

maritime anthropological studies

MAST

Vol. 2(1) 1989

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MAST (Maritime Anthropological Studies) is an international journal of anthropology on fishing and maritime communities. Published twice yearly by the Department of European and Mediterranean Studies (Euromed) at the University of Amsterdam, the Netherlands, **MAST** aims to disseminate knowledge of contemporary and historical societies and cultures of people exploiting maritime environments.

Articles, comments, books for review, and business correspondence should be addressed to:

Euromed/Mast
Anthropological-Sociological Center
University of Amsterdam
O.Z. Achterburgwal 185
1012 DK Amsterdam
The Netherlands

Subscription price per volume (including postage): private individuals Dfl. 35.00 (US\$ 18.50), and institutions, libraries, etc. Dfl. 70.00. (US\$ 37.00). Please transfer the amount in Dfl. or US\$ to our postal giro account no. 3691970 or to J. Verrips/MAST, ABN Bank account no. 545446406, Amsterdam, the Netherlands, or pay with International Money Order.

Typists: *Hannie Hoekstra & Gerda Bekker*

Cover design: *Yvon Schuler*

Printed by Krips Repro, Meppel, The Netherlands

ISSN: 0922-1476

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Maritime Anthropological Studies

Vol.2, No. 1

1989

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The Art of Fishing

Gísli Pálsson

University of Iceland

ABSTRACT This article focuses on the place of fishing societies in anthropological thought, some early evolutionary schemes in which fishing occupies a significant position, and recent attempts to define the properties of fishing adaptations. I argue that many approaches to fishing, both of the present and the past, emphasize material context and ecological relations. Such an approach suggests a 'natural' model of production which depicts the individual as an autonomous isolate engaged in the technical act of catching fish. An alternative theoretical approach is needed which appreciates the differences between fishing economies and the social relations in which production is embedded. I suggest an approach which emphasizes the circulation of products and restrictions of access to aquatic resources. Differences with respect to circulation and access, I argue, are likely to be reflected in differences in indigenous models of the 'art' of catching fish.

With European exploration and the discoveries of new worlds from the fifteenth century onwards, an ever increasing body of information regarding the different forms of human society was accumulated. Bewildered by the perplexity of available data and the problems they posed for their ethnocentric world-views, Europeans established typologies for classifying different societies and making sense of their variability. Somehow the new worlds had to be assimilated. Nineteenth century evolutionism deliberately addressed the problem, and so does, by definition, modern anthropology. Fishing was an important category, along with other 'arts of subsistence', in many of the early evolutionary schemes. Later, 'fishing' became much less visible—often being subsumed under the label 'hunting and gathering'. This article discusses the place of fishing adaptations in anthropological thought. It examines some evolutionary schemes in which fishing occupies a significant position and reviews recent attempts to define the properties of fishing adaptations. Many anthropologists, it seems, operate with a 'natural' model of fishing which emphasizes material context and ecological relations. Such a model draws attention to the adaptive significance of social organization, depicting the producer as an autonomous individual engaged in the technical act of catching fish. An alternative theoretical approach is needed which appreciates the differences between fishing economies and the social relations in which production is embedded. I suggest an approach which emphasizes the circulation of products and restrictions of access to aquatic resources. Differences with respect to circulation and access, I argue, are likely to be reflected in differences in indigenous models of fishing.

Fishing as a "New Career"

One of the best known evolutionary schemes of the nineteenth century is that of Morgan (1928 [1877]). For him the advent of fishing was of great evolutionary importance. He suggested that the experience of humans had run in "nearly uniform channels" and that there were three successive major stages or "Ethnical periods" – savagery, barbarism, and civilization – each representing "a distinct culture" and a "particular mode of life" (ibid.:8-9). According to Morgan, it was during the period of savagery that fishing had a particular role to play. The period of savagery was sub-divided into three periods – Lower, Middle and Upper. The Lower stage represented the origins of the human race and of articulate speech when humans lived in their original habitat by gathering fruits and nuts. Morgan claimed there were no surviving examples in his day representing the Lower Stage of Savagery, but he felt confident in claiming (ibid.:20) that "neither an art, nor an institution" was developed during this stage.

The acquisition of fishing and the knowledge of the use of fire marked the important transition to the Middle Stage of Savagery in Morgan's scheme, during which humans left their original habitat and spread over different parts of the earth's surface. Fish, Morgan suggested, were the "first kind of artificial food" (ibid.:21). Having acquired the knowledge of the use of fire for cooking, humans became "independent of climate and locality", for fish were "universal in distribution, unlimited in supply, and the only kind of food at all times available". Morgan did not elaborate on the arts and institutions during the period of fishing. Nor did he cite many ethnographic examples. Africa, he said (ibid.:16), was "an ethnical chaos of savagery and barbarism", while Australia and Polynesia were in savagery "pure and simple". The final sub-period of Savagery, the Upper Stage, began with hunting and improved tools, the invention of the bow and arrow. Fishing, then, represented an important step in the history of humans, the beginning of a "new career" (ibid.:20), *prior* to the hunting of terrestrial animals.

In *The Origin* (1942 [1884]) Engels adopted a scheme similar to that of Morgan. In the first part of his book he simply restated Morgan's ideas about the stage of Savagery and the role of fishing during its Middle Stage. In *The German Ideology* he had, however, along with Marx, identified the stages in the history of humans and their progression somewhat differently. Hunting and fishing represented the first sub-stage of the 'undeveloped' stage of production, identified by tribal ownership and the elementary or natural division of labour imposed by the family (see Marx 1964:122).

The discussion by Marx and Engels of primitive societies and the "tribal" stage was partly motivated by rhetorical and political considerations. They turned to the study of primitives not so much to assimilate the exotic but to demolish the familiar – for demonstrating that capitalistic relations of production, private property, exploitation and the state, were not inevitable, but rather the products of certain historical conditions. They greeted Morgan's theories with enthusiasm, since he asserted that during the first stage of evolution, social

life was undifferentiated and the notion of private property nonexistent. Marx and Engels were not only fabricating history, along with many contemporary writers, but they also left themselves unable to deal with primitive society theoretically (see Bloch 1985:16-17). The Marxist theory of society is essentially a conflict model, emphasizing exploitation and class divisions, but if primitive society was undifferentiated and characterized by consensus, harmony and equality, it could hardly be assimilated into a marxist framework.

Marx and Engels had no ethnographic experience, and they therefore had to consult written sources when constructing their schemes of progression. Morgan's writings were particularly useful since some of them were based on relatively detailed and original fieldwork. But even his "expert knowledge" (Engels 1942:19) of particular North American Indian groups could hardly serve as an empirical basis for a theory of the development of humanity from savagery to civilization. As we have seen, Morgan had in fact little to say about the earliest stages in his scheme. In fact the whole reasoning on which he based his Ethnical periods does not show much respect for empirical details. On the one hand he claimed that the division into Ethnical periods directed investigation to tribes which "afford the best exemplification of each status, with the view of making each both standard and illustrative" (1928:16). This would render it possible to treat a particular society "according to its condition of relative advancement" (ibid.:13). But on the other hand timing really did not matter. "It does not affect the main result", Morgan wrote (ibid.), "that different tribes . . . on the same continent . . . are in different conditions at the same time, since for our purpose the *condition* of each is the material fact, the *time* being immaterial". Just how the condition of relative advancement was determined was never made clear. Morgan's theory of evolution rested on a rank order of essential types rather than the reconstruction of chronological sequences.

According to some of the important evolutionary theories of the nineteenth century, then, primitive fishing represented a separate and early stage in the history of humans. Such an idea was underlined in many contemporary accounts of particular groups of people largely dependent on fishing. In his *Journal*, Darwin provides a lengthy description of the fishermen of Tierra del Fuego. Having met a group of Fuegians, Darwin noted (1871:234) that these "poor wretches were stunted in their growth . . . their skins filthy and greasy . . . Viewing such men, one can hardly make oneself believe they are fellow-creatures and inhabitants of the same world". As Meehan points out (1982:5), Darwin's observations on Tierra del Fuego were sometimes used to illuminate archaeological information on shellmiddens discovered in Denmark, the so-called "kitchen-middens". In his book *Prehistoric Times*, Lubbock reproduced Darwin's description, adding that it gave "a vivid and probably correct idea of what might have been seen on the Danish shores long ago" (1913 [1869]:242). Tylor came to a similar conclusion (1916 [1875]:207): "shell-heaps . . . are found here and there all round the coasts of the world . . . for instance on the coast of Denmark, where archaeologists search them for relics of rude Europeans, who, in the Stone age, had a life somewhat like that of Tierra del Fuego".

In a study of the Emeryville shellmounds in California, Uhle expressed opinions similar to those Darwin had expressed for the Fuegians. The collecting of shells, he said, "in itself indicates a low form of human existence" (1907:31). Such opinions clearly had a life of their own. Whereas Lubbock used ethnographic bits to illuminate the records of the past, Uhle was quite prepared to leap in the other direction, from the archaeological record to the ethnographic present:

In all parts of the world, even today, people may be seen on the shore at low water gathering for food the shells uncovered by the retreating tide; ... these people always belong to the lower classes of society, and lead in this manner a primitive as well as a simple life (Uhle 1907:31).

The evolutionary scheme proposed by Morgan has probably few adherents nowadays, even though some twentieth century scholars, notably Childe (1944), continued to discuss the stages of social evolution in similar terms. Morgan's scheme, however, foreshadows some fairly recent ideas, including those of Sauer (1962) regarding the seashore as a "primitive home of man".

Sauer rejects the popular "man the hunter" hypothesis of human origins. He suggests, like Tanner (1981), that primate behaviour fails to indicate that aggressive males were the founders of human society. But while Tanner proposes a "woman the gatherer" hypothesis to explain human origins, Sauer reinvents Morgan's idea of fishing being a new career:

The hypothesis ... is that the path of our evolution turned aside from the common primate course by going to the sea ... The sea, in particular the tidal shore, presented the best opportunity to eat, settle, increase, and learn ... It gave the congenial ecological niche in which animal ethology could become human culture (Sauer 1962:309).

