

THE STRATEGY AND IDEOLOGY OF LOBSTERFISHING ON THE BACK
SIDE OF MOUNT DESERT ISLAND, HANCOCK COUNTY, MAINE

FIELDWORK DONE BETWEEN SEPTEMBER, 1969, AND SEPTEMBER, 1974

by

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NOTES AND ACKNOWLEDGEMENTS

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While doing research for this study and preparing the written account, I was aided by the insights, suggestions, and careful readings of the work by Roy Rappaport. Robert Dow and Philip Goggins of the Maine Department of Sea and Shore Fisheries supplied me with the necessary ecological and economic data and helped locate out-of-print documents for me. Barney Nietschmann, in his concise and informative criticism of my work, has enlarged my perspective of the study. The other members of my committee, Conrad Kottak, William Schorger, and Aram Yengoyan have been helpful not only during the study, but in the general anthropological education they have given me. I would also like to thank the many fishermen, dealers, and other individuals in the areas I visited. Despite my invasion of their privacy, they were frank, tolerant, and helpful. Although they kept their secrets, they also allowed me to discover many "secrets". In order to protect their anonymity, I have changed most of their names. Wendell Seavey remains named by choice. He was a tireless co-participant in this study. Clearly I needed one fisherman who would go further with me than any other, and Wendell volunteered, without ever saying so and without my ever asking, with a grace I still find amazing. My thanks to him extends to Susan Seavey and Father James Gowers, who joined us in many conversations.

Many of the events on which this study is based are described in the narrative and poetic books I wrote at the same time. They are listed below, with dates of the fieldwork period to which they correspond and their publishers and publishing dates. The books also continue the themes developed in this study in non-technical directions.

Book of the Cranberry Islands (September, 1969, to February, 1970): hard cover, Black Sparrow, Los Angeles, 1974; soft cover, Harper and Row, New York, 1975.

The Provinces (February, 1970, to June, 1970): North Atlantic Books, Plainfield, Vermont, 1975.

The Long Body of the Dream (the 1970 trip back to Mount Desert): North Atlantic Books, 1974.

The Book of Being Born Again into the World (the 1971 trip back to Mount Desert): North Atlantic Books, 1974.

The Windy Passage from Nostalgia (the 1972 trip back to Mount Desert): North Atlantic Books, 1974.

The Slag of Creation (the 1974 trip back to Mount Desert): North Atlantic Books, 1975.

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I- Introduction

A- Synopsis

This study describes the strategies of lobsterfishermen on Mount Desert Island, Maine: primarily the methods by which they catch and sell lobsters and the manner in which these lobsterfishing operations are conceptualized and integrated with community beliefs. In the course of my discussion I will examine the overall operation of the lobsterfishing as a game of strategy, played under the conditions of fluctuating stocks of marine species, a market in which the values of these species change frequently, in both directions, and often unpredictably, and an active competition among fishermen for the more desirable grounds.

The intent of this paper is not to offer a statistical solution to decision-making processes or to discover patterns of collective rationality. It is to examine the individual strategies, or "game plans," of specific lobsterfishermen: how they affect each other and are affected by the ongoing process of the "game." This is not to deny that there may be a "statistical solution" to such matters as distribution of lobster traps, frequency of fishing, percentage of men withholding lobsters from the market, etc. Davenport [1960: 3-11] has worked out a reasonable game theory analysis of Jamaican fishing-pot-setting strategy in which the varying effects of individual motivation are purposely omitted from the solution. He assumes that the patterns of strategic behavior that combine dynamically to make up the community fishing effort, encompassing all individual fishing strategies, have evolved in the process of "coping with some of the combined physical, biological, and social forces of their environment" [1960: 3]. It is probable that, over a long period of time, the setting of pots by a community

of fishermen will approach minimaximization *for the entire fishing effort*, despite the solutions of individual fishermen. Anything less would lead to a counterproductive fishing effort necessarily supported by some other aspect of the community's economic life.

I am suggesting, however, that a completely non-psychological solution to patterns of behavior (such as fishing strategy) is an idealization where selective forces are cushioned by larger systems and do not operate on a single isolated activity. When other resources are available, when the world market is involved (either directly or indirectly), and when larger redistributational processes such as welfare and unemployment compensation bias strategy and strategic consequence, there is no closed system of trial and error to examine. One finds something considerably less elegant than minimaximization in lobsterfishing (and fishing in general) on Mount Desert Island. There is nothing to prevent an individual from taking foolhardy risks, fishing at a loss for great periods of time, and sticking to a nonbearing ground stubbornly, *if* he has other sources of income or the confidence that larger redistributational chains of the society will compensate him regardless of his fishing success.

In other words, because I have found the total selective matrix in which the Maine lobsterfisherman operates to be so complex I have decided to examine predominantly individual strategy and problem-solving. I will try to supplement this motivational solution with some relevant aspects of an ecological model of community strategy.

B- The Field Work

1- Time Period and Location

This study was done primarily on Mount Desert Island

in Hancock County, Maine, during the period from September, 1969, to May, 1970, with trips back to the fieldwork area during 1970, 1971, 1972, and 1974. For purposes of comparison, other areas in Maine and New Brunswick were visited during the original 1969-70 period. The total area of the fieldwork, from Boothbay Harbor, Maine, to Beaver Harbor, New Brunswick, is shown on Map #1, with major stopping points marked. This study is based on the period from September, 1969, to September, 1970. Because of my additional trips, it is possible to update certain aspects of the original research. Unpredictable changes in the national and international economies have caused related changes in the situation on Mount Desert Island. The follow-up research has been selective, as new areas of interest have diverted some of my attention from the central issues of the original fieldwork. For these reasons I will maintain a base year perspective of 1969-70 throughout, and introduce additions and clarifications from later investigations in a parenthetical manner.

2- Method

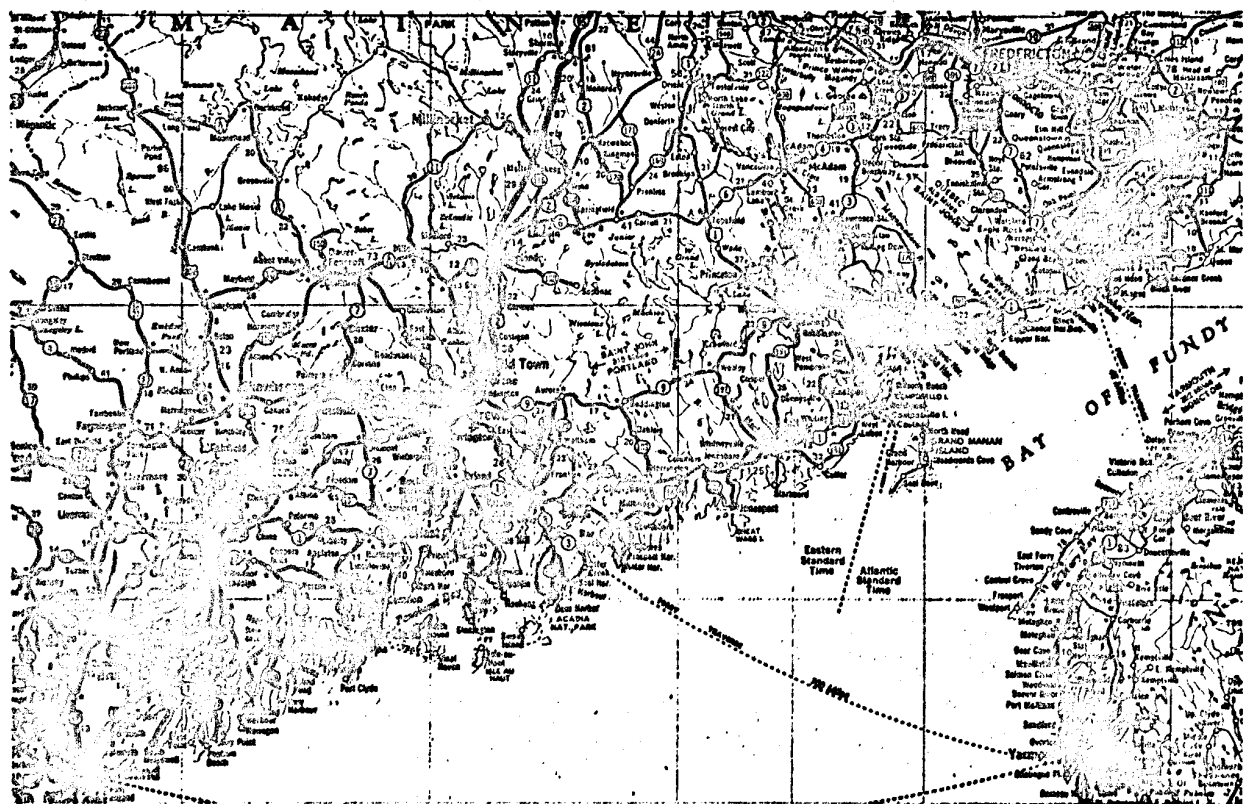
Information was collected primarily by observation, with approximately 75% of my time spent at the wharves. I took extensive notes on the actual interactions among people, and my reconstruction of lobsterfishing strategies is my own interpretation of these. I also recorded discussion, but crosschecked opinions and descriptions by spending time at places where there were people with different interests and points of view about the same conditions and events. Basic technical information was gathered from interviewing. My major informant was Wendell Seavey, a thirty-two year old lobsterfisherman who lived in Southwest Harbor at the time of the study but fished out of Bass Harbor. Although it is hard to call any fishermen typical, Wendell's strategy was both standard and traditional, much of it learned from his father

who had been both a handliner (fishing with a long hook-filled line, often pre-baited and coiled in a container, called "a tub of trawls") and a lobsterfisherman (fishing with traps). With only a few years of grade school education preceding his career, Wendell has been a fisherman ever since.

In all I interviewed approximately 80 fishermen on Mount Desert, including retired fishermen and newcomers (75 of whom are the base against which percentages are measured). I interviewed approximately 50 fishermen in other communities in Maine and New Brunswick. I also spent time in worm-cellars, clam-shucking sheds, and on the woodlots talking to men who were part-time lobsterfishermen. In this sense, my study involves the overall strategy of choosing lobsterfishing as a livelihood, either part-time or full-time, including the strategy of abandoning it, either part-time or full-time. At this time lobsterfishing is the predominant extractive industry because of the high market value of lobster and its relative availability, but many of the strategies which I will discuss related to clam-digging, worm-digging, pulpwood-cutting, or earning a living in general. Some strategies are uniquely associated with lobsterfishing and have developed as a function of its unique characteristics (the most important one being the impossibility of protecting a trap set at sea).

3- Mount Desert Island

Mount Desert Island is in the center of the largest lobster-producing area in the United States. It is approximately 250 miles northeast of Boston and 150 miles southwest of the Canadian border. Because of the proximity of Mount Desert to the mainland (less than a half a mile) it has few functional attributes of an island. Most of that distance is filled by Thompson Island, and the three bodies are connected by a bridge in such a manner that many visitors are not aware of any transition at all and



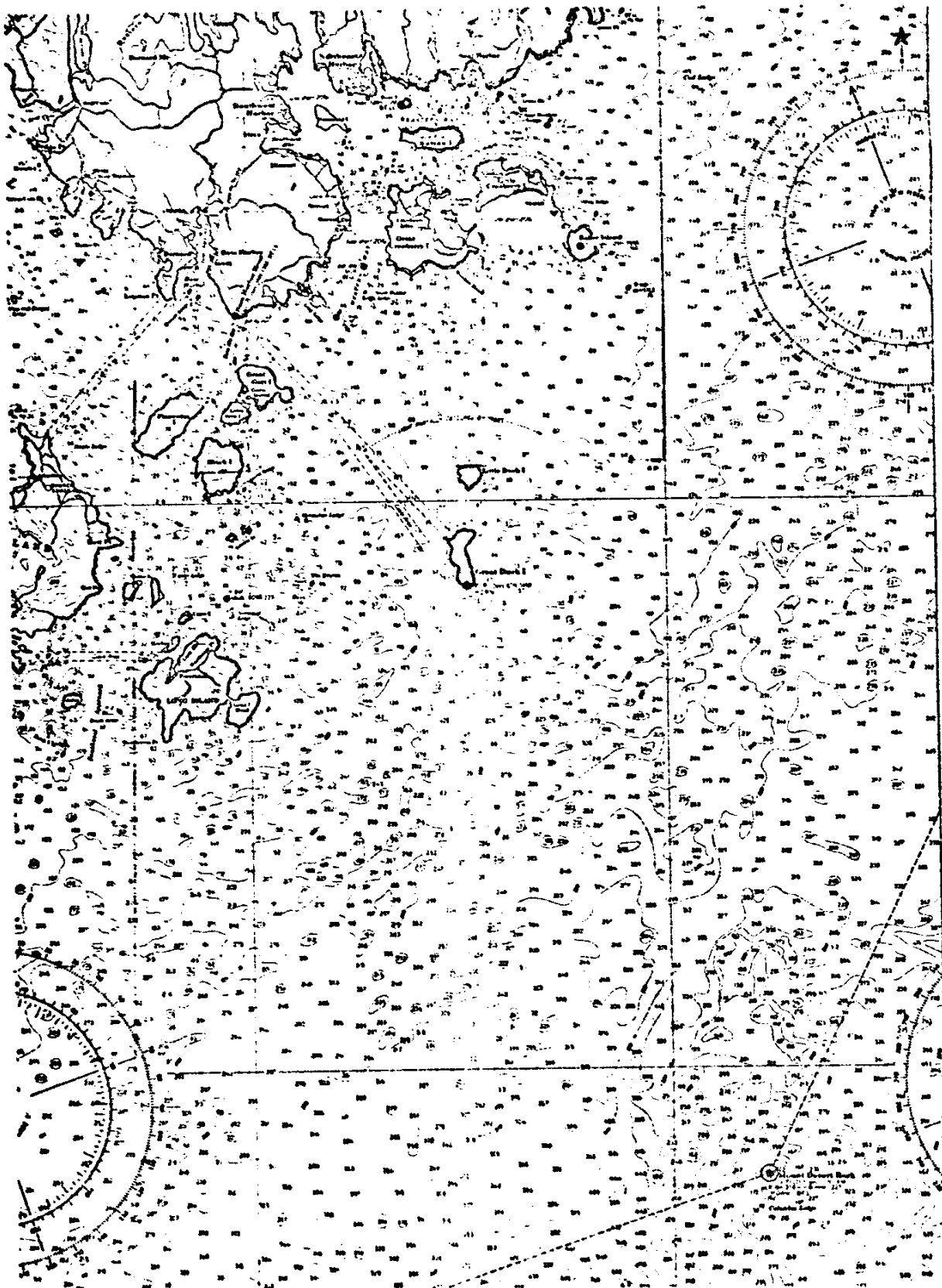
Map #1: Area of Fieldwork in Maine and New Brunswick
 H.M. Gousha Company, San Jose, California, 1974
 1" = 24 miles.

speak of the towns of Mount Desert as part of the mainland.

Geographically, Mount Desert is the largest island in a glacially-formed island cluster, measuring about 107 square miles. The other islands are extremely small by comparison, the next largest being Swans Island (14 square miles), and the rest ranging from 7 square miles down to mere rocks, the majority less than a single square mile. These smaller islands share, with Mount Desert, a large and well-endowed fishing zone (shown in Map #2 as a semi-circle from Blue Hill Bay on the west to Frenchman Bay on the east, widening as it moves toward the open Atlantic).

The bulk of the fishing on Mount Desert is done on the southern tip of what is called the "back side" of the island. Not only do these harbors face excellent fishing shoals, but the equivalent towns on the southern tip of the front side (such as Northeast Harbor and Seal Harbor) have been yachting and resort harbors since the middle of the nineteenth century. The "front side" is upper class and non-commercial, and attempts by fishermen to set up active wharves in these harbors have been bitterly fought by local town governments. Hence, the fishermen from these towns often sell their catch on the back side or one of the outer islands, making them part of those fishing communities. Map #2 shows some of these relationships.

The two major harbors on the back side of Mount Desert are Bass Harbor and Southwest Harbor. With important exceptions, the fishermen from the town of Tremont, including Seal Cove, West Tremont, Richtown, Bernard, and McKinley work out of Bass Harbor (that is, they keep their boats there and sell there), and the fishermen from Southwest Harbor, including Southwest Harbor proper, Manset, and Seawall, work out of Southwest Harbor. Fishing has been the predominant occupation in



Map #2: Mount Desert and Adjacent Fishing Areas (from U.S. Coast and Geodetic Survey Map #1202)

both these towns, though in recent years Southwest Harbor has come to support an increasing number of shops. Accordingly, its population has risen from 1,480 in 1960 to 1,657 at the 1970 census, while the population of Tremont has remained quite stable during the same period, dropping from 1,044 to 1,003. This can be compared with a total current Mount Desert Island population of 8,035, which itself should be viewed in comparison with a tourist flow during the summer months alone of five million people [figures from Maine Department of Economic Development, January, 1971].

4- The Wharves

Southwest Harbor has two lobster wharves, one belonging to Ralph Burns and one to Clyde Pomroy; the latter also functions as a fish market, especially during the summer months. There is also a sardine-canning factory which has little connection with the personnel of the other fishing operations (most of the fishermen imported from out of town by the company). It does supply scraps for lobster-fishing bait and furnishes work for the wives of many of the fishermen.

Bass Harbor has a small settlement on either side of it, McKinley to the east and Bernard to the west (McKinley is also called Bass Harbor, but the former name will be used here to avoid confusion). The one lobster wharf in McKinley is run by Emery Levesque, an old and charismatic dealer with many loyal fishermen and distribution through the most powerful out-of-state buyer. Next door to his wharf is an old fish factory, used now for the unloading and packaging of fish and the preparation of shrimp. Although the relation between the lobsterfishing wharf and the fish factory is ambiguous, Emery Levesque apparently now controls both. However, during the base year of the study, the factory had some independence. The combining

of the two is a direct consequence of the decline of lobsterfishing potential in 1971 and 1972 and the increased exploitation of fish. The same fishermen now supply both buildings and work with a single dealer. Their activities are consequently guided by the relation between supply and demand in the two markets. My guess is that the out-of-state buyer has underwritten the gradual merger. The sardine-canning factory in McKinley is defunct.

There are two lobster wharves in Bernard, F.W. Sturlow and Company, run by Jasper Merchant, and Sewell Alley's Acadia Lobster. The former is a longtime lobster wharf which has almost never handled fish. The latter just became a lobster wharf in the last five years, having been a fish wharf until the price of fish went down low enough to force it out of business. It was purchased by a lobsterfishermen named Sewell Alley who attracted a larger number of men from nonfishing families and from other wharves with bonuses and assorted benefits. This has resulted in hostility between this wharf and some of the others. Since the year of the study, Acadia Lobster has been sold to an individual living out of the area, and has gone heavily into fish distribution.

5- Neighbors

The Deer Isle fishing area lies immediately to the west of Mount Desert; it includes the major fishing port of Stonington, which alone has more wharves than the whole back side of Mount Desert. One of these is a cooperative run by the lobstermen. The fishermen in this area fished five to ten times as many traps per man as the fishermen on Mount Desert during the base year of the study, and they also traditionally get a significantly higher price for their lobsters. To the east is the Gouldsboro Peninsula, including the towns of Winter Harbor and Corea. Here there are fewer wharves than Mount Desert and the fishermen,

II - Physical Features and Ecological Gradients

A- Ecological Factors

1- General Discussion

Nearly every lobsterfisherman who has been fishing for more than ten years has done some other type of fishing on a full-time basis. In fact, other types of fishing are often more attractive than catching lobsters, which involves the unhappy risk of exposing expensive gear to both the elements and the disposition of other fishermen. The choice of what type of fishing to do at any given time is influenced by two major parameters, one of them ecological and the other economic. The economic factor has been the more important historically in regard to lobsterfishing, but the effect of environmental conditions on the availability of marketable resources is the basis of any economic discussion.

We are concerned here with the waters of the Gulf of Maine and the immediate coastal geography. Commercially successfully fishing occurs in a fairly narrow zone contingent with some shoreline. "Only near land and over the continental shelves are organic carbon and dissolved minerals sufficient to build up the life-series that culminate in the commercially useful fishes. To be sure, fishes live over the deeps and even in the depths, but probably not in numbers enough to support a profitable exploitation at great distance from land. The consistently productive pelagic (surface) fisheries are never carried on far from land, and trawling over the bottoms rarely goes below 250 fathoms (1,500 feet). Consequently, the productivity of the various fisheries is roughly proportional to the amount of shoal water they are based on. The extensive areas of continental shelf in the North Atlantic, South Atlantic, and North Pacific support large

fish populations which form a ready food supply for every nation with shores near them" [Ackerman, 1941: 7].

The two most important factors in regard to lobsters and fish are water temperature and ocean-bottom topography. The former continuously changes, affecting species abundance from hour to hour, year to year, or century to century, on the basis of various climatic cycles. Bottom topography does not change; sunken objects may have a small effect microenvironmentally (in some regions old tires are thrown in the water experimentally to raise lobster production by providing them with more hiding places, but, in general, the region under discussion has remained unchanged since the colonization of the New World). Each particular section of coast has had access to the same shoals and/or sandy bottoms year after year, and, unless major geological change occurs, will continue to. Any fishing strategy is consequently dependent on permanent endowment as well as temporary or seasonal opportunity; fishermen are inclined to fish for those species that are naturally abundant in their region (i.e., that inhabit certain well-known local shoals), no matter what the demand, because in competition with most other areas they have a decisive advantage. In fact, it takes an item as prized on the luxury market as lobster is to generate lobsterfishing on the relatively sandy bottom of the Bay of Fundy (as in the last half century).

2- Water Temperature

a- General

Water temperature is determined by latitude, prevailing winds, prevailing currents, rainfall, marine and terrestrial topography, and certain larger climatic cycles. These larger cycles are highly significant in regulating species availability. The most obvious of them is the seasonal change in temperature from summer highs to winter

lows (modified by daily variations and variations within the day from mid-day highs to early morning lows). Some migratory species come only with hotter (or colder) waters, and some non-migratory species are active only when the waters are above a certain temperature. The lobster falls into the latter category, but certain other species fished by the same men (such as shrimp) prefer colder waters. Thus the choice to go lobsterfishing in a given season or year may well be the consequence of the temperature-dependent relationship between shrimp proximity and lobster activity.

b- Long Term Cycles and Their Effects Upon Prevailing Species

There are longer climatic cycles, associated perhaps with sunspot activity (the secular rhythms), which have enormous dynamic effects on human institutions. At one time it was thought that these climatic cycles assumed straight eleven year periods. It is known now that there are also cycles of forty to fifty years, the complete run of which (from high to low to high) takes about a hundred years (hence, the name "secular"). The eleven year cycles maintain their temperature regimes, but within longer regimes of gradually rising and falling temperatures which dampen and amplify their effects [Anderson and Koopmans, 1963; Willet and Prohaska, 1963; and Dow, 1969].

Warming trends in the Gulf of Maine in the 1930's caused a proliferation of clam predators, especially the green crab; with the decline in clams, a market was sought for the abundant sea worms, leading to the development of the commercial bloodworm and sandworm industry (as bait for deep sea fishing in vacation areas). We are presently in the midst of a forty year cooling period, one of the effects of which has been the southward extension of the range of the Northern shrimp (*Pandalus borealis*, Kr.)

[Dow, Jan., 1970]. Since a cooling trend reduces lobster activity, including breeding, it has been predicted that the lobster's range will also move drastically southward in the next decade [Dow, 1969], the result of which will be a drop in lobster population because of other limiting factors in the South. Already the number of lobsterfishermen going shrimp fishing has caused great changes in winter lobster fishing strategy because of both the trap-endangering draggers in lobster fishing zones and the seasonal abandonment of territory by many of the shrimp fishing lobsterfishermen.

The crucial area for shrimp breeding is twenty miles offshore, and for lobster breeding immediately offshore and near offshore islands. At the present time the temperature has been near optimum for both species, though the hypothesized trend favors the shrimp.

A forty year cycle has direct cultural implications. Forty years is long enough for a whole generation to be educated and to choose their employment and for institutions to develop and take on some stability; it is also short enough that individuals still involved in fishing and fishing-related activities can remember the institutions of a previous temperature regime. The older fishermen thus retain the knowledge and the gear necessary for types of fishing not currently possible economically, but which may become possible again in their lifetime. In 1971, with lobster catch down and trapcutting reaching epidemic proportions, a few fishermen on Mount Desert tried to ride out the situation during the early summer by returning to codfishing, despite the fact that cod were also scarce and bringing only 6¢ a pound.

c- The Temperature Gradient

The optimum temperature for lobsters is 12° C., herring 11° C., clams 10-25° C., bloodworms and sandworms 9° C., and

shrimp 6-10° C. Although there is a temperature gradient, from northeast to southwest in the Gulf of Maine, most species exist along the length of the coast in commercial amounts or within easy access to most fishing ports. Local conditions often modify the absolute gradient. Inland rainfall discharged through rivers into the ocean, depth of bottom, standing water between tides, and counterclockwise currents may create unusual warmer pockets, or, in a few instances, colder pockets, which fishermen take advantage of.

2- Topography and its Effects

The topography of the Maine coast does not change along a gradient. The shoreline is rough, with fjord-like rivers, estuaries, coves, and lagoons. The offshore bottom is of the same glacial topography, submerged and partially submerged, to form plentiful bars, shoals, islands, and island clusters. This type of rugged bottom is rich in fishing banks because it houses the species of invertebrates fish and lobsters prey on and because it provides the lobster with plentiful hiding spots. "Although the continental glaciers of the past ruined much land for human occupation, the dumps of material which they pushed over into the neighboring seas have been a definite boon to fisheries. The extensive smooth shoals of both the North Sea and the western North Atlantic owe their existence partly to the glaciers" [Ackerman, 1941: 8]. The effect of such a geological base is micro-environmental diversification up the ladder: wide ranges of salinity, temperature, sediment, and general hydrography. All of these affect the types of choices a fisherman has; peculiar conditions in one region may have an economic effect on species marketed elsewhere because, as stated earlier, fishermen will generally choose those local species which can be caught in commercial amounts

with the smallest expenditure of time and gear. The more complicated and devious the offshore shoals are, the longer period of time the lobster will have to hide and grow. The Mount Desert region is one of the better examples of such topography, with small uninhabited islands just offshore, larger islands (such as Swans, Great Cranberry, and Frenchboro) further out to sea, and they themselves surrounded by small uninhabited islands. The offshore bottom around these islands supports abundant natural lobster populations. Although the lobster grounds off Mount Desert are excellent, Dow has tentatively proposed that the shoaling and island patterns off Deer Isle and Isle Au Haut in Jericho (see Map #3) may be even more conducive to large lobster populations [personal communication, 1970].

3- Tide

Tide varies from eight feet at Portland, in the southwest to almost twenty-five feet at the New Brunswick border. Differences in tide translate directly into differences in the amount of beach that may be dug for bloodworms, sandworms, clams, and any other species that may become marketable, as well as in the length of time (between low tide and high tide) that digging is possible. Hence, the further northeast one goes, the more people can dig in a larger area for a longer period of time.

The range of tide is a function of latitude, longitude, depth of water, and, in the case of an inland channel, the relation between period of oscillation and the length-depth ratio of the channel. Where the period agrees with the ratio, the amplitude of motion is increased. This is called resonance.

"The Bay of Fundy, which has the greatest tidal range anywhere, illustrates the importance of resonance. The bay averages 225 ft. in depth; its critical length is 160 miles, which agrees closely with its measured length of 162 miles. The natural period of oscillation of the

bay is about 6 * 29 hours, which almost exactly fulfills the conditions for resonance to occur" [King, 1965]. Resonance encourages ebb tide digging as one moves toward the affected area. The rate of increase of reward as one moves east is thus abnormally large in this part of the world. The effect of this gradient upon institutions, however, is complex, because it must be weighed in terms of at least three other gradients. Distance to the northeast is also distance from the major markets; waters to the northeast are rougher on lobster gear, and more important, because of the turbulence and resultant lack of plankton density and variety, do not have as rich lobster grounds; and the climate, in general, becomes colder, with more harbors closed by winter ice and sparser vegetation on land [Rutherford, Wilder, and Frick, 1967].

4- The Position of Mount Desert

Mount Desert falls in the approximate middle of these gradients, but this does not mean that it has half as much worm- and clam-digging. Intertidal exposure is so much greater to the east that it is difficult for the diggers from Mount Desert to compete with their counterparts without frequent trips "downeast." This migrant pattern is enacted by those who dig worms and clams, but there is only a small contingent of diggers from the Mount Desert region (under then most of the time). This contributes toward producing a sort of marginal lobster-fisherman (without the option of full-time digging), a niche which does not exist further to the east where clam-digging is a full-time opportunity.

It is important to realize that the amount of men lobsterfishing, and the amount of time each man fishes, is also a function of the other options available. During the early part of the twentieth century there was a large migrant force of quarrymen who worked cutting stone in areas of abundant granite, such as Black Island, Hall Quarry (on Mount Desert), and Swans Island. As the demand

for granite dwindled (reinforced concrete becoming more prevalent in the urban regions where it was used), many quarrymen turned to lobsterfishing, for the demand for lobsters was increasing. This switch of economic attention occurred without any significant change in the supply of granite or lobsters. The same thing is happening for different reasons in the pulpwood industry. The Mount Desert region once had an abundance of softwoods such as spruce and fir, but much has been depleted by cutting and the rest has been ceded to the national park. A number of wood-cutters are being forced into part-time lobsterfishing, then into full-time lobsterfishing if they are able to make the transition. Much the same type of sequential conversion could take place if lobsterfishermen are able to switch to shrimping with the beginning of climatic change.

B- Economic Considerations

1- The Importance of a Market

Despite the variety of important ecological factors, the primary explanation for the large number of lobsterfishermen and the development of extensive lobsterfishing strategies and institutions at the present time is economic. In fact, with most species fished in Maine there is a direct correlation between fishing effort and market price the year *before*. Dow and Trott conclude that:

"Other than an adequate abundance of fishable lobsters in Maine waters to permit a full response of production to economic stimuli, there is no evidence that biological factors have influenced production increases" [Dow and Trott, 1956: 22].

2- The Fisherman's View

The fishermen, who are aware of State publications, dispute this particular finding. Most feel that the

supply of lobsters has radically increased any year during which they made more money than the year before, and that there were fewer lobsters to be caught the years their income was less. There is little awareness of the larger amount of traps, boats, and fishing days when the price is high. Economic motivation is seen as biological variation, in part because fishermen believe they fish as much for the virtue of the fishing effort as the actual financial reward. The handliner can invoke the long tradition of handlining in America, its manual skill, and its preciseness as a method. The dragger has the enjoyment and excitement of pulling up large pockets of fish and implementing the newest technological means. Lobster-fishing is an intense strategic game, said to require great intelligence; on Beals Island I was told that only the children of lobsterfishermen went lobsterfishing (while the children of clam-diggers went clam-digging) because lobsterfishing required an innate skill the clam-digger did not have (not an inherited income, as is obviously the case given the expense of lobster rigs). In certain instances over the years when the price offered for a particular species has dropped so low as to provoke, clearly, a switch in fishing habits the fishermen have admitted economic motivation, but when the price changes gradually, as it generally does, the fishermen either are unaware of or do not admit financial influence; the implication is that in an honorable occupation services are given willingly and cannot be bought.

C- Current Changes in Ecological Factors

Dow and Trott's study was done in the early fifties, and the evidence they have presented about the lobster-fishing "boom" of recent years is accurate insofar as it deals with the relationship between price and effort.

After speaking with Dow more recently about the study, I feel it is possible, in fact quite likely, that the situation is now changing. With the immense fishing effort, in some areas coupled with an increase in pollutants to which the lobster is sensitive, and a decrease in water temperature, it is clear that "biological factors" are beginning to influence production. The lobster price is still high enough and lobsters abundant enough to keep the primary fishing effort focused on this species in the Mount Desert area (and elsewhere). Ultimately, a change in the biological circumstances may dissuade the fishermen from spending their time looking for lobsters regardless of the economic demand, or the economic demand may slacken to the degree that the fishermen will no longer find it worthwhile to haul lobster traps, however many lobsters are available. In either case, the local awareness and/or explanation may differ from the demonstrable facts.

Having considered the above, I might point out that a considerable aspect of this paper is to show that lobsterfishing strategy is a combination of other strategies. In a sequence of shifting and changing activities and foci (often with doubling-back at twenty or thirty year intervals), the community has means of absorbing transitions and adapting modes without major turmoil. My main informant, Wendell Seavey, for instance, is a lobsterfisherman because he can succeed best at it at the moment; his father was a hake and cod fisherman who changed over to lobsterfishing (somewhat unwillingly) late in life (and Wendell himself has gone hake and cod fishing with great enthusiasm); his grandfather was a quarryman in Hall Quarry who took up fishing after quarry work became unavailable; his great-grandfather and other male ancestors were trawlers and handliners who fished on the large offshore banks; his ancestors include fishermen who came to the New World to fish but never touched

land [Seavey, 1958; Pendleton, 1967]; other, less direct ancestors were farmers. I do not mean even to suggest that any conclusions can be drawn from this one case, but I do wish to introduce lobsterfishing strategy in the perspective of larger cycles of activities also subject to *both* ecological and economic changes.

D- Models

In the course of this discussion I will maintain an ecologically-defined base, against which I will make cognitive and motivational statements. Lobsterfishing strategy may seem at times to drift ludicrously far from the actual biological circumstances as described here; at other times it may appear to be almost isomorphic with it. I am more concerned than Rappaport with the Levi-Straussian model of limitless structures of thought, moving neither toward nor away from any objective reality [Levi-Strauss, 1963: 213; Levi-Strauss, 1969: 7-8]. Nonetheless, this issue is not raised by the greater part of my discussion (except insofar as overall interpretation is concerned), and I will use the following statement of Rappaport as a key to the relation between lobster biology and lobsterfishing strategy:

"It is obvious that cognized and operational models are likely to be overlapping but not coextensive. An operational model is likely to include material elements, such as nitrogen-fixing bacteria, of which the actors may not be aware, but which affect them in important ways. On the other hand, cognized models often include elements, such as supernaturals, whose existence cannot be demonstrated by observation or measurement.

It is sometimes the case that elements peculiar to one model are isomorphic with elements peculiar to the other. For instance, the behavior of certain spirits,

whom the Tsembaga say occupy the lower portions of their territory and the consequences of their behavior, correspond closely to that of the anopheles mosquito whom the Tsembaga do not understand to be a malaria vector. But elements, and relationships among elements, in the two models need not always be identical or isomorphic. The two models may differ in structure as well as in content.

This is not to say, of course, that cognized models are merely less adequate representations of reality than the operational models we attempt to construct. The accuracy of cognized models, although by definition they must be taken by those who entertain them to be accurate representations of the world in which they live, is really a secondary matter as far as adaptation is concerned. The primary question concerning cognized models is not the extent to which they conform to "reality" (i.e., are identical or isomorphic with operational models), but the extent to which they elicit behavior appropriate to the material situation of the actors" [Rappaport, 1970: 49-50].

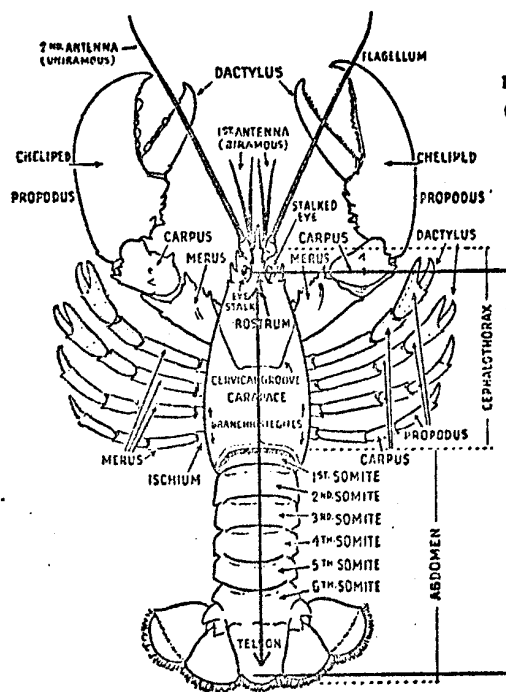
III- The Lobster

A-Physiology

The American lobster (*Homarus vulgaris*) is a member of the class Crustacea and the order Decapoda. The Decapods are animals with ten jointed legs and a crust-like jointed shell and include crabs, shrimps, prawns, crayfish, and lobsters. The lobster body is composed of twenty-one segments, fourteen of which make up the combined head and thorax; the remaining seven, in the abdominal region, are the animal's tail. Most of the body is covered with a hard shell, which serves for protection and attachment of muscles. This shell is formed of chitin, which also goes into making up insect exoskeletons, and is hardened with lime salts. The lobster has two black eyes on moveable stalks, two pairs of antennae, six pairs of mouth parts, twenty pairs of gills, and five pairs of legs, the first of which is armed with large powerful claws. The crusher claw is heavier and stronger than the biting claw, known as the pincer. On the underside of the abdomen are five pairs of swimmerets, with the body ending in a flat fanlike tail (see Figure #1). The male lobster is heavier, with larger claws and a narrower tail. The first pair of swimmerets are large and taper off in the male, whereas the same pair in the female is smaller and softer. The lobsterfisherman must tell the difference at a glance if he is to operate rapidly, and a mistake could cost him a fine and a day in court, as the conservation regulations apply differently to either [Wilder, 1965].

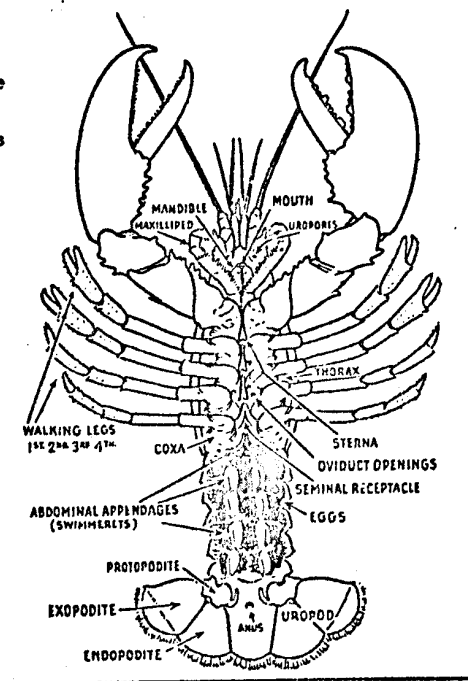
B- Habits and Ecology

Lobsters move very lightly underwater, along the bottom, on the tips of their eight short walking legs,



top view

Lobster Measure
(3 5/16 inches
to 5 inches is
legal size)



bottom view

Figure #1: Anatomy of the Lobster (from Goggins and Fortier, 1964)

bending into a V-shape, the membrane between body and tail breaking along the upper part, and the lobster drawing itself through this opening, widening it as it works its way through. The newly-moulted lobster has a very soft shell. Having shed, it absorbs an enormous amount of sea water through his membranes, swelling to a greater size in four to five hours. Within the marketable size range, a moulting lobster may gain 15% or more in length and its weight may increase by 50% in this shedding [Rutherford, Wilder, and Frick, 1967: 14].

During the unprotected period of time following the moult, often lasting upto several months, the lobster is again very vulnerable to attack, his greatest threat being from other lobsters. His meat is also extremely watery and unattractive to consumers upon shedding, and it is several months at least before the meat is firmer and more marketable [McLeese and Wilder, 1964: 7-8]. Thus a shedder brings, on the average, 15¢ less per pound to the lobster dealer, a loss which is passed on down the line.

The moulting process occurs when the waters are warmer and growth is faster, usually during July and August, into September, and generally four to six weeks earlier in the West than in the East. In colder climates, the moulting seasons also last longer [Rutherford, Wilder, and Frick, 1967: 14].

Since a lobster is obviously born very small, and grows gradually, it is the frequency of moult that determines the size of the fishable lobster population and the number of lobsters entering the legal class each year. Smaller and younger lobsters shed from five to seven times in their first year, and then less each succeeding year, until they reach a size large enough that they often miss a full year. It is also true that during an extremely cold year

only a few lobsters, if any, will moult. This would then have a drastic effect on the number of lobsters available for fishing in the following season. During a very warm year lobsters may moult more than once [Wilder, 1963: 305-318].

When a lobster reaches a size anywhere from seven to twelve inches, weighing perhaps half a pound at the lightest, it matures sexually and is ready to mate. After preliminary acquaintances, lasting no more than a half hour, mating takes place in about five minutes, the male depositing sperm through the sperm duct between the last two pairs of legs in the female, from where it passes into the matching egg duct. The male specifically chooses a female who has moulted recently. These sperms can remain alive in her for a year or more, that is, until she next moults. Usually, however, she begins laying her eggs a month after mating, fertilizing them as she does with the sperm that has accumulated in the sperm sac. After they are laid, the eggs stick to the female's swimmerets by means of a gluey secretion. Egg-laying capacity increases exponentially with size, a seven inch female laying about 3,000 eggs and an eighteen inch female laying closer to 75,000. The female carries the eggs in berry-like clusters for about a year after fertilization, and then they begin hatching. It takes an average of five to seven years then for a lobster to reach the minimum legal size: three and three-sixteenths inches from the back of the eye socket to the end of the carapace (usually less than a pound) [McLeese and Wilder, 1964: 9; Wilder, 1965: 2].

The populations of the American lobster are found along the eastern coast of the United States and Canada. One breeding stock inhabits the region from low tide to about 20 fathoms. There are other stocks on the continental slopes and continental shelves in the range from

50 to 400 fathoms [McLeese and Wilder, 1964: 4-5]. There is some disagreement as to the separateness of stocks and the amount of migration. It is generally agreed that the inshore lobster populations are non-migratory, though lobsters may move a little bit out into warmer deeper waters in the winter when the inshore waters cool too rapidly [Harriman, 1951-2: 2-4]. It is also true that the inshore lobsters become inactive and cease feeding with the cooler weather and cold waters, while the lobsters in deeper warmer waters offshore remain active. The fishermen, in moving their traps offshore into gradually deeper and deeper waters, have the illusion often that they are "following" the lobsters, although this is probably nothing more than an increase in lobster activity along an optimum isotherm. In the spring, those fishermen that have moved their traps out to deeper waters being moving them back in [Goggins and Fortier, 1964: 9; Uzmanss, personal communication, 1970; Wilder and Murray, 1958: 12-15].

The offshore lobsters appear to migrate between the continental shelf and the continental slope (such regions as Little Georges Bank and Coxes Ledge). There is a population in 70 to 100 fathoms of water, and possibly another population in 150 to 350 fathoms; and these lobsters have been fished by draggers that have had territorial problems with Russian trawlers [Prelude Corporation, undated: III, 1-2]. Although fishermen based in the Mount Desert region did not fish these offshore lobster stocks during the base year of the study or before, the large-scale catching of lobsters offshore has affected supply and demand in the market to which they sell. In 1972, fishermen from Mount Desert began moving to Massachusetts and Rhode Island to captain offshore lobsterboats; the increased trap density and

decreased lobster supply made it necessary for some men to find totally new sources of lobsters if they were to continue to fish.

Lobsters are found inshore as far south as North Carolina and as far north as Labrador and Newfoundland, but the largest lobster populations are found in the Gulf of Maine, off southern Nova Scotia, and in the Gulf of St. Lawrence [McLeese and Wilder, 1964: 4]. The lobsters cluster on the rocky bottom there, and are especially numerous if there is a big island or even a sea mount. Where shoals are steep and variable, lobsters are abundant [Uzmanns, personal communication, 1970].

"One of the most characteristic types of shelf is that found off coast which have been glaciated. These shelves tend to be very irregular, the deep glacial valleys and fjords of the land extend some distance across the shelf, often becoming shallower toward the edge of the shelf. At their deepest the shelves often exceed 100 fathoms, and contain many basins in which mud tends to settle. There are also many hills on the shelf, often rising as banks nearly to sea-level, along the outer part of the shelf; banks of this type include the Georges Banks off New England, the Grand Banks off Newfoundland and others, which are all very important for the fishing industry, as their elevation raises them into the region of more active currents by which nutrients reach the area" [King, 1965: 54-5].

It is this type of glacial underwater landscape, found right upto the shore in most parts of Maine, that is the foundation of all the fishing industries, including the lobsterfishing industry. Since temperature as well as topography is critical in the case of the lobster, it is important that the temperature in the Gulf of Maine remain above a certain minimum it is currently very close

to. Not only is the lobster itself sensitive to slight temperature changes, but lobster eggs are even more sensitive, and since they are carried the entire year, lobsters stay very close to an isotherm of 12° C. It is estimated, in any case, that lobsters may be able to survive but cannot reproduce in a temperature regime averaging less than 10° C. [Uzmanns, personal communication, 1970]. An earlier standard account gives a somewhat different picture. "Their habitat does not appear to be so strictly limited as popularly supposed, for lobsters are found over both mud and rock bottom and in water from 32° to 62° F. However, they seem to be most numerous in those zones where mud and rock alternate on the bottom; and they are definitely related to areas of dispersal, where reproduction is most successful and survival of the young highest" [Ackerman, 1941: 41].

C- The Fisherman's View

Despite his general intuitive knowledge about the lobster population and lobster behavior, the lobsterfisherman is usually playing a strategic game with oceanographic and geographical variables he knows little about, or knows little about in reference to their combined effect on masses of lobsters. Aside from trial and error, and traditional knowledge of lobsterfishing grounds, the fisherman has mainly his fathometer to go on. By this he can, so to speak, ride a bottom he cannot see, finding the type of broken ground where lobsters are frequently in abundance, and setting his traps there. To the fisherman, lobsters are semi-intelligent, motivated and inscrutable beasts, appearing unexpectedly in some places, disappearing unexpectedly in others. The lobster is always referred to as "smart," which means "hard to catch." It would be remarkable if fishermen did not attribute such intelligent behavior to lobsters, insofar as such perceptions refer to the difficulty in catching the animal rather than

its innate intelligence. It is far simpler to discuss the difficulty in terms of the animal's motivation than the multiple interrelated factors which make him elusive to them, and it need not be considered "false information" if one remembers that the fisherman is trying to catch lobsters not receive a zoology degree.

The fishermen are quite explicit on the epic journey of even single lobsters, which are said to travel back and forth between fishing areas and to wander in and out from the continental shelf. The marine biologists are emphatic in opposing this impression. "The lobster has very few motives in life," Joseph Uzmanns says. "He wants to survive and he wants to reproduce. He doesn't wander all over the place. The fishermen make all that up to amuse themselves during the long winter, and because they have no education in biology" [Uzmanns, personal communication, 1970]. As I have suggested already, catching lobsters is probably harder than tagging would lead one to believe, especially insofar as tagging surveys work with average lobster behavior, apart from regional peculiarities and fishing competition. Furthermore, there are other factors than motivation that may give the fishermen the impression of highly inscrutable movements among lobsters, and I will proceed to enumerate them here.

D- Factors Affecting the Apparent Ubiquity of the Lobster

1- Ecological Factors

I have already mentioned water temperature. This is a more critical factor in shallow waters where the temperature may change more suddenly because of the smaller mass to be affected. A spell of cold water will numb the lobsters into inactivity; a spell of warm water will send them prowling for food or generally arouse and

disturb them. There are also sharp local differences in temperature depending on currents, topography, weather conditions, tide, etc., and it is not possible to go on a simple assumption of: warm days equal greater lobster activity in all shallow waters. Hard-blowing winds moving large masses of ocean water can produce temperature changes and crossvarying zones in a very short period of time, and the fishermen can do little about predicting or interpreting the resultant lobster behavior [Goggins and Fortier, 1964: 9; Dow, July, 1969: 8-9]. "Bottom water temperatures where lobsters live range from as low as 29° F. in February or March to about 75° F. in August. In some areas, for part of the year the surface layers are much warmer than the deeper water. Here, strong onshore or offshore winds can raise or lower the bottom water temperature by as much as 15° F. in 24 hr. Although such changes seldom kill lobsters, they do have striking effects on their behavior and the fishery" [McLeese and Wilder, 1964: 5]. We see that activity zones may shift radically from the time when traps are set in the water to the time when they are hauled by the fisherman.

Lobsters must stay in areas where the salt content at the bottom is above 2.5%. The average level in ocean waters is a safe 3.4%, but with freshwater runoff near the shore, reaching a height in the spring and fall, the salt content may drop to a critical level, or near enough to it to cause the lobsters to move. Although fresh water will normally remain on the surface, strong tides and winds mix layers quite rapidly, and it is possible to have lobsters driven into and out of regions as a consequence of the salinity factor regardless of water temperature or desirability of bottom [McLeese and Wilder, 1964: 5].

Oxygen does not vary as critically as temperature and salinity, but its importance should not be underestimated. Where wave activity breaks the surface, oxygen is dissolved more rapidly. Colder water will dissolve more oxygen. The more oxygen there is the larger a population of lobsters can be supported, in part because larger populations of the animals the lobster preys on can be supported. Although the waters of the Gulf of Maine are generally saturated with oxygen, pollution reduces the oxygen content in some areas, and in other areas an oversupply of marine animals (sometimes caused by pollution) not necessarily supportive of lobster populations themselves, can also reduce lobster abundance [ibid.; Dow, May, 1970].

2- The Fishing Effort

The single most important factor in the abundance and perhaps the distribution also of the lobster is the effect of the fishing effort itself. No matter how perfect the other conditions are for lobster survival and proliferation, the lobsterfishermen, according to Dow, catch around 90% of the legal-size lobsters in their region in a season, and the success of the fishing effort gradually declines over the length of the season until new legal-size lobsters are recruited by moult [Dow, July, 1967]. One might argue, from the abundance of lobster eggs, or even from the abundance of surviving lobster eggs, that it is impossible to make such a serious dent in the lobster population. This is evidently not true. There may be large untouched and virtually untouched populations of lobsters, but since they do not migrate and as long as they remain unfished, their existence is irrelevant to the fishing effort. Each of the fishing grounds used by Maine coast lobsterfishermen, including the grounds off Mount Desert, has its own lobster population

with very little influx from other lobster populations, and very little loss. Dow's research indicates, moreover, that lobsterfishing may be reaching a critical point.

"Influenced by the increase in the market for lobster, fishermen have in the last decade almost literally doubled their efforts to catch lobsters -- 430,000 traps (1950-54), 750,000 traps (1960-64). It is estimated that they are now catching about 90 percent of the total available legal supply as compared with 85 percent in the mid-1950's when the Department was measuring the catch under a stratified sampling program" [Dow, July, 1967: 3].

We will examine later the effect of this statistic on a consideration of the overall fishing effort. For now we can see, from taking into account the number of lobsters caught and relatively stable character of lobster populations, that fishing in a given area will sharply alter the availability of lobsters, and a fisherman's strategy must be geared not only to the best grounds, but to those marginal grounds that have not been fished as much. The fishermen speak in the farming metaphor of letting land "lie fallow." Ultimately, many fishermen must take up all their traps until the next moult, as no territory available to them has any lobsters in it.

3- Other Factors

Many other subtle factors determine the location of lobsters at given times and contribute to the sense of inconsistency and unpredictability. The lobster is secondarily subject to those conditions which affect the population of species it feeds off, and these are too numerous to list [Paloheimo, 1963]. There are also many factors which cause lobsters *not* to be in areas where they would otherwise be expected. Lobsters are extremely sensitive to toxic pollutants from industry and agriculture, petroleum and petroleum products, and as close

biological relatives of insects, lobsters are easily killed by insecticides. One must also take into account pollution from artificially heated water, silt loads from improper agricultural and forestry practices inland, and the dumping of domestic wastes. Currents, breezes, and ships may all cause good lobster grounds to be unfishable for extended periods of time, and with no evidence for the fisherman to go by [Dow, May, 1970: 1-3].

E- Problems in Getting the Lobster to the Market

We have discussed those factors which make the strategy of lobsterfishing difficult. Before concluding our discussion of the lobster itself, we might point out that many of the critical factors for the lobster's survival do not apply only at sea because the lobster, unlike most other animals caught for marketing as food, must be transported live to the marketplace. A dead lobster becomes poisonous very rapidly and is inedible, and canned lobster meat does not bring the lobsterman an acceptable profit (hence that market is filled by offshore draggers). There exists a separate chain of institutions for transporting the lobster into the market area and keeping him alive at every point along the way. This includes the fisherman himself, both in transporting the lobster in his boat and holding it until he sells it to the dealer. Depending on the market, this may be either a very brief time or a period of several months. The dealer must then keep the lobster alive until it can be transported to the market area, and this responsibility is passed on to the trucker, the lobster-buying firms, and of course the restaurants and fish markets where they are sold. In some instances the lobster must be held up for a time until the optimum price can be gotten; thus at many points there are lobster pounds constructed for this, and they

are dependent on good strong tidal waters to keep a supply of oxygen going through the compartments where the lobsters are stored. Since tides become weaker and weaker as one moves towards most of the primary markets, lobsters are often shipped away from the market for a time, to a pound located in strong tidal waters, then all the way back, past the area in which they were caught, at some later time (McLeese and Wilder, 1964].

Lobsters in pounds are of course subject to the same critical biological limits as lobsters in the ocean are. A lobster can withstand conditions on land he would not tolerate in water, if the change is brought about gradually. A lobster might be subjected to an environment he would not stay in if he has his choice, but kept in it he will stay alive if unhappy at least until he is trucked, marketed, and sold [Wilder, personal communication].

Lobsters en route to the market are also more susceptible to undetected changes because they are unable to move out of an area where some variable has become lethal. Although temperature itself becomes a less critical factor (because the lobsters are simply being kept alive and are not needed for reproduction), a small temperature change over a long duration might be unexpectedly lethal. Out of the water, salinity becomes a critical factor because it must be supplied externally (in transport) and controlled in storage (as in pounds). A heavy rainfall can kill most of the lobsters being stored in cars in a particular harbor or in a pound. Unexpectedly high run-offs from land during the spring can have the same effect. Normally the lobsters would vacate the affected area for deeper waters. Oxygen, cannibalism, and pollution also must be controlled; they may not eliminate a significantly high number of lobsters "in the wild," but uncaught lobsters

are owned by no one, and fishermen and dealers often operate at a small enough margin that they must control any loss at all. Overcrowding increases the effects of all three of these problems, as well as the problem of disease. Too many lobsters in too small an area will use up much of the oxygen, especially if pollution decreases further the amount available. Lobsters in captivity are more susceptible to cannibalism, for the animals that become weak or disabled cannot hide from the rest as they would do for extended periods in a natural environment. Pollution is extremely critical with lobsters in captivity for two reasons: one, the lobsters cannot escape a lethal situation, and two, they are closer to the major sources of pollution. There have been several cases a year of major lobster loss in a pound or lobster car from either oil spills, excess industrial or municipal disposal, or even natural fish decay following beachings of large numbers during a severe storm [McLeese and Wilder, 1964: statistics on lobster susceptibility during shipping and storage, 22-33].

Whereas lobster disease in the wild occasionally wipes out parts of a lobster population, the disease may be modified by other demographic factors and its effects will rarely be felt economically. There is no case of major lobster epidemics reported for the area under discussion. Epidemics in pounds and under storage conditions have been reported since 1936 (for shell disease) and 1946 (for blood disease) [Harriman, 1964: 13-14; McLeese and Wilder, 1964, 9-11]. With the lobsters held in greater proximity than is normal, and with circulation often not sufficient, these two major diseases that affect lobsters, and which are both contagious, may wipe out an entire pound.

Lobster blood disease is caused by the bacteria

Gaffyka homari; the blood of the infected lobster clots too slowly, and those suffering from the disease bleed to death, often in a half hour if the lobster is removed from water. At higher temperatures the disease operates and also spreads faster (higher temperatures generally speeding up lobster metabolism) [Goggins and Hurst, Jr., 1960]. Lobster shell disease is caused by a bacteria also, this one attacking the chitin in the shell, including the covering of the gills, causing poor respiration and eventually death. The disease can be moulted away with the shell, and this usually happens in the wild, but in pounds it continues to spread with close contact [McLeese and Wilder, 1964: 10-11].

There are innumerable other conditions that affect the lobster in captivity and may detract from its marketability, though not affect its health. Lobsters are susceptible to three kinds of parasites that may lead to the formation of pearl-like cysts in the muscles; two kinds of Crustaceans live on the shell surface, and lobsters can also develop heavy coverings of kelp, sea lettuce, and marine plants, or barnacle and mussel colonies on their shells, especially if impounded or stored for an extended period during which they are inactive and do not moult [McLeese and Wilder, 1964: 11-13].

F- Conclusion

In general, it may be seen that the lobster is a difficult species to fish and to market, and the attempt to sustain a stable lobster industry gives rise to many peculiar institutions and complex strategies. In addition to the direct biological exigencies, many social and economic relationships develop along the

issue of who has the lobster when, and the element of risk (or speculation) involved at that point. A lobster in captivity is always a lobster for which somebody has paid or is going to pay; it is, therefore, money, or equity, that can either gain interest with the decrease in lobster supply over time coterminous with an increase (or no change) in demand, or lose value with a flood of additional lobsters (often from other sources) onto the market from which its owner expects to receive ultimate payment. Although lobsters held usually become more valuable, there are many factors which might cut into the profit and even turn it into a loss (as just discussed); when such a factor involves loss of lobster in possession through disease, thermal pollution, reduction in salinity, or any of the other causes mentioned it is known in the trade as "shrinkage."

IV- Lobsterfishing Among the Other Fishing Efforts

A- General

There are many edible species in the Gulf of Maine and the waters off Mount Desert, some of which have been fished commercially in other years but not currently, others of which always been fished commercially. There are also those species that have come to be fished commercially recently and those that have never been fished in any amount. Those which are fished at any particular season or year are a function of: 1- the availability of the species; 2- the demand for the species (its marketability); and 3- the economic feasibility of the fishing method.

Throughout this section I will be presenting and discussing graphs and tables. I intend no thorough or precise analysis of the variables involved in the different fishing efforts. I simply mean to give a general background to my discussion of the interrelated ecological, economic, and technological parameters of fishing and lobsterfishing. Sometimes stock depletion can be identified when the demand (reflected in the price) remains stable or increases while the catch decreases, but this could also mean attention on new species for which demand is even greater. Sometimes market demand can be identified by increases in landings of a species concurrent with increases in its price. The following discussion should give some insight into the relation between demand, intensity of fishing effort, development of fishing technology, choice of species, and the growth, specifically, of lobsterfishing institutions. There are, however, complicating factors which discourage single variable solutions to individual fishing efforts.

Any change in overall fishing strategy, leading to transfer of interest to a different species, has resulted from a change in one or more of the three variables, often a change of one in a positive direction for one species and a corresponding negative change for another species. For instance, greater demand in the market area has stimulated the lobster industry to its present dominant status. The corresponding lack of demand for cod has reduced its landings in relation to lobster more than stock depletion alone would have. The development of a fresh fish market in the 1870's (a result of changing national taste and improved means of distribution) brought about the haddock industry. There was little doubt that the haddock were there in abundance before that and that there was a technology capable of realizing the potential catch; there was, however, little or no market.

Often the different fishing efforts interact with related social institutions to bring about a complex change independent of conditions in any one of them. Codfishing was carried out on voyages of many weeks to offshore banks. Haddocking, lobsterfishing, and, for a time, mackerel-fishing, worked collectively to make possible a home-based and daily fishing effort. The cod-fishing boats would sail for the banks in April, returning in June, leaving again soon after to return in September [Jordan, 1965]. There was no one species which, if fished in local waters, would give equivalent financial rewards; yet the three species, as well as other minor ones, gave rise to a mixed strategy, and a local type of fishing grounds upon which community life has been based at least since the 1880's. The local fishing efforts were safer, more varied, and, because of the lower capital outlay to get into business, each man could "be his own

captain" and make up his own strategy of fishing, liberally mixing in periods of leisure.

With the change in focus from the banks to local fishing grounds, there came a change in not only the major resources but the minor by-products of fishing. The long voyages gave rise to a number of exotic items which the individual fishermen collected and sold when back in port: ".....the backbone of sharks for the making of canes, Gut-of-Canso whetstones from the Bay of Chaleur, bird's eggs, the nose of a sturgeon for the center of a ball to give it bounce, and sea duck feathers" [Jordan, 1965: 188]. With a local fishery, the entrepreneurial spirit led to the marketing of crabs, scallops, periwinkles, sea urchins, clams, worms, and numerous varieties of fish, many of which were also used locally. This shift of focus gradually led to more isolated and self-sufficient communities. In fact, Mount Desert is one region of the country where dependence on local resources has increased rather than decreased during parts of the last century.

The relatively late development of the mackerel-fishing industry is a case of inadequate technology with ample demand and supply. Not until 1820, with the invention of the mackerel jig, was there a means of catching enough mackerel to make the effort worthwhile. The jig was a special type of hook with a lead weight enclosing its shank, and it was used in conjunction with "tolling up" the fish, i.e., spreading bait on the surface of the water as the ship drifted to the leeward, drawing the hungry fish up into the surface waters [ibid.: 189].

There is a current example of a species for which a market and a means of fishing (dragging with special nets) existed before the species arrived in commercial amounts: shrimp. With the decreasing temperatures in

the Gulf of Maine, the shrimp have been moving south, and the Hancock County catch has risen from no shrimp caught (1945-1967) to 3,600 pounds (1968), 2,495,582 (1969), and then off to 1,504,002 (1970). At this moment, shrimp-fishing stands the best chance of supplanting lobster-fishing and providing an industry for the affected fishermen if colder waters or overfishing should cause the lobster stock to fail.

It might be added, to complete the picture, that there are a large number of species which are in the area in abundance, which can be caught relatively easily, but for which there has been no market, is no market, and is no projected market. If, for instance, horn sculpins (*Myoxocephalus octodecimspinosus*) or armored sea robins (*Peristedion miniatum*) were suddenly considered delicacies, or a medical use were found for them, and their price rose to \$1.50 a pound, then many of the fishermen would abandon their lobster traps and develop whole new strategies related to fishing efforts for these species.

In 1941, Ackerman wrote, concerning unexploited species in the area: "Some of these fish, like the sturgeon, once were important but promise to be almost nothing in the future. Others, like goosefish or the sharks, might develop into a remunerative part of the fishery if a demand for them arose. Still others--cunners, launce, and mummichogs, for instance--are so small and spare of meat that they will never have any use unless the fishery has approached complete exhaustion. A few are merely species closely related to fishes important in the industry (tomcod, frigate mackerel, and hickory shad).

