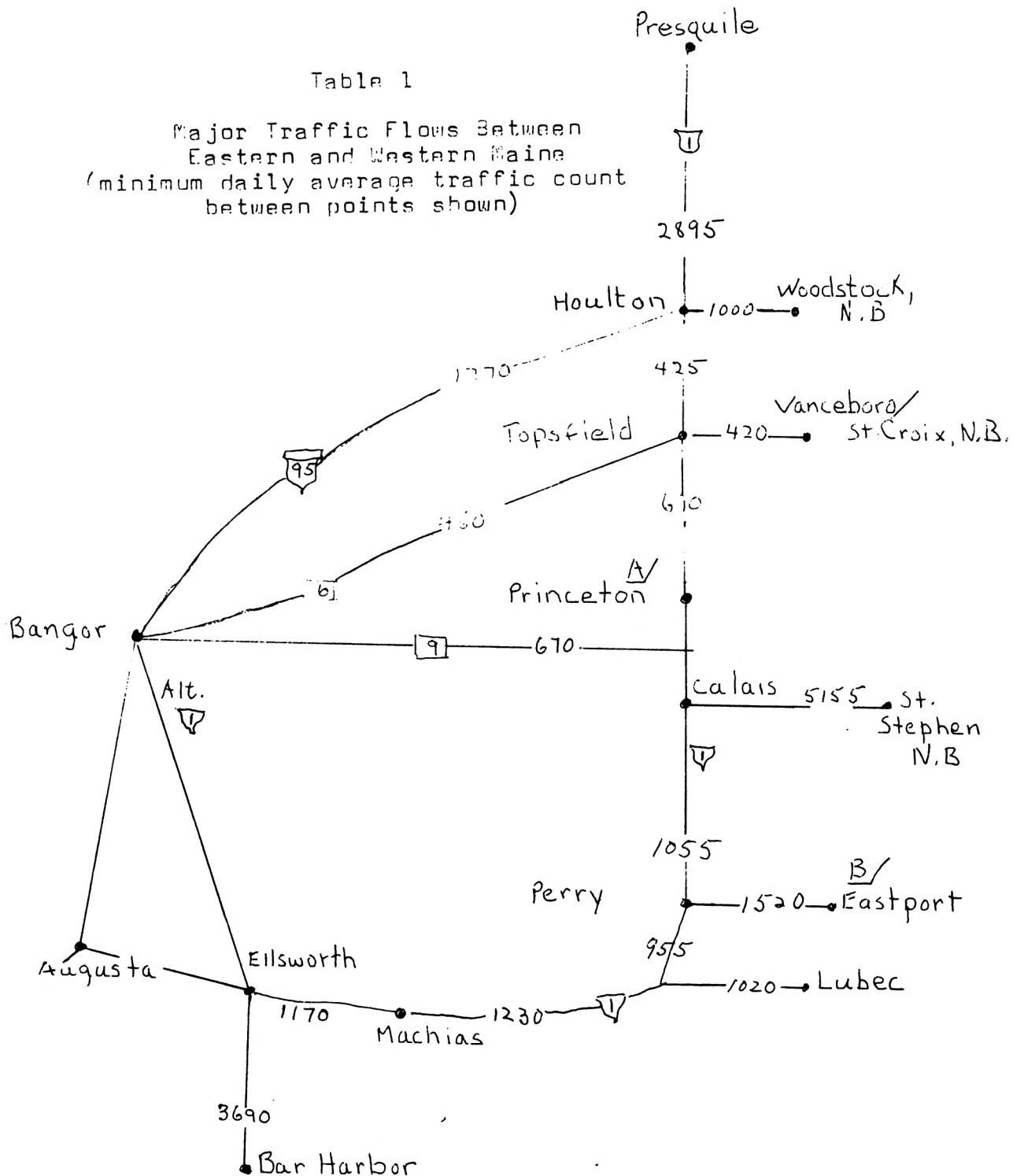
Through traffic in the Calais-Eastport area moves to or from the Eastern United States mainly by way of U. S. 1 along the sea coast, or of the "Airline Highway", State Road 9, through the interior. Measured at the low point (between Perry and Lubec), through traffic may amount to a maximum of 955 cars per average day. Through traffic on the "Airline Highway", on the other hand, amounts to a maximum of 670 cars per day. Much of the total goes across the bridge at Calais to Canada (the average daily total across the bridge includes a large element of local traffic).

Border-crossing traffic is counted by the U.S. and Canadian customs as it enters their respective countries. The chief international thoroughfare is the Calais-St. Stephen bridge, with an estimated 425,000 tourist vehicle crossings into the U.S. and 125,000 tourist vehicle crossings into Canada every year, plus heavy local traffic.

Next in importance is the bridge at Lubec, leading to the Franklin Delano Roosevelt cottage on Campobello Island. Annual tourist vehicles entering the United States are estimated at around 25,000 cars; most of this originates in the United States and turns around at Campobello. A limited volume of traffic moves during the summer months on the ferry between Eastport, Maine, and Deer Island, New Brunswick (with a continuation from Deer Island to the Canadian mainland). Annual traffic is estimated at 5,000 tourist automobiles.

The estimated total of 580,000 tourist vehicles per year undoubtedly contains some duplication (e.g. vehicles crossing both at Campobello and at Calais). Allowing for this, we estimate

Table 1  
Major Traffic Flows Between  
Eastern and Western Maine  
(minimum daily average traffic count  
between points shown)



A/ Indian Township Reservation (Peter Dana Point)  
B/ Pleasant Point Reservation

the total tourist flow to or through the Machias-Eastport-Calais area at a minimum of 1,400,000 unduplicated persons a year.

The major tourist attraction on Campobello Island, and potentially one of the most important in the area, is the recently-opened Franklin Delano Roosevelt cottage and memorial park. In 1969, the first full season, an estimated 71,079 persons visited this memorial, and the first few months of 1970 indicate a substantial increase.

Another tourist attraction of some importance is the Moosehorn Wildlife Refuge, whose visitors' center is located on U. S. 1 between Calais and Princeton. The total number of recreational visitors for June, July, and August of 1969 is a mere 24,268. Of these, however, only 11,342 visited the Interpretive Center (indicating that they were especially serious tourists). The remainder entered the refuge area primarily to fish, or simply to drive around.

While it is difficult to add estimates drawn from such a variety of sources into conclusive estimates, it is clear that the bulk of the area's tourist traffic either passes near the Pleasant Point Reservation, or passes between the two Reservations on the Airline Highway-Calais Bridge route. Only a small part travels U.S. Highway 1 to the North of Princeton, and thus comes close to the Indian Township Reservation.

These observations are confirmed by a traffic survey, conducted under an OEO grant by the Clarkson Corporation, Fairfield, Maine. (members of the Passamaquoddy Indian Tribe were employed as traffic counters.) This survey was made in the summer of 1969, and covered traffic passing on U.S. Highway 1 in the vicinity of both Pleasant Point and Indian Township (Peter Dana Point) Reservations.

Traffic was counted during the period 1 June - 30 September. It was divided by inspection into vacation (mostly "foreign" or out-of-state licenses, but also included some Maine cars) and non-vacation. Vacation vehicles towing or carrying a recreational boat were noted separately.

For the period as a whole, a total of 34,756 vacation vehicles passed the vicinity of Peter Dana Point (Indian Township). This figure includes an allowance of around 9% for vacation vehicles that were counted as non-vacation vehicles. Of the total, around 4,500 were equipped with boats. The Clarkson Corporation estimates the average number of passengers as 4.2 per vehicle, based on the results of a campground survey made in New Brunswick in 1966. In accordance with other sources of information, however, we estimate the average as 3.1 per vehicle for a total of 107,744 tourists.



The road to the Pleasant Point Reservation was passed by an estimated 128,449 vacation vehicles (3,600 with boats). Our estimate of the total number of passengers would be 398,192.

Table 2 gives additional details on the Clarkson survey. It shows that vacation travel in the vicinity of Pleasant Point is approximately 4 times as great as vacation travel in the vicinity of Indian Township.

This survey also covered pleasure craft traffic in the channel between the Pleasant Point Reservation and Deer Island, N.B. during the period June 1 - August 31. This channel carries almost all boat traffic between Calais, St. Stephen, the Canadian resort of St. Andrew, and the open sea. Some 1,288 pleasure boats were counted. However, according to the report, most of these seemed to be local craft, counted both going and coming, and there were probably a number of different trips by the same boats. The net number of boats visiting the area is substantially smaller, and does not seem sufficient to justify a full-fledged marina.

Another important measure of tourist traffic is the availability and occupancy rate of tourist lodgings. Unfortunately, there are no official or service organization statistics, or other usable information covering Eastern Washington County as a whole. Therefore, we have had to make an informal "wind-shield" survey of most tourist-travelled roads, and to estimate occupancy rates by interviewing a small sample of lodging owners or managers.

Total tourist room-nights on the U.S. side of the Maine-New Brunswick border, in the general area of Machias, Eastport, and Calais, are estimated at 16,420 per season. In addition, there are a substantial number of lodgings around St. Stephen and St. Andrews, N.B., across the St. Croix River from Calais. However, at least half of the available lodgings in St. Stephen and most of the lodgings in St. Andrews, are used by Canadian domestic tourists, passing between Eastern and Central Canada along its Southern border, without entering the United States. It is unlikely that a major portion could be induced to make the considerable detour involved in a visit to one of the Passamaquoddy Reservations. However, some of the persons who stay for some days in the St. Andrews area probably could be attracted to the Passamaquoddy Indian Reservations.

As a rough guess, based on interviews with Canadian customs officials and motel operators, we assume that the total potential number of border-crossing tourists who remain in the Canadian areas is 7,500.

The total of the above estimates is 22,278 overnight room occupancies. In addition, some allowance must be made for the

Table 2

Major Data from Traffic Survey

	June	July	August	September	Total
<u>Indian Town-</u> <u>ship</u>					
Commercial	11,010	21,018	18,035	16,290	66,353
Non-commercial					
Vacation	6,630	9,362	8,835	4,200	29,027
Non-vacation	14,610	14,880	17,274	14,190	60,954
TOTAL	32,250	45,260	44,144	34,680	156,334
Vacation as % of total	<u>20.6</u>	<u>20.7</u>	<u>20.0</u>	<u>12.1</u>	<u>18.6</u>
<u>Pleasant Point</u>					
Commercial	17,310	23,560	5,115	27,240	73,225
Non-commercial					
Vacation	13,200	34,255	50,902	16,140	114,497
Non-vacation	33,240	33,573	45,291	36,330	148,434
TOTAL	63,750	91,388	101,308	79,710	336,156
Vacation as % of total	<u>20.7</u>	<u>37.5</u>	<u>50.2</u>	<u>20.2</u>	<u>34.1</u>
<u>Pleasant Point</u> <u>Vacation as %</u> <u>of Indian</u> <u>Township</u>	<u>199.1</u>	<u>356.9</u>	<u>576.1</u>	<u>384.3</u>	<u>394.4</u>

occupants of summer homes and vacation cabins. Officials of local electric power companies estimate approximately 2,012 seasonal connections. However, a substantial proportion of this total consists of summer homes of Maine residents living in towns such as Calais, Eastport and Machias. On the other hand, some undoubtedly are rented out for varying short periods to persons from outside the area. We estimate that the total of 2,012 accommodations is used by 3,000 parties from outside the area.

These estimates must now be converted into individual visitors. Most of the lodgings are used by parties that stay only one night, and the average number of persons per room might be estimated at 2.3. Accordingly, we estimate the total number of tourists using lodgings in the area at 44,000 per season. Parties using summer homes tend to be larger. Assuming the average number to be 5 persons, these add another 15,000 to the number of individual visitors that stay overnight or longer during a summer season. The grand total, then, may be approximately 59,000 persons.

In addition, a number of tourists stayed at campgrounds in their own tents or trailers. The largest such campground is the Cobscott Bay State Park, near Dennysville, with 101 tent and trailer sites. This park charges \$2 per party per night. There are no trailer hookups.

The two most important commercial campsites in Washington County are on U.S. 1, between Calais and Eastport. Sunrise Shores, near Perry, has 70 campsites, and all utilities. St. Croix Camping Center, opposite St. Croix Island, has all utilities except sewage hookups, and offers 50 campsites. A third campsite, near Lubec, has around 20 campsites with utilities, and charges \$2.50 per party of four persons (\$0.25 for each additional person).

Last but not least, is the campsite on the Indian Township Reservation, at Long Lake near Peter Dana Point. This campsite was established by the Maine Forestry Department. It is operated and maintained by a member of the Passamaquoddy Tribe. There are 25 tent and trailer sites, without utilities, with a theoretical capacity of 175 party-days per week. In 1969, Long Lake campsite was open from 6 May to 17 September, a period of 19 weeks, so that its theoretical capacity was 3,325 party-days. Actual use amounted to 1,341 party-days, or 40%. However, 97% of the total number of party-days fell within the 13 weeks from 30 May to 2 September, when occupancy ran at 57% of capacity. There was 100% occupancy during peak days of July and August, with a number of parties turned away.

The total number of organized campsites in the area seems

to be around 300. Assuming a 19 week season and a 35% occupancy rate, the estimated number of party-days would be 13,965. At 3.4 days per party, this would amount to 4,107 parties. At 3.6 campers per party, this would total 14,785 persons. Added to the 59,000 persons estimated for permanent lodgings, the total number lodged for one day or more in the area would amount to roughly 74,000.

Compared to the total number of tourists estimated as crossing the Calais-St. Stephen bridge in both directions, plus available indications of other tourist traffic in the area, the figure of 74,000 seems to be only a small fraction of all tourists that pass through Eastern Washington County. For lack of attractions, facilities, or both, the Eastport-Calais area has become a transit area, rather than a primary destination or overnight stop for most tourists. As such, it derives only a minimal benefit from tourist expenditures. One far-sighted motel manager confirms this. She says she would welcome an Indian attraction because "We need something to hold our customers an extra day."

### Chapter 3

#### What Tourists Do - and Want to Do

The statistics given in Chapter 2 are important as indicators of the total tourist traffic, and of its location with respect to the two Reservations. However, they provide little indication of the possible tourist interest in an Indian attraction. They are even less informative as to the possible cash benefit of tourism to the Passamaquoddy Tribe in particular, and to the area in general.

To develop answers to these questions, a number of tourists and local businessmen were interviewed, and other relevant data was assembled. This information was interpreted in the light of our previous analysis of other Indian tourist ventures. Our conclusions are as follows:

Most tourists passing through Washington County started with a destination in Canada. Only around one-fourth originally started with a destination in Washington County, or elsewhere in Maine. Accordingly, fewer tourists "go to" than "pass through" the county in which the Passamaquoddy Indian Reservations are situated.

Around three-quarters of all tourists are adults (18 and over). Around one-tenth are teen-agers (12-17 years old), another tenth or so are children (4-11 years old), and only a very small number are infants. Of the total number of tourist parties in the area, only around one-third include non-adults, and almost half of these have only teen-agers. In general, the "Down East" area seems to attract older people, and at present has only a limited appeal to families with small children.

Although there is a significant charter bus traffic through the area, the vast majority of visitors come in their own automobiles. Around one-fourth carry and utilize camping equipment or trailers of some kind. One-half of all tourist parties uses motel or tourist home accommodations, and the remaining fourth stay with friends, in seasonal homes, or other accommodations.

Of the campers, some three-fourths seem to favor campgrounds with electricity and other utilities. The minority that preferred to "rough it" is represented by one tourist who said, "We like to tent-camp away from people who bring their whole house with them (trailers) and avoid places that attract them."

On the other hand, another party replied that "Probably a greater proportion would (...prefer campgrounds with electricity ...) However, we often go to facilities without flush toilets, etc., so we'll find a place - they're less crowded."



Campsite expenditures usually amount to around \$2 per party per night. The average expenditure on motels or other lodging is around \$20 per party per night.

Most tourists ate some or all of their meals in restaurants; around four out of ten obtained some or all of their food from grocery stores. Thus, a restaurant or snack bar stands a chance of appealing to most travellers, while a grocery store might sell something to four-tenths of all tourists. Food expenditures seem to average around \$15 per party per day.

Almost half of the tourist parties make some expenditures on souvenirs each day. According to local merchants, our interviews with tourists, and experience in other areas, these average around \$10 per spending party. This average includes a minority that makes fairly large expenditures (\$20 or more per party) and others that make fairly small purchases.

This fact is the basis for a principle of the souvenir retailing business: low-cost items must be provided to attract customers into the store and hold them there; however, high-cost items must also be provided, since a certain proportion of those who enter will end up by spending substantial sums of money. In the Southwest, where a large demand has developed for Navajo blankets, jewelry and similar products, sales of high-priced items account for astonishingly large proportions of the total business of Indian-oriented outlets.

Automobile expenditures (gasoline, oil, repairs) average around \$8 - 9 per party, and miscellaneous expenditures (including recreation) are estimated at \$1.50. Total tourist expenditures are estimated at \$40 per party per day.

This means that every additional tourist party that can be attracted will increase the gross income of Washington County by around \$40 per day's stay. Similarly, every tourist party that would have passed through without stopping, but can be persuaded to stay a day, will increase gross income by most or all of \$40. Similarly, every tourist party that planned to come for one day - as most tourists in the area seem to do - but can be persuaded to stay for an extra day, will increase area income by \$40.

This figure indicates the potential importance to Washington County of any Indian attraction that would bring in more people, or would hold tourists longer. However, by itself it does not answer several questions: How many tourists really would be interested in an Indian attraction? More important for the Passamaquoddy Tribe, what part of the estimated total of \$40 per party could Indians earn, at a profit to themselves?

To answer these questions, we need to know what tourists are interested in, and whether they could be attracted to an Indian enterprise. Tourists that come to the area at all seem to be strongly interested in the Maine coast. Many visit almost all the major tourist attractions along the Coast, and a surprising proportion have returned for one or more repeat visits. However, tourist interest in the interior - lakes, wildlife refuge, etc. - seems to be limited.

The Passamaquoddy Indian Reservations are known to only a very small minority of the area's tourists. However, most tourists express much interest in Indians, and say they would visit the Reservations if given an opportunity to do so. It may be concluded that any failure to visit the Passamaquoddy Reservations was largely due to lack of information, and possibly to lack of attractive facilities.

When asked whether they would be interested in visiting an Indian tourist attraction, more than nine out of ten of the tourists that we met in the area gave an affirmative response. Given a choice between a "brief visit" and a longer stay, only a small proportion were content with the former. Almost half expressed preference for a "two hour pageant" rather than a "one hour demonstration". Accordingly, we believe that an Indian tourist enterprise could be one of the most popular attractions on the "Down East" coast.

## Chapter 4

### The Tourists Speak

It may also be of interest to let representative tourists speak for themselves, so as to give a clearer impression of their nature and attitudes. For this purpose, we have made extensive notes on the remarks made by a number of tourists.

With almost no exceptions, tourists in the area indicated strong feelings of good will for Indians in general, and for the proposed tourist attraction in particular. Several typical statements were:

"Good luck and I hope it works out. I will support it 100%."

"Much more consideration and opportunities should be made available to the Indians."

A need for better tourist facilities was expressed frequently. One respondent said,

"We think that it would be an excellent idea. Entertainment in the State of Maine is not what it might be. Good luck."

Many tourists made a point of their interest in Indian life. For example, one tourist volunteered that:

"I am quite sure that most people who have visited with the Indian Tribes as I have in Canada and the U.S.A. would find it interesting and educational."

Only a few remarked that the project would make it possible to learn about the current living conditions of the Tribe:

"This should be kept true to life so we can learn what the Indians' life is really like."

"Any exhibit should include an honest and realistic portrayal of current living conditions of Canadian or American Indians."

However, both these remarks were made by tourists who indicated that they had not visited a Passamaquoddy Reservation (where they could have seen current living conditions for themselves, without the benefit of a new project). Several tourists

who did visit a Passamaquoddy Reservation had more negative points of view:

"I visited the Reservation on this trip and was very disappointed, so I was pleased to see this project get started. Good luck."

"The first time we visited at \_\_\_\_\_, I was very disappointed that the Indians had not capitalized on their cultural heritage (crafts, skills, etc.) They could have much to offer if put on a businesslike basis (fair prices, etc.) I had wanted to purchase some of their arts and crafts, but none was available. I am happy to see they're getting on the ball. I hope they can begin to really get educated, and not leave their settlements, but help their fellow man to get ahead."