A similar hypothesis of "aquatic man" (perhaps more fantastic) was proposed by Alister Hardy (1960), in a speech delivered to the British Sub-Aqua Club. He suggested that human ancestors, some protohumans in the tropics, were forced because of the competition of "life in the trees" to feed on the sea-shores where they learned to swim and physically adapted to aquatic life:

The graceful shape of Man - or Woman! - is most striking when compared with the clumsy form of the ape. All the curves of the human body have the beauty of a well-designed boat. Man indeed is streamlined (Hardy 1960:643).

We tend to laugh at Hardy's theory of "aquatic man", but some distinguished archaeologists took it quite seriously at the time, while disagreeing with some of its aspects. Dart argued (1960) that human exploitation of aquatic resources was more recent than Hardy suggested but nonetheless much more significant. The adaptation to aquatic regimes, he suggested, did not alter the physiology of humans, it was significant because it sparked a "mental" discovery which

led to civilization. Humans learned to swim by capturing their breath and blowing it into some kind of float. Such knowledge in turn was the source of articulate speech:

Man's first intellectual *tour de force* was equating the power of the spirit within him with that in the float and with that of the air or wind about him, and expressing that concept by specific breaths or words ... (This) intellectual achievement ... transformed the isolated hordes of hunters into those communities of fishermen and boatsmen that launched mankind on the sea of civilization (Dart 1960:1670).

Unfortunately, speech does not preserve well in the archaeological record, but if Dart is right about the late origin of civilization, human physiology must have developed totally independent of culture and the neurological capacity for language must have been "vacant" for tens of thousands of years among silent, at least speechless, hordes of hunters, who finally got into deep waters and started to speak. That is a rather fishy theory of language and human evolution. In fact, such "man the fisher" or sub-aqua-club theories do contradict the archaeological records. Fishing seems to be a much more recent occupation than Sauer and Hardy suggest and there is no indication that fishing preceded hunting and that human physiology was adapted to aquatic life. The oldest remains to indicate an economy in which fishing was of considerable importance, shells and fishbones from Haua Fteah in Libya and Klasies-river in South Africa, have been dated 50 to 80 thousand years old (Yesner 1980). The evidence indicates that marine subsistence progressively intensified by the end of the Pleistocene, from about 20,000 B.C. onwards, and that there was an "explosion" in the use of shell fish during the Holocene in many parts of the world (Bailey 1983:560).

The archaeological interpretation of the 'facts' concerning the recency of human exploitation of aquatic resources is, however, contradictory. Some scholars suggest that, from the point of view of early humans, aquatic environments must have been an inadequate source of food and that the negative evidence must be taken for granted (Schalk 1979:57). Some suggest that it is surprising that marine resources were exploited at all even at this "early" date (Osborn 1977:158). Others suggest that coastal zones must have been quite attractive, a worthwhile challenge, and that people may have exploited them long before the Holocene without leaving us modern groundlings any evidence. Shells are not particularly perishable and some shell-remains are in fact older than the earliest evidence for human exploitation (Cohen 1977:94), but it is still quite possible that earlier coastal adaptations were submerged by rising sea-levels (see, for example, Perlman 1980). Many archaeological debates have centered around the formation of sites and the meaning of existing deposits. The modern debate about the recency or antiquity of coastal adaptations is somewhat peculiar in that existing sites are not the issue but rather the *absence* of any sites at all.

The Category of Fishing

In medieval Europe it was customary to distinguish between three kinds of prey on the basis of the medium in which it moves – i.e. fishing, fowling, and hunting. Walton, for instance, makes much of such a distinction in his book *The Complete Angler* [1653]. It begins with a chapter entitled “A Conference betwixt an Angler, a Falconer, and a Hunter, each commending his Recreation”. In everyday language, the notion of fishing still has similar connotations, usually being broadly defined as the “attempt to catch fish by any means or for any purpose” (*Webster’s Dictionary*). An even broader notion of fishing is implied in Hornell’s cross-cultural survey *Fishing in Many Waters* (1950). Not only does he describe the different ways of fishing among humans, but he also provides a whole chapter on “Animals trained to fish and fishes that angle for their living”. Some animals (including otters, cormorants, and sucker-fish) can be forced into the fishing service of man, while others (including sea birds, “feathered fishers”, and angler-fish) fish for themselves, independent of humans (Hornell 1950:33). Apparently, for Hornell fishing is anything catching anything that is under water.

An interesting early paper which deliberately addressed the problem of definition is that of Hewes (1948). He claims the distinctiveness of fishing activities has two aspects. First, objects behave in a particular manner while in an aquatic substance, due to special conditions of buoyancy, turbulence, solubility and refraction of light. Second, the hunters and their prey occupy different media. For land-dwelling animals like humans, aquatic environments are “a realm which can be exploited as if the exploiters moved in a universe with an additional dimension. The horizontal surface of water bodies, through which or from the edges of which a fisherman inserts his catching devices, has no counterpart in the terrestrial environment” (Hewes 1948:238). This ‘reality’ of the distinction between land hunting and gathering on the one hand and fishing on the other, Hewes argues (*ibid.*:239), suggests a definition of fishing based upon the habitat of its object. Accordingly, he proposes (*ibid.*:239-40) an ‘ecological’ definition of fishing as “that category of human activity which is connected with the capture or gathering, of animals (or plants) which regularly dwell in the water”.

Hewes argues, furthermore, that the fact that hunters and prey occupy different media is of advantage to the hunters. Since the prey is relatively incapable of coping with their presence, its chances of using evasive tactics are very small: “Compared to the relation between the hunter and the hunted animal on land, where the sense organs of both are on a nearly equal basis, *the fisherman holds all the trumps against the fish*” (*ibid.*:238, emphasis added). The difference in medium, however, has contradictory implications and others have emphasized the disadvantages to the fisher. If humans are invisible to the fish so are fish to humans. Thus Morrill argues (1967:407) that folk knowledge of marine organisms is bound to be relatively restricted: “Except for life in very shallow and clear waters, virtually nothing can be known about the inhabitants of the sea except what they look like when (and if) they are caught”. In this sense, fishing is very

much the hunting of an invisible prey in a world where everything is on the move.¹

Such concepts of fishing, as a particular kind of hunting which happens to yield fish, are one element of a widely accepted anthropological scheme for classifying types of technique: gathering, collecting, hunting (including trapping), husbandry (including fish farming), and plant cultivation. Ellen suggests (1982:128-9) these categories have some degree of cross-cultural objectivity, “being recognized indigenously as distinct types”. The argument has been developed that fishing is “best considered as a kind of hunting activity” and that such a notion is implied in many languages (Leap 1977:252). Leap examines fishing related terminologies in 33 languages and concludes that, from the point of view of indigenous speakers, fishing and hunting are similar strategies, “differing only with respect to the commodity which serves as the focus of the subsistence effort” (*ibid.*:256-7). It is necessary, however, to qualify Leap’s generalizations. The classification of aquatic organisms, including “fish”, varies from one society to another. Also, indigenous terminologies do not necessarily distinguish between “hunting” and other subsistence activities, including trapping, collecting and gathering. For instance, the coast Salish, who harpooned salmon and netted seals and ducks, used a broad term which translates as “sea-food producer” (Suttles 1968:63). Another example is the Icelandic term *veiðar* which can be applied to fishing, the gathering of shellfish, and the trapping and hunting of terrestrial animals. A further example is provided by the Gidjingali who use the same term to describe both male and female “hunting prowess”, the skills needed in the pursuit of shellfish as well as more mobile species (Meehan 1982:119).

Much like Medieval hunters distinguished between fishing, fowling and hunting, modern anthropology tends to operate with three concepts of foraging – fishing, gathering and hunting. Both schemes are exemplars of what Dumezil called (1958) the “idéologie tri-partite” of Western culture, the tendency to postulate three categories on the basis of pairs of binary oppositions. Thus the distinction between three modes of foraging is usually based on two oppositions relating to the species exploited (mobile:stationary) and their habitat (terrestrial:aquatic).

Such a classification was used by Murdock (1967:154) in the construction of the *Ethnographic Atlas*. When coding societies according to their economic basis, the relative importance of different modes of subsistence in each case, Murdock used the following categories: (1) “gathering of wild plants and small land fauna”, (2) “hunting, including trapping and fowling”, and (3) “fishing, including shellfishing and the pursuit of large aquatic animals”. Such a broad definition of fishing incorporates different kinds of activities, the capturing of mobile prey and the gathering of passive objects, on the basis of their common link to water. Thus Hewes states that the “distinction between ‘capturing’ and ‘gathering’ should not be emphasized” since “clams may elude the gatherer by burrowing, while highly mobile small fishes are usually acquired by some scooping process with an effort as unlike ‘capture’ as shaking fruit from a tree”

(1948:240). The participants of the Man the Hunter symposium argued (see Lee 1968:41) to the contrary that the pursuit of large aquatic animals was more properly classified as hunting and that shellfishing should be classified as gathering.

Ingold argues (1987:79) that such categories are fraught with ambiguity, even as categories signifying types of activity, and that there can be no reasoned comparison until anthropologists reach agreement on what they mean. The contrast between gathering and hunting, he points out, is usually based on the distinction between collection and pursuit, as fundamentally different methods of procurement, whereas the contrast between fishing and hunting is based on biological classification, the kinds of species obtained. A strict adherence to behavioural or technical criteria would not, he suggests, eliminate the problems of orthodox classifications of food-getting activities. For one thing, in such a scheme the category of fishing would have no place at all, for fish-yielding activities would be included under different categories – gathering, hunting, and entrapment (Ingold 1987:81). Ingold suggests a “more precise” (1987:82) characterization of hunting and gathering which is independent of both technical and biological criteria. For him, the essence of human hunting and gathering, as opposed to animal predation and foraging respectively, lies in the prior intention that motivates the producer and not in some overt behavioural characteristics associated with a particular type of technology or a particular organism, mobile or stationary.

From this perspective, both fishing (in the sense of capturing fish) and the procurement of shellfish may be “hunting”, because both activities involve expectation, excitement and a purposeful search for sites (Ingold 1987:92-3; Meehan 1982:119; Plath and Hill 1987), and not simply (as Hewes argues 1948:240) on the grounds that shellfish may be no less evasive than fish. Thus, Plath and Hill suggest (1987:153) that abalone diving in Japan, a women’s occupation, “deserves to be classed with hunting rather than lumped with other forms of marine collecting” on the grounds that even though the quarry may be sedentary “it can be taken only by aggressive search and seizure”. An expert diver, they argue (ibid.:155), “has to be something of an adrenalin freak”.