Two notable inclusions in the miscellaneous classification are the northern shrimp (*Pandalus borealis*) and the dogfish (*Squalus acanthias*). Both are common in the Gulf of Maine, and yet neither is the object of a continued

commercial fishing operation. Dogfish appear in New England waters every summer in numbers great enough to cause fishermen much loss, partly in their destruction of nets, which Bigelow and Welsh estimate at \$800,000 annually, but even more because they drive away the commercially valuable species they are pursuing, like mackerel and herring. If dogfish could be turned into a salable product, fishermen would benefit doubly--from a lessening of damage to their nets and from the catches of dogfish that they likely would make. Dogfish meat is tender, white, and sweet, so that there is little reason for allowing this fish to go untouched. The name, perhaps, is not pleasing; but now, since it has been rechristianed "grayfish," the name should prove no obstacle" [Ackerman, 1941: 60-61].

Ironically, in 1969, 1970, and 1971, the fishermen spoke of dogfish only with irritation and contempt. In 1972, a man visited the wharves and offered to buy dogfish; they were to be used in biological experiments because of the similarity of certain aspects of their embryology to human embryology. The laboratories had authorized the buyer to pay 15¢ per fish; this went up to 17 1/2¢ in 1973. In 1972, with lobsters scarce and trapcutting more intense than usual, Wendell Seavey made six trips specifically to catch dogfish, with a substantial profit. Although he was not the only fisherman to do so, many refused "to stoop to catching dogfish." By 1974 the laboratories had changed their approach. Realizing they needed only the females, and that there was much waste from females aborting from the shock of the catch, they hired and trained one fisherman to catch dogfish and staple them at sea. The practical advantage of this method evidently outweighed any humanitarian concern.

B- The History of Lobsterfishing in Maine

Even with changes in water temperature affecting the actual amounts from decade to decade, lobsters are naturally abundant in the coastal waters of Maine, thus, the development of a lobsterfishing industry was initially based on an increased demand and an improved fishing technology. In the earliest periods of American settlement lobsters were speared and hooked in shallow water or gathered from tidal pools; they were plentiful enough in these areas to meet the demand for them, and there was no thought about exploiting deeper water stocks. When a storm at sea washed great numbers up on the beaches, they were gathered as fertilizer, or pigfeed. A few were eaten, but they were considered a poor food, and because of undeveloped transportation channels and a lack of interest in lobsters among possible consumers, there was no attention given to expanding the extractive effort [Jordan, 1965: 193].

In the early 1800's lobster traps came into use. These were at first extremely simple hoop nets, reinforced by barrels, with a suspended net bag of bait. There was no method for actually trapping the lobster at first, and traps, when used, had to be continuously watched. But lobsters were active, and very large ones (from five to fifteen pounds) were caught quickly, which satisfied the local demand.

Between 1830 and 1850 the first experimental enclosed traps were introduced, and the method of setting traps at sea, attracting lobsters to them by bait in a rear chamber difficult to escape from (while fishing the traps on a staggered basis) gradually developed as a lobsterfishing technique. These early traps consisted of a wooden framework with a hole in each end to receive a hoop (usually made from a tree branch, oak, birch, or

hemlock, and bent to the right shape while it was still green). The hoops led through nets into entranceways, known as "heads," a wooden hoop also inserted at the inner end to keep it open; then at the top of the trap a door was attached with leather hinges and a cleat to keep it closed [See Figure #2]. The lobster enters a concavity, but in order to escape, it must perceive an opening in a convex net surface and work its way through that; only by accident and in rare cases could it perform this feat. The bait was impaled on a large iron rod in the center of the trap, extra wood was placed on the bottom to protect it on the ocean floor, and flat stones were used to moor it. Rope was then attached to the trap, and at the other end of the rope a buoy was tied, usually cut in a distinctive shape and painted with the lobster-fisherman's chosen colors. This enabled him to distinguish it from the traps of other fishermen. The traps were fished from rowboats, sloops, and small dories [Jordan, 1965: 194, 195].

Despite experimentation in number of heads, number of traps per line, types of bait, trap size, the technology of the lobster trap has changed little over 120 years. There has been a gradual progression to powered boats and hydraulic hauling equipment, allowing more regions to be fished and the development of an extensive winter fishery, but these have simply facilitated the basic operation and enabled lobsterfishing to increase production for an expanding market.

When the Cape Cod lobstergrounds ceased bearing in sufficient amounts, with increased demand and decreased supply, boats with large wells in them for storing live lobsters (well smacks) began travelling along the Maine coast (in the 1820's) collecting lobsters from the various ports and transporting them to Boston. Previously,

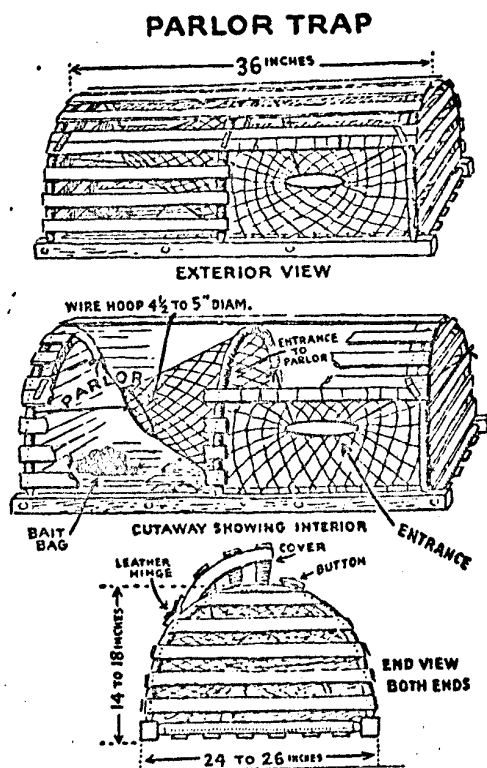
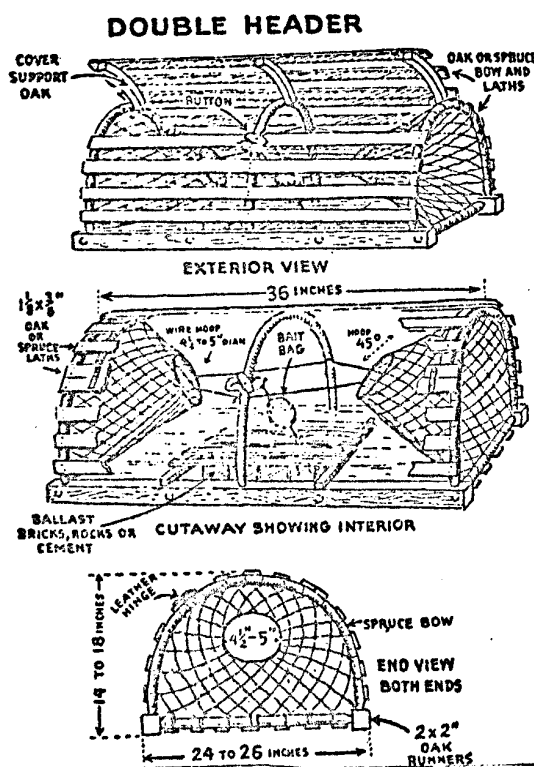


Figure #2: Lobster Trap Types (parlor style used in Mount Desert Region)
(Maine Department of Sea and Shore Fisheries)

lobsters were secondary objectives and the smacks collected other fish, but as people in the marketing area began to demand them the smacks became more and more oriented to lobsters. In between visits the fishermen kept their catches alive by storing them in large crates set in the harbor water; the claws were plugged to keep the lobsters from doing damage to each other. These were forerunners of the modern lobster cars [Ackerman, 1941: 43].

Until 1846 the smackmen paid \$4.00 per 100 lobsters (about 40¢ to 75¢ per 100 pounds), at which point the fishermen demanded a better price if they were going to continue to provide lobsters; the smackmen held back until it was clear that the fishermen could and would switch to other types of fishing if a higher price could not be negotiated. The compromise was to pay \$1.12 per hundred pounds. This led to an average fishing effort of about 50 traps per man, each one hauled every two or three days, yielding about 120-150 lobsters for a day's work, the fishing taking place almost exclusively during the summer and fall months [Jordan, 1965: 196-197].

In the 1850's the live market was joined by a market for canned lobsters. With local canneries introduced at points along the coast (one opening at Southwest Harbor on Mount Desert in 1853). The canneries alternated among sardines, clams, fish, vegetables, and fruits, as well as lobsters. At first it was simply a matter of the fishermen deciding whether to sell to the cannery or the well smack, but ultimately the demand in the cities became great enough (in the 1860's and 1870's) that the smacks were able to offer a consistently higher price than the factories for lobsters. This meant that the fishermen sold their larger lobsters to the smacksmen, but their smaller ones to the canneries, which would buy any size. With the apprehension that the lobster population

<u>YEAR</u>	<u>TOTAL CATCH IN POUNDS</u>	<u>NO. OF LICENSED LOBSTER FISHERMEN</u>	<u>TOTAL NUMBER OF TRAPS FISHED</u>	<u>AVERAGE PRICE PER POUND</u>	<u>TOTAL LANDED VALUE</u>
1897	11,211,405	2436	233,571	7.4	\$ 828,436.
1898	12,267,498	3103	278,807	7.6	937,239.
1899	12,718,136	3116	334,688	7.6	971,497.
1900	14,406,201	3105	327,414	7.2	1,037,556.
1901	13,982,964	2788	303,977	7.2	1,013,779.
1902	14,324,348	2541	298,424	8.5	1,226,561.
1903	13,115,709	2558	267,668	9.3	1,219,949.
1904	12,083,554	2509		8.8	1,066,879.
1905	11,137,947	2562	254,291	12.5	1,394,356.
1906	15,014,147	2672	304,547	10.9	1,640,646.
1907	17,397,342			10.8	1,888,468.
1908	17,635,980			8.8	1,558,252.
1909	16,954,270			10.5	1,786,837.
1910	19,936,542			10.7	2,145,204.
1911	16,189,224			12.6	2,052,385.
1912	16,298,370			12.5	2,041,655.
1913	8,116,776			19.9	1,616,905.
1914	8,632,915			19.2	1,660,901.
1915	11,535,800	3291		20.3	2,349,000.
1916	10,155,047	3067		21.9	2,228,319.
1917	5,793,784		153,994	24.7	1,432,004.
1924	5,513,002		210,692	32.1	1,772,000.
1928	7,100,332			28.3	2,013,451.
1929	6,620,615			29.5	1,954,346.
1930	7,750,682		205,044	25.8	2,007,343.
1931	5,365,466		167,647	24.5	1,317,473.

Table #1: Lobster Landings and Price, 1897-1954 (from Dow and Trott, 1956)

<u>YEAR</u>	<u>TOTAL CATCH IN POUNDS</u>	<u>NO. OF LICENSED LOBSTER FISHERMEN</u>	<u>TOTAL NUMBER OF TRAPS FISHED</u>	<u>AVERAGE PRICE PER POUND</u>	<u>TOTAL LANDED VALUE</u>
1932	6,056,932	2927	208,141	18.0	\$1,090,741.
1933	5,897,685	2956	180,357	16.9	1,000,094.
1934	5,377,278	2925	*	16.4	886,955.
1935	7,687,200	3102	184,788	22.9	1,767,498.
1936	5,120,386	*	*	18.4	945,554.
1937	7,348,500	*	185,568	18.9	1,387,436.
1938	7,659,200	3592	257,599	*	*
1939	6,625,409	3722	259,937	15.6	1,036,158.
1940	7,643,005	3717	222,180	16.6	1,265,442.
Average	6,601,732	Average 3277	Average 214,081	Average 18.0	Average 1,172,485.
1941	8,937,182	3648	194,286	17.7	1,582,718.
1942	8,403,793	3511	186,750	21.7	1,821,519.
* 1943	11,468,025	4239	208,509	25.6	2,933,274.
1944	14,056,795	4926	251,913	28.8	4,045,836.
1945	19,129,019	6241	378,043	40.1	7,666,618.
1946	18,775,798	6574	472,918	38.3	7,186,325.
1947	18,277,093	5338	516,212	37.3	6,816,196.
Average	14,149,672	Average 4925	Average 315,519	Average 29.9	Average 4,578,927.
1948	15,923,053	5345	439,214	40.4	6,439,474.
1949	19,272,495	5424	461,675	34.8	6,696,961.
1950	18,352,510	5152	430,176	34.9	6,412,311.
1951	20,759,471	4653	382,926	34.8	7,214,107.
1952	20,036,237	5032	416,989	42.5	8,511,821.
1953	22,300,367	5497	489,654	37.7	8,411,229.
1954	21,667,713	5794	487,837	37.3	8,087,165.
Average	19,758,835	Average 5271	Average 439,782	Average 37.5	Average 7,396,153.

*No data available

Table #1 (continued)

was being decimated, a State law was passed in 1883 prohibiting the canneries from accepting lobsters less than nine inches long; still the catch kept climbing and, in 1889, reached a height of 25 million pounds, so by 1895 a warden service was established to enforce this and other conservation laws (regarding fishing seasons, female egg-bearing lobsters, licensing, etc.). The result was that the canning industry was forced to leave the lobster-producing business, and in the years since, the market has been almost totally a live lobster market [Jordan: 197-8; Ackerman: 43].

C- The Interrelatedness of Fishing Efforts

1- General

It is beyond the scope of this paper to examine the full history of the economic basis for lobsterfishing. Because I am primarily interested in the strategic concerns of the lobsterfishermen on Mount Desert at the current time, I am examining historical interrelationships among fishing efforts mainly to place lobsterfishing in perspective, i.e., to show just how bound or not bound, ecologically, technologically, and economically, the fisherman is to the trapping of lobsters.

As stated, an examination of these factors alone, in any single fishing effort, is incomplete enough to make thorough analysis and understanding impossible. The fishing efforts and strategies are complexly related, and the economic, ecological, technological, and social factors affecting any one of them affects all of them. To examine the price of lobster alone is not to take into account the overall economic matrix in which the prices of lobster, cod, shrimp, crab, etc., affect each other and the men engaged in extractive efforts regarding these species. My major concern here, aside from giving some

sense of the complicated cyclical patterns involving individual commercial fishing efforts, is to examine the different manners in which economic factors and ecological factors influence various fishing strategies from year to year. Although I have no equivalent data on technological and social factors, these can be extrapolated, to a large degree, in cases where the economic and ecological variables alone seem to be inconsistent with some change in collective fishing patterns. More important, we can assume they are part of the general underlying complexity which we will examine later.

2- Lobsterfishing

From the time of warden-enforcement, in 1895, until 1916, it is fairly difficult to use the data to assess the relative effects of ecological and economic factors. Most biologists assume a very large stock of lobsters, inexhaustible by fishing methods used at that period of time; thus, it is unlikely that grounds were overfished. At the same time the price was steadily going up, from just over 7¢ a pound on the average in 1895 to 22¢ in 1916. Though the fishing effort increased gradually from 1895 to 1910 (11 million to 20 million pounds as recorded for the whole state during that time), it did not increase or decrease consistent with price change, and after 1910 there were sharp decreases and increases totally inconsistent with price change. "Although a coefficient of correlation of .56 between price per pound and production one year later during the fifteen year period from 1897 indicates some causal relationship between price factors and production, the other major economic influences, the number of traps fished and the number of fishermen do not correlate well with the price..... Despite upward price trends, the number of traps and fishermen declined from 1899 to 1906. During this period, with the exception of

1900 and 1902, increases and declines in the number of traps fished paralleled increases and declines in total production" [Dow and Trott, 1956: 3].

Some people have argued a decline in basic stock, halted and reversed only by the implementation of conservation laws, but there is no proof of this. It would appear that other factors are important here, notably the attraction of various fishing and nonfishing activities and the smallness of the fishing grounds in any one area made available by the technology (the boats and trap-hauling methods). At this period of time lobsterfishing was not the dominant extractive activity; thus, it was subject to influences outside its own cycle of economic and ecological relationships.

However, from 1916 to 1954 (in the research published by Dow and Trott in 1956, and up to 1969 in Dow's later research), the lobster catch varied in close accordance with the price paid for lobster by the dealers the year before, increasing as the price the year before increased, decreasing if the price the year before was lower than the year before that. The correlation between average price paid for lobsters and average number of traps fished the following year is .96 for the period 1932-1954. There is also a correlation of .90 between current price and number of traps fished during the same period [*ibid.*: 21]. This would indicate a direct response to economic factors during the period of time lobsterfishing was becoming the major extractive institution on the Maine Coast. There appears to be no biologically-initiated reduction in catch during this developmental period [See table #1].

3- Codfishing

Cod (*Gadus callarias*) has always been one of the most abundant fishes in the Gulf of Maine; as a true wide-

ranging ocean carnivore, feeding off almost every other species of fish (and innumerable mollusks), it exists in abundance in most areas, especially the Mount Desert region. Sailors in pre-Colonial times found the fish so abundant that they could be caught in nets or in stone-weighted baskets dropped into the water. An early account suggests the scope of this abundance. "Those living there call a large fish bacallao [the Portuguese name for cod], of which there are so many that they impede the ships in sailing. Bears go into the sea to fish and eat them" [de Gomara, 1552].

Despite the many types of fishing engaged in by peoples of European ancestry since the settlement of the New World, codfishing remains the base. Cod was the original abundant, catchable, transportable species, and fishing communities in present-day Maine have a direct continuity with codfishing communities of the sixteenth and seventeenth centuries. Lobsters and codfish are different resources with respect to fishing method and marketing. However, the fishing grounds established by the search for cod, and the fishing institutions that arose from competition and other exigencies in the old codfishing industry remain at the deepest level of lobsterfishing strategy and ideology. Both Ackerman and Sauer give descriptions of the early codfishermen that clarify this point:

"In New England's first years cod were a decisive factor in the development of a fishery for several reasons. Not only were they found everywhere, but cod ate practically anything and therefore readily took baited hooks, the best adapted early method of fishing. The cod's comparatively large size made it a remunerative fish for the hook-and-line fisherman, and its flesh is still considered the best adapted of all fish for drying and

salting, the only means of preserving that the early fishermen possessed. For many decades, therefore, cod led all New England fishes in annual catch landed" [Ackerman, 1941: 16].

"Salt cod formed a major item in a commerce that can be traced back to the twelfth century. It modified the food habits of southern Europe and later of slave plantations in the New World. It brought fishing fleets of a half-dozen European nations annually to North American waters throughout the sixteenth century...

The cod and its kindred, ling, haddock, and pollack, are the major game fish of the cold waters of the Northern Atlantic. As predators, they follow the small surface-feeding fish that seek out the plankton-rich tracts in seasonal movements. Feeding and especially spawning take place in the shallow coastal waters and on shoal banks out at sea. The cod fishing grounds extend from the southern side of the Bay of Biscay through the North and Norwegian seas, around the British Isles and Faeros to Iceland, but the greatest massing is off Newfoundland, Nova Scotia, and south to and beyond Cape Cod.

Cod were taken by baited hooks, at first by hand lines, then by long-lining, a series of hooks hanging from a long line supported by floats.... Abundant bait was necessary, usually the meat of shellfish or netted small fish. Dory-like small boats were and are an important adjunct to cod fishing.

The commercial advantages of cod are numerous. At the proper place and season they can be found in enormous numbers. They grow to good size, to 20 pounds and more in weight. The fish is easily split and cleaned and, being of lean flesh, can be dried without turning rancid. The split fish, freely exposed to the air and salted, may be kept indefinitely. Preserving methods differed, but

salt was generally used. Curing required none of the laborious steps--careful smoking, pickling, and packing in casks--that herring, mackerel, and other oily fish did. The preparation could be done on shipboard. If a landing place was available the split fish were hung by their tails on stakes (whence the northern term stockfish) until sufficiently dried, after which they were stacked like boards, more salt being added" [Sauer: 1968: 63-4].

We will deal now with the present role of codfishing in a lobsterfishing world, and return to the historical relation between lobsterfishing and codfishing later in this study.

An original abundance has been drastically affected by centuries of codfishing from Colonial times on. The depletion has been speeded by the concurrent dragging of nets through the same zones in pursuit of other species. In Graph #1 we see the recent continued decrease in cod stock. This is corroborated by fishermen's testimony; they find cod more difficult to catch now than in previous years at a rate that seems to increase year by year. Those species off which the cod feeds are also in lesser abundance, especially herring and mackerel. Thus, the diminished codfishing effort reflected in the graph is partly the effect of the more limited availability of codfish. This, however, is not the whole story. Codfish are more abundant than the fishing effort indicates. Recent large catches indicate there are still extremely good grounds just off Mount Desert, inside Mount Desert Rock and beyond the Duck Islands. These fertile underwater banks are no doubt visited by cod in active pursuit of feed, guaranteeing a resident population [Bigelow and Schroeder, 1953: 184-7]. Many fishermen have not gone after cod because: a- the price offered for cod has been low, b- the price offered for lobster has been high, and

c- much of the optimum codfishing time conflicts with the optimum lobsterfishing time. The relation between fishing effort and price can be seen clearly in the graph. Sometimes it appears the same year (as 1952, 1956, and 1966), and sometimes the following year (as 1958). These mixed correlations, as well as the notable lack of correspondence between price and catch in other years, would seem to be an indication of simultaneous variations in cod stock.

Despite depletion of stock from pollution, dragging, and past overfishing the codfishing effort has recently begun to increase sharply, at first separate of price, now more sharply in accordance with price (including the early figures from 1971 not on the graph). This testifies to the crowdedness of lobsterfishing grounds, especially during the moulting period, when lobsters are less active and cod are very active. If the price offered for cod continues to increase and activity continues to slacken in lobsterfishing grounds, fishermen should catch a greater percentage of the cod available. In fact, an increased codfishing effort in 1973 and 1974 has shown there to be sporadic intensities of fish in the region, but nothing like a supply that could withstand the full renewed interest. The domestic market for cod has gradually improved the price, and with the high cost of meat, cod went to thirty cents a pound at some points during the summer of 1973. During 1974 it dropped back to ten cents a pound, perhaps because the amount of cod purchased indirectly by the American Government through foreign aid had been sharply cut.

The dominance of lobsterfishing over codfishing has been checked to some degree since the base year of this study. It is unlikely that the fishing effort of 1948, or even 1952, can be duplicated, given the present stock, but it is clear that the overall decline, to a low point

in 1967, was not solely the consequence of a reduced population.

4- Haddockfishing

Haddock (*Melanogrammus aeglepinus*) are generally more abundant off the coasts of Massachusetts and Rhode Island than in the Gulf of Maine. However, the fairly substantial Maine stock has been virtually depleted, and haddockfishing remains economically viable only on a marginal basis [Atlantic State Marine Fisheries Commission, October, 1968: 4]. The decline in fish available is so dramatic that even as the price increases (with haddock in more demand in the cities), the catch decreases, indicating that the fish are not there to be exploited. The spring runs on which the fishermen have relied, do not approach in duration and abundance those of previous years.

Haddock are migratory fish, moving between Georges Banks and the Gulf of Maine, appearing in the Mount Desert region each spring and returning in the fall. There is not a heavy local stock, as with cod [Dow, personal conversation, 1971; Marine Resources of the Atlantic Coast, October, 1968]. This would make them susceptible to the heavy fishing by foreign draggers in the region of the banks, and one could attribute a good deal of the gradual depletion to this full-time offshore fishing effort. Haddock also live deeper than cod (25-60 fathoms, and rarely near the surface) [Bigelow and Schroeder, 1953: 200; Ackerman, 1941: 16]. They "are more selective than cod in the type of bottom they frequent, being rarely

caught over ledges, rocks, or kelp (where cod are so plentiful), or on the soft oozy mud to which hake resort. They are chiefly taken on broken ground, gravel, pebbles, clay, smooth hard sand, sticky sand of gritty consistency, and where there are broken shells; they are especially partial to the smooth areas between rocky patches" [Bigelow and Schroeder: 201].

Haddock are sensitive to brackish water, and this, combined with their other habits, makes them difficult to catch (fishermen consider them more challenging than other fish of the cod family and refer to haddock as "fussy"). The basic large stock, that endured until the 1940's, was a heritage of the lack of interest in haddock during a period when cod was overfished. Haddock salts poorly, grows to a smaller average size, and cannot be caught in commercial amounts without fairly sophisticated nets. The intense haddockfishing effort was a direct consequence of the birth of the fresh fish market, which has been growing at the expense of the salt fish market since 1870, culminating, in a sense, in the current high price given for a lobster which, though not a fish, is the king of the live fish market [Ackerman, 1941: 16; Jordan, 1965].

Haddock is more tempting to some than cod because of the overall higher value per pound on the fresh fish markets "if you can find them," the fishermen always add. Since 1952, the number of haddock caught in

Hancock County has decreased, sometimes gradually, sometimes more sharply. Mount Desert has never been a fervent haddockfishing area, so the decline of the fishery has not greatly affected the number of lobsterfishermen. In fact, since 1971, an intensified search for fish rather than lobsters has led to an increased interest in haddock as one component of a successful dragging operation. Codfishing by handlining still represents an alternative to lobsterfishing on a given day, but since the haddock fishermen are fishing exclusively by dragging nets (for halibut, hake, and cod as well) the equipment on their boats is completely converted, leaving no room for lobster gear.

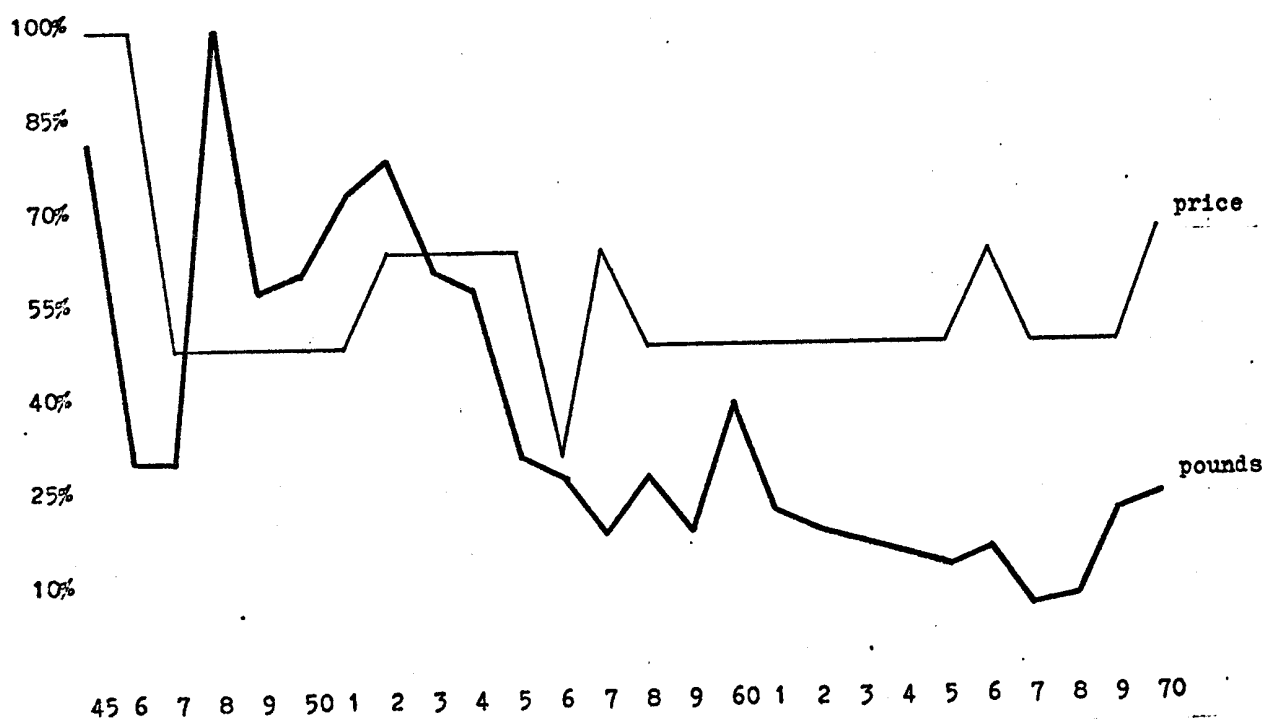
Haddock, like cod and lobster, has also been fished in response to demand [See Graph #2]. This is most dramatically clear in the period from 1946 to 1948. Since the price of haddock is generally high for a fish, men will pursue them actively if they are demonstrably there, even without a major increase in price, as in 1952. Though the price has gone up since 1968, the fishermen have been, for the most part, unable to take advantage by a larger catch. [The price of haddock has continued to rise since the period of the graph, though not as dramatically as that of cod, and is now around forty cents a pound].

Source Notes

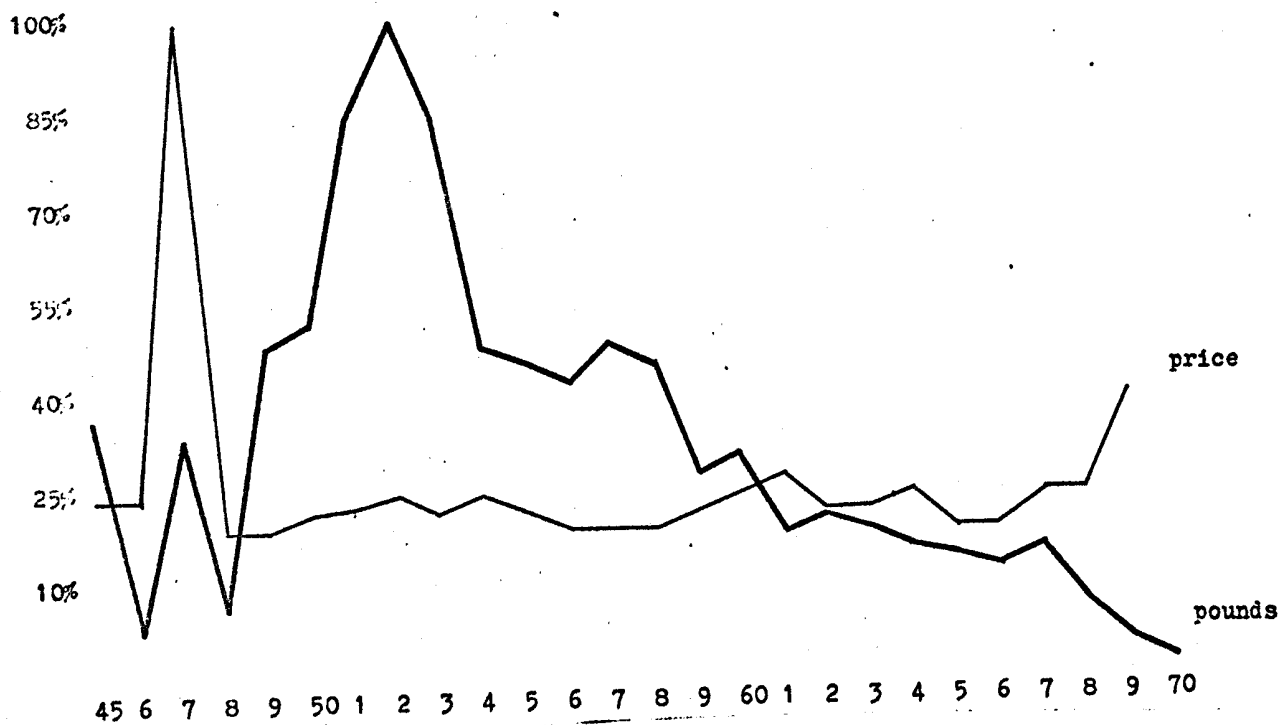
I have constructed the graphs in the following pages from information contained in the publication "Maine Landings," issued by the United States Department of the Interior, U.S. Fish and Wildlife Service, and Bureau of Commercial Fisheries, Washington, D.C. Each annual summary contains the catch per species per county and the total landed value of that catch. I have used the data for Hancock County alone to construct the graphs, mainly because this is the smallest chunk inclusive of Mount Desert that the information is available for, but also because Hancock County includes Deer Isle, Stonington, Winter Harbor, and Corea, all of which towns were part of the fieldwork study.

I obtained the percentage for each year by comparing the catch for that year with the largest catch (of that species) for the years 1945-1970. I obtained the price for each year by computing the price per pound paid to the fisherman on the basis of total landings and total value and then comparing the average price per pound for the year (rounded to the nearest cent) with the highest average price offered per pound for that species during the same period (1945-1970). Both of these high figures (that largest total landing and the highest average price) are given in the lefthand corner at the bottom of the page next to the species name because they are the base 100% figures against which the rest of the graph is constructed. In the case of cod, the largest landing for any one year was 900,000 pounds in 1943, and the highest average price offered for a pound of cod in any year between 1945 and 1970 was 6¢ in 1945 and 1946 (an unusually high price no doubt influenced by the shortage of other foods during the World War II period). Haddock, a fish generally sold to a fresh fish

(instead of a salted fish) market, had its highest price in 1947, a bit later, during a year of unusually high demand for fresh fish in the cities. The overall greater abundance of haddock at the beginning of this period is attested to by the high catch of 1,200,000 pounds in 1952.

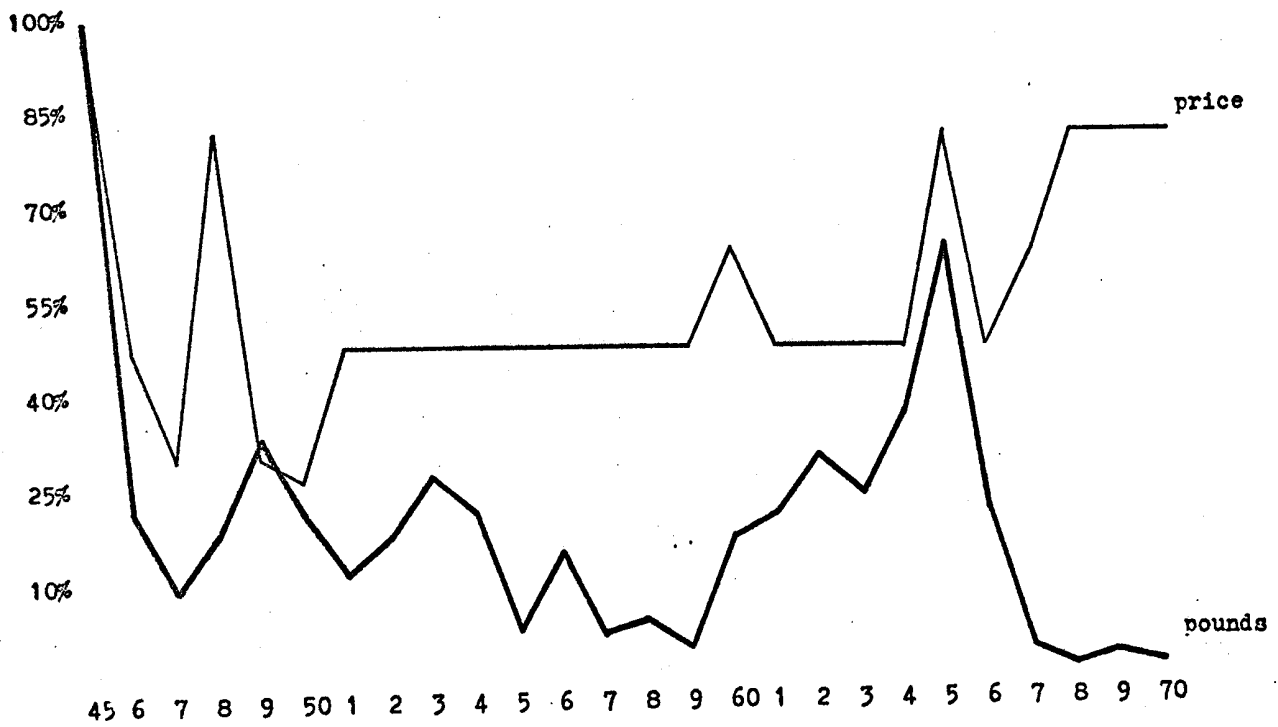


Graph #1: Codfish (900,000 pounds and 6¢ are highs for period under consideration)



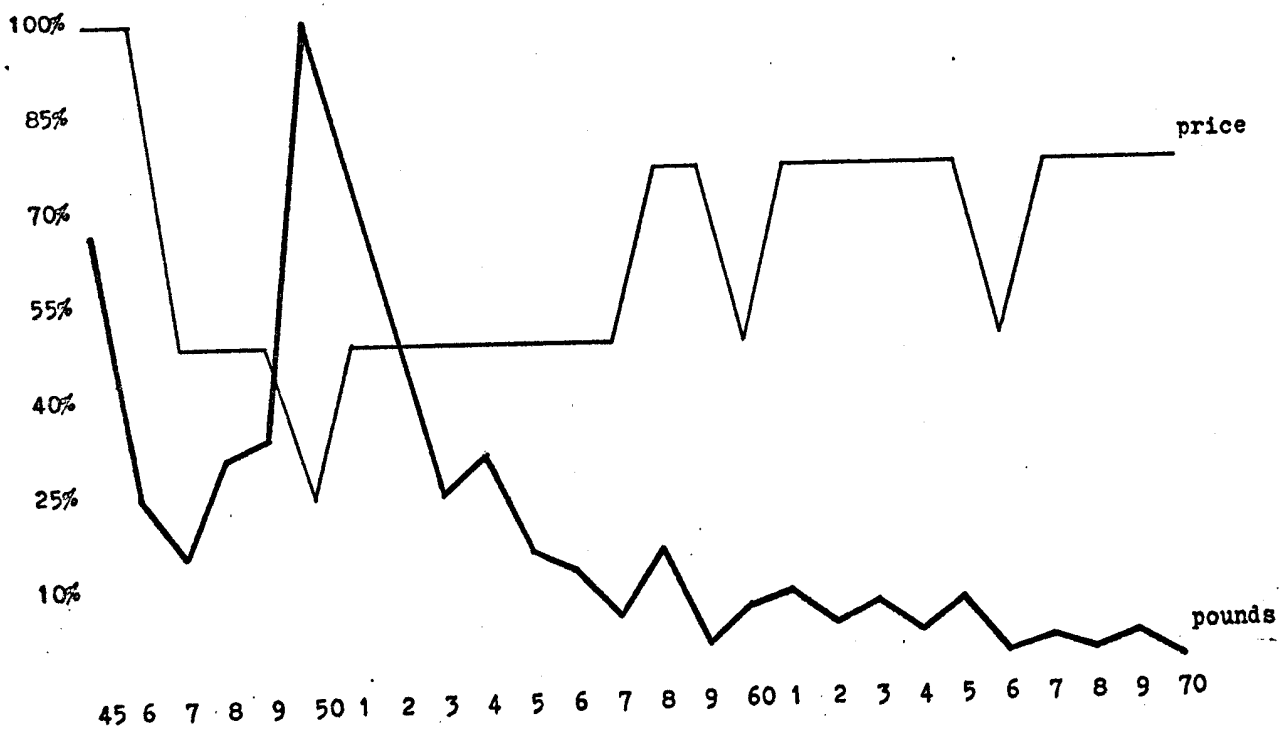
64

Graph #2: Haddock (1,200,000 pounds and 32¢ are highs for period under consideration)



65

Graph #3: Hake (2,800,000 pounds and 6¢ are highs for period under consideration)



Graph #4: Pollock (600,000 pounds and 4¢ are highs for period under consideration)

5- Hakefishing

There are several varieties of hake in the Gulf of Maine: squirrel hake (*Urophycis chuss*); white hake (*Urophycis tenuis*); and silver hake, or whiting (*Merluccius bilinearis*). The graph is based on the landings and price of white hake, which is the most common in the Mount Desert area. Since the traditional fishing grounds are cod grounds, the hake, which do not frequent the same zones as cod and haddock, have usually attracted less attention, though Mount Desert is an unusual case. According to Ackerman, "Hake appear typically on the edges of the shoals but off in the mud, where they can find the prawns they feed on and where few self-respecting cod and haddock ever would be caught." [1941: 20-21]. They are considered sluggish and inactive fish, but there are many reasons why fishermen in the Mount Desert region would pursue them, even at the expense of cod.

Frenchman's Bay is one center of hake activity in the North Atlantic; thus, the resource is there to be fished. Secondly, the hake spawn in toward the shore; Ackerman points out that: "Any mud bottom deeper than 20 fathoms is a potential summer haking ground" [*ibid*: 21]. This allows many people without expensive gear to fish for hake. The primary means of catching hake has been with hand-baited trawls, i.e., ropes with hooks attached to them and rolled in a tub, then freed into the water over a large area. In recent years, despite higher prices, hake has been harder to find, and there is some indication the area has been overfished. Under these conditions, the hake fishery has been a direct source of lobsterfishermen who abandoned hake fishing altogether when the setting of lobster traps appeared more profitable. Although the graph does not show it in equally dramatic fashion, descriptions of the old days (the 1940's and 1950's) by

relatively young fishermen indicate that these harbors were once buzzing with hake trawls. Many lobsterfishermen earned their first money baiting trawls, and learned the ocean banks while fishing for hake. Today a hake expedition is a novelty, and much nostalgia surrounds the preparations.

White hake and squirrel hake are similar enough that, for many years, the Department of Fisheries did not distinguish between them. Silver hake occupies a zone well to the south and is of no commercial importance in the Mount Desert area. Bigelow and Schroeder's discussion of it still gives some insight into the fluctuating demand for all hake in previous years:

"Silver hake are as sweet a fish as one could ask, if eaten fresh or if slack salted over night and used for breakfast next morning. But they soften so fast that there was no regular market demand for them of old, and most of those that were caught incidentally were thrown overboard. In fact, we can remember seeing them used locally for fertilizer. Thus only some 37,000 pounds were saved in Maine and Massachusetts combined, even as recently as 1895. But improved methods of freezing fish were followed by landings of about two million pounds by 1902; of between four and five million pounds in 1905, rising through the years of the first world war to more than 14 million pounds in 1919. The yearly landings then fell off, for some reason, to only about 6 million to 9 million pounds for the period 1924 to 1933, which was far less than the potential catch. But the landings then increased again, as frozen whiting became more popular in the Middle West to about 40 million pounds by 1940, with from 46 million to 74 million pounds during the 6-year period from 1942 to 1947" [1953: 181].

6- Fishing of Pollock and Other Minor Species

Unlike silver hake, pollock (*Pollachius virens*) is a winter-spawner, with a more extensive range to the north than the south. Pollock travel in large schools, and are considered more aggressive than cod. According to Bigelow and Schroeder, "'ravenous' is only mildly descriptive" [ibid.: 215]. Because of the pollocks' large schools, their aggressiveness, and also their proclivity to feed near the surface, most lobsterfishermen who are handling for cod would rather find them than cod despite the lower price per pound. It is felt that, if a man is willing to work continuously, he can catch two to four times as much pollock as cod, all other circumstances being equal.

The most noticeable features in Graph #4 are the sharp drop after 1951 (preceded by a sharp climb) and the alternating years of higher and lower catches, more or less since 1952. It is also evident that pollock shows less response to market price than any of the other fish being considered.

There is no obvious explanation for the pattern on the graph. The pollock run from inshore to offshore during April and May, and again, in greater intensity, in November and December. Fishing during these times is rewarding, but the period of highest pollock density is brief, and the fish are not pursued. If there were a major market for pollock, more attention might be paid to the runs, but consumers have been uninterested. Because pollock do not frequent the bottom like cod and haddock, they are also not part of the catch of draggers. Another fish of the cod family, cusk (*Brosmius brosme*), and a fish unrelated to cod but which frequents cod ground, the ocean catfish (*Anarhichas lupus*) appear sporadically in the Mount Desert catch along with fish specifically being dragged [Ackerman, 1941: 19]. These can be marketed on

a small scale, though the draggers would rather catch haddock. In 1974, ocean catfish began showing up more often because of the lack of other species in usual fishing areas and the extension of dragging; one fisherman, after dragging an unexpected eighty pounds of them, at six cents a pound, grumbled to the dealer that he would not be fishing again for a while. He did not refuse the money, but he considered it almost an insult, or at least an indictment of his haddockfishing strategy. By contrast, a fisherman hauls pollock because he chooses to when he discovers the fish; perhaps this confers his effort with more dignity. There is still no concerted effort to find pollock or a pollock-fishing strategy. Fishermen think of them as appearing by chance; they have a sense of where to find cod, and sometimes pollock is in those places too. If there is a large untapped stock, no one has located it, and the market in pollock is not strong enough to encourage fishermen to improve their strategies. The alternating years of higher and lower catches might indicate such a low stock density as to be dramatically affected even by a small fishing effort. On the other hand, the variation might be due to a number of biological factors, including variation in species preyed on by the pollock. The changes in the graph represent very few pounds of fish, and we should also keep in mind that these amounts would not even show up on the graphs for cod or haddock.

The high catch in 1951 is somewhat overshadowed by the fact that many species were caught in unusual abundance that year, indicating, among other things, good weather and a larger number of fishing days. Even in 1951, the catch locally was substantially lower than the catch of pollock to the west. In any case, I do not propose to solve the problem, and I include the example

of pollock to show a fishing effort responding to uncertain factors. The pollock catch is affected either by biological conditions or inefficient fishing strategy based on a relative lack of interest in the pollock as long as there are other species available.

D- The Place of Lobsterfishing in the General Fishing Strategy

This discussion of general fishing is included in a study of lobsterfishing primarily to place lobsterfishing strategy in perspective. While the following sections will deal almost exclusively with the manner of catching and selling lobsters, they are meaningful only in terms of a continuity of fishing efforts and strategies. As rigid as many aspects of lobsterfishing may seem, and as specific as they are to that one type of fishing, they no doubt arise from combinations of previous strategies. Their rigidities are those which already have been reinforced and institutionalized in the community of fishermen, and lobsterfishing is one dynamic arrangement of their possibilities. Lobsterfishing flows smoothly out of other types of fishing, as well as out of its own historical forms, and it leads just as smoothly into other types of fishing. All lobsterfishing strategy, however obsessively developed, should be seen in the original context of the decision to catch lobsters, in preference both to other types of fishing and nonfishing occupations.

Lobsterfishing is now the most dominant form of seawater exploitation on Mount Desert Island, explicitly fulfilling the three criteria. There is a definite market for lobster, expanding by year. There has been an abundance, and the fishing effort has only recently reached the stock potential. There is also a very profitable method

of lobsterfishing. If these factors should change, lobsterfishing might become as minor an industry as crabbing or might suffer a reduction in personnel similar to that which codfishing has had in the last 75 years.

In fact, no aspects of the lobsterfishing industry are stable. The stock is the most threatened, in that colder winters will reduce lobster density, annual catch, and number of personnel. Local institutions might also be threatened by more economical methods of catching lobsters, such as dragging on the continental slope and shelf; then local technology would be obsolete. The demand for lobster, which would appear to be the least threatened of the three, is itself dependent on the ability of the public to afford an expensive luxury foods an ability which might be compromised during economically unstable times. In fact, the greater interest in cod since 1971 appears to be an interest in inexpensive foods of high nutritive value, something the lobster has claim to on neither count. According to Treassey: "Since in eating lobsters about 60 per cent of the animal is discarded and approximately 80 per cent of the remainder is water, the total nutrient content of fresh lobster is only about 7 per cent" (1951).

If this trend should continue, some other fisheries might recover at the expense of lobsterfishing.

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V- The Costs and Technology of Lobsterfishing

A- General

Any examination of the fishing effort is meaningless without a corresponding analysis of the cost of that effort. Lobsterfishing itself does provide food or shelter; there must be a profit from the overall enterprise to pay for the fisherman's life needs, or the fishing, no matter how successful in specific instances, will be counterproductive (there are cases where men find it to their benefit to fish year after year at a loss, and these must be taken into account in terms of the larger social and economic strategy; at least for now, however, we will concentrate on the attempt to fish for a profit, which most of the men are engaged in).

Among naive observers there is the illusion that lobsterfishermen make a great deal of money (i.e., profit). Tourists, bait-truck-drivers, restaurant-owners, etc., have observed fishermen returning from a day's work and receiving several hundred dollars in cash, seemingly thereby the richer. Even aside from cost, it is important to realize that \$250 may be a day's fishing wages, but not an average day's wages. Although some fishermen choose to ignore the implications of this and take the money without close examination and consideration of subsequent expenses, most are very wary of judging success during a single fishing trip or a successful week.

Very early in the study I noted that several men collected three and four hundred dollars a day for the better part of a week. At the same time the weather was getting colder and other men were taking up their traps. About a week later I was in Stonington and asked Vance Gove about this divergence of strategies. He had taken up most of his traps before the good fishing had begun and did not seem to feel he had lost anything.

"There ain't no money in lobsterfishing in the winter-time," he said.

"Aren't some people fishing traps way out and making money?" I asked him.

"That's not saying what it's costing them," he replied.

"Doesn't four or five hundred pounds a day offset losses?"

"No. Not a day," he said with a smile. "Because they ain't been out for a week that I know of."

A period of unusually stormy weather, following the period of excellent fishing, had lasted a week at that point, but was to last several more weeks. With each day that passed, traps were lost at sea, and men, unable to go fishing, not only had their average catch drop rapidly but their profits reversed by the loss of gear.

B- Financing

1- Initial Outlay

It would be pertinent here to examine the basic costs of fishing and their relation to an overall strategy. The most notable feature of the initial investment is how high it is. The boat and boat-related items may run as much as \$9,000 if new, but can be gotten for as little as \$2,500 if second-hand. There are, however, very few sources of such second-hand equipment, especially considering the great demand. Traps and trap-related items would cost at least \$1,000 if purchased in adequate quantity, which, for Mount Desert would be about 100-150 for a new fisherman; more often these are not available and must be constructed from scratch at great cost in time as well as materials. There are also the additional costs of licensing, insurance, etc.

A person, quite evidently, cannot enter lobsterfishing unless he has a boat, traps, and accessories; these are the tools of the trade, and he must purchase them if he

has no source within his family. This in itself tends to limit lobsterfishing to certain classes of individuals. For instance, the son of a lobsterfisherman, or even a dragger, can make the necessary money by fishing with his father for a share of the profit during summer vacations from school, holidays and other free times. He might also inherit his father's older boat, some traps (as a partial payment for having helped build them, if his father is a lobsterfisherman), and invaluable knowledge about the fishing grounds. In such cases, the process begins when a boy is quite young; eleven year olds helping their fathers build traps are legitimately easing their entrance into fishing, and it is not uncommon on Mount Desert for a boy to help his father right up to the time he sets out on his own, even afterwards in some instances.

Let us depart from the issue of cost briefly here to discuss in detail the means by which most new fishermen "afford" being able to "rig" themselves for hauling lobsters.

2- Fathers, Sons, and Berths

Usually only one son of a fishing father goes into the fishing business himself. If this were not the case, the density of fishermen in local grounds would increase to an intolerable degree. We will discuss relative crowdedness of the fishing grounds in the section on fishermen's strategy vis a vis each other; however, for the present, we will assume that the desirability of fishing as an occupation keeps the grounds as full as lobster population and tolerance of the ongoing body of fishermen permit. Although flexibility in the situation may vary, there is always a finite number of new fishermen who can enter the grounds without very close to the number of fishermen

leaving the grounds. Fishermen use the word "berth" loosely to refer to a right to fish in the waters of a particular community. A fishing father has one berth to leave to a son or other relative.

On Mount Desert this practice of one fisherman per family per generation is scrupulously followed without any direct admission that it is the specific rule being enforced. In many cases the other son or sons become carpenters, contractors, boat-builders, etc. Often males move to an area where there are more jobs (insofar as the small number of openings exist in occupations other than fishing as well); thus, the population remains relatively stable. A few children go to college and become school teachers, either in Maine or elsewhere (five such cases on Mount Desert); and there is a large number of military men (especially in the Navy) from fishing families.

There is a noticeable tendency within families to stereotype children and encourage differences. Several fishermen have tried to call my attention to a studious son, or a clever boy, who they expect will be a school-teacher. Similarly, they seek out a child who is good with his hands, or works well with wood, and direct him away from fishing. Fishing and carpentry are considered opposites, though unlike fishing and dealing in fish they are not hostilely opposed in the sense of excluding siblings. "I'm no carpenter. I'm a fisherman," Wendell said on a recent trip in his boat when forced by circumstance to put a couple of nails in a cod rack to repair it. The statement was gratuitous in itself: he was apologizing for an ineptitude that was only imagined; still, he felt self-conscious. He was doing the work of a brother or paternal uncle.

The fieldwork period has not been long enough for me to observe the long-term creation and development of a "fishing son," though I have observed different cases at various stages. Furthermore, fishermen are now beginning to worry that lobsterfishing is not going to hold out as it has, and there is a new tendency to discourage all children from entering it. There are, however, some cases of well-developed apprenticeship, either where the boy is fishing with his father, or beginning in his father's old boat (seven that I have noted). The beginning of the process is difficult to recognize. Though it is clear from an informal demography that it is not always the oldest son that is chosen, it is not clear how the choice is made and how an older son is eliminated. There is a superstition that one son is born with an antipathy to the water, and fishermen look for such signs early. Seasickness, carsickness, distaste for fish all may be taken as omens.

For lack of a clear example of a family fingering a son for fishing at a young age, I will give a series of disconnected events from my notes on the family with which I worked most closely. Nothing is proven by it, but its complication suggests to me something of the intricacy in which such semi-conscious decisions are made. The important thing, after all, is that the number of berths is kept to a minimum, not that families have consistent fashions of doing so.

Recently Wendell surprised me by remarking that his younger son (Chandler, 16 months) was built like a fisherman, something I had never heard about the

older boy (Wayne, 2 1/2 years), who is also said not to favor the water. Chandler is named after Wendell's brother-in-law, Chandler Robbins, a contractor who lives very close to Wendell. Chandler Robbins, Jr., Wendell's nephew, had shown a great interest in fishing as a child and teenager, but at the time Chandler Seavey was born, he was hitchhiking across Europe and generally conceded to be a lost cause; Wendell's sister was quite upset at the loss, and it was a familiially-binding gesture on Wendell's part to name his son after her husband. Since then, Chandler, Jr. (called Brother) has returned, and after going fishing with Wendell he has now started on his own, with Wendell's help. These events do not tie together in any clear manner, but they are suggestive: one Chandler is a carpenter, another is a fisherman. It would seem farfetched, but I intuit that a lot of delight is taken in making "fishermen out of Chandlers."

In the few cases I know where more than one son went into fishing, the brothers either do different types of fishing (lobsterfishing and dragging), fish from the same boat (common in Stonington), or operate as full-timer and and part-timer. For instance, one of the Hoopers drags for cod, flounder, halibut, etc., and never goes lobster-fishing, while the other is exclusively a lobsterfisherman. One of another pair of brothers started out fishing, found he was allergic to the bait, and took a job in boat-building; his brother, who was working contentedly on the shore at the time, bought his equipment from him and went into fishing even though he was the one supposedly not able to go near the water; it is possible he was not able to go

near the water until there was a berth. In one family in Bernard two brothers fish alongside their grandfather and father, while a cousin, without a fishing father, attempts to share the same grounds. This is highly irregular, and three of the members of this family had to be subsidized in unusual and unorthodox manners. Nobody has been very happy about this "crowding," and the situation has recently escalated into open hostility. I will discuss it in the section on "strategy involving other fishermen." The two critical points here are that berths are few, and having the resources to go into lobsterfishing is part of the initiation. Although the fishermen do not intend it as such, it serves to reduce the amount of men fishing a fixed number of lobsters, and thus increases the catch per man.

3- Other Ways to Finance Lobster Fishing

a- General

For people who do not have access to lobsterfishing gear or money for it in this manner, there are other means of financing the initial investment. A person can begin fishing from a rowboat with an outboard motor, using very few traps at first, and build up his operation gradually with money from other work such as woodcutting, service in the National Park, roadwork, etc., in essence, putting in double labor for many years. This method was more common in the past. Presently, costs are too high for money to be made quickly enough, and the fishing grounds are too crowded for people to expect immediate substantial reward for such difficult preparation. In other areas, though, especially on the islands, this means of entering lobsterfishing is more common.

A more common variant (explaining two of the fishermen at the F. W. Sturlov wharf and several others elsewhere) is for people from traditional wood-cutting families to go into fishing with money they have saved from many winters of work

in the woods. Wood-cutters and fishermen are considered, on one level, as separate as carpenters and fishermen, and their entry has not occurred without tension. However, with lots to cut becoming scarce, especially on Mount Desert Island itself, and the men needing work, many of them feel that fishing is the only occupation that "will keep us in nature," as they put it.

Among the diverse ways men currently fishing have accumulated the initial investment include: direct family help, marrying into a fishing line, bank-financed ventures, and dealer-financed ventures.

b- The Woman's Role in Under-writing Men's Fishing

Many fishermen's wives work in the factories, especially during the winter, to help their husbands buy a boat and gear. The men concurrently build a supply of traps. During the period prior to the actual fishing, they live sparsely and try not to have children. During the summer the same women are more likely to work as maids in tourist homes, hotels, cabins, etc. The overall social and economic circumstance allows people to live more inexpensively than in most areas of the country, and the general transitory character of businesses and jobs result in there being no social stigma attached to canning, maid service, or any such job, because they are all seen as incidental to fishing. Women from a community sign up in groups at either the factory or the cabins, and the ensuing job becomes a social occasion. Their choice of working-place is often more determined by who else is there than the pay. The wives and daughters of prominent fishermen, newcomers, town officials--married and unmarried women of all different ages--work together; in a spirit of competition, comraderie, and confidence in their own abilities, they participate in the fairly incidental task of getting fish to the market. Not all women who work in the factories need the salary to

the same degree, and some would appear not to require it at all; however, there is a contagious element to the work, and though I would not de-emphasize the aspect of anti-male chauvinism and hostility toward the authority of the factory and the meniality of the job, these are institutionally translated into avidity for the work. I have observed lines of women cutting heads and tails from sardines in an atmosphere of apparent hostile banter and general pervasive irritation. However, because of the informality, women can leave their places on the line to engage with other women. Since chatting as such is not allowed, the interaction is often physical and ritual in character, with shoving, cursing, back-slapping, etc. As on a ball-team, the antagonism is directed toward a common goal.

In some areas, not Mount Desert, this is formalized, and there is a competition for cutting and packing sardines. According to a state factory spokesman, the record is 67 cans in eight minutes, set in 1970 by Mrs. Rita Willey of Eastport, Maine. The financial reward is limited to the winner (Mrs. Willey appeared on three national television shows and was filmed for educational television), but the general spirit of competition (fostered, of course, by the packing companies) is reinforced and dignified. Even women who are not record-setters are paid by the number of cans they pack; furthermore, the relation between sport and work, so blatant already in the case of the men, can carry over to fish-packing, canning, etc., and make a fairly mechanical job more bearable.

In at least three cases, potential fishermen have married wealthy women from outside the area who maintain seasonal or permanent residence on one of the islands. Because of the large investment in vacation property in the Mount Desert region, it is not surprising that many unmarried women inherit homes and gradually become part of

the community. If a fisherman marries a woman with enough money to underwrite a fishing operation, he has, in a sense, transcended the traditional economic and social barriers. He is, of course, the butt of jokes, but this is natural; there is tension caused by any violation of the honored sequence, and where a man is suddenly transformed into a full-gearred fisherman, the surprise does not wane quickly, and the uneasiness caused by the violation is handled by making it part of a different type of discourse.

Occasionally, if a family has no males wishing to enter fishing, a son-in-law may inherit a full set of gear. This can work at a generation's remove also; the husband may not want to go into fishing, but the option to inherit his uncle's gear remains for the son. Thus, it is possible for a man not from a fishing line and with no other means of supporting a fishing venture to marry the daughter of a fisherman or marry into a fishing family and thus be underwritten in his start. In fact, on Mount Desert there is occasional joking about the desirability of the women on Matinicus, an island with extremely good lobsterfishing territory. Since the berths there are limited and strictly defended, at least by reputation, the joke obviously refers to the desirability of coming into good grounds and lobsterfishing gear (in some cases) without the usual hard work and difficulties.

I find 5 out of 75 fishermen selling in Southwest Harbor or Bass Harbor to have inherited gear in this manner from the female line. I know of 4 other cases among fishermen elsewhere, and in addition to these there are many ambiguous situations in which the gear may go away for a generation and then return, or in which a man may marry a cousin and take her father's gear while his brother takes *his* father's gear.

C- The Bank and Lobster Dealer

If all else fails, there are the bank and the lobster-dealer. These options do not apply solely to people from non-fishing families. Coming from a fishing family does not insure that there will be an older boat, extra gear, or if there are, that they will be available. Since loans and financial backing are secret information, I will estimate that, of the 75 fishermen no fewer than 10, and probably closer to 20 if one takes into account partial backing, have used the bank to underwrite their fishing venture. I know directly of 11 fishermen who have had their operation underwritten by one dealer in Bernard; the number is probably two to three times that in both harbors (the Bernard figure includes the three from one family mentioned earlier).

Money from a bank and money from a dealer are different types of money, and there are important issues of strategy involved in the choice. The key is that the reference for the loan may be the same person in either case: the dealer. Even as he must judge whether a man is worth his own investment, he is usually the one queried by the bank for a rating of a fisherman's capacity and willingness to work. Of course, the dealer tends to be more careful with his own money than someone else's, and many potential fishermen may go to the bank because they fear no dealer will underwrite them. There is little worry that their reputation will precede them because it is often nothing definite, little more than a sense around the wharves that they are not quite as good as other fishermen (in some cases a prejudiced and self-interested evaluation), perhaps a feeling they might get their gear cut if they tried to fish in the territory. The bank has the problem of choosing which fishermen to subsidize and which to turn down, always with the likelihood that they were turned down by a dealer, or chose the bank because they would have been. One banker on Mount Desert, in a guide on

lending money to lobsterfishermen starting out, says the following:

"The fisherman should be honest, investigation of past credit history should reveal a good payment record and further investigation should reveal a willingness to work hard. A good source of this information in many cases is the lobster dealer, the person to whom the lobsterman sells his lobsters. The dealers are, in most cases, shrewd judges of people and can generally give a good opinion of the fisherman's character. However, in true New England fashion, the dealer may not give direct answers to questions concerning character and ability, and the investigator must interpret the dealer's remarks carefully." [Reeves, 1969: 34].

It should be added that the dealer may even have a stake in misrepresenting the evidence, for if the bank subsidizes a man who had no means of fishing previously, and the man fishes for *him*, he gets additional lobsters at no cost. The bank, on the other hand, realizes that the dealers can afford to subsidize only a limited number of fishermen, and many potentially good fishermen are turned away because the dealers tend to subsidize second sons and cousins before those from nonfishing families.