In contrast, a tourist who had seen Passamaquoddy Indians perform off the reservation made the following remarks:

"I knew some of these very fine people for a period of several years, 1929-36, when their baseball teams and ash harvesting people visited our town (Danforth, Maine). They also sent excellent people to help advertise and entertain the public. In music and dance they were GREAT."

As these and other replies suggest, it is a sad fact that the inadequate housing and other physical facilities on the Passamaquoddy Indian Reservation tend to depress tourists (not to mention the Indian inhabitants themselves). There is nothing inspiring or entertaining about the present poverty of the Passamaquoddy Indians. Exhibiting this poverty would be degrading, not only for the individuals concerned, but also for the Tribe as a whole.

Therefore, an exhibition of actual conditions, without a careful explanation of their origins and causes, might well result in more rather than less misunderstanding. Some of the more perceptive tourists might sympathize with "the poor Indians", but others might only find confirmation of existing prejudices.

In any event, most persons on vacation are looking for temporary escape from their own problems, and under ordinary circumstances are unlikely to pay money to look upon the problems of others. Even if the exploitation of present poverty were acceptable to the Passamaquoddy Indians, it would be economically unproductive.

On the other hand, most tourists seem to be interested in the original culture of the Indians, and in the historical connection between the Indians' past and present conditions. Here are some typical comments:

"I would be delighted to see developed Indian folklore displays that would educate the general public to an accurate picture of what the Indians were, and would like to become."

"It would be interesting to visit an Indian village that was made as authentically as possible to the original way the Indians used to live."

An encouraging number recognized that Indians have contributed to the heritage of all Americans:

"I think you should stress the contributions the modern Indian of today has given to our society."

"We feel your ideas and plans to be of great interest as there is a great need for displaying the country's true history and heritage."

Another group of comments pointed to the white community's need for education on Indian problems:

"The creation of a real 'Indian Village' would be very interesting to tourists...The Indians have a rich heritage and one of their legends would make a good plot for a play."

"We need to know more about our American Indians: their talents, needs, problems, skills, etc. I hope the plan of the Passamaquoddy Tribe becomes a reality."

Some made a point of the fact that opportunities to learn about Indians are particularly scarce in the Eastern United States.

"We need more exhibits and live participation by local and native folks; especially Indian. I believe Eastern Americans would like to see more of Eastern Indian-Americans."

"It's about time we heard from some Indians in this area! I think many people would be interested in Indian life, food preservation, diet, awareness of conservation, etc. The Western Indians are active - there are interested people in the East, too! But please, no tourist traps - be for real."

Many expressed a special interest in crafts:

"Seeing craft work in progress would be interesting."

"Sale of authentic Indian arts and crafts would help greatly in attracting visitors."

"A store selling Indian handicrafts and foods at fair prices would certainly be appreciated by tourists."

The standard tourist complaint against commercialism and fakery was expressed by a number:

"Might be a good idea - if the whole bit is real - and if it becomes a tourist trap with Japanese wampum and Hong Kong hatchets, forget it. There is some great Indian culture, artifacts and history that could provide a positive image of the Passamaquoddy Indian."

While the idea of demonstrations and shows was appealing, some tourists suggested the desirability of something that would give the customers a more active role:

"Have something that the audience can participate in."

"Instead of demonstrations only, make activities available to visitors such as canoeing, archery, horse-back riding, handicraft workshops (especially for children) and good food."

In these words, the tourists describe themselves. As a whole, they are anxious to demonstrate good will and interest in the Indians. They want to be educated; but they also want to be entertained. Above all, they do not want to be defrauded by non-authentic souvenirs or commercialized hokum.



## Chapter 5

### A Proposed Museum, Indian Village and Dance Amphitheater

Tourists are very much interested in the past of the Passamaquoddy Indians, and rightfully so. The Indian past is an essential part of the American past. It has left an inexorable stamp on the geography, the language, the cuisine, and the dreams of all of us.

American Indians have a task to perform for themselves: to preserve and uphold the powerful values that have kept them Indians through hundreds of years of persecution and neglect. They have an obligation of honor to the unknowable ancestors who crossed the Bering Straits some 50,000 years ago, first discovered America, and first developed an American Way of Life. They have a duty, not so much to those of us who are now here, but to our common future, to help all Americans to understand themselves and their land.

These objectives can be implemented by establishing a monument to the true culture of the Passamaquoddy Indians. The restoration and protection of some part of the culture, particularly if members of the Tribe actively participate, will help to revive the dying arts and ideas of their ancestors. At the same time it will help to educate non-Indian Americans to the true importance of Indians in our evolution. Conversely, the fact that non-Indians will take the trouble and pay good money to visit and admire exhibitions of Indian culture will help the members of the Tribe to realize that their culture is interesting, valuable and admired.

The primary purpose of this report, of course, is to help the Tribe to make money for itself, through better utilization of its own manpower, real estate or other resources. Therefore, our consideration of tourist possibilities is confined to recreational enterprises that earn income. We do not consider supported public facilities, whose purpose is service to the traveling public, to be part of our terms of reference.

Not least of the Tribe's potential economic resources is the location of the Pleasant Point Reservation in proximity to an annual tourist flow of perhaps 400,000 persons. Throughout the United States, purely commercial investors have found it profitable to establish tourist facilities wherever there are a large number of tourists, and 400,000 tourists is a fairly large number.

For example, the White Mountain National Forest in neighboring New Hampshire is an important tourist attraction. It is now bordered by a dense concentration of commercial tourist attraction. A partial list, with the prices charged, is given in Table 3.

Table 3  
Abridged List of Tourist Attractions  
Near White Mountain National  
Forest

Name and location	Type of attraction	Adults	Prices (a)	
			Children 6-12	Under
Clark's Trading Post, Lincoln	Train ride; trained bears	1.25 0.75	1.25 0.75	1.25 0.75
Franconia Notch, S.P., Lincoln	Aerial tramway	2.00	1.00	1.00
Lost River Reservation, Woodstock	Caverns, garden, natural history museum	1.60	0.85	0
Natureland, Lincoln	Noah's ark, zoo, carousel	1.50	1.50	0
Polar Caves, Plymouth	Caverns, maple sugar house, rock garden	1.60	0.75	0
Santa's Village and Gingerbread Forest Jefferson	Children's village, puppet shows	1.50	0.75	0
Six Gun City, Jefferson	Western town, pony & stage coach rides, shootouts	1.50	0.50	0
Story Land, Glen	Animated fairy tale tableaux, rides, story teller	1.50	0.75	0

(a) Cut off age varies slightly, e.g., in one case children under 4 are admitted free

Source: White Mountains Recreation Association, Inc., "White Mountains New Hampshire Vacation Guide", Lincoln, N.H., 1970.

Closer to the Passamaquoddies' home, the Maine Coast offers a number of tourist attractions. Among these are:

Grand Banks Schooner Museum, Boothbay Harbor: 142 foot schooner, marine museum: \$0.75 for adults; \$0.25 for children.

Boothbay Railway Museum: two restored railroad stations and a narrow-gauge steam railway: \$0.60 for adults; \$0.35 for children.

"Authentic Maine Country Store", Bar Harbor: sells lobster traps, canned sardines and other local souvenirs; no admission charge.

Trolley Museum, Kennebunkport: 80 old-time trolley cars: no admission charge but "we ask for a contribution"; trolley car rides \$0.50 for adults and \$0.35 for children; unlimited rides, \$1.00 and \$0.50.

Marine Museum, Bath: \$1.00 for adults and \$0.25 for children.

Penobscot Marine Museum, Searsport: \$1.00 and \$0.25.

Ft. Western, Augusta: Pre-revolutionary fort and museum, \$0.50 for adults and \$0.25 for children.

Old Gaol Museum, York: oldest English public building in U.S., dungeons, household articles: \$0.50 for adults and \$0.25 for children.

The New England Council publishes a list of "Historic Houses and Museums of New England." The section on Maine covers 23 restored houses or museums. Admission prices are distributed as follows:

Admission Prices of "Historic  
Houses and Museums of New England"

<u>Price</u>		<u>Number</u>
Adults	Children	
0.15	0	1
0.50	0	3
0.50	0.25	8
0.50	0.50	5
0.75	0.35	1
0.75	0.75	1
1.00	0.25	1
1.00	1.00	3

The closest first-class U.S. Indian attraction to the Passamaquoddy Indian Reservations are located on the Cherokee Indian Reservation in North Carolina, West of Ashville, N.C. These consist of the "Oconoluftee Indian Village", the "Museum of the Cherokee Indian", and a nightly pageant called "Unto these Hills".

The "Museum of the Cherokee Indian" charges \$0.50 for adults and \$0.25 for children. The Oconoluftee Indian Village charges \$2.00 for adults and \$1.00 for children (6 through 13); an additional \$0.50 per adult (children free) is charged for a visit to an "authentic Indian herb garden."

It would be particularly interesting for leaders of the Passamaquoddy Tribe to visit the Oconoluftee Indian Village. This includes a number of authentic Indian dwellings, ceremonial structures, and exhibition areas, where authentic Indian customs and skills are demonstrated: use of blow-guns, basket making, pottery, darts, dugout canoes, arrowheads, wooden spoons, bone fish-hooks, and needles, pounding of corn, etc. Huts are decorated with carvings, feathered capes, animal skins, gourd rattles and finger drums. Tourists are conducted through the village by college-age Indian guides, who describe the history, and the customs of the Tribe (making sure that the tourists realize how the Cherokee Indians have been persecuted and defrauded in the past).

These exhibits are thoroughly dignified, in excellent taste, and highly educational. No effort has been spared to ensure authenticity and an effective presentation of Indian cultural accomplishments.

Unfortunately, the Cherokee Tribe has allowed this outstanding exhibition to become hidden behind an almost impenetrable barrier of sleazy commercial activity: garish neon signs, sidewalk "chiefs" dressed in Sioux war bonnets, souvenir shops featuring Hong Kong junk, franchised hamburger joints, and even a "historical" steam railroad ride featuring a shoot-out between blue-uniformed Union soldiers and marauding Indians (in which the Indians invariably bite the dust). Many such enterprises, located on Tribal lands, nominally are owned by Cherokee Indians; but all too often, however, these are merely front men for white business interests.

As a conservative estimate, we assume that 95% of all tourists that pass near the Pleasant Point Reservation would be interested in some degree in visiting an Indian tourist attraction. Of these, 85% (or a net 81% of all tourists) might be willing and able to pay reasonably high admission prices.

However, not all tourists that might be interested would actually stop. Some will pass at night, or at some other time when attendance would not be convenient for them. Others will overlook advertising and other notices of the Passamaquoddy Indian attractions, no matter how well they may be planned.

To allow for these factors, we assume that a mere one-fourth of the potentially interested and financially-able tourists would actually stop. This would amount to 81,000. In addition, it should be possible to attract at least 19,000 other attendances from tourists that do not now normally pass the Pleasant Point area (U.S. tourists who now turn around at Machias or Campobello, or use the Airline Highway to and from Canada instead of U.S.1, summer vacationers at St. Andrews, N.B., etc.)

Accordingly, our estimate of possible attendance is approximately 100,000. Of these, some 85% may be adults or teen-agers, 10% would be children paying admission fees, and 5% would be infants, admitted without charge. Paid admissions, therefore, might total 85,000 adults and 10,000 children.

These could divide in various ways between several potential attractions. The most significant possibilities would be: a museum, a one-hour demonstration or "Indian village", and a two-hour pageant. We recommend that all three be included in a "tourist complex".

A museum should exhibit genuine antiquities, or authentic reproduction of traditional Abenaki artisanry. It should also show historical documents or photographs (original or reproductions), maps and other graphic exhibits explaining the Tribe's history, culture and traditional daily life, information on present problems, and comparative handicrafts of other American Indian Tribes (e.g. a collection of baskets woven in different styles, from different parts of the country).

The museum should be designed by a professional expert (possibly recommended by the Indian Arts and Crafts Board of the U.S. Department of the Interior). At least one member of the Tribe should be encouraged to attend the six week course in Indian museum work, given at the University of Colorado under the auspices of the Institute of American Indian Arts (Santa Fe, New Mexico).

The museum building could be modern, with some traditional Abenaki Indian inspiration (e.g., in the shape of a domed long-house, or freely adapted from the lines of a birchbark canoe). The building should provide adequate physical security for the collections. This is particularly important if private collectors (such as Mrs. Billy Aldevater) or other museums are to be encouraged to donate or lend their acquisitions.

The Indian Village might be surrounded (at least in part) by a traditional log palisade, 10-12 feet high, with its entrance through a spiral overlap. Inside or around the fort, there should be a number of typical bark-covered structures. These should include (a) a portable summer teepee, a conical circle of poles covered with light, relatively waterproof birch bark, (b) a winter hunting wigwam, with a circular round top covered with heavy elm or hemlock bark (less waterproof but with better insulating qualities) and a permanent "long house" made with logs, a domed roof and a heavy bark covering. Construction details are available from museums and anthropological studies.

Houses should have typical furniture, including beds made of spruce or fir boughs, covered with tanned skins. Fire-places for cooking or heating should be included. Typical crops, including corn, tobacco, squash, sunflowers, and beans could be grown in a small garden area.

In addition there should be an area for exhibitions of handicrafts and other traditional skills. These could include: basket weaving, carving of wood, building birchbark canoes, tanning, fishing with weirs, fish spears, bone fishhooks, hunting with traps and bow and arrow, playing flute and drum, medicine men in traditional masks, etc. Cooking and other household arts should also be exhibited (e.g. sewing with bone needle and bark thread, grinding corn with stone mortar and pestle, boiling soup or maple syrup with hot stones in bark kettle, making fire with a bow.) Last but not least, the program of the Indian village should include typical games (lacrosse, "three shell game" played with four mocassins and a bullet, Indian dice, etc.) A small dance program might also be included, partly as a "come-on" for the more elaborate dance programs which are recommended below. Groups of tourists might be collected in the museum, to join guided tours through the Indian village at half-hour or other convenient intervals. The guides would introduce and explain the various activities, and answer any questions. The facts about past injustices to the Passamaquoddy Indians would be stated, politely but clearly.

Mr. Peter Terry, an employee of the State Adult Basic Education Program who has been assigned to the Passamaquoddy Tribe, has had valuable experience in setting up a similar Indian village on the Alabama-Coushatta Indian Reservation near Livingston, Texas.

Finally, a small amphitheater (holding perhaps 400 persons) should be constructed, as a site for Indian dance performances. The Tribe already has established a tradition of annual dance programs, presented on its "homecoming Day". These have been well received by the public in the area, and there have been up to 3,000 paid admissions. The two Reservations each have their own



dance groups, which give occasional performances both on and off the Reservation. Initially, these dance groups might be engaged to perform three times a week at the amphitheater during the summer season, or more frequently as the volume of visitors increases. Eventually these performances could grow into a full-fledged nightly pageant.

As a practical matter, operation of a "living village" probably could be confined to the daylight hours, and probably would have to be limited to eight hours a day. For example, it might be opened from 11 AM to 7 PM. A museum, on the other hand, could stay open longer and later (e.g. from 9 AM to 9 PM). Dance programs probably would be best given at dusk (e.g. 7-8 or 8-9 PM).

It would be logical to sell combination tickets, allowing tourists to visit both the museum and the living village, or the museum, the living village and the dance performance. These would encourage longer stays (with more opportunities to sell souvenirs or food, etc.) They would also encourage tourists to spend more on admissions than their initial idea of a "fair price" for a short visit.

To maximize revenues, we recommend that visitors who buy tickets to the living village or to the dance performance be entitled to free admission to the museum. Visitors to both the living village and the dance performance should be charged 50% more than those who attend only one of the two.

In Table 4, we estimate the proportion of total visitors that will go to the museum alone; the living village or the dance performance alone (with free entry to the museum); or the living village plus the dance performance (and museum). We also recommend prices for these different combination admissions.

The suggested prices are generally the same as, or somewhat below the levels charged by comparable tourist attractions in the New England area. Multiplying the estimated prices by the estimated number of admissions, we calculate the possible revenue from the three major tourist attractions.

According to the estimate in Table 4, gross revenue from admissions might be estimated at \$103,825. This, however, is only a part of the gross revenue that can be obtained from the estimated volume of tourist visitors, once they are stopped and out of their cars. Many tourists will want to buy souvenirs, particularly if they are of high quality, genuine Indian products, fairly priced, and attractively displayed. Others will be hungry and thirsty, and/or can be persuaded to purchase food and drink, if they are offered appetizing, novel specialties with an Indian

flavor, served by Indians in costume, in a clean and comfortable snack bar or restaurant. Those with children would be interested in pony or birchbark canoe rides, Indian-style games, etc.

Table 4

Estimated Admission Prices, Attendance  
and Gross Revenues from Museum, Living  
Village and Dance Performances

	Adults			Children			Total Re- venue
	Price	Attend- ance	Revenue	Price	Attend- ance	Revenue	
Museum alone	\$0.75	20,000	\$15,000	\$0.25	2,000	\$ 500	\$15,500
Living Vill- age (a)	1.25	59,800	74,750	0.75	7,350	5,512	80,262
Dance (a)	1.25	3,200	4,000	0.75	350	263	4,263
Living Vill- age plus dance (a)	1.75	2,000	3,500	1.00	300	300	3,800
TOTAL		85,000	97,250		10,000	6,575	103,825

(a) Museum visit included

(a) Souvenirs

The opportunity to buy genuine Indian handicrafts from genuine Indians is rare in New England. To meet what seems to be an important potential demand, we recommend the establishment of a souvenir shop as part of the tourist complex. This should be accessible to all tourists, whether or not they purchase admissions to the museum or other attractions.

At least 50% of the tourists that visit the complex can be expected to purchase souvenirs, for approximately the amount that such tourists normally spend in a day. At 3.2 persons per party, the estimated attendance of 100,000 equals 31,250 parties. If 15,000 parties spend an average of \$10 on souvenirs, the total for the season would be \$150,000 (not counting any parties that might be persuaded to stop for souvenirs alone). The retail margin on such sales would amount to 40%, or \$60,000, while \$90,000 would go to the producers or wholesalers of the handicrafts that are sold.

Insofar as possible, Passamaquoddy Indian products would be featured. However, genuine products of other Indian Tribes should be sold, particularly to provide a supply of higher-priced items (e.g. Navajo weaving, Hopi or Zuni jewelry, Alaskan Eskimo bone carvings.) A good selection of books and phonograph records should also be available to those who might be interested in further study of Indian culture.

(b) Refreshments and Food

Refreshments and food should be made available to take advantage of the estimated "captive market" of approximately 95,000 tourists a season (plus possible business from the local community and the Indian Reservation itself). If average expenditures of visitors are as little as \$0.50, the total dollar volume of sales would be at least \$47,500. Because of the nature of the traffic, the food operation should be of the "quick-service" type, possibly with a covered area with tables and benches, and limited waitress service.

A few standard items (hamburgers, hot dogs, soft drinks, etc.) should be carried for the benefit of the unadventurous. However, the food operation should feature American Indian specialties in general, and Algonquin Indian specialties in particular. These might be adapted or "toned down" in some cases to cater to public tastes, but should have some distinctly Indian feature. The success of franchised Mexican food and pizza operations should be taken as encouraging examples of the American traveler's willingness to vary his diet.

Possible examples of Indian and semi-Indian specialties that could be sold through a "quick-service" operation include:

- Green pepper chili
- Roasted corn ears
- Corn bread or cake
- Indian fried bread
- Barbecued meat
- Corn cakes with meat or bean filling  
(similar to tacos, enchiladas, etc.)
- Indian style "New England" baked beans,  
flavored with imitation maple syrup
- Fish chowder
- Indian "New England" clambake (clams steamed  
with seaweed)
- Indian succotash
- Wild greens salad
- Dessert made with maple syrup flavoring
- Root beer, sassafras tea, etc.
- Caramelized popcorn, flavored with imitation  
maple syrup

Such a quick-service operation might spend 40% of gross revenues (or \$19,000) on the purchase of food, soft drinks, paper cups and plates, and other supplies, leaving a margin of 60% (\$28,500) to cover labor, depreciation and other costs, as well as some profit.