Models of Production

Some recent models of fishing go far beyond the narrow context of techniques and food-getting activities in their attempts to embrace its social aspects. However, in some respects they do resemble the ecological and technical models of fishing activities previously discussed. A few examples from the literature will help to illustrate this. Acheson (1981) emphasizes that fishing takes place in a relatively uncertain environment in a physical and a social sense. He suggests (ibid.:277) that for this reason “fishing poses some very unusual constraints and problems”. While adapting to earning a living by exploiting marine resources people seem to manage their lives in similar ways and develop similar social institutions which reduce competition and uncertainty and spread the risks of production.

Crew organization is often flexible and based on voluntary ties but not on structural principles or kinship obligations, to ensure cooperation and the right combination of skills. In sum, Acheson suggests fishing societies have a range of characteristics in common due to the fact that their members have to adapt to similar environments and cope with similar problems.

A similar approach is that of Norr and Norr (1978). Having surveyed the literature on fishing communities, both preindustrial and modern, they conclude (ibid.:163-4) that several “technical and environmental constraints” distinguish fishing from other modes of subsistence. Even though differences in terms of such constraints are associated with differences in work organization, the constraints common to *all* fishing encourage a particular organization, including teamwork and equality among workers (ibid.:169). A further example is Breton’s analysis (1973) of changes in fishing communities in Eastern Canada. Breton argues that different ways of organizing work groups must be seen “basically” as “adaptive strategies” for the exploitation of a given resource (ibid.:412) and that despite their variability, fishing communities in general are characterized by relatively “fluid” social units (ibid.:393). One aspect of this flexibility is the predominance of dyadic contractual ties between autonomous individuals.

These approaches are reminiscent of Steward’s ‘method’ of cultural ecology. Steward defines his concept of “cultural core” as the “constellation of features which are most closely related to subsistence activities and economic arrangements”, including “such social, political, and religious patterns as are empirically determined to be closely connected with these arrangements” (1955:37). In his view, social life is mechanistically adapted to the material world. One of the best-known exemplars of Steward’s approach is his analysis of the band in hunter-gatherer societies. For Steward, the ecological basis of bands arose from the “nature of the game”. In the approaches of Acheson, Breton, and Norr and Norr, the constraints of uncertainty and resultant organizational responses are equivalent to Steward’s cultural core. And fishing crews are somehow equivalent to the band. The social organization of coastal communities is seen to be primarily an adaptive response to the hunting of evasive aquatic prey. In his comparison of work groups (which, significantly, cites Steward’s work), Breton argues for instance (1973:412) that “it is at the level of the factors of production . . . that each type of group achieves greater specificity. Although their formation is influenced by socio-demographic factors, such as residence patterns and community size, they depend primarily upon particular ecological and technical requirements”.

Archaeological accounts of fishing also tend to emphasize technology. Torrence (1983), for instance, contrasts hunting and fishing largely in terms of technology. She points out, following Oswalt (1973), that tools used for the capture of aquatic animals tend to be particularly complex because the medium in which the animals move demands complicated retrieval strategies. The fish must not only be speared but also they must be successfully brought ashore. The emphasis on technology is not surprising, given that archaeologists are concerned primarily with material evidence. Childe comments (1944:23), in his evaluation of ar-

archaeological classification of stages of technological development (Thomesen's "Ages"), that "a classification based on the property relations within which tools were used might be more significant", adding that "However sound this may be in theory, one trouble is that the archaeological record is, to put it mildly, vague as to the social organization of preliterate communities".

Many models of fishing, then, emphasize material and technical constraints. Why such "natural" models have gained the popularity evident from the literature on fishing remains open to question. Alexander argues (1982:257) that the emphasis on ecology in maritime anthropology is due to particular problems encountered by fieldworkers in fishing communities, where "vast differences in the fortunes of individuals may be a critical feature of the economy" and where catches fluctuate from day to day. I do not find this argument convincing for the simple reason that the facts of production do not speak for themselves. Uncertainty may be characteristic of many fisheries but it varies from case to case, depending on the type of species exploited, environmental properties, fishing technology, and degree of co-operation, to name a few factors. The anthropological emphasis on variance in catches seems to be the result of an ethnographic tradition which assumes that the folk belief in the role of expertise and personal fishing skills is both authentic and universal (Pálsson 1988a). Thus, some general anthropological accounts discard entirely the ethnography which suggests the opposite (see, for instance, Acheson 1981). This tradition needs to be explained and not taken for granted.

One reason for the popularity of the natural model of fishing relates to the fascination of the leisure classes of Europe during earlier centuries with the individualistic pursuit of mobile aquatic (and terrestrial) prey. For them, fishing was a non-subsistence activity, with a distinct recreational value or quality on its own. Walton's *Angler* provides a good illustration. He comments on his work that although "it is known I can be *serious* at seasonable times", "the whole Discourse is, . . . a picture of my own disposition, especially in such days and times as I have *laid aside business*, and gone a-fishing" (n.d.:6, emphasis added). For Walton, catching fish was an artistic experiment. He describes angling employing the metaphors of mathematics and poetry: it is "so like Mathematicks, that it can never be fully learnt" (ibid.:7), and "somewhat like poetry" for "he that hopes to be a good angler, must not only bring an inquiring, searching, observing wit, but he must bring a large measure of hope and patience, and a love and propensity to the art itself" (ibid.:27). For Walton and many of his contemporaries, hunting and fishing were, above all, manly activities. Walton describes hunting as "a game for princes and noble persons" (n.d.:20): "it . . . trains up the younger nobility to the use of manly exercises in their riper age . . . How doth it preserve health, and increase strength and activity?" It is easy to see how the Western explorer who usually placed himself at the top of the evolutionary ladder could nonetheless identify with even the most "savage" fisherman as a fellow *homo ludens*. Fishing was a game, a test of sportsmanship. Tylor remarked (1916:214) that "on the whole it is remarkable how little modern fishermen have moved from the methods of the rudest and oldest men". These cultural values

of Western society are reflected in early theories of human evolution. As Tanner points out (1981:23-4), the concept of "man the hunter" pervades most earlier speculations about the life of the first hominids.

Nineteenth century theorists and observers often showed explicit admiration of the pursuit of highly mobile aquatic prey. Lubbock states (1913:539-40), for instance, that "having few weapons, . . . savages acquire a skill which seems almost marvellous": some Patagonia tribes, we are told, live chiefly on fish "which they catch either by diving, or striking them with their darts", South Sea Islanders dive after fish which "takes refuge under the coral rock; thither the diver pursues him and brings him up with a finger in each eye". They are "even more than a match for the shark, which they attack fearlessly with a knife" - and so on.

Given the emphasis on the "manly" aspects of fishing in Western society, it is not surprising that the collection of molluscs has often been dismissed as insignificant. The explorer would not identify with those, mainly women, who were engaged in the mundane collection of relatively stationary shellfish. Morgan, for instance, does not mention shellfishing at all in his definition of Ethnical periods; it cannot belong to the older period of Savagery in his scheme, which was restricted to the collection of fruits and nuts. Being mostly male, Western explorers were mainly interested in what the males were doing; women were simply not the focus of their enquiry. Lubbock (1913:441), for instance, makes a clear conceptual distinction between "the natives" and "their wives" in his account of the Australians: "the natives (are not) able to kill whales for themselves, but when one is washed ashore it is a real godsend to them . . . They rub themselves all over with blubber, and anoint their favourite wives in the same way". The extent of the pursuit of small mobile animals by women has been obscured by a systematic observers' bias (Endicott, cited in Ingold 1987:87). Such pursuit has been regarded as mere "gathering" or "collecting" if performed by women, but as "hunting" or "fishing" if performed by men. Some native classifications seem to be similarly biased. Among the Niuanos of Polynesia, the males at least, smaller fish procured by women are said to be merely "picked up" like shellfish, while the pursuit of big fish is regarded as "proper" hunting (Kirch and Dye 1979:65). Also, the Miskito Indians of Nicaragua make a distinction between the "flesh" of small game and hunted "meat", the latter being only procured by men (Nietschmann 1972:55).

The Natural and the Social

The natural models of fishing are not without their faults and critics. Alexander points out (1982:259) that while there are real empirical differences between fishing and other modes of subsistence (agriculture), the use of such differences establishes a framework which gives misplaced importance to marine ecology. "Almost unwittingly", he says, "ecological functionalism has become the major mode of explanation". Indeed, the notion of adaptation - to the "nature of the game", as Steward put it - used by many writers on fishing is similar to

that employed by the founders of ecological functionalism.

Several authors have pointed out that there has been a tendency, "something of a *tour de force*" (McCay 1981:2), to look for parallels between trawling, "industrial hunting" (Andersen and Wadel 1972), and small-scale fishing. Faris remarks (1977:235) that a taxonomy which regards such widely different organizational forms as worthy of comparison on the grounds of their common link to water makes as much sense as "a biological classification which lumps together whales, fish, and submarines and separates them from bats, birds and airplanes". From this perspective, the category of fishing is a clumsy taxonomic lumpfish.

The organization, adaptive significance, and cross-cultural semblance of fishing crews may be interesting topics in their own right. However, the emphasis on the material basis of organizational forms diverts attention from social relations of production. The point is that in drawing attention to organizational responses to ecological relations one removes social life from the center of inquiry. Not only does the materialist emphasis conceal differences between fishing societies, it also ignores differences between the fishing activities of humans and those of other species. Ingold argues (1986:252-3) that in Steward's discussion (1955) of the band, social organization reduces to a behaviour pattern, an instrumental apparatus pertaining to ecological or material relations and not the social relations of production, and that such an approach makes no distinction between the sociality of animals and the purposive activity of socially constituted human beings. The same may be said of many accounts of "co-adventure" in fishing. Thus, the comparative work of Hornell (1950) deliberately correlates the fishing activities of humans and animals. Hornell describes (ibid.:28) the "purposeful" action of pelicans which follow "a familiar and well-tried plan" when they drive schools of fish into shallow water. Such "co-operative" fishing, he says, is "carried out *in much the same way*" as the fish-drives of Indian villagers (ibid.:29, emphasis added). In Japan, we are told, humans sometimes fish with the aid of cormorants. A group of cormorants, which have a ring of metal around the lower part of the neck, spread out in their search for fish and when one is caught it is swallowed. If the fish is small it passes the ring and becomes the "perquisite of the bird", but if too large to pass it remains in the gullet pouch. Every now and then the "master" lifts the bird from the water and forges it to disgorge the contents of the pouch.