Thus, a fisherman who has no other way to underwrite his lobsterfishing venture, including a dealer, can use the bank as a source of funds through a loan. He may also choose the bank if he does not want to be tied down to a particular dealer. Once a fisherman has his operation underwritten by a bank, however, he must pay according to the bank's regular terms, which are often quarterly, and at least annual. This makes it hard for him to ride out a bad season or a bad year. The dealer will take his investment back by paying a nickel or dime less on every pound of lobster he buys from the fisherman; this means he is willing to receive his largest payments in times of

good fishing and correspondingly small payments in times of poor fishing. Often a dealer will wait a great deal of time to get paid back (much longer than the bank) because in the meantime he has another skillful fisherman bringing him lobsters in times of great demand and high prices. He is even willing to make compromises if the fisherman needs his full amount per lobster; he is willing to extend further credit. The same thing is true with the bank, but it does not function the same way. As Reeves puts it:

"The financing institution would hesitate to repossess the boat since this would take away the earning capacity of the fisherman and they would also have a boat as collateral that had depreciated considerably" [Reeves, 1969: 39].

Despite possible hesitation, the bank will usually repossess boats before dealers; they have the resources to absorb such a loss. Furthermore, the bank is in no position to keep an indebted fisherman going with bait, lobster plugs, fuel, etc. If he wanted these things from the bank he would have to take out a further loan and then buy them from the dealer. It is much simpler to receive them directly, and there is always the possibility that if the fisherman goes out on a bad day when the dealer needs lobsters to meet his commitments, he might forget a fuel bill or the cost of the bait. After all, the dealer is himself trying to meet the demands of truckers and, in the summer, restaurants; and he gains more than just the nickel or dime per pound, especially if extra lobsters help him keep a steady customer. He is willing to overlook certain things a bank is not in a position to. He can be calculatingly generous, a possibility he always considers. The fishermen may continue to suggest it to him, pointing up how they have helped him out in the past. The flexibility is based on interpretation of actual fishing events. The bank is simply neutral, and in general, the fisherman detest bankers as outsiders

and avoid dealing with them if they can help it, though not if it is a disadvantage to them. Despite great hardship in doing so, many fishermen, including Wendell, pay off their home mortgages as fast as they can in the uneasiness of a questionable party owning something essential to their welfare. The competitive nature of fishing does not give them much confidence about benevolence and leads toward suspicion which may be justified in the theoretical sense but does not apply practically in their own case.

The strategic advantage of fishermen who are subsidized by a bank is that they are independents, entrepreneurs; they can switch dealers, car their lobsters without the dealer having a say, fish where they want, etc. The following dialogue with Wendell's dealer Jasper Merchant illustrates some of these points:

"Does Marlon always sell here?" I asked, Marlon's boat having been paid for by a bank loan.

"As far as I know he does. But he can go anywhere he pleases, and I'm sure he'll tell you that if you ask him."

"What about the men who don't own their own boats?"

"I should hope they would sell here."

"If they don't?"

"If they don't! Well, I'd think they'd find themselves walking on water."

D- The Costs

1- The Boat

The most expensive item is the boat, the engineless hull costing in the neighborhood of \$6,000 to \$7,000, or more. Fishermen who want a boat built generally contract one of the boat-builders on Mount Desert. Most boat-builders can handle only two boats a year, so if a man wants a new boat built to specifications, he must make his decision a year or two in advance. Often a fisherman will start in an older or less expensive (non-custom-made) boat

and pay for a new boat with the profits from fishing.

One might reasonably ask how important a custom-made boat is and whether fishermen could not use something more standard. No doubt they could, but lobsterfishing is an active competition in which men are working full-time against each other for a limited amount of resources. Lobsterboats are built for optimum hauling conditions in every sense: for space to haul, balance while hauling, speed in hauling, room for bait and catch, etc. Even in 1941, before many of the extensions of lobster-zones, Ackerman writes: "Modern lobster boats are designed for the maximum speed that they can attain. A lobsterman does not have to work far from shore, but within that zone he often has to cover a great deal of distance between fishing spots. Since he also does not have to haul a very heavy load, he likes a trim boat and as strong an engine as he can pay for" [76]. Some part-time fishermen go in rowboats powered by an outboard motor. They catch a small number of lobsters, but they must operate under awkward hauling and storing conditions and on severely limited fishing grounds.

Not only are lobsterboats built along a general pattern for effective fishing of lobsters, but they differ by region and by fisherman. It is difficult to say whether the boat-building traditions in different regions have any functional basis; the fishermen feel they do. A boat built in the Beals Island area has entirely different measurements and ratios (such as length to width) within the general lobsterboat pattern than a boat built in Southwest Harbor (where there is also a lot of boat-building). Richard Lunt of Indiana University is doing his thesis on the different boat-building traditions as folklore themes in material culture, and his initial work would seem to indicate that there is more than function involved in the style of a particular boat [Lunt, 1971]. Fishermen in

the Mount Desert area often refer to visiting ships "from away" as unsafe or inefficient. I have recorded statements like: "She's all coach and shoulders," "A man'd fall overboard in no time from her," and "She's a high-sided bitch." It would probably not be unreasonable to assume that the local styles have advantages in their particular areas, one of them being familiarity. Beals Island boats and Southwest Harbor boats differ greatly (within the limits of the general style), and the Beals Island area is one of open unprotected seas, the Southwest Harbor (Mount Desert) area one of fishing in the lees of islands.

The additional advantage of a custom-made boat is that it is shaped to the specifications of the individual lobsterman, to take into account his size, weight, and idiosyncracies. According to Richard Lunt: "The boat is built for the lobsterman. It fits him like a suit of clothing" (personal communication). Aside from the ease of fishing from a custom-made boat, there is the unquestionable matter of status. A real fisherman is one who fishes in his own boat, and in times of extensive trap-cutting and the driving of some from berths, it is far safer to be accepted as a full member of the fishing community.

The issue of status goes beyond the matter of whether a boat is custom-made. The average lobster boat is thirty-two to thirty-six feet long, made of spruce or oak, with a sheltered compartment containing the engine, a small wood stove, limited toilet facilities, and some storage room. There is little else in the way of luxuries. Several of the fishermen have decided recently to switch to the newer fiberglass boats, at an approximate total expense of \$10,000. Ostensibly these boats will last longer, but there is also status in owning one. People talk about fiberglass boats. One fisherman is having a boat built with bathroom and kitchen, but he is also in great danger of ostracism for other reasons. The boat ostensibly will

insure his position as a major fisherman and that is justification for the expense. Since, however, the trouble concerns whether he made his money honestly, it is uncertain whether the boat will actually establish his status or whether it will make him *more* of an outsider. On Swans Island, Carl Anderson derived a certain amount of prestige from the fact that he was the first one on the island to have a fiberglass boat. Since he is an officer (currently vice-president) in the Maine Lobsterman's Association, with a strong point of view on future lobsterfishing laws, the boat gives him needed influence in his own area. The major difference between him and the fisherman previously discussed is that he is a highly regarded member of the community anyway, and the boat is seen as material reward for honest hard fishing.

2- The Engine

Lobsterboats use either gasoline or diesel engines, and there is some controversy over which is more appropriate to lobster fishing. Men in doubt about their engines have sometimes engaged in pulling contests, with their boats tied back to back, to see who would end up pulling the other one. Each engine has its advocates; in fact, each fisherman has an individual solution to the problem, no two engines being identical in performance. It is clearly a matter of selective strategy rather than that one type of engine is absolutely better than the other.

The gasoline engine is more common; it is cheaper by a wide margin and easier to get serviced. The average cost of a gasoline engine is \$1,500, whereas a diesel engine costs \$5,000. A fisherman with a diesel may also lose days fishing if he has engine problems because there are very few good diesel mechanics in the Mount Desert area. In cases of real damage, a fisherman may have to send to Portland, 150 miles away, to get someone to fix his engine. The advantages are these: diesel engines burn a cheaper

fuel (Harvey Rich changed from a gasoline engine, which was costing him \$18 a day, to a diesel engine, which cost him only \$5 a day to run, and saved \$800 in a year); they are heavier engines, "better workhorses," and can be run harder and for longer periods of time. In a certain sense, it comes down to the following decision: the men who push the hardest to haul a large number of traps in a day, who like to drag when no other type of fishing is possible (especially for shrimp) prefer diesel engines on their boats. The greater initial cost is recouped in the harder fishing. If a man is not able or willing to do this type of hard fishing (which is not always strategically wise, as we shall see), then it is unlikely that a diesel engine will pay for itself. Wendell, who gauges very carefully when traps need to be hauled, and goes handlining and trawling rather than dragging, prefers a gasoline engine, and he rarely has need to run it even at full power.

3- Upkeep

The important thing is to service and care for either engine, as well as all the equipment on the boat. Not only can fishing days be lost at critical times by non-functioning equipment, but real danger is incurred from equipment failures, and in the case of a serious failure, the whole boat may be lost. The men are generally impeccable in cleaning their boats, keeping them painted, getting every scrap of fish or dirt off them. In some ways, it seems needless, as they are often going out again the next day; but this activity serves at least two important purposes. First of all, it insures that they keep in close touch with their equipment and are aware of every aspect of it; they never even risk "letting a boat go." The sense is: that to risk indolence on superficial things is almost certainly to invite disaster on larger things. Secondly, the man with the well-kept-up boat is considered an "honest" fisherman. He spends time working on his equipment

instead of catching every last lobster; he is not trying to "steal other people's fishing." I've heard fishermen comment on how so-and-so "keeps his gear in such bad shape he's surely going to end up out of fishing before long." Several of these people were getting their traps cut by other fishermen a year later, indicating the commenters knew quite well what they were talking about, even if the dirt was not a direct precondition of the cut traps.

There is one other factor in keeping a boat in spotless condition on a daily basis: it means that the next day's fishing will be a fresh start in every sense. Given the manner in which they gamble against where the lobsters (or cod) might be, this sense of a "fresh throw of the dice," as it were, is much prized, and a fisherman avoids going in a dirty boat as bad luck (even if the previous day's fishing was good).

4- Machinery

Just about all the fishing boats on Mount Desert are equipped with a radio-telephone, fathometer, and a hydraulic pot-hauler. The former (costing \$300 to \$500) is an important safety item, for it enables the fisherman to get help if he runs into trouble. There are also innumerable ways in which it can be used strategically. If a fisherman listens in on other fishermen's conversations, he can pick up valuable information about fishing spots, weather, and lobster prices in other areas. Talking needlessly about good fishing spots is as self-defeating as it appears, yet some fishermen cannot resist, and unintentionally let such information out, perhaps by suddenly interrupting a conversation to do some fishing. Some fishermen ignore the radio; others listen avidly for clues, and whether their persistence succeeds or not, the information they think they pick up is a very important aspect of their strategy. The telephone part may be used either to bluff or threaten.

a man who another man thinks is too close (this will be discussed in another section).

The fathometer (\$200) is essential in locating shoal water where lobsters, cod, pollock, and other species might be. Only the older fishermen know the area well enough to navigate without it, and even they use it for holding precise positions on a particular shoal. The pot-hauler costs close to \$1,000, though some men try to construct them themselves from automobile and truck parts to save some of the money. Without the pot-hauler the men would have to haul fewer traps, more slowly, and in a more limited range (many of the distant traps are much too deep to haul in any number by hand, and they are often two or more on a line). The pot-hauler also makes it possible for older men and men with disabilities, like Fred Beal, who is lame from a war injury, to continue fishing when they would be unable to do so otherwise.

5- Traps

The parlor-style lobster trap (Figure #3) is constructed by the fisherman himself from oak or spruce laths and nylon. Occasionally a fisherman will buy all or some of his traps. This is much more expensive, and infallibly leads to his being considered a second-rate fisherman. Most of the traps are built during the winter, either at home or in the lobster shed at the wharf; they are built during periods when it is impossible to go fishing (such as a blowy or foggy day). Fishermen lose 10% to 50% of their total supply of traps each year, some from storms at sea, perhaps a few from trap-cutting and theft, and others from simple aging and wear at sea.

A continuous replacement of traps is necessary; the dealer is often responsible for placing the fishermen's orders with a company manufacturing laths and following up on the orders, and also for having a plentiful supply of nylon on hand. The fisherman cannot take such time away

from fishing. These past years the competition for laths has forced back orders and waiting periods, during which time men could not construct any new traps. This is distinctly undesirable, for one of the ways to make a fishing venture work is to put one's own labor into replenishing stock and building new traps on bad days. It takes from two and a half to three hours to construct a trap, and in the Mount Desert region a steady "gang" of 150 to 700, depending on the fisherman, is necessary. Each new trap added, or old trap replaced, brings additional lobsters, and since there is much free time, a fisherman is able to continue to build up his stock of traps to the largest number he can handle. This is an essential element of lobsterfishing strategy.

Even though handmade, traps are still not cheap. The wood, nails, and nylon, etc., will cost between \$5.00 and \$6.00. Then there is a toggle and buoy, which cost around 80¢; they must be rigged and the buoy must be painted. The rope used to rig the trap (join toggle and buoy to the trap itself) costs around \$2 to \$3 in the summer when the fishermen are in close, and can go as high as \$10 in the winter when the fishermen move from depths of 10 to 30 fathoms to depths of 60 to 100 fathoms. In the deeper water more than double the depth fished is needed in warp to counter the effect of winds and tides. To lose even a small number of traps to either the elements or the cutting of another fisherman can be quite an expense to absorb, both in money and time.

6- Other Expenses

There are other expenses, appreciable over time, the most significant of which is bait. Only a few fishing find it to their advantage to fish for their own bait and waste lobsterfishing time on it (though on Swans Island a weir supplies a few men). Cod, hake, halibut heads, sculpins, and flounders are all attractive to the lobster

and available to the fisherman, but herring scraps and red-fish racks (the skeletons of the filleted fish) are the only baits available commercially. These are scraps from the fish factories which independent bait-truckers pay for and then distribute to the various wharves. The lobster dealer keeps track of how much bait each man needs, salts it, and stores it for him, and the fishermen usually get it from him at cost. Herring bait sells for \$2.00 a bushel and a bushel of ocean perch racks costs about \$2.40 (racks are what remain after the filleting of the fish). Some fishermen prefer one or the other, but it is most important to have some bait on hand and not lose fishing time, so the dealer contracts for whatever is available. Fishermen can choose to use more or less bait, and this is part of the strategy of weighing cost against catch. The average is about a bushel and a half per hundred traps. Bait also must be changed every haul, whether any lobsters have been caught or not, so the bait is a continuous expense, not always balanced by lobster catch.

Lobster plugs (used for plugging the claws) cost about \$.10 per hundred, and some dealers give them for free. There is also the cost of fuel, paint, clothing, insurance, license, etc. Even as the price of lobsters is going up, drawing more people into the business, the cost of all these other items is going up too, laths by almost 100% in the last ten years. During the winter of 1969-70, Jasper Merchant posted a notice that read: "Due to increased cost, our entire line of fishing products has been raised as follows --- PETIT PAINT," and one by one the fishermen gave long speeches, comparing the old prices with the new ones, claiming the expense was forcing them out of fishing.

7- Summary of Costs

The following table for the year 1968 was compiled by Reeves [1969: 31], and it shows roughly what the cost of lobsterfishing is per year.

Boat (yearly depreciation)	\$ 400.00
Traps and line (20% replacement-\$10/trap)	600.00
Engine (\$1200 net cost*) depreciation	240.00
Bait (@ \$2.00/bu - 675 bu/year)	1,350.00
Gasoline (estimate \$4.00/trip x 150 days)	600.00
Fathometer (\$200.00 net cost) depreciation	40.00
Radio Telephone (\$400.00 net cost) depre.	80.00
Pot Hauler (\$800.00 net cost) depreciation	160.00
Miscellaneous (insurance, license, etc.)	<u>500.00</u>
Total	\$3,970.00

*Net cost = cost - salvage value.

We can compare these fishing costs with the gross receipts of the fishermen. Using my own estimations (based on recording daily payments at the wharves) and those of Dow, Harriman, Pontecorvo, and Storer [1961: 32-36], it is clear that few fishermen, even full-time fishermen, have gross receipts of \$7,000 or more, and many of those who do are investing more money in their boat, bait, traps, gasoline, etc., than the above table shows. Most of the fishermen make less than \$5,000 from the sale of lobsters and other catch, and many make under \$4,000. Since we are examining only the strategic issues of cost assumption and cost reduction, this is not the place to discuss how fishermen manage to fish at a loss. There are compensating factors: other jobs, extended family living together and sharing, access to free food (deer, clams, scallops, fish, etc.), credit from markets and/or dealer (often extending over many years), etc. It is also important to realize that Dow, Harriman, Pontecorvo, and Storer's tables are based on income tax data and my own estimates are based on averages, which themselves are based on visible money exchange. Some fishermen sell lobsters on the side, even illegal size lobsters. There are also ways of working an exchange with the dealer so that not all the lobsters get entered, and tax is not paid on all the receipts. The actual gain from fishing effort cannot be measured in terms of monetary profit.

VI- Costs, Rewards, and Strategies

A- The Opposing Strategies (General)

The base of all strategy concerning "cost" is that increasingly intensive fishing efforts are also increasingly expensive in every respect: loss of gear, wear on equipment, and toll on self. Therefore, intense fishing effort is not always productive, and beyond a certain point may be counterproductive. Since there are always some men who fish at a loss (at least some of the time), we might ask what the compensating factors are. They include: prestige, the chance to learn new grounds and gather new fishing information, the increased chance of a large and unexpected catch, and the ready cash on hand that a continuous fishing effort gives despite the depreciation of gear. These finally become not separate factors but a way of life (or strategy) for some fishermen. They expect success from working harder. If more traps are lost, then they intend to build back faster. If extra warp and fuel are needed, they hope to compensate for it by the increased price paid for lobsters out of season. If they run into a bad spell, they hope for a break from the dealer in credit because, after all, they are waging his battle for him as well, bringing him lobsters at a time when they are scarce.

If there are two basic strategies, one slow and canny and the other rapid and uniform, then those who fish most often and without regard for real chances of profit on a given run fall into the latter category and produce both the highest lobster-catch totals and the highest costs. Their choice is made beforehand rather than reconsidered each time, and a certain implicit role derives from this. Some of the satisfaction from fishing far out to sea at stormy times of year is the image of self as a warrior against nature. Said one fisherman:

"The cold weather is the time you really come face to face with Mother Nature. You find out what things are all about. You might have some illusions about the world if you stayed home all the time or only went fishing during the summer, but if you go out during the winter you see that the Devil is at work. Some people think nature is pretty and all good to man, but she's just as much his enemy and an enemy of God."

Since the strategy is reaffirmed by such beliefs, and no one questions them, the men fish as hard as they can, counting on a moral as well as financial reward. Winter is the "most moral" time to fish. Furthermore, there are profits to be made in bad weather even with canny and changing strategy, and a fisherman certainly needs the sense of having gone winter fishing once or twice for his self-image and his image in the community. It is always dangerous to run the risk of being thought "not a real fisherman."

Those fishermen who are working on a different strategic premise point out that "It's crazy to fish if you're losing money," and this enables them to justify their own inactivity (which *does* include construction of traps, work on gear, etc.). Lobsterfishing, more than any other type of fishing done in this region, offers a seasonal profit so large that a man can afford to be idle much of the winter; this is further justified by the fact that winter lobsterfishing is harder on gear (in terms of actual cash outlay) than any other kind of fishing.

The option framework of mixed and uniform strategies is now changing subtly because a new type of fishing, with different risks and rewards, namely shrimping, has become a winter possibility. Although winter shrimping has thus far entailed loss of investment for most who have tried it,

there remains, even for them, a relatively good chance of ultimately making a profit. The cost of rigging is high the first time, but after that the loss of gear is not as dramatic as in winter lobsterfishing and the windfall aspect is much more acute (men have had single days that more than paid for the whole effort). Thus, many of the warrior-type fishermen have switched from winter lobsterfishing to winter shrimping, and they have been joined by several other fishermen who have sat out recent winters. This has reduced the number of winter fishermen and made the competition for winter fishing grounds less severe among those who continue lobsterfishing.

B- Risks of Fishing and Their Relation to Strategy

1- Gambles in Equipment and Fishing Means

Loss of and damage to equipment is the most significant area in which the fisherman, gambling with the marine environment, stands to suffer an overwhelming setback: at one extreme, his life, or his boat, which would put an end to his operation; at the other extreme a continuous wearing down of all his equipment, forcing him to pay a price for every "chance," even the most conservative, (as with any gambling). There is perhaps, hypothetically, a fishing method less costly to gear than any other, but as Anatole Rapoport points out, you can play a game so conservatively as to win only "after the sun has become a ball of ashes [1960: 118];" that is, when the game is already over. The fisherman needs to show a liveable margin a good deal before this, and if his profit is too small, then he will "up" his gamble.

The time of the "highest gamble" is, usually, the winter. Even assuming no loss of equipment from storms (an unreasonable assumption), there is a steady drain from winter fishing, in wear on gear, in expense of extra rope, and in extra gasoline to reach the further traps. There

is also toll on self.

The most immediate effect that winter fishing has is in reduction of trap life; the effect is fourfold: 1- the traps are not taken up for the winter to be drained, dried, and scraped; 2- the traps are fished in deeper water where different types of wearing processes, especially borer damage, are more intense; 3- the buoys which are needed to locate the traps come apart in rougher water, especially the styrofoam ones (which are used because wood gets waterlogged); and 4- a related consequence is that the fisherman has less time to build new traps and rebuild or increase his stock. Added to any large loss of traps from storms, these four effects may result in a dangerous diminishment of trap stock, and with spring fishing starting up, no time to rebuild without losing as much as was gained by winter fishing.

Most fishermen believe that damage to traps from little boring animals and what they call "the black slime" can be retarded by a winter drain. The traps are dried, and the incrustations are scraped off. In some cases the traps are treated with tar or pole drip (a creosote compound), which retards growth the following year. There is also the activity of *Xylophaga dorsalis*, a small deep-water mollusk that burrows its way into the trap and grows rapidly by rasping away the wood with the outer part of its shell and enlarging its area. "It was generally agreed among all of them [the fishermen in a survey on trap damage] that they had more [borer damage] when their traps were set on mud or clay bottom and that, during the winter when they were fishing in water over one hundred and twenty feet in depth, they had had their greatest loss" [Dow and Baird, Jr.: 1953: 3].

Most fishermen content that if the traps are left in the water all year, "the scum gets right into the laths, and the trap is gone in no time," as one put it. Of

course, if the traps are taken up during the winter, then they cannot be catching lobsters, as other fishermen have argued equally eloquently. It is always these two factors of cost and catch that the fishermen weigh against each other in making their choice.

2- Extra Costs and Advantages of Winter Fishing

During the winter deeper waters are the only areas of lobster activity, and must be fished extensively if there is to be any benefit from the trap set at all. We have discussed the disadvantages of setting traps in deep water: 50 to 100 fathoms or more. For one, more warp is needed. For two, there is a greater risk of storm damage and loss. Thirdly, the fisherman is not as familiar with the area in some cases and has difficulty in locating his traps. Overall strategy is probably more influential than precise assessment of likelihood of specific potential loss.

Some fishermen see the winter as a time to recuperate and take stock; they review their trap collection, salvage what can be salvaged, and decide how many new traps they should build. They often do other types of work that do not interfere with work on their traps; the full-time fisherman will go scalloping, handlining, or shrimping; others may cut wood, drive a truck, work on the roads, etc. The extremes are not as common as the degrees of middle ground. A fisherman can fish any number of traps he chooses during the winter, and with whatever frequency he wants. Those who fish a large number of traps usually bring in a good supply of lobsters, with a high frequency of paydays. Those who fish fewer have more time to work on their traps and do other jobs, and they still have some income and the chance of a good day every now and then. Those who take up all their traps have very little (if any) money coming in from fishing, but they have the winter to rest, and clear time in which to rebuild their collection and add to it.

Since the third week of March or so is the optimum time to put traps back down (by experience and superstition the fishermen argue that there will be one big storm if they put them down any sooner), I have heard many worrying about whether they "would get over that March hill," especially during those last months of the winter when credit becomes tighter at the markets. Those who have their traps out may be working toward a loss, but they have a temporary cash-flow.

C- The Opposing Strategies (Specific)

We will now examine more closely the difference between hard fishing and canny fishing strategies (assuming mixing to be in between):

1- Hard Fishing Advantages

Harvey Rich, one of the strongest adherents of hard fishing, feels that the large catches of lobsters from previously untapped grounds more than pay for the extra expenses of rope and fuel; he also points out that his traps are already built and he might as well use them because he can always build more. In 1969-70, the first year of the study, he rejected the "strategic possibility" of entering shrimping, which many "hard fishermen" adopted for the winter with the enormous increase in shrimp, mainly because he considered it still an untested business and he did not want to make the investment of \$1000 or more in new gear and re-rigging. He essentially wanted to use what was already paid for and built to earn the largest amount of money he could, especially with so many abandoning their lobstergrounds and going into shrimping. The following year, he and Wendell had devised a plan where they would work together, dragging shrimp from Harvey's boat, which was bigger and had a diesel engine, and lobsterfishing from Wendell's boat every couple of days

to keep money coming in from the traps. They caught very few shrimp that winter, not enough to break even. After they quit shrimping, both men decided that it was not a good idea for the future. However, after some big catches of 1000 to 1800 pounds were made by others later in the season, Harvey decided that his methods were wrong and that he was fishing at the wrong time period. The investment in gear was exclusively his, and it also seemed necessary to him to discover a way to maintain year-round fishing if lobsterfishing failed. Even to this point (1974) he has been shrimping at a loss, but his commitment to it has been partial while he has maintained a strong winter lobsterfishing effort. There is always the hope that, since shrimp is a new species, he will learn a strategy relevant to it that will enable him to make a big profit.

Wendell's cash investment in shrimping was virtually nil. Whether as a result of going or simply from other causes beyond his control, he missed a substantial amount of lobsterfishing with a series of flus. The loss of critical lobsterfishing time concerned him more than the possible lucky strike of shrimp attracted him, and he called the experience "educational," and has not repeated it, either with overly heavy winter lobsterfishing or with additional attempts at shrimping.

The result of an intense winter lobsterfishing effort may often be a larger profit for the given year, when the toll of wear does not show to any great degree (unless there is significant trap loss). What Harvey believes is "Let each year take care of itself," as he puts it. It might be a number of years before circumstances cause him actually to fall behind in his repairs and lose fishing time because of trap wear or ill health from overwork. If there were a sudden drop, as predicted, in lobster population, and most men had to return to dragging and handlining, abandoning excess lobster gear, Harvey would have

come out ahead, though he does not think about it in this way. To him time is to be filled, not played with or guessed about, and if filling time takes its toll, it also has its benefits. He concludes: "Even if I'm not making money, I'm not getting lazy."

2- Canny Fishing Advantages

The advantages of the "canny" fishing strategy are, in a sense, only the other side of the coin of the hard fishing disadvantages. The slow drain on equipment, and even the unexpected losses in storms, are well understood by all fishermen. The hard fishermen can generally cover these if the toll on himself does not break the momentum of his year-to-year effort. The uncertain aspect is the effect of hard fishing on health and the general risk of drowning in stormier waters.

The canny fisherman feels that as long as he can meet his debts and support himself and his family that there is no need to chance an intense winter fishing effort, or to fish unnecessarily hard during any season. One man, while admitting that in his younger days he thought he could fish as much as he wanted, said to me: "I want to go next year. I ain't pushing. I'd rather take it out of myself later. Otherwise I might not be able." Loss of fishing time because of illness is definitely more common during the winter, although one cannot simply equate specific illness with hard fishing. Perhaps the most telling evidence in favor of canny fishing is the number of men who are unable to go fishing anymore because of various ailments, some of them directly suffered during fishing. Although it is difficult to tell in a number of these cases whether the problem would have developed anyway, in a significant number, men are suffering from overfishing or accidents that occurred on winter seas. One "retiree" blamed his condition on a particularly hard winter "from which I just never came back." Other such statements I have recorded

include: "I worked myself off my feet," "my back went to hell," "my legs are shot," "my hands won't stand it anymore, the bastards," "I got knots as big as balls on my legs." One of them compared lobsterfishermen to baseball pitchers who are "washed up young." "There are many hall of famers on these wharves without a penny," he said, going on with the analogy. Harvey himself has had winter trouble with knots on his legs, and he has sought out the chiropractor in Bar Harbor for help.

In 1973, he developed an injury to his hand which became chronic, and since then, he has been fishing with a hired man. Although this would seem to bear out my original supposition regarding hard fishing, in truth the injury was unpredictable, and other fishermen using Harvey's essential strategy have survived the wear and tear and are still actively fishing single.

There were four near drownings that I heard about during the winter of 1969-70, including one where the boat was lost. One fisherman in the Mount Desert area fell overboard and drowned during the winter of 1971, and there were a dozen or more drownings along the whole coast during these two years. Questioning in the Mount Desert region has revealed fifteen drownings within the fishermen's memories, meaning that there were probably more. The key point here is: A- With about 50 men doing winter fishing of one type or other, one drowning in two years is a high number, and the many near drownings indicate it could have been higher; and B- Even for the most experienced fishermen, drowning is never a needless worry; hauling lobsters, or fish, calls for a man to put a great amount of weight against the weight of his body while reaching overboard; a fisherman also has to move gear around and is often in awkward positions at times of sudden shift in wind or water; and if a man does fall overboard, he is usually separated immediately from his ship, especially since the motor is

left running while hauling traps. The following description of the death of a fisherman's father is indicative:

"When my father was found the rope was still around his wrist. I suppose he had been running the rope through his hands to clear it and it took a turn around his wrist. He must have walked to the back of the boat to get slack enough but the pots tightened on him and pulled him over.

"The boat was still in gear, engine going, when they found it on the beach. They ran down to the boat, pulled the line back and he was on it. They tried to revive him, but it was too late" [Franklin, 1971].

3- The Importance of Strategy

Winter-fishing, and bad weather fishing, is, then, clearly a strategic issue with some bite. A man not only takes risks, but suffers a steady loss that modifies any gain. There are no absolute answers in matters of strategy because different fishermen try to make their own choices pay off. The important thing appears to be to have *some sort of strategy*, even if a mixed one. I have watched fishermen struggle with ambiguity, taking in their traps after losing many in a winter storm, or putting them out on hearsay of good lobsters and catching nothing at some expense. Other men have rigged up for shrimping and not followed through on it after a few bad runs. In a number of cases winter lobsterfishing seems to force a man out of business because he has spent too much money without sufficient reimbursal. Others appear to have been crowded out by trap-cutting in the spring.

In either case, the fishermen probably have contributed to their own elimination by having no clear strategy. If a man intends to fish, he will not let an unexpected loss drive him out of business (any more than temporarily), but if a man is trying out different modes of fishing, in hopes of turning a profit, his very ambiguity will give him no clear course to follow when nothing seems to work. The hard

fisherman generally continues to fish hard, even while suffering losses; the canny fisherman tends to preserve his gear and contemplate his choices for long periods; even if short of money. Mixed strategies work likewise: those men who go scalloping regularly know that, however bad a lobster season they have undergone, during the fall scalloping season they can probably catch enough to feed themselves and exchange at the market for a variety of other foods.

The high cost of the fishing effort is probably most functional in making entry difficult, and in determining the type of gear used and the absolute tolerance of any fishing operation. People respond to these limits in different ways. The ensuing strategies are not as much fishing strategies as ways of life, and that is why both hard fishermen and canny fishermen succeed in terms of their specific operations. They operate within clear parameters, and they can sustain reversals because their methodology is a direct extension of their life-styles.

The man who fishes hard enjoys tremendously the isolation, the sport of unknown waters, and the spirit of fortune involved. Said one of the harder fishermen (to his pastor, who repeated it to me): "It's like gambling in your blood. Each one of those traps is filled with a certain number of dollar bills, and I want to know which ones, and how many." This particular fisherman virtually races from trap to trap, day in, day out, even in terrible fog. Staying off the waters, he claims, drives him crazy. If leisure fishing, golf, and gambling can engage so many people during the time the ostensibly have to *themselves*, it is no wonder that a certain number of fishermen cannot resist this element of their trade. The distinction between leisure and work is often a false one, especially when one is looking for overriding cultural patterns and values;

a man is always working, i.e., he is always participating in the same cultural matrix, and the actual means by which he makes his money is not always as significant as the manner in which he spends his so-called "free" time. The hard fisherman decides more often whether he *wants* to fish or not than whether he will make a profit or incur a loss. It is in terms of his fishing effort that he sees the rest of his life, and even if he could generate leisure time, he would not know how to use it.

The canny fisherman gets fulfillment from his fishing also, but there are always other things he wants to do. Perhaps Wendell best expresses this position when he indicates that "a man can go about covering every aspect of it, but then what does he have to show?" In other words, one can catch their own bait, hold lobsters off the market in cars for a higher profit, fish all winter, haul most traps possible in a day, but to what end? With costs high and other attendant risks, there are doubtful profits, and the time spent not fishing, in fact generated by successful canny fishing, is the real profit. Wendell spends this time at home with his family, reading, in the last two years planting a garden; sometimes he travels. He can choose a "day off" when he most wants one. Health is only one practical measure of the value of non-fishing time. As we shall discuss later, a fisherman can use his time off the water to develop whole new aspects of his life. For Wendell, being a fisherman means being a free man, a loner, and these are attributes he cultivates more consciously than his skill at fishing, though if his skill were not there, he would not be able to explore other things from the fishing base.

The hard fisherman described above as a gambler had a year (1973) after the time of the study that totally disrupted his fishing and his life. His wife left him, and he

was ill for a long period. Because the intensity of his fishing had been so unrelenting, he found it difficult to generate new patterns. It is quite possible that his wife left him because he was always fishing. He was dependent on her to maintain all financial aspects of his fishing venture, so the loss of her was a pitfall probably not considered in the original strategic choice but as severe as any undergone on the water.

The hard fishermen contrast with the more conservative fishermen, as the hard ones call them, in much the manner in which maximization, as described by formal economic theory [Homans, 1958: 597-606], contrasts with harmony, cooperation, and the residual non-economic values described by the substantive economists [Polanyi, 1947: 109-117]. Competitors who maximize wealth beyond need are often the victims of their own ideology. The act of accumulation becomes its own end, for the money can only be reinvested in the original event. The hard fisherman turns over more lobsters in a shorter period of time, but he is not necessarily wealthier.

Sahlins [1972: 1-2] also points out that "there are two possible courses to affluence. Wants may be 'easily satisfied' either by producing much or desiring little." Clearly, the very choice to be a lobsterfisherman consigns a person to desiring little beyond the right to earn his living by fishing, but even within the trade, one has the choice between making more time to fish or using fishing to make more time to do other things.

VII- Catching Lobsters and the Fishing Calendar

A- General Strategy

The basic strategy of lobsterfishing has three components: to catch lobsters, to sell them at a high price without risking being unable to sell them, and to keep costs low without jeopardizing catch. I would also call this the *ostensible* strategy of lobsterfishing insofar as it is more or less the description of purpose and motive given by the fishermen themselves. Their actions, however, tend to suggest that there is also a series of underlying motives and a far more complex strategy (which is not enunciated) at work. In the previous section, we examined the relationship between the cost of fishing effort and the strategy of continuous hard fishing. We noted that individuals have varying success with winter-fishing, full-time fishing, and part-time fishing. However, no matter what choices a fisherman makes on shore, he must be a skillful enough fisherman to make them work. There is a 10% turnover from year to year (as judged approximately from those men who have been forced to give up fishing from 1969 to 1971), and, despite trap-cutting and high costs, the eventual common denominator of individual failure in the fishery is the inability to find enough lobsters.

What constitutes "enough lobsters" may differ by circumstances and from year to year, but while we are discussing the pure fishing strategy, we may assume an attempt to maximize one's catch for the time spent fishing. The only non-competitive force that interferes with *absolute* maximization is obedience of the conservation regulations which determine the size range and fertility condition of lobster that may be kept.

Assuming a commercially viable population of lobsters and sanctions that do not discourage a fishing effort, we

may divide the maximization into strategically-linked categories: 1- to set traps in the optimum fishing areas; and 2- to fish these areas before others have depleted them. I would distinguish these two, using Anatole Rapoport's criteria, as follows:

The former is similar to "gambling" insofar as "the theory of gambling can be conveniently considered as a 'one-person game' or as a 'game against nature.'" [Rapoport, 1960: 111]. With competition, a 'game strategy' [*ibid.*: 131] emerges. We will consider both of these aspects in relation to questions of: where to set traps; when to set traps; how many traps to set; and other miscellaneous choices pertaining to directed variation in the catch.

B- Where to Set Traps

1- Territories

a- Finding Territory

The fisherman draws on three essential sources of information in setting his traps: his knowledge of the fishing grounds, weather and currents, etc.; hearsay or suspicion about which grounds are currently fishing well; and continuous experimentation with his own trap positions.

Knowledge and experience are the foundation of any fishing strategy. A fisherman must know how to get from underwater shoal to underwater shoal in the open sea; he must know which areas have fished well in previous years, and what conditions were associated with their fishing well (which might include anything at all, since the relationship between symptoms, signs, and causes are not always obvious, and do not have to be, for a fisherman to use them); most important, he must be able to interpret continuous new information from his own and others' fishing efforts. Almost without exception the most experienced fishermen average higher catches than the relative

newcomers. This might also be a consequence of operating speed and the gradual elimination of less capable fishermen. Yet the possible basis of successful fishing remains familiarity with the grounds and good interpretative memory. A fisherman who remembers what areas have fished well when other areas suddenly began fishing poorly can shift his traps quickly to such an area, beating many of the other fishermen there. If his hunch pays off only a small percentage of the time, he is that much ahead of fishermen lacking even the basis on which to gamble. Likewise, a man setting traps must decide whether to enter an area that has suddenly begun to fish, and how committedly to enter it. He cannot simply follow the spurts. Sometimes he will move a few traps in, sometimes many, and sometimes he will decide it is nothing more than a "sunshower" and ignore the "rush" there. Newer fishermen will often shift with each rumor of good fishing, giving their operation an unstable base and preventing them from getting long term information about particular sites. Evidently there are patterns, based on one or another aspect of the lobster's ecology and the ecology of the species he feeds on, but these patterns are not obvious or always consistent, and even the most successful fishermen operate on intuition more than analysis. In fact, by the phrase "interpretative memory," I mean: knowledge from experience, operating subconsciously and developing consciously as "hunches."

As well as interpretative memory, there is a basic, conscious knowledge of shoal waters and how to get to them without which one misses the core of the fishing zone. In some areas where the underwater topography has a peculiar gradient the lobsters prefer to feed and congregate in great numbers. Shoal waters are found by landmarks or fathometer. The latter shows variations in the bottom as the boat passes over them; reading the fathometer, a

fisherman can go back and forth over an area until he has delineated a path along which he then sets his traps. Charlie Cleaves told me: "I've gone over every inch of bottom between here and Duck Island with the fathometer, and I know it like the palm of my hand." The fathometer also enables the fishermen to avoid flat muddy bottom where they would rarely, if ever, want to set traps. As a technological innovation that gives the newcomer an inroad on the knowledge of an experienced fisherman, fathometer fishing has limitations corollary to its virtues. The device can find spots, but it cannot remember spots from set to set; it cannot deduce when traps have been shifted by weather and tide. It is a source of such microgeological information that reliance on it as a tool can obscure larger topographical patterns. Its information is absolutely literal, the fisherman must do the interpreting.

The precision of memory is not as evident in lobster-fishing where a man who finds a good spot can "hold" it by means of a trap. Yet the continuity of trap-setting obscures other factors of trap-movement: not all good spots fish well at the same time, and not all traps stay put. The actual vagaries resemble those of other types of fishing. Codfishermen going back and forth across the same territory have variable catches, but the same fishermen always have the highest catches. Scallopfishermen, who can observe each others' boats dragging spots in a single bay, fall into a similar hierarchy of greater and lesser catches. Wild [1974] reports for Martha's Vineyard that the spots exploited by scallopfishermen are so small that conservation officers observing the boats fishing cannot map the high-yield areas of a bay. In essence, conditions are the same for lobsterfishermen. With fishermen working overlapping zones, the same men are regularly more successful. It can always be argued in the case of lobsterfishing that the older fishermen hold the better territories; however other types of fishing, based on similar locational necessities,

are just as fixed in their results, and, as we shall see, lobsterfishing territory is more fluctuating than firm and operates under a status of only informal legality.

The older fishermen and some of the younger fishermen use landmarks instead of the fathometer, although no one disregards useful information from instruments. A fisherman using marks is operating in the perspective of a large and regularly-changing environment. He is working by obvious features of the surrounding shoreline which he can observe before they come into alignment. His memory is not based on an image of the bottom. He is moving gradually from landmark to landmark by imposing one geographical location on another. An example of the landmarks used in the lobsterfishing grounds around Mount Desert Island (as copied from Wendell Seavey's notebook) are:

The Reefs --- The two Duck Islands together and Gooseberry Island on Placentia Head. (hard bottom).

Bank's Ground --- Baker's Island light on the western part of Schooner Head Mountain and the Quarry at Black Island just coming out by Mer Point.

Grumpy --- Camden Mountain in the western crotch of Isle Au Haut and Carver's Harbor out by Western Ear. (Good bottom with Blue Hill out by western end of Long Island and Burnt and Spoon Island run on).

It is probable that this is an effective solution when the scale of visible landmarks corresponds approximately to a functional underwater geography. Fishermen have pointed out that there are areas where the scale (though they do not call it that) is off, and the landmarks are only rough guides. Forman describes the same method of location of fishing spots for a Brazilian coastal village:

"When landmarks are used, they may be a grove of coconut palms, a high sand dune, the outline of a familiar plantation, or the steeple of the Guïamu Church. A fisherman is able to determine his course by 'lining up' one landmark behind another in such a way as to constitute directional clues" [Forman, 1966: 419].

He also points out how precise such lining up is, and therefore how much practice is needed to perfect the technique. Time is at a premium on good days, both for fishing and setting traps, and a fisherman who is going to make a profit must know and remember his way around the fishing grounds. The fathometer is too slow and painstaking, but the system of landmarks is thorough and internationalized in the sense that the fishermen see the bottom reflected in the alignments of familiar features of their environment; thus they are never in an unfamiliar area, and the process of fishing takes place in a well-referenced and interconnected system of points. Faris points out the importance of precise marks for setting cod traps in Cat's Harbour, Newfoundland:

"'Spots of ground' are found by a system of triangulation with shore 'marks.' For example, the 'marks' for a 'berth' known as 'Madmaul Deep' are: 'highest point of Norther Island over Whalen's cove and the white 'humuck' on Windmill Head over the Church, which means aligning the highest point of Outer Cat Island in the apex of Whalen's Cove (a cove in Outer Cat Island) as one mark, then triangulating with the white 'humuck' (large rock) on Windmill Head (a prominent headland on the mainland) coming just over the large bell tower of the Cat Harbour United Church. This system of finding 'berths' has, of course, obvious faults. A man not already on the grounds before a fog sets in often has difficulties in precisely locating it. Some fishermen take compass bearings and note the time

it takes them to 'steam' to the particular 'berth' or ground, but nothing suffices like the shore marks, which can be quite accurate. As berths may be no more than the length of a boat (approximately 30 feet), and as much as 6 to 8 miles out, considerable precision is necessary. The chief difficulty is the impermanence of the shore 'marks.' A forest fire in 1961 destroyed several important 'marks,' and less precise substitutes had to be found. One very prominent landmark, used quite probably since Cat Harbour was first settled, is a large rock the size of a small railway coach--John Olive's hummuck (John Olive died in the last quarter of the 19th Century). When the road was being built into Cat Harbour, this rock was scheduled to be blasted down, for going around it would be both expensive and create an inconvenient and dangerous curve in the road. But the local fishermen protested, and the 'mark' remained, the curve in the road a vivid testimony to the dominance of sea over land" [1966: 35].

Another reason it is good for a fisherman to know the marks is that most of the fishing information one either receives from an older fisherman or hears in conversation (or on the radio-telephone) is expressed in their language. Often a fisherman will pick up the marks by name only and be unable to use them. He may not know the secondary names of all the mountains and islands; he may get one island confused with another (which is possible verbally as well as visually, for there are three Black Islands, two Green Islands, and two Gooseberry Islands in the Mount Desert fishing area). He may also miss a subtlety in the lining up. Many men have gotten the fishing marks of others, tried to use them, and given up in disgust. Once again it comes back to experiential knowledge of the grounds, including experience with the marks (insofar as their combinations denote real fishing grounds). Note how one of the older fishermen explains some shrimping grounds to

a man who had never been shrimping but knows the area. What is most striking in the description is how much the underwater geography, which is never seen, is vividly denoted by *what is visible* while fishing.

"Tow from Cod Ledge to the end of Middle Ground right through to Sand Beach up to the East and West and cut Mountain Ground. Run a course flatter'n hell. The monument on the end of Sutton's is the furthest you can go to the Northward. Take it around High Head clear out of sight. That's fucking nice bottom. Then on the other side of Egg Rock, a little to the Eastward of it, by the little road on Hunter's Island, go until the light turns into the North and hits Baker Island; this'll take you right into the Middle Tow eventually. There's some fucking old rocks on that mud bottom that don't show" [Grossinger: 1975b].

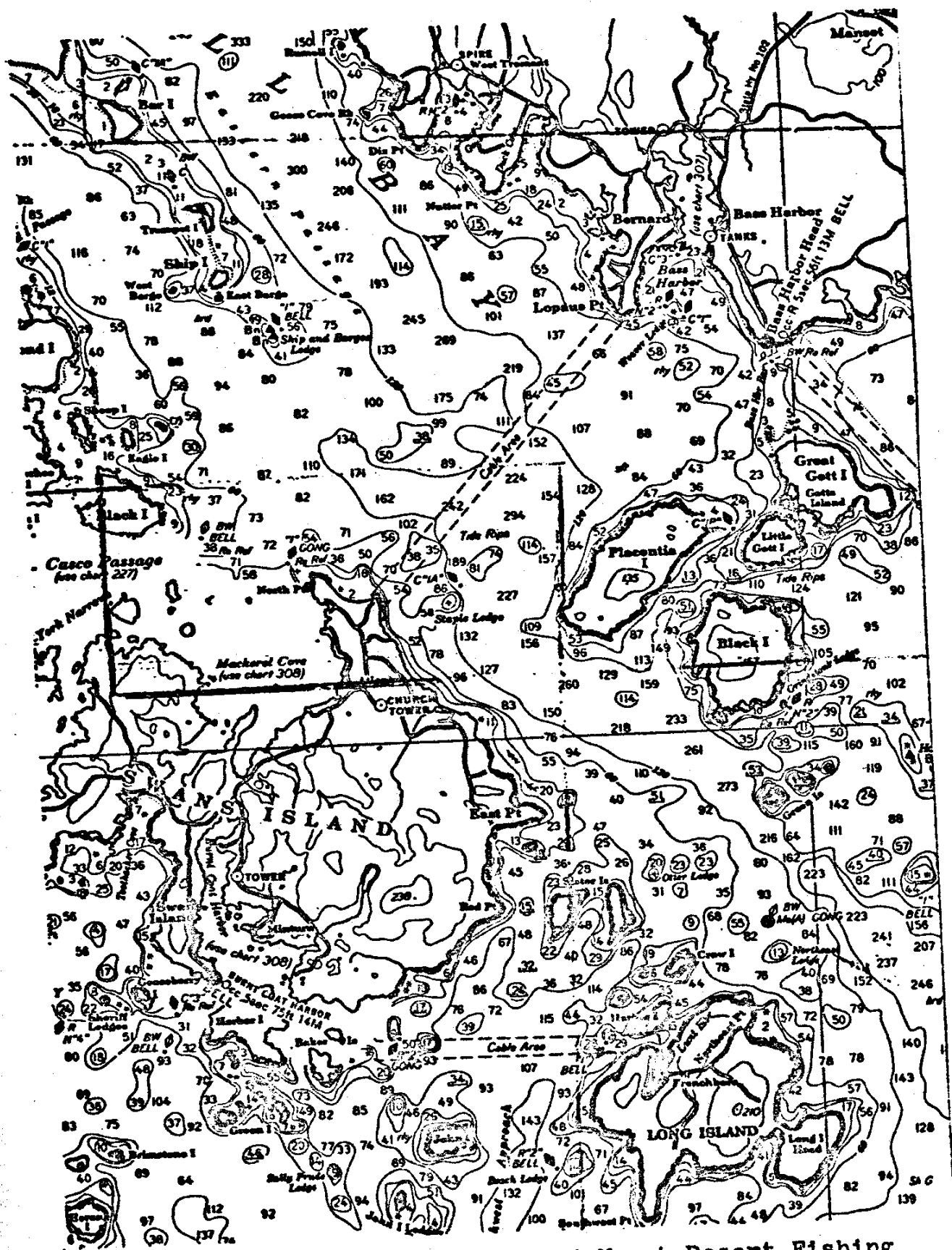
b- Predetermined Grounds

A man's fishing territory is highly specific and highly local, partly because he fishes in waters with which he is familiar and partly because fishing grounds are staked out, inherited, and defended. Lobster grounds are, in fact, much more regional than the old cod fishing grounds ever were or than the shrimpfishing grounds are now. Lobster-fishing indirectly insulates areas that previously had much contact with each other and considerably more inter-marriage. Fishing vessels with mixed crews from Swans Island, the Cranberries, Mount Desert, Deer Isle, Isle Au Haut, and many of the smaller islands around, were common in offshore fishing days. In the last twenty years much of this kinship has lapsed; different lines of the same families (such as Beals, Stanleys, Lunts, etc.) do not know their relationships, though in taking down genealogies on the different islands I often ended up back at the same ancestor. There are many reasons for this, but the most obvious ones derive simply from the shore-based character

of lobsterfishing: it does not require large crews, it works on small stable local stocks, regional trap amounts (as we shall see), and most important, it presents a situation in which expensive gear is left untended for long periods of time. It is possible to have local lobsterfishing territories, and it is advantageous, so they exist. Men who have left Mount Desert in the last few years to go deep-sea lobsterfishing in other states have regained aspects of the old mixed-crews type of fishing.

Because knowledge of the territory is so important (and defense necessary), a fisherman is very much tied to a core region in which, from year to year, he sets the majority of his traps. Fred Beal, for example, though he moved from Swans Island to Mount Desert almost twenty years ago, is still a Swans Island fisherman. He sets his traps there, which means it takes him forty minutes before he can haul his first one, about three times as long as for any of the other men at his wharf. Yet he points out, in defense of his strategy, that it does not take him any longer to haul his furthest traps than most people, so he makes some of the time back. He considers Swans Island a totally separate fishing ground, with different landmarks, different stretches of broken bottom, and different stocks of lobsters. The Beals have been fishing in these grounds for a long time, and it is worth the extra time and gas to Fred. The same situation exists with Burdock Shea, who lives in Bass Harbor (McKinley) and fishes in the waters around Frenchboro (Long Island). "I fish the same spot as my father," he says. "They're clan grounds." [This is his use of the word "clan"; I do not mean to imply real corporate descent groups.] (See Map #3).

A man marks out a territory, somewhat informally, by fishing in it; and because custom deters another man from putting his traps too close (with inshore fishing this



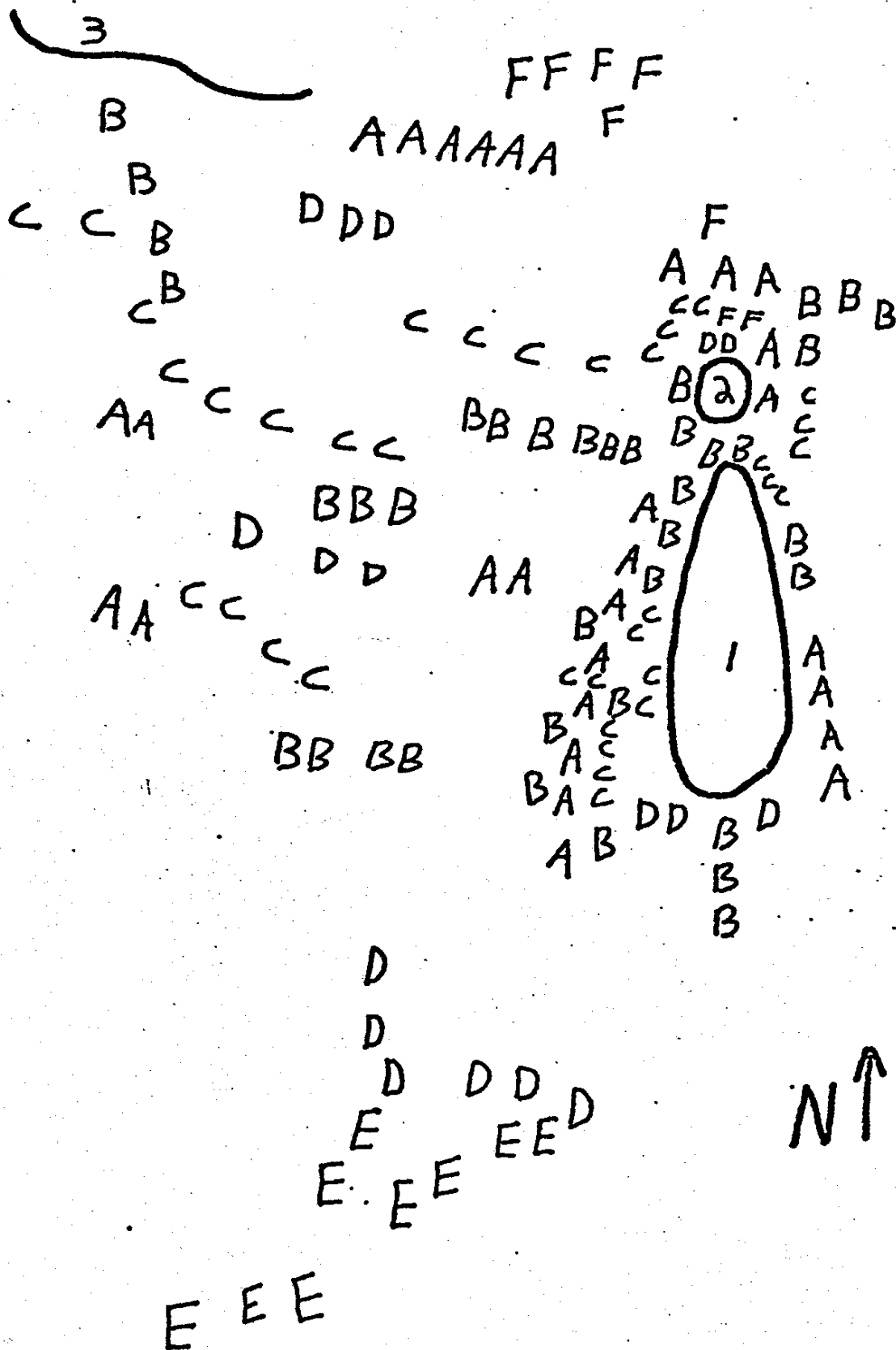
Map #3: Overlap of Swans Island and Mount Desert Fishing Territories (from U.S. Coast and Geodetic Survey Map #1202)

would give him a radius of about 30 feet, and further offshore, because of the more fluid conditions and greater danger of snarling, around 100 feet), he can hold this territory indefinitely. It is not a legal territory, and it will not stand in a United States Court of Law (no one can own beyond the high tide line), but it is an enforceable zone of fishing he has received either from his father or someone else who has been using it; he may try to extend it, but he will keep a basic number of traps there. The word "core" is accurate in the sense that most territories fishermen care enough about to delineate are in the prime lobsterfishing zones, and they are footholds for expanding operations. It is misleading to think of the "core" as a bounded region, even an irregularly bounded region. A core has no fixed size. It is a discontinuous series of curving lines (following approximate shoal lines); at almost every point a fisherman working on his core is surrounded by other fishermen, and his own traps are interspersed with theirs. In some cases two fishermen may use an identical point as part of each of their cores, with tacit understanding. It appears as chaos and disorder, but every fisherman knows exactly where he is, and an outsider usually finds that out quickly (See Map #5). Wendell's "territory" runs discontinuously over 12 miles. Then he has another territory he uses only during the winter for offshore fishing which is probably smaller in actual size but more disperse, running more than 21 miles (See Map #5).

2- Following Other Fishermen

In the dynamics of the territories, which converge and recede like contour lines, a man can fish closer to regions where, at a given time, more lobsters are being caught, without actually invading another man's grounds (though the man who is being fished close to must also decide that). A major source of information in determining

Map #4 is a hypothetical trap-setting situation, constructed from observation, discussion, and known episodes. It is meant to show how the territories run together and overlap at key points, and also move apart at other points. I have chosen the area of Great and Little Duck Islands as viewed from Bass Harbor (1, 2, and 3, respectively). A, B, and C are placed on the map to denote some of the traps of three fishermen operating out of Bass Harbor. It would appear that C has slightly less optimum territory around the two islands, but may have more elsewhere. D is also a fisherman operating out of Bass Harbor, but he has very little good territory around these islands, and it might be guessed that he has more or less temporarily claimed it and may lose it. He is being forced to the southeastern boundary and the territory, where he is beginning to mix with E, a fisherman from Long Island, with whom he may or may not have trouble, depending in part on which of them traditionally fished these grounds. D may either be where he traditionally belongs or a blatant interloper. F is a fisherman from Southwest Harbor, freely "mingling" with the fishermen from Bass Harbor at Little Duck, a frequent occurrence and one generally accepted among the fishermen. It can be assumed that this is a partial picture, and that all of these men have good numbers of other traps elsewhere.

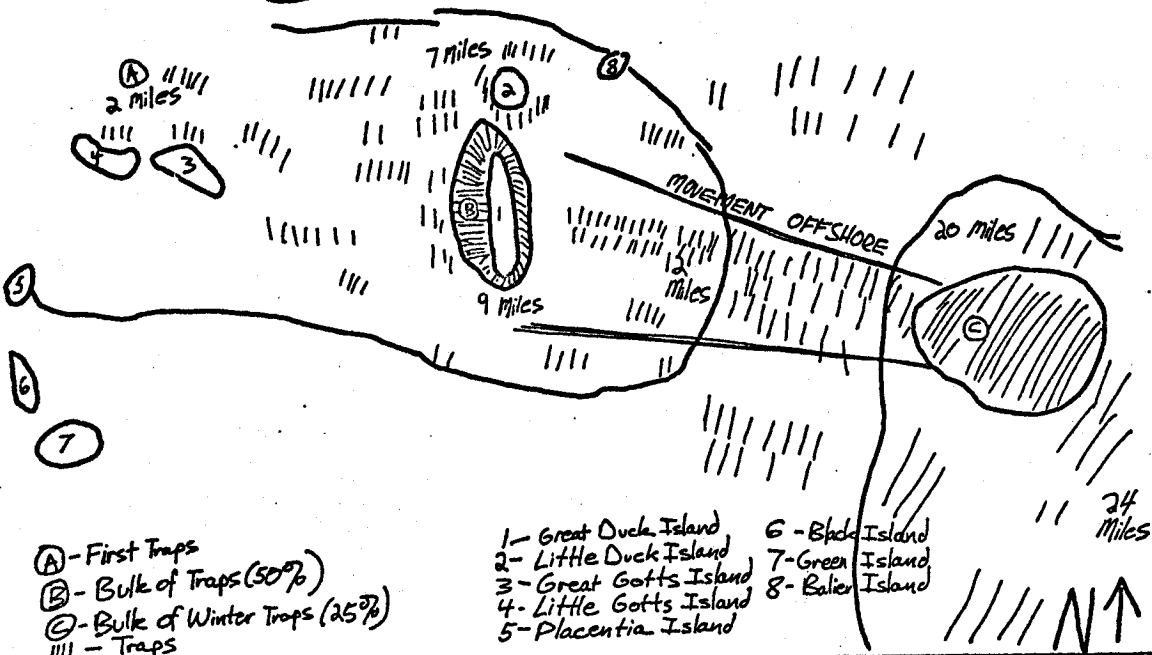


Map #4: Hypothetical Case of Overlapping Territories

Map #5 is an approximation of Wendell's lobsterfishing territory (with distinct summer and winter zones) worked out between us. Since much of the drawing was done by him, and all of it freehand, the scale is off, and the relative locations are altered. The heavy black lines denote both islands and the boundaries of the fishing territory (in the sense of absolute boundaries imposed by other communities or geographical and ecological conditions). The areas marked B (right around Great Duck Island) and C (approximately in the shoal area of 120 fathoms at its deepest called Eastern Muddy Ridge) are the areas of most intensive trapsetting. In area B Wendell puts about 150 traps, and another 30 around Little Duck Island (2) during the spring; and in area C Wendell puts about 60 traps, or around 25% of the amount fished during the winter. The area between summer and winter zones is unbounded to indicate the speed with which it is moved through during the late fall. The main purpose of this map is to give some sense of the shape and make-up of a territory. We can assume that Wendell has made some important omissions (in fact, I know this), but the extended and discontinuous nature (with some cores) is clear from this chart.

BASS
HARBOR

MAP #5
WENDELL'S TERRITORY
AS HANDDRAWN



Map #5: Wendell's Territory (As Hand-drawn)

where to set traps is hearsay or suspicion about which grounds are fishing well. Although "following other fishermen" is not a good basic strategy, some men do it consistently, and most men do it on occasion. A certain amount of such opportunism is necessary. Areas of good consistent production may suddenly run dry, either from overfishing, or for reasons of temperature change, temporary pollution, etc. Other areas, not previously yielding an abundance, may equally suddenly change, either temporarily, or for an extended period, in response to the same active factors, and possibly as part of an overall demographic pattern that caused the other areas to go dry. Since a fisherman has a limited number of traps (too few even to cover all parts of his regular territory), he is always gambling those traps against a large number and wide range of spots where he may set them, and he makes use of whatever information he can.

I have discussed the manner in which a more experienced fisherman may respond to information about sudden upswings of lobster behavior on particular shoals. Other fishermen will spend most of their fishing time hauling up traps and setting them next to people who are doing well. This strategy can yield substantial lobster catches, and its effectiveness is attested to by the irritation of the fisherman being fished alongside of. On many occasions I have heard fishermen complain to others about their excessive or insistent closeness. The complaint may range from mild sarcasm, like "Heard I was doing well and you wanted to get in on it, aye?" to actual threats of reprisal.

In order to follow other fishermen with any success, a man needs two pieces of information: who is fishing where at a given time, and how many lobsters each person is bringing in. The first piece of information is most difficult to keep secret; some fishermen doing well set traps way off line as a ruse, a time-consuming ploy.