(c) Rides and Games

Possible rides and games might include a pony ride, birch-bark canoe trip, Indian snowshoes (to be used in a pit filled with sawdust, shredded styrofoam, or some similar light, granular material), archery, and the famous "three shell game". The latter may require some words of explanation.

The so-called three shell game was invented by the Algonquin Indians, and was played on a hide or blanket spread on the ground. The equipment consisted of four mocassins and a small stone. The captain of the defending side put the stone under one of the mocassins, and then quickly shuffled all four across the playing surface. While he did so, his team-mates produced as much noise and confusion as possible, to try to prevent the other side from guessing which mocassin covered the stone.

With the coming of the white man, the components of this system were miniaturized, and today consist of three walnut shells, a pea, and a folding stand. The operator of the game still has one or more confederates, who make extraneous noises, surreptitiously pick up a shell to disclose where the pea is, and place the first bets. However, the "pea" is now made of rubber, so that the operator can slip it out and palm it before the betting begins.

We would recommend that the traditional equipment be used, at least for the most part.

We estimate that rides and games could extract an average of \$0.40 each from 12,000 customers, or a total of \$4,800. Small prizes might cost perhaps 10% of this total, or \$480.

While the potential return is not great, games and rides could provide fill-in work for Passamaquoddy teen-agers between demonstrations or dance programs. This would help to insure reasonable incomes, as well as an opportunity to gain self-confidence in meeting the general public. We therefore recommend that they be included in the proposed tourist complex.

The estimated gross revenues may now be recapitulated as follows:

Museum	\$15,500
Living Village	80,262
Dance (including combinations)	<u>8,063</u>
Subtotal	103,825
Souvenirs	150,000
Refreshments & Food	47,500
Rides and games	<u>4,800</u>
	306,125

The cost of goods sold might also be recapitulated, as follows:

Souvenirs	\$90,000
Refreshments & Food	19,000
Rides and games	<u>480</u>
	109,480

Some of this, of course, could be paid to members of the Tribe for the production of handicrafts. However, if we subtract the cost of goods sold from the total of gross receipts, we are left with a margin of \$196,645 to cover labor, depreciation and other expenditures of the tourist enterprise itself.

The basic cost of the museum, Indian Village, amphitheater, souvenir shop, quick-service restaurant, and other facilities is in Table 5. This also gives estimates of annual depreciation, maintenance, insurance and (8%) interest costs. The total amounts to \$43,859 a year.

Table 5  
Estimated Fixed Investment in Museum, Village and Amphitheater Complex

Item	Invest- ment	Annual costs				Total
		Deprecia- tion	Repairs	Insurance	Interest 8%	
<u>Buildings &amp; installations</u>						
Museum	50,000					
Living village	25,000					
Amphitheater	35,000					
Souvenir shop	12,000					
Food service	12,000					
Restrooms, office, staff dressing rooms	10,000					
Parking area, entrance road	5,000					
Subtotal	<u>149,000</u>	<u>9,933</u>	<u>4,470</u>	<u>2,980</u>	<u>11,920</u>	<u>29,303</u>
<u>Equipment for museum, village, amphitheater</u>						
Museum exhibits	15,000	1,500	500	500		
Village furniture, decorations, props	2,500	500	500	100		
Amphitheater lighting, props, scenery	5,000	500	250	150		
Village and dance costumes, 25 x \$100	2,500	812	500	50		
Subtotal	<u>25,000</u>	<u>3,312</u>	<u>1,750</u>	<u>800</u>	<u>2,000</u>	<u>7,862</u>
<u>Food service</u>						
Cooking & refrigeration equipment (end hand)	3,000	300	150	90		
Serving (glassware, cutlery, etc.)	500	133	50	15		
Furniture (picnic tables, benches, etc.)	1,000	200	50	30		
Uniforms, costumes, 10 x \$50	500	125	250	-		
Subtotal	<u>5,000</u>	<u>758</u>	<u>500</u>	<u>135</u>	<u>400</u>	<u>1,793</u>
<u>Souvenir shop fixtures &amp; decorations</u>	<u>2,000</u>	<u>500</u>	<u>100</u>	<u>60</u>	<u>160</u>	<u>820</u>
<u>Office equipment &amp; furniture</u>	<u>500</u>	<u>50</u>	<u>50</u>	<u>15</u>	<u>40</u>	<u>155</u>
<u>Outdoor signs</u>	<u>5,000</u>	<u>1,000</u>	<u>1,000</u> (a)	<u>100</u>	<u>400</u>	<u>2,500</u>
<u>Rides and games</u>						
4 ponies, harness, etc.	800	200	600 (b)	-		
Birch bark canoe	600	150	25	-		
12 pair life jackets	180	36	36	-		
6 pair snowshoes	180	36	36	-		
4 bow and arrow sets, with targets	300	60	30	-		
2 pair mocassins	60	30	-	-		
1 blanket	30	15	-	-		
1 rubber pea	-	-	-	-		
Subtotal	<u>2,150</u>	<u>527</u>	<u>727</u>	<u>-</u>	<u>172</u>	<u>1,426</u>
TOTAL	<u>188,650</u>	<u>16,080</u>	<u>8,597</u>	<u>4,090</u>	<u>15,092</u>	<u>43,859</u>

(e) Including site rental  
(b) Including feed for year



Management and labor requirements are estimated in Table 6. It is assumed that much of the labor will be provided on a seasonal basis by members of the Tribe who are high school and college students. The total cost is \$71,100.

Table 6  
Estimated Cost of Management and Labor  
(including fringes)

Title	Number	Rate of pay for season (a)	Total Cost
Manager	1	9,000 (a)	9,000
Secretary	1	4,500 (a)	4,500
Cashiers	2	1,800	3,600
Museum curator	1	7,000 (a)	7,000
Museum attendants	3	1,200	3,600
Village cast, guides, etc.	18	1,000	18,000
Souvenir shop manager	1	3,000	3,000
Sales clerks	2	1,800	3,600
Restaurant manager	1	3,000	3,000
Cooks	2	1,800	3,600
Food service	6	700 (b)	4,200
Games, rides, (assisted by village cast, etc.)	3	1,000	3,000
Dance group, 10 x 30% of full time	3	1,000	3,000
Maintenance	<u>2</u> 46	1,000	<u>2,000</u> 71,100

(a) Denotes full-time employees  
(b) Plus tips

Total costs are estimated in Table 7, and are compared with total revenues

Table 7

## Estimated Total Costs and Profit of Tourist Complex

	Total Investment	Revenues and costs
<u>Gross receipts</u>		<u>\$310,325</u>
<u>Costs</u>		
Fixed investment	\$188,650	43,859
Management and labor		71,100
Cost of goods sold		109,480
Working capital		
General administration	5,000	
Museum	4,000	
Village	4,000	
Souvenir store	25,000	
Food service	3,000	
Rides and games	500	
Total working capital	41,500	
Cost, at 8%		3,320
Legal, accounting, etc.		2,500
Public liability insurance		3,000
Utilities, fuel, etc.		2,500
Advertising (2% of sales)		6,206
Errors and omissions		4,000
TOTAL COSTS		<u>245,965</u>
PROFIT BEFORE TAXES		64,360
TOTAL INVESTMENT	<u>230,150</u>	

Compared to the total investment of \$230,150, the estimated profit of \$64,360 amounts to 28%. However, this was calculated after including 8% interest on the total investment as an expense. If the interest is added to the true profit, the rate of return becomes 36% per annum. The total profit (\$64,360) plus interest (\$15,452) amounts to \$79,812 or 42% of the fixed capital investment alone.

The portion of the Pleasant Point Reservation lying to the Southwest of State Road 190, adjoining Cobscook Bay, seems to be an excellent potential site for such a tourist complex. There are only two residences on this portion of the Reservation, and these are tucked inconspicuously in the corner nearest Eastport, behind a small hill. The area has a large flat space near the road, formerly used as a baseball field, which would make a good parking lot, entrance, and site for the proposed museum and village. The remainder slopes moderately towards the water, making construction of an amphitheater a fairly inexpensive and simple matter. Such an amphitheater would have Cobscook Bay and relatively unspoiled scenery as a dramatic background.

We recommend establishment of a museum, Indian Village, and Dance Amphitheater along the lines recommended in this Chapter. However, if our recommendations are followed, the mistakes made by some other Indian Tribes should be avoided. In particular, the Tribe should make sure that any purely commercial enterprises, whether owned by members of the Tribe or not, are kept at a reasonable distance from the Tribal tourist complex. This is important to preserve the dignity of the Tribal tourist enterprise...and its ability to earn money.

If funds are made available from public sources, the Tribe should agree as part of its loan or grant contract to do its utmost to ensure truth in its exhibits, presentations or souvenir sales. Whether or not it is required to do so, the Tribe should strive for authenticity, and respect for its own traditions.

The costumes, dances or handicrafts of other Indian Tribes are appropriate, if they are clearly identified. But stress should be laid on the Passamaquoddy Indians' own considerable accomplishments. It is particularly important that any costumes should be genuinely derived from the Tribe's own culture. Sioux war bonnets or space-age jump-suits do not belong in an authentic display of Passamaquoddy Indian traditions. And even if they did, the real headdress and costumes of the Passamaquoddy Indians are far more attractive.

## Chapter 6

### Camping and Boating

As our previous analysis has indicated, the most important tourist opportunity for the Passamaquoddy Indian Tribe seems to be a museum-village-amphitheater complex to be located at the Pleasant Point Reservation. In addition, the Tribe has an opportunity to establish new camping and boating facilities on the Indian Township Reservation.

Although the Indian Township Reservation is not well located to attract general tourism, it has some excellent qualities for hunting, fishing, camping and boating. Long Lake, bordering one side of the Reservation, is directly connected to 40,000 acres of lakes and streams that are highly attractive to fishermen and boaters (Grand Lake, Big Lake, etc.) The Reservation's forests are among the least exploited (and therefore the most attractive) in Northern Maine.

As was reported in Chapter 3, the Maine Forestry Department has established campgrounds on the Reservation near Peter Dana Point. This is managed and maintained by a physically handicapped member of the Tribe. Although he pays no rent to the Tribe or the Forestry Department, his annual net income from this operation is below the poverty level, in all probability. According to official records, the gross income from this operation was as follows in 1969:

Campsite rentals	\$1,267
Cabin rentals	208
Boat rentals	248
Outboard motor rentals	140
Sale of gasoline	59
Sale of firewood	8
Sale of bait	4
	<u>1,934</u>

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Source: A. Temple Bowen, Jr., Maine Forestry Department, "1969 Report on Long Lake Campground, Indian Township, Maine," Augusta, 1970.

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The present manager seems to be doing a good job, and we recommend that he be left in charge of the existing campground.

However, we concur with the Maine Forestry Department in recommending a moderate increase in campground charges in this area (e.g. from \$1.50 to \$2 per night). As a matter of principle,

the present manager should then be required to pay a token rental to the Tribe (possibly 5% of gross receipts).

Table 8

Long Lake Campsite Camper Days by Month  
1968 and 1969

Month	1968	1969	
		Number	%
May	37	136	3
June	511	886	19
July	1,516	1,879	41
August	1,314	1,598	35
September	118	73	2
October	306 <sup>1)</sup>	-	-
	3,802	4,572	100

1) Boy Scout outing

Table 8 gives information on the number of camper-days per month at the Long Lake campsite. Some 41% of all customers come in the month of July; 35% in August; and 19% in June. May and September account for the remaining 5%. Because of the highly seasonal nature of this demand, the Tribe should endeavor to limit its investment in camping facilities.

Almost half the visitors used ordinary tents, while the remainder used trailers, pickup campers, etc. The present capacity for travel trailers is limited, and many have to be turned away during peak periods. The campsite does not have facilities for utility hookups to travel trailers and campers.

In addition to the present campsite, the Tribe has an opportunity to seek public funds through the State of Maine, to provide new camping facilities and a marina for boaters. This can be done in such a way as to create significant new income-earning possibilities for the Tribe as a whole, with little or no risk of tribal financial resources, despite the highly seasonal nature of tourism in the area. In brief, the State is interested in building a marina and other facilities at its own risk, to be leased and eventually sold to the Tribe as tourist traffic develops. State officials concerned with this program have selected a proposed site, not far from the Peter Dana Point settlement on the Indian Township Reservation.

We recommend that the Tribe negotiate with the State, and give this favorable consideration. Any new facilities should not compete with the existing campground, but instead should seek to

attract a different clientele. Prices of the new facility should be higher (e.g. \$2.50 per night per campsite), and facilities should be more elaborate (electric lights, running hot and cold water, laundromat, flush toilets, trailer and camper hookups, etc.) The marina should be equipped to shelter up to 50 boats. It should have also a boat hoist and space for the eventual development of a motor and hull repair service (now sadly needed in the area). Space should be provided for establishment of a combination office, grocery store and snack bar, and a gasoline pump should be available for sale of boat fuel.

The new campground should be equipped for 50 tent sites and up to 50 trailer/camper hookups. Not all of these will be economically justified in the first year or two, but their availability at peak periods will help to build up repeat business. The campground should have some covered recreational facility, for evening entertainment (campfires, song and story programs, etc.) whose cost would be covered by profits on sale of Indian souvenirs, foods, refreshments, etc.

The grocery store and snack bar should be operated all year around, not only for campers, hunters and boaters, but also as a convenience and money-saving cooperative for members of the Tribe. However, one word of caution is essential: any community-owned or cooperative enterprise that tries to give credit will be doomed to failure. This has been the experience of poor people's groups throughout the United States, including a number on Indian Reservations. Refusal to give credit, charging of a reasonable markup for a small store (e.g. 30%) and an honest manager who knows something about bookkeeping are the three prerequisites for success of this operation.

The wisdom of such an ambitious installation might be questionable if it had to be self-supporting from the beginning. However, the State of Maine has a partially-subsidized program to finance new recreational facilities, in order to generate additional tourist traffic for the State as a whole. These installations are expected to become self-supporting or profitable eventually; but the State is willing to assume the cost of operations for an initial period of years.

To ease the eventual transition to a self-supporting operation, the State is also willing to rent out the facility for a nominal percentage of gross receipts (e.g. 10% of the first \$10,000 and 5% of all additional receipts). Under such an arrangement, the chief cost to the Tribe would be the salaries of a permanent custodian, a permanent night watchman, and one or more temporary assistants for the tourist season. The permanent caretaker could also serve as the storekeeper, at least initially.



The cost of an installation such as has been described is estimated at \$250,000. Once it develops repeat customers and becomes well-known, possible revenues might be estimated in Table 9.

Table 9

Estimated Revenue and Expenses from Campground & Marina

1. Revenues

a. Rental of trailers and tent sites	
100 x 90 days x 50% occupancy =	
36,000 party-days	
36,000 x \$2.50	\$80,000
b. Use of boat ramp: 500 x \$1	500
c. Rental of docking facilities	
50 x 40% seasonal occupancy x \$50 for season	1,000
\$50 x 20% weekly occupancy	
x 14 weeks x \$5	700
d. Sale of gasoline, 10,000 gallons @ 4¢ margin	400
e. Laundromat fees, etc.	2,500
f. Markup on groceries: \$40,000 x 30%	<u>12,000</u>
Total Revenues	<u>97,100</u>

2. Expenses

a. Rental payment to State	9,710
b. Maintenance, supplies & electric power	5,000
c. Wages (including fringes)	
Custodian/storekeeper	7,500
Watchman	4,000
Temporary assistants	<u>6,000</u>
	17,500
d. Insurance	<u>4,000</u>
	<u>36,210</u>
3. <u>Estimated profit</u>	<u>60,890</u>

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Potentially, therefore, this could be a profitable enterprise for the Tribe. At a later date, consideration might be given to including a small motel. During the cold months, rooms could be rented to older members of the Tribe, for a little more than the cost of central heat and basic maintenance.

To establish a grocery cooperative, the Tribe would need a minimum of \$5,000 for basic inventory. This probably could be borrowed from the Small Business Administration. Consideration might also be given to purchase of three or four houseboats for

fall fishing season.

The State is also willing to finance a small dock and launching ramp for pleasure craft at Pleasant Point. Pleasure craft traffic in the area does not seem to be sufficiently large to make this a commercially viable enterprise. Furthermore, tides and currents are so extreme that overnight docking would not be practical. However, availability of a dock might help to attract some additional patronage for the proposed museum, village and dance amphitheater, and for the attached souvenir shop and snack bar.

Guiding for fishing and hunting has long been an Indian specialty in Maine. However, at present only one member of the Passamaquoddy Tribe works regularly at this occupation. He believes it would be possible for five or more Indians to work as guides.

Guides must invest in a canoe, outboard motor, cushions, life preservers, cooking gear and a State license, at a total cost of \$800-900. Not only must they know the whereabouts of fish and game, but they must also know how to cook, and to get along with the somewhat peculiar people that sometimes fish and hunt in the Maine woods.

Most guiding business comes from referrals and repeat visits from satisfied clients. Some jobs are obtained through fishing or hunting camps in the area, but camp operators are reluctant to refer their customers to new guides who lack experience. Consequently, a would-be guide must spend considerable time in building up a clientele, without immediately reaching his normal earning power.

The standard charge for guides is \$25 per day. Of this, at least \$2.50 must be allowed for depreciation, interest and profit on the guide's investment. A good guide with a wide-spread reputation can work up to 130 days during the spring, summer and fall, plus another 21 days during the deer hunting season in November. At \$22.50 per day, his maximum income - assuming no sickness or idle time during the two seasons - would be \$3,397.50.

Most of the Tribe's young people do not seem interested in guiding as a career. A few would like to become guides, but cannot afford the investment. We recommend that these few be encouraged, with small loans from SBA or some other appropriate source. On the whole, however, guiding no longer seems to be a promising answer to the needs of the Tribe.

## Part III: Handicrafts

### Chapter 7

#### Basket-Making

Basket-making is a traditional Abenaki Indian activity. The Passamaquoddy Indians make very durable, high-quality baskets, out of wooden strips of black (brown) ash. Some baskets are undecorated utility types, 2-3 feet in diameter, while others are woven with fine, dyed strips in "fancy" designs.

For many years, the former have been sold mostly to the fishing industry, to hold fish and fish scales (collected from canneries and processed into a cosmetic base called "pearl essence" at Eastport, Maine). Indian ash baskets are extremely serviceable, and are preferred. However, a decline in output on the Passamaquoddy and Penobscot Reservations has forced the industry to turn to plastic baskets, at a lower initial cost, but a higher overall cost (because they are less durable). Some wooden scale baskets were also purchased from a large factory in Vermont; but could not meet the quality standard set by the Indian product.

The high quality of the Indian baskets is partly due to the method of producing the strips of ash. Ash is a very tough wood. Strips for basket-making are not cut with a knife, but are "pounded" off by beating the log with an axe-head, so as to separate the wood along the growth rings. Consequently, no fibers are cut, and the strips do not break or fray with use. The skill of the hand weavers, of course, adds to the strength as well as the beauty of the finished baskets.

Pounding is very hard physical labor, and must be left to younger and more vigorous members of the Tribe. Many of these have left the Reservation, so that the supply of pounded ash is declining. Those who continue to pound by hand charge \$8 for the so-called "first pounding", which takes an entire morning. This produces material for approximately ten fish-scale baskets. After the remainder of the log dries out, it may be pounded several times more, at a charge of perhaps \$4.50 per additional "Pounding". Later poundings produce approximately as much as the first pounding. Total production from a log varies considerably with the size and conditions (figures of between 10 and 200 fish scale baskets per log have been cited). As a rough estimate, we assume an average of 30 fish scale baskets per log.

The log (called a "stick") is usually eight feet long, partly because this is an easy length to transport, and partly because this is the normal length of clear log (without crotches, heavy branching, etc.) that can be found in the raw-material

producing areas today. The supply in the immediate vicinity of the Passamaquoddy Reservations has been depleted, but there are very large amounts available in Aroostock County to the North. Black ash is a swamp-loving tree, not generally cut for commercial purposes in Northern Maine.

The chief element of raw material cost is the finding, logging and transportation of suitable logs. Stumpage (if paid) is nominal. The delivered cost to individual weavers, when sticks are brought in by an Indian entrepreneur varies from \$8 to \$15 per log. Thus, the cost of raw materials for one scale basket (assuming three poundings at a total labor charge of \$17, \$8 for the stick, and production of 30 baskets) might be estimated at \$0.80.