There is no mention of the social relations of humans in Hornell's account, but the cormorants are said to be "exceedingly jealous of their rank and of the privileges belonging to seniority" (1950:32). Even though both birds and humans interact with each other in the process of extracting fish, and in both cases some may be more equal than others, it would be wrong to assume that both groups are doing the same. Just as the spider does not "hunt" when it captures insects (see Ingold 1987:95), in the sense that, unlike humans, it captures its prey without any consciousness of self and time, the cormorant does not fish.

While Hornell's account of fishing as the application of a technique may be somewhat extreme, many attempts at defining and classifying production sys-

tems similarly emphasize technical relations and types of activity. Ellen (1982:129), for instance, regards fishing, hunting, and gathering as "techniques" associated with specific (pristine) ecosystems. Many anthropologists, inspired by the Durkheimian distinction between the natural individual and the social or superorganic, seem to operate with a natural model of production as something taking place in nature, outside society. Thus Cook (1973:40) makes a distinction between the *forces* of production ("the relationships . . . that emerge from the concrete, observable technical features of any work situation") and the *social* relations of production. Given such distinctions, production must take place in nature. The individual producer, much like the Saussurean speaker, is regarded as an asocial being engaged in the technical act of extraction. The appropriation of nature only becomes social when the resources extracted from nature enter relations of sharing or exchange *among* individuals - when the Durkheimian producers associate and take off into the clouds of the superorganic, becoming social persons constructed by society. Marx proposed a social or constitutive model of production with very different conceptions of individual and society. According to such a model the notion of the individual as being independent of community is an empty abstraction since the very individuality and agency of human beings derive from their involvement in social relations (see Ingold 1986). The human being, Marx argued (1973:84), is "in the most literal sense . . . an animal which can individuate itself only in the midst of society".

The natural models of fishing are anthropologically inadequate as they fail to appreciate the ways in which production systems are differentiated with respect to their social relations. Fishing involves more than technique and extraction. Alternative *social* models are already emerging in the literature on fishing communities. McCay (1978), for instance, has called for the incorporation of social relations of production into anthropological analyses of social and ecological change.

The model of Fig. 1 is one way of distinguishing between kinds of fishing on the basis of social relations. The "access" axis in the model distinguishes between societies in terms of restrictions of access to fishing territories and aquatic resources. In some cases fishing territories are open to all, in other case areas of the sea are defined as the property of particular groups or individuals. The "production" axis in the model distinguishes between societies in terms of circulation, the motivation of the producers and the destination of surplus and of the products themselves. Production may be primarily for use or primarily for exchange (for examples and the use of the latter distinction in economic anthropology, see, for instance, Durrenberger 1984). The rules pertaining to both access and production are embedded in social relations and obviously they are not unrelated. However, there is no intrinsic relationship between mode of access and mode of circulation.

To illustrate the potential of the model of Fig. 1, it provides an opportunity to examine the relationship between the organization of production and the cognitive appropriation of nature, the way in which relations of production are reflected in cultural accounts of natural phenomena. I am not proposing a rigid

		PRODUCTION	
		For Use	For Exchange
MODE OF ACCESS	Closed	1	3
	Open	2	4

Figure 1. *A Social Model of Fishing Economies*

law of one-to-one correspondence between production systems and cultural accounts. Humans confront nature in terms of a model of their own making, and to do anthropology is to make statements about probabilities, not categorical rules. Models of production, however, are not selected at random. The social relations in which fishing takes place constrain the construction and design of indigenous models of the art of fishing.

Lake fishing in Meybrat (see Miedema 1986) is an example of a subsistence economy where access to aquatic resources is a matter of ownership of fishing territories (this is category 1 in the model of Fig. 1). While some fishing grounds are open to all or belonging to particular villages, the most productive areas are the "private property" of local Big Men or a group of relatives. Ownership of fishing grounds is inherited in the male as well as the female line and justified with reference to myths. Fish are caught mainly for home consumption but also for gifts and barter on local markets. In such an economy people do not find it necessary to account for any personal differences there may be in effort and success. They deliberately *avoid* comparison between individuals by fishing in groups, for a person who is successful while others at the same time are less fortunate "runs the risk of being suspected of having used ... black magic" (Miedema 1986:16).

The differences between categories 2, 3, and 4 in the model may be illustrated by successive transformations in Icelandic fishing (see Pálsson 1988a, 1989). From the time of settlement to the beginning of the twentieth century there was a ceiling on productive targets and in general fishing territories were not subject to rules of ownership. This stagnant household economy (an example of category 2) brought with it a particular folk model of fishing. Icelandic foremen (those in charge of fishing boats), much like their Meybrat colleagues, were not neces-

sarily credited or blamed for the size of their catch. In the folk analysis, the catch was supplied by nature. During the first decades of the twentieth century markets for Icelandic fish developed. Fishing was no longer for subsistence and productive targets became indefinite, but access to fishing territories remained open (at this stage, then, Icelandic fishing represented category 4 in the model). The labor power of the fishing skipper became a commodity on a highly competitive market. Differences in fishiness had to be explained, but new social relations defined the range of appropriate explanations. The skipper was credited or blamed for the success or failure of fishing operations. During the last decade, capitalist production in fishing has been subject to an intricate institutionalized machinery, partly because of the threat of overexploitation. Iceland has claimed national ownership of coastal fishing territories and there is a new ceiling on production. This economy (representing category 3 in the model) fosters the notion of a "scientific" rationality. Already one hears the argument that it is the boat and its technology which catches fish and not the skipper or the crew.

Reality, of course, is much more complex than this simple model suggests. The ethnography shows that access to fishing territories is restricted in various ways (see Durrenberger and Pálsson 1987). Likewise, a simple distinction between production for use and production for exchange insufficiently represents the variety of production systems there is. On the other hand, such a model brings out four clear and very different cases which serves to illustrate the fundamental point that fisheries do not exist of themselves but are embedded in historical and social systems.

Conclusions

There are good reasons why anthropologists should bother to construct and refine concepts of modes of subsistence. Some kind of conceptual umbrella is needed to appreciate the different ways in which humans appropriate nature. Kroeber complains (1963:169) that "anthropologists ... tend to value personal expertise, technical virtuosity, cleverness in novelty, and do not yet clearly recognize the fundamental value of the humble but indispensable task of classifying - that is, structuring - our body of knowledge, ...". Obviously, everyday classifications of subsistence strategies need to be examined and refined every now and then, if only "to reassure their users that they are more than accidental classifications, and are valid rubrics beyond our own language or culture" (Hewes 1948:238). If anthropology deserves to be called a comparative science, the units of comparison must be established on some logical basis and not just on the grounds that they are traditional. However, what kinds of attributes one adopts as criteria of classification for comparative purposes depends on the theory informing the analysis. Focusing on the boundary between land and water may be helpful for drawing contrasts between economic or social systems which are organized in *similar* ways. Thus, it may be argued that hunter-gatherers of aquatic resources are significantly different from hunter-gatherers of terrestrial resources in terms of settlement pattern and social complexity (Pálsson 1988).

However, there is no point in establishing a unitary category of fishing, for in so doing we would have to ignore the social relations in which production is necessarily to be found.

Even though for most nineteenth century observers fishing represented the bottom of the scale of social evolution, "the ruder stages of culture" (Tylor 1916:207), generally they were fascinated with the skills of even the most "primitive" fishermen. The modern anthropological emphasis on the process of extracting mobile prey, whether aquatic or terrestrial, is related to the fascination of the leisure classes of medieval Europe with manly activities and the vicissitudes of nature. Some modern ethnographers continue to be impressed by the skills of their informants, much like the sportsmen of earlier centuries, including Lubbock, Tylor and Walton. The reasons why anthropologists tend to account for fishing in such terms have something to do with the fact that fishing takes place in widely different social contexts. One just cannot speak of the social relations of *fishing* – a set of relations which unites all fishing societies, as diverse groups as Trobriand argonauts, Japanese shell-divers and Icelandic trawlermen, and sets them apart from the rest of humanity – as one could possibly speak, for example, of the social relations of band society. The search for a common denominator is therefore bound to draw attention to technical acts and ecological context, the extraction of fish from their aquatic habitat. But in order to unfold the nature of the social relations in which production takes place one has to abandon such an approach. An alternative model of production is needed which emphasizes that the act of fishing, or any extractive activity, is inevitably embedded in social relations. I have emphasized a model which distinguishes between fishing societies in terms of restrictions of access and circulation of products. Such a model is helpful for understanding differences in indigenous models of the 'art' of catching fish.

Acknowledgements

Parts of this article were written during a sabbatical leave at the University of Iowa. I should like to thank the Department of Anthropology for their help and hospitality, in particular E. Paul Durrenberger who commented upon an earlier version of the article and Hjörleifur R. Jónsson who located some of the sources used. Thanks are also due to Tim Ingold, Manchester University, and the editors of MAST for their comments and suggestions regarding the arguments presented.

Notes

1. In an earlier work (Pálsson 1982:213) I suggested in a similar vein that the relative absence of visual access to an important part of the exploited environment poses particular cognitive problems for fisherfolk. The properties of aquatic environments, I argued, demand that the producers are actively engaged in constructing what goes on underwater on the basis of present and previous catches. In this sense, fishing involves, much like the archaeologists' pursuit of the past, fundamental problems in going beyond the information given, of inference from a limited set of facts.