Scallop fishermen in Martha's Vineyard, who have no traps to place on the optimum sites, spend hours misleading each other, and collectively misleading potential newcomers, by fishing zones of broken shells and stone, saving the real haul for a time deemed most deceptive. In lobster-fishing, it is just as important to keep secrets, but the loss of fishing time from a false trap extends to the full twenty-four hour period; thus the effective weight of the strategy falls on hiding one's lobsters while trying to discover how many someone else has caught. Fishermen depend on a certain courtesy and circumspection, as it is a bothersome problem to hide one's catch. Usually, secrecy beyond minimum precaution is reserved for times of extremely good fishing. If a fisherman maintains a lobster storage car in the harbor, he can put the bulk of his lobsters in it for a couple of days to divert attention. On some wharves it is considered "in extremely bad taste" to talk about how many lobsters are being brought in, and on such wharves (Acadia Lobster, for example) I had to curtail my recording of amounts of lobsters brought in in order to be able to stay on the wharf. At other wharves, Jasper Merchant's being the most notable, the books are left open on the dealer's desk and people can come in and look at them. Needless to say, it is to the dealer's advantage to have more of "his" fishermen know about a good area, though it is not to the advantage of any one fisherman. Two men who left Merchant's for Acadia Lobster cite the open book as their reason for changing. The implication is that fishermen not skillful enough to find their own areas should not be able to read in a book which fishermen were doing well and thus be able to set some traps by them the next day. Gott's Market, between Southwest Harbor and Bass Harbor and close to the homes of many of the fishermen who fish at both, is a place where

there is much discussion about individual catches at the end of the day. There are jokes to the effect that if you sit around there long enough you will know just about everyone's catch; then "you have to hurry home for a late dinner, and get into bed quickly, so you can be out fishing alongside them first thing in the morning."

3- Experimentation and Randomization

The third basic source of information the fisherman has is from continuous experimentation with his own traps. The wide variety of factors affecting lobster demography makes it impossible to fish totally on the basis of past knowledge and present hearsay; the fisherman must also attempt to outguess the future: he must be in a position to have traps where lobsters *might* be.

I have pointed out earlier how the fishermen emphasize the mysteriousness and evasive intelligence of the lobster's movements while biologists argue their essential predictability. My own intuition is that lobsters are difficult to catch under the conditions of a limited local population and intense competition, factors the biologists tend to overlook. Thus, several of the biologists I spoke to assured me that random moving about of traps was useless behavior, caused by the fishermen's inability to remember or interpret past lobster behavior. One even insisted that it was because the fishermen, or most of them, had never finished high school, and were incapable of biological analysis. "I've watched them fish," he said, "and it's like the blind leading the blind" [Uzmanns, personal communication].

I have found exactly the opposite to be true. Although they do not use biological language, the fishermen are excellent strategists, and moving traps around, even somewhat randomly, is part of a working strategy. In fact, too much emphasis is placed on the fishermen's claim that

the lobsters "move out to sea during the winter" by those attempting to discredit all fishing techniques. In actuality, as I have shown, the centers of lobster activity move offshore, but since the fishermen are not trailing individual lobsters, their description of the movement, especially insofar as it is isomorphic with the biological description, is perfectly adequate. The fishermen know the biological description (from State-sponsored lectures given by marine biologists), and they try to forget it as promptly as Sherlock Holmes, in the famous account, tried to forget that the Earth moves around the sun because the information distracted him. In a letter Wendell wrote me during the winter of 1970-71 he summed the whole matter up perfectly:

"The month was windy but not so bad but what we could make fishing days out of them. When I got a day off all I wanted to do was rest. The lobsters came in good that month but since the snow came the lobsters are headed for deep water or as the boys in Augusta would say, 'no such a thing, they have just stopped crawling in shoal water and are now just crawling in deep water.' Well whichever idea one believes, the way you catch them is no difference. You got to have your traps in the right place at the right time. So whether the seeing eye dog follows his blind master or whether the blind master follows his dog I know not but they both seem to end up at the same place at the same time" [sic. throughout].

Aside from the fact that the asserted "queerness of the lobster's movements" is operationally accurate, it has one other advantage: it discourages younger fishermen (and

in the Beals Island area, especially clam-diggers) from going into the lobsterfishing business. Older fishermen confirm a sense of the lobster's nowhere-and-everywhere inscrutability. Clam-diggers who are able to put together the necessary income to begin a lobsterfishing operation often tell me that they will not try it because "the lobsters are simply too hard to find." Some of them have called it "lobsterfisherman's luck," others have insisted that "it is in the lobsterfishing blood" (which comes down to same illusory thing, since most of them are related to lobsterfishermen).

Even the best fishermen will quite consciously move their traps around, trying out new areas, rechecking old ones. Wendell usually changes a few trap positions whenever he goes out. "Not good to let them get lazy," he says, meaning both the lobster and the traps, but primarily himself. Harvey Rich said once, "It's best not to let the lobster know what you're upto." He had just spent some time shifting traps.

It has little to do with whether the traps are fishing well or poorly. I once asked Sewell Alley on his way out if he had plans to shift around his traps (since he had previously told me how he moves a few of them each time).

"I may and then I may not," he replied. "All depends on how I feel when I get there."

"If they're not catching well, will you move them?"

"No. I may just leave them till they start catching well."

"So you may move them if you get a good haul?"

"Now why should I move a trap that was fishing well?"

Fishermen are continuously trying to get the best set for their traps. Because of the conditions of the marine environment and lobster behavior, this is not a matter

of choosing a territory and sticking to it, but is a continuous resetting and oscillation of trap positions. The fishermen will try to develop a pattern, even if inconsistent, to deal with the sudden densities that may appear in one place and the unexpected scarcities in another. Because of the number of men fishing it is not sufficient simply to move in on good fishing areas; a man must pioneer a few, primarily so that he can get some isolated fishing done before others crowd in and also to enhance his status so that he is not known only as an interloper, arriving when others hit good spots. Of course, he does not *try* to pioneer spots for others. Ideally, he would like to keep his large catches a secret. This is rarely possible, however; and if a spot has any lasting stock "a crowd will form in a hurry", as a number of fishermen have sarcastically put it. Another important reason for having traps in a number of out-of-the-way places is to be in a position to reap the benefits of a one-day splurge. There are enough of these unexpected hauls to justify moving traps around, and any attempt to follow consistently upon those of others would involve much time, and often waste (if they were only one-shot hauls).

"Got a lot to the West early," said Audrey Fowler one day at Jasper's. "So I'm not taking any chances. I'm moving a few of my traps to the East, and I'm going to take a few days off." This is extremely rational behavior, but based purely on hunches, and attempts to play with the law of averages.

"All summer nothing. They're just not there. Then in the fall suddenly I'm whaling them hard. And the last place I expected it." This from Fred Beal during a discussion at Jasper's about where to set traps in the spring.

There are many stories in the genre of "the wayward

child." One forgets to take up certain traps, or loses track of where they are, then returns one day to find them full. After a storm (which may stir up the lobsters) one goes out to see how many traps were damaged, finds the traps moved to a new area that had never fished well, and they are filled with lobsters. Reports like this are common after severe weather. There are also many cases, though less talked about, where a fisherman working traditionally plentiful grounds has his catch suddenly and inexplicably drop off. This can be disastrous if the person has no contingency traps set elsewhere and is working on a small margin.

The moving around of traps is quite possibly a specific case of a more general tendency to keep the traps spread out (as attested to even by the character of the fishing grounds). The advantages to this are clear. A man who does not spread out his traps has "too many eggs in one basket." If the lobsters are not active in his range he catches nothing. If there is stormy weather he may have no traps in protected zones he can haul. For instance, Marlon Bridges, coming into Jasper's on a cold day, said: "I'm glad I had some out around Duck. All I could fish today was in the lee of the island." If an area becomes fished out a fisherman not spread out enough will have to spend much time moving his whole "gang," and without any experiential clues as to where to put them. Many such moves in a season would severely cut into one's catch. Other fishermen have suddenly gone to their furthest traps, which have set longer, when core area traps failed, as they attempt to find a new zone of lobster activity. In fact, for this reason there are always some traps left in spots where they expect little, and thus check rarely, but to which they will go if they are in need of fresh information about lobster activity.

Wendell keeps about 50% of his traps in a three mile area around the two Duck Islands (See Map #6). He keeps all of his traps, except for a dozen or so (about 3%) within a twelve mile area extending about equally on both sides of the Ducks (beyond and within). This whole set disperses as it is moved out for winter fishing and loses its definite core.

Ackerman's 1941 study tends to confirm my findings:

"During the season a lobsterman always distributes his traps, the greater part in the zone where he thinks [the lobsters] are abundant; but several are placed nearer shore and several farther offshore to detect movements of the lobsters. The undertow that accompanies a heavy storm, for instance, may cause a temporary reversal of the movement onshore in spring, or it may accelerate the offshore movement in autumn. The fisherman who has a few experimental pots readily detects these peculiarities and gains thereby. Generally, however, a fisherman distributes his pots most widely across the tide (i.e., parallel to the shore) and not in the direction of the tide, because the scent of the bait in his pots is more widely dispersed. This is important, because the lobster seems to find the bait by smell alone. The fisherman also tries to place his pots as near as possible to the boundary between rock and mud, for it is there that catches are most likely" [114-115].

4- Seasonal Changes in Trap Setting

We can assume a beginning for the lobster season in mid March, when most fulltime fishermen reset their traps. At this time there has been a whole new lobster population recruited inshore by moult. As the waters get warmer these are fished more intensely. As the season moves along, especially into the fall, the fishermen will spread out further because most of the lobsters in the

legal class in the core area have been caught. Unless they take up their traps altogether (as some will) they move from the optimum to the marginal areas, and this tends to reduce everyone's catch. Fishing remains popular, however, because the price gradually goes up (from 70¢ a pound to as high as \$1.25 a pound in 1969-71) with the smaller supply and continued high demand. Fishermen usually will continue until the effort yields too few lobsters (dropping off from 800-1000 pounds a day at the very highest, for two men fishing together, to as little as 10 pounds before some fishermen actually stop). By then the water temperature has begun to affect the supply, and the fishermen will either take up their traps or move offshore. This is another reason why it is essential to keep some traps in a marginal area all the time--so that this spreading out can be gradual and on the basis of some knowledge.

5- The Gambling Ideology

We have now examined the general strategy of shifting and moving traps and found it to be of clear specific value in the setting of a fishing pattern. I would now like to examine the "randomizing" aspect of this strategy separately and its effects upon the psychology of the fishing effort, especially the sense of "gambling" the fishermen have. As we discussed in the previous section, this gambling is an inherent and meaningful part of the lobsterfishing ideology, and so enjoyable to the men that they reject most other possible jobs, even jobs that pay more. As Graham points out in his discussion of general fishing ideology:

"The gambling instinct of the men makes many of them work for less remuneration than they would accept as a weekly wage, because there is always the possibility of a good catch and a financial windfall" [Graham, 1952: 111].

Many fishermen continue to go year after year, often

losing money for long periods of time (making it up on other part time jobs or from their wife's income), simply in hope of that hot streak, or big catch. Like gamblers they are hooked. I was discussing the extended poor streaks of two fishermen with Francis Hutchings, an older fisherman, partially retired, and he laughed and said:

"They're always hoping to strike gold. One day they're going to go out and find better fishing than anyone's ever found. And some of them may. But if you stay at it long enough it evens up." When I then asked why he got out of lobsterfishing fulltime, he said: "Fishing's a gamble. You can't ever know enough, so you're gambling with your family's future. Oh, I do okay, but there are elements I can't ever really know, so I can't insure anything."

Harvey Rich is a good example of a man fishing by this strategy. For instance, he explains his frequent hauling and wide-ranging set by the chance of jackpot size catches: "There must be grounds we can't get at. I've been hauling three and four pound lobsters. There's no way those lobsters could have survived to that size with us fishing the way we are. I imagine they got stirred up somewhere else and now they're on the march."

The fishermen constantly turn over in their minds and discuss intuitions and perceptions about lobster movements. Though there is no consistent local system of signs, the men observe carefully what is in a trap they haul (aside from the lobsters). Usually there are numerous species of fish (including eels), two species of crabs, one of shrimp, one of sea urchins, and miscellaneous other species. There are also illegal size lobsters, mostly ones too small. There are fishermen who believe that shrimp signifies the presence of lobsters, and they will leave shrimp-filled traps in place. Others believe that

shrimp *should* signify the presence of lobsters, and if there are no lobsters along with the shrimp, they will move the trap. There are similar conflicting interpretations about eels, crabs, and other fish. Some men will try a single trap (or a couple) with a mark (like a charm) in it, and often they claim that such traps do better.

Many fishermen believe that the smaller lobsters precede the larger ones into a trap, and if it is hauled too soon it will be full of "shorts." The larger lobsters are imagined to spend a long time eyeing any new feature of the topography at a distance before engaging directly with it. If they see traps moving around a lot, they may stay away not only from those particular traps but all traps in the area. A group of fishermen on Mount Desert set up an experiment in a lobster car in 1969 felt that this particular hunch was "proven" by the lobsters' actions in captivity; they avoided active traps. Marine biologists more or less support this description of lobster behavior [Dow, personal communication, 1971].

It is virtually impossible to leave a trap too long from the lobsters' point of view. Lobsters in a trap do not starve; they eat what is in the trap and await the fresh food that drifts between the laths. The trap is safe, defensible, and in some ways, a perfect lobster house. Traps have been hauled with many of the laths broken off, permitting easy escape, but still full of lobsters. Perhaps a period of many months in the trap might harm the lobster, but few men haul this infrequently, and the main drawback of not fishing frequently enough is the loss of full fishing time from a trap.

In general, the men are occupying their minds while fishing, concerning themselves with those patterns which develop. "You're always trying to second-guess yourself," says Bud Higgins, one of the fishermen at Acadia Lobster.

"After all, variety is the spice of life."

A large number of the fishermen (those that enjoy fishing the most) are fascinated with the notion of chance. They are always looking for associations, much more than for explanations. Do lobsters fish better during the full moon? Will the shrimp come in after the solar eclipse? Will this storm stir the lobsters up or drive them into hiding? There is inordinate talk in general about being able to tell the future. Everytime someone dies, there are innumerable claims of it having been predicted. Wendell himself dreamed of his father's death and his neighbor's death at almost exactly the time they were happening elsewhere. People are either frightened by these visions or interested in them, but they have no sense that they are not significant events, to be regarded seriously. When the *I Ching*, the great Chinese book of chance divination, appeared in a popular edition in the local drugstore, Wendell had a copy almost immediately, and looked through it for what he called "the yogi sort of insight into these problems" (meaning problems of general strategy). In Rockland there is a female soothsayer to whom many of the men from other lobsterfishing areas (like Deer Isle and Port Clyde) go, but I have never heard of anyone from Mount Desert going there.

I believe that random adjusting of trap positions is an important aspect of fishing strategy, and one that makes sense, given the nature of the lobster population and the limits of the fishermen's knowledge. By trying different moves at different times, even contradicting his own explanations of previous moves, the fisherman is trying to achieve an average set over a long period of time which is more advantageous than any single set. This is similar to the procedure which Rapoport calls "finding the best mixture" in zero sum games [Rapoport, 1960: 156].

Perhaps also, as Moore suggests [1957: 69-74], there is a tendency for over-conscious strategy (such as strategy based on geographical and biological information) to lead into certain sorts of unconscious ruts. After a time the best fishermen have unintentionally achieved a sort of random strategy; they stop trying to discover unmistakable signs and thus are open to accidents (whose causes are too complicated for they themselves to predict). Moore says:

".....it is possible that through a long process of creative trial and error some societies have arrived at some approximate solutions for recurring problems [Moore, 1957: 74].

This is not as important a factor as real knowledge of the grounds or hard fishing, but it does help to explain the strong emphasis on shifting around traps in hope of a surprise catch.

C- When To Set Traps

1- Fishing Seasons

Almost any time *can be* a profitable lobsterfishing time. There is no true off-season, though for different reasons the end of the month of February and much of July are slow fishing seasons. Yet most men use different seasonal strategies of trap-setting and trap-hauling because there are numerous factors of cost, competition, job alternatives, and general economic conditions that affect each man differently. Because of the complications, we might most profitably begin by discussing what a typical seasonal pattern of lobsterfishing is supposed to look like; after that, we can examine why almost no one follows it.

March 18 is for many men the opening day of the lobster season (give or take a couple of days). Those who have taken up their traps begin resetting them, and those who are fishing offshore begin moving their traps

back in. Probably the inshore lobsters have become active somewhat earlier than this (or possibly they may not become active for another couple of weeks), all this depending on the weather conditions for a given year. The fishing is poor until around the second week in April. May can be an excellent month, with hauls in the neighborhood of 600 pounds per man per fishing trip during a good year. In June the lobsters begin shedding, and few are caught in the legal size class; a large percentage of those are softshelled lobsters, for which a lower price is paid. Fishermen often come in empty-handed. July is even worse than June, a trend which reaches a height in early August. After that the catches pick up rapidly again, as the price per lobster increases. In November, with the colder weather, the lobsters inshore have become inactive and the fishermen are resetting in offshore waters. As the winter progresses and storms become more frequent, the fishermen get to these offshore traps less often, and in 1970 the most anyone fished in the month of February was three times, though the traps stayed there.

What this immediately suggests is that there are times when it is less beneficial to be lobsterfishing, though to any individual the choice not to go fishing then depends on whether he has something more beneficial to do, even if that something is to protect his gear and build more traps. Everyone knows that there are

occasional windfalls in February and July also, though often at great cost. Many fishermen haul their traps the full year round, not because they are convinced that it is the best thing to be doing at each given time, but because they hope to increase their chances over a whole year period for a big catch.

A typical strategy then is to set one's traps inshore around mid-March; haul them through part of June; leave them set but not haul them till the middle of August; haul them from the middle of August to the middle of October; begin moving them out, perhaps fifteen fathoms at a time, from the beginning of August through the middle of December, hauling them all that time; fishing them where they are till February; taking them up for a one month drain; and resetting them in March inshore.

Probably no one fishes in exactly this way, but it is a workable model for understanding how people *do* fish. Many full-time fishermen only work part of the year, and supplement their income with other jobs or other types of fishing. Some men take up a different portion of their traps each year while continuing to fish year-round. Some men, like Wendell, move offshore much more rapidly (around thirty fathoms a time); some move hesitantly. A number of men leave their traps down for long periods without fishing them. We cannot examine the whole strategic situation unless we expand our calendar of activities to show the seasonal nature of other extractive activities on the island and their direct and indirect influence on trap setting and hauling. A chart is given below.

	lobster	shrimp	scallop	cod*	haddock	halibut	hake	woodcutting
Jan.	1	1	2					3
Feb.	0	3	2					3
Mar.	1	2	2			1		1
Apr.	2		2		1	3		0
May	3			1	3	3		
Jun.	2			3	3	1	1	
Jul.	0			3	1		3	
Aug.	2			1			3	
Sep.	3							1
Oct.	3							2
Nov.	1		2					3
Dec.	1	0	2					3

*including occasional pollock found while fishing for cod

Key

- 0 - Done during this period of time, but by very few and without much effect.
- 1 - Done by a few with marginal success.
- 2 - Most of those who participate in this activity now participating.
- 3 - Most of those who participate in this activity now participating, and optimum time.

Table #3: Extractive Activities by Season on Mount Desert

Men can participate in any extractive activity with the possible exception of woodcutting, while leaving their traps down. Most men shrimp-fishing will take their traps up because the heavy shrimp-fishing gear makes their boats useless for lobster-fishing for the season; they can leave their traps and go with someone else in his boat, as Harvey and Wendell. The existence of other simultaneous possibilities directs much lobster-fishing strategy, for when a man leaves his traps down and engages in some other type of fishing, that fishing becomes part of his strategic lobster-fishing.

2- Winter Fishing

Many of the men who lobsterfish offshore during the winter suffer long dry spells, usually because the weather makes it difficult to haul traps with any speed and on a consistent basis. Those who need income must try other types of fishing. Dragging for scallops, with inexpensive gear in shallow waters (usually in Blue Hill Bay or Frenchman Bay), is an option on days that are too stormy for offshore fishing but bearable in the protected waters of the bay. As suggested earlier, scallop-dragging is less for cash than for the food to eat and goods to trade at the market for groceries; in 1972-74, however, with lobster catch down, many of the lobster-dealers began buying scallops as a regular part of their business. Some of the poorer fishermen, and some of their even poorer relatives (as in the Seal Cove, Murphy Swamp, and Bartlett Island Landing areas of Mount Desert) keep a stew going all winter that can be continually "nourished" with what is caught in a scallop-drag, or even in a lobster trap. This includes: cunners, sculpins, dogfish, "inedible" crabs, and sea urchins, plus anything else that is not easily marketable. Although most fishermen disdain eating these things, or even the fish they catch, the fact that a meal is always available for anyone (provided he is related in some way to a fisherman) is a foundation of the socioeconomic

system (I know of no one born on the island or there any length of time not related, either actually or fictively, to a fisherman).

I might add that scallop-dragging is regulated by State law. It is permitted only from November 1 to April 15, to keep the fishermen from decimating the scallop population; and there is a limit on fineness of mesh size in the nets used for dragging (to protect scallops less than 4 inches). Because of this latter regulation, the fishing one year, if successful enough, may curtail fishing the following year if the number of newly grown scallops is not particularly high. "The sudden appearance or disappearance of scallops in an area can usually be attributed to survival of year classes rather than to migration" [Baird, Jr., 1967, 10].

Other winter-fishing options, such as general dragging, shrimp-fishing, and woodcutting, preclude a continued lobsterfishing effort.

3- Summer Fishing

The type of summer-fishing interspersed with hauling of lobster-traps is mainly handlining, sometimes trawling (both involve lines and hooks). The draggers are more active at this time too, but their boats are rigged only for dragging, and they do not enter into the lobsterfishing picture. The major difference between summer-fishing strategy and winter-fishing strategy is that the choice to go handlining or trawling instead of lobsterfishing is occasioned directly by feedback from lobsterfishing, whether that be trapcutting or empty traps. These other types of fishing make lobsterfishing economically viable for a number of men.

Some fishermen alternate lobsterfishing and dragging on a year to year basis, but this strategy should not be confused with one involving handlining and trawling even though the same species of fish are often sought. The

draggers require at least one hired man, a prescribed splitting of the catch, plus a large investment in gear. The lobsterfisherman can go handlining for about \$6 a day (including fuel, wear on boat, gear, and lunch), and whatever he catches is his own, without shares. During poor lobsterfishing times in June and July from 1970 to 1974 (and no doubt other years also) Wendell has left his traps down, hauling them occasionally for what they catch, while basically handlining or trawling. He can even check his traps sporadically on days he is looking for cod and pollock. In the summer of 1971 he had several days of 800 or 1000 pounds of cod at 6¢ a pound. Even with lobsters at \$1 a pound, he was rarely bringing in more than twenty pounds a time, and often less. Now cod is worth even more.

Knowing the grounds for cod, haddock, halibut, hake, and pollock is a different matter than knowing the grounds for lobster, though the same system of landmarks is used and the grounds may overlap. The more experienced fishermen have a huge advantage over others in handlining and trawling because they had done this type of fishing before. With the dominance of the lobster in recent years, no one has considered it practical to learn what-seemed-to-be quaint and archaic skills. Many men now try to learn it from those who know it, offering to fish with them for a small share. However, only some of the fishermen have a handlining option in any sort of a reliable way. It might be added that not even all the older fishermen have learned either the techniques or the grounds for these traditional forms; there have always been more attractive possibilities and the trend has been toward technological innovation. Even haking is not an ideal apprenticeship for codfishing and halibut-fishing.

Because Wendell comes from a family with a tradition of codfishing, he has learned the grounds thoroughly and shares the knowledge with only a handful of fishermen; thus,

more usually frequent pebbly bottom). This is perhaps related to local conditions of feeding.

As ground fish, cod hang extremely close to the bottom, especially the larger ones, and the lines must be let out all the way [Bigelow and Schroeder, 1953: 184]. According to Wendell they bite very slowly, and for this reason, and because of their depth, it is hard to make a haul of cod much in excess of 1000-1500 pounds.

One of the advantages of cod-fishing is that one may come across a school of pollock while fishing for cod; these fish are higher up in the water and more active in pursuit of feed [Bigelow and Schroeder, 1953: 218]. Although they bring no more per pound than cod, they may be fished much more rapidly, and Mount Desert fishermen bring in twice to three times the haul they would get for cod alone. Every codfishing venture is a secret expedition for pollock also, and Wendell continuously weighs the possibility of hitting pollock while he is out fishing for cod. This has happened less and less in recent years, and the pollock now seem fewest at the time the interest is greatest. We might say that while cod-fishing is part of the lobsterfishing strategy, pollock-fishing is part of the cod-fishing strategy. This "nesting" of games and expectations suggests a single fishing effort with a single strategy, altered to fit changing economic and ecological conditions.

D- How Many Traps To Set And How Often To Haul

1- Trap Number And Space

Trap number, trap placement, time of set, and speed and frequency of haul are interdependent functions of any fishing effort; they combine in a single strategy for any individual fisherman. A man who has more traps can make use of a greater variety of territories and/or any one territory more thoroughly. Similarly, the more active one is in

hauling his traps, the more he can make each trap bear. There are, however, modifications.

The number of traps represents the amount of space one controls in which lobsters might be caught. In the sense of absolute space, fifty traps might be enough if there were no other fishermen and if these traps were deployed wisely. In fact, this would be an excellent number to begin with. The risk in loss of gear and the wear on gear would be small, the traps could be hauled in part of a day, and a man would have time to do other things (for additional income). If a person were particularly ambitious he could build up from fifty to the number he could haul on any one or two days, depending on his strategy, and then stop when he reached his limit. In no competitive fishing situation is this possible. In Stonington some men fish as many as 1500 traps and are still in the process of adding to their stock. These traps add nothing to the total catch of the area, and in fact are in the process of reducing it through the secondary effects on the lobster population of overfishing (despite return of undersize and oversize lobsters), such as disturbed bottom, injured lobsters, etc. There is also an increase in number of snarled lines, traps lost, and lobster areas fished out early in the season when the price is lower. However, since the lobster population is limited, an increase in the number of men fishing (or, more specifically, the number of traps in the water) means a decrease in the catch per trap. As the catch per trap falls, the fishermen must add more traps to get the same amount. The result is: that overfishing becomes a positive feedback process; the only control the fishermen have at this point is trapcutting. They can reduce the number of traps in their proximity (and the total number of traps, including their own, given the expected retaliation). I will deal with trap-cutting itself in the next

section and confine my discussion here to the strategy of trap number and frequency of haul. For although the real cause of increasing trap number in any one area is the growing number of fishermen, the fisherman reads it, on a day to day basis, as a decreasing number of lobsters in each trap. Thus, until overfishing leads to trap-cutting, the individual conducts his strategy vis a vis the lobsters.

2- Trap Number And Fishing Success

There is a clear-cut difference between the better fishermen and the less successful ones. Despite the effects of all the other aspects of the fishing effort the best fishermen are the ones that constantly rebuild and add to their trap supply and fish the most frequently. This does not mean fishing too many traps or overfishing traps or taking foolhardy risks. There is a minimum effort necessary to maintain a successful fishing operation from year to year; between that and the maximum effort that will yield representatively greater gains there is not much margin. Effort is the prime dynamic factor behind the successful fishing strategy, just as knowledge of the grounds and interpretative memory is the essential basis. Neither works alone, and generally they are joined in the same individual, one continuously sparking and giving rise to the other. This is not to identify effort with often-wasteful "hard fishing." Effort is a practical ethic, much as Kottak [1966: 216-217] describes for Brazilian fishing communities: the men who have the best success work the hardest and are willing to take calculated risks. On Mount Desert, two such strategically-different fishermen as Harvey Rich and Wendell Seavey are both hard workers. They haul large numbers of traps during the seasons that the lobster price is highest; they continuously seek new fishing areas; they go out on uncomfortable days; they do not drink much; and they keep up a good supply of traps, which they conscientiously add to

whenever it is necessary. There are fishermen who violate just about every one of these rules. Some are unable to step up their fishing effort when it is necessary; they are lazy in moving traps; they "turn over in bed" if it is windy and arrive at the wharf too late to go out if the weather changes; they drink enough to lose fishing days for that reason alone; and they are slow in replacing traps, and do not add to their trap number when they see their catch getting less per trap. Ultimately some drop out of fishing; other blunder along with a haphazard strategy (which is caused, in part, by a partial effort), and complain a lot about the luck of others.

On the other extreme are the fishermen who substitute overwork for knowledge. They mistake the hard and continuous labor necessary in lobsterfishing for blind manual labor, and for them the work ethic becomes an obsession and a liability. As Wendell said, there are some men who will not even have a friendly drink of wine every now and then; they are not just doing God's work; they are obsessed with God. We will discuss this later in the section on ideology, but for now we will limit our examination to some of the effects of fishing effort.

A fisherman who attempts to haul as many of his traps as possible on consecutive days is wasting fishing time. If he finds 800 pounds on a good day, he will not get more than 200 pounds the next day, and even less the next day. A man hauling his traps in slow sequence, giving them time to "set over," can haul the same 1000 pounds with much less effort. The man fishing too hard may overlook strategic subtleties and not exploit a wide enough variety of territories. He may also build too many extra traps to compensate for overfrequent fishing of the ones he has.

There is a difference between a fisherman overfishing his traps and the type of high-cost, intensive fishing

strategy described in the previous section. In the case of the latter, the fisherman is getting a large yield for his overtime, but he is also paying a high cost. The fisherman who hauls too frequently or sets out too many traps is not even getting an increased number of lobsters for his extra labor. Fishermen are suspicious of those who fish unusually long hours. There is always the possibility that they are recouping their losses by hauling other people's traps at odd times. There is a very clear distinction in the minds of fishermen because an honest hard worker and a fanatic. Whereas effort, sobriety, and reasonable risks are recognized factors in any fishing success, blatantly counter-productive effort is regarded suspiciously. The sentiment is that, if a man is not stealing from others' traps, he is still trying to catch more than his share of lobsters. The Maine Lobsterman's Association, though unable to agree on much, has succeeded in backing a law (now on the books) banning fishing on Sundays during the summer. Such a law favors those who make the most economical use of their time spent on the water. As we shall see in the next section, there are also harsh levelling measures individuals can put into operation if they think a man is fishing too many traps and getting out of his territory.

In the Mount Desert region in 1969-70 a "good" number of traps is something between 150-200 for a fisherman with some other source of income (as Fred Beal, who receives disability checks from the Government for his war injury) and 350-500 for a fisherman working full-time and with no other certain form of income. This figure is up over the last five years from about 75-100 on the low end and 200-250 on the high end (and has continued to rise to 650 on the high end in 1974). We will examine the reasons for this dramatic rise later. In any case, it is clear a fisherman must do more than just rebuild traps lost and damaged in the lobsterfishing effort; he must add 40-50 traps a year. In

1969 no one would admit to fishing more than 500 traps, but some men were probably fishing from 800 to 1000; anyone fishing this many was outside the community consensus and his traps were being cut.

Fishermen neither give nor allow others to get an accurate count of their traps. My figures are estimated from the number of traps hauled up during the winter, the amount people said *they* were fishing, and the amount they said *others* were fishing (an average of the latter two figures probably is close to the actual number for the person queried). If my numbers are somewhat off, the analysis still holds; there are key amounts, and the fishermen themselves are quite aware of who is fishing what percentage even if they cannot say in absolute numbers either.

3- Frequency Of Hauling

a- Primary Factors

Frequency of hauling is a more complicated issue. A man tries to get the best fishing out of a trap with the least effort (in part so that effort can be spent on other traps). But he is also sensitive to the demand for lobsters at the time he is fishing (which might cause him to go fishing, or hauling, more often) and the time of set needed to attract lobsters to a trap (which might cause him to go fishing less often than he would otherwise desire). There are extremes, and we have discussed them. On the one extreme a man may fish so often that he actually decreases his catch, by not paying enough attention to placement of pots and by disturbing them while the lobster is still eyeing them. On the other extreme a man may get lazy and not fish hard enough; on the ostensible motive of leaving them set long enough, he allows the best-placed traps to fill up without emptying and rebaiting them. There are also seasonal and micro-seasonal variations in lobster activity; daily hauling can be surprisingly successful during brief periods when the lobsters are active. It takes experience and judgement to know when to haul with this frequency, for

there are also times when traps must be left a couple of days in order to fish consistently. During the winter, when lobsters are less active and it is more expensive to reach the average trap, daily fishing would be foolish. If there are men who haul more often than is necessary (despite the stigma attached), there must be secondary benefits to fishing and subtle consequences of not fishing.

b- Secondary Benefits

Many men have trouble when they do not fish. They tend to spend money, often on liquor; some are inveterate shoppers, and fear the opportunity to go to Ellsworth or Bangor (either on their own initiative, their wife's, their family's collectively, or out of general uneasiness with the free time at home). One might wonder why they waste hard-earned money, but the winters are long, and without much amusement. The traditional forms of socializing (dances, community functions), have deteriorated, except on the outer islands. Color television sets, pool tables, expensive toys for children, rifles, etc., are all popular. Daily fishing is a protection against these temptations. At first I thought fishermen were invoking a common superstition when they launched off into the fog claiming that if they stayed home they would end up in Ellsworth spending money. Perhaps the fog might clear and they would have a productive day (as was often the case). However, on many bad days they *did* go to Ellsworth or Bangor, and the results were often economically staggering. They would return with cars stuffed full of packages, mostly luxuries, and spend much of the next day at the wharf listing what they bought in amazement, as though now sober.

If one stays in, there is also the possibility of getting into bad habits. Fishing is habitual hard work, and breaks in the pattern are disturbing to many men. They miss a day, then decide to take another day off, and when they come back, bad weather may have shifted their traps

around, or they may lose the places of some of their traps, forget patterns of strategy, and in general lose their rhythm. "My traps are so shifted around I'm gonna have to do some damn good concentrating when I get out there; it's been so long since I've been out:" Harvey Rich said this after only three days off the water, but including a trip to Ellsworth, a trip to Bangor, and a small storm. A strategy depends on fishing traps in a certain order, or consistent variations of that order, in a continuous experiment to determine where, at a given time, the lobsters are, to create a picture to which the men can then respond by a pattern of trapsetting and hauling. Haphazard or sporadic hauling does not encourage careful strategy. Men begin fishing their traps out of order, forgetting some, not concentrating on the pattern enough to serve intuition. As important as spontaneous guesswork and randomness are, it is impossible even to catch a marginal amount of lobsters without sufficient attention to the location and frequency of fishing of core traps in relation to more remote traps. Even if a man decides to leave an unsuccessful trap in place in hopes of a change in lobster activity, he must attend to it, making sure it has not been cut or disturbed by the weather, and ultimately he must change the bait before it decays beyond the point of fishability. He must work the trap (haul it) even if it is only for the negative information it gives him.

c- Trap-Hauling Patterns

The most usual fishing pattern in the Mount Desert area is to haul and reset about half the traps one has each day. In August and September, when a high price goes along with a good supply of active lobsters, the fishermen may haul more, up to 250-300 traps in a day. In some seasons the traps are hauled and a certain number taken in to dry each time; in other seasons additional traps are brought out and

Month	Daily Trap Hauls	Average Catch	Set-over Hauls	Average Catch
August	104	3.16	110	3.03
September	85	3.58	397	2.95
October	52	2.35	244	2.78
November	76	2.96	198	3.55
December	240	2.42	260	2.28
January	-	-	172	1.90
February	54	3.56	174	2.48
March	16	1.75	180	2.34
April	72	1.51	274	1.79
May	108	1.53	416	2.32
June	-	-	80	2.61
Total	807		2505	
Average		2.546		2.524
Average Traps	11.4		12.6	

Note: the figures 2.546 and 2.524 apply to number of lobsters per trap per haul. Set-over hauls are traps left at sea for longer than an overnight period. When finally hauled, the catch from them is called "set-over."

[Dow and Trott: 1956: 71.]

Table #4: Daily Trap Hauls Versus Set-over Hauls, Average Efficiency

set strategically in the course of hauling (there is an attempt to accomplish transitions between seasons gradually). Although half the traps may be hauled each day, some traps are hauled two out of every three days, others every other day, and some one out of four or one out of five days. This is a part of a continuously-changing strategy vis a vis each trap. It is mixed with a continuous series of decisions about when to take up traps, when to begin putting down additional traps, and when to start building new traps. These decisions are based on the fishermen's necessities and the aforementioned interpretations of lobster behavior.

In 1950-51, the Maine Department of Sea and Shore Fisheries [Dow and Trott] conducted a study comparing the average catches from daily trap hauls and set-over hauls. The research was carried out in three separate Maine coastal fishing areas for the purposes of testing lobster abundance, not strategic merits. Although it would be dangerous to apply the data in hopes of a clarification of the different strategies, the table is presented for what light it does shed.

Dow and Trott's conclusion is:

"Average trap haul catches were greater for set-over fishing during October, November, March, April and May, while daily haul catches were greater in August, September, December and February. It is doubtful, however, if these results have any significance as far as seasonal differences are concerned. Too many other factors, including weather conditions and demand, influence fishing effort and would, thereby, modify results" [ibid.: 6].

It is just these modifications which would interest us, however. The lobster price is highest in August and September, and the price goes up from November to December, often significantly. The February figure is probably irrelevant because the inclusion of areas further south in

the study gives more hauls for February relative to the rest of the months than I have observed for Mount Desert. In June and January it is doubtful whether anything but set-over hauls would work (in the first case because of moulting, in the second case because of stormy weather), and during the other months set-over traps probably provide the best and simplest basic strategy. This is a rough series of interpretations, though; and it would appear that the most meaningful implication of this table is that lobsterfishermen probably know what they are doing in either case, the final averages being so close. Thomas came to the same conclusions about lobsterfishing efficiency in Scotland [undated, Scottish Home Department].

4- Hired Man

Trap number and frequency of hauling are directly related to another element of strategy: whether or not to fish alone. There are no partnerships; the alternative to fishing alone is a hired man or a helper. A 50-50 partnership is not functionally impossible, but the means of building up a lobsterfishing business reinforces independence, and most fishermen want to make their own choices at sea.

Two men fishing can haul almost twice as many traps, which is necessary in areas like Stonington if one is to get a reasonable percentage of the total community catch. It is not necessary on Mount Desert simply because a man is able to fish all his traps in sufficient time to get a satisfactory portion. Only 3 of the 75 fishermen on Mount Desert have a hired man; others have taken along a helper when they have been sick or hurt (some retired fishermen go for the fun of it on occasion, or to collect the fish and crabs hauled up in the traps). Especially during the late summer months men will invite a young relative (occasionally a father or wife) who does not demand a full share; at that period on Mount Desert the increased

trap-hauling frequency may pay off.

A real hired man gets a third, which is considered a full share, because a third goes to the boat (with the other third going to the fisherman whose boat it is). Actually, it is a two-thirds/one-third split.

In Stonington and the Deer Isle area almost everybody fishes double, with the position of hired man being a regular occupation in the community. Often they are paid so they can collect unemployment in the off-season. In most of the cases the hired men are not close relatives of the fishermen, and they are not working toward building their own fishing operation. Since the minimum viable gang of traps in Stonington is around 900, and most men are fishing closer to 1500, some over 2000, it is clear why this procedure is the rule in Stonington and the exception on Mount Desert. The hired man either helps with the bait bags while the fisherman is unloading the traps, or hauls alternate traps. He can also plug the lobsters' claws while the boat is en route to the next trap, and generally keeps loose ends in order.

Despite the obvious advantages of fishing double, most men prefer to maintain total control over their operation. They want to keep their strategy secret, especially those aspects that might be illegal (trap-cutting or taking in short lobsters for private sale). They want to hide the number of lobsters they are catching, not only from fear of being followed but because of income tax cheating. Independence is cultivated if conditions do not discourage it.

5- Number of Traps Per Line

A final consideration related to trap number and frequency of hauling is the number of traps to fish on a line. Additional traps can be added between the main line and the original trap [See Figure #4]. By splicing

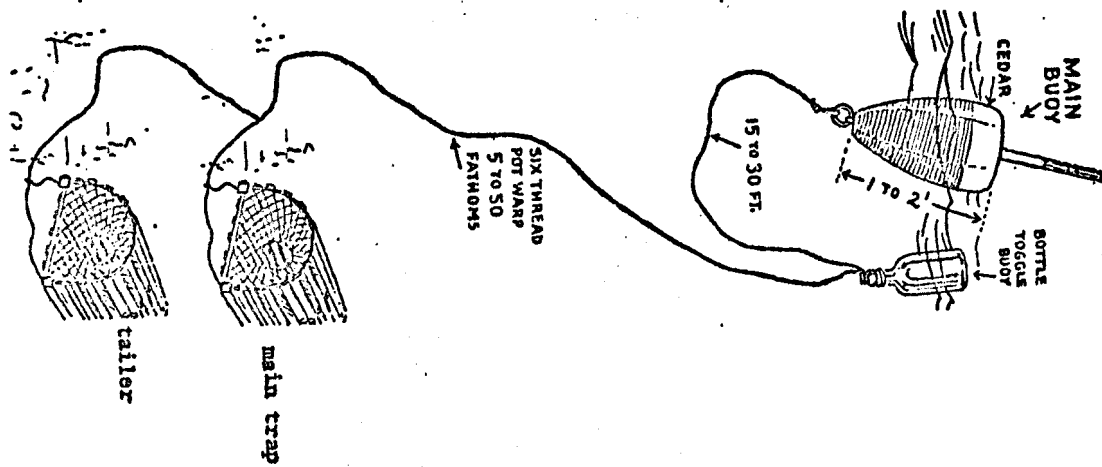


Figure #3: Two Traps on a Single Buoy and Line (Maine Department of Sea and Shore Fisheries)

into secondary lines, innumerable traps can be added; however, most fishermen on Mount Desert fish single traps in shallow waters, double traps much of the time in deep waters, triple traps on rare conditions, and never any more. In other areas, such as Casco Bay, long strings of traps are fished on a single line.

The advantages of fishing two traps on a line are: less rope, less time hauling, and larger hauls, all of which are critical in deep water, less so in shallow water. The disadvantages include: greater chance of snarling, higher loss in case of separation from buoy, and too many traps too close for effective deployment. Fishermen also claim that when double traps are used, the tailer (or trap off the main line) invariably fishes better, not only than the main trap but than other single traps in the area. The likely explanation is that the tailer is less mobile and therefore less suspicious to the food-hunting lobsters; the vibratory effect of the tide and wind would fall predominantly on the main line. Those fishermen who do not fish double traps during the winter argue that one of the traps is always empty, or that they "steal from one another" and are no better than one trap. It is possible that different fishermen have had different initial experiences with fishing tailers and then tend to stick by their first conclusions. "Doubling up" is a strategic variation on Mount Desert, though not one of major import.

E- Miscellaneous Factors Pertaining to Catch

1- Trap Type

The lath-and-twine style of lobster pot has been in use for more than a century, and despite innumerable attempts by various companies to interest the fishermen in different types of traps (and consequent experiments by fishermen with these traps), no one in the Mount Desert area has consistently

used any other kind. The lobster pot is, on the average, 2 feet by 1 1/2 feet by 4 feet, rounded on top, and with a door to allow removal of the lobsters. Funnel-shaped openings made of nylon twine on either side (the heads) allow the lobster to enter the trap but prevent it from escaping. In order to reach the bait, which is hung in a bait bag from a nail on the inside of the trap, the lobster must crawl through the funnel. The lobsters from both heads are fed into the center of the trap.

Fishermen have varied the shape, the size, and the material of the pots without success (or, more accurately, without satisfaction). Harry Smith, a fisherman in Bass Harbor, worked for a full year part-time on a "perfect trap," with a maximum number of openings for the lobsters to enter. The trap required extensive netting (both in work and expense), and all the variations of its design failed to outdo the trap in use; most of them caught less. Larger traps have been tried and abandoned because they were found to hold no more lobsters than the size presently in use. Solid traps do not pull up easily and do not allow food through to the lobsters. Wire and plastic models were used (to prevent excessive wear), but they, for some reason, consistently brought in fewer lobsters, were more expensive initially (leaving the fishermen with no traps to build or repair in spare time when labor is free), more susceptible to cracking and pinching (or wires together) from lobster and crab claws, and, in the case of wire, easily rusted.

I would guess the one hundred fifty years or so of continuous trial and error lobsterfishing, during which time the design was hardly as standard as it is today, led to certain decisions about what the most effective type of trap was. With the trap currently in use, a certain empirical level of success was realized, and the design became more standard. By genetic analogy, the ideal trap

is a "mutation," an accidental design, selected for over the years, gradually replacing other types. All indications are that the "mutation" originated in the eastern region of the coast, probably east of Deer Isle, and then spread. There are accounts of it reaching areas to the west around 1830 [Jordan, 1965: 194]. The answer to why this type of trap is successful would probably lie in an unwritten textbook on lobster physiology and psychology, but we need not have the text to derive the trap. The fishermen probably compared their catch with each different type of trap they used, even as they still do while experimenting with technologically innovative models. In an earlier time, trap design was obviously a key item of fishing strategy, and the fishermen spent some time trying to figure out the best type of trap [Jordan, 1965: 195]. The strategic significance of trap type has since diminished, and will remain relatively unimportant unless there is a change in the lobsters' preference or a new type of trap that is clearly superior. With the large number of people fishing, in fact, the main strategic focus is on fishing grounds.

These features of the semi-cylindrical lath-and-twine trap are obviously important: it does not scare the lobster; it does not disturb the lobster while he is entering it; it does not allow the lobster to escape; it keeps him alive; it is not easily damaged by the collective elements (including the lobster); and it is not overly difficult or expensive to construct (giving the fishermen a way to reduce their costs in their free time). How some of the newer models fail in various of these characteristics is unclear (for instance, why they do not attract, or why they scare away, lobsters); other things, such as the pinched wire, or the additional expense, are more obvious.

The lobster trap has often been admired for its taut functional craftsmanship. R. Buckminster Fuller has suggested

that the design is based on certain basic geometrical laws and that his first inspiration for the geodesic dome came from the lobster traps he saw during his boyhood in Maine [Fuller, 1965].

2- Bait Type

Bait is also something that was more experimented with in the earlier years when the fishermen had time to catch their own bait. Bait is now available ready for use at a price that would make it foolish for one to catch his own and lose fishing time by it. The lobsterfishing pace has become much more intense because of the competition, especially when the price is high, and the fisherman cannot spare the time out of the water to find his bait. This issue would be more appropriately considered under the strategy of choosing a wharf because it is the dealer's responsibility to provide his men with bait and the dealer tries to judge which bait is best. It is more important, however, to have some form of bait on hand all the time than the preferred bait some of the time, as the amount of lobsters lost by missing a day is much greater than those gained by the questionable virtue of a different bait. Most fishermen simply want bait when they need it and will compromise type.

Studies conducted by the Maine Department of Sea and Shore Fisheries have shown redfish to be the most effective bait and herring the least effective. If herring is given a fishing efficiency rating of 100.0, the ratings of other baits would be: green crabs (110.2), alewives (124.3), redfish (salted: 125.5 and frozen fresh: 129.2) [Dow and Trott, 1956: 8]. The fishermen still use herring a great deal of the time, and some prefer it to switching from bait to bait (herring is most often available on Mount Desert because of the proximity of the factories).

Many fishermen engage in some trial and error experimentation with the bait, putting more or less in a bag,

letting it decay a bit more or using it fresh, or even trying out varieties of fish from weirs if they happen to have access to one.

3- Buoy Type

Wood buoys are the most common. Styrofoam buoys have been tried but are not popular. Fishermen feel they disappear; perhaps gulls eat at them. Sponge buoys appear to weather storms, water, and birds best, but they are expensive (between \$1.00 and \$1.50), and few fishermen risk adding to the standing cost of their rigs at sea. Some feel that the more expensive trap should be protected by the buoy least susceptible to being sunk or torn apart.

4- By-Products of the Fishing Effort

The elements of prime strategic importance in lobsterfishing have gradually changed. There is now much less emphasis on trap type and catching bait and more emphasis on number of traps and engine type. Lobsterfishing is, from one point of view, a minor event in a previous fishing complex that grew as the center of a subsequent complex. Lobsters were discovered secondarily and marketed originally as a by-product of the transportation of other fish. Likewise, lobsterfishing now contains within it the possible origins of other fishing and trapping strategies. For instance in the setting and hauling of lobster traps many species other than lobsters are caught: varieties of fish, shrimp, sea urchins, and crabs. Their sale is a distraction, so some men discard them; others exchange them with non-fishermen for possible favors later, or give them to poor relatives; some sell them to the local markets, especially during the summer when there are tourists in the area. In fact, with the increase in tourism, crabs are becoming a lucrative item.

Some fishermen, in the process of following the lobsters and trying to increase their lobster catch, or

without any solid hold on good lobsterfishing grounds, and in the process of being driven out of marginal grounds too, have hit upon areas of bottom where commercial amounts of other species will enter their traps. A few have discovered their own crabbing grounds, and they maintain these with a secrecy usually reserved for lobster grounds. They fish them with lobster-traps, not distinguishing between the traps except by their placement (information only they have). As overfishing of optimum grounds drives people into marginal grounds, and beyond, more and more species are caught (crabs being a notable case because they inhabit smooth muddy bottom, which is a poor lobster environment).

In 1968 some fishermen in Boothbay Harbor began selling sea urchins (*Desmosticha*) hauled up with lobsters. They got enough money for them to encourage their effort, and, through the work of one man, developed their own markets in Montreal, Boston, and New York (the sea urchin is used in Italian and French cooking). The men have now abandoned the lobster trap except for deep water and adopted special nets, fishing urchins out of four or five feet of water from rowboats. Operating intensively in this new zone, they have discovered other marketable species that are not as seasonal as the sea urchins (which appear inshore to mate in February and crest in April). Both periwinkle collecting and mussel gathering have become mainstays of their operation. Wild has reported a similar transition for scallop-fishermen in the Martha's Vineyard area with the recent discovery that horseshoe crabs (*Limulus polymephus*) are valuable in the preparation of purified blood extract. Once useless, they are now worth from \$1 to \$2 each [1974].

Lobsterfishing strategy, like any strategy of economic survival, is not limited to its original species; the real goal of the strategy is to maximize profits, not to catch

lobsters. If the strategy itself reveals a different species worth focusing on, then this aspect of the strategy will be reinforced, at the expense of the lobster, who is, himself, superficial to the real effort. As accidental culture trait may often find a use in a new configuration of cultural patterns [Malinowski, 1960: 28-30]. By the same argument, one might say that there is no lobsterfishing strategy per se, simply fishing strategy, but I would suggest here that fishing with traps and buoys is a special game and that it is the territory-seeking aspect of this game, as played with lobsters, that leads to other species. "We were starving on lobsters till we found these whore's eggs," Ralph Gower told me (using the general wharf name for sea urchins). It is interesting that sea urchin and periwinkle collectors, although they are too busy with their new venture to put down traps for lobsters, still refer to themselves as lobsterfishermen. They are lobsterfishermen pursuing one aspect of lobsterfishing strategy to its natural lucrative extreme. A similar sequence could be offered for the development of worm-digging out of clam-digging, for it was the combination of overdigging in clam grounds and change in a variable regulating the clam population that led diggers to seek a new species to dig and a new market to which to sell.

Of course, lobsterfishing strategy remains a special case of fishing strategy, developed when other fishing efforts proved to be economically non-viable. This is why "lobster-trappers" still call themselves fishermen. The name "lobsterfisherman" or "lobsterman" is used only formally and categorically, and never in relation to one's self. By contrast, the name "fisherman" still means "codfisherman" in Newfoundland, and the terms "lobster catcher" and "salmon catcher" are used literally. This was the case in Maine a hundred years ago. [Faris, 1966: 32].

VIII- Strategy Involving Other Fishermen

A- Territory

The fisherman does not operate in a vacuum. Aside from the density of traps in optimum and marginal fishing grounds and competition to place traps in specific optimum places (obvious by-products of competition), fishermen also attempt to lay claim to certain areas as their private domains and to keep others out; at the same time they try to invade each other's claimed domains (even while protecting their own), and new fishermen attempt to gain rights to fishing grounds.

The entire matter of territory and defense of territory exists outside of United States Law and Maine Law. The lobsterfishing license that every fisherman possesses entitles him to fish anywhere in Maine coastal waters. A person attempting to break into someone else's grounds will cite this as evidence of his rights. Since territory is illegal, I was unable to get information about it from fishermen for months. Those I questioned would shake their heads and *ask me* how there could be territory in open waters. A few might admit that in the past people used to cut traps to keep other people out of their grounds, but they insisted that it never happened anymore. "How can I have territory," said one fisherman at Jasper's who was spoken of widely as willing to cut others to keep them out of his grounds. "The State Law forbids it. Anyone can fish where they want. Of course, if someone gets too close to me and snarls lines I'll cut him off. But he's entitled to be out there just as much as I am."

B- Trap-Cutting

1- Present Form

There is as much humor and irony in this as evasiveness,

and the two serve each other. Trap-cutting is the foundation of territory, for, as stated earlier, there is no fishing territory as exclusive as lobsterfishing territory. Draggers and handliners can go anywhere with impunity, as long as they do not interfere purposely with each others' work. Clam-diggers and worm-diggers travel the length of the coast. Shrimpboats, which are simply converted lobsterboats manned by lobsterfishermen, travel from region to region looking for shrimp. In lobsterfishing, territory exists because it can be enforced; men may grumble about draggers coming into their area, but short of going out with rifles there is nothing they can do about it. In lobsterfishing *there is*, and the action available is clandestine and safe; it involves using one's fishing knife to cut the line connecting someone else's trap to his buoy; the buoy floats loose, often to be found by its owner; whether it is or not, he generally comes to understand that someone does not want him fishing in a certain spot; not only is the message gotten across, but the goal itself is accomplished, and this is how it stands, unless there is retaliation. Trap-cutting is illegal, and the State wardens have been told to enforce the law. This matters little; it is a near impossible offense to prove in court, even if one is certain who is cutting, and there is a tacit understanding between the fishermen and the officials that no interference is wanted. The fishermen would prefer to settle it by themselves; this keeps outsiders out of their business and saves expensive court costs. On occasion a fisherman will take the issue to court; one did about ten years ago in the Mount Desert area, and lost the case for lack of evidence. A fisherman who takes a cutting issue to court rather than settling it himself in the recognized ways is risking certain ostracism from the community of fishermen, and continued

trap-cutting until he is forced out of the fishing business. Finally, the men are so skillful at cutting traps when they are not being observed (having developed strategies of knowing where every key person is at every time) that, short of standing guard over one's traps, there is little chance of catching someone. Initially, the cutter has the advantage because he is the only one aware the game is being played. He often retains this advantage for a long time because with so many men fishing it is not always certain who is doing the cutting, and the one being cut must be careful not to involve a third party in the squabble by cutting back the wrong person. We will discuss some of these strategies in detail later, but for now it is important to see that trap-cutting, though illegal, is acceptable behavior in the community, and is extremely effective if done properly. It is the only positive strategy by which the fisherman can reduce the increasing density of traps around him and thus improve his own fishing effort. The courts can protect individuals within certain limits, but a person must also be able to survive in the community, and trap-cutting as an effective mode hinges on this sanction.

2- Historical Forms

Although trap-cutting emerges from the specific conditions and technology of the lobsterfishing operation, the concept of protecting a vital operation on the open seas is an old one; wherever unprotected wealth is transported without sufficient protection, systematic piracy may well arise. Francis Drake proved very early in the history of the Americas that Spain could not transport gold back to Europe with the same impunity with which she took it from the Indians unless she could protect her cargo at sea [Adams, 1902]. In the days of colonial rivalry between England and France and Portugal, a means of driving an opponent out of an area was to tear

down the racks on which his cod were drying while he was fishing for more. No fishing venture could pay off if the fisherman had to guard the cod while it dried. If they were not engaged in further fishing, they were busy catching capelins for bait, repairing their gear and boats, and resupplying themselves with fresh water and firewood [Sauer, 1968: 56]. Although this is the reverse of the lobster-fishing situation (on land instead of at sea, and after the catch has been made rather than before), the result is the same, and the method is the only one possible, given the means of catching cod (by handlining then) [Seavey, 1958; MacNutt, 1965]. Later cod was caught by trap and fishermen had territory or "berths" in the immediate offshore areas, a method still used in Newfoundland today [Faris, 1966: 34]; thus we have something of a continuity of "fishing" territory.

There are two alternatives to overt hostilities: clandestine territorial defense and secret grounds. Both of these have been mainstays of fishing in European culture. Sauer, following D. B. Quinn, cites the likely discovery of North America by the English fishermen in the 1480's. Since the discovery was essentially one of exceptional fishing grounds, it was not only not heralded; it was not even mentioned. Only nations such as Spain and France, engaged in the economies of trade routes and precious metals, would have any reason for "announcing" the discovery [Sauer, 1968: 32]. The fishing communities on Mount Desert are descended from the early New World fishing communities, which, themselves, have continuity with the European-based villages that fished the North Atlantic in late Mediaeval times. The lineage is too broken and indirect to encourage substantial ethnographic comparison, but the lobsterfishing territories are analogous to many traditional fishing grounds, often reached from other

shores; at the same time, there is a continuity of the conception of "fishing map" and "ocean territory." The present territories, and the means and justifications of their maintenance, clearly borrow some structures and modes from the long tradition of fishing zones. To assume a total innovation of such forms with the advent of lobsterfishing, or a borrowing from land-oriented territories and strategies, is to ignore the continuity of generations of fishermen in order to avoid over-emphasizing an admittedly indirect line of inheritance.

C- Individual and Community Territory and Territorial Defense

1- General

There are two types of territory, individual territory and community territory, and they tend to overlap because even community territory must ultimately be defended and claimed by individuals. In fact, since the community does not collectively share or defend a territory, the concept of community territory is, in some ways, simply a guise and an excuse for the establishment of personal territory.

Each island, or set of harbors, with distinct access to an area of water, claims as much as it can as lobsterfishing grounds (or the individuals in that community separately do). Any non-trap type of fishing can be done on lobster-grounds by people from outside communities (though a disruption of traps by such gear is considered a lobsterfishing violation). The grounds in a community's immediate vicinity are more easily reached by them, i.e., can be fished at less expense and for greater time intervals before dusk; ultimately fishing strategy depends on the fisherman's knowledge of their own grounds. But this is not why men do not fish elsewhere. They do other types of fishing elsewhere when they think it is to their advantage;

they do not set their lobster traps elsewhere because they could not protect them; and this is, likewise, the reason why other people do not set their traps near them.

While the core of these locally-defined areas is generally undisputed, there is much tension toward the boundaries, especially if two communities' fishing territories overlap on good fishing grounds; often this happens around an uninhabited island that falls in between. The boundary issue between communities is settled in the same way it is settled between individuals (since this is what is happening anyway). Each man will continuously test his opponent, fishing as deeply into his territory as he can without getting cut, cutting if he thinks it will work. In this way the working boundary may vary from generation to generation. People on Mount Desert, Swans Island, and Deer Isle have all pointed out that their mutual boundaries have varied since the time they have been fishing. They will claim (usually) that they are not being allowed to fish where they used to be able and they threaten to reclaim their rights. Since both sides remember the past differently, they each may feel the other is encroaching on them and that they have to act immediately. No doubt this is what happens, and, as Acheson points out, the gasoline engine has enabled men to reach areas they could never reach in the days when the territories were defined [1972]. Not only do fishermen accidentally run into each others' territories, but, in the fuzziness created by the increased speed and the seemingly smooth transition to deeper waters, they have come simultaneously upon the same previously-unfished areas and have recognized them as natural extensions of their previous zones. The shifting boundary is itself, over the years, justification for the boundary to continue to shift.

2- Specific

Populations of both Deer Isle and Swans Island fish

along adjacent thoroughfares in Jericho Bay [See Map #6]. The good fishing grounds tend to bring the communities together on certain other grounds midway between them. Although it is clear that the area around Marshalls Island belongs to Swans and the area around Island au Haut belongs to Deer Isle, Stonington, and the few people living on the island itself, the whole in-between region, including Egg Rock, Whaleback Ledge, Saddleback, and Popplestone Ledges, Drunkard Ledge, Torrey Ledge, and the Spoon Islands, could be fished by either. Both make historical claims, and the people on Swans Island point out that Torrey Ledge was named after a Swans Island Torrey just as the people on Deer Isle know it was named after a Deer Isle Torrey (it is, of course, the same family, and intermarriage between Swans Island and Deer Isle was much more common before the ferry connecting Swans Island with Mount Desert, when the main ferry transportation was to Deer Isle; this in itself has confused claims, for families have moved back and forth in the past). Obviously the historical claim is of little real historical significance; it is merely used as a convenience for advancing one's present case.

One statement I took down on Swans Island was: "I don't know what's gotten into them over to Deer Isle. They're suddenly fishing where they shouldn't be fishing." Another man said: "Deer Isle's got too many traps down. They're getting awfully crowded, and they come as far as they can until we cut them off."

At Deer Isle I heard that Swans Island was claiming grounds that were not theirs, partially because Deer Isle had been lax in enforcing the real boundary for a number of years. One man whom I asked if traps from Deer Isle ever got in the way of anyplace else replied, "Traps from elsewhere get in the way of Deer Isle."

On the other hand, the present dynamic between Swans



Map #6: Overlap of Deer Isle and Swans Island Fishing Territories (from U.S. Coast and Geodetic Survey Map #1202)

Island and Mount Desert appears to be one of tacit understanding, perhaps, in part, because of the new closer relationship between the islands (since the ferry in the last five years, Swans Island children have gone to high school on Mount Desert). It is also true that there is not as much prime lobsterfishing territory in the boundary region, and the groups of fishermen tend to let each other fish closer than the midway point if an area seems obviously continuous, and if that is counterbalanced by slight yielding in another area. Fishermen in both these areas, when asked about each other, seldom cite encroachments. Instead, they note that there are real boundaries between the areas, created by access to fishing spots. As vague as they are, and although they overlap in some people's diagrams, it would appear that they hold without much trouble (though there has been a sharpening of conflict in 1971 and succeeding years that I shall discuss). Much of the stability can be attributed to the large number of fishermen that have moved to Mount Desert from Swans and still fish their old grounds. They would not be allowed into Mount Desert fishing grounds, despite their residence there, so they continue to fish where they are established. With this kind of overlap, a general agreement appears to prevail.

"Schelling concludes that in situations where collaboration is advantageous, even where conflict of interest is also present but where direct bargaining is impossible, tacit agreements will take place, provided the two parties can seize on some prominent, preferably unique feature of the situation, which each has reason to believe the other will also seize upon" [Rapoport, 1960: 218]. In this case, it would appear to be a feature of the landscape, or its equivalent at sea.

The following dialogue with Wendell Seavey illustrates

some of these points just mentioned:

"Grossinger - Do people get into each other's territories?