The conventional wholesale price of a scale basket is \$5.50. Productivity of individual weavers varies considerably. Until fairly recently, basket-makers expected to earn only around \$0.25 per hour.

One older weaver, who hired an assistant weaver, purchased his sticks from an Indian truck-owner, and hired out his pounding, claims to have netted only \$55 per week, even though he worked long hours.

One of the best weavers, a very vigorous younger member of the Tribe, claimed to be able to produce 30-40 baskets a week, doing his own pounding. Every 3-6 months, he would spend several days collecting his own ash in Aroostock County, so that his chief out-of-pocket cost was for the rental of a truck. Consequently, his potential net income was not much less than his weekly sales revenue of perhaps \$192.50. On the other hand, a partially mechanized small factory on Indian Island (Penobscot Reservation) reported approximately 1.33 hours of labor for scale baskets (6 baskets per worker per day, including machine pounding.)

Since pounding is the chief bottleneck, it has long been obvious that mechanization of this operation would permit a substantial expansion of basket-weaving. This was brought to the attention of the University of Maine's extension service some years ago, when a socially-minded corporation with interest in the area provided a grant to finance the development of a pounding machine.

After receiving this grant, the University's Department of Agricultural Engineering (located at Orono, Maine), began its work by examining the existing state of the art. In recent years, two "pounding machines" had been developed by Penobscot Indians living on the Indian Island Reservation, approximately 10 miles from the University, and had been used to prepare raw materials for small basket-making factories.

The University's engineers apparently examined one of these machines; but did not find out about the existence of the other (the latter ceased production several years ago, and its equipment is now in storage in an out-building on Indian Island). Unfortunately, they found out about the least efficient of the two machines.

The less efficient machine was improved by the University's engineers, and was turned into a very impressive piece of equipment. A 30 by 50 foot building was erected on the Pleasant Point Reservation, and the building and machine were donated to the Tribe. According to hearsay, the total development and construction costs were \$30,000.

Unfortunately, the new machine is slow, and completes the pounding of only four sticks per day. Since at least two workers are needed, the cost for labor alone( at a total of \$.85 per hour, plus 15% for fringes, or \$2.13 gross) amounts to \$34 per day, or \$8.50 per "stick", (not counting power, maintenance, etc.) This is perhaps half of the cost for comparable hand pounding. However, the machine seems to produce a lot of waste in comparison to a hand-pounder, so that the total cost of raw materials may be about the same.

The other Indian-invented pounding machine seems to avoid these very deficiencies. According to its owner, it is capable of pounding ten sticks per day - possibly  $2\frac{1}{2}$  times the output of the University's machine - with the same requirement of two workers. On this basis, the labor cost per stick would be \$3.40. (Our own inspection of the machine suggests that a few relatively simple improvements could reduce the labor requirement to one person).

The more efficient machine consists mainly of a used 25-pound power hammer, with a normal square moving head. Two steel bars have been welded to the anvil to make a V-shaped holder for the log, and the height adjustment mechanism of the anvil has been strengthened to resist the force of the "pounding". The log is suspended horizontally in a leather harness from an overhead track, so that it can be advanced for about half its length between the power hammer head and the anvil. A steel handle is clamped to the end of the log, so that it can be rotated as strips are pounded out. After a number of layers have been pounded free on one half, the log is removed and is turned end for end in the harness, so that the other end can be pounded. The total cost of duplicating this machine might be estimated generously at \$500.

Since the difference in labor cost per stick is \$8.50 - 3.40) \$5.10, the estimated total cost of this machine would be saved by not pounding 82 "sticks" with the "free machine" from the University. At the estimated rate of production of 50 sticks

per five day week, that would take around  $1\frac{1}{2}$  weeks .

We have dwelt on this story to illustrate the fact that "uneducated Indians" who are close to their own problems are sometimes able to arrive at more practical solutions than expensive outside experts (including the undersigned). Accordingly, those engaged in technical assistance need to be far more sensitive to what the Indians have already learned, and far less ready to substitute their own conclusions for the understanding that the Indians have already acquired.

While a pounding machine was under development, tribal leaders were looking for some economic development project that could help their people. Possibly encouraged by the impending solution of the pounding problem, a decision was made to establish a basket-weaving enterprise. With some technical assistance from us, this was set up in the summer of 1970 in the legal form of an agricultural cooperative. An OEO grant was obtained to support some of the overhead and administrative expenses, and negotiations began with the U.S. Department of Labor for an MDTA grant.

Eventually, a large MDTA grant was made, for two purposes: (1) to train Indians in the construction trades through the disassembly of an unused government-owned building at "Quoddy Village" (remains of the pre-war Passamaquoddy Dam Project), and use of the materials to construct a basket factory building, (2) to train Indians in basket-weaving. Indian trainees would receive stipends of \$59-80 per week (varying with family size).

A non-Indian non-basket maker was put in charge of the basketry training program, and the Department of Labor invited the fledgling cooperative to donate its facilities to the training program. There was no provision for paying the cooperative for its services, and it was made clear that any baskets produced by MDTA trainees could not be sold. Under these circumstances, the cooperative decided it could not afford to participate. As a result, the Department of Labor is now threatening to withdraw its support for the construction training program, depriving the cooperative of the proposed free factory building.

While this has been going on, the basket-making cooperative has languished. Around \$5,000 was borrowed from a commercial bank; but most of this was used to provide working capital for a Christmas wreath production program. Some machinery was ordered, and basket-making was begun on a small scale in the basement of a school on the Pleasant Point Reservation. The available space simply is not adequate for more than a small fraction of the available workers. However, production is also limited by the slow rate of pounding.



A number of other problems have also come up. For good reasons, the co-op early decided to concentrate on the production of scale baskets. The demand of the pearl essence factories in Eastport alone has been estimated at 25,000 per year (or at \$5.50 wholesale, \$137,500 per annum). There would be no credit and sales problems such as would arise in dealing with souvenir and gift shops. The design is established, and it would not be necessary to plan for any new items.

However, it has now been discovered that the production of this one item will result in a waste of raw materials. Weaving strips for scale baskets are  $4\frac{1}{2}$  feet long, and the available length of logs is only 8 feet. Consequently, some  $3\frac{1}{2}$  feet of each strip is left over. Furthermore, it is becoming clear that the industrial scale basket is a low-price item. Pack baskets, not much different in raw material or labor requirements, sell for \$8-10 wholesale. Smaller items could be developed (such as fireplace wood carriers, basket-making kits for Boy Scouts, wastebaskets, etc.) which would be even more lucrative, and would use the raw material which is now being wasted.

In addition, there seems to be a virtually unlimited demand for so-called "fancy" baskets (generally produced by women). These tourist items can be sold at relatively good prices in their present form; but would bring far more per hour of labor if some of the old skills - such as decoration with dyed porcupine quills - were revived, and if designs were improved (or at least were restored to the original models). Last but not least, there apparently are very significant economies to be made by division of labor and partial mechanization of the production of plain baskets. It is even possible that similar economies could be obtained in the production of fancy baskets, without sacrificing the hand-made quality that is attractive to buyers.

Unfortunately, clear information is not available on the profitability of "fancy" baskets (although available data suggests that it is advantageous). On the other hand, production of plain baskets (scale baskets, pack baskets, wastebaskets, etc.) seems to have a good chance of being profitable, if it is reasonably well organized, and the proper mechanical equipment is used.

Figures that have been discussed above suggest that the cost of raw materials might be in the vicinity of \$0.80 per basket, while the cost of labor might be estimated at (1.33 hours x \$2.13, including fringes) \$2.83, making a total of direct cost of \$3.63. Such baskets would sell for \$5.50, leaving a margin of \$1.87 for overhead and profit. However, there is every reason to believe that raw material and labor costs can be reduced substantially by cooperative organization of raw material supply, some division of labor

and limited mechanization (not to the point of reducing the hand-made appearance and quality.)

Unfortunately, the present cooperative operation has been started on a shoestring, and stands a very good chance of failing for lack of adequate financial resources. The cooperative has tried to prepare an application for a \$25,000 loan from the SBA, but has not been able to obtain the necessary advice and assistance from local sources.

We recommend technical assistance to the cooperative to obtain adequate financing, as a matter of highest priority. Possible sources are the Farmers Home Administration and the Small Business Administration. A loan should be sought to cover the following items:

Construction of factory building	25,000
Machinery and equipment	5,000
Working capital	<u>15,000</u>
	45,000

We also recommend that the cooperative be provided with technical assistance of an experienced factory executive. There are a number of small problems that could be corrected with the help of such advice. For example: (1) the present pounding machine building (in which a few woodworking machines are also working) is gradually filling up with sawdust and waste, reducing working efficiency and causing a fire hazard. (2) the workers in this building are not accustomed to factory conditions, and take unduly frequent cigarette breaks (stopping the machinery for long periods of time). (3) Accounting methods need to be improved so that the manager obtains a better idea of his costs.

We also recommend that the cooperative obtain and provide to its members training in the basic principles of cooperatives. This might be available from the Cooperative League of the U.S.A., the Farmers' Cooperative Service of the U.S. Department of Agriculture, or the University of Maine. It is important that members not only hear that the cooperative belongs to them; but also understand exactly what this means in terms of patronage refunds, one-man-one-vote, reinvestment of reserves, and other fundamental ideas of cooperatives.

We urge that the cooperative stick to the traditional methods and traditional qualities of the past. Mechanization is feasible and desirable wherever it does not destroy the basic Indian, artisan character of the product. Imitation of the mechanized short-cuts that are used in some white-owned basket factories in New England will tend to destroy the value of the cooperative

as an upholder and reviver of valuable Tribal traditions. Even if the members could make more money in this way, they probably would enjoy it less. However, if we are any judges of the economics of this enterprise, cheapening of quality by injudicious mechanization probably will result in a severe drop in the sales prices, reducing rather than increasing the income of the members, and of their cooperative.

One last word of advice will be given, although the members of the cooperative already seem to understand this for themselves: the cooperative can be run as another means of getting money out of the government, or it can be run as a business. The former may have some temporary advantages (MDTA stipends, etc.) However, these are not likely to last, and can only be obtained at the sacrifice of the members' long-run interests. Therefore, the cooperative should be run as a business.

## Chapter 8

### Other Souvenirs and Handicrafts

For the time being, the basket-making cooperative probably will have its hands full just trying to produce baskets. However, there are many other handicrafts and souvenirs products that could be added to its program as time goes on. Anyone who has travelled along the Maine "Down East" coast knows that there are literally hundreds of outlets for tourist souvenirs in the State of Maine alone (not to mention the thousands along major tourist roads in other New England States.) These shops exist to make money, and they sell whatever they can find that tourists can be persuaded to buy.

As Chapter 3 has indicated, most tourists are interested in Indians, and many would like to buy genuine Indian products. Unfortunately, there are very few Indian products available for sale on the Atlantic Coast of the United States. The vacuum has been filled by shoddy imitations made in Hong Kong, Japan, Taiwan, etc.

Tourists would be particularly pleased to have an opportunity to buy genuine Indian products from genuine Indian shops, and particularly from shops that are operated by an Indian Tribe. Unfortunately, there is no tribal souvenir shop in Maine. According to a list prepared by the Indian Arts and Crafts Board of the Department of the Interior, there are a total of 39 tribal crafts enterprises in the United States. These range from simple stores to elaborate villages or pageants (with souvenir shops attached). The closest to Maine is the "Pamunkey Pottery and Crafts" store of the Pamunkey Tribe, at King William, Va. (near Richmond).

In addition, the Indian Arts and Crafts Board lists 49 private Indian-owned crafts stores, located in 21 States. The closest to the Passamaquoddy Reservations are two at Old Town (Penobscot), one on Cape Cod (Wampanoag) and one at Charlestown, R.I. (Wampanoag-Malecite). Several small and one fairly large Indian-owned store located on the Passamaquoddy's Pleasant Point Reservation itself have not been discovered by this Board (or, unfortunately, by most of the tourists who come through the area).

The Maine souvenir and crafts market is wide open for any products that the Passamaquoddy Indians can produce (or even sponsor) which are (or even appear to be) genuine Indian handicrafts (or even machine-made adaptations of true Indian designs.) There is only one qualification that needs to be made: a part of line of genuine Indian products should sell at relatively low prices, so

as to fill the demand for purchases to keep children quiet, fulfill promises to mothers-in-law, etc. However, such low-priced objects need not be unprofitable, since they can usually be manufactured for very little.

What could the Passamaquoddies produce, besides baskets? We have made a list of a few of many possible suggestions, based largely on the exhibitions of genuine Algonquin artifacts in the following museums: Peabody Museum, Boston; Museum of Natural History and Museum of the American Indian, New York; Smithsonian Institution, Washington, D.C. We have also consulted a number of standard reference books on Algonquin (and particularly Abenaki) Indian culture and art.

(a) Wood items

Bows with moose-sinew bowstrings  
Drumsticks for tom-toms, made of natural burl on a hardwood sapling.  
Birchbark dishes, sewn with spruce or white cedar thread.  
Birchbark maple sap buckets, boxes and spoons, sawn with spruce roots and cauled with spruce gum  
Birchbark moose call (including instruction sheet)  
Birchbark boxes with pictures or patterns scraped into dark side.  
Souvenir birchbark canoe  
Wooden spoons, or ladles, made by charring and scraping knotwood of maple or mountain laurel (pre-machine to rough dimensions)  
Wooden bowls made of burls of hardwood trees (pre-dry and pre-machine)  
Rabbit and small game traps (gravity fall and pointed sticks around inside of a basket mouth, etc.)  
Decorative knife handles  
Indian dice game  
Tobaggon  
Snowshoes (especially small sizes for emergency retreat from stranded snow-mobiles).  
Wooden boxes, platters, canoe-paddles carved with Algonquin double-curve patterns (machine carving a possibility).  
Wooden harpoons  
Framed drawings of Indian scenes on birchbark  
Fire drill  
Tomahawks  
Miniature totem poles.

(b) Food items.

There is a growing interest in "gourmet" or "exotic" foods in the United States. Algonquin Indians originated almost all of the "New England" cuisine - chowder, maple syrup, baked beans,

popcorn, hominy, clam-bakes, etc. - which most Americans find appetizing. If only as souvenirs, it should be possible to develop sales of canned or dried Indian foods, and these might even sell to supermarkets and gourmet food shops outside the Maine area. Small-scale production could be undertaken by a local blueberry or fish cannery on a contract basis, with the Tribe providing only the recipe, an appropriate label featuring the name and history of the Passamaquoddy Indians, and perhaps some of the labor.

Possible products that would appeal to American consumers might include:

- Fish chowder (made with corn meal)
- Blueberry, raspberry, wild strawberry or other jams and jellies
- Hulled corn (hominy lightly treated with lye)
- Genuine succotash (hulled corn, boiled with fat and mixed with beans)
- Maple sugar and maple syrup
- Popcorn
- Original "cracker jack" (popcorn sweetened with maple syrup)
- Squash, pumpkins or cucumbers pickled in brine
- Cooked greens; mustard or collard plus some milkweed, purslane, dandelion, burdock, leek, wild garlic, peppermint, etc.)
- Bread made of pounded maple bark
- Sassafras and other herb teas
- Smoked dried meat and fish
- Dried oysters, clams, shrimp
- Dried berries, alone or formed into candies with maple syrup, cornmeal, etc.

If there are any doubts as to the interest of American consumers in unusual gourmet items, they might be set at rest by an investigation of the program for production of canned Eskimo delicacies, sponsored by the Canadian Government's Department of Indian Affairs and Northern Development. Among the items which are selling at a profit to the Eskimos are canned muktuk (inner skin of the whale), whale meat in tomato sauce, and Arctic fish (char) chowder made with sherry and pimientos.

c. Miscellaneous products

- Bead necklaces (some with silver crucifixes or crosses)
- Dolls made of corn husks
- Woven mats of dyed bark and rushes
- Carved stone pipes
- Bark fishlines with bone fishhooks
- Fishnets



Woven eel and lobster traps  
Hunting caps with two ears, horns, etc.  
Children's capes or coats covered with turkey  
feathers  
Children's face paint (washable)  
Sealskin belts or mocassins  
Deer antler buttons.

Pottery is a traditional Passamaquoddy art; but apparently fell into disuse around the time of the white invasion. Consideration might be given to reviving it to meet the apparent demand of tourists for ceramic items.

#### d. Canoe-building

The Northeastern woods Indians (primarily members of the Algonquin Tribe) were the inventors and first users of the canoe, whose superior design has since been imitated throughout the world. In Maine, these were covered with birch-bark.

A non-Indian craftsman in the Grand Lake area produces high-quality wooden canoes covered with canvas, on a small scale. These seem to enjoy an excellent market at high prices. One member of the Passamaquoddy Tribe is interested in manufacturing canoes, and has had some experience as a worker in a modern canoe factory.

However, high-quality wooden canoes require considerable degree of skill, and have only a limited potential market. Most canoes are now made of aluminum or fiberglass, without the elaborate wooden framework that has been used in the past. Ironically, as we have reported above, some manufacturers of fiberglass canoes still try to appeal to the Indian tradition.

At least one member of the Tribe still possesses the skill needed to make genuine birch bark canoes. These could be sold at comparatively high prices to museums, collectors, children's camps or schools. At the same time, younger members of the Tribe would have an opportunity to observe and learn this historically important craft, so that it would not be lost with the passing of the few individuals who now know it.

However, a small amount of "risk capital" (for materials and wages) and advertising or selling effort will be needed. We recommend that the Tribe encourage the production of a number of genuine birch-bark canoes, through its basket cooperative or some other suitable organization. The first few could be sold to the proposed Passamaquoddy Museum and Village, recommended in Chapter 5. Once small-scale birch-bark canoe production has been established, it may be possible to consider expansion into production

of more modern versions, trading on the market contacts and reputation that would be built up with the genuine article.

However, all the above suggestions - and any other suggestions for handicraft production - should be subject to one general qualification: Traditional handicraft methods rarely earn reasonable hourly wages under present circumstances, and usually must be modified in some respects if a handicraft program is to have economic success.

The exceptions to this rule usually involve one or more of the following:

(a) Unusual works of art, produced by exceptional artists, may sell for far more than the price of ordinary handicrafts, produced by average workers.

(b) Handicrafts may be redesigned by experts, so as to change the traditional appearance but reduce the actual hand labor requirement (e.g. by concentrating beadwork or other time-consuming operations on a small fraction of the total surface).

(c) "Handicrafts" may be partially mechanized, so as to reduce the actual hand labor, without a substantial apparent change in the traditional design.

Before the Tribe fosters any particular handicrafts, a careful analysis should be made, and any necessary redesigning should be done, to ensure insofar as possible that the proposed product will earn a reasonably good hourly wage for its producers.

## Part IV

### Wood and Wood Products

The chief potential assets of the Tribe are the very fact that it is composed of Indians, and the Tribal real estate. The former is particularly significant for the Tribe's tourist potential. Tribal real estate may also play a part in the development of tourist enterprises; but only to a limited extent. Tourist facilities will require only a small fraction of the total acreage that is controlled by the Tribe.

Tribal real estate may be most important as a timber resource, exploited through sale of stumpage (cutting rights) to others, through logging operations performed by members of the Tribe, or as a source of raw materials for the Tribe's own lumber or woodworking industry. Many Indian Tribes have found that such forest-oriented possibilities (either individually or in some combination) provide their most immediately realizable hopes for developing tribal and individual income.

Chapter 9  
The Forest Resources

Forest resources of the Passamaquoddy Tribe are on the Indian Township Reservation, North of the town of Princeton. Land in the undisputed possession of the Tribe totals around 19,000 acres. Of this, 3,672 acres are covered by heath, bog, or alder brush, leaving 15,328 acres under timber. The University of Maine "rents" 946 acres for long-range experimentation and teaching purposes. It compensates the Tribe by paying into the State's Indian Trust Fund stumpage on timber or pulpwood that is sold, and by providing management services for the forest as a whole.

The remaining 14,382 acres are under the control of a management committee, including representatives of the University, the State Forestry Department, and the Tribe. The committee decides how much timber shall be cut, by whom, and on what stumpage terms. Stumpage paid to the Indian Trust Fund, has been as follows in recent years:

1960	\$12,665
1961	15,333
1962	3,919
1963	19,608
1964	10,563
1965	11,316
1966	25,690
1967	7,635
1968	<u>11,142</u>
	117,871

During the last few years, the Tribe has refused to allow any cutting, and stumpage revenues (payment for standing timber) have ceased to flow into the Trust Fund. In the past, the Trust Fund revenues have been used for such purposes as the construction of homes on the Reservation, made available to selected Indian families at no charge. While these have helped to meet the needs of individual members of the Tribe, they have produced no perceptible benefits for the Tribe as an organization, or for its members as a whole.