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Maori Fishing Rights

Ideological Developments and Practical Impacts

H.B. Levine

Victoria University of Wellington

ABSTRACT Fishing rights have emerged as a key issue in New Zealand ethnic politics in recent years. The Maori people have launched successful legal assaults against the Ministry of Agriculture and Fisheries' quota management system and now stand to gain ownership of 50% of New Zealand's fish stocks. This represents a sudden reversal of a sad history of indigenous fishing rights cases that were lost in the courts over the last 100 years. This paper attempts to account for this turn in fortune by examining interactions between changes in fisheries management and attitudes towards the Treaty of Waitangi. It concentrates on the development and impact of ideological statements about fishing rights made by the Waitangi Tribunal, a governmental body established to hear Maori grievances in regard to the treaty. The way in which the problem of Maori fishing rights is framed by the tribunal is shown to be a crucial ingredient in a wider sociocultural process which has fundamentally changed the role New Zealand's autochthonous people will play in the fishing industry.

The New Zealand Maori are currently involved in a major ethnic revival. A key element of this social movement involves the articulation of an ideology which calls for the state to become bicultural, by officially incorporating Maori culture into the public sector (Levine 1987). While political action has been taken on a number of fronts simultaneously, the one which has been the most contentious and prominent concerns claims to ownership and control of New Zealand's fisheries. These have been articulated recently at the first gathering of representatives of all New Zealand's tribes (*Te Runanga a Tangaroa* in Porirua 1985), by the New Zealand Maori Council, and before the Waitangi Tribunal.¹ They are at least in part a response to changes in fishery management, particularly the institution of a quota system in 1986.

In September 1988, the government proposed controversial legislation, the Maori Fisheries Bill, that would give the Maori people annual increments of 2.5% of the national fishing quota for a period of twenty years to total 50% of the national quota. The legislation was drafted after the failure of Crown and Maori representatives to reach agreement about the ownership of New Zealand's fish stock. These negotiations had been set in motion by a High Court action taken by the Maori Council to stop the issuing of fishing quotas in northern New Zealand.

While the Maori Council case was being heard, the Waitangi Tribunal was independently considering a claim about fishing rights made on behalf of the Muriwhenua tribes of the northern part of the North Island; Ngati Kuri, Te Aupouri, Te Rarawa, Ngai Takoto and Ngai Kahu. This region of New Zealand is a long isthmus which has a large ratio of sea to land area. The Maori there have

consequently retained a greater dependence on the sea than people of most other tribes, one which has also been reinforced by a lack of viable economic alternatives (Waitangi Tribunal Reports 1987). Although tourism and forestry provide some jobs and potential for development, Northland is generally depressed economically, with high unemployment, outmigration and dependence on the state.

Although many families own small farms these often yield only subsistence crops, as the soil is poor. Fishing provides an additional dietary resource and ceremonial food as well as much needed cash. Most Muriwhenua fishers were quintessential 'part-timers' and became essentially frozen out of the industry by the implementation of the new government policy. Quota management, which grants fishers a percentage of their previous catch of targeted species, particularly discriminates against small scale operators who can neither accept a cut in their catch nor afford to purchase more quota. Although part-time fishers are essentially powerless, unorganized and ignored as much by industry organizations as government, Maori rights are recognized in the Fisheries Act as emanating from the Treaty of Waitangi.

Representatives of the various tribes, associated tribal bodies and the Maori Council took action to protect their interests. The council went to the courts against quota management, while the Muriwhenua tribes presented a case to the Waitangi Tribunal. (The relationships between these bodies will become clear below.)

A memorandum from the tribunal to the Ministry of Fisheries on September 30, 1987, which expressed the opinion that the further issuing of fishing quotas in the Muriwhenua tribal area was contrary to the principles of the Treaty of Waitangi, seems to have resulted in the restraining order which was issued by the High Court later that day. This local injunction was soon followed by a more general one stopping the government from issuing any further quotas. The new Maori Fishery Bill seeks to rescue fishery management and the fishing industry from the uncertainties about future commercial operations made manifest by the court order.

The proposal to grant a quota to tribal authorities is both an historic and dramatic development, because prior to 1986 Maori fishing claims were consistently rejected by the courts. In many cases over the years, the Crown successfully asserted that "when title to land has passed to the Crown, any pre-existing Maori fishing rights are extinguished" (Department of Justice 1985:5). National sovereignty over the foreshore has precluded any indigenous ownership of off-shore resources, and rights to inshore waters lapsed with the sale of land along the banks of lakes and rivers.

This paper has two interrelated aims. One is to account for the success and influence of the Muriwhenua claim, which has caused the government to rethink its position on both Maori fishing rights and national fishery management policy. The other is to elucidate the sociocultural dynamics of the emerging indigenous resource claims-making process in New Zealand.

Background to Muriwhenua

The Muriwhenua claim is the fourth fishing rights case to have been heard by the Waitangi Tribunal. Despite the fact that it represents a considerable departure from the others, one cannot fully appreciate the implications of Muriwhenua without some awareness of the nature of the tribunal and the petitions it has heard.

The Waitangi Tribunal was created in 1976, by an act of the New Zealand Parliament, to inquire into any claims made by Maori people that some action of the Crown violated the principles of the Treaty of Waitangi, principles which the tribunal was also obliged by statute to interpret.

The treaty is an agreement which was made between the British and a number of Maori leaders in 1840. Its provisions established the right of the Crown to govern New Zealand and guaranteed full legal rights and protection of resources for the Maori. Although this might sound straightforward, the treaty itself is filled with ambiguities that have led to competing interpretations of its provisions, almost from the very signing (Colenso 1890, Adams 1977). However, before these are discussed, it is important to note that prior to 1985 the Treaty of Waitangi "has never been regarded as having any direct effect in our law (and) no legal rights to fishing grounds can be derived from that source" (Department of Justice 1985:5). The brief of the tribunal is only to make recommendations and interpretations and apply 'the principles' of the treaty to grievances brought by Maori, so that these may inform future policy or departmental initiatives. Even this is a challenging task.

Perhaps the most important difficulty with the treaty as a document is the existence of both English and Maori texts which are not strict translations of one another (Ross 1972). In Article One in the English version, the Maori cede "sovereignty absolutely and without reservation" to the Queen while in Maori they cede *kawanatanga* or "governorship." The second article in English gives the Maori "the full, exclusive and undisturbed possession of their lands and estates, forests and fisheries" for as long as they wish to retain them, but in Maori guarantees chiefly prerogatives over lands, possessions and all things of value. The central problem is that "chiefly prerogatives," *rangatiratanga* in Maori, connotes much of what "sovereignty" does in English. The issue is further clouded by the fact that some chiefs had signed the Maori document, which specifies fisheries, and others the English that does not. (Some did not sign at all.) The difficulties that imprecise and inconsistent language cause those who interpret the treaty are magnified immensely by the requirement in law that the tribunal give due consideration to the meaning of English and Maori texts and relate them to the understandings of the signatories of 1840.

I have already taken the position (in Levine 1987) that these provisions provide a charter for ideological development, because the treaty is inherently ambiguous and it is impossible to be sure of how it was received by the members of different tribes 150 years ago. The tribunal, then, is a place where "the principles of the treaty" are being reconstructed. This continues a process which has a pedi-

gree as long as New Zealand's history (Orange 1987).

The Maori have looked upon the treaty as a covenant which guarantees their rights of resource ownership and have long called for the implementation of its provisions. Successive governments have, on the other hand, maintained that Maori consent to British sovereignty and citizenship made land sales and the consequent transfers of control of inland waters and the foreshore consistent with the treaty's principles. The tribunal provides an official forum for the sanctioning and further development of the Maori interpretation and appears to signal a shift away from a strictly legalistic approach to Maori interests and the treaty.

Hearings are held in the meeting house of the group making the claim, and court-room formality is avoided. There is no cross-examination of witnesses as hearings proceed in accordance with tribal protocol. The tribunal's findings are not binding, however, as it is more a commission of inquiry than a court. It passes recommendations on to government, which has no specifically established procedure for dealing with them.

If we view the tribunal as a forum for advancing and developing the Maori position, the fishing claims can be seen as the foundation upon which a wider edifice of political action is being constructed. The reason that fishing issues occupy a pivotal position in shaping the tribunal's conceptualization of New Zealand's ethnic politics (the first three cases the tribunal heard all involved fishing) can be accounted for by the initial provision that it confine itself to hearing grievances occurring subsequent to the passage of the Waitangi Tribunal Act, in 1976. By that time, the Maori had been divested of almost all tribal land, but could still claim some residual interest in the sea. Fish remained common property, under the sovereignty of the Crown, and successive versions of the Fisheries Act included acknowledgement that the Maori had some residual fishing rights, although these were never specified.

In analysing the first three cases (Motunui, Kaituna and Manukau), I noted that there was a distinct tendency to de-emphasize both material deprivation and calls for exclusive Maori control. The Motunui case, heard in 1982, was brought by Te Ati Awa of Taranaki after the government granted a right of discharge to Petro-Chemical Industries into the seas off Waitara at Motunui. This waste would further pollute shellfish collecting grounds used by the tribe, which had already been adversely affected by the Waitara town sewerage system, which allowed excrement and meat company and mortuary waste, to flow over the reefs. Although Te Ati Awa initially claimed monetary loss, the tribunal established the principle in Motunui that the reefs were in fact a cultural resource and that such resources were protected by the second article in the Maori text of the treaty, which as we have seen, guarantees all things "highly valued" (*taonga katoa*). The line of argument pursued was that seafood itself is prized in Maori culture, as were the reefs, and that any assault on them was a cultural affront. Since their culture is precious, these things are *taonga* and fall within the orbit of that clause (Waitangi Tribunal Reports 1983). This tactic was elaborated further in the Kaituna River, 1984, and Manukau Harbour 1984, hearings, also cases involving water