Seavey - Well, when you buy a license, it says you can fish anywhere on the Maine coast. But there seems to be a moral and a legal law.

There is sort of an agreement amongst the fellows that you don't go over in the territory that harbor's noted for fishing. Like I wouldn't take my traps and go to Swans Island with them, or Long Island either.

Grossinger - Would you go to Black or Opechee?

Seavey - I would cause there's no one living on them. And this harbor is noted for fishing there.

Grossinger - You wouldn't consider them Swans or Long Island territory because they're closer?

Seavey - No. I'd be taking a chance, but I'd put my traps out there if I'd want to. I've got enough territory as it is now, but if I wanted to fish out across Blue Hill Bay, I'd go there, sure. And if someone was disturbing my traps, then I'd bait him up, lay a trap for him, try and catch'm. Then I'd go over, talk to him, tell him I saw him, and if that didn't do nothing, then I'd talk to the warden, and if we couldn't prove nothing in court, then I'd take it into my own hands. It'd be just like guerrilla warfare. I'd do whatever'd hurt him, bleed him enough until he stopped bothering them.

Grossinger - Would you fish around Johns?

Seavey - Well, there are a lot of Johns Islands. If you mean the one out to Swans, no. Because that's too close to Swans and Long; it's right 'tween the two. But on the other hand, neither would they take their traps and go off to Duck Island. Now they've got a legal right to go there, just like I've got a legal right to go down in their territory. But I'm not ignorant of the fact that if I done it, I wouldn't expect to find my traps. There would be some harrassing incident done to them.

Grossinger - What islands would you consider your territory?

Seavey - Black, Placentia, Gotts, two Duck Islands, Little and Big, you can see them from Seawall, and Green Island. We fish islands for the shallow water around them. Islands are lobster territory around September, October, but now they're leaving.

Grossinger - You don't see any contradiction between claiming islands for yourself, even when they're uninhabited, and not giving them to them under the same conditions?

Seavey - It all depends on where it lies, what it's geographical location is. It may be closer to us, or there are no other islands in that area that are closer.

Grossinger - And Black and Opechee don't fulfill those conditions for Swans?

Seavey - At sea, geographical location is the convenience to us to get to it. No.

Grossinger - So now who fishes Duck Island?

Seavey - Southwest Harbor and Bass Harbor. Mainly Bass Harbor fishes Duck Island, but Southwest

and Bass Harbor can mingle at that island without too much difficulty" [Grossinger, 1970: 209-210].

3- Individual Territory

a- Inheritance

Without dropping our discussion of community grounds, let us turn to the matter of individual territory, how it is created and how it is defended. I will begin by saying that lobsterfishing territories claimed by individuals today have been inherited from fishing relatives; however, as we shall see, this is a very loose and misleading description of a more complicated situation. For one, the individual grounds are not distinct regions but approximate distributions. They change gradually over time as areas of lobster activity shift, often maintaining a relationship of individuals to each other more than a single man in a specific locale. Secondly, the people entering lobsterfishing do not bear a one-to-one relationship with the people leaving it, or with those already in it. Some of them may have fathers, uncles, or other relatives who fish; some may not; others may share a relative; on the other hand, not all of those retiring, or currently fishing, have relatives who are interested in fishing. Furthermore, the rate of retiring is not the same as the rate of recruiting; several new fishermen may enter before anyone retires, and several may retire without any new fishermen. It is not a case of specific berths being filled by any regular process, as cod berths in Newfoundland [Faris, 1966: 36]. Thirdly, many people fish the same grounds, and when one leaves, the fishermen will gradually fill in the vacated area unless someone else decides to fish there, or claims the right; then the fishermen in the area will individually decide what to do,

whether to let the new person in, and whether to give him the same amount of area his predecessor fished. If the new fisherman is the son of the one leaving, and if he has fished with him on occasion and knows the area his father claimed, they are quite likely to give him the whole territory, but not always. More distant relations, or relations (including sons) who do not know the area well, would have considerable trouble "inheriting" the whole thing. The opposite may also happen; the son of a fisherman may decide to move into the area where his father was fishing before he retired; this means that everyone will have to fish a little more closely to each other if they want to let the new fisherman in; if there is room, and if they have no strong reason for wanting to exclude him, they will probably give him some room. They may complain about how crowded everything is getting, and the new man's traps may be cut here and there, but unless individuals clearly try to keep him out, he is generally able to work out a territory for himself. In this type of situation the looseness helps the new man. It is in terms of this gradual flexible exchange of grounds between new and old personnel that we can come to an understanding of the mechanism of trap-cutting.

b- Enforcement

In the first place, trap-cutting is *never* considered honorable behavior. It is a necessary evil that everyone admits is done (rarely) and everyone does much more frequently than they admit it. In one of my initial conversations with Wendell, he told me that trap-cutting was "mean behavior" and no one but a bastard would do such a thing. Yet later, when he described having cut traps himself, the entire incident was presented in such a way that he appeared justified in doing it. In fact, *he* was the victim, for being forced into such objectionable behavior. There is no way to justify arbitrary trap-cutting, and no one will attempt to. In effect, what legitimizes trap-cutting is

the fact that one man *has to cut* another man's trap in the case of serious snarling. He may go one step further and cut a trap that snarls with his even if it is possible to untangle them. And he may go even further and cut the trap of a man that he thinks *may* snarl with his, that is, a trap that is closer than 30 feet in inshore waters. Ultimately, he may go as far as to cut a trap that he thinks is causing the density to be so great that everyone is running the risk of snarling. The trap of a new fisherman may be well outside the approximate 30 feet, but if an older fisherman feels that that trap is forcing him over too close to someone else, then he will cut it to keep from snarling although the danger of snarling was not with that particular trap. The fisherman would not want to fish too close to someone else he had an understanding with. Secondly he might feel that the trap was taking lobsters away from him. That would be a reason for trap-cutting, though not a justification.

c- Trap-cutting Dynamics

Although there is no such terminology among the fishermen themselves, I will divide my discussion of trap-cutting dynamics into three categories: weak, intermediate, and strong.

1- Weak Category

The weak case I would consider part of the general tension of the fishing arrangement; it can be pictured as a loose sort of Brownian motion in which the fishermen, by bumping into one another, prescribe each others' positions at any given spot. With the general interspersing of territories, the entrance of new fishermen into areas, and the strategic effort to test out grounds and find better grounds, fishermen are always coming close to one another; perhaps not close enough to invoke retaliation, but not far enough away to be beyond suspicion. The fishermen may

simply both be exploiting what they consider good grounds, but one of them may think that it is improper for the other to be so close, especially if he himself is older. There is always the possibility, if one fisherman has been doing well, that another fisherman will be "following him." There is nothing wrong with "following," per se, but fishermen do not like to be followed, and if they believe that a high density of traps disturbs the lobsters they may claim the other person is ruining it for both of them. Secrecy, in this instance, is not only important if one is doing well, but also if one is doing badly; for if the other fishermen know the meagerness of one's catches, they will immediately suspect the unfortunate person of following them and will notice his traps and be more suspicious of where he is putting them while trying to improve his luck. Many fishermen "follow" brazenly and feel there is nothing wrong with it. There is an unwritten ethos that someone who does too well is a pig and should be relieved of the onus for his own sake. Unless a fisherman is very highly respected he always runs the risk during good spells of being thought a pig, and of having people accuse him, behind his back, of going out too often. If he is disliked in the community, and not respected, and does well, as Buddy Hooper, then he is liable to be accused of stealing from other people's traps, as Buddy is. Thus, many people follow other fishermen very righteously; and as Kottak suggests, it is a levelling mechanism common to fishing societies to consider those who do especially well "pigs" [1966]. We will discuss this particular aspect in more detail later.

The weak case of trap-cutting develops when a storm or tidal waters or lack of good judgment in setting (or any combination thereof) causes two or more traps to come together and snarl. If the person who has been fishing an area is the first to notice it, he may cut the trap loose of his

without regard for his loss (often both participants think they have been fishing an area). If the intruder notices the snarl (and is aware that he has been intruding), he may keep it a weak case by trying to get the lines unsnarled; if he cannot, he will cut the other person's trap off the buoy, free his, but then move his own traps a little away, perhaps even apologizing to the other person. Cutting off one's own gear is virtually unheard of, for the other fisherman is hardly being polite by fishing that close in the first place. In fact, if this happened, with father and son perhaps, with one of them cutting off his own gear out of graciousness, I would consider it an accident at sea and not trap-cutting at all. If one man cuts another man's trap and there are no other episodes, and the trap-cutting, by one means or another, moves the men a little away from each other (in the first case by the man being cut deciding to back off a little, either because he is younger, feels his claims are not as strong, or because he does not want to take the risks involved in pressing them), then it remains a weak incident and ends there, one person clearly recognized, and recognizing himself, as the invader.

ii- Intermediate Category

If both parties think that the territory is properly theirs, for whatever reason, then the trap-cutting may go beyond a single incident, and what I would call the intermediate category arises. This may begin either by one of the parties cutting the other's traps, or by putting his traps close enough to the other person to constitute a clear threat, perhaps even snarling. After the initial cutting, neither party moves back. In the clear case of one man invading another's recognized territory, the invader may continue to get cut and still fish there; he may also cut back. There are a number of combinations possible, but in any case, the trap-cutting goes on until one of the parties

is unable to stand it any longer. The matter comes to a head when the people discover each other's identity (if it is not known to both originally), or, if it is, decide to confront each other, usually on shore. Until then a person is extremely careful, waiting days, even weeks before coming to a decision; with so many people fishing in such close proximity it is not easy to tell who is cutting one's gear. A newcomer may be suspect, but then an old-timer might be taking advantage of the situation to settle a previous grudge and throw the blame onto someone else. Even where it appears obvious that one man is doing the cutting, fishermen prefer to wait until they have something approaching evidence, so as not to cut the wrong man back, or not to accuse the wrong person publically. Often fishermen will hide on an island with binoculars, or pick a spot at sea obscured by some geological feature. This gives them a chance actually to see their traps being cut. Of course, the cutter is liable to be very careful and not to make a move when he is not sure of the whereabouts of his victim. Just how difficult it is to ascertain the identity of a trap-cutter in particular cases can be seen by the number of false public accusations that take place. In 1971 Marlon Bridges accused four men of cutting him; all four have denied it, and now he is reasonably certain that two of them were not cutting him, though at the time he insisted that he had seen them. It turns out that he had simply seen them in the area.

The intermediate case comes to a head when the identity is certain and both men confront each other, make their claims and demands, pass threats, perhaps even have a fist-fight (I have seen everything up to this, but men have reported fights from the past); then one or the other, often without any declaration, decides it is not worth the loss of gear and retreats. In other words, he decides it

is better strategy to work a less desirable area, and take his chances there, without conflict and loss from cutting. He may move back gradually without loss of face; there may actually be no confrontation, but extended trap-cutting until one man backs off. The situation is often eased when the lobster population in the area becomes inactive or fished out; both men may move away, or one man may, even to invade better grounds (if such is his overall strategy), considering the effort a successful raid of sorts. With this continual backing off caused by a change in marine conditions, the ultimate resolution may be forestalled, and the trap-cutting may remain on the intermediate level for a number of years. If, however, both parties decide to press, after a week, or after ten years, then suddenly we have the strong case.

Even in cases where the general conflict and its nature is known to all, innuendo and suggestion are very important. People do not like to threaten or accuse in just so many words; if they do, it shows they have lost their composure, or are taking the matter too seriously. By emphasizing the "game" aspect of the situation in their manner and attitudes, they hope to convince their opponent it is not worth fighting them. The irony, often called Downeast humor, is actually a weapon. An example of such an exchange between two parties engaged in battle over fishing rights is given in a 1930's novel about a lobster-trap war:

"Kittredge lifted up with a laugh. He jerked his thumb toward the farther shore. The tide was far out. Someone was digging clams, and above his head circled a number of crows.

'See that' demanded Kittredge.

The boys looked. Now and then one of the crows let something fall, and immediately afterward swooped down. The birds were dropping clams, picking them out of the mud,

carrying them aloft, and letting them fall down upon the rocks, where they broke open and made it easy for the crows to get at the meat within.

'First time you ever saw a crow do that?' inquired Tom politely. 'You must be a rusticator.'

'I don't mean them crows,' growled Kittredge, 'I mean that feller a-diggin' clams. See 'im all bent over in the mud? That's the way you fellers is goin' to be'" [Williamson, 1935].

This is an example not only of a veiled threat but of the attitude toward clam-digging and clam-diggers, and what the fall from "lobsterfishing nobility" traditionally has led to.

iii- Strong Category

A strong case of trap-cutting occurs when both men are determined to press their claims to a disputed territory. They carry weapons at sea and cut each other's traps without particular attempts at secrecy. They may also bring friends along and attempt to board each other's boats. Such an event can last only a brief time. It comes to an end when one of the men has lost so many traps he is unable to continue (or is killed). The current situation offers another solution. Either or both parties submit to the warden, who takes the case to court, where a decision favors one party or the other. Usually the warden gathers evidence first and tries to come to his own conclusion. This type of settlement favors the newcomer because an older fisherman cannot claim coastal-water territory in the courts. However, a fisherman also risks community ostracism if he goes to court. He may win his case but end up being cut by all his neighbors. It would take an unusually strong individual to persist against a whole community of fishermen (for only the offending fisherman loses his license). Court cases are rare also because it is difficult to accumulate enough evidence to make a favorable judgement likely. During the time of the fieldwork, no case in the

Mount Desert area has gone to court (though there is one presently pending). In other areas of coastal Maine, fishermen have been convicted and have lost their licenses.

4- Nature of Inheritance

In light of our discussion of the nature of lobster-fishing territory and trap-cutting behavior, let us return to an examination of the earlier suggestion I made that "fishermen inherit their lobsterfishing grounds from fishing relatives." At the time I pointed out that this statement was true only in the loosest and most general sense and was more misleading than not. In fact, there are no specific grounds to be inherited; there are approximate positions and relations of individuals at sea that shift as the lobster population shifts. As fishermen vie for position, advancing and retreating, many types of decisions are being made. Individuals must decide what the reaction of other individuals is going to be if they decide to fish closer to them, to cut their traps, etc. They must weigh the consequences of dealing with a rational opponent. According to Rapoport [1960: 148] we pass from sheer gambling to a game when one imputes rationality comparable to one's own to an opponent. This imputing of rationality to an opponent affects very deeply the gambling strategy (with the marine environment). Some men may decide to fish in less crowded areas, hoping to get lucky there, rather than attempt to gain a berth in regions where there is already a density of fishermen. Other men may enter the fishing areas they think to be best only in sudden forays that always cost them traps. Buddy Hooper fishes this way, darting into and out of areas where he knows he is going to be cut, and considering the trap loss a necessary cost of his strategy.

In general, however, the best fishermen *must* establish themselves in at least some chunk of the optimum fishing zone if they are to have a worthwhile catch, in

part because that optimum area will expand and shift to cover almost any area that is fishing well. Which is to say, simply, that a man must be a recognized member of the fishing community. If his strategy of finding and catching lobsters is to have any significance, he must be able to put it to work, and he cannot without access to fishing territory. I would like to suggest, then, that it is not territory that is inherited as much as *the right to territory*. Without specific fishing zones to inherit, fishermen from the oldest fishing families learn the optimum areas at a young age and begin fishing where their father and uncle, or uncles, fished (there are cases of a person putting some of his traps in the area of his father and some in the area of his maternal uncle, especially if both areas are a bit crowded and neither father nor uncle is about to retire). They can hold onto those areas if they are strong and must yield them to others if they are weak. Some trap-cutting, especially at first, will be necessary to hold them. Those who are too "nice" to cut traps are considered weak and end up not fishing. Even though some of these, such as Joe Hardie, or Melvin Buswell, had fishing fathers, they tried fishing for a number of years without success. They lost many traps, drank heavily (whether this was the cause or the result of their problems is hard to know), and now only occasionally with others as a helper. This cutting is neither ruthless nor cruel; it is simply part of the natural jostling at sea (with a limited stock and a growing number of interested fishermen; in fact room *has* to be made for determined individuals from non-fishing families who assert their rights to fish).

In other words, the advantage of coming from a fishing family is that one begins in grounds they know that they have a potential right to claim. The trap-cutting will have to be exerted, and defended against, in two directions:

one, against the older fishermen who think their territory is being invaded by a newcomer, and two, against newcomers who consider the territory fair game. As one can imagine, there are innumerable variations of this situation, but they all boil down to these two types of pressures. Ultimately, it is upto the older fishermen in an area to decide whether or not to let a new fisherman in. If someone is setting traps where members of his family traditionally set them, older fishermen are likely to interpret his trap-cutting of them (where necessary) and/or proximity reasonable; we have discussed this aspect. If he is a newcomer, they are much less likely to retreat, especially not before they have pushed him into *less good grounds*. Of course, it depends on the individual. Some newcomers may be less offensive than others; some may be more forceful and secure a position. Sometimes, as at Sewell Alley's wharf, a number of newcomers may come in at once and protect each other.

On the other hand, a fisherman from a fishing family may also have a hard time holding onto all the grounds his father held, at least initially, even if his father has retired; correspondingly, he may later take some of them back from another new fisherman "inheriting" territory adjacent to him. All of this must be understood in terms of the fluid definition of territory.

In this sense, the inheritance of lobsterfishing territory resembles the claiming of an inherited name by potlatch in Kwakiutl society where the results of the potlatch are decided tacitly and collectively, there being no absolute quantitative measures [initially, Boas, 1895: 341-355]. Fishing rights are, in part, a social issue decided implicitly by groups of fishermen. Trap-cutting episodes may be mutually disadvantageous, like potlatches, but they represent entrance to the society (of fishermen at sea, that is), and the only way a total newcomer can

establish himself in a good fishing area is to withstand a long period of getting cut without retaliating so severely as to get cut off completely.

In recent years, with a fairly large number of fishing families "dying out" (in the sense that the children do not want to go into fishing and often leave the area), and their "berths" being filled by people from non-fishing families (moving up, so to speak), we have a situation reminiscent of that described on the Northwest Coast where certain important names have been filled by "imposters" with the dying out of noble lines and the creation of large amounts of artificial wealth. The new lobsterfishermen now try to lay claim to this territory (or relative fishing position) in some absolute sense that will make it possible for it to be inherited through them [Olson, 1950: 78-80].

5- Trap-Cutting

In an earlier version of this paper, I suggested that trap-cutting had dwindled in recent years. It is amusing to look back at this now because, for one, I had fallen for fishermen's propaganda, and for two, I happened to make my initial observations at a period of time when real trap-cutting battles were mostly dormant. It is particularly interesting now to view my earlier statements in light of more recent and more complete information.

My suggestion that trap-cutting had dwindled was based mainly on the fact that there were no major incidents during the winter and spring of 1969-70; as mentioned, most of the fishermen told me that the unpleasant practice had all but disappeared from this region of the coast. The reasons they offered had little to do with the presence of wardens and their stronger legal jurisdiction over fishing incidents; these innovations merely eliminated shooting incidents. (this latter point is believable because only shootings are severe enough to provoke the immediate interference of

outside authorities). The fishermen pointed instead to the large number of old fishing families dropping out and the new families coming in (actually, when maternal nephews are taken into account, the turnover is less striking). "When the young fellows take over they have no respect for fishing grounds," said one old fisherman. "Most of them didn't have fathers they could learn from, so everything's upside-down with this new generation taking over, and everyone's fishing everywhere. There's no cutting to speak of anymore." This statement, taken at face value initially, can be seen in a different light now. For one, this particular older fisherman is doing what he has always done: keeping knowledge of local trap-cutting practices from outsiders. He is also, perhaps, expressing the sense that trap-cutting does not as often lead to violence. This is true not only because outside authorities are more likely to step into criminal cases now but because there are more jobs available outside of lobsterfishing for men cut off completely, and thus, the sense of desperation is less (among such jobs that have become available to fishermen are: roadwork, summer work with the National Park, truck-driving, running boats for summer people, etc.; mobility to other areas has increased, especially insofar as men are aware of believable alternatives). Thirdly, the older fishermen are probably complaining about the strong competitiveness of the new fishermen for grounds; it would appear that they are less willing than their elders were to back down and wait for space to open up; there is pressure on the older fishermen to retire. When the new generation takes over, the elders often feel that everything has been turned upside-down.

a- Increased Crowdedness of Grounds
with Decrease in Lobster Population

There is one other very important aspect I have been

able to explore with several years' perspective. Trap-cutting tends to operate in cycles, primarily in relation to density of fishermen and abundance of lobsters, secondarily in relation to the positive feedback from trap-cutting itself. Thus, the fact that 1969-70 was a relatively quiet year simply indicated a trough in trap-cutting activity. What the frequency of amplitude is I am not sure; a guess of five years from trough to peak would be in keeping with what men describe of the past. But I also suspect that external factors such as lobster supply affect the speed and intensity of cutting.

During the summer of 1971 the increase in trap-cutting and tension was dramatic. As the lobster season progressed into July, it became obvious that there was going to be a sharp drop in the population of legal-size lobsters. Whether this was a result of overfishing and pollution (essentially man-related variables) or the beginning of a cyclical cooling period is uncertain. Dow reports that the low average water temperature over a period of a year culminating in July, 1971 not only has caused the lobsters to shed later but may have postponed the graduation of a whole class of immature lobsters into the marketable range [1971, personal communication]. The scarcity was immediately felt. Fishermen were averaging a single legal size lobster per twenty traps, and hauls were 10 to 25% of the previous year's. Softshell lobsters, bringing fifty cents less per pound, were dominant in the traps. At the same time, the price of lobster reached \$1.90 per pound at the wharf and has stayed at this high level for three years now. The additional revenue per pound of lobster has offset losses at sea, but it has also increased the competition for what lobsters there are. In July of 1971 trap-cutting began to increase, and there have been continuous episodes and consequences through 1974.

Because the approximate decade through 1970 was one of increasing lobster prices, improved lobsterfishing technology, and good stock, the number of fishermen increased by about 15%, with the recruitment from both fishing and non-fishing families. When a decline in lobster abundance follows such an increase in lobster "predators," the density of competitors becomes a severe irritant. Men who were only mildly irritated at the influx of new fishermen when they were catching as many lobsters as they could handle, are now suddenly discovering just how crowded the grounds have become.

All trap-cutting episodes have involved at least one party in one of the following categories: a- newer fishermen not from the area; b- men from non-fishing families (meaning especially the men at Acadia Lobster, which arose during the boom); c- men fishing more than 500 traps (by their own admission or community consensus); d- men from fishing families that have more than one member per generation fishing; e- men fishing the boundary waters between communities; and f- older fishermen who have been known to cut freely if they thought their catch was not high enough. In many cases, these categories overlap. Through 1974 the trap-cutting appears to have involved about fifteen fishermen. Before proceeding, however, let us review the definition of community grounds in light of this new information.

b- Stonington Selects

Earlier in this paper I pointed out the discrepancy in trap number between Mount Desert and Deer Isle-Stonington. Men in the Deer Isle area fish, with the aid of a hired man, on the average, three times as many traps as men in the Mount Desert area. Since most fishermen speak of this discrepancy as having existed for as long as they can recall, I can examine only other discrepancies

between the two areas that might be either causes or consequences of this trap discrepancy (or, in the case of intricate types of feedback, both). The most obvious differences are these: 1- the lobster price is always higher in Stonington; this may vary from a nickel a pound higher than Mount Desert to as much as fifteen cents (actually, six cents and sixteen cents, as the fishermen in Stonington and Deer Isle receive a penny per pound for plugging the claws of their lobsters). 2- There is a greater overall fishing effort in Stonington and Deer Isle, with more total pounds of lobster brought in. 3- There are more dealers in Stonington and Deer Isle, eight major dealers and other minor dealers. 4- There is also, above and beyond the eight dealers, a lobsterfisherman's cooperative, whereby the fishermen share the profits from the sale of their lobsters in addition to the price they are paid for them initially. 5- Lobster truckers say that they prefer to buy lobsters from the Deer Isle area because there are more selects (lobsters in the pound and a quarter to a pound and a half range, perfect for marketing in restaurants); truckers often mix their Stonington and Deer Isle lobsters with those from other areas so as to make the individual shipments more attractive. Although this list suggests many interrelated factors, only two appear to be related to the large trap number in any casual manner: there are more lobsters to be caught in the Stonington-Deer Isle region, and, for one reason or another, a higher percentage of pound to pound and a half lobsters appear in catches from this area. We might then theorize that the composition of the lobster population in waters off Stonington and Deer Isle allows for a more intense fishing effort, which in turn gives rise to a more diversified series of lobsterfishing institutions: greater numbers of traps, more hired men, more dealers, and a cooperative. At an earlier

period of time, undoubtedly, trap number and number of fishermen were increasing rapidly, and with these increases came the increase in dealerships and the need for a hired man. As long as fishermen were making a satisfactory profit fishing 1000 traps, the ambitious began fishing 1200; as long as these additional traps did not cause significant reductions in the number of lobsters the other men were catching (i.e., as long as they could upgrade their catch by adding more traps also), the trap number increased man by man and reached a new plateau in reality the number has been increasing consistently all the time). We discussed earlier how the increase in number of traps is a positive feedback activity *until* it becomes counterproductive for everyone. The the question is: how does one begin cutting back?, which is similar to the question of: how does one disarm without disarming unilaterally? Before we can answer this question, there is yet another matter to discuss.

As trap number increases, it becomes increasingly difficult for a new fisherman to begin. Instead of being able to start with a couple of hundred traps, as at Mount Desert, he needs more like a thousand traps, after which he must maintain this number and add to them. The large trap number may be expensive for the people fishing, but it keeps new fishermen, especially those from non-fishing families, out of the grounds. The Lobsterman's Association has explored trap limits many separate times, especially in areas like Stonington where a reduction would probably lead to an increase in profit for everyone fishing (the number of pounds of lobster brought into Stonington and Deer Isle has not increased at all with the increase in trap number). It is in these areas, however, that the loudest objections to trap limits are raised. The fishermen feel that the grounds will be fished as hard as they can regardless of trap limitations. If the men fishing were to reduce their trap

number it would simply allow newcomers to enter more easily. It would not reduce the total number of traps; it would simply redistribute them among more fishermen, at distinct disadvantage to the people presently fishing.

If there is a conscious advantage to the large number of traps, is there possibly also an unconscious advantage? Is there any relationship between the large number of selects and the topography of the region, or between the sizes of lobsters caught and the fishing strategy of the inhabitants? I presented the problem to Robert Dow and others at Maine Sea and Shore Fisheries, and they examined oceanographic charts of the Deer Isle area. From the complex and intricate arrangement of islands and shoals it appeared to be excellent lobster territory, territory that would support more lobsters per unit of area than the Mount Desert region, which itself has an extremely favorable lobster environment. Dow went on to suggest that there were more natural hiding places for lobsters in the Stonington-Deer Isle area and that a significant number each year might escape being caught and grow into the select class, lobsters that would certainly be caught in an environment with less topographic variation. Thus, the fishing effort in Stonington and Deer Isle might be causally related to the amount of lobsters escaping--such that the number of select lobsters at large is continuously determined by the subtle balance between fishing effort and natural abundance; if the fishing effort were decreased, larger numbers of lobsters would escape for longer periods of time, moulting beyond the select class, and the price offered by dealers for the whole catch would go down as the number of selects in it also decreased. The fishing effort would then not only keep up the number of selects *but would itself be kept up by the higher price per pound (based on the number of selects), in part offsetting the cost of gear.* The effect of all of this

would be amplified, per pound, by the shared profits of the cooperative, for those fishermen who belonged. I offer this hypothesis not as an explanation but as a possible means of relating all the factors involved. I have no way of knowing if there is a correlation between fishing effort and number of selects. If this is not the solution, it contains elements of the solution and suggests not only what the solution might be but how complexly the factors of fishing effort, natural environment, lobster price, lobster abundance, and social ties among fishermen are related. Cause and effect are intertwined in such a complex manner that the feedback becomes mutually intercausal.

c- Increased Density and Trap-Cutting on Mount Desert

Mount Desert has smaller lobster grounds than Stonington-Deer Isle and is not able to support as intense a fishing effort. There is no local equivalent to the Stonington select, and there is no cooperative wharf to bring additional profits to the men. Until fishermen began increasing their trap supplies sharply during the current shortage of lobsters, it was relatively easy for a new fisherman to begin competitively, and it is still easier than in Stonington and Deer Isle.

With a temporarily increased supply of lobsters, the core grounds around Mount Desert were able to support additional fishermen. Old territories were packed tighter and new territories were automatically shared. Now, with a relative shortage of lobsters, the claims are widening. It is uncertain whether the older fishermen are conscious of such tendencies or whether they unconsciously expand into the area they believe they need. The picture, in any case, is not simple. Fishermen are fishing not only core grounds; they are fishing marginal grounds and muddy bottom. Conflict occurs in the core where fishermen battle to retain territories

they have claimed at one time or another, but all fishermen are moving into marginal grounds too, searching for new sources of lobsters. It is not only a case of stronger fishermen trying to push the others out; it is a general scramble for lobsters in which the various perceptions of territories and intuitions about possible new grounds overlap in a tense process of adjustment.

Under the circumstances of 1971-74, Sewell Alley could not have opened a lobster wharf; many of the men who fish for him could not have held new grounds. Once there, they are not so easily removed. In fact, some of them will hold their territory; as a group, however, they are more centrally involved in trap-cutting than any other group of fishermen. Sewell Alley himself sold the wharf to a person outside the community in 1972. The new owner is wealthy enough to sustain some loss, but it is notable that other types of fishing now rival lobsterfishing there. Three of the fishermen, including Sewell himself, quit lobsterfishing on Mount Desert and, relying on their experience in lobsterfishing, were hired to take deep-sea lobster draggers out of ports in other states. This demonstrates a basic difference in strategy between some of the newer fishermen, who are looking for an immediate profit, and the major older fishermen, who intend only to maintain a traditional activity. Those new fishermen who have stayed at Alley's wharf (now Gull Stone) not only have been involved in trap-cutting with local Mount Desert fishermen, but, more strikingly, have tried to force recognition of State law over custom by fishing brazenly in the territories of other communities. Charlie Cleaves lost \$1000 worth of traps around Long Island in 1974; with some idea of who cut him, he boarded the suspected boat with another fishermen, both of them armed with guns, and delivered a threat. He has also brought legal action, and the case will be heard in court later in the year. This

type of activity is similar to deep-sea lobsterfishing in its reckless expansion of strategic possibility.

The local fishermen are less interested in what happens when a man leaves the community territory than how the issues within that territory are resolved. They are more concerned with the size of their catch than the total space they control. When they need more space to catch the same number of lobsters, they simply take it. The real aim of trap-cutting must not be simply to reduce the number of traps fished by individual men; it is, finally, to eliminate these men altogether, whether they go to Rhode Island or Long Island.

If a person has the general support of the community and is definite in his purpose, he can usually survive the trap-cutting offensive of another individual. If he does not have the support of the majority of other fishermen, then one individual can drive him out of lobsterfishing with the tacit approval of the community (though they may verbally disapprove on shore, even quite vociferously). This is the only method whereby fishermen reduce trap density when overfishing is a problem. It might be noted, however, that at the same time the general deteriorating situation can force men not getting cut out of fishing too if they have other options. One long-time lobsterman put his boat and gear up for sale during the shortage of 1971, and he had to lower the price several times before it was purchased. He had another job waiting with the Island Park Service.

d- Trap-Cutting Results

In this section, I would like to depart briefly from

my discussion of individual trap-cutting dynamics to examine the effect of trap-cutting cycles on the overall community fishing effort. My figures are rough, in no case based on a controlled sample, but they indicate the approximate speed and direction of important trends. My trap number figures, as before, are estimates based on the number of traps left on the wharf to dry out during nonfishing times, the amounts claimed by individual fishermen for themselves and others, and direct observation of the construction of new traps. My figures for lobster landings per man and price paid per pound are based on irregular observation at a single wharf (F. W. SturLOW) plus checking Wendell Seavey's fishing logs. My estimate of fishing zone size is the roughest. It is based on a short period of actual observation of traps set at sea, a discussion with various fishermen (on both Mount Desert and the surrounding islands) as to the boundaries of their fishing territories with those of their neighboring ports, and an interpretation of wharf discussion about fishing practices. Since individual men fish irregular sections of the territory in varying densities and since pockets of lobster activity are also irregular and varying, raw size data gives only an approximation of the area for which density is being figured. For instance, if thirty feet is the minimum distance between traps, the Mount Desert fishing territory is more than capable of sustaining many times the present number of traps. But this assumes that lobsters are uniformly present and active and that the entire space of the core zone is equally desirable. Since fishermen indicate crowding at far below the maximum density their grounds could hold, we must surmise that the actual discontinuous core zone is much smaller than the larger

continuous space across which fishing takes place.

In September, 1969, with fishermen expressing their belief that the lobster supply was good and State figures showing significant landings for Hancock County, there were 75 fishermen operating in the Mount Desert area. This included seasonal fishermen, part-time fishermen, and fishermen working together, but not men fishing the immediate harbor area with rowboats and outboard motors. The average number of traps per man was about 300, running from 650 for active full-time fishermen to 50 for some part-timers.

By September, 1971, there were 80 fishermen working an average of 385 traps per man. The catch per man had declined substantially, though County landing figures do not show the extent of the decline in the Mount Desert area. Furthermore, the decline in the Mount Desert area was not in itself large enough to explain the strong reaction on the part of individual fishermen (especially given a rising lobster price which almost totally offset the loss). There are a number of possible explanations. The ones I prefer are: 1- that trap density in the Mount Desert area had become great enough to disrupt fishing patterns and cause stress before a large decline in catch occurred; 2- that trap density spread out the catch more than individual fishermen considered acceptable; and 3- that fishermen had gotten used to increased catches per year and had come to plan on a continually expanding fishing operation. It is also possible that some undetermined ecological factor either reduced the lobster population locally or redistributed the paths of lobster activity.

In September, 1974, there were 68 fishermen working an average of 500 traps per man. Catch had fallen off substantially, but price had risen to offset the loss. Table #5 shows the changed relation between supply, price, and income in the first and last years of the study

	average pounds per haul	average price per pound	total month's income for full-time fishermen
Sept., 1969	90	1.00	\$2000
Dec., 1969	170	1.10	\$2100
Feb., 1970	125	1.10	\$380
May, 1970	70	1.10	\$1500
Sept., 1974	80	2.10	\$1700
Dec., 1974	125	2.20	\$1700
Feb., 1974	55	2.20	\$450
May, 1974	40	2.20	\$1500

Table #5

Change in Relation Between Lobster Supply, Wharf Price for Lobster,
and Fisherman's Income for Selected Months in 1969, 1970, and 1974

in the months for which I have the most information.

Using the trap-setting patterns of most fishermen, I would estimate the core area of the fall and spring Mount Desert fishing territory as about twenty-four square miles. Many traps fall outside that area, especially traps set by men born in other regions. The movement of lobster activity offshore during the winter immediately enlarges that zone until the total range of annual exploration and setting encloses an area of about 160 square miles. Since most fishermen do not work outside of a forty square mile zone, I will take forty square miles as the area for which trap density should be figured. This excludes some territory in which traps are being set, but is also larger than the area in which most of the men operate most of the time. From the previous figures, I would estimate an increase in trap density from 563 per square mile in 1969 to 800 per square mile in 1971 to 850 per square mile in 1974. The figures may not be very precise but they do indicate the general trend.

This entire section, because of the limited data I have collected, shows, at best, a hypothetical solution of the mechanics of part of a trap cutting/fishing-density cycle.

6- Community Grounds

a- Responses to Cutting

The importance of community approval can not be underestimated. A fisherman, whether he "inherits" grounds or does not, establishes his right to fish, or forfeits it, by his actions, not only at sea but on the wharf and elsewhere. The first man at Jasper Merchant's wharf to claim

he was getting cut was Marlon Bridges, one of the few fishermen not born in the area. Although originally from Maine, he moved to Mount Desert from New Jersey, where, it is rumored among the fishermen, he was in some sort of trouble. He had enough money saved to begin a lobsterfishing operation (although it is likely that he also received a bank loan). He bought the old boat of a fisherman who had had a new one built (Wendell, as discussed earlier) and set out on his own, without the help of any dealer. His operation has always been somewhat marginal, and there is general knowledge around the wharves that he does not do well. He has always had some difficulty with getting cut, probably weak cases; now he has made several public announcements that certain fishermen are trying to bleed him out of the business, naming the fishermen. It is clear also that he is cutting back, as all the fishermen he has named, mostly old-timers, have since announced publically that they were getting cut too. They did not declare threats, or even refer to their probable foe, but their announcements came in such a way as to leave no doubt they would take care of things.

b- Community Consensus

There is little sympathy voiced for *any* of the people getting cut, but the lack of sympathy is a much more serious indictment in the case of Marlon. The general attitude is that the older fishermen can take care of themselves, and it certainly will not hurt them getting cut since they have always been such quick cutters themselves. In fact, the hope is that a little bit of cutting might slow them down, distract them, etc., with benefit to others. Marlon's case, however, is critical. A vast amount of sympathy has been voiced against him, with individuals recalling episodes in which he either appeared foolish or lost his temper at someone. Physical characteristics of

his have been mocked; everyone seems to be able to recall a grudge they have against him. Some of the stories may be apocryphal. For instance, it is said that in trying to buy Grandville Pierce's house, he was offered it for \$25,000 (an outrageous price already), and replied, "Nonsense. I'll give you 30 (meaning \$30,000)." This story supposedly shows what poor judgement he has and why he is unable to fish better than he does. There have been several incidents involving him and me; one is particularly notable. He has objected more than any of the other men to my being around the wharf and has often threatened me. No doubt he is uneasy about what I am finding out. One day when I was marking down the pounds caught by the different fishermen (though specifically leaving out his catch because I know his feelings), he came up and told me that if anything about him appeared in any study, I'd be sorry. He was so angry he was shaking, and turned around and stormed off the wharf. At the time, I was unaware of his particularly vulnerable situation, and I expected the other fishermen to take his side, or, more likely, to say nothing. Instead there was strong sentiment almost expressed immediately in my favor with several men telling me not to mind Marlon Bridges and relating times they had had run-ins with him. For days afterwards the story was repeated, mainly as an opportunity to criticize him. And this was during the winter of 1970, long before any trap-cutting came into the open.

Although trap-cutting is clearly a mechanism to keep down fishing density, it is also a means of social ostracism. There were other fishermen from off the island who might have been pressed if the situation tightened, but no one else had Marlon's immediate problems. They are respected as fishermen; he is considered a nuisance. Some of this is put into perspective in a story told to me by a nurse who worked on Vinalhaven for a number of years. There was a

father and a son there who fished sometimes together and sometimes separately. They shared and defended the same grounds. The son married someone from off the island who was unpopular with the local women, and suddenly the father and son were getting their traps cut, even in their own territory. Whenever the father demanded to know why, the only answer he got was, "We're not cutting your traps, Gene. Go fishing. You'll find that out." What they meant was that they were cutting his son's traps, and only if he went fishing alone would they allow him back in his own territory.

This episode, as related, may lack many key features, but it points up, as the story of Marlon Bridges, the nature of community control in a territory. Though individuals do the cutting, it is the consensus of the community that determines whether a man is forced entirely out of fishing. This is why the cases are kept out of the courts; there would be no point in trying social acceptance on Mount Desert in a court in Ellsworth. Even if he won, the man getting cut would receive no satisfaction. Marlon Bridges is the only person at Jasper's wharf who is unpopular in this way, but there are three or four other fishermen on the back side of the island (including a former warden now fishing at Sewell Alley's wharf) who were disliked by a number of men for different reasons and forced out of fishing. Trap-cutting was mentioned in all of the instances but the incompetency of the fisherman was always given as the real reason. Undoubtedly it is not just a coincidence that the poorest fishermen are often the least popular fishermen. One condition easily sets off the other.

c- Relations Between Individual and Community Territory

Before returning to my discussion of the trap-cutting episodes currently going on at Mount Desert, I would like to examine one other aspect of the relationship between

individual territory and community territory. Earlier I raised the question of whether there was such a thing as community territory, i.e., whether all territory might not be individual because it was individually defended. Just now I raised the possibility that all territory might actually be community territory because it requires a consensus to drive a man out of fishing. I would like to combine these apparently contradictory interpretations. I think that individual territory is determined by the community and community territory by individuals. That is, within the core of the community's territory, a consensus of some sort is necessary for a new man to be able to fish; without this he cannot even move into the territory of a father who has just stopped fishing. On the borders of a community's fishing grounds, where there is disputed territory with another community (i.e., with another community's fishermen), it is individuals who decide how far they are able and willing to extend *their own* territory. It is only after the fact that this appears to extend community territory, for in another generation the situation might be reversed. What is also clear is that overcrowding in the grounds of a particular community will force individuals into these boundary areas where individuals alone decide who will fish there. Thus, two of the men getting cut in the Mount Desert area fall into category e. They are fishing boundary waters between Mount Desert and Swans Island and Mount Desert and Long Island and believe they have been cut by people from these places. Daring, or desperate, fishermen extend the boundary as far as they can, and it is, appropriately enough, like-minded spirits from either area that come into competitive contact with each other. These fishermen may lose more gear, but they also may gain a foothold, and with it, some prestige in their own community, which is helpful in holding onto the

rest of their territory or ultimately gaining a berth. After all, they are fulfilling a necessary community function, drawing the line beyond which another community may not penetrate.

Although I have no statistics on it, I have noticed a strong correlation between those fishermen who fish boundary areas and non-membership in the Lobsterman's Association. This goes along with a generally-expressed sentiment that they do not want to see that men they are fishing against. "I don't want to be cutting off families," said one fisherman at Deer Isle who was admittedly fishing in Swans Island waters because he was having trouble gaining a berth there. "Just traps at sea. I don't want to know anything else about it."

d- Extensions of Cutting

Trap-cutting at Mount Desert does not just involve Marlon Bridges, a few older fishermen, and those fishing boundary waters. As men getting cut make guesses about who is cutting them, and as the general atmosphere changes, the cutting expands to a degree where a large number of fishermen are losing traps. The entire Cleaves family is having trouble. Up to 1971 four of them fished out of Jasper's wharf (the grandfather, father, and two sons) and one out of Sewell's wharf (a cousin, Charlie Cleaves, mentioned above, whose father was not a fisherman). We have learned earlier that: 1- Last winter Charlie Cleaves was complaining about the grounds being too crowded; 2- He has been fishing boundary waters and having trouble with Swans Island fishermen in 1971 and Long Island fishermen in 1974; and 3- He is fishing a large number of traps (600 by his own admission in 1971; 800 is what most other people believe), then; in 1974 it was probably 1000. It is generally known that because of four other Cleaves' already fishing he was not able to get good grounds. His strategic choice was to build great

numbers of traps and put them all over. The result is not only that is he getting cut, but all Cleaves are. "They think Bass Harbor is Cleaves country," said one other fisherman. "All you have to do is be a Cleaves and you can fish there, and if you're not a Cleaves you better stay out. Well, they're going to learn different."

By 1974, all of the Cleaves had retreated somewhat from lobsterfishing. The older man died; one son (Ralston) was fishing with a helper; the other son (Charlie) tried deep-sea fishing, but is now back with a vengeance; Ralston's two sons and Ralston are working harder now at their original carpentry and construction business. They were getting cut, and they had other options.

We see then how trap-cutting has been operating at Mount Desert to reduce fishing density. Because of the trap war, as some call it, a few men have taken up their traps, "hoping to ride it out," they say, "until things blow over." Nobody wants to risk gear, especially with lobsters at their ebb. Wendell has taken up intense cod-fishing for the first time since 1966. Some men have quit altogether. The combination of the diminished number of lobsters and the increased tension has succeeded in temporarily clearing the grounds.

It is clear that the person who initiates a cutting strategy, whether consciously or unconsciously intending to reduce density, takes an enormous risk insofar as anything he does can be done back to him. It is the older fishermen, that have ridden out such periods before, who retain the strongest holds on their grounds. Their temporary loss is superseded by a long-term gain. Thus, I believe that they may initiate trap-cutting, choosing any victim they intend to drive to the intermediate case, and beyond, carefully enough to retain community support. On Mount Desert in 1971, they chose one unpopular fisherman

from away doing poorly; Cleaves, and the coalition of fishermen at Sewell Alley's wharf.

e- Wharves, Harbors,
and Communities

1- Lobsterfishing

While discussing the role of the individual and the community in setting lobsterfishing territory, it would be relevant to examine somewhat more closely who makes up a fishing community. In the most basic and primary sense, a fishing community is a group of men who fish together, who fish the same waters and whose trap sites are concentrated about a zone such that no one fisherman is either totally inside or totally outside another in his positions. Pure community territory exists where no traps from another community interfere (or do only under circumstances of immediate and present cutting); disputed community territory may include traps from another community. It is important to remember, in situations of possible conflict, that the fishing community is not coterminous with any residential community. The fishing community includes, predominantly, those people born in an area that has traditional access to a harbor which has traditional access to certain fishing waters, but it also includes people who have moved to another community and harbor that has secondary access to the same fishing waters, a few individuals who have changed their residence but use their original harbor, and a variable number of outsiders who have established themselves in the community and have temporary rights to the harbor and outlying waters.

Since Mount Desert (both Southwest Harbor and Bass Harbor), the Cranberry Islands, Swans Island, and Long Island all face the same fishing waters, there are many incidents of complex relation between community of birth, harbor, and territory. Because of the large numbers of

first and second cousins in any one community, intermarriage is fairly common, and usually the woman will move rather than the man. Some fishermen marry into other communities and move there. In such a case, a man will more often try to fish his old waters based on birth than to develop a new territory based on residence; in this case, his claim on either territory is weak, but his claim on his original territory is *weakened from* a position of original strength whereas his claim in the new community has questionable basis to begin with. The competition among the dealerships for fishermen may strongly influence the harbor a man fishes out of, despite his community affiliation. Men on the islands, where land is more available, will often use a private wharf as their landing space, but work through a dealer on Mount Desert. Initially this does not affect their trap location, but as they are forced to pass through new waters to sell their lobsters, their sense of where it is most convenient and most profitable to fish may change gradually over the years until they have intruded into new territories. Such overlapping confuses the territorial map, and unless we understand the basic grid, chaos seems to dominate the order.

The following chart, constructed in 1970, presents the basic relationship of lobster dealer locations and fishermen's residences. Most fishermen live close to the wharf at which they sell their lobsters. The most notable exceptions will be examined below (the survey includes some part-time fishermen).

The large number of men living in West Tremont and fishing from McKinley is explained by the accessibility of Levesque's wharf from West Tremont and the small amount of living space in McKinley itself. These two communities often come together in between. The discrepancy between

Fishing at:	Living in: McKinley	W. Tremont ¹	Southwest H. ²	Elsewhere
McKinley (Levesque's)	15	11	2	0
Bernard (Merchant's)	3	19	2	2
Bernard (Alley's)	3	3	5	0
Southwest H. (Pomroy's)	0	0	10	4
Southwest H. (Burns')	0	0	6	0

¹Including all of Tremont on the Bernard side of the harbor.

²Including Manset and Seawall.

Table #6: Residences of Men Fishing from Five Wharves on Mount Desert

men living in the Southwest Harbor area and fishing out of Bass Harbor (9) and the men living in Bass Harbor and fishing out of Southwest Harbor (0) reflects two related conditions: 1- the greater amount of living space in Southwest Harbor (which is more built up, with rentals available), and 2- the greater amount of fishing territory out of Bass Harbor (which runs into Swans Island territory well short of where Southwest Harbor runs into the Cranberry Islands). The peculiar distribution at Sewell Alley's wharf reflects that the fishermen who are based there might have trouble fishing out of another wharf and thus locate on that wharf regardless of accessibility.

Although fishermen not presently resident in a community should be able to fish there unhindered if they fulfill other criteria, there is always a minor undercurrent of resentment. Wendell, who lived in Southwest Harbor and fished in Bernard through 1972, believed that much of his difficulty with traps being cut came from his original move away from the community in which he was born. In late 1972, he moved back to Bernard (a choice we will examine later), and he is clearly more comfortable living there. His situation is not the same as that of Marlon Bridges, who moved to Bernard at a time he was having excessive trap-cutting difficulty. Wendell's territory was more or less guaranteed for other reasons, and any gains from the move were subtle. Marlon apparently suffered much less from trap-cutting after he moved to Bernard, although there may be other causes for this. In a situation where every minor advantage is nursed and courted, fishermen save their grievances for the moments of greatest dramatic effectiveness and situational impact. Living in one community and fishing from a harbor in another is not as provocative as fishing non-harbor waters from a given harbor; hence, it is invoked only as part a general case against a fisherman, or

in retaliation. When the Cleaves were under the most pressure for having too many men fishing at the same time, two of them complained about men from other towns using Bass Harbor, and one Cleaves, acting as unofficial spokesman, suggested that those who had moved away had forfeited their rights to fish there.

The right to fish in a territory to which a group has proximal access is always protected, but there is also a more basic individual right: a man can fish unbothered in the grounds he has inherited and learned. Where a large number of people in area move to another area, they retain rights to their fishing grounds over those people who replace them on land. The dynamics of this have been demonstrated, in effect, by the fishermen who have moved to Mount Desert from the outer islands because of the lack of schools in their home area. The only alternative has been to board their children near a school (although the ferry now takes children from Swans Island to Bass Harbor and back). Most of these fishermen continue to fish their old grounds; since their homes have been bought predominantly by out-of-state people looking for summer property, there are no direct successors to their grounds. However, in the few cases where outsiders who have bought property have tried to fish, they have had their traps cut. Residence did not entitle them to fishing territory, nor was fishing territory sold with adjoining land. Several of the fishermen who successfully changed to Mount Desert territory married the daughters of local fishermen.

I asked Fred Beal if it did not bother the people back on Swans Island that he still fished there even though he no longer lived on the island.

"Bother them," he said, quite aroused. "Beals have been fishing there before most of them were born. It doesn't bother them." Although Fred retains the right to

fish there, any children of his would have trouble following him into his grounds. There are no such inherited residual rights. That a man is a member of the community he is born in is the most basic statement of fishing community. The community where one's father was born, if different than one's own birthplace, is irrelevant. The transience that has existed for most of the twentieth century, with deep sea fishing crews, migrant granite workers, and the current movements between rural areas and cities, makes one's ancestry beyond one generation much less significant than it is in fishing communities elsewhere, and helps explain some of the fluidity of territory.

Any variation from the norm brings tension and joking far short of trap-cutting but indicating its origin and the feelings that are used to justify it. What people on Swans Island say about Fred Beal is that he remains there in spirit, that the only reason he left was that his wife got into feuds, and that he has been unhappy ever since. Fred told me that the Swans Island people still yell at him from their boats, "trying to lure me back."

Before George Cleaves joined the other Cleaves fishing from Bass Harbor, he lived on Long Island after marrying a girl there. He fished first with her uncle, then alone, and had only minor trouble with getting cut. When I asked him if he could still fish the grounds that he had learned from his in-laws, he said: "You mean live here and fish there? I could try it. I might not find my gear, but I could try it."

Another fisherman, overhearing the question, said simply, "It'd prove expensive after a while."

ii- Clam-Digging

Although a general definition of community resources in coastal Maine is beyond the scope of this paper, I would

like to examine one other case, involving a different region and a different industry, for the perspective it gives to lobsterfishing parameters.

Traditionally, the clam-diggers from Jonesboro, Jonesport, and Beals Island dug together in the same clam beds, which were predominantly in the Jonesport-Beals Island area. There were far fewer clam-diggers in Jonesboro, partly because the local flats were nonproductive (they were known as "Peck Shore," from the fact that a peck was about the most one could expect for his day's digging), mainly because there was other work (wood-cutting and roadwork) for the non-diggers in Jonesboro, it being partly inland. The sharing of beds originates from the time the towns were a single town, or until the end of the nineteenth century, when Jonesport and Beals Island split off to form their own town. The families in the three towns are basically branches of the same larger families.

For many years the Underwood Clam Factory, located in Jonesport, operated a boat to take the diggers from these and other communities to the best areas during the most propitious tides (including both inhabited and uninhabited islands, and parts of the coastline). This served Underwood's purposes in maximizing the labor force, and it was perfectly legal, insofar as no one, not even the owners of small islands, owned beyond the high tide mark (the boat's approach was, of course, from sea and during ebb tide). Over time, however, the sewerage from the Underwood Clam Factory, combined with local sewerage from Jonesport and Beals Island, caused serious enough pollution that the clam-beds around Jonesport and Beals Island were closed by the State (gradually over the last five years). At the same time new State laws were passed giving the towns rights to institute local conservation practices in their own beds, and to exclude outsiders if their conservation methods were

approved. At the same time, Jonesboro, not traditionally a clam-digging area, was experiencing a sudden abundance of clams on Peck Shores along the Jonesboro River. The Selectmen proposed a conservation program, and succeeded in having it approved in 1969. The first move they made was to outlaw the use of their beds by outsiders (but notably those from Jonesport and Beals Island).

There are two essentially different uses of clam-beds. One is the traditional economic use: extensive digging for commercial purposes, shifting from year to year to give specific beds a sufficient opportunity to reseed. The other has developed along with the popularity of the Maine Coast as a vacation or retirement area; it is a local attraction to have clams that people can dig at leisure. The first use is also associated with subsistence digging, either for cash or food. The second use restricts such digging by keeping those in need from finding the current abundances of clams; it takes conservation control from the diggers and gives it to town officials.

There is also a traditional inland-coastal rivalry and hostility. When Jonesport and Beals Island were active fishing and sea-going ports, they regarded Jonesboro as a "slum." Jonesboro has now become a popular vacation area, with a growing out-of-state population. The outside wealth has changed the local inhabitants' sense of their region. They own valuable land, in comparison to which Jonesport and Beals Island are impoverished. Said one Jonesboro resident, hardly old enough to have been alive then but with a pitch of emotion as if it happened yesterday: "They asked to be sawed off; they didn't want any part of us. Well, now they're sawed off and good." To Jonesboro, with new work for its occupants (including care-taking for summer cottages) and land values high, the beds are a luxury and an attraction. People who have had little status suddenly have

been inspired to institute a program which separates them from their competitors, i.e., their cousins and uncles.

At first the Beals Island diggers went to the Jonesboro beds en masse, armed with guns. The Jonesboro Selectmen called the wardens. The diggers having planned on arrest (well aware of youth protests around the country), had come with slogans, prepared sit-down tactics, and they intended to spend the evening in jail. They claimed that starvation was the alternative to protest.

The *Bangor Daily News* of January 5, 1970, reported the incident in an article by Clayton Beal:

"Instead of carrying its traditionally somber atmosphere as a house of detention, the Washington County Jail Sunday evening was rocking with waves of laughter and held enthusiasm comparable to a military day room.

Throughout the day Sunday, relatives and close friends brought home-cooked food and other specialties, which were eventually shared among the 33 clam diggers confined there until their court hearing slated for Tuesday morning in Machias District Court.

A total of 35 clam diggers from the coast towns of Jonesport and Beals have been confined to the county lockup since they were arrested Saturday morning by Jonesboro Town Clam Wardens on charges of digging clams from the town's clam flats without possessing a legal clam license issued by the Jonesboro town clerk.

One Beals clam digger was arrested Sunday at Jonesboro on the same charge, bringing the total to 36 alleged to have violated that town's clam ordinance since Friday.

Nineteen Jonesport-Beals diggers were

arrested on Dec. 30 by Jonesboro wardens and transported to jail by bus. That group chose to provide bail and was released the same day of \$100 personal recognizance bond, plus the usual \$5 fee to the bail commissioner.

On New Year's Day three Jonesport diggers purchased 25-cent licenses from the town of Jonesboro, which would allow them to dig only one peck of clams in that town. The following day they landed on Jonesboro flats and after hoeing their three pecks of soft-shelled clams, were forced by Jonesboro wardens to leave.

The following day, Saturday, more than 40 diggers, including juveniles, landed and were placed under arrest. State Police and Sea and Shore Fisheries wardens were present. But in addition some 12 or more Jonesboro clam-diggers joined their wardens on the flats, apparently to observe the harvesting of clams claimed to be owned by the State.

Of the 35 arrested Saturday, three have been released on bail for their Tuesday morning court appearance. The only one to be released on bail Sunday left the jail reluctantly because of wanting to stay with his companions as a continued show of protest against the existing arrangement of town shellfish laws. The Beals digger left Sunday because of sickness among his six children....."

My own guess is that coastal territory is always resolved between conflicting sentiments and structures of: residence and access, tradition and legality, past unities and present divisions (including the gradual dispersion of intermarrying groups and large families), original

communities and presently-forming communities, birthplace and current residence, threats of violence and threats of retaliation, and actual violence and actual retaliation. The basic condition that permits a continuous generation of opposing positions is the legal status of land that is covered by ocean as part of regular tidal cycles; the fact that no one can own such land does not leave all people free to use it equally.

D- Games, Fights, and Consensuses

1- Lobster-Trap Wars

Trap-cutting is an aspect of fishing strategy, just like the cost of gear and the randomization trap-setting; different fishermen choose or are forced to engage in it in varied intensities. Although I have no way of proving it, I feel that some fishermen rarely, if ever, cut a trap. They are secure in their territory, unthreatened by the other fishermen around them, and they derive the benefits of the trap-cutting their neighbors carry out. On the other hand, there are fishermen who cut regularly as a part of an ongoing strategy, pursuing situations only to the intermediate case. To them this is an acceptable game, in which everyone participates. They express surprise if anyone is angered enough to push the matter further. It is a business matter only.

"I know who's doing it," said Burdock Shea, "and we're still friends on shore."

"They elected my husband selectman," one woman told me, "but that doesn't mean they don't still cut his traps."

People accept the vulnerability of traps at sea as part of the game, the hunt, the attendant risks. A certain amount of shifting around and vying is necessary as everyone tries to get the best sites at the right times.

For those fishermen who do go beyond the intermediate case, it ceases to be a game. It becomes what Rapoport

calls "a fight" [1960: 148-150]; the behavior is more desperate, and winning is the only aim, regardless of means. Both parties issue ultimatums, whether strategically advantageous to themselves or not, and the result is submitted to a battle of wills, regardless of utility to either party. Certainly the ultimate form of a self-defeating fight would be atomic warfare, and, in one instance of a strong case of trap-cutting, a participant fisherman did call it "all-out nuclear war."

In Williamson's novel, the lobster war described, a replica of one occurring then, led to rampant cutting of traps, dumping of illegal lobsters into people's lobster cars, blackmail through dealers, patching of false rims on lobster tails (to trick someone into keeping shorts and then calling the warden), hiring of out-of-stage provocateurs, etc.; there was gun-play, warning bullets, though no actual killing [1935]. The modern lobster war is perhaps more gentile, more methodical, less dramatic; the man forced out of fishing can still find other employment. But the image of "all-out nuclear war" is an accurate one in terms of the mayhem, malice, and general destruction caused by an open lobster-trap war; it is certainly the ultimate form of strife among lobster-fishermen.

2- Illegal Hauling

The practice of "trap-hauling" or "stealing" is described as follows by Francis Hutchings:

"It comes from a little greed. They haul theirs and it's got plenty, so they figure the one next to it must have plenty too."

The general outrage of the fishermen is expressed by lines like: "It's going into someone else's barnyard and taking his chickens away." Or, "It's taking food right off his table."

I asked Hutchings what happens when you discover who is hauling your traps.

"You speak to them on the shore, ask them to stop, and if they don't, you ask them if they want to die."

Whereas trap-cutting is legitimized by everyone's recognition of the vulnerability of traps at sea and the need to determine territories (the need to keep men far enough apart that they do not snarl lines), there is no justification for hauling another person's traps; it is considered theft rather than strategic reaction. Most fishermen knot their ropes in a secret idiosyncratic fashion so they can discover a robbed trap easily. This does not help in catching the culprit, but does alert them quickly to his existence. To keep from having to reknot the line and to throw suspicion onto someone else, some men cut the trap after stealing from it.

There is no one currently fishing who has been caught hauling another man's traps, though a few are suspected of it. One man who is under such suspicion does not even sell his lobsters at Mount Desert, though he gives another explanation. The person who hauls another person's traps runs the risk of total ostracism, for he has moved beyond the accepted game.

No doubt some fishermen do haul other people's traps and consider it part of their regular strategy. They rationalize the "stealing" aspect by considering themselves the discoverer of a good area. It is difficult for these fishermen to pass up a buoy that they strongly believe marks a haul of legal-size lobsters. Anyone actively hauling others' traps has a whole separate strategy for it; he must know fishermen's patterns as well as lobsters' patterns, and he must have quick efficient methods of checking who is hauling on a given day (not only in search for candidates whose traps he might haul but in search of areas that might

not be crowded). He must also vary his "thefts" so as to keep suspicion from building up in any one place.

A fisherman who was willing to discuss with me "trap-hauling" he said he had done "only in the past" argued that there was only one rule at sea: to catch as many lobsters as you could at the least risk. If you could get them by stealing, it was the same as getting them by placement of your own traps. He indicated that lobsterfishing was a dirty business anyway: if you did not take what you could when you had the opportunity, you suffered the same done to you unavenged.

The retaliation for stealing from traps is equally harsh (as Francis Hutchings' statement indicates). Although no one was shot in the Mount Desert area during the time of my study, there were newspaper accounts of such shootings in other parts of the state. Many fishermen describe the same episodes of men being shot for hauling in the Mount Desert area in the past. One such incident involves an outsider shot for hauling traps at Seawall. The strategy of the suspicious fisherman is the strategy still advanced as the most effective in such cases. He lay in wait for days until he saw the offender actually hauling his traps; then he shot him. Someone was arrested for the murder, convicted, and served time in jail, though I can find no written accounts to substantiate the stories. According to one fisherman, the man who went to jail was not the guilty one, but he was protecting his father, who was. The people in the community usually know who does the shooting (from their sense of the building up of events and process of elimination), but no one will implicate the guilty fisherman, no matter what their relationship to him. Stealing from lobster-traps is forbidden, and since the courts act too slowly and inefficiently to discourage a trap-hauler, the fishermen must act to preserve their equipment, their

potential lobsters, and a general belief that such activity is high-risk. The only less severe retaliation I know of is putting razor blades in the rope in areas where trap-hauling is suspected. This occurs when the hauler is unknown and serves as a possible means of identifying him (from the wounded hands back on shore).

A more basic "retaliation" is simply the preventive effect of the suspicion cast on those who fish on bad days, haul often on the back sides of islands, and seem to be fishing their traps too hard for the value in them. It is no wonder that people who catch "too many" lobsters or overfish are considered "pigs".