In addition, the Tribe claims ownership of 7,965 acres of land within Indian Township, which were conveyed without Tribal permission to non-Indians by the State of Maine under 999 year leases. Much of this land is forested.

The plan which has been adopted by the management committee (in accordance with recommendations made by the University) is

summarized in Table 10 (inventory figures slightly modified from official totals in accordance with verbal discussions and other sources of information.)

The allowable annual cut is believed to be extremely conservative. According to Prof. Arthur Randall, of the University of Maine's Forestry Department, it is based on rotation periods of 100 years for pine sawtimber, and 80 years for spruce pulpwood. In contrast, commercial forest operators in Maine, generally figure on 60-70 years for the production of mature sawtimber, and 40 years for pulpwood. (in the case of cedar, these figures are usually 40 years for rustic fence materials, and 90 years for ties and lumber.)

In other words, Maine's commercial forest owners usually operate their forests with a cutting cycle as low as one-half of the University's recommendations. As a result, the areas under their control produce substantially more annual return per acre than the land which is supposed to benefit the Passamaquoddy Indians.

We recommend that present forest management arrangements be changed. The management function might be transferred to the State Forest Service, or, if necessary, a private forester might be hired by the Tribe (possibly financed as technical assistance by EDA or the State). The new management advisers should be instructed to operate the forest on the same basis as any far-sighted commercial owner might adopt.

We also recommend that the present arrangement for the experimental use of 946 acres of Reservation lands by the University be re-negotiated. Possible arrangements might be a straight annual rental (in lieu of stumpage, etc.), or stumpage plus compensation for the lower rate of exploitation in experimental use (discounting future high returns to the present). Undoubtedly the Tribe will benefit in the long run from the experimental and educational work that is being conducted by the University. However, so will every taxpayer in the State of Maine. Maine taxpayers should pay for what they get.

Another question that deserves thought is whether available forest resources should be used primarily for pulpwood, or primarily for sawtimber. In the long run, this might involve a choice between quite different management methods (e.g. a 40 vs. an 80 year rotation).

The long-run issue requires careful analysis by an expert forester, and no effort will be made to suggest any answers in this report. However, there is a short-run issue, concerning the

Table 10

Forest Management Plan for Indian Township

Species	Min. Diam.	Inventory		Rough cords	Allowable annual cut of which, sawable timber	
		Unit	Amount		cords	MBF a) b)
Spruce	6"	cords	111,519	1,500 c)	750	375
Fir	6"	"	33,382	450 c)	-	-
Hemlock	8"	"	37,938	550 c)	275	137
			<u>182,839</u>	<u>2,500</u>	<u>1,025</u>	<u>512</u>
Pine	8"	MBF	14,520	2,650	2,600	1,300
Poplar d)	8"	cords	6,467	50		
Birch	8"	"	9,721	100	50 e)	25 e)
Other hardwoods f)		"	<u>22,055</u>	<u>320</u>	<u>20</u>	<u>10</u>
Subtotal				5,620	3,695	1,847
Cedar	8"	Trees	318,374	-	-	-

Source: Prof. A. G. Randall, Forestry Department, University of Maine, "Timber Management Plan, Indian Township, Washington County, Maine, 1968-1977," Orono, Maine, June 1, 1968, plus conversations with Prof. Randall and estimates of cedar from other sources.

a) MBF - Thousand board feet,  $\frac{1}{4}$ ", International scale (substantially identical with actual possible production of boards, nominally 1" thick, 12" wide, and 12" long.)

b) Estimated at 2 rough cords per MBF

c) Interpolated from total of 2,500 rough cords.

d) Mostly poor quality not suitable for sawtimber

e) Birch boltwood for furniture squares, etc.

f) Mostly soft maple, and mostly poor quality, not suitable for sawtimber. Includes some black ash and white ash (latter suitable for tool handle stock in part)



marketing of timber that is already standing, which can and should be considered here. This is whether trees that could be marketed as saw-timber should be marketed as pulpwood. In general, saw-timber commands better prices than pulpwood of equal volume. However, harvesting methods are somewhat different, and it may be inconvenient for a pulpwood harvesting operation to separate out logs that could be sold as sawtimber.

Table 11 shows the actual production of sawtimber (not including pulpwood) in Washington County in 1969. This indicates that other landowners have found it economically feasible to use as sawtimber many of the species that are available on the Reservation.

Table 11

Saw Timber Cut in Washington County in 1969  
In MBF

<u>Hardwood</u>		
White ash	195	
Aspen	26	
Basswood	19	
Beech	292	
White birch	3,127	
Yellow birch	495	
Hard maple	1,408	
Oak	21	
Other (a)	<u>172</u>	
Subtotal		5,755
<u>Softwood</u>		
Cedar	1,527	
Hemlock	2,039	
Norway pine	1,202	
White pine	21,469	
Spruce	9,693	
Tamarack	<u>- b)</u>	
Subtotal		<u>35,930</u>
TOTAL		41,685

a) Brown (black) ash, red maple, etc.

b) Not cut for lumber in Washington County, but produced in significant quantities in neighboring Aroostock and Hancock Counties

Source: State of Maine, Forestry Department, "Maine Timber Cut Summary for 1969", Augusta, Me., 11 May 1970.

All but 137 MEF of hardwood and 26 MEF of cedar were sawn in Maine. Insofar as is known, the cedar was exported to the St. Stephen-St. Andrew area of New Brunswick.

In the past, the Indian township area has been managed primarily for the production of pulpwood. Substantial quantities of spruce, hemlock and various hardwoods have been sent to paper mills, although they would have brought a higher stumpage price if they had been marketed as sawlogs. (See report by Mr. Hollis A. McGlaufflin, Forest Management Division, Maine Forestry Department, "A Suggested Plan for Providing Additional Income to the Passamaquoddy Indians by Better Utilization and Marketing of the Forest Resources on Indian Owned Lands near Princeton, Maine, Indian Township, Washington County," Augusta, Me., 30 May 1970.) Only cedar has been immune from pulping, for the simple reason that it is not wanted by the paper mills.

On the other hand, possibly for this very reason, only limited efforts have been made to inventory the Reservation's cedar resources, and in general their exploitation has been neglected. Cedar stands on the Reservation are now being over-topped (outgrown) by other species. As the cedar trees are cut off from sunlight, they are beginning to die out and decay. Unless something is done to accelerate their exploitation, the Reservation's cedar resources will be largely wasted over the next five or ten years.

The Reservation's fir resources are generally of low quality, and not suitable for sawing into timber. However, about half of the allowable cut of spruce and hemlock could be sawn into lumber. If properly sawn, graded and dried, Eastern spruce makes good construction lumber. Unfortunately, proper processing has been rare in the past, and it is now difficult to market Eastern spruce lumber. The recent establishment of a New England Lumber Manufacturers Association, with an official grading system, will help to improve the market for spruce (e.g. by making it eligible material for FHA-financed housing).

Hemlock is also acceptable as construction lumber, although it is difficult to dry. Kiln drying takes so long that it is generally considered uneconomical, and air-drying requires around six months.

The growing scarcity of good lumber in the United States is resulting in a greater demand for minor species such as tamarack (hatmatack or Eastern larch). This is now beginning to be marketed as siding and flooring.

Most of the Reservation's poplar is over-aged and decayed, so that it is not suitable for lumber. Birch, and limited quantities of some other hardwoods, can be sold as dimension stock

("furniture squares", etc.) for the production of furniture parts, tool handles and veneer.

Some cedar has been sold to a large sawmill located at Princeton, Maine (the Passamaquoddy Lumber Co., owned by the Dead River Oil Co.). In the past the Reservation also produced cedar railroad ties and utility poles. Cedar contains a resin which acts as a natural preservative, making it particularly suitable for the production of outdoor fencing, shingles, garden furniture, cabin siding, etc. It is relatively stable, and cedar lumber requires little or no drying for many uses.

Mr. Hollis McGlauflin's study (cited above) estimates that in 1968 stumpage income from spruce and fir alone could have been increased from \$7,670 to \$9,970, or by \$2,300, if all suitable saw timber out of the total actually cut had been marketed as such.

The difference is even more striking if estimates are made on the basis of the total "allowable cut" in the University's management plan. As Table 10 shows, the annual allowable rough cords (not including cedar) is 5,620. Of this, however, some 2,600 cords consist of pine, which the plan now proposes to cut as sawtimber, with potential annual stumpage of perhaps  $(\$9 \times 2,600)$  \$23,400. This alone almost equals the total stumpage collected in the best year of the last decade.

However, there is even more to be gained by a switch in marketing emphasis from pulpwood to sawtimber under present conditions. If we consider the pine to be sawtimber, there remains a maximum annual allowable pulpwood production of  $(5,620 - 2,600)$  3,020 cords. If the stumpage is \$5 per cord, this would produce revenues of \$15,100 for the Trust Fund. However, we estimate that some 1,025 cords of softwood and 70 cords of hardwood could be sold as sawtimber or boltwood. If so, the pulpwood quantity will fall to  $(3,020 - 1,095)$  1,945 cords, worth perhaps \$9,725.

On the other hand, the sawtimber might sell for stumpage of \$9 per cord for a total of  $(1,025 \times 9)$  \$9,225. The maximum stumpage then would be  $(9,725 \div 9,225)$  \$18,950, or  $(\$18,950 - 15,100)$  \$3,850 more than if production is concentrated on pulpwood according to the original plan. The grand total of stumpage including pine sawtimber, would then amount to  $(\$23,400 \div 18,950)$  \$42,350 per year. This is over one-third as much as the total collected during all of the last decade!

This figure is based on the allowable annual cut that was prescribed in the ten-year plan. However, the annual plans have not been fulfilled for a number of years, so that there is an estimated backlog of 50,000 cords. Even as pulpwood, this would bring in something like \$250,000 in additional one-time stumpage

revenue. If cut to produce a maximum of higher-value products, the value should be even greater.

We therefore concur in Mr. McGlauflin's recommendation for an active policy of marketing all possible timber as saw-timber, in preference to pulpwood. A large sawmill belonging to the Passamaquoddy Lumber Co. (Dead River Oil Co.) is located in nearby Princeton, and is understood to be willing to purchase any reasonable quantity of saw logs from the Reservation. There are a number of other sawmills in nearby areas of Washington County, and, of course, it would be possible for the Tribe to run a small sawmill of its own just on the present "allowable" figure of 1,847 MBF a year.

A small mill might produce 5 MBF a day; at 200 days a year this would amount to 1,000 MBF a year. A typical prefabricated mill might produce 8-10 MBF a day, and could still operate economically within the present allowable figure. We cannot now estimate how much larger the allowable cut would be if commercial rotation practices were introduced, as has been recommended above. However, there probably would be a considerable increase.

Cedar represents a special case, not included in the above estimates. According to an estimate made by Mr. Mr. McGlauflin, the mill-delivered value of the Reservation's cedar, 8" in diameter at breast height (DBH) or larger, is \$140,000. In addition, the mill-delivered value of 3-8" DBH cedar is around \$260,000, for a total of \$400,000. Mr. McGlauflin uses a figure of \$4 per cord for stumpage, \$10 per cord for cutting and yarding, and \$4 per cord for hauling to the mill, for a total mill delivered value of \$18 per cord. Accordingly, his estimate seems to be based on a total availability of  $(400,000/18)$  22,222 cords.

Since cedar is now being overtopped, it will have to be cleared out in a relatively short period of time, or will become valueless. If a five year period is considered appropriate, it will be necessary to find markets for  $(22,222/5)$  4,444 cords a year. Since cedar in the 3-8" DBH range is primarily useful for cedar fencing, some 65% of the total must be sold for that purpose, or will go to waste. Assuming all cedar can be sold, annual stumpage might amount to  $(4,444 \times 4)$  \$17,776. This would increase the total stumpage revenue from the forest to \$60,126 a year, at least for the next five years.

Unfortunately, cedar is not easily salable, particularly in the small sizes that are used for fencing. Large logs probably could be sold to the Passamaquoddy Lumber Co. However, the only fencing plants in the immediate area are in nearby St. Stephen and St. Andrews, Canada. These do buy cedar from Washington County; but only up to a maximum of 25 MBF, or around 50 cords in 1969. Furthermore, a state law (Maine Revised Statutes, Vol. 12,

Title 22, No. 4835) provides that "No citizen or subject of a foreign government shall purchase, cut, or carry off trees, timber, or grass from the township reserved for the benefit of the Passamaquoddy Tribe." This effectively prohibits sales to Canadians. This provision is obviously discriminatory, and should be repealed by the Maine legislature. However, that would take some time and effort.

## Chapter 10

### Logging

Logging has been an important source of income for individual members of the Tribe for many years. Traditionally, Indian loggers have used the double-bitted axe, and many have been squeezed out as the more expensive and complex chain saw took its place (loggers usually own at least two chain saws, at a total investment of at least \$500). Similarly, the replacement of oxen and small tractors by heavy equipment has tended to reduce opportunities for Indians in the woods.

There have been a number of unfortunate recent experiences in efforts to organize Indian logging operations on the Passamaquoddy Reservation. Problems met by a recent effort to train Indians as loggers have already been described. An individual member of the Tribe obtained a Small Business Administration loan to finance logging equipment; but was unable to keep up his payments. More recently, the Tribe has agreed to permit harvesting of a large quantity of pulpwood, provided Indians were given preference for employment. However, Indian labor has not been available, and the buyer is asking that he be allowed to harvest the pulpwood with his own crew.

In general, small logging operations are facing increasing competition from larger organizations with heavy investments in capital equipment. As a result, a number of small loggers have gone out of business.

Because of these unfortunate recent experiences, it may be difficult to organize another Indian logging enterprise (whether as a tribal or as a private operation). However, there are a number of logging contractors in the area, some of whom employ Indians, and it should be possible to obtain logging services for the Reservation from an existing firm.

However, if a policy of maximum utilization of available raw materials is to be followed, the Tribe probably will have to make arrangements for logging and sale by itself. It is unlikely that a paper company would be eager to maximize sawlog production at the expense of pulpwood production. A local lumber mill, on the other hand, might be interested in taking on the production of sawlogs, but would have less interest in production of pulpwood, boltwood and cedar fencing stock.

Therefore, we recommend that the Tribe itself contract for the resumption of logging on the Reservation, and itself



Table 12

Stumpage, Mill Delivered Prices and Margin for  
Cutting, Loading and Hauling, Spring 1969,  
Washington and Aroostock Counties, Maine

Average or Most Common Price,<sup>a)</sup> in Dollars

	Sawlogs MBF	Cords <sup>b)</sup>	Fence stock, Cords	Boltwood, Cords	Pulpwood, Cords
<u>S T U M P A G E</u>					
White pine	18.00	9.00	--	2.00 <sup>c)</sup>	2.00
Red pine	16.00	9.00	--	--	1.75
Hemlock	14.00	7.00	--	--	3.25
Spruce	17.00	8.50	--	7.00	5.50
Fir	17.00	8.50	--	--	5.50
Birch:					
White	25.00	12.50	--	7.00	3.00 <sup>d)</sup>
Yellow	20.00	10.00	--	7.50	--
Maple:					
Soft	18.00	9.00	--	--	--
Hard	19.00	9.50	--	6.50	3.00 <sup>d)</sup>
Tamarack	15.00	7.50	--	--	2.75
White ash	19.00	9.50	--	6.50	2.75
Cedar	12.00	6.00	4.00	4.00	--
<u>C U T , L O A D , H A U L</u>					
White pine	41.00	20.50	--	17.50	14.25
Red pine	36.00	18.00	--	--	14.50
Hemlock	34.00	17.00	--	--	15.50
Spruce	37.00	18.50	--	16.00	15.75
Fir	33.00	16.50	--	--	15.75
Birch:					
White	42.00	21.00	---	29.00	15.50
Yellow	51.00	25.50	--	32.00	15.50
Maple:					
Soft	45.00	22.50	--	28.00	--
Hard	59.00	29.50	--	32.00	15.50
Tamarack	29.00	14.50	--	--	15.75
White ash	56.00	28.00	--	25.00	--
Cedar	35.00	17.50	17.50	15.50	--
<u>M I L L D E L I V E R E D P R I C E S</u>					
White pine	59.00	29.50	--	19.50 <sup>c)</sup>	16.25
Red pine	52.00	26.00	--	--	16.25
Hemlock	48.00	24.00	--	--	18.75
Spruce	54.00	27.00	--	23.00	21.25
Fir	50.00	25.00	--	--	21.25
Birch:					
White	67.00	33.50	--	24.00	18.50 <sup>d)</sup>
Yellow	71.00	35.50	--	39.50	18.50 <sup>d)</sup>
Maple:					
Soft	38.00	19.00	--	30.00	--
Hard	67.00	33.50	--	40.00	18.50 <sup>d)</sup>
Tamarack	48.00	24.00	--	--	18.50 <sup>d)</sup>
White ash	95.00	47.50	--	31.50	--
Cedar	47.00	23.50	21.50	19.50	--

a) See source for range between highest and lowest, which may be considerable

b) Rough cords, estimated as approximately 2 cords per MBF

c) "Zone C": area around Ellsworth, Bangor and Skowhegan

d) "Other hardwoods"

Source: State of Maine, Forest Service, Forest Management Division,  
"Stumpage Prices, Spring 1969" and "Mill Delivered Prices,  
Spring 1969", Augusta, Me. 1969; "Zone D" except as  
indicated.

arrange for sale of logs or pulpwood to its own best advantage, either yarded at the roadside or delivered to the consuming plant.

Before the Tribe can be expected to become interested in a resumption of logging, however, it will be necessary to clear up the ambiguous status of the "Trust Fund". Insofar as we can determine, both the "Management Committee" and the Maine Department of Indian Affairs now recognize the "Trust Fund" is a paternalistic legacy from the past, which tends to kill the Tribe's incentive to make prudent use of its forest resources. Within the last few years, the Tribe has been allowed to take an active part in the affairs of the committee, and some willingness has been expressed to allow the Tribe to decide for itself on the use of the Trust Fund revenues.

We recommend that the "Management Committee", the Department of Indian Affairs, and the Tribe agree on a written statement of policy, under which the Tribe will be free to manage the forests, (provided it adheres to reasonable conservation practices), and stumpage revenue will go directly to the Tribe, to be used at the Tribe's discretion for one or more of a number of agreed constructive purposes (economic development, investments, public health, educational scholarships, housing, etc.) The Dept. of Indian Affairs might fulfill its legal responsibilities by retaining the right to supervise (but not veto) expenditures and to audit accounts.

So far, we have used rough averages for stumpage and costs of cutting, loading and hauling. Before considering manufacturing possibilities in detail, it may be useful to indicate typical actual figures. As Table 12 shows, these vary somewhat with different species and different types of timber.

Mill delivered prices are, of course, determined by supply and demand, whereas "cut, load and haul" is influenced by actual costs of production. Cutting, loading and hauling costs depend to an important extent on how much selectivity is required; pulpwood, cut from the run of the forest, is cheaper to produce than sawlogs which must be searched out individually. Fence stock, requiring selection for quality as well as cutting to various lengths and loading and hauling of a number of small pieces, costs as much as selected saw timber.

In general, stumpage is the difference between mill delivered prices and costs of cutting, loading and hauling. However, the market apparently is highly imperfect, and much depends on the relative bargaining skills of the forest owner, the lumbering contractor, and the mill. Stumpage tends to be highest for the woods that are in greatest demand, and for the higher qualities that can be used as sawlogs.

Needless to say, anything that reduces the element of selectivity and the need to cut and handle a large number of pieces helps to reduce logging costs, and thereby increases the potential stumpage for the landowner. Clear-cutting, or at least logging of all mature lumber in a given area at one time, regardless of species, helps to reduce logging costs.

Thus, the cost of raw materials for the Tribe's own cedar fencing enterprise could be reduced substantially by lumbering not only for cedar, but for all usable species in a given area. To do so efficiently, arrangements would have to be made for sales of pulpwood and other products which the Tribe will not be equipped to process itself.