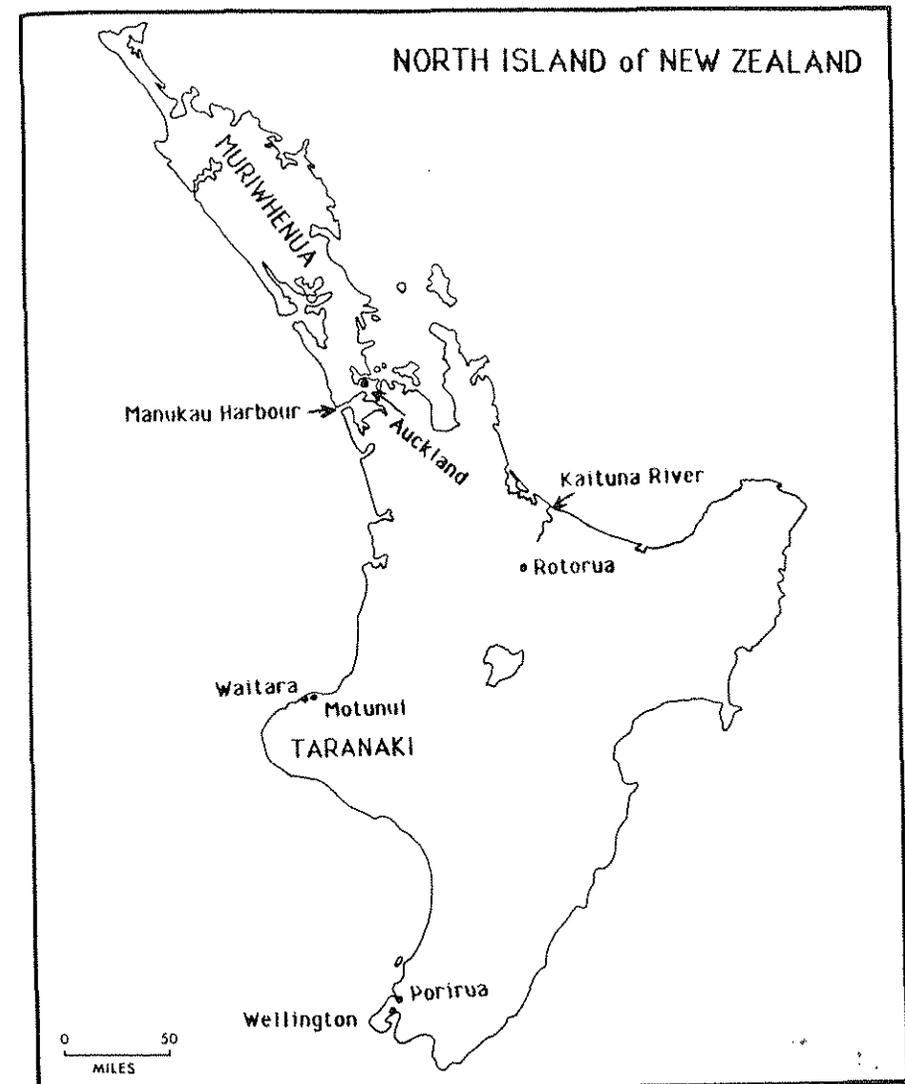


Figure 1. The North Island of New Zealand.

pollution. In both of these the tribunal recommended that pollution be stopped because *taonga* (again seafood and areas of great symbolic value to the respective tribes) were being destroyed, but did not advance any claim for an exclusive Maori right. The government was rather called upon to recognize that Maori interests in the aquatic environment are not just that of another minority or user group, because of the treaty (Waitangi Tribunal Reports 1984, 1985). By not specifying damages or recompense, the tribunal was able to avoid the precedents

established in the epic court-room struggles of the past which, by 1965 (see Haughey 1966), seemed to have disposed of all possible Maori claims to rivers, lakes and the sea.

But the practical import of these cases for the claimants was slight, as there was no specific governmental mechanism to translate the recommendations of the tribunal into policy. The synthetic petrol plant in Taranaki went ahead, and pollution of the Manukau remained unaffected. However, the Kaituna river, into which the town of Rotorua was planning to pump its sewage, seems to have gained a reprieve.

The most interesting developments were ideological, particularly the way in which an ambiguous text was used as a charter for constructing the definition of Maori fishing rights. The constructivist paradigm in the sociology of social problems (Spector and Kisuse 1987) is relevant. This perspective focuses on how the assertion of grievances constitutes the definition of an issue, and how this can be more influential in structuring the outcome than are the objective conditions. In other words, 'constructivists' see social problems not as objective conditions that become noticed by people who then take appropriate action to rectify them, but as the social creations of people who presume to act upon them. The paradigm is useful here because the nature and extent of Maori fishing rights and practices is (as admitted by all the parties) largely unknown. The way in which the issues become defined will then determine how they are perceived, researched and ultimately acted upon.

If we pay attention to such conceptual matters, rather than the unimpressive immediate results of the first three cases, we see a powerful rhetoric of presentation developing in the fishing claims progressively, precedent by precedent, structuring subsequent debate. This is an aspect of "claims making" which Best (1987) feels has received little attention in the literature.

By downplaying compensation, while establishing the principle that cultural guarantees were made in the treaty provision relating to *taonga*, a key ideological resource was created. Maori claims could now be seen as calls for "partnership with mutual responsibilities" (Waitangi Tribunal Reports 1988:xii) in the management of resources. This provides a charter for extending the range of cases which can be heard by the tribunal, and increasing the influence of its interpretation of treaty principles.

The fishing rights issues are best understood as a medium for achieving a workable ideology, in an official forum, which could further the aims of Maori ethnic revival on a wider front. Indeed, when Maori fishing cases now come before the courts, as in the Maori Council case mentioned above, the treaty actually gets insinuated into domestic law. This first happened when the High Court in Christchurch quashed a conviction against T. TeWeehi for taking undersized paua (*haliotis iris*) in August 1986. TeWeehi claimed that he collected the shellfish in accordance with treaty rights. A North Island Maori living in the South, he asked permission of a local elder to gather the shellfish for his own consumption. The judge ruled that rights guaranteed by the treaty applied in this case, and that they overruled any management regulations. The Maori Council case in-

volves extending this reasoning to cover commercial operations as well, a development which relied upon the coincidence of the Muriwhenua hearings and shifts in fisheries management policy.

The impact of Muriwhenua seems to signal a fundamental strategic advance. The possible gain of 50% of the fishery shows that the tribunal's rhetorical constructions now have a practical impact, especially when taken into other forums by Maori organizations.

The Muriwhenua Case

In July 1986, the membership of the Waitangi Tribunal was expanded along with its terms of reference, which presently allow for the hearing of claims dating from the signing of the treaty in 1840. Consequently, the questions raised now appear to have wider import than those which arose from earlier cases.

The Muriwhenua Fishing Report begins by asking how a people that early observers credited with remarkable fishing skill, and who dominated the colonial fishing industry until 1870, could come to be perceived as mere collectors of shellfish for ceremonial purposes. The view that Maori fishing had no commercial component, which has dominated governmental interpretation of the Fisheries Act since then, was vigorously disputed. Ethnographic accounts of species fished, gear used, the organization of expeditions, trade and traditional ownership rights, was combined in the hearings with archaeological and historical evidence to present a picture of "substantial exchange of merchandise" (Waitangi Tribunal Reports 1988:45) in pre-colonial times.

Lawyers for the Muriwhenua showed how rapidly barter and sale of fish to settlers developed. Although the tribunal was convinced that this demonstrated a "commercial component" in pre-treaty fishing, they delved further into the nature of traditional Maori exchange to find evidence of principles consistent with business practice. The work of Raymond Firth was influential in this regard.

Firth is, of course, an anthropologist who has consistently taken the formalist position that "primitive exchange" can be viewed in terms of neo-classical economic concepts. The tribunal distanced itself from those aspects of his "Economics of the New Zealand Maori" (Firth 1929) which stressed the prospects for Maori assimilation into the Western economy, but accepted his explanation of gift exchange.

Firth made a distinction between local and longer distance trade, and provided a number of examples of the movement of natural products such as fish, shellfish, seaweed, shark oil and shells from the coast in return for preserved birds, rats, eels, feathers and other things from the inland forests. The tribunal discussed these along with other accounts of such trade to establish that the Maori did more with aquatic resources than just consume them directly or at ceremonial occasions. They placed considerable emphasis on Firth's explanation of the mechanisms underlying such exchange. The Report (1988:52-52) contains an almost textbook account of the meaning of reciprocity, emphasizing the obligations to give, receive and repay and its role in effecting alliances as well as the

movement of goods and services.

The point of this section of the Report is to demonstrate that the Maori principle of "utu" (compensation) and delayed, incremental reciprocity, were parallel to and contain the prerequisites for adaptation to barter and trade in the Western sense. A picture of continuity from traditional to Western practices was drawn, which belied the simpler notion of a fundamental gap between them.

It was the monocultural nature of New Zealand's fishing industry, rather than Maori culture, which was found to have both alienated and actively discouraged indigenous participation in the development process. The tribunal also found that inclusion in the "business and activity in fishing" (Waitangi Tribunal Reports 1988:xix) was guaranteed by the treaty. Any commercial fishing on the continental shelf of their traditional territory which took place without the prior agreement of the Muriwhenua tribes also contradicted its principles.

A deep vein of discontent was tapped by the hearings. Complaints were aired about the activities of trawlers which entered the area from the South, despoiled the sea bed and dumped untargeted fish. Management laws were attacked for completely ignoring local knowledge of fishing grounds and fish habits. People reported that they were made to feel like beggars when being forced to ask bureaucrats for permission to collect fish from ancestral grounds in sufficient amounts for tribal gatherings. But Maori people have endured such insensitivities for a long time. It was the implementation of the quota management system, particularly the way in which it altered fishing tenure, that provided the tribunal and the Maori Council with the opportunity of posing questions that led to the re-assertion of property rights.

Quota Management and the Treaty

It has been apparent since the 1970s that New Zealand's inshore waters have been seriously overfished. (See Levine and Levine 1987, for an example from the cray-fishery). Moratoria on the granting of new licenses in the late seventies have given way in the eighties, to a different resource management strategy: individual transferable quotas (ITQs). The purpose of quota management is to conserve the resource by setting absolute limits to the catch. The total quota for each commercially important species is set by the Ministry of Agriculture and Fisheries. Fishermen are allocated rights to a proportion of the total (their ITQ) which is based on their previous landings. Fishermen are free to use, sell or lease these rights.

Those fishermen left with extremely small quotas (such as the part-timers mentioned previously) were compulsorily bought out of fishing by the government. Other small operators were encouraged by circumstance to sell to larger operators, often companies, who have been favoured by quota management. Since most Maori holders of governmental licenses lack the capital to buy large boats they have been greatly disadvantaged by the new regime.