Summer people occasionally haul traps at sea, but arbitrarily and with no sense of whose traps they are or if they are fishing well at the moment. I have heard outsiders speak of hauling traps for a lark and a few free lobsters, but these people run an equal risk of getting shot. They have a distinct misunderstanding of how seriously fishermen take their business; it is their own obsessive battlefield, and anyone who enters it becomes part of the battle. There is nothing like "just for fun" or "a joke". This is a more serious problem around the islands where people who have bought summer property haul the traps after dark. There are many complaints about this activity, and my sense is that it is only symptomatic of the general tension concerning extent of ownership after the purchase of coastal property.

3- Stage-Tearing

We mentioned earlier the continuity between precolonial codfishing territory and current lobsterfishing territory. In this context, it is significant to note that William Sevey, a direct male ancestor of Wendell Seavey, was engaged in stage-tearing episodes with other fishermen during a cod-fishing war around the Isles of Shoals three centuries ago. Fishermen hoped to discourage each other from the best cod

grounds by destroying the rafters and stages of their competitors on shore. The area in which this battle took place (Appledore, or Hog Island) was an excellent territory already in the process of being overfished. A contemporary author describes it as: "a good fishing place for six ships, but more cannot well be there for what of convenient stage room as this years experience hath proved [Levett, 1624]."

On June 25, 1640, William Sevey was brought to court in Saco, the complaint described as follows:

"William Sevey about ten days last past, did pull down all the rafters of the stage that Mr. John Beaple fisht in this place." [Seavey, 1958].

A later charge read:

"Steven Crafford pertener with the said William Sevey, did ruinate the flakes, sort and long layers, with other things belonging to the fishing craft" [ibid.].

Since William Sevey remained at Hog Island and later became Constable and Selectman for the Isles of Shoals after a successful fishing career, we may assume that he was one of the people who established himself in this territory.

4- Trap-Limiting Sanctions

Despite the institutional value of trap-cutting in establishing fishing rights, there is clearly also extensive community waste in both the cutting of traps and the building of traps in numbers beyond the fishing optimum for the area. The waste is relatively insignificant for an individual fisherman, but it is staggering on a community scale. The number of man-hours spent on the total fishing effort is many times what is necessary for the men to bring in the same amount of lobsters per harbor under regulated conditions. Of course, the expenditure is not totally insignificant to the individual fisherman, but he will accept present conditions and worse before he will submit to an outside authority. H. Scott Gordon [1954: 132]

argues that, without some form of social control, individual fishing efforts, working against each other, will drive individual profits down to a level at which they are dissipated by the cost. He compares the common property status of fishing territory to the shared pasture of the mediaeval manor:

"Where the ownership of animals was private but the resource on which they fed was common (and limited), it was necessary to regulate the use of common pasture in order to prevent each man from competing and conflicting with his neighbors in an effort to utilize more of the pasture for his own animals. Thus the manor developed its elaborate rules regulating the use of common pasture, or 'stinting' the common: limitations on the number of animals, hours of pasturing, etc., designed to prevent the abuses of excessive individualistic competition" [Gordon, 1954: 135].

I would argue that trap-cutting, though wasteful, *does* serve this function. Fishermen manage their own fishery as well as they can under the circumstances. They cut down on overfishing abuses. The Canadian government, however, found a similar situation counterproductive and put the lobster fishery under strict regulations. Their particular concern was that it was economically disruptive on a regional basis for fishermen to build more traps to catch the same number of lobsters when labor was needed elsewhere and supplementary income was available to a fisherman freed of the need to fish full-time. The Canadian rules set trap number limitations and fishing seasons; they limit the number of lobsterfishing licenses (making them hereditary, sellable when a male line comes to an end by the widow or daughter), and they legalize the types of fishing grounds I have been called "community territory."

"The regulation limiting those holding an 'operator's' lobster fishing license to one district is supported by a

notion of communal property rights. Sentiment generally favours exclusion of 'outsiders' from local grounds and, because lobsters are almost non-migratory this reserves the stock for nearby residents. The administrator also tends to favour district limits because enforcement work is thereby made easier. If it were not for a district limitation on operators the competition of 'outsiders' would tend to be greater" [Rutherford, Wilder, and Frick, 1967: 86]. The intent is to reduce the need for excessive numbers of traps and to enforce fishing boundaries, both without trap-cutting. The seasonal regulation forces the men to catch the bulk of the legal lobsters in the region in a shorter period of time, letting those that they do not catch pass to the next moult (on the assumption that the fishing effort necessary to catch them would be counter-productive for most). The loss of marginal lobsters in individual grounds is outweighed by the smaller cost of gear, the availability of more large lobsters the next year, and the "phasing" of the seasons to coincide with times when the market in the United States is best for lobsters. The opening of the Canadian season in the fall forces the lobster price down in the United States and marks the end-point of the fishing effort for a number of American fishermen. Rutherford, Wilder, and Frick discuss some of these factors:

"The regulation of the lobsterfishing season, with regard to both its length and the time of year, was undertaken initially for conservation of the resource. The primary objective in closure of the fishery during the shell-shedding, the soft-shell, the breeding, and the hatching periods was to ensure reproduction of the stock. There is, however, little evidence available concerning the contribution of season regulations to this

objective. Short seasons do not seem to have had much effect in limiting catches, if exploitation rates in long-season and in short-season districts are compared. Where the opening of a spring season is delayed 1-2 weeks by drift ice and the catchability of lobsters reduced by low water temperatures, the rate of exploitation may be reduced. It is possible, therefore, that further shortening of the 2-month spring seasons or establishment of seasons during cold, adverse weather would have this effect.....

The short season has had important economic effects. Because lobsterfishermen engage in other income-earning occupations, increased latitude for allocation of their time might be expected to increase their year-round efficiency; longer lobsterfishing seasons would provide more leeway for adjustment and timing of operations, not only in the lobster fishery, but in other pursuits as well. The short season may reduce the short-term uncertainty of catch prospects, thus increasing the attraction of the fishery to prospective entrants and leading to a greater intensification of effort.

...increased catchability of lobsters and good weather may result in low unit fishing costs in the summer months, while it is not clear to what extent market prices reflect the qualitative differences represented by increased numbers of soft-shelled lobsters; the demand-supply situation may be the dominant influence. Ice and winter weather make lobsterfishing more costly and hazardous, if not impossible, but for western Nova Scotia and

Bay of Fundy districts with winter fishing seasons, the higher costs may be compensated by the higher market prices at that time of year.

The present arrangement of fishing seasons may be justified as a means of adjusting production to take advantage of demand and supply conditions in the principal market --- the United States" [ibid.: 87].

On the basis of its own strategy analysis, a Canadian government agency has offered all fishermen a uniform game plan, adopting the hauling methods and seasonal pattern of the more conservative fishermen and applying them in such a way that their obvious competitive disadvantages are all but eliminated, i.e., leaving no corresponding advantages for the "hard fisherman" to capitalize on by more intensive fishing effort. In some areas, where 2000 traps might have been fished, 300 is now the limit; where there was full year fishing, a few months must now suffice. As Canadian government statistics quoted in Rutherford, Wilder, and Frick bear out, this has not reduced the annual sum Canadian lobster landings. It has eliminated the majority of lobsterfishing institutions (including social institutions arising from lobsterfishing) and substituted for them a "company policy." Men once fishing on their own are now like the single crew of a large fishing vessel. Individuals may do slightly better or worse, but everyone must go where the boat goes. The differences are levelled, and strategic institution-generating lobsterfishing has been replaced by mechanical lobsterfishing. Lobsterfishing institutions, arising from competition for available stocks, clearly have social ramifications in the community; if the Canadian measures were

introduced, the role and status of the lobsterfisherman would change. The features of community life which were mediated through lobsterfishing sanctions would be mediated in some other way. In Canada, where lobster stocks are less abundant and lobsterfishing has a somewhat different role in the fishing and social life of the community, the regulations probably had a relatively smaller effect than they would in Maine.

During the brief amount of time I spent in Canada I learned how difficult it is to enforce these regulations. There are clearly illegal channels for the distribution of lobsters caught in violation of one or another of the rules; thus fishermen who want to continue to fish hard (either in duration of time or extent of trap sites) can do so, and their disregard for the regulations inevitably causes other fishermen to increase their own efforts so as not to lose lobsters. Some aspects of the previous institutions could be recovered by illegal fishing; this certainly would be attempted in Maine (where the fishermen consider *any* authority externally imposed a force to outwit). Nonetheless, the formal sanctions have succeeded in stemming the expansionist trend and in significantly reducing the cost of fishing.

Similar regulations have been considered in Maine, but the fishermen oppose them bitterly. When the Canadian laws are mentioned, men speak of them as "Communistic," and Canada is classed as a dangerous nation in their minds with Russia and China. There is no flawless solution to the overfishing problem, and though the measures adopted in Canada have been relatively successful there, they may also Desert, for instance, there is no work available that is an acceptable substitute for year-round lobsterfishing, or year-round lobsterfishing as the mainstay of a general fishing effort. Nothing else offers equivalent status or pattern of in-

come. Furthermore, if lobsterfishing money were not staggered over the entire year, the men might spend their entire income during the period they were fishing. The spottiness of their success enforces an equivalent frugality in life-style. Since fishermen often splurge when money is in their hands, present overfishing keeps such jackpots to a minimum.

Aquaculture, which would have a similar effect (in turning fishermen from "hunters" into "herders", has been considered not only on Maine governmental levels but by lobster distribution companies, the major channels of out-of-state cash. If it were to occur, there would be not only an overall ecological and economic effect in the area, but also major social changes in the community. Scott [1962: 39] has pointed out some of the problems of eliminating the competitive struggle on the motivation of conservation. The local system of social structures and status-related institutions would have to change concurrently; whether it would lead to a more stable or less stable system (for instance, in the case of aquaculture on Mount Desert) is difficult to guess; but there would clearly be an intervening period of disruption.

One of the purposes of this section is to demonstrate that the possibility of outside regulation to the end of more effective, less expensive fishing by everyone is also a strategic possibility in the competitive struggle among fishermen. Thus, it is no surprise that many of the more successful fishermen under the present system feel the regulations are generally being supported by unskillful fishermen who want the competitive nature of the fishery ameliorated for their own benefits.

E- General Relations Among Fishermen

1- Cordiality and Exchange

Competition is one critical means of internal control

in lobsterfishing communities: not only ecologically in limiting trap density, but socially in enabling fishermen to work out a set of hierarchies that are loose enough to allow each generation (each new fishing group) to work out its own territories and tight enough to keep the issue from having to be decided anew each time a group of ambitious young fishermen stakes its claims. The overall relationships among fishermen, however, are *not* monopolized by trap-cutting and competition. As I indicated earlier, my discussion of such mechanisms is based on an analysis of hidden and purposely obscured patterns of behavior, not a clearcut revealed set of activities. Wendell continues to insist that I make much too much of trap-cutting, but at the same time he is speaking of pulling up all his traps to ride out a trap war. This is not hypocrisy; he believes, and rightly so, that the main business of lobsterfishing is to catch lobsters, and that trap-cutting is a by-product of that effort. His point is that men fish to catch lobsters not to cut traps; even at the peak of cutting, a small fraction of the total traps at sea are involved; normal pot-hauling and lobsterfishing continue to dominate. Hence why emphasize the atypical?

The basic relations among fishermen, even those cutting each other, are cordial and conciliatory, in many cases obsessively helpful (certainly to outside appearance). Frequently men go out of their way to help one another; on a daily basis, this includes: lending of gear and tools, technical information (short of giving away fishing spots), aid at sea even for minor trouble, extensive aid when a fisherman is sick or away from the wharf and his gear is in danger, looking out for each others' bait supply, etc. This courtesy extends in particular to men fishing at the same wharf.

I would relate fishing cordiality to what Sahlins calls

"generalized reciprocity" [1963: 139-227] and Polanyi "exchange" [1958: 243-270]. There is a continuous flow of exchanges no man can risk taking lightly. Lobsterfishing is a dangerous business; if one has engine trouble at sea the man closest to him, or closest to him from the same wharf, will haul him in, losing a whole day of fishing, which might mean several hundred dollars. Yet each man has this expectation (that he will be hauled in in case of trouble, promptly and without cost), and thus honors it himself. This spring a man who had been engaged in cutting episodes with another man hauled him into the wharf; they joked sarcastically about the situation all the way in (or at least they were joking about it as they arrived). The irony was noted, but its basis did not interfere with custom. Men strongly prefer to be pulled out of danger by each other rather than by the Coast Guard, partly because the Coast Guard, like the bank and the courts, is an external authority to whom one wants no obligations, and partly out of the belief that only another fisherman can respond precisely and accurately to a fisherman's call for help and his needs in being rescued (i.e., not to be rescued at the expense of gear that could be saved by a knowledgeable rescuer).

Men also tell each other when they come upon lost traps that have been blown great distances; they may haul the traps of somebody who is ill, and even take them up in the case of an impending winter storm. The man who stays home depends on the men at the wharf to keep an eye on his boat if anything should cause it to come loose or otherwise threaten it. The daily risk of fishing is large, not only personally but economically; thus, it is not personal safety alone which dictates swift selfless action both at sea and on the wharf: quick response may be the difference between a small and a large financial loss, and since no man can

absorb the latter easily, they work collectively to prevent it happening to anyone. A group equalizing sentiment, which does not operate in the case of a trap density and territory, appears in other potential crises that do not affect the establishment of the territorial hierarchy.

There are other advantages to this cordial and reciprocal behavior. Generosity is usually returned. Fishermen from carpenter families have skills in the upkeep of a boat and rigging for scalloping and dragging; on the other hand, they may lack information about islands at sea, hauling traps quickly, cleaning traps, plugging lobsters, etc. With everyone mingling at the wharves, much information is exchanged so freely it might seem that fishermen are friendly enough to lead each other to their very best fishing spots. It is hard to believe that a man who is giving another man rope (not formally lending it, but giving it, perhaps in informal exchange for bait for a time when he is low) is also cutting that very rope at sea. Since this happens, what we understand from it is the specificity as well as the intensity of the competitive activity. Lobsterfishing is a hard-fought game, with ethics and rules; it is not a battle to the death. In fact, individual interests often derive from group interests, as described by Rapoport [1960: 167].

2- Group Interests

There is as noted in the previous section, a direct element of lobsterfishing strategy which derives from the collective interests of the fishermen in opposition to other groups (most notably the dealers). Fishermen in an area, or at a wharf can:

- 1- work together to keep the lobster price up (by refusing to sell at too low a price);
- 2- unite to form their own cooperative lobster-purchasing organization as at Stonington; and
- 3- form larger groups based on issues on which there is uniform local agreement over a large area (one of the most obvious of these is the

Maine Lobsterman's Association which has successfully backed a law prohibiting Sunday fishing during the height of the season and a law establishing funds for the freeing of lobsters which come into seed at the dealers). Groups protective of lobsterfishing interests may become more significant and more critical in the future, especially insofar as the occupation is threatened by the planned construction of oil-handling facilities in Maine, most notably at Machiasport. The fishermen intuit, probably accurately, the sequence leading from oil spills, pollution, and industry to a general replacement of lobsterfishing activities by factory work. "Nine to five, just like Detroit," as one man put it. Since the average income in these areas is low, especially in Washington County where Machiasport is located, the State encourages industrializing efforts. Governor Kenneth M. Curtis, in supporting a refinery at Machiasport, said recently: "I feel that the poor housing, insufficient education and present pollution which in large part result from the inadequacy of our present tax base are more of an environmental blight than a modern refinery and terminal facility operating under the strictest possible regulations" [Maine Times, 1969: 4].

We will discuss this particular question in more detail later. Here it is simply important to note that the fishermen understand and communicate about their group interest on this issue; during the winter of 1969-70, it was one of the most significant wharf topics (second only to the weather). The general lobsterfishing ethic prevailed: one must actively and directly advance their own interests, even by force. "People from away always serve their interests first, and I don't blame them; I would too," one fisherman told me. "We can't expect help. We've gotta look out for ourselves."

At one of the wharves the conversation has grown in intensity and the group of fishermen there pledged to drive oil out of Maine by any means. The danger of the refinery is reviewed in the same terminology as the hauling of other people's traps: "They're stealing food off our tables." Said one of the fishermen:

"We've got to prove to those people that one man's knife is as sharp as another. If they want to cut us off by building that oil refinery, we can cut them right back. Putting traps out to sea is nothing; one has to prove that he can keep them down. And I imagine those oil refinery people may have some trouble keeping it from getting cut if you know what I mean." When I asked him if he thought that people might attempt to blow it up, he simply said, "They say they're going to put it there. As far as I know it's the same as always; the burden of proof's still on them."

Whether actual vigilante groups are forming is hard to know, but there is in this area a strong basis for potential group action, beginning, of course, with the community acceptance of strategic trap-cutting to determine its fishing constituency.

3- Strategic Closeness

There are other advantages to closeness and generosity at the wharf. Men working together not only exchange information but give away hints unintentionally. Some are more astute at capitalizing on this than others. It is fortuitous that one's "friends" are also his rivals; this is what makes them such useful friends.

In the course of working together on traps and boats, joint fishing efforts may be planned; shrimping, scalloping, and general dragging are carried out best by two men, and partnerships (which shift continuously) are based on bringing one man's ability in rigging together with another's knowledge of the fishing grounds. In the conversation there

is gradual courting of new partners, and the reaffirming or breaking off of old relationships: there is much joking, which indicates the sensitivity of these matters. No one wants to be the dropped one. Often fishermen hint they know good grounds in order to pick up a partner. Or a man with new equipment (radar or nets) may ask another man to help him try it out.

The possibility of shrimping as a full-time winter replacement for lobsterfishing was discussed for several years at the wharf before people actually began trying it. Even at present there are more people observing and discussing than actually shrimping. The expense of the venture makes debate and probing necessary before groups of men can bring themselves to form definite plans.

The wharf is a place to spend nonfishing days, with friends and rivals from whom one receives (and to whom one imparts) help and advice. A sense of group standards is developed there. The men tease each other about rundown equipment, notably boats, and there is a generally-enforced ethic of "keeping up" the whole wharf. Upkeep is a continuous process, arduous and tiring, and it is accomplished more easily if the work is not really work because you do it when you want to and in the company of those people with whom you might spend the time anyway.

The time spent at the wharf is invaluable, even if considered only in terms of the construction of traps and the upkeep of the boat. Many have complained that the advent of television has made worse fishermen because there is new excuse to be at home on off-days.

On a trip into Boston, Wendell visited the town wharf for the first time, and his comments are enlightening:

"I've never seen so many beat-up boats as there was there. And the people, instead of hanging around working on them, they just go home. It's a job; they come and

they go. It's so many people like so many fish in the sea."

A fisherman may work harder than a general factory worker (more hours a day) yet not consider it work because of the ongoing strategic process and the opportunity to choose his own times. Fishing is not "just a job," and in this spirit the men uphold and affirm each other; they are like baseball players on different teams supporting the very game that allows them to play.

IX- The Stages Between Environment and Market

A- The Marketing of Lobsters

Before discussing the strategy of selling lobsters, I would like to examine more closely the statuses through which the lobster passes on its way from the marine environment to the consumer. We can view these diagrammatically as six major phases, each displacing a quantity or item back to the previous phase (as payment or general feedback) [See Figure #4]. We can call these: A- the Environment; B- the Fisherman; C- the Dealer; D- The Dealer's Dealer (usually the Trucker); E- the Market; and F- the consumer.

The feedback from the fisherman (B) to the marine environment (A) is a reduction of the adult lobster population (but hopefully an opening for an immature lobster to fill, the amount of time before he fills it representing, in a stable situation, the temporary cost). The dealer (C) gives the fisherman (B) either direct payment or credit on gear and supplies in exchange for his lobsters. The trucker (D) pays the dealer (C) a slightly higher price (a nickel to fifteen cents per pound) than the dealer pays the fishermen; this is his overhead and profit for collecting the lobsters, holding them, and crating them for shipment to the market area. The trucker often agrees to take a certain amount of lobsters from the dealer over a fixed period of time regardless of demand; this mirrors the dealer's arrangement with the fishermen. The market (E) bears a similar relationship to the trucker as the trucker bears to the dealer. By E we do not mean the whole commodity market, but the particular outlet any trucker feeds; in some cases D and E may be the same company. The consumer (F) pays a high enough price for the lobster that it is possible for everyone along the line to maintain their businesses. There is no long-term guarantee that he will keep buying; lobsters are not basic necessary

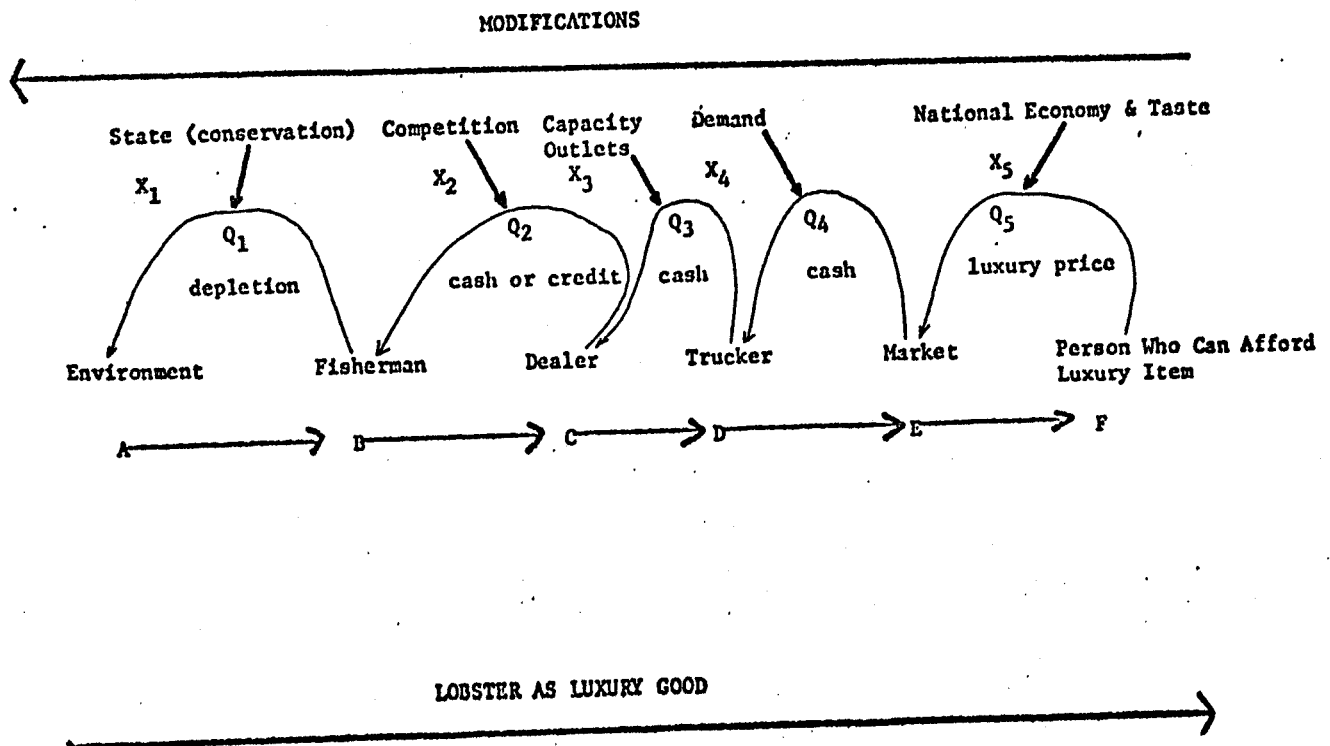


Figure #4: Phases of the Lobsterfishing Industry

foodstock. If the national taste changes or economic conditions discourage luxury foods, the series of exchanges will come to an abrupt halt, and the fisherman will no longer catch lobsters in commercial amounts.

B- Limitations and Conservation Measures

1- General Modifications

Lobsters do not flow unimpeded through these nodes. There are limiting factors at every stage. The demand for lobster varies, although in recent years it has been consistently intense. Any trucker or dealer is in competition with other truckers and dealers and may lose lobsters to his competitors. Storage capacity also determines stock during high-yield periods. The most basic impediment to a pure flow, however, is the depletion of the lobster population, which continues throughout any one season and is not checked until a new class of lobsters matures. At present, there appears also to be an absolute depletion, and each year there are fewer lobsters in the overall population. There may still be better and worse years, but the basic trend is downward. One external factor slows the rate of depletion: the enforcement of conservation measures by the State Department of Sea and Shore Fisheries.

2- Conservation Measures

There are three major laws dealing with marketable lobsters and one related fishing law. These read:

"It is unlawful for any person to buy, sell, expose for sale, give away, transport, ship or have in possession any lobster, alive or dead, cooked or uncooked, which is less than 3 3/16 inches in length as determined by the state double gauge lobster measure by measuring from the rear of the eye socket along a line parallel to the center line of the body shell to the rear end of the body shell" [Maine Sea and Shore Fisheries Laws and Regulations, 1969: 90].

"It is unlawful for any person to buy, sell, expose for sale, give away, transport, ship or possess any lobster, alive or dead, cooked or uncooked, which is more than 5 inches in length as determined by the state double gauge lobster measure by measuring from the rear of the eye socket along a line parallel to the center line of the body shell to the rear end of the body shell" [ibid.]

"It is unlawful for any person to take, sell or have in his possession any lobster which is bearing eggs" [ibid.: 95].

The fishermen are expected to release lobsters in the above categories. The laws affecting large and small lobsters are easier to enforce because the dealer is equally responsible and will not risk the fine by receiving illegal-size lobsters from his men. Since, however, it would be difficult to convince a fisherman to throw back any lobster he thought another fisherman might sell and since it is easy to brush the eggs off female lobsters, a further sanction is needed to back up the additional law. This forbids the selling or possession of any lobster with a vee-notched or mutilated tail. The fisherman returning a female lobster places a notch in her tail with his knife, and as long as she carries that notch (until she sheds it) she cannot be legally sold by anyone. The regulation covers anything resembling a notch and thereby protects not only notched female lobsters past the egg-bearing stage but males who have gotten their tails battered in a fight or some other activity and thus prevents the hiding of a vee-notch by further mutilation). The wording of this law reveals, if not the actual psychology of the fishermen, the attitude the State assumes in their behalf: a man is considered more likely to work toward protecting egg-bearing females if he believes that his participation does not free someone else to take advantage of him. Of course, many fishermen still brush the eggs off; whether this is an ethical or strategic issue is difficult to assess, and we will return to it later on a different basis.

3- Success of Conservation Measures

a- Effect on Lobster Population

Since records through 1969-70 show the greatest numbers of lobsters caught in the years following the highest prices offered for lobsters, it is impossible to demonstrate either the success or futility of conservation measures. There is no yearly increase in lobster production that cannot be traced as easily to some other cause as to conservation laws [See table #1; Dow and Trott, 1956]. Many State biologists believe that the four regulations have had little effect in increasing the overall stock of lobsters. With the enormous egg-bearing capacity of the female lobster, and the subsequent extinction of most of those embryos at immature stages, it might be argued that mortality itself is not the substantial determinant of lobster depletion, the number of embryos being sufficient (overwhelmingly so in fact) to replace those lobsters lost in the fishing effort even without conservation measures. A major factor preventing such eggs from hatching at the moment is the limited number of berths in the marine environment for full-grown lobsters. On this basis, the lobster population remains stable year after year, even while being fished by increasing numbers of fishermen. Overfishing, then, can only temporarily reduce the stock. In the long run it cannot be added to or subtracted from unless ecological conditions increase or decrease the number of berths. In the case of the egg bearing females, the fertility of those that are not caught is probably sufficient to replenish the stock. Whether this kind of selective pressure produces a less catchable lobster (or has had any effect on the lobster gene pool) is not known. Furthermore, the preceding arguments are inductive and hypothetical [Dow, Goggins, Harriman, personal communications].

It is doubtful, however, that a significant proportion of those lobsters returned to the water re-establish themselves

and benefit the population. Experimenters have discovered that lobsters returned to the ocean sink very rapidly, in a disoriented state, through waters occupied by their predators, landing at the bottom, if at all, quite dazed and numb. "For a short time following tagging, a lobster will show a greater than normal tendency to be captured [Harriman, 1951-2: 4]." There is also the strong possibility that the vee-notch may substantially reduce the egg-bearing capacity of the female over several moults. Given these drawbacks, it is a wonder that the conservation measures exist at all and are so widely accepted. But we can examine them from the point of view of possible other beneficiaries.

b- Benefit To Dealers

The law limiting the size range of lobsters that can be sold is unquestionably beneficial to the dealers. It reduces the number of lobsters they must handle in the less marketable size ranges. Although the dealer pays the fisherman by the pound, regardless of individual size (i.e., for his whole catch weight), we know from the popularity of the Stonington select that some "pounds" are more valuable than others. The lobsters with the least desirable weight are those that fall on either side of the $3 \frac{3}{16}$ and 5 inch lobster measures, the "shorts" because they are too small to make a full lobster dinner in a restaurant, and the "over-size" ones because they carry too many pounds for the average customer to afford. Large lobsters are also risky; their death costs the dealer more per incident. It is a risk without any compensation. The conservation law transfers the onus to the fisherman without changing the customary procedure of per-pound payment. The lobster dealers, understandably, were active in initiating size laws, ostensibly to benefit both the fishermen and themselves by preventing a depletion of the lobster supply [Goggins, personal communication].

c- Ideological Effect

Despite such obvious grounds for objection, most of which

are known to the fishermen, there is general support for the laws, especially in the Mount Desert region (somewhat less on Swans Island and the Cranberry Islands). There are many reasons. For one, lobster stock has varied sharply over the years, and the fishermen are not sure why; they do not keep track of the comparative daily weather, number of fishing days, etc., over the course of the years, nor, as we noted, are they necessarily conscious of their own harder fishing when the market is good. There is, thus, reason for them to suspect that the conservation laws have been *beneficial*. They may hear otherwise, but it is hard for them to accept that the increase in lobsters is not at all related to the number of lobsters they have thrown back in. "We used up our lobsters in the old days," one fisherman told me. "Now we've got good laws to make sure we don't kill our seed again."

Although the size limits may not help the lobster stock in the general manner supposed, it is possible that there are side benefits to the fishermen, important in themselves. If the laws did not exist, the fisherman might flood the market with lobsters too large and too small for effective sale, thereby jeopardizing the price he does receive (ultimately, he would not be able to be paid by the pound because it would be incommensurate with the real value). The size law, then, operating in random fashion on the fishing population, prevents the lobsterfishermen from crowding his own outlets with less suitable lobsters. Couched in ecological terms, it does not tempt individual fishermen to violate it for their own economic gains.

Furthermore, the lobsterfisherman, unlike the dragger, will respond to ecological language because it sounds to him like farming language, and he interprets the difference between his own operation and that of net-pulling fishermen (perhaps only semi-consciously) as the difference between hunting and farming. The sea becomes his field, and the whole

operation is sowing and reaping (imagistically, we can imagine the buoys with the traps on the end as giant upside-down plants). If there is to be reaping there must be sowing, and the casting back of small lobsters (not picking plants before they are ripe) and large lobsters (letting some go to seed) and egg-bearing females (the actual planting of seed) works toward the fulfillment of this imagined design. If one asks what the possible benefit of returning egg-bearing females could be, I would say: the act itself, the conscious appreciation and reinforcement of the event of casting seed into the ocean, which subtly fulfills the fishermen's expectations. It not only solidifies the notion of definite territory; it justifies keeping away outsiders who have their own territory but no real stake in whether seed gets planted when they are beyond it. Outsiders are famously untrustworthy, and always suspected of worse behavior than local people, even when they do the same things; for instance, they might have their own outlets for illegal size lobsters. If it were not for a convenient interpretation of the lobster regulations, this would only be theft, not even necessarily harmful theft. As it is, the men can regard interlopers as birds eating seeds out of their field, to be dealt with harshly. They are not only stealing; they are ruining crops. On more than one occasion I have heard fishermen describe a person from an adjacent area or a newcomer to fishing or (especially) a part-timer as one who takes shorts, sells big lobsters illegally, and/or brushes off eggs. The argument is that part-timers as well as interlopers have no interest in conservation of an area in which they do not regularly fish (or have not fished long enough to have a stake). This becomes an excuse for cutting off such fishermen. "Those part-time fishermen, don't keep up their boats, bet they're the only ones you find with shorts and vee-notches, aye warden," said a fisherman at Pomroy's. The warden nodded.

Conservation language, without any relation to biological fact, is a powerful stylistic mode in the region, obviously indicative of underlying structures of thought. The most striking case I encountered was that of the worm-dealer who had his men gather the broken bits of worms and small dead worms from the floor at the end of each day and return them to the flats. "I don't know if it does any good," he said, "but you never can tell, and the men and I like to think we're keeping this livelihood of ours going." The key is probably in the words "like to think."

One other so-called conservation law is clearly of benefit to the fishermen: the statute which prohibits fishing on Sundays from June 1 to August 31. It enables the men to take a day off each week without losing competitive edge. Many fishermen privately admit that they would love to take Sundays off year-long but can do it only during the period of general non-Sunday fishing because otherwise they would be losing lobsters to their competitors. This law operates on the same principle as the Canadian laws: that the same number of lobsters are going to be caught anyway, whether in full-time fishing or during a selected number of days during the year. The difference is that the Canadian law seriously attempts to undermine the wasting of time hauling traps; the American law, by staggering the times when fishing is not permitted, does not create any clear block of time when the fishermen might develop another livelihood. Its sole aim is leisure and time to keep up gear. This is the difference between the government-imposed law and a fisherman-backed law. The greater number of fishermen speak of "giving the lobsters a day of rest" and "keeping the lobster population from getting all run down" during the summer, but, since they believe the stock is replaced by migration from other regions, they have no reason to accept that they are not actually losing lobsters by the time they take off.

Another benefit of the series of laws is their forcing

the fishermen to think in collective terms. A lobster thrown back, even if it has effect in preserving stock density, probably does not directly affect the catch of the fishermen returning it; he must rely on his own percentage of the sum of lobsters thrown back in by the fishing community. "We plant each others' seed," one fisherman said to me. Sharing a common property resource, even in a limited sense, encourages fishermen to work together for things which are clearly to their mutual benefit, as with the Maine Lobsterman's Association, which came into being only after the conservation laws paved the way for cooperative planning. It now offers a transitional stage to aquaculture if this practice should become necessary to preserve the lobster fishery on the coast of Maine.

In this light, then, I would see those fishermen who oppose and disobey the lobsterfishing laws as "hunters," retaining the hunting aspect of the fishing mentality. They do not perceive the sea as a farm; it is more like a large forest. This "hunting" attitude abounds on the outer islands significantly more than on Mount Desert. These people tend to be less reliant on food markets and more self-sufficient. They think of the resources as things to which they have continuous privileged access. The lobster regulations merge in their minds with a general set of restrictive laws many of them do not obey (hunting deer out of season, shooting ducks and gulls in large numbers for food, digging outlawed clam-beds, etc.). Where they are living, they are less likely to be caught, and their general free "hunting and gathering" makes up for the extra expense of living far from marketing areas. Some of them retain this attitude when they move into Mount Desert, and there remains (relatively speaking) a large number of fishermen who have as part of their strategy disobedience of the "conservation" laws, non-membership in the Lobsterman's Association, and blanket hostility toward the State biologists. [The irony of this, of course, is

hat the State biologists do not respect the majority of these laws any more than the fishermen.] I would set this strategy alongside "hard fishing," or what-Wendell-calls "covering every angle of the thing." It takes extra work (plus extra cognitive stress, I would assume) to brush off the females, to find outlets for illegal lobsters, and to worry about being caught or found out. Those fishermen who do such work view it as the basis of pure economic gain they would be foolish not to exploit, but, as is usually the case with such rationalizations, further investigation shows that it is just another strategy, with costs as well as advantages.

C- Possible Changes in Lobsterfishing Stages

I have described simply the present network for moving lobsters from the environment to the consumer. If any of a number of conditions change, one or more of the nodes may change in accordance, with stages being eliminated or transformed. It is in light of this possibility that current strategies should be re-examined, or seen as transient forms in a generativestrategic situation involving essentially two basic nodes, the lobster and the consumer, the intermediaries being as many and diverse as are necessary to bring the two (A and F) into contact.

If either A or F were eliminated (the lobster resource or the person desiring the lobster resource), the lobster-fishing system would collapse, and a new fishing effort would probably take its place. The elimination of node C (the dealer) means the fisherman is selling directly either to the trucker (D), the market (E), or the consumer (F). The former is pervasive in New Brunswick where the trucks purchase their lobsters from the men at the wharf each day. On Mount Desert, and in most of Maine, the trucker relies on the dealer for continuous quantities of lobsters to satisfy his own customers; if he bought directly from fishermen he would be boycotted by the dealers. The fisherman does sell directly

to the market and the consumer. During the summer tourist season, the consumer moves so close to the lobster all he needs, in these specific cases, is the fisherman as the intermediary. As many as 5 million people visit Mount Desert each year. Those that make direct contact with fishermen willing to sell to them can buy lobsters at a price slightly higher than the dealer can. Yachting parties may commission seven or eight hundred pounds of lobster in a day, and the fisherman who supplies them may make a substantially higher profit on his catch. This allows some part-time fishermen to ride out trap-cutting by hauling during the summer only, at significant profit.

Selling directly to the market is predominantly a winter activity, most notable as a means of disposing of illegal lobsters. Sporadic sale of illegal lobsters directly to consumers does take place also, more often in the summer, but is not effective for discrete distribution of large numbers. Most of the fishermen who have illegal lobsters dispose of them either in Bangor or some other small town within driving distance. Such a cycle replaces the dealer buying from the fisherman and selling via the trucker to markets in large cities. A few part-time fishermen sell legal lobsters (and other catch) to fish markets instead of dealers. Although they get a somewhat higher price, this is not a successful method for a full-time fisherman to employ over the course of the year. For one, he is losing valuable fishing time transporting his lobsters. Then, it is up to any dealer he uses to decide whether this fisherman is depriving him of lobsters when the market is good, and whether he should, in turn, refuse to take lobsters from the same person when he has no means of disposing of them at a profit himself. Any full-time fisherman is properly careful to give the dealer enough lobsters during the height of the tourist season and thus protect himself for the fall and winter.

The dealer is as concerned about usurpation of his role in the network as the fisherman. His investment in a wharf is substantially more than the investment of any fisherman in gear; yet his status is maintained only by his financial backing of fishermen and the trucker's choice to use him as a middleman. The latter role is, to a large degree, based on the peculiar requirements pertaining to lobster meat. Because lobster spoils soon after death, the animals must be carefully transported in some reasonable facsimile of their natural environment. Dead River Company, a large fish and lobster transporting firm, has been experimenting with frozen lobster meat, to be marketed through both the usual channels and new channels made available by the change to a frozen food category. This would not only reduce the direct cost of shipping live lobsters; it would eliminate most shrinkage, i.e., loss of whole lobsters in the storing and shipping processes [Maine Times, July 9, 1971: 7].

Previously the fisherman has been unwilling to deal outside the live lobster market. A canned market has always sharply reduced the price of lobster and presently offshore dragging on the continental slope supplies the factories. A frozen lobster distribution service that would pay the fishermen the same amount as the dealer would be significant competition. Whether it would absorb him in a new role, compete with better prices and outside personnel, or hire local people to set up new dealerships is difficult to predict. The decision would be based on someone's judgement of what would attract the lobsterfisherman and, at the same time, cost the freezing company less.

The fisherman is in equivalent jeopardy. There has been formative discussion between marine biologists and State officials about instituting aquaculture projects, designed, like the Canadian laws, to reduce the amount of

waste, attune lobster supply more to demand, and perhaps forstall the departure of the lobster with colder waters by collective investment in heating units. Such a project would entail the retraining of fishermen, or the replacement by them of people trained in aquaculture.

Because of the virtual impossibility of outlawing trap-fishing, aquaculture must be made competitive, and past attempts have been far from successful:

"The hatching procedure is highly inefficient. Available records indicate a 39 percent loss before the lobsters reach the hatchery and that about 20 percent of the lobsters reaching the hatchery are not used.

"Poor survival between the first and fourth-stages in the rearing station is due partly to unfavorable water temperatures and partly to failure to observe recommended rearing practices. Heating all the seawater used, while it would result in higher survival, would greatly increase the cost of the operation.....

"In the face of these facts, it is obvious that one must conclude that lobster rearing in Maine is a useless expenditure of time and money and ought to be abandoned" [Taylor, 1950: 14].

This research was completed some time ago, however, and it is clear from the description that the attempt was not made under ideal circumstances. The major problems are the critical water temperature and lobster cannibalism, both of which are within the range of technological solution. Private companies, with the same plans as those developing freezing techniques (in many cases the same companies) sponsoring expensive test programs, could ultimately force the lobsterfisherman into a subservient role. This would have an even more devastating effect on lobsterfishing institutions and the indigenous culture responsive to them than application of the Canadian fishing laws. The

continuous quest for other species to fish and catch reflects the fisherman's anxiety about not only the ecological reduction of his stock but the phasing out of lobsterfishing itself.

X- The Strategies of Selling Lobsters

A- The Dealer

The final major aspect of lobsterfishing strategy involves the sale of the lobsters caught, hopefully at the highest price possible, but *at least* at a price high enough to enable the fisherman to support himself and his continued fishing effort.

If considered only in terms of absolute price, the situation is banally straightforward. The fisherman takes his lobsters to the dealer, or purchasing agent, in his area (the area to which he has access) that offers the best price. In some areas the sale of lobsters is handled in basically this fashion. The highest bidder gets the day's catch. For instance, along the Bay of Fundy coast of New Brunswick, where the "dealers" are commissioned agents of larger lobster firms who buy from their trucks at the wharves each day, the fishermen will look for the best price, and, within limits, the companies will try to outbid each other. If, as is often the case, they offer the same price, the fishermen tend to alternate, selling to a different dealer each time, to keep them all coming. The more dealers there are the better the chance that one of them may offer a higher price on a given day and the more secure the situation in terms of having dealers come regularly (i.e., if one or two should miss a day, at least there would be someone there). There is no one dealer who continuously offers the higher price and drives the others out.

Because the Canadian seasons are regulated by law, they generally coincide with the demand in the United States; furthermore, because of the tidal range of the Bay of Fundy, there are more lobster pounds in Canada for storage. These two factors together insure a ready market for lobsters (the pounds able to hold them as long as necessary until

a bad market improves). American lobsterfishermen, who compete against each other on a year-round basis, often produce a glut in the market areas. Since many of them do not have facilities for holding their lobsters, they are totally dependent upon a dealer to take them, hold them, and sell them.

"The dealer takes his lobsters from the fisherman at a good price even when he can't get rid of them himself, and the fisherman brings his lobsters to the dealer at a reasonable price when they're scarce. It's the one helping the other that makes the relationship between the fisherman and the dealer. You can't have a good fisherman without a good dealer, and you can't have a good dealer without good fishermen. It's to their benefit to help each other out." So it was explained by one of the older fishermen at Pomroy's. The man who is lobsterfishing year-round needs a reliable dealer; he must fish under a guarantee that he can sell his lobsters regularly and easily, and that he need not spare any fishing time to hunt for outlets. It is true that there are times when a fisherman can barter his lobsters privately for a higher price than he could get from his dealer, but these would be outweighed by the times he needed someone to take his lobsters and the dealer was the only outlet.

B- Opposing Strategies of Selling

The basic strategy of selling lobsters can be described as two extremes and those decisions intermediate between them. One extreme is to sell to a single dealer, exclusively or almost exclusively. The other is to change dealers, and even methods of selling lobsters, frequently. Mount Desert, as an area, adheres to the former as strongly as any area in Maine. On the backside of Mount Desert Island, of 77 fishermen hauling traps over the time of my survey, 74

claimed allegiance to a single dealer (even if they had switched from another dealer sometime in the past as with Sewell Alley's men, i.e., "serial monogamy" as opposed to "polygamy"). Of the other three, two purposely switched between two dealers, selling half their lobsters to each, but never to any other dealer (hopeful of advantages from both--though at least one of the dealers was resentful and thought the other was getting the best lobsters). Only one person claimed no dealer allegiance. On the front side of Mount Desert Island, where there is less full-time fishing, only two of seven interviewed claimed allegiance to a dealer. Part-time fishermen do not require a single dealer because they can pick their fishing times to coincide with lobster demand. There are also more part-time jobs that would support a partial fishing effort on the front side.

In Stonington no one claimed allegiance to any dealer except those men selling to their own Cooperative. The large number of dealers in the area, all of them wanting selects and willing to outbid each other, encourage competition. On Mount Desert the dealers cooperate in keeping the same prices. They are more closely related to each other by marriage than chance would have it (even given the small marrying population and the high degree of relationship everywhere on the back side). Jasper Merchant is related by marriage to Emery Levesque, and Emery Levesque, by different links, to Clyde Pomroy and Ralph Burns and these are the four main dealers. Sewell Alley, who has a different role as a dealer, alone is excluded. Whether I am right or wrong on the actual "dealer marriage preference," it is clear that the fishermen perceive them as being intimate and cooperative; they hold up two adjacent fingers to show how close the dealers are on Mount Desert. On the other hand, the fishermen in the Deer Isle-Stonington area describe the dealers as "at each others' throats," and they

behave accordingly. Interestingly, the dealers on Mount Desert consider the dealers in Stonington "pigs." Said one of the Pomroy brothers: "It's because they're so greedy that they ruin it for each other." Fishermen at Stonington feel they make a larger profit either by joining the Cooperative or by switching between dealers, borrowing a small amount of money or gear or bait from each one. They do not worry about someone to take their lobsters when the market is bad simply because there are so many dealers that one is bound to be active. The Cooperative also contributes to the general state of flux, for there is always the possibility that any fisherman might join, and thereby take his lobsters away from the other dealers. The primary reasons for not joining, as far as I could tell, were uncertainty about whether it would succeed, combined with distaste for the idea of fishermen handling each others' lobsters in any form, or more predominantly, too much money on the books at the other places to get free.

C- Secondary Benefits of the Dealer

1- Bait and Supplies

Having a man to sell lobsters to is not the only reason fishermen on Mount Desert stick to a dealer. The dealer supplies the men with many services that would take away from fishing time if they had to handle them themselves. Bait, material for traps, buoys, and boat supplies are regularly ordered through the dealer. He also supplies smaller items going to some trouble and expense to have them on hand at a reasonable price so no one loses fishing time. In Stonington the dealers will supply these same materials, but the wharves are more like general stores where the men shop around and place individual orders. On Mount Desert the dealer looks out for the specific fishermen, checks on their needs, "babies them," as Jasper puts it. In

Stonington the fisherman often has a hired man or hand to help him with the details of the operation, and he is less reliant on the dealer.

When Sewell Alley ran his wharf, during the first couple of years of the study, he put very little effort into keeping up supplies (except for bait, a necessity). Since he was fishing himself, there was no time for him to play the strategic role of a dealer with all its subtleties. His benefit to the men who fished with him was that he provided them with an opportunity to run their own fishing operations. When fishermen from his wharf bought their supplies at Jasper Merchant's, they were mercilessly teased. "Come to see a real dealer?" was Jasper's favorite line.

Bait and work-space are probably the two most important commodities any dealer at Mount Desert provides. In the case of bait, the dealer must be familiar with the fishing habits of each man to have an adequate supply without risking spoilage. Jasper goes through the bait shed regularly and with extraordinary care, trying to guess how much each man can be expected to fish, often asking indirect advice of the fishermen around, in exchange that takes place with much joking, mock hostility, and rivalry. The bait truck is not regular, and the sources and prices of bait vary continuously; a dealer must be active and well-informed to provide good bait at a competitive price. By keeping up-to-date on the needs and habits of the fishermen, he is in a position to make direct use of any information he gets about temporary and/or new sources of bait, and if the bait truck pays an unexpected visit he neither sends it away nor overbuys. Bait is taken seriously, and in the few cases of men switching wharves, either to Jasper Merchant's or Emery Levesque's their skill in obtaining bait is cited.

The wharves have different "specialties" to attract and keep fishermen. As mentioned, Sewell Alley need not have

a large investment in supplies. Pomroy's wharf sells its supplies on a more commercial basis and attracts a large number of pleasure-boat owners. Their stock vis a vis commercial fishing is not always current or competitively priced. Some fishermen at Pomroy's buy their supplies elsewhere, with no grievance on the part of either party, but at least two fishermen have given lack of supplies as their reason for leaving Pomroy's. On the other hand, Pomroy's has a television set and a card room type of set-up; some fishermen prefer this to the businesslike attitude at Jasper Merchant's. The majority of fishermen, however, keep business and entertainment, in their explicit forms, separate, and the atmosphere at Pomroy's may explain some of the fishermen from Southwest Harbor selling in Bass Harbor.

In the last three years of the study I have become more aware of the role of the dealer as arbitrator. With trap-cutting more intense and many different fishing efforts going on at the same time, he must often intervene subtly in conflicts between fishermen at his wharf. The exposed and enclosed spaces in which traps are stored, fishermen work, and catch is weighed and stored are divided between specifically-designated areas and overlapping free zones. Fishermen have different needs at different times, especially if they switch between lobsterfishing, shrimping, and handlining or dragging. If the traps of one man get in the way of the traps of another man because they are both taking up more space than usual, the dealer must suit them both. The undercurrents are almost indiscernible. If one man thinks another man is cutting him, he is likely to be particularly sensitive to how he and the other man are treated relatively at the wharf. One lobsterman changed wharves in 1974 ostensibly because the dealer, after buying cod from a fisherman he thought was cutting him, stored the flakes in an area where he usually placed his traps. The flakes

belonged to the dealer, and it was his own strategic choice to hold them for a time; however, the "wronged" fishermen took it as a personal affront. Perhaps it was. Perhaps there were other complicating factors. The fisherman's son summed it up by saying: "It's just a nasty business; friends cut friends. Sometimes you make some hard choices. My father just couldn't see himself fishing from there anymore."

2- Loans and Support

The whole issue of bait and supplies becomes more significant when we look at it in the perspective of overall fishing strategy. A fisherman does not always make a profitable haul but he continues to work, keeping traps out, hoping for a better fishing season or a lucky day. During this time he must have fresh bait, keep up his gear, and buy groceries for which he may not have the money on hand. The dealer, from his own strategic point of view, can estimate which fishermen eventually will begin bringing in substantial amounts of lobsters. Therefore, he advances them bait, supplies, and even cash, enabling them to keep fishing. Many of the dealers openly complain that this practice puts them in the business of making interest-free loans, but the complaint overlooks the advantage to themselves, which is immense. The loans insure that when fishermen begin catching lobsters they will bring them to the dealer who has been helping them out. Since some men never completely get out of debt, the dealer has a fisherman "for life." Because of the extreme secrecy regarding these matters it is difficult to say how many fishermen on the back side of Mount Desert are thus bound to a dealer, but I would guess that as many as one-third, and others for very long periods of time. Dealers mention with despair how many "fishermen on the books" they have, but it is also "fishermen at the wharf." From another point of view, we might say that the dealer as well as the fisherman is forced to make an investment in the continued operation.

D- Dealer Competition

The strategy of debt is one on which the fishermen have differing points of view. Some feel it is no disadvantage to be in debt and that the dealer needs them and it is his responsibility to keep them in business. Not only do they not pay back the debt, but if it becomes too small they purposely widen it, figuring that as long as they are selling to one dealer they might as well get as much as they can for it. Most fishermen, however, try to stay out of debt; even if they do not use it, they would like to have the option to switch wharves. I was surprised to find Wendell, who is very loyal to Jasper, on sudden uneasy footing with him when Jasper hired a man to help him at the wharf and by an oversight told everyone but Wendell. Whether he was serious or not, Wendell said he was "just about thinking to take some lobsters elsewhere." Even with the close dealer-fisherman ties on Mount Desert, a fisherman will take a single load to another wharf if he feels that a dealer is not giving him his due. One day when Jasper Merchant was in extreme need of lobsters a man from across the harbor came with a good supply and sold them there. The transaction was quick, formal, and virtually wordless. "Why did he do that?" I asked Jasper.

"You think I'd be fool enough to ask?" was his reply.

Since they are rare, often one-time gestures, and not at all connected with price, these episodes do not violate one-wharf loyalty. In fact, they are more fishermen's means of adjusting things at their own wharf than feelers toward another dealer.

In Stonington, where a larger investment is needed before a fisherman catches enough lobsters to support his operation, most men reach a critical point in the accumulation of trap stock and gear; they can either go into debt and keep building, or try to build up a profit from less traps. The fishing may be better in Stonington, but the cost is higher;

thus, chance success and failure yield sharper results over shorter periods, and the men engage in a more competitive type of selling.

Because of the continuous extension of credit by the dealers, their ability to keep operating is compromised by the failure of the fishermen. In 1971, as the lobster catch began to dwindle, the dealers' situation became more critical. Two men that Jasper Merchant had financed left fishing, each with over \$1000 on the books in credit. He was still financing three boats at that point and was owed money by virtually every fisherman. In the past they had paid him back gradually out of their catch; but with the lobsters scarce they not only were not paying him back but having to put more money on the books to keep up their fishing. This left Jasper with the choice of discontinuing his supply of lobsters or continuing to go into debt. In June he entered the hospital to recover from a heavy spell of drinking; a hired man ran the wharf while he was away. After he recovered, he thought through the situation, and though he did not discontinue credit, he stopped paying on-the-spot cash for lobsters. Instead he issued statements of catch, with payment coming at the end of each week. This way he was able to deduct on his own initiative a suitable amount of the money owed him instead of leaving repayment upto the fishermen. Since the books are kept in the store and the fishermen, operating from their boats, complete their transactions from shipboard, down below, at water level, the money owed and the money paid have been physically separate. The new arrangement brings them together. Some fishermen have retaliated indirectly by dragging fish instead of catching lobsters, but there has been no overall defection. Despite the grumbling, many of the men seem to accept their dependence on the survival of the wharf.

Over this same period of time, Sewell Alley had his

wharf up for sale. He developed a nervous disorder and was seen less in the area. Finally, the business was purchased by a wealthy out-of-state summer person, who has been willing to lose money in order to maintain the wharf as a hobby and long-term investment.

Despite some signs of disintegration, the economic institutions joining the dealer and the fishermen seem simply to be adjusting to the changing situation. One can assume that this particular relationship has always been an unstable one, subject to continuous revision on the basis of changing ecological conditions and an equally uncertain fish market.

E- Wharves and Markets

The dealer is not the only one who has traditionally extended credit. Many of the men collect their groceries from the market over long periods of poor fishing, building up an account on the books, then gradually working it back down during active times. Markets such as Sawyer's and Gott's, which extend credit, are the most expensive markets on the island. Although there is an A & P, with significantly cheaper prices, in Southwest Harbor, few of the fishermen use it. In the same way they are bound to a dealer they are bound to a market; they must go where they can receive credit, and if they should go elsewhere when they had cash they could not expect to receive credit at the market again.

The extension of credit by the lobster dealer has probably arisen out of the institution of credit at the local grocery market. When the fishing catch was sold to smacks or wharves operated by people from the market area, the town store was the only possible source of credit. This is still the situation in most areas of New Brunswick where the lobsters are purchased directly by the truckers. In Beaver Harbor, the men take the shopping lists with them when they go fishing and spend hours at the grocery store afterwards. In fact, the town store in Beaver Harbor is arranged like a

Maine fishing wharf, with chairs and open space. Even Gott's Market is not as conducive to general socializing as most of the wharves on Mount Desert. Nonetheless, some of the men "keep two markets" and dawdle at both for fishing information and credit on the way home.

The lobster dealer is more closely allied with the fishermen than the general fish dealer. He must hold the lobsters until they can be shipped to the market area; they remain, in a sense "half-caught," transferred from the fisherman's trap to a larger "cage." There are also substantial differences between lobsterfishing and handlining or dragging in terms of the activities on shore. For one, lobsterfishing has distinct seasons, enforcing seasons of trap construction and repair and general work on gear. Secondly, lobsters are significantly more precious per pound than fish. This creates a feast or famine situation in which the wharf has become a main source of credit, enlarging on any such incipient role it may have played after the advent of locally-run fish dealerships. The dealer receives the valuable item from the fisherman, holds it for him, and provides him with work space; his own investment in the fishing gamble becomes entwined with that of the fishermen. If there has been a transition from food store to lobster wharf, it has been gradual and partial; for instance, we might recall here that Sawyer's Market is run by Jasper's brother-in-law and that credit given in bait, equipment, and food can be rapid in lobsters, fish, and scallops in an overall pattern that binds food, market, wharf, and fishermen in a series of balanced relationships. At the moment, this particular wharf function, though threatened by over-extension, is just in the process of developing. As the number of lobsterfishermen has increased and the lobster abundance has fluctuated unpredictably, the average fisherman is less and less willing to speculate with his catch and more and more anxious to find a steady relationship with a dealer who will

take everything. On Mount Desert, the number of men with money on the books, hence tied to a wharf, is increasing. Most of the older fishermen, who never used to run up debts continue to insist that it is a bad thing to do, in principle, and that they themselves have done it only in the last few years. They seldom offer economic explanations. One man said he was getting older and had decided to settle down. Another said: "I used to sell around, but Jasper is a nice fellow, so I come to him now. I could go elsewhere if I wanted." Perhaps one of the reasons Jasper "is a nice fellow" is that he always takes one's lobsters and pays for them.

F- Mixed Selling Strategies

Many fishermen, either to gain subtle advantages or to retain the semblance of their independence, make occasional "trips of lobster" to other dealers even though they are tied to a single wharf, a phenomenon we have noted. "If you sell to one guy all the time he figures he owns you" is one way in which this activity is justified. Fishermen like to insist that they do not really know until the last moment where they are going to go with their lobsters. This is maintained essentially as a fiction at Mount Desert, but is a clear day-to-day reality at Stonington.

"Rightup to the time I'm coming in I don't know," Vance Sawyer says. "The wind may be blowing one way so I'll go into that dealer, or I may just get it into my head to go against the wind and go to another dealer."

On Mount Desert the dealer always grumbles when men do not come in as expected, but, as in the example of Jasper mentioned above, he also gets the benefit of a few surprises. Independence is more often maintained by taking out a different gear and going after groundfish, scallops, or shrimp on a given day or for a whole season. Pomroy's wharf buys everything, but traditionally the other wharves have

specialized exclusively in lobsters. Of course, the option to sell one's fish at a different wharf, even if one is bound to a dealer for lobsters, is a real and active one. Recently Jasper Merchant has begun to buy scallops and Emery Levesque now actively runs the adjacent fish wharf, but these more blur than eradicate the strategic options available to the fishermen in his competition with the dealer.

For instance, to Jasper the loss is virtually the same if one of his men goes codfishing or if he sells his lobsters to another dealer. In the latter case alone, though, does he have sanctions. One day he was adding up the men he had out, and I noticed that he had forgotten to mention Wendell, so I added on his name myself.

"Wendell's not out fishing," he snapped.

"His boat's gone," I said.

"He won't touch a trap; he's taken his handlines with him and he's gone after cod."

There are three possible benefits in a strategy of occasional mixing:

1- A man not in debt to a dealer does not gain interest-free loans, so he feels he merits occasional gifts, like being told to forget the payment for a pair of gloves, or receiving a bit more bait than he paid for once or twice. If the dealer is *too* certain of a man's ties to him, he may try and cut it a bit close to the bone, trying to save a little money. The fisherman would like to prevent this; he would like to keep the dealer a little doubtful and get every advantage he can. This is perhaps one reason why Wendell let out word of his slight irritation at Jasper for not being informed about the new man.

2- The fisherman gains a substantial amount each year by not claiming certain hauls on his income tax. He runs a greater risk of being caught at this if all his catch is listed at one dealer. Furthermore, the dealer knows how much

he is making, and he would prefer if no one had that particular knowledge.

On Mount Desert, where there is not as much mixing on lobsters, the fishermen can achieve similar results for the first two categories by doing other types of fishing and selling the fish at other wharves. In the summer, there is the option of selling lobsters to tourists.

3- Selling occasionally at a different wharf increases one's chances of keeping secret his catch from different fishing areas, especially if he is doing well and suspects that someone might be trying to collect enough information to follow him.

It might also be mentioned here that part of the fisherman's ethos, in general, is to keep as many contacts open as possible so as to be able to make use of them in times of need. Just as many men have traditionally refused to get rid of outmoded gear or gear pertaining to species no longer fished, men also do not want to give up, completely, their ties with other dealers, even if they are concentrating on supplying one man and receiving the benefits thereof.

Men do, on occasion, switch dealers. In Stonington it is more often on lure of bonuses (including the sharing of the profit in the Cooperative). On Mount Desert it is usually the result of irritation with the situation at a previous wharf, as in the case of a trap war with one of the men or, with Jasper, the awkwardness of the dealer leaving his books open. Although Sewell Alley did lure a number of new fishermen with bonuses and other advantages, this is unusual for a place with such intimacy between the dealers.

In Corea several men from either of the two dealers switched at approximately the same time, most of them abandoning money on the books. Normally, this would have been impossible, but one of the dealerships was bought by a fisherman from an adjacent area, and since many considered

it an improper dealer-fisherman relationship, they left for the other dealer feeling their debts were morally as well as financially cancelled. This left the new dealer with the problem of getting fishermen, so he lured some of those from his competitor who were known to have large debts over to him. This is highly irregular. Men run out on debts, and though another dealer will usually buy their lobsters, he is unlikely to encourage them or give them credit. Dealers, even when unrelated and in competition, do not encourage strategic indebtedness. The ambiguity underlying this whole situation was exploited when the fishermen undermined both dealerships in 1970 and set up a cooperative on the model of Stonington. This is just what dealers hope to avoid. They hold the fishermen by the "books," and once debts begin being cancelled, the effect snowballs. The movement to set up a cooperative on Mount Desert, in which Wendell has participated, has floundered not only because of the closeness of the dealers but the amount of money owed to them.

G- Manner of Selling Lobsters

1- Carrying

Almost as important as *where* a man sells his lobsters is *the manner in which he sells them*. Strategies vary from the extremely straightforward and simple (for fishermen who prefer to put their energy into other aspects of the fishing effort) to highly complex and devious. Advantages lost at sea can be regained at the wharf by a clever fisherman. For instance, for about a month in the fall of 1969 Haskell Rich carried his lobsters. Instead of selling all of them to his dealer, Jasper Merchant, he stuck about 5/6 of them in a series of compartments constructed for lobster storage and maintained in the harbor. Shrinkage was small, and by the time he sold them in December, the price, which had dropped to 70¢ a pound from the influx of Canadian lobsters, rose to

\$1.20 a pound with the cold weather and the closing of the New Brunswick season. That is, he almost doubled his profit from the catch (another fisherman would have had to catch twelve lobsters to every seven of his to make the same amount). Carring does not always have the same sort of confirming result. One fisherman lost his carred lobsters to blood disease, and another returned after a sudden thunderstorm to find many of them dead from undersalinated water, enough to turn any potential profit into a loss.