What could the Tribe produce with its own resources? The variety of possible wood processing operations is practically infinite. However, a number have been selected as potentially promising by Mr. Hollis McGlauflin, in his study for the Maine Forestry Department. His suggestions include: a small sawmill (particularly to provide materials for the Tribe's own housing program), hand-split cedar shakes (shingles), machine-cut cedar shingles and rustic cedar fencing.

## Chapter 11

### A Small Saw Mill

According to Table 10, the allowable annual cut of sawable timber is in the vicinity of 3,695 cords. It is likely that this annual figure could be increased substantially if commercial forestry practices were applied to the Reservation. Furthermore, it is probable that some 65% of the estimated 50,000 cord backlog or 37,500 cords is sawable timber. Assuming that this were to be used up over a ten year period, the annual cut of sawable timber might be increased to (3,695 / 3,750) 7,445 cords or 3,723 MBF. This is almost one-tenth of the total production of saw timber in Washington County in 1969.

According to the Maine Forest Service, there were 14 long-carriage sawmills (excluding bolters and shingle mills) in Washington County in 1969. (State of Maine Forest Service, Forest Management Division, "Maine Primary Forest Products Manufacturers as of December 31, 1969", Augusta, Me., 1970). We estimate their size and total production in Table 13 (using some judgment in adding up the separate sizes given for the four mills that saw both hardwood and softwood).

If the Tribe's own mill were to saw all the timber that seems to be available for the next ten years, it would be about half the size of the two largest mills in the County (the Passamaquoddy Lumber Co. Mills located in Princeton and Whitneyville). However, it probably would not be practical to start with such a large enterprise, since the Tribe lacks both liquid capital resources and business experience.

Table 13

Estimated Annual Production of Sawmills in  
Washington County, Maine, End of 1969, in MBF

Size range	Number	Apparent average production	Estimated total production
Less than 10	3	5	15
10-99	3	50	150
100-249	1	175	175
250-499	2	375	750
500-999	3	750	2,250
1,000-2,599	0	1,750	0
2,500-4,999	0	3,750	0
5,000-up	2	7,500?	<u>15,000?</u> 18,360

As a minimum, Mr. Hollis McGlouflin suggested a small sawmill to produce 5 MBF of rough lumber a day (around 1,000 MBF a year, using less than one-seventh of the raw materials available from the Reservation). This mill would employ four men, and could be built with used equipment at a cost of perhaps \$5,000. The estimated f.o.b. sales value of the product is \$100 per MBF, or \$500 per day.

A theoretical estimate of annual costs and revenues is given in Table 14.

Table 14  
Estimated Annual Sales and Costs of a Small Sawmill  
(operating 200 days per year)

<u>TOTAL SALES</u>	\$500 x 200 days	\$100,000
<u>COSTS</u>		
<u>Operating costs</u>		
Raw materials		
Stumpage	\$20 per MBF	
Cutting, yarding	30	
Hauling to mill	10	
	60 x 5 x 200 days	\$60,000
Labor (including fringes)	20 x 4 x 200 days	16,000
Fuel & Power, etc.		1,000
Manager		8,000
Secretarial, accounting, etc. (part-time)		2,000
<u>Subtotal</u>		87,000
Working capital, 40% of other variable costs	34,800	
Interest at 8%		<u>2,784</u>
<u>Total operating costs</u>		89,784
<u>Fixed capital costs</u>		
Fixed capital		
Second hand machinery	4,000	
Building & Installation	<u>1,000</u>	
	5,000	
Depreciation, 10%		
Maintenance	5%	
Insurance	2%	
Interest	8%	
	25% of \$5,000	<u>1,250</u>
TOTAL COSTS		<u>90,998</u>
PROFIT BEFORE TAXES		10,002
TOTAL INVESTMENT REQUIRED	39,800	

This enterprise could be expanded to produce planed lumber and simple millwork (tongue and groove flooring, siding, moulding, cedar closet lining, etc.) The cost of used equipment and installation might be \$6,000.

Two additional employees might be required. As a very conservative estimate we assume that this installation would raise the average value of the output by \$20 per MBF. Table 15 gives the estimated annual additional sales and costs for production of millwork.

Table 15

Estimated Annual Additional Sales and Costs  
of Millwork (operating 200 days per year)

TOTAL SALES (\$20 x 5 x 200 days)		<u>\$20,000</u>
<u>COSTS</u>		
<u>Operating costs</u>		
Raw materials	0	
Labor (including fringes \$20 x 2 x 200 days)	8,000	
Power, fuel, etc.	500	
Secretarial, accounting, etc. (part-time)	<u>500</u>	
<u>Subtotal</u>	9,000	
Working capital, 10% of other variable costs	900	
Interest at 8%	<u>72</u>	
<u>Total operating costs</u>		9,072
<u>Fixed capital costs</u>		
<u>Fixed capital</u>		
Second hand machinery	5,000	
Installation	<u>1,000</u>	
	6,000	
Depreciation, 10%		
Maintenance	5%	
Insurance	2%	
Interest	<u>8%</u>	
	25% of \$6,000	<u>1,500</u>
TOTAL COSTS		<u>10,572</u>
PROFIT BEFORE TAXES		9,428

For the two activities taken together, total sales would amount to \$120,000. Total fixed capital would be \$11,000 and total working capital would amount to \$34,800. Accordingly, the total investment would be \$45,800. On this, the profit before taxes would total \$19,430, or approximately 42%, after paying



8% interest on the total investment. Adding interest and theoretical pure profit, the overall return would be a not inconsiderable 50%, and a small sawmill would seem to be an attractive investment.

However, most such sawmills are under severe economic pressure in New England, and many have already been forced to go out of business. This, indeed, is an important reason why used equipment is available at very low prices (making the return on investment seem so high.)

Small sawmills with old equipment have difficulty in meeting standard quality requirements. Furthermore, they are unable to fill the large orders that represent an increasing share of the market. Therefore it is hard for them to sell their production at normal market prices.

To be sure, the Tribe has a potential built-in market, in the form of a Tribal housing program now under discussion with the U.S. Department of Housing and Urban Affairs. According to present plans, this would be some form of public or rent-subsidized housing, under which low-income families might expect to pay "rent" of around \$30 per month (just enough to cover maintenance and administrative costs).

Unfortunately, even this low rental figure seems to be an obstacle, since most Indians who live on the Reservation are accustomed to paying no rent. Assuming that this problem can be overcome, it is possible that 100 houses would be built, requiring a minimum of 8 MBF per house, or a total of 800 MBF. A small mill could produce this quantity within less than a year, and then would have to look for other markets.

However, it might not be feasible to market to the Reservation's own housing program, because FHA grading and quality standards probably would have to be met. Compliance with tolerances for thickness might be difficult, unless the services of a good sawmill mechanic were available. Lumber would have to be thoroughly air-dried, or perhaps might have to be sent to a large nearby mill for custom kiln-drying. It would be necessary to hire a professional grader, at least on a part-time basis. All these steps would increase costs, and reduce the potential profit. Because of these and other uncertainties, we do not recommend investment in a small sawmill at the present time.

## Chapter 12

### Shingles

Northern white cedar (and to a lesser extent white pine heartwood) makes excellent wooden shingles, which are sold to cover the sides of houses (fire insurance rules and local codes prevent their use for roofs without an expensive special fire-proofing treatment.) Maine has a number of small-scale shingle factories, mostly employing 1-2 men, and often working on a part-time basis. However, most of these seem to be going out of business.

One reason is the difficulty of obtaining an adequate proportion of high-grade shingles. There are five recognized grades: extra, clears, second clears, clear walls and "Extra No. 1" or "utility". Only the first two grades are in heavy demand, while the others sell at big discounts. Where reasonably good quality raw materials are available, Maine shingle mills produce something like 50% clears, 25% second clears and 25% "extra No. 1."

This however seems to be barely sufficient for a small shingle mill to break even. If the quality of nearby raw materials falls below this level (as tends to happen with time), the mill may be forced to stop working. In general, the wooden shingle industry is now moving towards the less-exploited, better quality raw materials that are available to the North, in Canada.

Prices of shingles fluctuate widely, like those of many other lumber products. They are affected not only by general business conditions, but also by competition from West Coast cedar shingle mills. At present, cedar prices in the East are abnormally low, with the net return to the mill for the highest grade down as low as \$14.30 per "square" (covering 100 square feet of surface); a year ago this price was up to around \$20 per square. In Table 16 we estimate the "normal" net return to the mill, alongside the most recent available prices. Assuming the ratios between clear, second clear, and Extra No. 1 which have been indicated above, average returns to a mill in the Maine area might be estimated at \$10.34 per square in normal periods, and \$0.47 per square at present.

Table 16

Estimated Average Mill Prices of Maine Cedar Shingles  
in dollars per square

Grade	Normal Prices						Current		
	Boston whole- sale	2% agent commis- sion	Freight	Net Price	Pro- por- tion	Return to mill	Net Price	Pro- por- tion	Return to mill
Clear	14.50-								
	18.50	-1.28	-1.25	13.45	0.50	6.72	11.45	0.50	5.72
2nd Clear	10-11	-0.80	-1.25	7.95	0.25	1.99	6.50	0.25	1.62
Extra No.1	8-10	-0.64	-1.25	6.11	0.25	1.53	4.50	0.25	1.13
					1.00	10.34		1.00	8.47

To keep trucking costs down to reasonable levels, it is necessary to sell a full trailerload at a time. This amounts to 240 squares. A small two-man mill, producing perhaps 6 squares a day, would have to work for 40 days before it accumulated enough finished products to fill a trailer. Consequently, small mills in Maine tend to operate largely for their immediate local market, where they sometimes can sell at significantly higher prices. Local market prices for the grades shown above might average \$11.50 per square (50% at \$16, 25% at 9, and 25% at \$5.)

Mr. Hollis McGloufflin estimates a somewhat higher average return, around \$13.50 per square. Even at this figure, however, the economics of a small shingle operation seem doubtful. On the other hand, planning for a much larger shingle operation would not be wise until a careful study of the availability of the necessary high-grade, large-diameter raw materials had been made, and the potential future market for machine-sawn shingles had been explored in depth.

The economic feasibility of a small shingle mill, using second-hand equipment is estimated in Table 17. As this Table shows, such an enterprise probably would lose money.

In practice, a number of small shingle mills in Northern Maine have gone out of business, or are operated part-time to earn additional cash for a farmer or other person with alternative sources of income. Production of shingles for the Reservation's own housing project might make some sense (provided specifications permit utilization of lower as well as higher grades). However, the total demand for sidewall shingles might be on the order of 20 squares per house, or 2,000 squares for the proposed 100-unit housing project. This would be produced in 400 working days, or - at operating 200 days per year - approximately two years. Since there is little hope of sustained production after the project is completed, the investment of perhaps \$1,750 should

be amortized during the two years, at a cost per square of (1,750/2,000) \$0.87. This, however, would make the enterprise even more unprofitable.

Table 17  
Estimated Annual Sales and Costs of a Small Shingle  
Mill (operating 200 days per year)

TOTAL SALES: 5 squares x 200 days x \$13.50 \$13,500

COSTS

Operating costs

<u>Raw materials</u>		
Stumpage	\$4 per cord	
Cutting, yarding	8	
Hauling to mill	4	
	<u>16 x 1 x 200 days</u>	3,200
Labor (including fringes)	\$20 x 2 x 200 days	8,000
Power & fuel, etc.		1,600
Management, accounting, etc. (shared)		<u>500</u>
Subtotal		13,300
Working capital	500	
Interest at 8%		<u>40</u>
<u>Total operating costs</u>		13,340

Fixed capital costs

<u>Fixed capital</u>		
Second-hand machinery	1,000	
Building & instal.	<u>750</u>	
	1,750	
Depreciation	10%	
Maintenance	5%	
Insurance	2%	
Interest	8%	
	<u>25% of \$1,750</u>	437
TOTAL COSTS		<u>13,777</u>
LOSS		<u>- 277</u>
TOTAL INVESTMENT REQUIRED		2,250

Alternatively, production of machine-sawn shingles might be justified as a "filler" activity, to smooth out seasonal changes in employment in a cedar fence mill. This would permit selection of the very highest quality raw materials, so as to improve the ratio between high and low grades, and thus improve the potential profitability.

However, there are other possible ways to smooth out seasonal demands for fencing, including production of stock. Per man employed, the additional investment required to produce for stock

(primarily additional working capital and additional investments in sheds for storage) may be more profitable than a corresponding investment in a small shingle mill.

Last, but by no means least, production of hand-hewn shakes (shingles) seems to represent a profitable alternative to machine-sawn shingles. To be sure, hand-hewn shakes can only be produced from large-diameter butt cuts, of even higher quality than are needed for machine-sawn shingles. However, if a fairly large volume of rustic fencing or cedar lumber is to be produced, suitable raw materials could be selected and stored until labor or firm orders become available. In this way it should be possible to provide employment to several persons.

Hand-hewn shakes are a luxury product, which would be sold primarily for architect-designed custom houses. This type of material is not now available commercially in the East, although shakes cut from Western cedar are a popular item in Arizona, California, and other far Western States.

According to the latest available information (1964) production on the West Coast was as follows:

Oregon	226,000 squares
Washington	1,967,000
Idaho	44,000
British Columbia	<u>812,000</u>
	3,049,000

Some 23% is made from waste generated by a cedar lumber mill, while the rest is made from butt logs cut especially for the purpose. Most shakes are split from rectangular blocks, approximately 24" long, 2½" thick and 4½" wide. Wedges are split off with a froe (long steel chisel) and a home-made lead mallet (called a maul). Approximate thicknesses are 5/8" at the bottom and 1/8" at the top. However, around 90% of the total output consists of hand-split straight boards which are band-sawn diagonally to produce two shingles with hand-hewn outside surfaces and machine-sawn undersides (thereby cutting the cost of hand labor, and making installation easier.)

Initially, at least, hand-hewn shingles might be produced to fill specific orders, developed by making availability of the product known to architects and builders of high-priced homes. This could be done through the State Forestry Department. The potential market far exceeds the likely output of members of the Passamaquoddy Tribe.

Estimated costs and sales per worker and per day are given in Table 18 (adopted from Mr. McGlaufflin's report). Some skill

is required for hand-splitting; but it is not very great.

Eventually, the feasibility of mechanizing this "handicraft" (e.g. with a hydraulic firewood splitter) might be examined.

Table 18

Estimated Daily Sales and Costs of Hand-Split  
Shingles

TOTAL SALES	1 square, at \$35		<u>35</u>
<u>COSTS</u>			
Operating costs			
Raw materials			
Stumpage	\$4 per cord		
Cutting, yarding	10		
Hauling to mill	<u>4</u>		
	18 x 0.5 cords	9	
Management, accounting, etc.(shared)		<u>2</u>	
Subtotal		11	
Working capital			
Interest at 8%/360	20		
Total operating costs		-	11
Fixed Capital Costs			
Fixed capital (tools)	20		
Depreciation, etc.			<u>1</u>
TOTAL COSTS			<u>12</u>
RETURN TO LABOR			23
TOTAL INVESTMENT REQ'D	<u>40</u>		

Production of hand-hewn shingles might provide a modest full-time income (or a reasonably attractive part-time income) for one or two members of the Tribe. However, even this is on the assumption that sales help will be available from the State Forestry Department, and from the basket-making cooperative.



## Chapter 13

### Rustic Cedar Fencing

There is a rapidly growing market for cedar rustic fencing, made of peeled poles and semi-round moulded "pickets". Cedar heartwood is naturally resistant to rot, and the softwood weathers well to an attractive silver-gray finish. Production in Maine alone has increased from 8 million board feet (approximately 16 thousand cords) in 1958 to 20 million board feet (40 thousand cords) in 1968. The f.o.b. mill price of finished products, per cord of raw materials, is approximately \$50-55, so that the total sales of mills in Maine alone may be estimated as \$2,200,000. According to the Maine Forest Service, the following rustic cedar fencing factories are active in Maine:

	Approx. cords
Fort Kent Fence Co., Fort Kent (Aroostock Co.)	2,000-4,999
Milmac, Inc., Houlton " "	5,000-9,999
Glier Cedar Co., Inc., Van Buren " "	5,000-9,999
Richard Mackie, Rockport (Knox Co.)	20- 199
Seekins Cedar Mill, Hampden (Penobscot Co.)	5,000-9,999 (a)
Russell's Mill, Inc., Lagrange " "	2,000-4,999
Houghton Cedar Products, Lee " "	1,000-1,999 (a)
Walpole Woodworkers, Inc., Detroit (Somerset)	1,000-1,999
Royce Frost, Embden "	1,000-1,999
Alfred Saultes, Harmony "	200- 499
Maine Fence Co., Pittsfield "	2,000-4,999
Harold Bishop, St. Albans "	20- 199
Maine Fence Co., Solon "	2,000-4,999
Milmac, Inc., Unity (Waldo)	5,000-9,999
Minimum and maximum total	31,240-67,886

(a) Also produces cedar lumber

It will be noted that there are no mills in Washington County. However, there are three cedar mills just across the St. Croix River in New Brunswick, one at St. Stephen, and two at St. Andrews. Two of these produce cedar fencing, and the other produces box shooks. The Canadian Government has been actively promoting the establishment of new cedar mills in depressed areas of New Brunswick and Quebec, and offers generous grants as well as loans to meet investment needs. These mills are primarily for export to the U.S.

Very small mills (under 500 cords a year) produce only one or a few parts, such as peeled posts or shaped pickets, for assembly by others. Modern cedar fence mills produce a number

of different models of completed fences. The better mills usually have an output of around 7,500 cords a year, worth approximately \$412,500 at the mill. Demand is seasonal, and some mills operate at only a fraction of their total capacity during the fall and early winter months; other mills try to even out production by accumulating large inventories during the low season.

Table 19 gives the sales program of a typical large mill. The total of \$459,500 is equivalent to approximately 8,355 cords a year. To even out production, this mill would have to make fencing worth \$38,299 every month. The Table estimates resulting working capital requirements (assuming that the inventory has to be financed at sales value rather than operating cost).

Table 19

Sales and Possible Working Capital  
Requirements of a Cedar Fencing Mill

Month	Production (even rate)	Sales program	Change in Inventory	Cumulative Inventory
September	38,292	35,500	+ 2,792	2,792
October	38,292	17,500	+20,792	23,584
November	38,292	15,000	+23,292	46,876
December	38,292	20,000	+18,292	65,168
January	38,292	22,500	+15,792	80,960
February	38,292	20,000	+18,292	99,252
March	38,292	33,000	+ 5,292	104,544
April	38,292	58,000	-19,701	84,836
May	38,292	66,000	-27,708	57,128
June	38,292	71,000	-32,708	24,420
July	38,292	58,000	-19,708	4,712
August	<u>38,288</u>	<u>43,000</u>	<u>- 4,712</u>	<u>0</u>
Total	459,500	459,500	-	-
Average inventory				49,523

Only one mill in Maine has facilities for treatment of fence posts with preservatives, and these consist only of the hot-and-cold dip method (less effective than pressure treatment; but adequate for cedar, whose heartwood is naturally resistant to decay.)

This mill has a virtual monopoly on the considerable demand of the Maine Highway Department for guard rail posts. However, at present the mill is unable to obtain sufficient raw materials to fill the State's requirements.

A number of cedar fencing plants dip the bottom ends of their rustic fence posts in cold creosote. However, this has virtually no preservative value, and is useful only to fool retail buyers.

Most fencing plants in Maine use second-hand machinery, and are badly designed. Nevertheless most of the moderately large plants make money. (The one exception that we have found is operated by a company which seems to have management problems: a very modern and well-designed fencing plant built by this company in another State is producing only a fraction of its installed capacity).

All plants in Maine buy their raw materials in short lengths, ranging from 5-10 feet, and none have gone over to the modern system of tree-length logging. In tree-length logging, woods operations are confined to felling, removing limbs and usable tops, and dragging the entire remaining length to the side of the road. The whole tree is then brought to a central yard or mill, where it is cut into the lengths that will make best use of the available wood. This system has a number of advantages and particularly for a factory that must cut its own raw materials to varying lengths. This, of course, is the case of the rustic fence industry, which may be called upon to produce ten foot long rails, posts ranging from 4 to 8 feet in length, and may or may not combine these with pickets of lengths varying from 3 to 6 feet.