Some allowance was made for Maori interests under a provision in the management plan that recognized four user categories: "recreational", "com-

mercial", "Maori" and "traditional" fishers.² These were apparently conceived of as discrete classifications, but as we have seen, the tribunal disputes the notion that Maori interests are wholly non-commercial. Instead, it claims that Maori fishing encompasses all four categories (Waitangi Tribunal Reports 1988:153). The Muriwhenua tribes themselves maintain that the treaty guarantees the northern fishery to them, while the Ministry has taken the position that the quota system is democratic and applies equally to all New Zealanders. The Ministry argues that it is not the proper role of fisheries management to identify Maori fishing rights.

The confusion and lack of consultation and agreement, between Maori and the Crown, that have characterized New Zealand commercial fishing for over one hundred years, seem to have been wholly incorporated into the new management procedures. There is, however, one crucial difference. Quota management creates a property right in the fishery for the holders of ITQs. The Maori and tribunal interpretation of the principles of the treaty is directly opposed to this.

If Maori fisheries covered the whole of the inshore seas, as past records suggest, the policy was effectively guaranteeing to non-Maori, the full exclusive and undisturbed possession of the property right in fishing, that the Crown had already guaranteed to Maori (Waitangi Tribunal Reports 1988:149).

All the vagaries of the situation outlined above are rhetorically swept aside and the historic legal framing of the Maori fishing problem now becomes inverted. No specific rights need be claimed beforehand. Newer but nevertheless fundamental questions raised by the Maori demands, such as who will qualify to exercise rights, how they can be administered today and who will be negatively affected, all become problems secondary to the fact that quota management alienates something from the Maori people that is provided for (however vaguely) in the Fisheries Act 1983.

Reactions

An unintended consequence of the government's attempt to apply a new management tool to New Zealand fish stocks is that by changing tenure and basic access, it has greatly strengthened the position of the Treaty of Waitangi and Maori grievances against the Crown.

The injunction suspending ITQs, mentioned at the beginning of this paper, was issued along with a recommendation that the Maori and Crown define Maori fishing rights by June 30, 1988. In order to accomplish this, a working party was established. Its Maori members claimed rights to the entire New Zealand fishery, but declared their willingness to share 50 per cent with their treaty partner (Walker 1988:78). Stimulated by Muriwhenua, various tribes undertook research into traditional fishing in case the need to go to court arose. The working party failed to reach agreement by the date specified and the

government approached its Maori members directly with the proposal to grant 2.5% of the quota per annum for twenty years. The Maori Fishery Bill, introduced to parliament on September 2, 1988, contains two clauses which prompted thirty-eight tribes to file cases in the High Court against it. One clause removes the right of the Maori to make fishing claims before the Waitangi Tribunal for twenty years; the other prevents such claims, under the cloak of the treaty, from being heard by the courts. It was in anticipation of the bill becoming law that the various tribes introduced their court cases, a reaction that would seem to have defeated the intention of the controversial clauses.

Walker (ibid.), a prominent Maori spokesman and academic, attributes these two clauses to "a knee-jerk response to opposition from the fishing industry" and "an unseemly white backlash which creates the social climate that allows government to give expression to the tyranny of the majority through parliamentary legislation such as the bill now before the house."

These comments illustrate how controversial Maori fishing has become since Muriwhenua. They also show how the fishing problem has become a key issue in ethnic politics with wider ramifications for New Zealand society. This became readily apparent on the day that the Muriwhenua findings were released. A front page story in *The Dominion* (a Wellington daily newspaper) on June 13, 1988 quoted the opposition spokesman on Maori Affairs predicting that the implications of the report would start a crisis in race relations. These comments seem mild in light of what was to follow.

The headline the next day read, "Fisheries decision 'legalized apartheid'". This led to a report on Fishing Industry Association, Fishing Industry Board, and Federation of Commercial Fishermen reactions to the finding that the Northland tribes were owners of their coastal fisheries. It also included comments by parliamentarians from Northland who described the Muriwhenua report as legalized racism, and predicted racial violence over fishing rights. Industry leaders for their part, spoke of widespread developmental problems in lucrative export markets as investors become unsure of their rights to the resource. A special debate in Parliament was held on the 15th in which the leader of the National Party (now in opposition but ahead of the ruling Labour Party in opinion polls), called for a halt to the work of the tribunal. The Prime Minister assured individuals that their activities would not be adversely affected by any official response to the tribunal's findings.

Since then, the fishing industry has put itself at the forefront of the anti-treaty backlash. The president of the Federation of Commercial Fishermen took out ads in New Zealand's major newspapers calling for a referendum on the future of the Waitangi Tribunal and its "separatist policies". On July 19th, he was reported to have found a third version of the treaty which made no reference to fisheries, which prompted him to consider taking legal action. These developments lend credence to Walker's assertion that the new bill was influenced by a backlash, specifically aimed at the tribunal's interpretation of the treaty.

But although the industry has succeeded in making their opposition known to government, their position is not powerful as they are merely reacting to the

actions of the primary participants in negotiations about Maori fishing rights. The treaty is, after all, between the Maori and the Crown. The present government's policy of defining and eventually implementing the principles of the treaty (via the tribunal) cannot be de-railed by organizations whose purposes, experience, and expertise are confined to one primary industry. There briefly seemed to be some danger that the fishing organizations would spearhead a wider backlash which could end the work of the tribunal. This would involve sustained political action until the next election, over 18 months away, which is unlikely given the nature of the fishing groups.

The Maori council has objected strenuously to the provisions in the proposed legislation which would remove the basic legal right of access to the courts from Maori people. Now they use the term "apartheid" and make dire predictions of racial tension in reference to fishing rights. This led to the introduction of a compromise version of the bill proposed in late October, which appears to have the approval of some of the Maori negotiators and the fishing industry. The Deputy Prime Minister announced a plan to give Maori 10% of the quota and 10 million dollars over the next four years while the courts decide on Maori entitlements to the resource. This gives the tribes something with which they can begin to establish themselves commercially, and preserves their legal rights, while allowing the industry to face the short term future with assurance. Although the issues are by no means solved, the heat appears to have dissipated considerably as a long drawn out series of further negotiations is anticipated.

Conclusions

The proceedings of the Waitangi Tribunal provide an instance where "claims-makers initial demands are for interpretive change" (Best 1987:115). The rapid escalation of the Maori fishing rights issue is part of a political process where contending interests "vie for control of the definition of a problem" (Spector and Kitsuse 1987:8) as a first step in seeking to influence solutions.

Some interesting role reversals have occurred in the course of working out the framing of indigenous fishing rights in New Zealand. Firstly the Maori interpretation has been given official endorsement by the creation of the tribunal, while the view that the treaty grants nothing more to the Maori than they already have (historically the settler and legal position) is left as a dissenting opinion with no official foundation. Demands for recognition of cultural and spiritual rights to resources have been successfully translated into the material claims that failed in the past. These developments were clearly contingent on political processes that were not directly part of the Maori fishing claims as the tribunal was able to capitalize on the changes of access to the means of production in fishing that were made by quota management.

Although it seems that the courts must now decide what fishing rights actually exist, the tribunal has, by creating an ideological framework for insinuating the principles of the Treaty of Waitangi into the legal system, greatly increased the chances that real material gains will be made. By establishing the Waitangi

Tribunal as an official forum for continually interpreting the principles of the treaty, New Zealand has adopted a unique approach to indigenous resource claims. Its status as an official, but not narrowly legal, body insures that the tribunal's findings will continue to have a primary impact upon the shape of New Zealand's ethnic politics, regardless of the way in which they ultimately become applied.

Acknowledgement

I would like to thank Marlene Levine for comments on a draft of this paper.

Notes

1. Metge (1976:129-136) provides a list, with map, of the 42 commonly recognized Maori tribal groups.
2. Although the differences between recreational, commercial and Maori categories are readily apparent the distinction between Maori and traditional is problematic. The tribunal maintains that no-one could explain what 'traditional' meant to them.

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The Reluctant Competitors

Fisherman's Luck in Two Swedish Maritime Settings

Orvar Löfgren

University of Lund

ABSTRACT The phenomenon called fisherman's luck has over the years been analyzed with the help of a number of theoretical perspectives, from early evolutionism to semiotics. This paper uses folklore material from the beginning of the 20th century to look at magic and social conflicts in two Swedish coastal regions. The analysis is focused on the production and reproduction of these ideas in fishing and community life, their integration within a larger cosmological system and the ways in which they are used as weapons of cultural warfare or means of conflict resolution. Finally, a comparative perspective is used to underline the ways in which this kind of magic operates in different ways under changing cultural and socio-economic conditions.

The Superstitious Fishermen

The Swedish author August Strindberg spent many summers towards the end of the nineteenth century among the fishermen of the vast Stockholm archipelago and was fascinated by their maritime culture. In his writings he tried to characterize the world view of the fisherfolk, stating that he had found "many simple customs and jural norms from a primitive society" surviving in the coastal communities. "The fisherman," he continues, "is superstitious and paganism is so deeply rooted in him that the Christian symbols are still on a footing with incantations, spells and sorcery..." (Strindberg 1957 [1886]:158).

Strindberg's observation is echoed in many other descriptions of maritime life, but the interpretations of why magic and fishing go together tend to vary. This paper starts by looking at some earlier approaches in the field and then goes on to discuss the use of magic as a cultural strategy among Swedish fishermen at the beginning of this century. The focus is on the role of magic in social relations between 'reluctant competitors'.

For Strindberg and other summer visitors the confrontation with life in isolated fishing communities at the turn of the century was something of a cultural shock. It was like suddenly discovering a new, exotic tribe in Swedish society. This interest in the more primitive and 'genuine' life which could be found out along the coasts was also shared by a number of ethnologists and folklore collectors during the decades around 1900.