Carring demands work and occasionally time away from fishing; the lobsters have to be taken to the car, placed inside, fed if they are going to be there any length of time (to cut down on cannibalism), moving quickly in case of an influx of fresh water, and fished out again at the right time. The practice falls into the category of what Wendell calls "covering every angle of it." He says, "I like my freedom too much. Now some people won't agree. They say you can make a lot of money carring, and I suppose you can. But I like working alone. You need help if you're going to car, and I'd rather keep my independence."

Haskell Rich has the help of his son, Harvey (who, of course, covers his own angles by hard fishing). Since he does not fish as much himself during the winter, the carred lobsters help to make up for what he loses by seasonal fishing. The dealer does not mind carring. While someone else is holding a large number of lobsters, taking all risk and responsibility, he too can get a higher price. When Haskell finally brought in his carred lobsters it was a profitable day for Jasper also; a trucker, in desperate need of lobsters, was offering him a price for them above the market. Jasper went against custom and offered Haskell a dime more than anyone else got that day to unload his carred lobsters. On this incentive, Haskell brought them in a little earlier than he had planned. There was some grumbling, but

most of the men felt that if they were in Jasper's shoes they would have done the same.

Buddy Hooper, the one man who fishes out of the back side of Mount Desert and does not have a dealer, carries the art of carrying to an extreme. He saves all his lobsters over a long period of time, until he has several thousand pounds; then he takes them by truck to Stonington where he sells them for a higher price *plus* the additional money one gets for selling in Stonington. The selling itself is a day's work; it is an hour and a half drive, and after he gets there he shops around for the best price, holding out enough lobsters to incite an auction among the competing dealers, calling each one back in turn to tell him the highest he has been offered. He, like Haskell, had a successful time carrying in the fall of 1969 because the price dropped off rapidly with the influx of Canadian lobsters and then rose suddenly with a two-week stormy period when the lobster demand in the cities was high and no one was able to go out fishing. Watching the weather very carefully, Buddy finally picked his day and drove to Stonington where he made a big profit. I discussed this strategy both with him and the other fishermen, my idea being that if it was so profitable, why didn't everyone do it. Buddy essentially agreed with this notion, arguing that the other fishermen were simply behind the times, "back in the Stone Age," he said. Other fishermen disagreed. They said that Buddy was taking a terrible risk and eventually he was bound to lose as much as he gained (a prediction that more or less came true), that he was working so hard he had no time for himself, no time to think about anything but money, that, in fact, he was a pig. It is, of course, a serious offense in such fishing communities to go beyond what is considered normal and sane in attempting to enlarge a profit. The general feeling was that Buddy would sell on Mount Desert if anyone would take his lobsters, but that he had

money on the books at every wharf. Two dealers said they could not buy from him even if they wanted because their fishermen would rebel (the general belief being that he stole from other people's traps). As one dealer put it, "He's been told on this wharf just what he has at every other: take your lobsters and go shove them up your ass."

Buddy does not deny the charges. "Making money," he says. "That's my way. Let them call me a pig. But I have it the way I want it, and if you ask me, they're jealous. I've been told to take my lobsters and shove'm. And that's just what I've done, except for the shoving. I've turned them into good money, better money than anyone else around here's seeing. The others just can't touch me."

The fact that all the fishermen besides Buddy sell locally (although the Stonington trip is open to anyone who wants it) would indicate that such a strategy has real disadvantages. Most fishermen feel it is important to have good relationships locally; involved in a feast or famine operation, they fear bad times and rely on bait credit, etc., to get them through (Buddy is the only one locally who operates a weir for his bait).

Carring itself offers the fishermen the same advantages as winter fishing, that is, a possibly higher profit with a greater amount of risk. A fisherman who cars adds another feast or famine gamble to the one he is already taking by fishing, and somebody like Buddy is truly gambling for high stakes, playing "double or nothing" at each stage.

2- Getting an Extra Penny and Other Trickery

Carring does not involve competition with the dealer, but some fishermen also scheme against their dealers for the highest percentage they can get. Even dishonest methods are acceptable; the fishermen consider cheating the dealer no more dishonest than trap-cutting or discovering good unknown

ground.

Among methods I have observed are: wetting down one's lobsters before they are weighed, to add a few extra pounds (there is no way the dealer can object to this, as there is always the counter-argument that adding sea-water to the lobsters keeps them healthy, but Jasper grumbles in private about the men who do this); trying to force a mistake on the scales (I have seen such mistakes, especially on the wharves where kids are employed, but if a kid makes a mistake in the other direction, favoring the dealer, the fisherman catch it in an instant); hiding shedders under hard lobsters (this verges on the blatantly dishonest, as the dealers request the men separate them because the shedders bring a much lower price); disguising dead lobsters and lobster parts in the collection, etc.

Again, one might question the value of the strategy here. As Wendell pointed out to me, the dealers know which men are always trying to get away with something and thus they compensate in the other direction, taking a little bit away, perhaps with a fast weighing. The key here is that the fishermen give the dealer credit for the same mentality, and they feel they are actively countering *his* self-interested practices.

Although these men are carefully watched by the dealer, there are no moral recriminations when a trick is discovered; both the scheme and its discovery are considered part of the game: each man trying for all he can get and watching out for himself. The dealers with the most stature are those who can slice a fish just right, so they always get the better part of the weight, or spot a fraud with lobsters on the scales. Similarly, the smartest fishermen are felt, by those who engage in such games, to be the ones who get away with such tricks. There are many (perhaps tall) tales of dealers who could be tricked and men who travelled long

distances in the past to sell a fish under another name to someone from the city. It was said of one old-timer that he could sell horn sculpins just as if they were the finest flounders. "That dealer didn't stay in business very long," said one of the old-timer's cohorts proudly. Here the delight in the game almost outweighs the advantage, much as Melville's Confidence Man:

"Was the man a trickster, it must be more for the love than the lucre. Two or three dirty dollars the motive to so many nice wiles?" [Melville, 1857].

Like the gambling itself, this type of trickery is part of a way of life.

Although I downplay the moral judgment in the circumstance of a discovered trick, there is still an awkward situation which must be handled socially (much as trap-cutting: the necessary threats must be gotten across with the least amount of recrimination). The following description is from another account of mine, and it involves the events on an afternoon when Jasper was resolved to discover who was "dumping" shadders on him (hiding them beneath hardshells) because he was losing substantial money in the exchange. It was assumed the man would keep doing it until he was caught:

Now Oswald turns around and sees Haskell's boat in, and he runs on down the ramp.

"Did you think I wasn't coming?" Haskell says, a soft old man, wiping the sea off his glasses.

"No, Haskell. I only called the Coast Guard a half hour ago."

Jasper comes on down saying, "Well, Haskell, we thought you wasn't coming, so we call the Coast Guard."

It's the x thousandth time for Haskell, so

he just sits there quietly changing the lobsters from container to container.

"And your wife says bring home seven,"

Oswald says snappily.

"I know that, Oswald." Haskell's old voice.

"Now what's happening to that lobster. My god, I do believe he's graduating." Haskell, who's taking one from the softshells and putting it in under some hardshells, puts it back and wipes off his glasses again.

"Greasiest bait I ever saw. Couldn't even stand up," he grumbles.....

In back of the shed Oswald and Jasper are going over the lobsters real fast and thorough, their hands in a virtual tizzy, but not unknowledgeable. More, say, as a bookie goes over a marked deck. Expertly, but under the table. Jasper's just smiling. Underneath the hard ones are all shedders. Haskell realizes what's coming off and he begins wiping his glasses again.

"Seven for the missus, hardshells, softshells; with all this twisting around of baskets you're likely to have anything. This one's going here, this one's going there, this one's going home. I've been juggling faster than I can keep track. Gentlemen, you have a bag for the ones I have to take home?"

Oswald: "This is a frigging mess. Just look at all these shedders."

Jasper: "There's not ten hardshells here. Haskell, they're all soft. I wish they wasn't because I'd love to have'em. You know what they're doing to me now?"

Haskell: "No."

"The restaurants are sending back little slips telling me how many shedders and how much I owe them. It's wicked, I tell you, and there's not much I can do about it, I guess."

"Anything but gas?" Oswald asks.

"Oil. Two." [Grossinger, 1974].

There were several consequences of this discussion. Jasper quietly put an end to the dumping of shedders (he can be sure Haskell will not do it again for a while), and he has kept from upsetting relations at the wharf by his anger (which had been quite strong earlier in the day). Haskell, for giving up the practice, has essentially been allowed to keep what he has already won by his trickery, and been exposed without embarrassment. "It's water under the dam, those that already got through," Jasper said later. "I don't want to lose a fisherman.....and his son." [Haskell is considered a master of increasing profit on shore.]

In another episode, a new lobster-dealer hired a boy who was making an obvious key mistake on the scales, confusing two marks in a way that always gave the fishermen a bit extra cash. Word spread so selectively that many fishermen, and even I, found out before the dealer, and began going there. I spent several days at the wharf watching the mistake until it was caught. I am still not sure that the dealer did not have it done purposely to attract fishermen, giving them an excuse to make a trip to another wharf, but he acted as though he was more surprised than anyone to find this going on. The struggling for every inch, when it is only an inch, which typifies the lobsterfishing strategy in general, can produce such complexly-related effects that it is sometimes very hard to know which party is being victimized, if either.

At Sewell Alley's wharf a relatively new bait-seller

came in his truck with a load of sardine scrap, and Sewell's man-in-charge decided to buy some at an agreed-upon price per bushel basket. The man in the truck worked hard to push as much water as possible out with the herring, thereby to fill the basket more quickly; the basket had a small hole in the back and was always set down in such a way that *he could not* see it. The water freely ran out the hole and down through the cracks in the wharf. Meanwhile, however, the men could not stop complaining about all the water they were getting with the bait. "That's a goddamn lot of water," one of the men periodically shouted at the guy in the truck who correspondingly made some small effort to cut down on the flow. He was not aware that his effort to get a little less extra money for his herring was going for naught and the fishermen were willing to distract him from such a realization. Although this episode may be relatively unimportant in itself, it represents a certain methodology, only a fraction of which is carried out in a manner that is visible to me, i.e., which I can possibly observe. The best fishermen are said to have dozens of tricks like this, much more subtle and completely secret.

3- Collective Action by Fishermen

An important aspect of the dealer-fishermen relationship is the effect the fisherman has on the setting of the price. Normally the dealer can offer only a price in keeping with what he himself is currently receiving for lobsters. However, some of the bigger or more stable dealers may anticipate an increase in the market price and begin paying their men extra a couple of days to a week earlier on the assumption that they will be getting this extra also when they finally sell the lobsters. This puts pressure on all the dealers because fishermen will refuse to catch the same lobsters for less than fishermen next to them are getting (as they put it); they may tolerate the situation for a

couple of days at most, but they let the dealer know such a situation is untenable and ultimately get him to raise his price. It is by such a method of subtle pressures that the price continues to vary in waves up and down the coast, responding unevenly from area to area to changes in supply and demand. Using their radios, the fishermen keep in touch along the coast (from each region to the next, the information accumulating as it moves in either direction); in this manner a man coming in from a day's hauling knows about the variation in price in intricate detail and is able to weigh the fairness of what he is getting. If he is getting less than he thinks suitable he will agitate the dealer, at first in a joking manner; this becomes more serious if the days pass and the dealer will not raise his price. Subtle suggestions might be made, without any reference to price at all, or the men may be as open as Fred Beal, for instance, is on occasions when he quotes the prices from a large number of areas and playfully suggests that Jasper should keep up with the times.

The dealer tries to hold off as long as possible so that he will not be buying lobsters at a loss. If the fishermen are dissatisfied they can begin holding their lobsters and/or selling elsewhere on principle (even at the same price). In general, they try to force the price up with as little effort as possible, resorting to collective action only as it becomes necessary. In 1968, as mentioned, fishermen along the entire coast felt the prices were too low, and, through the Maine Lobsterman's Association, they decided to withhold their lobsters collectively until the price went back up. Although the "strike" itself ultimately was effective, the cooperation among fishermen was very delicate and many of the dealers feeling it would collapse, tried to wait it out. They were almost confirmed, for many

fishermen who had lobster cars continued hauling traps, planning to hold their catch till the strike ended. They claimed, quite invalidly, that they were not violating the mutual agreement. However, those who did not have cars could participate only by not going fishing at all; there was no way for them, in effect, to eat their cake and have it too, and they threatened to end their cooperation if those with cars did not stop building up a future profit. The threat worked, and the strike forced prices back up.

4- Concluding Remarks

The fisherman cannot, without disrupting the entire system, get a price for his lobsters out of keeping with their value on the market. He can, however, struggle to get a higher percentage of the sales price than other fishermen at the same wharf and/or to cut into the dealer's profit. If uniformly successful over prolonged periods of time, the fishermen's attempts would upset the system, participants suffering equally. On a day to day basis, though, things tend to balance out. Selling of lobsters gives opportunity for smaller or larger gains over brief periods of time, the risks being equivalent to the possible gains, and this is a continuation of the general strategies employed in other aspects of the fishing effort.

H- Some Aspects of the Dealer's Strategy

1- Resemblance Between Fishermen and Dealers

It would be wrong to see the dealer and the fisherman only as rivals; their situations mirror each other at different stages of the lobster-transporting process, and in many cases their roles overlap. A fisherman may be a dealer, as Sewell Alley; the fishermen in general may attempt to fill both nodes, as in the case of a cooperative; and the dealer may also contribute to the fishing effort (as

in offering a bait service) without direct compensation. The effect of the overlap is that the fishermen and the dealers (especially on Mount Desert) operate sympathetically and with a large amount of communication and mutual aid. This does not eliminate the competition, but it insures that it is carried out on a joking or friendly level, and rarely pushed to a dangerous extreme. Even during the strike, Jasper showed his basic sympathy for the fishermen by putting a Maine Lobsterman's Association sticker on the window of the main wharf shed. Likewise, the fishermen will often agree to haul traps on days they do not plan or want to at the dealer's request.

The dealer's and the fisherman's roles suggest each other, a fact that is obscured by the superficial similarity between the dealer and a company or employer and the fisherman and a laborer. Actually, both are entrepreneurs operating at different levels of the system. The fishermen have less free time and must do heavier manual labor, the dealer must be able to keep books. Some dealers have a more conventionally "upper class" social scene, with exclusive parties, skiing and hunting weekends, and mingling with wealthier summer people (it is considered out of place for a fisherman to participate in any aspect of this, though a few try). Despite appearances, the good fishermen make as much money or more than the good dealers (as judged by the values of the houses they live in, the merchandise they own, and estimated annual income); though the dealers mimic an upper class social scene, they are no wealthier than the fishermen and have no more status. Their status is, in effect, a different sort of status pertaining as much to a superficial image of them as "managers" as anything concrete. The status of the fisherman is the traditional one of warrior against the elements. The status of the dealer is relatively new, with the development of local ownership of buying outlets; it grows insofar as he is able to operate successfully against dangerous forces of big

business outside the system, in a sense buffering the fishermen from their palliating influence and enabling them to continue as warriors at sea.

An operative analogy can be set up between the dealer's strategy and the fisherman's strategy. For the dealer, his "gear" is the wharf itself, and his "traps" are the rooms or sheds (small carpenter's shops) he has for fishermen to work in. A new dealer, like Sewell Alley, must first build rooms for the fishermen he hopes to attract; he is in the position of a new fisherman who must actively increase his trap supply. Older wharves must modernize and expand; at one time it was acceptable to fit two fishermen in a shed; as new wharves, like Acadia Lobster, provide large sheds for each fisherman, there is pressure on the older wharves to expand also, in order not to risk losing men. For this reason, Jasper built some new sheds and modernized the older rooms; he was loosely in the position of a fisherman surrounded by competing fishermen who are always busily adding to their trap supply.

As much as the dealers compete with each other on Mount Desert, they also have arrangements that work to their collective benefit, agreements that are never stated as policy (like price, who ships to what outlets, etc.), similar to fishermen's unstated arrangements at sea.

The dealer also shares with the fisherman a strategic relationship to the next level. Just as the fisherman can operate by either switching dealers and seeking the best price or sticking to one dealer and expecting him to take all their lobsters, so do dealers operate in the choice of truckers. The larger wealthier dealers are more able to take risks; the smaller dealers work off a small enough margin that they must know they can sell those lobsters they invest in by buying freely from their fishermen; they stick to a trucker who provides them with that service.

As part of their strategy, dealers often make arrangements

with local restaurants to supply them with lobsters throughout the summer if they (the restaurants) will agree not to purchase lobsters from anyone else. The dealers can enforce this, for the restaurants require such large numbers of lobsters on a continuous basis that it is not worth the risk of losing a trustworthy supplier to obtain a few extra lobsters on the side. In cases where dealers have caught restaurants buying from someone else they have cut off shipments entirely. On the other hand, this puts great pressure on the dealer to meet the orders of the restaurants he has committed himself to.

The unusually high number of summer visitors to Mount Desert during the summer months means that the demand for lobster on the island is greater than the capacity of the island to produce, even at the height of a good fishing season. Furthermore, many of the dealers must retain quotas with truckers and their winter markets in general, for Maine lobster is advertised extensively throughout the northeast, and in scattered other parts of the country. This means that the dealers must reduce the number of restaurants they service or seek other sources of lobsters. In 1970, Sewell Alley sold all his summer lobsters to one outdoor lobster-bake restaurant situated right before the bridge to Mount Desert Island. That same summer Jasper Merchant had a more ticklish problem. After he had contracted with all the restaurants he could handle, a man who was related to a trucker who had guaranteed to take a certain portion of Jasper's lobsters during the winter found himself without a wharf tie-up for his restaurant. Jasper was prevailed upon to enter into a relationship and follow through on it. This meant that he had to find some other source of lobsters to help him keep up with the needs of his crew of restaurants. He and his son went out on the highway (U.S. Route 1, connecting Eastern Maine and the Maritime Provinces with the cities further west) and, on other days, stationed themselves at the ferry terminal in Bar

Harbor (operating between Mount Desert and the Maritimes), intercepting lobsters from Prince Edward Island and Nova Scotia by offering the conveyors a better price than they would receive in the cities. Here, the similarity of structure is apparent in the irony of both the dealer and the fishermen trying to "catch" lobsters at the same time.

Other aspects of the dealer's strategy correspond down the line to aspects of the fisherman's strategy. The ones relating specifically to the dealers' fishermen, and how to make a greater profit at their expense, take the place of the fishermen's strategic concerns involving the marine resources. A dealer must decide how many fishermen to underwrite, how many sheds to build, what type of bait to get, what quality of supplies to offer and at what price, how much to pay for lobsters on a given day, etc. All of these pertain to a strategic balancing of yield and cost. The dealer also has many subtler stratagems, for instance whether or not to leave the books open. Whether Jasper has gained or lost by his approach over the years is difficult to tell.

Just as there is a choice regarding winter fishing for the fisherman, there is the same choice of winter buying for the dealer. The wharf operates at a loss during the winter, much as the average fisherman does, but if the dealer did not operate, it would probably be more costly to him in the long run. There are always a few lobsterfishermen who want to go winter fishing; though they may differ from winter to winter, they are generally the better fishermen, the ones that a dealer must keep. There are many truckers who need lobsters badly during the winter and will give the dealer a better price; they help also by taking his lobsters when they are plentiful (if he will find them lobsters when they are scarce). This is also the relationship the dealer has with the fishermen. Furthermore, many of the men like to visit the wharf, talk to men who are fishing, pick up information, work in their sheds, even if

they are not fishing themselves. The wharf provides an arena in which they can assess the ongoing situation. Since much else depends on fishing institutions, a wintertime wharf operating at a loss is as important as the wintertime fisherman. Their significance cannot be judged on a simple strategic basis, i.e., whether they seem to profit those directly engaged in them on either a short term or long term basis. To return to Rappaport's definition of functional institutions: they are more accurately identifiable by "the extent to which they elicit behavior appropriate to the material situation of the actors," than by their direct production of some gain. The wharf is a critical cog in the underlying structure of lobsterfishing, and its operation goes well beyond the immediate needs of the dealer. As Jasper puts it:

"I can close down for a winter and show a profit for it one winter, but then my men are going to be saying this ain't a real dealer here, and they're going to be going elsewhere."

2- The Wharf Personnel

While fishermen choose dealers, dealers also choose fishermen. Although, on one level, the dealer buys whatever lobsters are brought to him, on another level, by subsidizing some fishermen, encouraging others verbally, developing particular services, and being cool or unfriendly to those with whom he would rather not participate, he ends up casting his lot with a particular personnel. In fact, he has a greater stake in keeping his specific group of fishermen together than in enticing other fishermen indiscriminately. Any new regular fisherman is a possible source of disruption at a wharf.

There is a strong correlation between wharf and residence, but one misleading feature of it is that a significant number of men move to the proximity of a wharf they have previously chosen. The use of particular wharves is hereditary among

fishermen; the exceptions confirm this insofar as they usually happen after some major incident, as with the man at Levesque's who felt a competitor was being given preferential treatment. The hereditary factor is more important than the residential one (especially from the dealer's point of view) because a direct line of fishermen controls a specific consistent lobstergrounds. Since a dealer derives the bulk of his sustenance from the lobsters hauled off prime grounds, he needs a certain number of fishermen who are able to fish those grounds regularly. His core group corresponds to a core territory. Whatever else the dealer can pick up from more marginal grounds contributes to his total gains, but in hard times it is his guaranteed yield from and dependence on the core that enables him to maintain his business.

Emery Levesque's wharf and Sewell Alley's Acadia Lobster lie at opposite extremes, though the existence of both is a fairly complete statement of the alternatives on either side of a basic condition. Levesque runs a fairly closed wharf; he almost never encourages new fishermen, and whether he is doing well or poorly, he insists he has more lobsters than he can handle. Although it is never expressed in those terms, he no doubt believes that his rooms and personal patronage should go toward men from established fishing families; most of his fishermen are the sons of fishermen (twenty out of twenty-eight). Seven of the twenty are from fishing families on the outer islands, having moved in to Mount Desert after beginning to sell at Levesque's. The other eight fishermen are carefully selected; they represent an unstated experiment in who the fishing families of the future will be. Only nine of twenty-six fishermen at Jasper Merchant's are the children of fishermen, only eight out of fourteen at Pomroy's.

Established fishermen not only give a dealer access to the cores of good fishing zones; they also give him a high

percentage of the men least likely to be forced out of fishing at a time of crisis. This makes Levesque's wharf the key to much of the lobsterfishing activities on the island, such as the initiation of trap-cutting cycles and the legitimization of new fishermen. It gives fishermen starting out there an advantage, and no doubt adds to Emery's prestige as a good judge of men. My own observations and the general opinion among fishermen indicate that Levesque's handles at least twice as many lobsters as Jasper Merchant's, despite the comparable number of fishermen. Also Levesque's is the only wharf that does not appear likely to lose men from current trap-cutting activities; the other wharves all have fishermen in jeopardy.

On the other extreme is Sewell Alley's Acadia Lobster. Sewell started from scratch and, with inherited money, rebuilt an old wharf luxuriously attracting newcomers looking for berths as well as a few fishermen from other wharves. Since there is a degree of status in the best sheds at each wharf, those far down in the line at their old wharves were often quite willing to gamble with a new dealer, especially one offering spaces, the worst of which were more impressive than the best elsewhere. Mainly men whose fathers were electricians, carpenters, wood-cutters, etc., fish there; an unusual case is that of the fishing warden Clarence Hawkes, who was transferred out of the area by the State after building a house on Mount Desert. Not wanting to leave, he petitioned Sewell, who took him on as a helper on his own boat for a time, and then set him up in business himself. Many fishing taboos are brazenly violated at this wharf. A man from outside of fishing is not supposed to go into the business, especially if he is "from away." Dealers are not supposed to be fishermen, are not supposed to be in competition with their own men. Generally, they provide for and facilitate fishing efforts and have convenient

ignorance of the actual fishing process (which may only be hypothetical). Dealers are dealers, and fishermen are fishermen; Sewell quite evidently violates that by going fishing himself and hiring an assistant to do the actual buying of *his* lobsters. If there is one taboo breaking that most shocked the older lobstermen (and had some of them shaking their heads in disbelief), it was the warden becoming a fisherman. From the way people talked about it, it would seem to have been only slightly more shocking if the lobsters themselves had decided to go fishing!

Sewell's strategy is based on exactly the opposite gambles as Emery's strategy. On the surface it is a tradition-oriented wharf opposed to a new "revolutionary" dealer, but there is more to it than that. Whereas Emery's strategy grounds him in the expectation that abundance is variable and the oldest fishermen will do the best job of holding onto the core grounds, Sewell's strategy supposes the general expansion of the lobsterfishing base to meet the increased demand and take advantage of a seemingly endless supply. That Sewell put his wharf up for sale is an indication of how rapidly a change in the abundance of lobsters undermined his entire operation. Because the wharf was purchased by someone willing to sustain the loss, the fishermen's strategy has held up better than that of the dealer who put many of them in business; at least, they continue fishing despite the tension and uncertainty of the situation. How long this can continue, though, no one can predict or count on.

The newer strategic options, as attractive as they seem initially, run a poor second to basic control of the core grounds by the older fishermen and basic control of the core fishermen by the older more established dealers.

XI- Lobsterfishing Ideology and Conclusion

A- General Definitions and Issues

"Strategy" and "ideology" are simply different ways of looking at the same phenomena. In the sections on strategy, I have emphasized the conscious maximizing elements of the fishing enterprise and focused on the attempts of the fishermen to make their operations profitable. In some cases, it has been clear that pure maximization is eclipsed by aspects of other "goals," as with certain aspects of winter fishing. Even in these instances, however, I have emphasized the strategic goals and shown how they are articulate with beliefs and attitudes. When I say that I am now going to emphasize the "ideological" aspects, I do not mean to imply that there is a separate system of beliefs and that ideological "motives" are isolated from previously-described strategies; I mean that the entire strategic base can be seen from a different perspective if we temporarily shift our focus from direct fishing success and goals to an intricate and sometimes contradictory system of beliefs and attitudes, most of them unconscious and expressed only in indirect or masked forms.

Without citing any precise psychological or linguistic model, I am invoking some aspects of Freudian and Chomskian systems of thought-structure and idea-formation to clarify my use of the word "ideology" here. Any consciously-expressed system of goals and rationalizations is, in a certain sense, the one of the many potential forms currently in use. Though these potential systems may not share the particular goals or direction of the current system, they supply material directly and on an unconscious level, especially when the rationale of the ongoing system is threatened or contradicted by changes in the environment. Options that were previously ignored, even disdained, are implemented, without major cognitive dissonance. This is because

they have been lodged beneath conscious behavior in forms more acceptable than the prior incomplete intuition of their presence. A fisherman's tolerant approach to territorial encroachments may become aggressively intolerant in order to allow him to return to the prior passivity. A coast-dweller who considers cod the only "real" species a fisherman should attend to, and places lobsters lowest on his scale, may suddenly switch to lobsters to protect his status as a fisherman. What I am suggesting is that these changes are not as much influxes of new material as subtle shiftings within the language in which fishermen pose to themselves images and models of what they are doing. Even at times of most successful goal-oriented behavior, ethical considerations and obsessive doubt keep alternative systems alive, and these systems, articulated with the current goal of maximization, form the ideology.

At some points this ideology reinforces profit-motive strategies; at other points it undercuts them and reinforces secondary and undeveloped institutions or patterns pertaining to other systems. In fact, it is my intuition that a universal feature of strong motivational strategies is their continuous unsuccessful attempt to resolve internal contradictions and seemingly arbitrary external failures. Insofar as the ideal profit-making strategy can never be realized and success is only transitory, maximizing strategies must always borrow from other levels of structure within themselves, both to overcome failure and to suggest new directions. The dynamics are ceaseless, and the working strategy is always unstable. It is difficult to say whether the undeveloped institutions and other systems nested within ongoing systems are remnants of past orders or unexploited possibilities of future arrangements, but the likely answer, which to some degree evades the difficulty, is that they are both. If a fisherman plants his first garden, he does so partially because

of an abandoned tradition of agriculture in the area and partially because his present situation suggests the fruitfulness of such an innovative possibility.

Borrowing in part from Rappaport [1970], I will suggest here that strategies of exploitation based on strong operational models are usually more unstable than the more indirect and "sanctified" strategies of non-technological societies. Not only are they more unstable, but they are less capable of providing new strategies within themselves because of their reliance upon a simple discursive mode of logic. In many instances, lobsterfishermen's behavior is identical, cognitively as well as operationally, to a model that marine biologists or economists would propose for optimum realization. A fisherman using his fathometer to find shoals conducive to lobsters or carrying his lobsters to wait for a better price on a supply and demand market differs little from a scientist who understands the utility of such behavior. It is exactly such operations I will de-emphasize in this section. On the other hand, a fisherman who hauls lobsters under circumstances where expenses outweigh possible gains, or a carpenter who abandons a lucrative carpentry practice to try lobsterfishing under the certainty of losing his traps to cutting, are more likely sources of information for an ideological analysis.

It is important not to misunderstand that ideology is somehow *more* operative where maximization is weakest. The same attitudes persist where fishing appears to be productive and where it appears to be non-productive; however, in the former case, the ostensible success justifies the expressed motivation and obscures most underlying contradictions.

There is a hierarchy of values from lobsterfishing to fishing in general to extraction of natural resources to maintenance of community life and values. On the simplest level, the short-term goal of a fisherman is a large number of lobsters, a relatively small cost, and a continued fishing opera-

tion. These lower order goals are high in specificity, whereas the higher order goals, involved with keeping a coastal community alive in the face of massive immigration and affirming fishing values, are lower in specificity. I have already demonstrated that lobsterfishing itself is expendable (either on a given day, during a whole season, or permanently). It is much more difficult to discover what is not expendable. In my sections on Canadian lobster regulations and aquaculture, I suggested that the present Mount Desert community could not sustain an elimination of the competitive sanctions developed in lobsterfishing. If this proposition is taken as accurate, one might then assume that generation of status from triumph on fishing grounds and confirmation of status by fishing success are the only means of sustaining local hierarchies, which, in turn, regulate the larger networks of social relations, marriage, generosity, and food-exchange in the community. Many would dispute this; in fact, the Fisheries Development Corporation, formed with the aid of consumer advocate groups and Pine Tree Legal Assistance (a civil liberties organization), has generally sought (with small but meaningful success) to reduce competition and encourage cooperation among fishermen, with the proposed end being the eventual implementation of aquaculture. This is a version of a standard liberal political line.

A system of cooperation is imaginable; no doubt many important institutions could withstand such a transition. The competitive framework is an active regulator of social and economic relationships, but there would be other ways, at least hypothetically, of regulating these relationships with similar results (even as fishing institutions have developed, not as a response to cod-fishing or lobsterfishing alone, but over a number of generations, including emigration and re-settlement, in articulation with different sequential extractive modes and competitive cooperative patterns). I

will not argue that the present system is the best and fairest regulator of community behavior, but I question whether simple and consciously-organized reductions of fishing tension would have a positive effect in reinforcing cooperation and eliminating needless duplication of effort. Certainly such reductions would be difficult, if not impossible, to initiate. Advocates tend to assume a dialogue out of which clarities would arise, but this presupposes that fishermen are aware of the extremely intricate balances that articulate their fishing practices and community life. It is a question not so much of whether certain ideologies and institutions are expendable as of how many intermediate stages are necessary to transform one sort of community into another without destroying it in the process.

B- Fishing Ideologies

1- Strategy and Ideology

My fieldwork period was neither long enough nor directed enough in the necessary areas for me to present a full compendium of community beliefs. Because this work is primarily a study of lobsterfishing strategy, I will emphasize here also those aspects of ideology which are most closely connected with fishing behavior (on at least the partial assumption that there is a larger cognitive matrix in which the strategic choices already discussed are located). At the same time, and as a connected topic, I will describe the means by which the community maintains its self-image in the immediate shadow of the nation at large, in which its economic institutions are inextricably imbedded. Because the fishermen are bound precariously to the world in which lobsters and other extracted resources are bought and from which tourists and buyers of summer property come, their struggle to maintain local institutions is ideological as well as pragmatic; and this helps them withstand a flood

of opposing modes of behavior and ideas. In fact, the tension in this situation, and the ambiguity of being supported by a system that also threatens destruction, deeply polarizes many elements of the fishing ideology, and deflects them from the relatively simple arena of extractive plans and methods. Pure fishing strategy is merely one pattern of response.

2- The East-West Polarity

The East-West polarity lies at the base of much expressed ideology, and I will use it as an introduction to general community beliefs. Although aspects of this polarity are common everywhere on the Maine Coast, the intermediate position of Mount Desert reinforces it there in its most dichotomized form. Almost everything to the east of Mount Desert is less crowded with longer nonfishing seasons, and almost everything to the west is more crowded and competitive. The contrast is intensified by the fact that Deer Isle and Stonington, immediately to the west, are active commercial ports, while Corea and Winter Harbor, immediately to the east, are dangerous winter harbors and relatively inactive. Activity increases immediately in one direction and decreases equally immediately in the other direction, although neither amplitude is consistent after the next adjacent harbor.

"The West" represents, for inhabitants of Mount Desert, the rest of the country, notably its population density, vulgarity, and corruption--not only the actual conditions but numerous imagined forms of degradation. "The East" is a better place, a more ideal place, and an example of what Mount Desert would be like if it were not so influenced by "Westerners." The idealization of the East survives an awareness that most of the areas eastward along the coast are poorer, more provincial, and less active in terms of lobster-fishing.

The phrase "from away," as used in general in Maine,

means "from outside the community," or, in the most limiting sense "not born in the community." In Jonesport, a large fishing town well east of Mount Desert, "from away" would be used to describe someone from Mount Desert even as it would be used to describe someone from Portland. On Mount Desert, however, the phrase "from away" is never used in reference to anybody from the east. They say instead "from downhome."

Eastern Maine, predominantly Washington County, has a special meaning to Mount Desert fishermen, even though the phrase "downhome" is often not a literal description of their own relation to the area. Few families in the Mount Desert actually originate from the eastern coast; in fact, a large percentage of the fishermen have origins within two generations in the western part of Maine. For instance, Wendell's original family home in North America is Isles of Shoals, in New Hampshire, and his most immediate ancestors come from Friendship, several ports of the West of Deer Isle [Pendleton, 1967]. If the East is not the actual homecountry of the fishermen on Mount Desert, it is the mythological home of fishing; to call it a spiritual home would not be an exaggeration as long as we remember the variety of possible types of "spiritual" homes (i.e., it is a place where sanctions are said to originate, whether they originate there or not). In some ways, Washington County stands for the past, where all families originated, whether in England, Scandinavia, or Portugal.

I will set up an artificial gradation of intensities of polarization. In daily affairs, points on the gradation cannot be assigned to individual fishermen. Most fishermen use the entire scale, but their general orientation to the polarity is either more or less strong. Attitude changes easily, and particular situations, such as the threat of the oil refinery, can drive much of the anxiety toward the harsher end. In another sense, the gradations are simply

different ways of cognizing what is at best only a partial truth anyway; they are surfacings and approximate experiences of an underlying dilemma. I will distinguish the five points of gradation as follows:

- a- The West as crowded, corrupt, and competitive: The East as spacious, moral, and peaceful.
- b- The West as obsessed with money, thereby always cheating: The East as grounded in the natural world, sharing.
- c- The West as incompetent, bumbling, and ignorant of real things: The East as skillful, plain-talking, and wise.
- d- The West as evil and perverted: The East as uncorrupted.
- e- The West as about to invade the East, an example of blatant injustice, perhaps even the work of the devil: The East as trying to protect itself, having only virtue to stand against wholesale power.

a- The Crowded West versus
The Peaceful East

Since the population density is much greater along the western part of the coast it is assumed (and rightly) that there is more competition for fishing berths there, i.e., more outsiders trying to work in, hence more trap-cutting and more frequent shootings. For instance, one reason the extensive trap-cutting that does exist on Mount Desert is not acknowledged is that most men feel what they engage in is meager compared with the violence to the west of them; they hear of shootings and high trap density and tend to exaggerate the extent of them, as the information is blurred in relation to time and place. Likewise, density is much less to the east, and trap-cutting is a minor event there. Fishermen operating out of Beals Island can have whole days when they do not see a trap not their own. The situation at Mount Desert is clearly intermediate.

A related consequence of greater population and proximity

to the urban areas is that tourism and depletion of oceanic resources are also greater: the West is not only crowded with its own people; it is crowded with relocated people, transients, "hippies," and it is crowded because there are fewer resources, both commercial and aesthetic. People speak of Washington County as a place where you can still see how the land used to be. By contrast, someone reported of Gloucester, Massachusetts: "It's full of people from Boston, and there's not enough fish for a chowder."

b- The Cheating West versus
the Sharing East

Although the local community sanctions cheating and trickery in many instances and local standards favor profit-making, the prevailing expectation is that people to the West are so corrupt and selfish they have no ethics left. "You're not human anymore," said one fisherman discussing a trip to Boston.

The small community that exists around the fishing wharves on Mount Desert has its own subtly-defined customs regulating the permissible grounds and extent of "selfishness" and cheating. No doubt they are similar to those in other fishing communities in the coastal region. By comparison, the more populated and less cohesive areas to the West seem to have no limit to "greed," or "piggishness." The selective exposure to "Westerners" tends to reinforce this intuition. The news on television is filled with accounts of behavior that is outrageous by local standards. The most persistent visitors to the Island are tourists and people with summer homes. Although their behavior is not usually indicative of "The Cheating West," their ostentation and wealth suggest immoral and illegal means of obtaining money and position. Since they are not educated in the nuances the fishermen respect, they appear to have gotten into positions of power only through cheating and selfishness; i.e.,

they have money and valuable objects, but they have no real wisdom, charisma, or strength.

For many fishermen, the main category of visitor from the West with whom they have contact (aside from tourists and summer people) is the salesman of marine supplies. Such a person is often a stereotype of dishonesty, bragging about his product, promising either performance or longevity beyond reasonable expectation, and later denying such statements. Playing up a product or advertising is not a recognized mode of behavior locally; it conflicts with the mastery of understatement, which any good fisherman or dealer cultivates along with his other talents. The hostility shown to the salesmen is striking enough to be mentioned as a category rather than a series of unconnected episodes. Angry verbal and physical confrontation on any occasion is rare, but a number of such episodes involves salesmen from Massachusetts and New York. One net dealer from Gloucester tried to defend himself after being accused of selling faulty nets to a wharf. The understatement was so subtle (in the accusation) that he spent ten minutes trying to sell some more nets before he understood he was being asked not only to leave but to return past money. After he initiated a loud argument and refused to make good, he was told to leave the wharf and was followed to his car by a number of men. Reminiscence of such episodes, often going back many years, occurs quite often. The actual physical confrontation is not as significant as the expectations of the men that not only make such confrontation inevitable but use it afterwards to construct the ongoing mythology. During the winter of 1969-70, I followed a salesman on various trips to different wharves in the area. In trying to make himself popular at each new wharf, he talked down the other wharves, imitating the ironical bantering and innuendo with which the dealers refer to one another. If he had any hope of gaining stature or favor, he was ultimately

to be disappointed, for within a week his comments at each wharf were known at the other places. As one fishermen put it: "I don't listen to him; he peddles that same garbage on up the harbor too." Local tension is modulated by keeping a subtle distance between competing establishments; this cannot be misread as manifest hostility or even open competitiveness. Competing individuals and institutions always support one another implicitly and share information necessary to keep outsiders from making inroads. Overstatement, even when understood as such, is simply too much of a risk; it forces people to be aware of things they need to ignore. If some of the polarization between local people and "Westerners" is caused by this discrepancy in social languages, it would be useful to look beneath the verbal level at the structures which give rise to it.

Despite the competitiveness that characterizes the basic fishing effort, there is an underlying antipathy toward the competitive mode. Fishermen will compete with each other for fruitful grounds (even to the point of driving some of their number out of fishing) and they will compete with the dealer (and the dealer with them) for a better percentage of the price; however, within the framework of the larger economic and social community, cooperation, sharing, and exchange dominate. No fishermen wants to put his dealer out of business by cheating him, even if he can then, hypothetically, switch to another dealer. Likewise, the dealers do not compete in order to put each other out of business; it would not be feasible, either socially or economically, for fewer dealers to handle the same number of men. Even the fisherman who cuts another's traps with the intention of forcing him out of fishing (or the realization that this is what will happen) is not driving him out of existence; he is simply opening the fishing grounds so that the "right" people will be able to fish them without losing their investment. If

the defeated fisherman is a member of the community, then he is related to other members of the community, and though he may have to give up lobsterfishing, he will not starve.

The local structures for balancing the wealth and taking care of the poor are preferred to those originating outside the community. Welfare, and other government and state help, is often refused, sometimes because people do not qualify (as for unemployment) but more often because they do not wish to participate in the larger system of which such subsidization is part. Because there is a tradition of local independence and community sharing, and because the aid offered by the government is directly associated with the money taken by the government (in taxes), people tend to ignore the outside channels, assuming their complicity in loss of general wealth from the area. This antagonism toward the government's version of "exchange" reached new heights in 1974 when the Internal Revenue Service decided to investigate fishermen's back taxes, no doubt because the fishermen were righteously cheating. Some fishermen blatantly resisted, destroying their receipts rather than submitting them for examination.

Local poor can apply to the towns for a share of poor taxes. Familial ties are close enough, however, that everyone has access to food from extractive operations. Men show up at the wharf when they know a relative is coming in, and a small part of the catch (if it is fish) is passed on unobtrusively. Even a day of only trap-hauling yields edible items to give to poor families. Some fishermen will take a day off to go scalloping for needy relatives or neighbors. The church encourages direct and specific aid through donations at services and by direct telephone and door-to-door solicitation. This goes on entirely separate of the relative nonattendance of the fishermen. If there is a family where the earning male is ill or some other circumstances prevents sufficient income for food and shelter, a church

committee, with impressive moral sanction, will cover the community in an afternoon and raise instant funds, even from families struggling to pay their own bills. Lobsterfishermen, especially successful ones, are expected to contribute a substantial share.

On Mount Desert, informal channels are more dominant than formal ones. With the large amount of intermarrying, every family maintains reciprocal relations with fishermen, carpenters, electricians, and people on salaries (from the Park, roadwork, secretarial service, etc.). Fishermen can supply fish, scallops, and crabs, often at no loss to themselves, for many of these species are either unmarketable or caught in too small number to be worth selling. Other family members can help with their specific skills. The back side of Mount Desert clearly has its poorer districts, notably around Tremont and Seal Cove where most houses are overcrowded and run-down and many live in trailers. At first, my charts indicated that this was a separate community, the members of which were not related to the lobsterfishermen, partly because no one referred to the people there as relatives. Although there are some part-time fishermen in the area, the predominant occupations are worm-digging, clam-digging, wood-cutting, and jack-of-all-trades (which includes helping out carpenters and doing odd jobs around the wharves). Further inquiry revealed that every one of these families was related at the closeness of at least first cousin to some lobsterfishing family and that enough illegitimate brothers and sisters of fishermen lived in the area that the overall conditions and disclaimed connections were the results of partial stratification. Help is given to the kin dutifully, and unadvertised, and along the most direct available channels. A man might then share them with a sick neighbor. In fact, the existence of a poor "neighborhood" facilitates the buttressing of familial links by nonfamilial ones. If a fisherman has an

unexpected haul of unsellable fish and only wishes to pass it on to a particular relative, it still finds its way, door by door, to a large number of people. The formal kinship and neighborhood channels are quite sufficient to maintain exchange hierarchies and to share any abundance. For this reason, the national system of taxation and welfare seems superfluous, for it reduces the ability of the wealthy fishermen to support needy members of the community. Certainly no fishermen could or would outwardly claim on tax forms his real range of dependencies; likewise, no person kept in food, clothing, and shelter by this exchange system would seek further help from dangerous and impersonal external systems.

On Mount Desert this exchange pattern is usually visible, though idiosyncratic and irregular in many of its aspects. Fish is given away, part of a day's cash is handed to a relative at the wharf, the minister calls at people's houses. The pattern is there, but not always arranged in the same way. On Beals Island, to the east (with a population of about 650 and a land area of 9.6 square miles), I found the outlines of a more regular system, either like an earlier one on Mount Desert or closer to the ideal and supporting structure of all such coastal systems. The Beals Island charts I collected from both lobsterfishermen and clam-diggers consistently show lobsterfishing and clam-digging lines emerging from the same family. I questioned members of some of the largest families (the Beals and Alleys being the two lines from which most Beals Islanders are descended), and I found, for both clam-diggers and lobsterfishermen, at two or three generations remove, a common ancestor who was a fisherman with accompanying status. Prominent fishermen such as Jeremiah Alley and Fred Beal showed up again and again in the charts of poor clam-diggers. In reconstructing family histories I found that, over the settlement period of Beals Island, usually the older children went into fishing and lobsterfishing, or engaged in some other form of prestigious behavior, such as

running a store, building boats, or joining the Navy. At least one son, either the youngest or one of the younger ones, became a clam-digger, and his male children then became clam-diggers and worm-diggers (never fishermen), regardless of order of birth, though his female children often married fishermen (both the daughters of Ellery Merchant did, and they now have the status of fishermen's wives, though their brothers are full-fledged clam-diggers). The recognized familial connection across these occupations is intense. "We're all twisted together here like checkers," said one woman, almost despairingly. This describes the residence pattern as well, with houses bunched close together on an island that has very little land space but access to much ocean. It is difficult to tell poor districts from wealthy districts because the houses seem scattered regardless of standing (there are some regions that seem to have more expensive dwellings with a greater accumulation of material objects but they are not isolatable as such). Often the roads, which connect adjacent houses in unpredictable fashions, suggest that lobsterfishermen are joined in a network transcending the physical neighborhood. They can drive to each others' houses but often must walk to a clam-digger's house, even if it is on bordering property. Admittedly, I did not spend enough time on the island to verify how persistent this type of settlement and road-laying is, but I recognized it immediately in my own passage between houses.

On Beals Island, given lobsterfishing lines watch over their clam-digging kin. Active in town politics as well, the lobsterfishermen have incredibly high status. During the battle with Jonesboro over digging rights, the Beals Island lobsterfishermen served as spokesmen for the clam-diggers and offered publically the argument that if these men were forced out of digging, it would be the responsibility of the lobsterfishermen to support them. This type of explicit

acknowledgement, along with the trappings of status, is not evident on Mount Desert Island, which is further to the west and has been connected to the mainland much longer. On one level, Beals Island is a tight community of families, all living in overlapping enclaves close to one another; on another level there are powerful fishermen, allied to dealers, boat-builders, and shop-owners, who have the visible accouterments of wealth and live next door to the clam-diggers and unemployed relatives they support.

Clearly, men fish for more than a profit; in fact, such economic levelling mechanisms cut into their profits. They fish, in part, for prestige, though they are not consciously aware that their fishing helps to maintain local socioeconomic institutions or insures that the successful fishermen are at the top of the scale of status and thereby destined to pay for this with generosity. Those fishermen who do not participate are ostracized, and have trouble at sea and at the wharves. Notably, the one fisherman who sells his lobsters in Stonington, in essence taking that money out of the community, is considered no better than a salesman, who goes on the road with his truck, disdaining loyalties and looking for the highest price. No matter how many lobsters he catches, he gains no prestige and is ultimately not considered a fisherman by others.

Generosity exists on a number of other levels also, some of them already mentioned, such as the dealers' giving free materials to fishermen in debt, the stores carrying large amounts of credit, etc. Such things inevitably help both parties and also participate in defining who is a member of the community. Clam flats are also dug by communities; even if individual diggers come from different towns in a region, the larger region is linked by kin ties. Unpolluted clam flats are relatively sparse around Mount Desert, so they allow little community definition, but the wharves are

considered generally open. Boats that need to load or unload use the space even if they have no business with the owner, in fact even if their business is with his competitor.

At one point, early in the study, I asked Jasper why he so freely allowed people who did not even sell their lobsters to him, and who owed him money they did not intend ever to pay back, to use his wharf. He responded with the following:

"I know what you mean. The rest of the country's like that. But we don't have to be that way. Not yet. If I have enough money for my little corner I'm not going to try to squeeze out every penny where I can get it. That's what we do with lobsters, but it's just our little game. I'll tell you, though; they're forcing it on us. They're making taxes and insurance rates so high that we're going to have to. And I believe that's what they want. Then it'll be the same everywhere. Private property. But until then it's first come first serve. The wharf's there. Whoever wants and needs to can use it."

Because at one time they charged money for people to put their horse under cover during a rainstorm, the town of Somesville at the head of Somes Sound is still called "Pig-town." "I'm going to Pigtown," men will say if anyone has reason to go there, even though the matter of cover for horses is certainly a dead issue by now. Some keep it alive by mentioning every indignity or imagined indignity suffered in Somesville (even having to move to the center of the road because the gas pumps at the grocery store extend into the street itself). They compare Somesville to other towns in the West on the basis of a traditional association with "piggishness." When I inquired about the subject, the general response was that Somesville had probably been ruined by the tourists, because nothing was ever given away there (meaning that you were never treated as a human being). This

relation between generosity and humanity is an important one.

In a certain sense, the fishermen believe that they have all that they want, simply by being able to fish. They are appalled by the seeming selfishness of people to the West, who are thought to amass wealth beyond their needs, a blatant example of "piggishness." "They're always on strike," said one fisherman. "They want more, more, more. They don't even care if they put their company out of business." There is no local sympathy for strikes or organized labor; although the action of the Lobsterman's Association in holding lobsters off the market was very similar to a strike, it was never referred to as such and anyone doing so was corrected. It was seen as part of an adjustment of price, a mechanical process without political intention. There is a firm belief that strikes destroy the sympathy between the necessary partners in a relationship. The dealer and the fisherman are not employer and employee, and the fishermen, as already shown, will shun any arrangement that makes them into employees of lobster-raising or lobster-distributing firms. If we are examining this attitude along an East-West parameter, it is useful to compare the situation of the worm-diggers in Washington County, to the east, with that of the diggers in Wiscasset, a prime worm-digging area well to the west. The latter receive higher amounts for their worms as the result of a successful strike; the worm-diggers from Washington County, operating under the partial sponsorship of the fishermen there, receive the old pay, unless they sell in the west. The two sets of diggers work side-by-side in the same flats for different amounts; yet there is little resentment about this: the Easterners feel as though this is their lot, and they are proud to have upheld local honor by not striking. In a sense, they have proved that they can survive happily without using the corrupt techniques of the West. The Wiscasset worm-diggers, fully indoctrinated in the new system, speak of their Eastern counterparts as fools, willing to be

hoodwinked by the dealer; yet they lack the protection and benefits of a close community that serve as an umbrella over the Washington County diggers.

"If a man had every damn thing, he probably wouldn't appreciate it," said Harvey Rich one day during a discussion of luxuries. The fishermen have non-cash access to most of the necessities, and they can exist for years, if they have to, on exchange, credit, and familial gifts. The West is considered inhuman and "cheating" because a full cash economy has broken down the closeness and mutual aid of families and neighbors and greed has wasted resources and made it impossible to exist in the areas without import of food from elsewhere. In a certain sense, the real issue here is that the fisherman wants to avoid a full money economy, in which the tricks of finance, having to do with credit, taxes, and salesmanship, leave him at a disadvantage: he would rather participate in his own society in which he is compensated for his lack of actual capital by his status and access to materials and foods.

c- The Ignorant West versus The Wise East

The West is considered ignorant because it knows nothing of the real laws of survival; it is inappropriately noisy, unobservant, and subject to the whims of wealthy people. Stories are repeatedly told about poodles with eyelashes, lobster dinners costing over \$100, forests turned into golf courses, etc. These are reinforced by the tourists who pose beside lobsters for pictures and buy souvenirs, paying fifty dollars for lobster traps, wasting money well in excess of what fishermen would find sensible. The wealthier people, with summer homes, often have chauffeurs and other help, gigantic boats on which they hold parties (a distasteful anomaly to the fishermen who consider a boat a utilitarian object to be treated with respect), and import expensive food and entertainment. It is the opposite of bare survival and sharing. In fact, one of the great sources of hilarity

(hostile hilarity albeit) among the fishermen is that the summer people do not know how to take care of their boats and are continually having to bring them into the wharves for aid. The following dialogue, taken down at Jasper's wharf during the summer of 1970, might seem almost unreal:

Jasper's been down there in the shed; now he comes running up. "Confound it. If it's not one thing it's another." And he grabs a part from the wall. "Now this is what he wants."

"Does he know it?" says Aubrey, laughing.

"He doesn't know much of anything."

Whose that? I ask Aubrey after Jasper goes.

"Some professor. He's just crazy."

"What do you mean?"

"Well, like when he's burning oil and there's a big cloud of black smoke, he thinks that's power."

From down below the voices can be heard, first Jasper saying, "Easy, easy. Wait a minute!"

Then the professor: "Excellent. Now leave that part for me. I can fix it better. The guy who designed that in Malay, you know, didn't do much of a job." [Grossinger, 1974b].

The use of the Maine coast as a luxury vacation spot is ideologically inimical to the fishermen's view of it; yet, if it were not for the wealthier people who not only make up the population of tourists and summer people but consume the greater amount of the lobsters, it is extremely doubtful that local institutions could be maintained. The summer people consider the fishing villages scenic, and as a group, they have fought as hard as any fishermen against

the relocation of industry in the area, and often with far more effect. The fishermen are in the ironic and awkward position of having as protectors people they despise. "We wait for the end of the summer," said Harvey Sturlow. "That's when the mosquitoes and the tourists give the place back to us."

The fishermen view themselves as the epitome of individuals with proper priorities and a realistic attitude toward the world, partly in reaction to a mythologized image of the rest of the country whose exorbitance and waste they feel they are countering by their sane acts. As many small isolated communities, the fishing towns of Mount Desert maintain a standard they suspect is not maintained elsewhere; the world outside the community is in demise. From this point of view, the East, or downhome, becomes the extreme of sanity and wisdom, though almost too ascetic for the men to want to live there. The fishermen honor the greater distance from American cities, the sparseness of material conditions, and the hardness of daily life. They assume that "downhomers" invented the lobster trap, the shrimp net, the gill net, and other useful apparatuses and strategies of fishing. These are more possible than the stovepipe and the breeding of the largest dog in the world, which are also credited to people from Washington County.

The general sense of the East is silent competence. Orders sent to the East are filled promptly and completely, without frills; weather reports from the East are masterpieces of brevity, and whether they are accurate or not, the men prefer them to the sing-song weather jingles from Portland and Boston. Information from the West is garbled because people there do not know what is really important. Of a particular utilitarian item, Clyde Pomroy said:

"I've sent to Rockland for it. It never came. Of course they have plenty of water-skis, just no screws.

Eleven out of eighteen items are back-ordered. If I had sent to the drugstore in Machias I'd probably have it by now."

My own version of this pattern is somewhat exaggerated because I am emphasizing specific incidents as examples of an underlying attitude. Just because it is there does not mean that all situational opportunities bring it out. It may lie dormant while a fisherman gets his weather report from Boston or orders an engine part from Portland, but it is there to be invoked or recovered at opportunities when other tensions recall it. There must be some yardstick of wisdom against which to measure the incompetency of the nonfishing world.

Competence is enigmatic and shifting. The unknown East like the unknown West presents an object on which feelings about the world in general can be projected. For a fisherman who has remained in the Mount Desert vicinity all his life, the West is the source of tourists while the East is the source of fishermen who are out on the waters earlier than they are (with the east-to-west sun), hence a head start in dragging fruitful waters. For men who place such a strong emphasis on the exact time of sunrise, this is an almost magical advantage.

d- The Evil West versus The Good East

Once again, we must be careful not to confuse a mythologized and unexpressed sentiment with a political or moral conviction or polemic. The West is frightening because it contains institutions and events of tremendous power. The dilemma is epitomized in the fishermen who visits a city and feels totally powerless and out-of-place. At home he is aware of every innuendo and gesture (at the expense of the outsider), but the streets of a strange city seem active and dangerous, with no premium on the fishing virtues and braveries. In his own community, a fisherman watching the

procession of boats into and out from the wharves has a stockpile of intricate knowledge about relative strategies and circumstances of innumerable other people. In another fishing community (or extractive community), he can recognize some of the signs and be sympathetic to the values without knowing the actual rules. In the general "West," though, he is powerless, and he believes this is a corruption of the natural order and a deceitful triumph of the weak over the strong.

There is a frequent story-telling motif, somewhere between a tall tale and an accurate account, about the person who goes to work in the West and is injured, either psychologically or physically. Among lines in such stories are:

"They made him do things on his knees; he was black and blue all over. But he had signed certain papers and he couldn't quit. When he got home he was good for nothing."

"She had to operate some sort of machinery by a switch. There were plates so hot that if she touched them by mistake she'd be electocuted. It got on her nerves so bad she was ruined."

"He went to all sorts of doctors; they gave him pills that made him worse. Once he got home and went to his mother's doctor, it cured him."

These stories have the residual effect of both encouraging people to stay at home and building up local sentiment against contact with people from the West (though this can create highly ambiguous situations and attitudes where communities are dependent on the support of the summer people to keep industry out). The West is evil not only because it is powerful and dangerous, but because it is in continuous contact with the fishing community, trying to steal from it its land and fish.

When the ferry was proposed for Swans Island, there was much local objection. People argued that if the island were

joined to the rest of the country the place would be flooded with rapists, criminals, gangsters, etc., all ostensibly able to hid out from justice there. Even when the dire forecasts prove inaccurate, the fear and suspicion remains. People were astounded that even though I was born in and grew up in New York City, I had never witnessed a murder. They were certain that if they went there they would be beaten and robbed.

Where there is a strong undercurrent of Fundamentalist religion, the West is seen as visited by Biblical punishment: crime, pollution, loss of resources, violence, deterioration of family and community, and inability of a man to maintain himself independently. If the wealthy people attempt to flee their rightful punishments by buying land on the islands and escaping to them, surely they will be followed by the criminals and degenerates who rightly prey off them.

The fishermen enjoy and seek isolation from America, but they feel that they are all that is left of the original America and that they have the responsibility of preserving it. Though they are more righteous than fearful, I think that they feel that their own society is being corrupted by television and money-wasting luxuries, and their economic independence is being undermined by catching luxury species almost solely for export to the cities.

e- The Invasion of the West

This is not a "mythological" invasion, though certain elements of it may be cognized by the fishermen in a mythological manner. We have discussed the increasing number of tourists, the purchase of almost all desirable properties along the coast by wealthy people from out-of-state, the demise of a healthy fishing industry into essentially a one-species-based extractive effort (and the one species a luxury item rarely eaten by the fishermen themselves), the threat of industry and the increase in pollution, plus the growing possibility that the lobsterfishing

industry might be taken out of the hands of the fishermen by large companies raising lobsters and freezing them for shipment (thereby eliminating both dealer and fisherman). Thus, when the fishermen complain about outsiders moving in and bemoan that the land is not their own anymore, they are describing accurately on a certain level, what is happening to them. However, the actual invasion of the community is an event separate of the mythologized invasion (though certainly the former spurs the latter). If there is paranoia, there is also, in this case, reason for it.

Perhaps the most notable sign of the excessive local alertness and watchfulness is the obsessive interpreting of unexplained events. New constructions are observed for the possibility that they will turn into amusement areas for summer people, factories, exotic homes of illegal operatives, etc., even when such uses are unlikely. An odd towerlike structure built by people from New York in the early sixties and then abandoned is regarded suspiciously on Beals Island, and invoked as a forerunner of coming danger. Outsiders spend noticeable time in the area without any traditional task are possible spies for any threatening organization. During the period of the fieldwork fishermen suspected, at different times, that I was an Internal Revenue Agent in disguise, a State employee trying to show up their ineffective fishing practices, or someone from a company looking to take over the wharves. There is a pervasive feeling that the local people are continually being watched or spied upon by larger agencies with personal interests in the region. Even at sea, with Russian ships visible, and the ensuing uncertainty about how much of the local depletion of stock is caused by such foreign fishing, they feel under attack and surveillance. Some fishermen who moved to other states and took out offshore lobsterfishing boats actually tangled with Russian ships and found their gear destroyed as effectively as if it had been done by another fisherman. The

Russian and American governments are seen as being in collusion, both because the Russians support their fishermen so effectively and the United States does not seem to protect their fishermen at all. One dealer (in describing the Russians) said to me:

"When they've gone through a spot, nothing lives. It's like running an army. Your private fisherman can't compete with that kind of operation. He's got maybe \$10,000, complete investment. These ships have got the whole Soviet government behind them."

"It's moon rocket technology," I replied.

"Right," he said, "And I'm competing with my tin can and stick of dynamite."

By contrast, strangers from the East are always sympathetic. They have no hidden purposes, and any subtleties of their intentions for being in the area are ones the fishermen can understand and feel easy about. At the same time, the East is buffered from the heaviest influx of tourists and summer people; people have shunned it in favor of lush areas right around Mount Desert. On the other hand, the East is under the most dangerous gun of all, the possible oil facilities at Machiasport. Thus, its defenselessness and victimization serve as ready symbols for both opposition and further polarization. When the fishermen look to the East, they find people, circumstances, and customs, not only connected to them in ways they consider important, but sharing their plight and having some immunities they do not. They are looking toward an area which is easily mythologized because its mere existence reminds them of a dilemma in which they daily find themselves; and its location is in exactly opposite the direction from which their main antagonists and enemies come.

3- Religious and Moral Aspects of the Fishermen's Ideology

a- The Holyness of Fishing

In discussing hard lobsterfishing strategy, I indicated that lobstermen who fish extensive deep-sea traps during the winter months have, as one of their rationales, the personal fulfillment of being out in the cold and challenging sea. Although one could also point to utilitarian aspects of such a pursuit, it is important not to overlook the other motives and uses. The sea is not a neutral environment. If it is cold, windy, secretive, and the home of wild creatures, it is so because the force of God has not truly penetrated it; it does not contain the image of God. When men go onto the sea, they face a pagan valueless world, and in facing it they understand better why the values of their own world exist. Not everyone uses religious terminology to say this, but many do, and those that do not speak of battling the ocean in order to become personally strong.