Furthermore, depending on the item that is being produced, a fencing mill may have to cut out certain defects before manufacturing the final length. In addition, raw material exists in the forest in a wide variety of diameter classes, and it is difficult or impossible to ensure that exactly the desired proportions of the various diameters are cut every day, to meet the factory's changing needs.

Last but not least, it is not possible to produce logs at an even rate throughout the year, and it is even more impossible to produce in accordance with fluctuations in the demand for the factory's products. Consequently, it is necessary to stockpile logs in advance of knowing exactly what types of lumber will be needed. Tree-length logging makes it possible to decide on exact dimensions at the last minute, as logs enter the processing plant, and reduces to a minimum the waste associated with re-sawing logs or bolts to the required lengths.

There are a number of other advantages, such as the reduction in costs of cutting and handling in the woods, better utilization of trucks or other means of transport, easier mechanization of handling at the plant, etc. All these add up to lower costs

and a better product from given raw material resources. If a new rustic cedar fence mill is to be built, therefore, careful consideration should be given to tree-length logging, and associated changes in the design of the plant.

This, however, does not necessarily mean that new machinery must be bought. It is possible to buy good used equipment at a very substantial saving, and to manufacture special equipment locally, such as mechanized log deck for taking logs into the plant and cutting them to size. Indeed, this may be necessary in order to compete effectively against other plants in the area, which operate with used equipment for the most part.

We have made a preliminary estimate of the cost of a plant that would use tree-length timber, with an estimated production of up to 30 cords per day, or 7,800 cords a year. Obviously, final design of a plant will require much more detailed analysis. However, the total figure is quite consistent with figures obtained from other sources (allowing for some increase in productivity due to tree-length logging) and seems reasonably close to the ultimate investment requirement.

The process of manufacture in a plant might be described as follows:

1. Tree-length logs, delivered from the forest, are stored in a yard without special protection.

2. As they are needed, logs are delivered to the base of the elevated "log deck" by a fork lift truck.

3. The tree lengths are carried broadside up onto the log deck, by parallel chain conveyors.

4. Chain saws, placed at various intervals along the log deck, automatically saw the lengths into the exact sizes that happen to be required at the time. A chain conveyor, running lengthwise along the deck, moves the log as necessary to eliminate defective portions. When the lengths are sawed, the chain conveyor moves them into the plant.

5. In the plant, the lengths are de-barked or peeled, removing all bark and some surface defects (base of knots, etc.)

6. After debarking, the lengths move further into the plant along a chain conveyor. Automatic devices kick lengths off the sides of the chain, to sort them into several types of raw material.

7. Posts

- (a) Posts are sharpened or shaped at the top on a "doming

head". This is an electrically driven rotating chuck, working somewhat like a giant pencil sharpener. Alternatively, posts may be roughly pointed with a mechanical reciprocating draw knife, which slices off a sliver with each stroke.

(b) Holes or mortise slots are drilled into the sides to receive the fence rails. These may be made with a large drill press, or on a special mortising machine, with a sliding carriage. The special machine could drill two or three mortises or holes at once, so as to complete the fence post (except for a cosmetic creosote dip at the butt end).

## 8. Rails

The ends of rails are shaped to fit into the round hole or oblong mortise in the post (depending on the style of the fence.)

(a) For round holes, the ends are shaped into dowels, on a doweling machine similar to the doming head.

(b) To fit into the oblong mortises, the ends of rails are "paddled", or shaped as follows:



The most efficient way to do this is with a motor-driven circular saw mounted at the end of a six-foot long pivot. This is swung past the end of the rail to produce one side of the "paddle". The rail is then rotated and the process is repeated on the other side.

(c) Those rails which will be used to make fence panels are flattened on one side, as a base for nailing of upright "pickets". This is usually done on a large version of a table saw.

## 9. Pickets

Pickets for panel fences are moulded from cedar lumber, in a simulated natural round shape:



(a) Suitable cedar logs of the proper length are pulled through a "skrag mill", consisting of a chain conveyor running between parallel saws. This cuts a three-inch thick slice of lumber out of the center of the log.

(b) The outer round slabs are cut into 1" thick boards on a "bolter" (miniature sawmill).

(c) The three-inch thick center slices go through a gang

rip saw which cuts them into 1" x 3" blanks.

(d) The 1" thick boards from the bolter are trimmed to 3" widths on a circular rip ("stripper") saw.

(e) 1" x 3" lengths which show serious defects are cut to smaller lengths on parallel cross-cut (trimmer) saws, so as to remove the undesirable parts.

(f) The resulting blanks, cut to the proper length, width and thickness, are fed through a moulding machine, which forms the curved exterior surface.

(g) A blower removes chips from the moulder, so that they do not pass through the feed rollers and "print" on the surface of the finished product. The waste material is removed from the plant in a current of air, through large pipes.

(h) A jointer may be used to plane off defective edges ("wane", or visible bark), to produce scanty-width pickets for second-grade fencing.

(i) Pickets are pointed on a doweler (similar to that used for rails) or on a machine that pulls the ends against pivoted knives.

(j) Fence panels are made by nailing pickets across three rails, fitted into a fence post at one end. The materials are held in a metal frame or jig. Most plants rely on hand nailing. A good worker can nail up to 50 panels a day, using nails that cost 30.1¢ per pound (one pound of nails to a first-grade panel; 0.8 pounds for "seconds" produced with lower-quality pickets). The special nails required for pneumatic nailing machines cost 40 cents per pound; taken together with the capital equipment cost, this makes hand nailing a more economical solution, despite the somewhat greater labor requirement.

## 10. General

(a) Conveyors are required to move raw materials through the various stages of processing.

(b) Chain conveyors are used to remove sawdust, scraps and other waste from the plant. In some plants, solid waste is chipped for sale to farmers as bedding or mulching material. In the Washington County area, this market is likely to be small.

(c) The finished fencing is usually strapped into bundles for shipment. Post ends may be dipped into cold creosote for the sake of appearances. A good hot-dip treatment of the post ends would add to the true quality of the product, and this possibility will be considered below.



Table 20 estimates the fixed capital investment required for such a factory. Using second-hand machinery and local construction of specialized machines, the total for machinery and equipment is estimated at \$82,280, with 313 connected horsepower (219 kilowatts). The cost of a building and utilities is estimated at \$66,000. If \$5,000 is allowed for the cost of land, the total fixed capital requirement would be \$153,280.

Table 20

Estimated Cost of a Cedar Fencing Mill  
(Second Hand Equipment)

Item No.	Description	Cost	Connected Horsepower
<b>A. Machinery and Equipment</b>			
1	Storage yard	-	-
2	Fork lift truck	10,000	-
3,4	Log deck	10,000	25
5	Peeler (debarker	2,500	15
6	Conveyor (See 10)	-	-
7a	Doming head	1,500	3
7b	Portising machine	2,000	4
8a	Rail doweler	500	2
8b	Rail paddle saw	1,000	5
8c	Rail splitting (flattening) saw	2,000	5
9a	Skrag mill	10,000	75
9b	"Snapdragon" (long carriage) bolter	7,000	10
9c	Gang rip saw	2,000	25
9d	Stripper saw	1,000	10
9e	Re-trim saws (3)	1,000	9
9f	Boulder (6")	4,000	40
9g	Waste blower	1,500	15
9h	Jointer	500	2
9i	Scarfig saw	800	8
9j	Nailing jigs (2)	500	-
10a	Production conveyors	7,000	10
10b	Waste conveyors	5,000	20
10c	Waste chippers	4,000	15
10d	Misc. tools, strapping equipment, etc.	1,000	-
	Subtotal	74,800	298
	Errors and omissions	7,480	15
	Total machinery & equipment	<u>82,280</u>	<u>313</u>
<b>B. Building and Utilities</b>			
	Factory building, 50' x 100', @ \$6 per sq.ft.	30,000	
	Storage sheds, 5,000 sq.ft. @ \$2	10,000	
	Boiler, piping, plumbing	4,000	
	Electrical installation	22,000	
	Total buildings & utilities	<u>66,000</u>	
	<b>C. Land</b>	<u>5,000</u>	
	<b>TOTAL</b>	<b>153,280</b>	

Labor requirements are estimated in Table 21. The total employment of the plant, operating one shift, would be 19.

Table 21

Estimated Employment of Cedar Fencing Mill

a. Labor

Fork-lift truck	1	
Log deck/scaler	1	
Peeler	1	
Skrag mill operator	1	
Take-away and feed to gang rip	1	
Take away and operate trim saw	1	
Operate bolter	1	
Molder feed	1	
Molder takeaway and grade	1	
Post pointer	1	
Rail pointer	1	
Nailers	2	
Utility (cleanup and materials handling)	<u>2</u>	
Subtotal		15

b. Management

Manager	1	
Assistant Manager	1	
Secretary	1	
Millwright (mechanic)	<u>1</u>	
Subtotal		<u>4</u>
Total		19

---

It is now possible to estimate the overall economic feasibility of this enterprise. It will be remembered that average sales prices were estimated at \$50-55 per cord of raw material. To be conservative, we will use the lower figure. Table 22 gives our projection of annual sales and costs.

Table 22

## Estimated Annual Sales and Costs of a Cedar Fencing Mill

<u>TOTAL SALES</u>	20 cords x 260 days x \$50		<u>\$260,000</u>
<u>COSTS</u>			
Operating costs			
Raw materials			
Stumpage	\$4 per cord		
Cutting, yarding	6		
Hauling to mill	3		
	13 x 20 x 260	67,600	
Labor (including fringes)			
\$20 x 15 x 260		78,000	
Management			
Manager	\$10,000		
Assistant	8,000		
Secretary	5,000		
Millwright	7,000		
Legal, audit	2,000		
Travel, misc.	5,000		
		37,000	
Power, fuel, telephone		12,000	
Subtotal		194,600	
Working capital	\$50,000(a)		
Interest at 8%		4,000	
Total operating costs			198,600
<u>Fixed capital costs</u>			
Fixed capital			
Machinery and equipment	82,280		
Building and utilities	66,000		
Land	5,000		
Depreciation			
Machinery and equip., 10%		8,228	
Building & util., 5		3,300	
Repairs			
Machinery and equip. 5		4,114	
Building & util. 3		1,980	
Insurance	2	3,066	
Interest	8	12,262	
Total fixed capital costs			32,950
TOTAL COSTS			231,550
Profit Before Taxes			28,450
TOTAL INVESTMENT REQUIRED	203,280(a)		

(a) Average investment for working capital; peak requirement approximately \$105,000.

The estimated profit of \$28,450 amounts to 14% of the estimated total average investment of \$203,280. However, this is after charging 8% interest on all fixed and working capital as an expense. If the interest and true profit are added, the rate of return is a respectable 22% per annum on all capital.

#### Treated posts

If a rustic cedar fence plant is built, the Tribe might wish to consider adding a hot-and-cold dip treatment plant, to produce posts for highway guard rails.

According to Maine Highway Department specifications, these should be 5'9" long, and  $6\frac{1}{2}$ - $8\frac{1}{2}$ " in diameter. This amounts to roughly ( $6 \times 3.62" \times 3.62" \times 3.14/144$ ) 1.7 cubic feet of solid wood, or - at 80 cubic feet per cord - 47 posts per cord.

In the hot-and-cold dip process, the posts are lowered into a vat of boiling creosote (sometimes mixed with fuel oil), and are heated for approximately 5 hours. During this time, some of the air is expelled from the pores of the wood. Then the posts are removed and plunged into a vat of cooler 100°F) creosote (alternatively, the hot oil is pumped out, and is replaced with cooler oil.) As the posts cool, a partial vacuum forms in the pores, and creosote oil is drawn in to impregnate the wood.

This system is less efficient than pressure treatment (impregnation with creosote or other preservatives under pressure in closed steel cylinders.) However, it seems to provide adequate protection of cedar under Maine conditions. There are no pressure treatment plants in Maine, and the closest existing one is at Nashua, N.H. One reason for Maine's lag in pressure treating is the absence of termites. However numerous other agents of decay affect wood in Maine, and therefore the Highway Department has recently switched from untreated cedar posts to hot-dip treated posts.

According to Highway Department specifications, posts should absorb at least 6 pounds per cubic foot of creosote (or of a 50-50 mixture of creosote and heavy petroleum oil.) However, this provision is relaxed for cedar as long as a minimum quantity of creosote is absorbed by the decay-prone sapwood. As a rough guess, the maximum cost of creosote required per post might be estimated as follows:

- (a) Cubic content: = 1.8 cubic feet
- (b)  $1.8 \times 6 = 10.8$  lbs.;  $10.8/8.75 = 1.2$  gallons
- (c) 1.2 gallons at \$0.30 = \$0.36 per post.

In recent purchases, the State of Maine has paid approximately \$2.50 (f.o.b.) per post. This is approximately \$1 per post less than it paid to purchase out-of-state pressure-treated posts in the past.

The cost of a hot-and-cold dip installation (assuming that peeling and other preparation equipment is provided as part of one of the projects which has been described above) is estimated at \$5,000 (possibly \$1,000 less if a boiler is provided as part of the fencing plant). The economics are projected in Table 23 (assuming minimum sales of 20,000 posts a year).

Clearly, this additional activity is so profitable that it should be added to any fencing or fence parts plants that may be established. To be sure, a competing installation already exists in an existing fence plant. However, this plant is unable to obtain sufficient raw materials to fill the demands of the State, and therefore could not do much to reduce the chances of the Passamaquoddy Tribe.

At some later date, consideration might be given to expanding the treatment plant into pressure treating, so that wood with less natural resistance (spruce, pine, oak, etc.) can be sold as highway guard posts, railroad ties, utility poles, construction sills, bridge timbers, and even fencing. (A fencing manufacturer in North Carolina produces pressure-treated pine fencing at approximately 50% more than the going price for untreated cedar.)

A small but reasonably efficient pressure treating plant could be installed for around \$60,000. Products could be sold not only in Maine, but in other parts of New England, as well as for export.

#### Supply of Cedar

Before leaving the subject of cedar products, it is necessary to consider the availability of raw materials. Unfortunately, the University of Maine's interest in Indian Township's cedar resources has been low. Available information, therefore, is limited, and in some respects self-contradictory.

Our own best guess is that the existing supply on the Reservation is at least 25,000-45,000 cords. This would keep a process plant going for at least 3-5 years. However, in view of the overtopping of cedar by other species, it is unlikely that good-quality cedar would be available for much longer from present stands. Needless to say, before investment in a cedar processing plant, it would be well to determine whether additional supplies might be available in the area.

Table 23

Estimated Annual Sales and Costs of a Hot-and-Cold  
Dip Guard Post Plant

TOTAL SALES	20,000 posts x \$2.50		<u>\$50,000</u>
<u>COSTS</u>			
<u>Operating costs</u>			
Raw materials			
	Peeled, domed posts, at \$50 per cord x		
	20,000/47 (includes costs and		
	profit of fencing plant	22,250	
	Creosote at \$0.36 x 20,000	7,200	
	Labor (including fringes)		
	320 x 260	5,200	
	Management services (part time)	500	
	Power, fuel, telephone	750	
	<u>Subtotal</u>	35,900	
	Working capital, 20% of \$35,900	\$7,180	
	Interest, at 8%	574	
	<u>Total operating costs</u>		36,474
<u>Fixed capital costs</u>			
	Fixed capital	5,000	
	Depreciation 10%		
	Repairs 5		
	Insurance 4		
	Interest 8		
	<u>27% x \$5,000</u>		1,350
	<u>TOTAL COSTS</u>		<u>37,824</u>
	<u>PROFIT BEFORE TAXES</u>		<u>12,176</u>
	<u>TOTAL INVESTMENT REQUIRED:</u>	<u>12,180</u>	

This is particularly desirable since a rumor is already current in the area to the effect that cedar is scarce in Washington County. A fencing plant that started in Machias allegedly closed because it was unable to obtain adequate supplies of raw materials. However, this fencing plant opened up with insufficient working capital, and was unable to pay its suppliers of cedar logs. Understandably, they stopped delivering, and only in this sense did raw materials become scarce.

According to a recent (1970) survey of commercial forest land in Washington County, made by the U.S. Forest Service, there should be no difficulty in obtaining cedar from other landowners if and when the resources of the Reservation are exhausted. This



survey showed 113.0 million cubic feet (approximately 1,412,500 rough cords) of cedar in the County. In addition, there were 34.9 million cubic feet (436,000 rough cords) of tamarack. Table 24 gives figures for the size distribution for the two species.

Table 24

Availability of Cedar and Tamarack in Washington Co.

Diameter class	Million Cubic feet		Thousand rough cords (at 60 cubic feet per cord)		Million board feet of saw- timber
	Cedar	Both	Cedar	Both	Both
Total	113.0	147.9	1,490	1,849	190
5.0-6.9	38.5	47.3	509	591	-
7.0-8.9	33.4	43.3	441	541	-
9.0-10.9	22.3	30.1	294	376	77
11.0-12.9	13.0	15.4	171	193	48
13.0-14.9	3.2	9.1	42	114	13
15.0-16.9	0.6	0.6	8	8	3
17.0-18.9	1.3	1.4	17	18	6
19.0-20.9	0.7	0.7	7	8	3

Source: U.S. Forest Service, Northeastern Forest Experiment Station, Forest Survey Project, "The Main Forest Survey, Preliminary Data - 1970, Washington Region (IV", Upper Darby, Pa., 1970, Tables 4,5,6 and letter from Mr. Carl E. Meyer dated 23 December 1970.

Average annual net growth of cedar alone is estimated at 3,760 thousand cubic feet, while average annual removals amount to only 566 thousand cubic feet, or around 15% of the annual increment. The difference of 3,194,000 cubic feet is equivalent to 39,925 cords. Assuming that three-quarters of this is cedar, the County can produce around 10,000 cords a year on a sustained-yield basis, or enough to support two fence mills. There are a number of large landowners in the area who are known to be willing to sell cedar stumpage for as little as \$3 per cord (including one large paper company.) Accordingly, local supplies seem to be more than adequate to support a processing plant.

We therefore recommend that the Passamaquoddy Indian Tribe establish a cedar fencing plant. To be sure, this is a much more ambitious project than a small sawmill. However, it will employ more people, and long-term marketing prospects may be better.

Another consideration is the better utilization of Tribal forest resources as a whole. There is a ready demand for the Tribe's spruce, pine, hemlock and other major species from existing mills. Cedar, on the other hand, is not easily marketable (except for the very best trees, which can be sold for cedar lumber). Since the cedar is now being overtopped, this Tribal resource will soon become valueless, unless the Tribe itself does something to create a market for it. In practice, the Tribe must establish its own fence mill, or lose the value of its cedar.

We also recommend that a rustic cedar fence mill should be complemented with a hot-and-cold dip creosote treating plant. It is not clear that real treated fence posts can be sold to retail customers for enough to cover the extra cost (even though the extra cost would be a small fraction of the total sales price, and even though the consumer would benefit significantly). However, the State Highway Department (and possibly other public or private agencies concerned with construction) now recognize the benefits of treatment, and offer a lucrative market. At present there is only one hot-and-cold dip treating plant in the State, which is suffering from a shortage of raw materials in its area.

If the Tribe decides to start a rustic fencing plant, we recommend as the first step that the University of Maine's School of Forestry be asked to make a careful survey of the available cedar resources on the Indian Township Reservation. This survey should be qualitative as well as quantitative: it should report not only how much cedar is available, where it is located, and in what diameter classes, but also should analyze a statistically valid sampling of the quality. That can only be determined by dissecting a limited number of trees, to determine the incidence of internal defects (black or rotted knots, etc.) The purpose would be to permit planning of the best possible use of the Reservation's cedar resources (exactly what should be produced, with exactly what machinery).

The cost of such a survey is estimated at \$5,000. We recommend that EDA or the State be asked to consider a technical assistance grant to complete this study as soon as possible.

## Part V: Other Possibilities

### Chapter 14

#### Agriculture and Fishing

The Passamaquoddy Indians have an agricultural tradition. They grew corn, beans, squash and other vegetables. Until around 10 or 20 years ago, many Passamaquoddies continued to raise their own vegetable gardens and kept a few cows, chickens, or pigs for their own use. However, the increase in population pressure on the Reservations resulted in the occupation of much of the available cleared land by housing. At the same time, the breakdown of family or Tribal authority led to a growth in petty theft and vandalism, so that it became impossible to protect home gardens against "raiding". Growers lost interest, and today there are no vegetables grown in the area of the Reservation. The Penobscot Tribe at Indian Island seems to have found some answer to this problem, by assigning plots on their Reservation to individual families. These families' "property rights" are generally recognized. Many families have fenced their plots, and use them to grow vegetables.

Climatic and soil conditions in the Indian Township area are not conducive to agriculture, and many local farmers are giving up business. The Pleasant Point area has a longer growing season, with 174 frost-free days a year. However, the weather is cool in the summer, more suited to cabbage, lettuce and peas than to warm-weather crops. Soil conditions are quite poor, and the total acreage available is small (although additional land could be rented). The Peter Dana Point area has large amounts of land, but would require expensive forest clearing operations. The climate is difficult, with only an average of 131 frost-free days a year.

Even so, a number of small and medium-scale agricultural enterprises could be suggested; however, they do not appear to be promising in view of the lack of security, and no recommendation is made for agricultural activities.

Ocean and inland fishing are also traditional activities of the Passamaquoddy Indians, now in decline. The Passamaquoddies were expert boatmen, who ventured out into the open sea to hunt fish, seals, and even whales. However, both seals and whales have now vanished from the Maine coast. Whales were fished to extinction for their oil, and seals were killed off because a government bounty was paid for many years.

Today, Passamaquoddies no longer voyage by canoe in the

bay or ocean, and no Passamaquoddy Indians own an ocean-going boat. None are known to be employed regularly on the fishing trawlers that operate along the Maine coast, and the only commercial fishermen in the Tribe operate weirs and lobster traps off the shores of the Pleasant Point Reservation.

The withdrawal of the Passamaquoddies from fishing may not be all to the bad. Maine's fishing industry is in a state of decline, and very little is being done to reverse this trend.

However, we do not recommend an ocean fishing enterprise for the Tribe at the present time. Few members of the Tribe have substantial experience as ocean fishermen, and none has expressed a serious interest in this field. U. S. Government financial assistance for fishing projects is very limited. Last but not least, uncontrolled, abusive fishing along the Maine coast has reduced the potential catch, particularly of "sardines" (small herring).

Weir fishing in the St. John River is also traditional for the Passamaquoddy Tribe. One resident of the Pleasant Point Reservation has built two fish weirs along the shores of the Reservation, at a cost for materials alone (nylon netting, etc.) of \$8,000, plus half a year (March-October) of his own labor. These provided him with an excellent income for several years, and also provided employment for two other members of the Tribe.

It would be possible to expand weir fishing substantially. Unfortunately, however, either because of overfishing or some other factor, the yield of "sardines" has fallen catastrophically in the area. This fisherman himself plans to go into some other field, and additional investment in weirs does not seem to be justified at the present time.

One member of the Tribe is engaged in lobster-trapping on a small scale. Lobster yields have been declining along the Down East coast, where there is heavy trapping. However, at present there is very little lobster fishing in the general vicinity of the Pleasant Point Reservation, and a substantial expansion seems to be possible.

Live lobster now sells for around \$1.25 per pound, wholesale. A reasonable estimate of the possible catch is 1/2 pound per trap per day (one lobster per trap every fourth to sixth day, with an average weight of 2-3 pounds). A string of 60-70 traps, which easily could be operated by one man (theoretically able to harvest 100 lb. per 8 hours), could gross as much as \$1,170 per month for ten months of the year (and around half that figure for the months of June and July).

The sole lobster fisherman of the Tribe has built around 8 traps, which he sets out near the shore of the Pleasant Point Reservation. He can make 3-4 traps per day with his own labor, but needs to invest around \$9 per trap (mostly in nylon rope). A loan of perhaps \$500 would make it possible for him to become a full-time lobster fisherman. We recommend that this person (and perhaps one or two others) be helped to establish a lobster fishing enterprise, with SBA or other appropriate credit.

Smoked fish and salted fish were once important items of food for the Passamaquoddy Indians, and a few members of the Tribe are still familiar with fish preserving. Among the fish that are smoked are haddock, bass and eel. All are readily available in the waters around the Reservation. Small quantities might be smoked for sale as gourmet souvenirs. However, the possible market is limited, and a definite recommendation does not seem justified at the present time.

#### Marine Specimens

Passamaquoddy Bay is considered an outstanding area (possibly the best in the Eastern United States) for the collection of marine specimens, used for scientific and teaching purposes. Some of these can be made into tourist novelties (e.g. costume jewelry or clear plastic paperweights made with baby starfish).

A Canadian entrepreneur from St. Stephen has built up a large mail-order business in preserved marine specimens. To get closer to the best collecting areas, he has just moved his entire operation to Deer Island, within sight of the Pleasant Point Reservation.

Collection and processing are not extremely difficult, but do require some knowledge of marine biology. For example, dogfish prepared for dissection of the circulation system are a standard item. Dogfish usually are caught by accident in trawler nets. Preparation must be undertaken soon after, by breaking off the tail and injecting latex compounds with contrasting colors into the veins and arteries. Certain readily salable specimens (invertebrate mussels) are taken off exposed ledges at low tide.

In general, it is difficult to market marine specimens through existing scientific supply houses, since some prominent ones try to squeeze their buying prices down below profitable levels. On the other hand, establishment of a successful mail-order business would require a combination of scientific and

marketing skills that the Tribe cannot develop overnight. Therefore, the possibility of contracting with the Canadian enterprise to fill some of its wants might be explored.

Failing this, the Tribe might start with a few items for sale to tourists. Dried starfish are one example. After being caught, these are kept alive in salt water until they can be brought to the processing center. There they are dumped into fresh water, which causes them to swell up. After they have become distended, they are killed by adding formaldehyde to the fresh water. The formaldehyde congeals the proteins, causing the flesh to set. The specimen is then soaked in fresh water to remove as much salt as possible, and is dried. If used in costume jewelry, the specimen is impregnated with a sprayed-on plastic.



## Chapter 15

### Housing

Housing is generally inadequate on the Passamaquoddy Indian Reservations. Unfortunately, however, there is no system of land tenure that would make it possible for Passamaquoddy Indians to obtain credit for the construction or repair of their own housing.

According to Tribal custom, individual members of the Tribe can hold and use any land that they physically cover with a house or other personal property. However, there is no customary or legal barrier to prevent some other member of the Tribe from taking possession of immediately adjacent areas for his own use. Thus, it is not even feasible for house-owners on the Reservation to make a lawn or garden around their homes.

There are a number of reasonably modern homes on the Reservation, but most of them are seriously overcrowded. These were built in 1956, at the expense of the State of Maine's "Indian Trust Fund."

State authorities simply assigned the houses to individual families, with no arrangement for rental or purchase payments, and no legal rights of ownership. Some of these families have since made substantial additions to the houses at their own expense.

When the State gave free housing to some members of the Tribe, this was in keeping with the Indian tradition that land is a free resource. However, even in the original Indian society, families gathered their own raw materials and built their own shelters, which belonged to them (and could be moved by them when the Tribe migrated). The traditional system of free land and free raw materials might have been adequate for the "financing" of simple wigwams, built with the family's own labor; but it is completely impractical to support the construction of a modern house.

It must be admitted that the decision to give houses away (at the expense of the Tribe's stumpage revenues) helped the State to avoid facing the issue of whether the Indian family incomes were adequate to pay rentals. However, it left many Passamaquoddy Indians with the idea that they should not be expected to pay anything for their housing. And this, in turn, has helped to perpetuate substandard housing, welfare dependency, and lack of normal motivations to work.



The Maine Department of Indian Affairs is now trying to change the method of providing housing. Negotiations are underway with the U.S. Department of Housing and Urban Development for a tribal low-rent housing project. If these negotiations succeed, up to 100 houses may be built, and may be made available at moderate rents (adjusted to family incomes).

In addition, we recommend that some legal solution be found to the general land tenure problem of the Tribe. Possibly members of the Tribe could be given 50-year leases on family homesteads, in such a way as to provide a basis for mortgage credit. Since it would not be desirable or possible for non-Indians to acquire Reservation property through foreclosure, the Tribe might act as guarantor of the mortgage payments, and might arrange to transfer properties in default to other members. While the land tenure problems are particularly acute for housing, we have seen in Chapter 16 that it also inhibits home gardening and possible commercial agriculture.

The Tribe has an MDTA grant to train construction workers, and could provide at least some of the labor needed to implement a housing program. Use of less-skilled labor on government-financed housing projects usually is impractical, because of the Davis-Bacon Act (which requires that contracts be let competitively, and that contractors pay "prevailing" - union - wages.) However, waivers of the Davis-Bacon Act are now available to minority groups, and should be sought in connection with any Passamaquoddy Indian Housing project.

## Part VI: Conclusions

### Chapter 16

#### Organization for Development

In the above report, we have tried to point to a number of opportunities to make better use of Tribal human and physical resources. In terms of possible jobs, estimated investment required and possible profit for the Tribe or individual owners, our chief recommendations might be summarized as follows:

Chapter	Recommended Enterprise	Total Investment (including working capital)	Annual Profit (a)	Full-time jobs or equivalent
5	Museum, village, amphitheater, store, food service	\$230,150	\$60,160	14(b)
6	Campsite and marina	250,000	60,890	3(c)
6	Grocery co-op	4,000	(d)	(d)
7	Basket-making	45,000	(e)	(e)
9	Sale of stumpage	0	42,350(f)	0
13	Cedar fence mill	203,280	28,450	19
13	Treated posts	<u>12,180</u>	<u>12,176</u>	<u>1</u>
		\$744,610	\$208,026	37

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- (a) Allowing 8% interest as cost
  - (b) 46 at seasonal peak; mostly high school or college age
  - (c) 5 at seasonal peak
  - (d) Not estimated separately
  - (e) Not estimated in this report
  - (f) Assuming one fifth of backlog, plus normal growth is cut each year for next five years.
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If all these recommendations were to be carried out, there might be more jobs available than the number of able-bodied Passamaquoddy Indians who are actively seeking work at the present time. According to the best available information (CAP Forms 5 and 84), attached to OEO Grant No. CG 1006), the total population of the two Reservations is now 513. These are divided into the following age groups:

Ages	Number	Percent
0-15	226	44
16-21	92	18
22-44	103	20
45-64	62	12
65 and older	30	6

The total number of households was 104, divided as follows:

Pleasant Point	60
Peter Dana Point	27
Princeton Strip	17

The total labor force is estimated as follows:

Sex	Total	Employed	Unemployed	Percent Unemployed
Male	151	9	142	93.5
Female	155	6	149	96.0

Our own observations indicate that these figures exaggerated the extent of unemployment. In particular they make no allowance for members of the Tribe who work at seasonal occupations (earning enough in a limited time to support themselves somehow for the rest of the year) or who are self-employed at basket-making or other handicrafts. Furthermore, there are many residents of the Reservation who are handicapped in one way or another, and could not hold down a regular job in any circumstances.

On the other hand, there are also people who would be willing to work under reasonable conditions, but are able to survive without doing so. Some 45% of all persons under 21 receive AFDC payments, and 91% of all persons 65 or older receive old age pensions. Around 98% of the total population of the Reservations belong to families which receive some form of welfare. Combined with free rent and the "extended family" system, this pervasive welfare system makes it unnecessary for some persons to accept marginal employment opportunities.

Some of these people undoubtedly would be attracted back into the labor market by the availability of work on the Reservation, in congenial surroundings and without the onerous cost of commuting. Others, engaged in limited work for themselves (e.g. basket-weaving) would be glad to exchange their present activities for a job with regular pay. Last but not least, if jobs are created on the reservations, many members of the Tribe who are now living in the outside world would be glad to come back (particularly if the present housing shortage is relieved by a low-income housing project).

In line with the U.S. Government's new Indian policies, OEO has made a grant of \$106,000 to the Passamaquoddy Indian Tribe, for the year ending August 31, 1971 (OEO Grant CG 1006). At the insistence of the Tribe, this grant was made to the Tribal Councils, and a previously-separate Tribal Community Action Agency has been abolished.

The new grant is devoted to the Tribe's priority aims of planning and economic development. Much of the money will be used to support the establishment of the basket cooperative (e.g. by paying the salaries of the Manager and several assistants) as well as to plan for further economic and social development.

This grant seems to be making an important contribution to the Tribe's ability to undertake economic development. However, it does not provide adequate technical support for an economic development program. For lack of an alternative, Tribal leaders are relying on the advice of non-Indians with legal, handicraft, civil engineering and other backgrounds, who do not possess experience or training in business. Their well-meant advice, unfortunately, has not been adequate, and in a few cases may have done more harm than good.

The Tribe also receives occasional help from a state-sponsored organization of business leaders, called the Maine Indian partnership. However, this help is not provided on an organized, persistent basis.

There is no easy answer to the problem of lack of business experience. Several different types of outside support have been provided to the Tribe in the past, with discouraging results.

One conclusion might possibly be drawn from the Tribe's own fairly recent experiences; it takes a businessman to do business. There is nothing magical or mysterious about being a businessman; any reasonably intelligent member of the Passamaquoddy Tribe could learn how. However, learning how to be a businessman can be very expensive, and enormously time-consuming.

The Tribe has neither the money nor the time to start from scratch, on its own. For at least the next year or two, the Tribe needs the help of someone who already has the necessary experience, and who is willing and able to impart it to members of the Tribe. The alternative is to spend time and money which is not available, almost certainly driving into bankruptcy any new enterprise that might be established.

The Tribe could fill its temporary need for business experience in several different ways. However, taking into

consideration the observations that we have made, we recommend that the Tribe contract for advice and help with an experienced management consultant firm. Such a contract might be financed by a government agency or private foundation, as technical assistance to the Tribe.

Preferably, the Tribe should seek out a firm that has a record of sympathetic and successful work with poor peoples' groups. However, the firm that is chosen should specialize in business management (not in social development). It should have a clear record of tangible accomplishment (not merely report-writing) in the field of business.

If the Tribe can obtain the experienced advice that it needs, where could it obtain the money to establish new enterprises? There are several Federal Government agencies that could provide loan or grant funds for such enterprises: EDA, the Small Business Administration and OEO's Research and Demonstration program.

In addition, the State of Maine has an Industrial Building Authority and a Recreational Authority. These have the power to guarantee commercial bank loans for industrial plants and for recreational enterprises. To be sure, interest rates are higher and other terms are less generous than those offered by the Federal Government. However, a number of the projects that we recommend might be able to afford commercial credit terms (plus the nominal guarantee charge).

Funds may also be available from public-spirited businesses that are members of the Maine Indian Partnership.

Last but not least, if the recommendations in Chapter 9 are implemented, the Tribe will begin to receive - and control - substantial stumpage incomes from its forests. A portion of these should be set aside for investment in the Tribe's own enterprises (particularly as regards wholesale and retail trade in handicrafts). However, even in such cases, the ultimate result should be to increase the total demand (e.g. by attracting many more tourists to the Reservations) thereby increasing the opportunities for private as well as Tribal enterprises.

A number of opportunities which have been discussed in the report seem to be too large for individual Indian enterprises (at least for the present time). Furthermore, it is important for all Passamaquoddy Indians to build up the internal strength and prestige of their Tribe, and these can be increased by Tribal successes in the field of economic development. Last but not least, the ancient traditions of American Indians are tribal or clannish, rather than individualistic. Some modern adaptation of these

principles would help to preserve important traditional values.

Therefore, we have already recommended the cooperative form of organization for the Tribe's basket-making venture. We recommend consideration of the cooperative form for other enterprises, when it may be appropriate.

Admittedly, cooperatives have certain inherent weaknesses. In particular, there is sometimes a tendency to treat them as political patronage organizations, or as sources of charity for some members. Nothing could be more destructive to the ideals of equality among members, and nothing could be more likely to make business failures out of cooperative organizations.

So far, the Tribe's basket-making cooperative seems to have been immune to this dangerous disease. So far its manager and members have tried to run their cooperative as a business. If they continue, eventual success is probable. If short-sighted efforts to promote individual or family interests become overwhelming, failure is virtually guaranteed.

As in everything else that has been discussed in this report, the Tribe must ultimately decide what it wants to do, and whether it wants to pay the price of success...or suffer the losses of failure. The Tribe's chance to succeed in economic development is far better today than at any time in the last 150 years. Far more than in the past, success or failure is up to the Tribe.

Respectfully submitted,

EDWARD A. TENENBAUM  
President  
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Washington, D.C. 20007

Partial List of Persons Interviewed

Lloyd Allen	Maine Recreation Authority, Augusta, Me.
William "Billy" Altevater	Fishing entrepreneur, Maine
John Bailey	Tribal Counselor
Everett Baxter	City Manager, Eastport, Me.
Don Buchuy	Eastern Maine Development Council Machias, Me.
Fr. Marcel Chouinard	Catholic Priest, Peter Dana Point, Me.
Arthur Clapp	Walpole Wood Workers, Walpole, Mass.
Michael Crawford	Assistant to Commissioner, Dept. of Indian Affairs, Augusta, Me.
Owen Cunningham	Deputy Collector of Canadian Customs St. Stephen, N.B.
James Coffee	Secretary, Eastern Maine Development Council, Brewer, Me.
Albert Dana	Legislative Representative of the Passamaquoddy Tribe, Peter Dana Pt., Me.
Philomene Dana	Tribal Counselor, Peter Dana Pt., Me.
Arthur Edgerly	Maine Highway Dept., Augusta, Me.
Prof. Richard Hale	School of Forestry, U. of Maine, Orono, Me.
Harold Harding	Millmac, Inc., Unity, Me.
Anna Harnois	Peter Dana Point, Me.
Charles Hicks	Eastport, Me.
Ernest Johnson	Bureau of Taxation, Dept. of Finance, Calais, Me.
Eugene Francis	Governor, Pleasant Point, Me.



Barbara Kendall	Director, CAP Arts & Crafts Program Calais, Me.
Archie Lacoote	Tribal Counselor, Peter Dana Point, Me.
Elmer Lang	Calais, Me.
Charlie Lewis	Pinetree Legal Assistance, Calais, Me.
Joseph Lupsha	Utilization Officer, Maine Forestry Department, Augusta, Me.
Vern McFadden	Jasper Wyman & Sons, Millbridge, Me.
Hollis McGlaufflin	Utilization Expert, Maine Forestry Dept., Augusta, Me.
Dr. J. C. Medcof	Marine Biology Laboratory, St. Andrews, N.B.
Dalia Mitchell	Tribal Counsellor, Indian Township, Me.
James Murphy	Commissioner, Dept. of Indian Affairs, Augusta, Me.
Benny Neptune	Basket-maker, Pleasant Point, Me.
Billy Neptune	Basket-maker, Pleasant Point, Me.
Jeanette Neptune	Tribal Counsellor, Pleasant Point, Me.
Moses Neptune	Manager, Passamaquoddy Indian Basket Co-op, Pleasant Point, Me.
Arthur Newell	Tribal Counsellor, Indian Township, Me.
Gerry Nicholas	Pleasant Point, Me.
Joe Nicholas	Social worker, Pleasant Point, Me.
Horace Nicholas	Basket-maker, Pleasant Point, Me.
Robert E. Ouellette	State Employment Security Commission, Calais, Me.
Prof. A. G. Randall	Dean, Forestry School, University of Maine, Orono, Me.
Irving Rankel	Indian Island, Old Town, Me.

Shirley Redimarker	Blueberry Hill Experimental Farm, Jonesboro, Me.
Mrs. Winifred Ross	Executive Secretary, Calais Chamber of Commerce, Calais, Me.
Clifford Rowell	Green Valley Lumber Co., Hamden, Me.
David Sears	Economic Development Administration Portland, Me.
H. S. Silverman	President, Washington County Chamber of Commerce, Calais, Me.
David Sitomah	Manager, Long Lake Campground, Peter Dana Point, Me.
Alan Sockabasin	Maine Employment Security Commission, Calais, Me.
Eugene Stevens	Indian Township, Me.
George Stevens	Tribal Counselor, Indian Township, Me.
George Stevens, Jr.	Chairman, Indian Township Housing Authority
John Stevens	Governor, Indian Township, Me.
Peter Terry	Director, Adult Basic Education, Calais, Me.
Tom Tureen	Director, Pinetree Legal Assistance Calais, Me.
Richard Varney	Former Agricultural Extension Agent, Machias, Me.