If one remains on land, the fishermen feel, he has the obvious illusions about nature. He might feel that nature is good and friendly. To go to sea reminds one that the devil is still at work and that man must develop his own physical and spiritual powers in order to overcome him. The sea is, thus, a practice ground, an arena God has purposely set up in which to test man. Early in the fieldwork, I discussed conservation with Wendell and he replied:

"All this ecology stuff is written by men who have never been out in the ocean. God created man, not the lobster, in His image. Anyone can see from how ugly he is that the lobster was created in the devil's image. It's man's job to subdue the wild beasts and tame the earth. You can read it in *Genesis*; he was given this territory by God. He was set over the beasts in the field and the birds in the air and the fish in the sea. The way some people talk you'd think man was making things

worse and it was the lobster and the other animals that were doing God's work. Well, man wasn't made to be idle or starve like some people believe. He was made to go out in the elements, to go against storms, to learn what the devil is like and defeat him. You can't stand up to the devil in life unless you've gone out on a cold winter day and seen him face to face. Then you meet him and learn his ways. It teaches you how to live, which the minister can't, nor the school-teacher with all his books."

This set of attitudes leaves the fishermen generally unresponsive to talk about conservation. They believe that things are meant to be used and that God has been generous in his provisions. In fact, things that are not used decay (which is like idleness, a sin). A good man keeps nature trimmed and familiar. The laws in some areas that protect deer and keep fishermen from shooting them for meat are a particular irritant because the men know that the deer population grows beyond the natural food supply.

"You can see the deer starving on the shore, eating seaweed," said one fisherman. They should let us go in there and clean it up because it's unnatural the way it is. If they don't want us to eat the deer we could at least shoot them for poor people."

When I confronted the warden with this argument, and he said, "Here we are allowing the animals to live out their natural life cycle and they say we're being unnatural."

Of course, the fishermen are not passive non-participants. The natural and moral, in their system, requires sanctifying intervention. Lobsters that escape beyond the upper size limit and continue to grow are considered exceptionally ugly and unlucky. Clam flats left to reseed (under State ruling) are imagined to be full of decayed and rotting clams. The

woodsmen complain ceaselessly about the Park rules against cutting trees on State land. "We'd leave their damn scenery alone if they'd just let us go in there and take out the dead ones before they're no use to anyone," said one such person rather typically.

The men who drag for fish and disrupt the mating patterns and destroy the habitat have the rationale that they are removing the older fish and "giving the new ones room to breathe." The ocean is seen as suffocating itself with overproduction. The willingness to guard the lobster population comes only from the trap and territory arrangement which gives the image of lobsters as seeds and plants in a field. In general, not to cultivate as fully as possible is ungodly and anti-Biblical.

The "fishing religion", for all its emphasis on Biblical materials, is in many ways, in direct opposition to the local organized religion. Aside from the fact that attending church means lost fishing time most seasons, the fishermen have the additional problem that the "landlocked" minister's aggressive faith raises doubt about the surety of their own salvation by fishing. Although no one says it directly, the fishermen feel that most of the ministers are not effective enough men to speak for God or to have the fishermen respect them, and that frees them of the responsibility of attending church. The most usual complaints are that the ministers say simple-minded and obvious things, and they are never awake to see the sun rise or out on the ocean where the most active combat between God and the devil takes place. How then can they give sermons on the method of man's salvation?

There is an ongoing tension between the fishermen and the ministers, always friendly (since even non-church-goers participate in church affairs), but similar to the competition between dealers for lobsterfishermen. A minister may occasionally come down to the wharf to try to win some fishermen back to church. The following discussion, at Jasper's is a particularly elucidating example:

Wendell: "Female rights, what about them. Women's independence, ain't that the in thing."

MacDuffie: "A man won't go to church if it looks as though his wife made him."

Harve: "Now how's a man to get to church; he has to get up at four in the morning to go fishing, and then by the time he gets home and eats dinner and cleans down, why it's too late, and you've got to get up the next morning."

"It wouldn't hurt you one morning a week not getting up at four. You know I think you spend so much time working these excuses and making sure that you have excuses that you get all caught up in them."

Harve: "But imagine what it would cost me during the season not going once a week."

MacDuffie: "You give the church half of what you make and we'll give you an indulgence, a special dispensation. How's that?"

Harve: "I thought you said you was gonna pay me what I'd lose for coming."

MacDuffie: "You know even if I did I don't think you'd do it. You'd wake up in the morning intending to, but before you got to eleven o'clock, you'd say, oh, no, I just can't do it. Your heart would have failed you."

Harve: "Well, if you'd make comfortable chairs. A man's been out fishing all day and --"

MacDuffie: "And how about t.v. dinners. Why a man might not even know he's in church."

Harve: "I just don't know how to figure it. You lose so much giving up a day's fishing to go to church."

"The more lost time, the more virtue gained. I think that's the way it adds up. I'd kind of like to think that if we've got a Father in heaven, and signs point to that we do, that he'd like some attention, and that may just be the way the system works. Now I don't know. I may have to talk to Father Jim about it, but things certainly point that way, and I'd just as soon be on the safe side."

Harve: "Well, I used to go, and I just lost the hang of it."

MacDuffie: "One shouldn't pay attention to the personality of the man who stands there. He's just a go-between to our Father. Now of course I'm talking to Harve, but I'm really baiting my trap for Russ over there" [Grossinger, 1975^b].

b- Wharf and Church

Throughout the period of the study there has seemed to me an implicit relationship between the church and the wharf, the minister (or priest) and the dealer. This remains an incomplete design of which I have several of the possible elements, but I will present it in that form because it touches upon many attitudes central to the relationship between fishing and the community.

Basically the fishermen are not church-goers, though this, in no sense, eliminates the connection between them and their churches. In most cases, wives and sisters represent and define the church-going families. The women use church attendance in some of the ways in which fishermen use the wharf: to make and re-affirm social and practical relationships with those people with whom they already share some familial or organizational identification. The church spirit, as the wharf spirit, is "anti-Western" (in

the sense I have used this phrase throughout this section). Whereas the fishermen strive to be wiser, juster, and more down-to-earth than their equivalents in society at large, the women have equivalent ideals of generosity, morality, and adherence to the faith. Both have ambitions of ascetism, but the fishermen's ascetism is experienced under conditions of earning a livelihood and in accordance with varying weather conditions; it is never a direct object in itself. If sought, it becomes artificial. This is why fishing in stormy waters is never acknowledged as an intent, only a necessary test. The fishermen remain church-goers more in a metaphorical than actual sense; actual church-goers *seek* the trial of religion.

It is difficult to say exactly what makes the fishermen uneasy about attending religious services. Most obviously, the men place fishing above prayer as a means of contact with God and thus refuse to be lukewarm pew-occupiers. It is as though fishermen wish to work out the metaphysical difficulties of salvation themselves, by trial and error, much as they find their hidden and shifting fishing territories. They avoid the vulnerability and jeopardy of being controlled solely by the movements of other men. Fishermen generally react very negatively to explicit and clearcut data; they undercut sanctified sources of information with ironical jibes which implicitly refer back to the essential ambiguities and contradictions in nature. They no more want to know where God is and how to reach him than they want to learn the exact behavior patterns of lobsters or fish from marine biologists. The relationship is expected to be virile, warriorlike, erratic; one must not ask or beg to be informed or saved. Wendell once summarized these arguments so effectively that it would seem he was analyzing the community along with me:

"Man can't expect to figure things out for himself.

He's meant to sin. He's meant to sin. He's meant to make mistakes. That's why God sent His only Son down to earth, to atone for man's sins. So that man wouldn't be damned to hell for mistakes he couldn't help. That's the reason for confession; man doesn't know the way to avoid sin, so he has to confess. It's foolish for man to try and know everything. God works in mysterious ways. Ecologists can't make the world right either. Only God can. And it's foolish of them to try."

The uncertainty of the fishing effort is imbedded in the larger religious uncertainty because the other possibility is to reduce everything to scientific clarity, as in lobster-raising, which would eliminate the dynamic relationships with the marine environment and among fishermen. The predictions of reduction in the lobster population are as unheeded as the predictions of the Judgement Day. The men simply do not believe that anyone can know such things. They work out their relationship with them only on a day to day basis. They are in no position to reduce their fishing effort sensibly and rationally, on the basis of outside evidence; they can only reduce it by general competition, eliminating fishermen one by one. Similarly, they do not want to deal with their salvation in terms of a single gesture of faith, and the simplicity of the message at church is irritating to most of them.

There is relatively little millenarianism on Mount Desert, though in other fishing communities in the North Atlantic, the antagonism toward the Western culture produces a hopeful expectation of destruction followed by divine intercession. Faris [1966] has discussed the inroads of Jehovah's Witnesses in a Newfoundland community. Fishermen on Mount Desert claim they attended services more frequently in the past, apparently before the Congregational Church

in West Tremont developed some strains of millenarianism. It is reported that during one Easter service, in the early 1960's, the local minister gave a "hell and brimstone" sermon, warning the men to repent with the Day of Judgement near at hand. The following week, supposedly, the church split in two, with fishermen predominantly setting up their own Baptist sect with another minister. The non-fishermen (carpenters, wood-cutters, electricians, plumbers, general laborers and fishermen from non-fishing families stayed in the old church. Whether the fishermen ever attended services with any frequency before the split is questionable (though in some specific cases fishermen claim they have not been back since). Since I am reconstructing this account from contradictory versions, and have substantial doubt as to what actually happened (some deny the whole episode and give other reasons for the different sects), I will limit my extrapolations to those which would be just as satisfactory if it were a fishermen's legend or tall tale.

There is a curious symmetry between the fishermen who set up their own church so as to be able to fish on Sunday (and be separate of the non-fishermen) and the non-fishermen who set up their own wharf (Sewell Alley's) so as to be able to compete with the fishermen. If there is no direct interpretive value to this symmetry, it is still suggestive of community dynamics, which contain complex relations between not-always-obvious factions. A non-fisherman becomes a fisherman relatively quickly if he is skillful and holds territory; at this point he may adopt some aspects of the "fishing religion," if he has not already done so in the process of deciding to fish. Conversely, a fisherman may be compelled by family ties and/or personal belief to attend church despite strong fishing ideology.

Fishermen consider themselves basically superior to carpenters, electricians, painters, etc. "Fisherman" is,

in a sense, a generic term, meaning "man". Carpenters have an occupation, but they are not "men." They never "go up against nature," so they are weak, and susceptible to preaching and salvation talk. Since fishing is economically and socially prestigious on Mount Desert, carpenters suffer by comparison. Furthermore, the church in West Tremont combines the carpenters with some of the poorer people on the back side of the island, those who are more in rumor than fact, drunk much of the time, constantly bearing illegitimate children, and exchanging wives, which is often attributed to their being bored during the long winter. Many fishermen believe that idleness and sin are the consequences of not being out on the ocean, working hard and becoming cleansed, hence their own religious righteousness. "When a carpenter gets home from work he's not as tired as a fisherman, so he's tempted to meddle in things," said one fisherman. "Those carpenters over to Manset," said another. "They're on their third or fourth marriage and it wouldn't surprise you. They think they're like movie stars, all the women reading those Hollywood magazines."

There is as much mythology here as description, but the fishermen actively evaluate the non-fishermen in this manner and thereby more clearly set themselves apart.

Wendell Seavey is the only fisherman with whom my discussions reached a particular depth and candidness, and the fact that his own position differs very strongly from that of almost all the other fishermen does not mean that his actions are totally out of the context of a Mount Desert ethnography; they emerge from the same circumstances all fishermen undergo.

Wendell was never an active church-goer, and he stopped attending after the notorious sermon. He married a Catholic, the daughter of a summer person, but did not immediately convert to Catholicism. In fact, he did not consider his

marriage a significant change in his "religious" orientation because he was already alienated from many of the people in the old Congregational Church (his mother, for instance, favored strong sermons). After six years of marriage, Wendell joined the Catholic Church. Although I do not wish to minimize either the influence of his wife or the social need to belong to some church, Wendell joined only after extensive discussion with the priest. This "conversion" took the form of semi-theological debates over the entire span of my field-work, including the trips back. During this time I was often invited to participate; consequently, I can report on the content of the discussions.

Wendell felt he could join an organization only if he was sure that none of its beliefs conflicted with either his ethics or his practices. He was concerned to know the church's attitude toward fishing. He wanted to be able to attend Saturday night services instead of Sunday services because; though he did not want to miss fishing days, he also did not want to belong to another church without participating. He specifically did not want to join if he was going to be berated for missing church or called a sinner for lack of complete devotion "to some God," as he put it. In one discussion, he suggested to the priest that I might look down on him for all the codfish I saw him kill when we went out fishing together. "Father," he said, "do you think I'll be consigned to some Yogi or Hindu hell for killing these animals, or be forced to come back as one of them? I've heard say in some religions you're born a lobster for killing a lobster."

Father Gower was moved by Wendell's searching, which, in his own mind, paralleled his personal "troubled faith," as he put it. Another priest might not have "won Wendell" for the church, but the fact that the conversion was a meeting between two men does not reduce its social significance.

and nagging you."

This is very similar to Wendell's description of why he chose Jasper as his lobster dealer. Even though Pomroy's was closer to his residence in Southwest Harbor, he preferred SturLOW's because it was more businesslike, without women participating in the operation. At Pomroy's he said, the dealers teased the men and minded their business; Jasper, on the other hand, minded his own business and never threatened or teased his men. Ironically, when Wendell returned to Bernard, he was back in the territory of the "hysterical" church, but out of the territory of the "hysterical" wharf. The symmetry may be only coincidental, but on some level, it appears, church and wharf, dealer and minister, residence and port, prestige and independence, carpenters and fishermen, old fishermen and new fishermen, and women-run organizations and men-run organizations, form a series of interacting pairs.

The similarity between the minister (or priest) and the dealer seems to involve the manner in which they are each go-betweens. The dealer links the fisherman and his moral, God-serving pursuits with the corrupt and immoral economic West which supports his enterprise. He has a special kind of status that does not interfere with the fisherman's. He must buffer the local system from the cheating, corruption, and inhumanity of the West. Because the dealer is under so much tension, odd personalities and unpleasant quirks are often accepted; when Jasper broke down for several months and had to spend time in the hospital, there was the sense that he was a man who had seen too much evil, tried to mediate it, and was finally swallowed himself. The men say it, of course, in other ways, perhaps as simple as: "the business gets to them." Because of his daily participation with the West, he is tarnished. If his social sphere brings him into contact with wealthy summer people,

luxuries and excesses, and he attends parties and goes on skiing trips, this is both his reward and his fee for being a buffer. The one thing he cannot do is ally himself with the outside forces and take on their greed and money-obsessions. He cannot cheat fishermen to make up for getting cheated; he cannot even charge for things that he is charged for if the item in question is traditionally a gift. If, however, he gets in trouble from over-extension, he can tell the fishermen his problems, and they will make sacrifices to assure he does not accrue expenses which put him out of business. The fishermen do not want themselves to have to settle issues of what happens to their lobsters and how the best price is gotten on the market (Buddy's actions alienate him and are not admired). If they are in battle with demonic forces, these are forces of nature, not business. They are ecological warriors only. The dealer is an economic warrior, absorbing and converting the imbalance between the local system and the outside market, allowing the fishermen to continue their noble work without interruption.

The minister, correspondingly, links the fishermen both to a general God and to his responsibility in the social sphere of the larger community. Insofar as that God, or one related to him, is also at sea for the fishermen, the minister is an intermediary only in relation to those of His attributes which do not appear in the fishing work, notably charity, family ethics, obedience, and the afterlife. Some fishermen, like Wendell, refuse to allow either the dealer or the minister to use his role to gain influence over them. They prefer to keep things on a "contractual" business level. Some dealers, like some ministers, are strong in their roles. Emery Levesque is a local hero because of his ability to beat big businessmen at their own game, to outcheat them, in fact, without ever having to resort to the same behavior with his fishermen and without taking on any of the other

disliked characteristics of the West. He still helps out old and needy fishermen, supplies fish to poor people, and graciously allows his wharf to be used by all. If he had become a total businessman, instead of an intermediary, he would try to get every penny he could. There is, however, also a danger in having such a powerful dealer, and Wendell, for one, prefers someone less imposing than Emery, like Jasper (whose crisis parallels Father Gower's); he likes to be relied on. Emery is such a strong figure that, though weak fishermen may gain status from association, strong fishermen may lose status. Wendell has a tremendous amount of influence at his wharf partly because Jasper does not dominate.

c- The Fisherman as
Nation-Founder

As stated earlier, the polarization of the fishermen from the culture at large reinforces the righteous assumption that the local people represent the real ideals of American nation which have been corrupted elsewhere. The American Revolution seems very close to the men; it is neither a *fait accompli* nor a dead historical issue. "We fought to get free of the king, and we won, and we fought to get free of the sea-captain, and now we have our own boats," Wendell told me at one point. "America was built by people like us, and we'll continue to fight the king, the big companies, and the people who want to put us to work in factories."

The identification with the American Revolution is not a recent appreciation of the ideological potential in America being a revolutionary nation. It is a creed which has been passed on from generation to generation, with a particular meaning in terms of the fishing mode of life. The fishermen were the first American settlers, and, in the Gulf of Maine, they preceded the traditionally-defined colonial period that begins in the seventeenth century. Because

they were independent fishermen and were never part of the English settlement or establishment they have always pictured themselves as the direct agents and beneficiaries of the Revolution. By staying on the Coast, they remain independent (in their attitudes) of the institutions formed by the people who have moved inland. New fishing families, from the seventeenth century on, have picked up this theme and adopted it as their own ideology and rhetoric. Many immigrant groups maintain some cultural identity, and in that respect the Maine fishermen in their individual communities are not unusual; it is the longevity of their settlement and the continuity of their occupation and strategy that has given them a sense of both isolation and importance. They obviously do not have the claim to original settlement that Indian groups do, but they have a sense of continuous occupation no other immigrants have, for they came to their present locale as part of a migration of fishermen across a coherent body of North Atlantic waters and fishing territories, and this movement preceded the directed European settlement of North America. Since fishing territory fluctuates gradually all the time, in relation to demographic changes, technological innovations, and climatic factors, a seemingly major transition from one side of the Atlantic to another (for a fisherman) is not actually a total severance and new beginning, and the descendants of that migration do not take on the burden of being newcomers. When we were out codfishing together, Wendell mused:

"If it weren't for the fisherman, the pilgrims would have starved. They were too busy praying. The Indians may have given them a Thanksgiving party, but we were out getting the cod and feeding them. It's the codfisherman, not the pilgrim, who founded this nation; he was here first and he

learned how to survive here. And now it's a sign of what's happening they they're trying to put fishermen out of business all together."

The fishermen are often unpredictable in the attitude they will take toward specific political conflict in the United States. Although there are no uniform attitudes, individual fishermen have tended to speak favorably of communes, anti-war protests, opposition to big business, even blowing up banks and military buildings. On the other hand, they have a generally negative attitude toward drugs, feminism, radical philosophy, labor unions, colleges and education, and rock music. They do not speak of a Communist threat separate of a worldwide threat against fishermen, in which the United States government is an active participant (which they believe not because they think it is Communist, as some right wing groups do). Their distaste for the "rusticators" is certainly as great as their distaste for hypothetical "Russians." If there is any consistency to this, it is that fishermen have remained "radicals" and independents, from their New World beginnings, passing these values on in new contexts. They are sympathetic to things which show independence, opposition to bureaucratic power, and practical showmanship and skill. They are unsympathetic to philosophies, arts, and openly-expressed ideologies. Thus, they can accept the blowing up of a bank as an action like the cutting of a lobster-trap, but they cannot accept a radical political theory because there is no theory or group identification in cutting a lobster-trap. They identify with certain aspects of communes because they respect the wishes of urban people to return to the practical virtues and an extractive mode of survival, but drugs and rock music seem distortions of the normal roles of men in society.

The role of fisherman as nation-founder is similar to the pride and group identities of fishermen elsewhere. Some tasks generate a kind of heroism and honor that other tasks, though often similar, do not. Richard Price says of the fishermen in Martinique that they "feel themselves to be very different from their inland neighbors; and their individualism, pride, entrepreneurial values, and even their family organization seems objectively, as well as in their own minds, to set them apart somehow" [Price, 1966: 1363].

E. N. Anderson, Jr., in his discussion of sanctification of certain fish among the boat-dwellers of Hong King, emphasizes the relation of "sacred fish" to the self-esteem of the fishermen:

"Fish are not only the mainstay of the boat economy, at least among most traditional boat people, but the fishing life is identified as the normative life. Landbound boat people still call themselves fishermen, and dream, talk and plan only for the day when they can get a boat and go back to the good life. Fish are the *raison d'être* for the boat people, indeed; this is a specialized fishing group, and it probably arose and continues to exist because such a specialized fishery is needed in the rural south Chinese economy. The fishing life of the boat people distinguishes them from the land people, and serves thus as the root of distinction and the root of the pride and antagonism that accompanies this" [Anderson, 1969: 447].

C- The Dynamic Relation Between Strategy and Ideology [1970-1974]

1- Increase in Non-Community Ownership of Properties

Non-community ownership is not a current trend, or even a trend which has become more intense in the last five years, but is a continuous long-term dynamic underlying

overall community change. Because fishing villages on the Coast of Maine have no legal controls over residency, land ownership, or the decisions of individuals to sell their properties, they are part of any overall demographic changes in the United States. An event repeated often enough to be considered a pattern is for outsiders, with no need of local income to sustain their presence in the community, to purchase summer homes or permanent dwellings from poorer natives. At the same time, fishermen are subject to the up-and-down success of their fishing efforts and require some consistency of income to meet their debts and continue to maintain their residence in the vicinity of a wharf. With the increasing demand for ocean property, and the competition among buyers for the best lots, the amount of income a fisherman can realize by selling his family home is often equal to the net cash from many years of fishing.

Clearly it is to the disadvantage of anyone to sell his property, to lose his residency in the community, for any amount of immediate revenue (short, perhaps, of a lifetime subsidy). Once the money is spent, the person is without access to resources. People *will* sell their properties, however, if they believe they can purchase a cheaper place with proximity to the wharf, or if they wish to abandon fishing strategy entirely. Occasionally people will sell most of their land, but retain their houses, which gives them the windfall income without forcing them to leave the community. The result of all of these actions, though, including the desperate sale of property to cover immediate debts, is to decrease the residential base of the community, and to increase the residential base of another community within the community. In fact, it is impossible at present to find a physical bounded fishing community on the back side of Mount Desert Island. The community to which the people relate is actually the remains of an earlier community

of which natives retain a loose map of in terms of fishing territories, kin ties, and prior ownership of properties. They remember (and continue to describe) regions within the original geographic community in terms of the families that held them at a time when the community occupied a discrete physical space. It is interesting to speculate on the relationship between sea territories (which become more discrete and precise with the increase in lobsterfishing) and land territories (which become more abstract and vague with the occupation of "rusticators"). The fact that these two trends are approximately concurrent suggests a subsidiary reinforcement for tight lobsterfishing territories. As the residential community is "idealized," the real physical community at sea becomes more dominant, and the fisherman, who continues to participate in a discrete space, takes precedent over the carpenter, who offers no remedy to a space filled with unacceptable new neighbors. In fact, one of the major sources of income for carpenters is to hire themselves out to new residents to modernize homes, and even to build houses on more remote parts of their land and then sell them to members of the newly-forming community. The fishermen, despite their equal economic reliance on the rusticators, usually retain the dealer as their go-between while they participate in an idealized and religiously-righteous fishing effort that is ideologically opposed to the outsiders. In a certain sense, such ideological tension helps to maintain the community at a time it is under a direct and active threat. Everyone seems to accept the heroism of the fishermen for their own purposes, even the rusticators, who find them an incredibly attractive pool of mythologically-endowed and scenic aborigines and possible laborers and employees. The fisherman is trapped in this role.

If the current trend continues, the fishing community

will cease to exist, except perhaps as an anomalous fragment of the rusticators' community. As the tension in urban areas increases and people are willing to spend more money to relocate, the value of the local property to people with sufficient income far outweighs its value to the fishermen, few of whom make an income from it above the national poverty level. The real value to the fishermen, of course, is not the annual income-producing potential, but the basis for a community in which prestige and charity are equitably balanced and access to edible materials at all seasons replaces economic access to goods. If the various forces we have been discussing combine to reduce the local resource potential, then the relative value of the properties to fishermen and rusticators tilt further in favor of the latter. At present, this is not yet the case.

Aside from the inroads made by rusticators, there are other subtle changes in the use of physical space in the area. A college (College of the Atlantic) has opened in Bar Harbor, and makes use of some of the same regions fishermen do, for scientific and educational work. An island in the middle of the lobsterfishing area (Little Duck) has been equipped by its owner as a gestalt therapy workshop. More substantial, from the perspective of our previous discussion, is the purchase of Acadia Lobster from Sewell Alley by an outside businessman with a sentimental interest in the area. At first, he was interested in making the wharf into a sea museum or aquarium. Eventually he chose a more active type of museum--that is, to keep the wharf running while using it to do experiments of interest to him. Preferring fish to lobsters, he set up his own channels of fish distribution (although it is still at least fifty per cent a lobster wharf). He has also begun an oyster-producing farm in the Pretty Marsh region, with a plan of employing fishermen in its maintenance if the wharf becomes too much of a liability under

its current status. He presently underwrites the loss from the wharf, which has been considerable in the two years since his purchase. Thus, while fishermen continue to work and haul lobster traps, many of them in company boats, the company is maintaining the operation not because the lobster-fishing is an economic success but because its owner enjoys the operation as a hobby. Already the fisherman, insofar as he depends on this wharf, has abandoned the series of economic forces that sustained his original catching of lobsters. He is no longer an independent businessman putting his wares on the market; he is working for someone who could put him out of business for reasons that are inexplicable and unpredictable in community terms and have nothing to do with the value of the lobsters. In another sense, every fisherman on the island finds himself in this situation because the political influence of wealthy rusticators is so significant in keeping the area in its so-called "pristine" form. The lobsterfishing towns are a suitable environment in which to take a vacation, go sailing or yachting, or to which to move from a city of suburb. The newcomers employ fishermen, and for those who have gone too far into debt to maintain their fishing operations, they are a second line of economic defense. The fishermen and rusticators are actually natural allies, even in their opposition to ongoing sale of properties on the island. They stand together against the carpenters and other profiteers who continue to try to make income from the current active market in island properties and homes.

For this reason the fishermen cannot afford to alienate the summer people and new community members by leading them to think they are a dangerous, radical, or threatening element. At the same time, they cannot be fishermen if they do not offer resistance; thus a whole range of activities, gestures, and speech patterns, most of them unconscious, are

developed to maintain the integrity of the community within the necessary protectorate. Fishermen who are thought to pander too much to rusticators are teased about it. "Keep the assholes clean" is one variant of a popular phrase whispered to someone engaged in helping an obviously wealthy outsider, often on a boat at the wharf. The fishermen realize the pragmatic benefit of giving this aid, but they do not let each other adopt the submissive personality too thoroughly; they are continuously jarring their comrades out of it. Another release of tension is simply conversation at the wharf, mockery of the characteristics of individual rusticators, and special mockery of fishermen who are totally submissive. Of one old fisherman who had chosen to be the custodian of an estate, it was indicated that "he received his pay by coming to Christmas and finding his Christmas tree hung with twenty dollar bills," this to indicate that the mode of payment was not a regular salary, but continuous bonuses for specific jobs, most of which could probably be kept off income tax forms. The main way the fishermen maintain their integrity and the integrity of the community is by fishing, for its subtlety of technique and bravery in facing the elements are far beyond the abilities of any newcomer. Similarly-occupied rural communities, in northern Vermont for instance, which lack this type of mechanism, are more quickly dismembered. Fishing not only reinforces remaining in the area; it reinforces itself. This is one reason the men so oppose industry, despite seeming agitation for it by their representatives in the state legislature.

"The Park is stealing the forest from us for people who want to come and camp out," said one pulpwood-cutter-fisherman, "and now they're speaking of turning over lobster-fishing to the big companies. I worked at Southwest Boat once where I had to punch a time clock. Never again. They're not going to take us out of nature, and by God, we'll be

self-employed."

A very small number of newcomers try fishing, even lobsterfishing, mainly for sport. Since they have few traps, they are generally left alone unless they blatantly interfere with others. In fact, they are an advantage to the fishermen because they show how badly fishing can be done. Lobstermen occasionally stand out on the wharf to watch such an untrained rusticator try to steer his boat in, or they silently examine his lobster-traps, smiling, noting to each other the imperfection in craft. "How did he learn to lobsterfish?" I asked Jasper one day, pointing to a rusticator who was coming in with a small number of lobsters in a pail.

Jasper waited the required thirty seconds for the fisherman to hit the wharf while trying to steer his boat in, then said, "He didn't."

Certain tensions are more easily understood if we examine how the two interlocked communities conceptualize each other. We have already seen that the fisherman dismisses as somehow immoral and unfair the success that has gained local properties for their owners; the rusticators have not had to work for their wealth. The newcomers admire the fishermen for the most part, but the admiration does not lead to the results the fishermen would expect if it were true admiration. As a rule, rusticators perceive themselves as doing the fishermen a favor by including them in their more urbane and wealthier world. Sometimes they are generous, and tip heavily for small favors at the waterfront, or overpay for lobsters; on other occasions they may try to give away their unusable commodities, such as out-of-style clothing. Since the fishermen do not believe that anything is given away for free, they are suspicious that the real intent is to put them in a position of gratitude and thus reduce their opposition to the takeover.

In a fictionalized account of this process on the back side of Mount Desert, written in the 1940's by Ruth Moore, a native of the island and a sister of the half-owner of SturLOW's wharf, a wealthy businessman from Maryland, attempting to buy an island whose sibling owners are not sure they want to sell, sends one of his wife's old coats to the most susceptible of the owners "hoping you may know someone who might use it" [Moore, 1946: 11]. In the same letter he mentions possibly changing the name of the island from Little Spoon to Witherspoon, his own name. Ultimately, he must make a trip to the area to try to convince the least willing of the partners. This dialogue is presented:

"'Three thousand dollars is a lot of money, Stilwell. You could buy any place around here for that.'

'Don't know's I'd feel to home in any place, Mr. Witherspoon,' Willie had said.

'Nonsense.' The summer man, affable, made a wide gesture with his arms. "With money, a man can feel at home anywhere'" [Moore, 1946: 21].

Later in the book, another brother is offered a job running Witherspoon's powerful boat. He refuses, adding, "Kind of like to keep on calling my soul my own as long's I can manage it'" [Moore, 1946: 56].

Having been a member of the community, Moore is sensitive to how the fishermen respond to this kind of "generous" patronage. On the other hand, she lives in a community of the other type of people (while writing her novels), and can see the source of the assurances from which their beliefs arise. It does not seem possible to them that the improvements they bring will not upgrade the quality of life in the region; they are sensitive to the other culture only insofar as it serves their own uses and senses of superiority.

One direct result of the sale of property is a reduction in the territories open to easy extraction. As shore-front passes out of the hands of local people, access to clam flats (important especially to the poor people who do not have boats) is only across other people's land. Commonly, rusticators will at first allow trespass because they seek accommodation with the local people and do not want their property to be in jeopardy while they are away. However, if they can pay a local person enough, or hire someone from away to guard their land, they often will try posting it and enforcing their boundaries. The very fact that some local people can be bought off (as the man about whom the Christmas tree joke was made or one of the brothers in *Spoonhandle*, based no doubt on an actual Mount Desert person) is a symptom of the breakdown of the community. On some of the islands around Mount Desert, the tightness of the community makes it impossible to find a caretaker who will enforce *No Trespassing* signs. "Do you still dig there?" I asked a woman on Swan's Island in regard to clam-digging zones whose access routes were posted.

"If we have two legs, you better believe we do," she said.

Although the National Park is part of a different system, the men regard the loss of pulpwood and deer-hunting rights as an aspect of the same monolithic conspiracy of outsiders against them. Certainly, the setting aside of land for use by visitors and tourists and the passing of related laws to keep the fishermen from hunting is of the same general order as laws protecting certain species of birds and private property blocking clam flats. They each take away from the fishermen the space in which they have traditionally carried out their yearly cycle of activities. Many of the men still hunt deer, despite the fact that the whole of Mount Desert is an illegal hunting zone. It has been

one of the only ways to get meat without using the cash economy during the fall and winter. I was warned many times not to go visiting in Seal Cove and West Tremont during these times of year without calling ahead, because I might find myself viewing an illegal skinning and in some personal danger.

Clearly the same values which make the region attractive enough to tourists and rusticators to prevent industrialization also makes the fishermen into museum pieces along with deer, trees, birds, and the wharves themselves. In many cases, the outsiders drastically change the social environment in which the fishermen live without even realizing it, and when the local people fear an invasion from the corrupt West, they fear what has already happened. On a certain level it is difficult also for all but the most observant and sensitive of them to understand why the enemy, which has them so surrounded and defeated, does not complete the takeover. For years they have hung in a kind of unreal suspension, the ocean-related activities the only daily experience which reinforces a way of life they are in constant threat of finally losing.

To summarize, and integrate this section into the discussion of ideology: the heroic roles of the fishermen do not prevent or alter the general maximization goals of fishing strategy; they merely translate this maximization into a larger cultural nexus in which the consciously-directed actions at one level (such as hard fishing and skill in finding good locales at sea) are translated into unconsciously-cohesive activities (such as producing a surplus and defining community standards and ideals in the context of a threatened situation). The fisherman is simultaneously the source of sustenance and ethics; he fishes so that there is an abundance of all kinds of food (for those who cannot afford the markets as well as for the markets), and he fishes so that the

Christian and pre-Colonial ways of life will be maintained. He also views himself as the provider of jobs (boat-builders, fish factories, dealers, truckers, bait suppliers, restaurant personnel, tourists all among the benefactors) until finally encompassing, directly or indirectly, the whole community. This self-image, and the attitude arising from it, enables the best fishermen to put in the type of effort necessary to succeed, to overcome dry spells, and to work in bad weather.

In his study on a Denver warehouse, Jonathan Towers describes the mentality of the men who move from one hated job to another, putting their money into cars and luxuries, often getting drunk and fired. He emphasizes: "These kinds of jobs are dead-ends. There are times they look so wide-open, leading from and to nothing, no history or future" [Towers, 1971: 3]. For the fishermen their job is a continuous game and quest, leading to a respected position in the community, and giving them more pleasure than anything else they might do. I emphasize this latter because of the shadow of the future. If industry comes and replaces fishing with some sort of mechanized process of raising and shipping lobsters and other resources, the entire set of institutions based on the fishing effort will disappear. The strategy and ideology is, in effect, the unconscious pattern and structure of community life. It is a fallacy to think that more income and shorter (but regulated hours) will contribute positively to the life in these communities. The fishing itself is a dynamic creative event out of which the personalities of the individual fishermen are forged and the community as a whole is fed.

2- Ecological and Economic Changes

a- Stock Depletion

In attempting to characterize the basic situation on the back side of Mount Desert as it has changed from the

base year of the study [1969-70] to the present [1974], I have had to be cautious in assessing the relative atypicality of these five years. In one sense, the present conditions are extreme by local standards; regional fish stock is depleted, in many cases beyond reversal (i.e., especially the migratory fish exploited by foreign fleets outside of United States waters). Lobster stock has also been severely reduced, although people differ as to the reasons. Overfishing, pollution, and temperature reduction in the Gulf of Maine have all been offered by biologists (and even fishermen) as total, or, in concert with each other, partial causes. If the climate is getting significantly colder as part a trend of any duration (fifteen to twenty-five years), as is predicted, then continued reduction of lobsters is assured. If pollution and/or overfishing are the main causes of reduction, there is some possibility the trends can be reversed. One can safely say that there has never been a time when *so many different* marketable species were simultaneously in such a depleted condition. The fisherman's choices would seem to be dwindling.

On the other hand, the strategic situation I described for 1969-70 remains the basic condition. Some people have made minor adjustments, other people have made major adjustments; but the general grid of options is extremely flexible and can be bent in many directions without losing its shape. The 1969-70 description, except for minor revisions, is the 1974 situation. If things had proceeded exactly according to my predictions of alternatives, trap-cutting wars should have eliminated more fishermen than they have, but, at least at present, subtle adjustments individuals have made seem to afford some stability without general confrontation and dislocation.

b- Balancing Factors

i- Price

The most significant balancing factor is the increase

in price. The scarcity of lobster in the market areas has increased its value to almost double the 1969-70 respective averages. Practically speaking, this means a fisherman can make the same amount of money while selling only half as many lobsters. Although most species of fish are more scarce than in the past (cod, haddock, hake, pollock), their 1973 price has run as much as three and a half times the 1970 price per pound, and during the summer of 1974 (because of some downward adjustment in the international price of fish) was running approximately double the 1970 price. With the new owners of Sewell Alley's wharf buying more fish and competing with the other wharfs by offering a better price, there has been general encouragement for all fishermen to try dragging and handlining occasionally.

ii- Extensions of Marine Territory

Another compensating factor is the combination of the introduction of new species and the exploration of new territories and methods of fishing. We have already mentioned the extension of the range of the Northern shrimp to the south. While this has yielded some direct relief (a few men have had very successful winters), it has also taken some of the pressure off lobsterfishing, and, if the waters become colder, the shrimp will increase as lobsters decrease. Men have continued to hunt for unknown lobsters, fishing new waters with moderate success. Whereas the general stock reduction is considerable and universal, the fishing effort has never been thorough enough to cover all possible lobster territories. Any severe reduction levels off, at least for a while, because the fishermen have adapted their trap-setting strategy to the situation. A few fishermen have tried setting gill nets in deep waters to catch cod and pollock, and with little competition in this area and mode of fishing, they have found this a lucrative

partial activity. Some part-time fishermen have used their boats to reach clam-digging territories on uninhabited islands, often taking along helpers from Seal Cove or West Tremont. Clam-digging is not a prestigious activity, but if a man remains, in his own larger strategy, a lobsterfisherman, he can mix this activity with others.

iii- Shifting of Personnel

Extremely important, though, is the reduction of personnel in the fishing ground. With the increase in traps, approaching the 1969-70 Deer Isle numbers, part-time fishermen have been discouraged, and people with other modes of employment have abandoned their grounds to the "real" fishermen, i.e., those willing to increase their investment. Although this has happened with relatively little trap-cutting, tension over territory has continued to be more intense than in the base year. Several members of the Cleaves family returned to carpentry as their full-time occupations, continuing to fish only irregularly. Some men dropped out of fishing to go double with other men, eliminating themselves as independent fishermen. Many older fishermen quit fishing (i.e., "retired") more rapidly than I had thought they planned to, and the heavy influx of new fishermen has been halted. At Jasper's wharf there was only one recruit (the son of a man who quit) from the generation now ready to begin fishing; a few men transferred loyalties from other wharves on the front side of the Island.

A large group of fishermen, almost exclusively from Sewell Alley's wharf, moved out of the area to engage in deep-sea lobsterfishing in Massachusetts and Rhode Island, using their Mount Desert sea-going credentials. Thus, a number of those responsible for the recent increase in trap-setting density have relieved pressure they brought to the grounds. The role of trap-cutting in driving them out is overshadowed by the seeming opportunity to make a larger and

possibly more profitable investment. In 1969, it seemed unlikely that anyone from Mount Desert would tap the offshore stock of lobsters and that it would remain a separate population, unconnected to local lobsterfishing dynamics. The decision of several fishermen pursue these more abundant lobsters, even as employees of large firms, specifically relieves the pressure on the local stock. One may argue that they are now effectively removed from the community too, but this is only a partial truth, as they retain permanent residence there, like deep-sea fishermen of another era. They are removed from the general community fishing dynamics.

Trap-cutting has also been a factor. How many men have been forced out of the grounds directly by trap-cutting is inestimable. All of the fishermen who took on more carpentry or went into deep-sea lobsterfishing were complaining about trap-cutting and evidently engaged in such activity on more than one front; however, it is difficult to know whether trap-cutting was the decisive factor or whether other options were more attractive than lobsterfishing. No doubt widespread cutting makes lobsterfishing somewhat less desirable. One of the participants in trap-cutting and other territorial disputes, Buddy Hooper, has lost much fishing time with injuries and personal problems associated with his divorce. The various tensions and interrelated factors are difficult to separate and distinguish, either in the general case of any specific one. Could increased cutting have made Buddy Hooper more irritable and desperate on shore and thus hastened the break-up of his marriage, anxiety about which affected his health? Or would all of this have occurred without reduction in lobster stock? Any decisive answer is difficult, and we must conclude simply by emphasizing the interrelationship of factors.

Some of the most intense trap-cutting, including strong cases, has gone on at the boundaries of the Mount

Desert region. The attempt to find new grounds has led fishermen into grounds claimed by men from other areas (and probably vice versa). Several Mount Desert fishermen, most of them from Sewell Alley's, collaborated in 1974 to catch a man from Long Island who was cutting their traps. They boarded his boat with a gun and threatened him. In the end, they decided to take the case to court, where they may actually win. They do not risk ostracism in their own community for such a court case, since it involves two communities, and most fishermen are curious to see what the outcome will be. However, it is difficult to see how they can actually win the case, except in causing another fisherman to be fined and to lose his license; my suspicion is that the same activity will continue after the court case, either way. However, the entire situation, as it is pending, gives those fishermen a tacit temporary right to be in those waters and has the wardens more anxious to police State law, over local territorial laws. The slight advantage at present may be the real victory more than any long-term benefits.

The alternatives that people have taken under the present circumstances are almost as numerous as the people; however, some of the more common ones are: clam-digging, more extensive scalloping, road-work, catching dogfish for scientific firms, taking tourists out in boats, working for summer people, remodelling their houses to rent apartments to tourists, more extensive carrying of lobsters caught (with the fluctuating price), and gardening to lower food costs. .

iv- Slowing Down

At fallow times, such as the present, the fishermen appear to have incredible patience. Possible responses to changing economic and ecological circumstances are nested so that when one particular integration of goals and strategies breaks down, another replaces it, and the fishing community adjusts to

new situations. Men who were primed up for windfall profits at other times seem almost to have turned down their metabolisms. They spend much more time at the wharf, analyzing the situation and trying to figure out the most suitable options. They are careful not to spend money, not to waste cash or effort on gas and gear that will not show substantial results. Cooperation increases, and men help each other on small jobs around the wharf. Many have a particular skill at judging just how much money and food is necessary to get by when nothing more is possible, and they lower their expectations and concentrate on survival. Although this pace is punctuated by periods of sudden activity and expectation, it now seems to dominate over the intense building and fishing that went on during the first two years of the study. Perhaps my arrival coincided with a boom time, and the slower rhythm is more natural. The innovative activities of Wendell in particular, which I will discuss in the next section, can, at least in part, be interpreted as an attempt to direct his attention away from possibly fruitless maximizing behavior toward activities which are fulfilling in other ways. The new practices may not be as extractively successful as those in the prior cycle, but they are also not wasteful and frustrating, and, at the same time, they endow the leisure time that fishing always produces with additional value and potential.

3- Wendell Seavey

a- General

If Wendell's activities have not been typical, his individualism is, and many of the courses he has followed during the last six years exploit modes related to those that other fishermen have followed or might follow. Despite his idiosyncrasies, Wendell responds to regular patterns in his culture, and to see him as a maverick, or even to over-emphasize my own influence on him, is to miss both the consistency of his response with the range of possible responses

and the relationship between the tensions in his personal atypical situation and the overall tensions in the community as they are internalized by each separate person. In fact, the social niche that Wendell fills among the fishermen in the community is one that could not be filled too easily by more than one person.

b- Ecology and Fishing Ideology

During the base year of the study, Wendell and I had a continuous exchange about man's relationship with nature. This discussion initially arose out of the discussions Wendell was having with Father Gower. He raised many times with me the issue of man's dominion over nature and expressed the prevalent local belief in the association of the ocean and its lobsters with the devil's kingdom, and man (the fisherman) with God's creation. He felt that conservation-oriented groups were interfering with man's holy task, and that however sound their ecology might be, their theology was indefensible. In line with his wharf role as educated spokesman for the fishermen, and resident philosopher, he read whatever books he could find on ecology, and asked me for my own reading lists. After several months he offered a thoughtful and complex theological refutation, based essentially on a conflict between Biblical and ecological literature. The central point he repeated, especially interesting when re-examined in the context of his later thinking, is that man cannot interfere directly in natural systems such as oceans (and their species) because he cannot fully comprehend the intricate forces at work. What Wendell is referring to when he cites "forces" is the continuous and devious activation of the elaborate design of God, leading to the present ambiguous mixture of causes and events. He has also mentioned demonstrable inaccuracies in marine biologists' studies of fish and lobster movements (in State literature) as proof of the inadequacy of the studies, which

seems an argument from the opposite side if one fails to remember his belief that such attempts are *always* inadequate.

Wendell was backed in his ideas by many of the men at the wharf. As a sign of their contempt for discussions about pollution and conservation, they would throw their oil cans in the water with a flourish and announce proudly how much ocean bottom they had "drug" up. Although Wendell did not adopt this mode, he did not actively oppose it.

While he stuck to his original point of view, Wendell was troubled by our disagreements, and he suggested we have a correspondence after I left the area. During the two years of our correspondence, the decline in fish and lobster population was troubling Wendell and he spoke of it often. Through his ecological and counter-cultural readings, he became interested in raising vegetables, something no one in his family had done methodically for two generations. The first evidence of a large change in his conscious attitude came in a letter written to me on April 28, 1971:

"Harvey Rich an I went after shrimp but didn't do much at it along with many others. For about a week and a half we done good but it didn't last very long. If it hadn't been for one spot we found we wouldn't have done much at all. Many did not even find that one spot. That was my first try at dragging. Although we were dragging for shrimp I know that fish dragging is done basicly the same way. I can tell you I don't like it. As far as I am concerned it destroys to many other forms of life for what you catch. And I don't like that one little bit. I like fishing that doesn't hurt the ocean botten and doesn't hurt other forms of life or if it dose it is as

little as possible. There is something about dragging that to me seems very crude. I doubt if I ever go again.

I think it is high time we began to start taking care of this old earth. We are going to have to reconsider our ways of doing things and our outlook at it. I think man's selfish outlook and ways of doing things are now starting to back him into a corner.

I no longer think that it is man and God on sides against the devil and nature. I am beginning to think man is too selfish to give a damn what either nature or God thinks about his actions as long as he can get what he thinks he wants.

It is funny how a man can get an idea in his head and go along with it so long and be blind to any other thought" [sic throughout].

Later, when I tried to piece together the causes of his sudden change in attitude, I realized that it was not that sudden. Wendell called the shock of seeing how dragging is done the turning point. He said, "It came to me just like that; my thinking turned around." However, the mere fact that he had engaged in long conversations with Father Gower and me about other modes of behavior and explanation demonstrates his prior willingness to change, and the actual talks made him more vulnerable to the shock of insight when it came and gave him direct terms in which to interpret it. For a handliner and trap-hauler, dragging is a new mode, and the destructiveness of the method is probably a shock to anyone in the first participation. Wendell, who was already troubled by the shortages of lobsters and fish, the intense competition, and the trap-cutting, no doubt took this strong aversion to dragging seriously. Not only did

it seem accurate, by general evidence of species depletion, but he had also absorbed, albeit from a critical stance, an entire series of arguments urging protection of the environment and abandonment of such destructive methods. Traditionally, a fisherman is conditioned to overcome any personal "squeamishness" his methods may cause; he must numb himself to objections if he is to fish. Yet the objections remain in some form, and if they are reinforced by strong outside arguments, a change in behavior may occur.

Wendell's other changes, although they were not motivated by his reaction to dragging in any obvious manner, were more or less simultaneous with his first dragging attempt. He planted his first garden and his move. He grew a beard. He reduced his overall fishing effort. He set up a container at the wharf for men to put their oil cans in, a subtle suggestion they should not discard them in the ocean. He very gradually broke off his close contact with a number of fishermen, including Harvey Rich, and became more of a loner. People at the wharf commented on the change, and a few, in discussing it with me, suggested, somewhat facetiously, that I had ruined Wendell. But old-timers confirmed that Wendell was no different than his father and other people in his family; the Seaveys had always been strong fishermen and independents.

Wendell had little trouble with trap-cutting, and respect seemed, if anything, to increase for him at his own wharf, probably because he had taken strong positions while remaining an active and entrenched fisherman. Furthermore, the attitudes he expressed, though blasphemous in the literal sense, coincided on another level with people's need for explanations of the changes in their environment and community. Wendell was also indirectly invoking the important traditional role of the fisherman as a generous and charitable person. Since his interest was in improving

conditions at sea and since he had already proven himself as a fishing ascetic, people took him seriously. For instance, a number of men unexpectedly took up his offer of the container for their oil cans, which was a tribute to his stature. Some of those who did not were men notably having difficulty with trap-cutting, probably more desperate in their need to establish immediate proof of independence and strength.

b- Wendell's Garden

The farming-fishing complex was abandoned in favor of commercial fishing several generations ago. Although the actual sequence differs by region, and some regions still retain remnants of farming, I found, during the base year, only one full-time farmer in the area of Mount Desert. Significantly, that person, Wesley Gove on Swan's Island, was the object of continuous mockery; he was seen as an antique and a non-conformist rather than a person engaged in serious subsistence activity.

Little effort goes into the small gardens on Mount Desert; they are ornamental, and the food they produce does not reduce overall family subsistence costs. Perhaps the situation is better expressed by saying that the farming-gardening is not regarded as an extractive effort on the same level as fishing. There is no traditional exchange of gardening information, no ideology supporting gardening, and a general disparagement based on the belief that raising vegetables was a thing you had to do in the old days before people were successful enough as fishermen. Why there should be such contempt for vegetables is a little puzzling to me, but on the most available level it seems related to the relative passivity of farming compared with the epic activity of fishing. Farmers might disagree, but fishermen with no sympathy for farming obviously decide the issue in their own favor. Notably, the largest gardens I have

observed, beside Wendell's new one, are those of two injured fishermen no longer able to take out boats; when other fishermen talk about their gardens, they seem, kindly, to assign to them a fisherman's respect for size and frequency of "catch" not generally extended to land crops.

Faris analyzes the reasons for a similar decline in vegetable-raising in Newfoundland:

"A noticeable decline in agricultural endeavour coincided with the coming of the highroad and the merchant's decision to sell vegetables and stock surplus. Reasons given for this decline are usually articulated as the time demanded by the rising lobster fishery...., but the fact that people now have more easy access to commercial sources seems a more accurate reason" [Faris: 1966, 42].

Wendell began his garden in 1971, coincident with his decision not to go dragging. In fact, the two decisions are coherent insofar as the literature out of which Wendell developed his critique of dragging is also the literature which made personal extractive gardens attractive. I say "extractive" because Wendell set out to have a full and serious garden that would eventually save money on food and take away from fishing time and expense, especially during bad lobsterfishing periods. Given the resourcefulness of the fishermen, it is, in some ways, more striking that Wendell has the only garden (i.e., is the only fisherman raising substantial food on his land and integrating farming time into his seasonal cycle of activities) than that he has violated custom by taking gardening seriously.

The soil in the Bernard area is not particularly good for the raising of crops, but Wendell, by keeping a regular mulch heap and improving it with organic fertilizer, has raised a substantial variety of beans, corn, potatoes, carrots, squash, etc. He and his wife have worked at freezing large quantities of these vegetables along with

their fairly substantial supplies of fish. Furthermore, in 1972, Wendell had a whale become accidentally entangled in his trawling gear, leaving him no choice except to haul it in; the meat from this whale has been added to his reserve of family food (the amount has been extensive enough to make the renting of freezer space in Ellsworth financially viable).

Ironically, the success of his garden has caused Wendell to comment on the fact that he is getting exorbitantly lazy. What he means by this is that he is spending a large amount of time at home, away from the wharf and the water. This betrays the underlying assumption that gardening can never be considered real work in the way fishing is.

Wendell's raising of food caused me to investigate the agricultural potential of the area. On paper, it is virtually nil:

"Permeability is moderately rapid; moisture holding capacity is low and depth to seasonal high water is more than 4 feet. Natural fertility is low to very low. Soil reaction is strongly to very strongly acid throughout. Susceptibility to frost is low. Embankments and deep cuts are stable. The soil material is very low in silt and clay and is difficult to compact" [United States Department of Agriculture, Soil Conservation Service, 1972].

However, this evaluation is general enough that it allows nothing definitive to be said about the small plot Wendell is farming or his ability to improve it. I wrote to the Department of Agriculture's Soil Conservation Service in Maine for a verbal assessment of the town of Tremont's agricultural capacity (in order to evaluate not only of Wendell's plot but the general potential other fishermen might be failing to exploit). Donald O. Clark responded as follows:

"There are suitable soils in small cleared areas that were farmed years ago. These acreages are small, but would

have potential for family-type gardens, etc.

"Forested areas have many surfaces stones or bedrock outcrops. The costs of clearing these areas would be prohibitive.

"Another consideration would be the high cost of land in areas near the ocean. There is a great demand for coastal property for building seasonal and year-round residences" [personal communication, 1974].

Once again the issue of relative economic value is central. As long as Wendell continues to fish, his garden can be a useful, even critical, adjunct to his fishing effort. If he abandons fishing for farming, present land values and approximate soil quality would suggest relocation. My own tentative conclusion is that some small-scale agriculture would be advantageous in maintaining community independence and buffering fish and lobster depletion. However, there are other related possibilities I would like to take up in the following sections.

c- A New Complex of Activities

Wendell's interest in scientific and philosophical matters has involved him on and off over the years with people doing various sorts of research in the area. For several summers he took one scientist on biweekly oceanic expeditions to make solar measurements. Though income was slight and the expeditions ceased with the death of the scientist in 1971, the form suggested a new type of activity based on knowledge of the waters and boat skills.

When an ecological college (College of the Atlantic) began operation in Bar Harbor in 1972, Wendell's ecological "conversion" made him the obvious fisherman to serve as liaison between the fishing towns and the school. Initially, he spent some time there in the evening, sitting in on classes; when the school needed someone with a boat to take students on whale-watching expeditions, Wendell was the

logical candidate. By the summer of 1974, with both fish and lobsters sparse in the area, Wendell had a regular salary from the college. At the same time he had been hired to take a conservation group bird tagging in the region of Big Duck Island. Also in 1974, the owner of Little Duck Island, a point right in the center of Wendell's lobster-fishing territory, began gestalt therapy workshops there, and invited numerous psychologists from around the United States to participate; Wendell, again because of his sympathies, became the boatman for this group.

In a certain sense, these jobs are made for Wendell because most other fishermen would find them belittling and embarrassing. Not only is this not the case with Wendell: he actually enjoys the scientific expeditions and is very involved, currently, in figuring out gestalt therapy, even as he took on Catholic theology and Whole Earth ecology. "I am reading all I can get my hands on about the Gestalt philosophy," he writes me. "In spite of it all I seem to be just as imposable and crazy as ever" [sic throughout]. This puts Wendell in an enviable position. Jobs which would lower other men's status actually raise his standing because he is seen to be confronting issues sensibly and directly and learning explicitly what these new people (who are not conventional rusticators) are doing in the area. He is a scout in territory they are unwilling and unable to explore themselves. Their curiosity and respect is reflected in the types of questions they ask him. Admittedly, a few fishermen scorn the particular practices, but it does not lower their admiration for Wendell as a fisherman. "He may be getting a little daffy," said one man, "but he's still one of the best." On the other hand, Wendell picks up from these jobs an income which substantially supplements his fishing income, and, weighed against the cost of the "effort," is certainly more substantial than what he would

net by fishing instead.

The new strategy, despite its ostensible ideological reversal, serves Wendell's maximization needs even more directly than the gardening (though both participate in an overall strategic choice). In terms of the economic success of his "missions," there is general, if, in some quarters, grudging admiration for Wendell. Because of his peculiar perspective, he has swept the field in a particular area of innovative strategy; he has a monopoly on all the good contracts. Where once he exclusively hauled lobsters, he now takes gestalt psychologists to Little Duck and students on whale explorations. Furthermore, he can haul his traps on the way in or back, depending on the activity. Jasper has watched this event with growing exasperation, for it means less lobsters for him. One day, while fueling Wendell's boat, he exclaimed, "You, you, you duck, Wendell," playing wittily on a triple entendre (Duck Islands, duck-watching, and duck as diminutive for a fisherman chasing birds and whales instead of lobsters, i.e., a fisherman turned observer instead of hunter). Wendell's present strategy actually allows him to be in alliance with powerful people from the West, earning income from their institutions, while remaining true to the ideals of the fishermen and not having to serve rusticators in a servile or demeaned capacity.

d- A Hypothetical Solution

Wendell's situation and its peculiar flexibilities have led me to develop a loose model for a different type of socioeconomic situation in the Mount Desert area. During the years following the base year of my study, I tried to reconcile the conclusions of my own research and the beliefs of the fishermen with proposals advanced and supported by politicians, on the one hand, and various radical groups, on the other. Generally, State politicians advocated

industrialism as the only cure to chronic poverty in the region, overlooking the viability of local fishing and exchange institutions, while more radical organizations concentrated on organizing the fishermen in cooperatives (as though the dealers were the problem), or developing microenvironmental lobster-raising operations in which the fishermen would be employees. Sea and Shore Fisheries, the State agency, has experimented on paper with ways to limit fishing and keep the fishermen from diminishing their stock any further (ways quite similar to Canadian laws). All of these "cures" deal with aspects of the situation, but none of them break the strong tie between the local fisheries and the market where they send their catch. As long as fishermen are tied economically to this particular supply and demand market, and are, at the same time, competing with their residences and properties in a competitive second home market, they are bound to lose independence and community coherence.

A possible solution would be more viable local trade channels, replacing the present marketplace with a regional one extending the exchange principle inland to people in similar economic categories but different ecological situations (i.e., in areas of inland resources). If other basic commodities, like vegetables, meat, dairy products, wood, etc., could be received in exchange for ocean resources, not only would the fishermen receive quantitatively more material for the same amount of fish but they would be able to return more actively to exploiting species other than lobsters, thereby taking some pressure off the lobster population. Since the producers and extractors of materials inland also receive barely break-even prices for many of their goods (with much of the income used up in transportation, processing, and retailing), they would also benefit by receiving ocean products for their milk or potatoes.

Admittedly, this is an unrealistic proposal, and I offer it partly because it gives a fresh perspective on the overall bio-region and partly because it is supported by some palaeo-anthropological reconstructions of American Indian economic and residential patterns in the region. Very little work has been done in northern New England prehistory, and my hypothetical models come from verbal discussions with Maine and Vermont archaeologists. For instance, Emerson Pearson has tentatively suggested separate discrete tribes or clans of Abenaki in Maine along the different Atlantic-draining river-valleys; he explains the ubiquity of certain artifacts both by intermarriage between the bands and by seasonal exploitations of coastal and inland environments [personal communication, 1969]. Louise Basa has worked with proposed Abenaki settlements in Vermont (assuming Lake Champlain to be the boundary between Iroquois-speaking and Algonquian-speaking peoples), and she has found substantial materials at different time horizons from: the Great Lakes region, the Ohio River valley, and the Atlantic Coast. Without ruling out migration, she still prefers "a kula ring type relationship with set items being traded back and forth....along with an elaborate economy and some intermarriage" [1975: 215], following Ronald Thomas, who has worked with artifacts of Delaware peoples involved in the same extensive trade network. The archaeological reconstructions suggest what may have been the most persistent and successful patterns during the time the larger region was exploited by a single intermarrying group of peoples; likewise, it suggests socioeconomic systems that were successful without a market economy.

Wendell's entry into farming has changed his overall attitude toward surrounding areas which were previously of little interest. He has gotten in touch with other people doing organic farming and has gone some distance to visit such farms "to see how the work is done," as he puts it. The overall change in his orientation makes Wendell a prime

candidate for possible inland-shoreline distribution systems. The ocean products in whose exploitation he is primarily involved are not usually available inland. A self-contained macro-region for such an exchange system can be taken either as the immediate hundred mile radius of Mount Desert, including some inland farms and forests, or the full Abenaki territory from Lake Champlain to the Gulf of St. Lawrence; the former, in fact, may be a stepping-stone to the latter if exchange systems are to be integrated over increasingly wide areas. Governmental agencies are presently investigating means of local self-reliance along with regional resource exploration and management. For instance, the reduction in availability of oil has raised speculation about the use of wood for electricity generation, and farmers have put continuous pressure on elected officials to receive larger shares of the price for their marketed products. If lessening reliance on national systems becomes a viable regional policy, the actual raw materials and possible cultivations within the bio-region will become the important fulcra of new institutions. Migrants from urban areas, especially those who share the same radical ecological literature that Wendell has explored, are actively involved in setting up food co-operatives across northern New England. Vermont cooperatives import food in bulk but also attempt to distribute locally-grown items within the regions they represent. In urban areas of Maine, such as Portland, primitive exchange networks have been set up between people in the city and those on outlying farms. The complementary urban range of activities includes: natural foods restaurants, investing in slum housing and remodelling it for low-income people, consumer protection, legal aid, and experimental primary and secondary education. The fact that implementation of such present visions has barely begun does not change the fact that different types of institutions are arising within the areas contingent to the fishing communities, including Mount Desert. If local

conditions deteriorate to a point at which present practices become counterproductive, unpredictable changes in orientation may occur.

Most fishermen are presently hooked into the old economic system, either by debts or by the inflexibility of their ideology. The notable thing about Wendell is that, without abandoning the basic tenets of the fishing ideology, he has taken on seemingly contradictory attitudes, which involve him in initial steps toward transforming his activities to the point where they are flexible enough to include aspects of radically different institutions. How a regional exchange network might articulate with lobsterfishing strategy is difficult to assess. One might argue that the fishermen are already engaged in small local goods distribution networks, but these are hierarchical in nature and are not structured to allow exchanges between equal segments within a society. Transitional stages are imaginable. If people in fishing communities were able to realize substantially higher profits from supplying fish directly to cooperative food distribution outlets, they might fish (instead of hauling traps) more often as part of a new maximizing mix, and then come to accept the ideology of the people with whom they were dealing as good business.

In fact, there is no such transition yet. Wendell seems the most responsive of the fishermen on Mount Desert, and clearly any decisive move he made would be influential, but despite his current changes, he is well locked into the present structures, and his innovations are still wide-ranging options within the flexibility and independence fishing gives to all fishermen. Wendell simply uses his independence in a provocatively idiosyncratic way. Likewise, food cooperatives and small farms (including alternative energy farms) have enough initial difficulty with the structural and technological aspects of their own transitional phases that their ability to reach out into the

larger region is limited; they are marginally operable also.

If I seem to over-emphasize something which is not yet in existence, it is because it is the main substantial alternative I see to the back side of Mount Desert becoming a museum and a park, or a commercial aquaculture station, or an industrial sea-port. Because the fishing itself is stable and strategically flexible under circumstances which allow it to continue as an independent activity, any integration of its products into a stable and consistent economic network would probably, within a generation, generate appropriate versions of present institutions.

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