Sune Ambrosiani has described an ethnographic expedition along the coast of Uppland just before the outbreak of the First World War. For him these Swedish fishing villages represented a world where time stood still. In the inland farming villages "everything was new and dull," but out along the coast one could

find ethnographical gold mines, crammed with survivals and traces of primitive culture. He speaks ironically about a colleague who had just returned from research among tribesmen in the Pacific and who frankly stated that he had never encountered a people so obsessed with religious matters as these. Ambrosiani points out that he might just as well have travelled a few hours north from Stockholm to the coast of Uppland in order to find the same strong cultural focus on religion:

In the same way as no boat currently goes out fishing on Saturday or Sunday evenings because of the Free Church's view of the sacredness of the Sabbath, no matter how good the weather may be on these two nights following a stormy week, there still exists a great number of beliefs from earlier times, which are held in great respect. We still meet many traits from religions which preceded Christianity by thousands of years in this country, traits which we in these presumptuous and self-centred times classify as superstitions (Ambrosiani 1916:304).

Ambrosiani was not the only ethnologist to develop an interest in the belief systems of the fishermen. The dominating evolutionary framework made fishing communities attractive research objects. The fishermen, like other types of hunters and trappers, were held to represent the step below the agrarian peasants on the evolutionary ladder of culture. For those folklorists and ethnologists who were interested in reconstructing earlier stages of cultural development, the traditions along the isolated coasts seemed especially interesting.

For men like Strindberg and Ambrosiani the superstitiousness of the fishermen could to a great extent be explained as a survival from earlier, more 'primitive' stages of cultural evolution. This view was carried further among later folklore collectors, who recorded with great enthusiasm materials on rituals, magic beliefs, incantations, charms, taboos and omens without paying any great attention to the social context of the beliefs. For many folklorists *form* was more important than context, as the interest was focused on tracing the history and diffusion of single 'folklore items' or cultural traits.¹

It was only with the functionalist breakthrough in anthropology that an alternative perspective on these fishermen's beliefs was put forward. When Bronislaw Malinowski developed his functional analysis of ritual and magic he illustrated his argument with examples from the maritime activities of the Trobriand Islanders. In what is now a classic statement he declared that the rituals which surrounded the fishing and sailing had the primary function of relieving anxiety and uncertainty (Malinowski 1954::30-31).

Although discussions of cause and effect were carried on in the functionalist camp (cf. Homans 1941), the 'Malinowskian formula' came to dominate anthropological research on ritual for a long time. This is evident in studies of ritual in maritime settings. The persistence of a considerable amount of magic and ritual activities, even in technologically very sophisticated fisheries, has been related to the fact that fishing remains an economic activity with a great element of risk and uncertainty. 'The Malinowskian formula' continued to be applied in studies of fishing communities in the 1960s and 1970s, with a heavy emphasis on the anxiety-relieving functions of ritual and a far too simplistic interpretation

of the complex relations between ritual and society.²

Such classic functionalist explanations link a vague ecological factor (the dependence on a capricious and uncertain resource like the sea) to an individual psychological factor (the need for security in an insecure undertaking). We get no satisfactory explanation of why the fishermen's system of beliefs is as it is, and what consequences these beliefs have for themselves and the world around them (cf. the critique in Van Ginkel 1987).

There is undeniably a connection between the need for ritual as support when undertaking dangerous acts, but the functionalist model is one-dimensional. I argue the need for a broader analysis, where ritual and magic are not viewed as isolated institutions with definite psychological functions, but as elements in a system of ideas, a cosmology, shaped by the social and economic reality in which the fisherman lives. It is within this framework that rituals are created and put into action, with constant repercussions on the social and material circumstances. It is this interplay between culture and praxis that I aim to exemplify.

The Settings

I will apply this analytical perspective to two pre-industrial maritime settings in Sweden, using the rich material on nineteenth-century peasant beliefs collected by ethnologists and folklorists mainly during the period of 1900-1940. During this period Scandinavian ethnology was focused on salvaging the remains of a rapidly disintegrating peasant culture. The result of these years of collecting is now deposited in the ethnological archives and presents something of a challenge to contemporary researchers. Much of the data is lacking in contextual information and coloured by biased collectors but handled with care it presents us with unique opportunities for reconstructing nineteenth-century peasant culture and society.

There are of course obvious drawbacks in this type of historical reconstruction. The picture one is able to give may be incomplete in many respects. In order to evade the criticism of lack of context which I made earlier, I have chosen two maritime settings where rich material on magic and ritual is matched by ample information on the marine ecology and technology as well as on the social and economic structure of the fishing communities.³

These two districts are the Scanian coast in southernmost Sweden and the southern part of the Norrland coast along the Gulf of Bothnia (see map). The period studied stretches roughly from the end of the nineteenth century up to the First World War. The rapid technological and economic transformation of Swedish fisheries during the period 1910-1920 gives a natural terminal point (cf. Löfgren 1979).

The fishing communities we will meet in the following discussion are, then, to a great extent embedded in a peasant economy and social milieu. The inhabitants of the coastal communities can be characterized as peasant fishermen with a technology based on sailing boats and small crews using nets, seines, long-lines and fish traps. The surplus catch is exchanged for cash or food with fish mer-

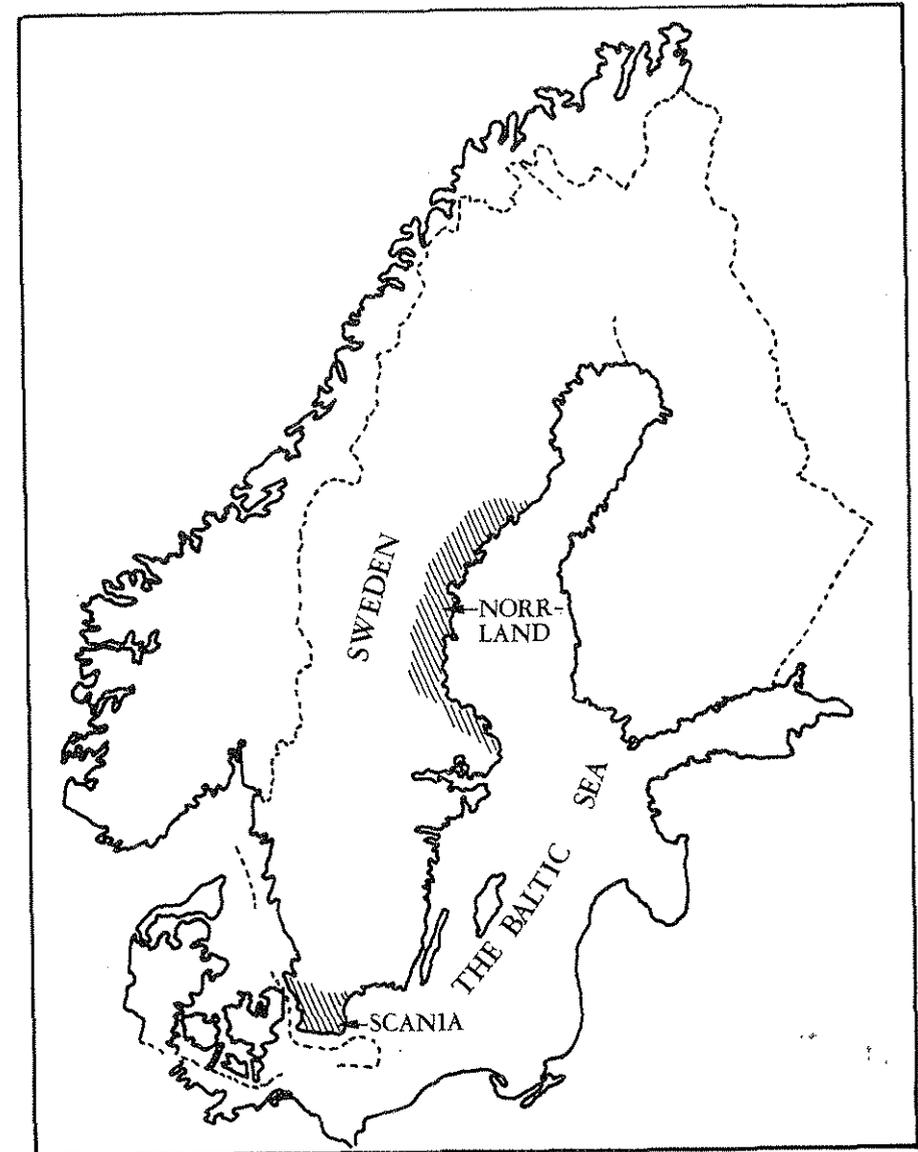


Figure 1. Location of Norrland and Scania

chants or local farmers. Fishing is supplemented by other types of subsistence activities like small-scale farming or gardening and some livestock raising.

Many folklore collectors in the past viewed these coastal settlements as 'traditional' and static societies. As I have shown in other contexts, this is not the case. Neither in social nor in economic terms do they represent a 'pre-industrial socie-

ty'. Many of these fishing communities emerged in the hiatus between the breakup of the old agrarian society and the rise of the new system of production represented by industrial capitalism (see the discussion in Löfgren 1977:167 ff. and 1980:189). Their apparent isolation was illusory; in reality these maritime communities were integrated into much larger economic and cultural systems than the inland peasant villages.

There was considerable variation in the pattern of production in the two coastal regions under study here. Scanian fishermen mainly operated in the intermediate ecological zone where the brackish water of the Baltic flows through Öresund to meet the North Sea. The waters remain open most winters and make fishing possible the whole year round. During the period of study herring, codfish and flat-fish were caught in nets or by long-line fishing. Fish traps were mainly used for eel but also for other species.

Along the Norrland coast the marine ecology was more dominated by species like herring, salmon and whitefish. The long hard winters with ice up to seven months of the year made intensive fishing a summer and autumn activity only and consequently the need for supplementary economic activities was greater in Norrland than among the Scanian fishermen.

Typical of both regions was the close integration between agrarian and maritime adaptations. Most Scanian fishing communities were settlements on the marginal land of farming villages and the fishermen were mainly recruited from



The harbour scene in many traditional Swedish fishing communities was a dense cluster of huts and jetties with little room for privacy. (Photo from Gullholmen on the Swedish West Coast early 20th century, the Nordic museum.)

the growing landless strata of the local peasantry. Along the Norrland coast many fishing communities were inhabited seasonally by peasants who combined farming with summer migration to fishing camps out in the archipelagos.

In the following I will focus on the most important economic activity in both districts: the hunt for pelagic stocks of herring which appeared in local waters during parts of the year.

Herring and Ritual

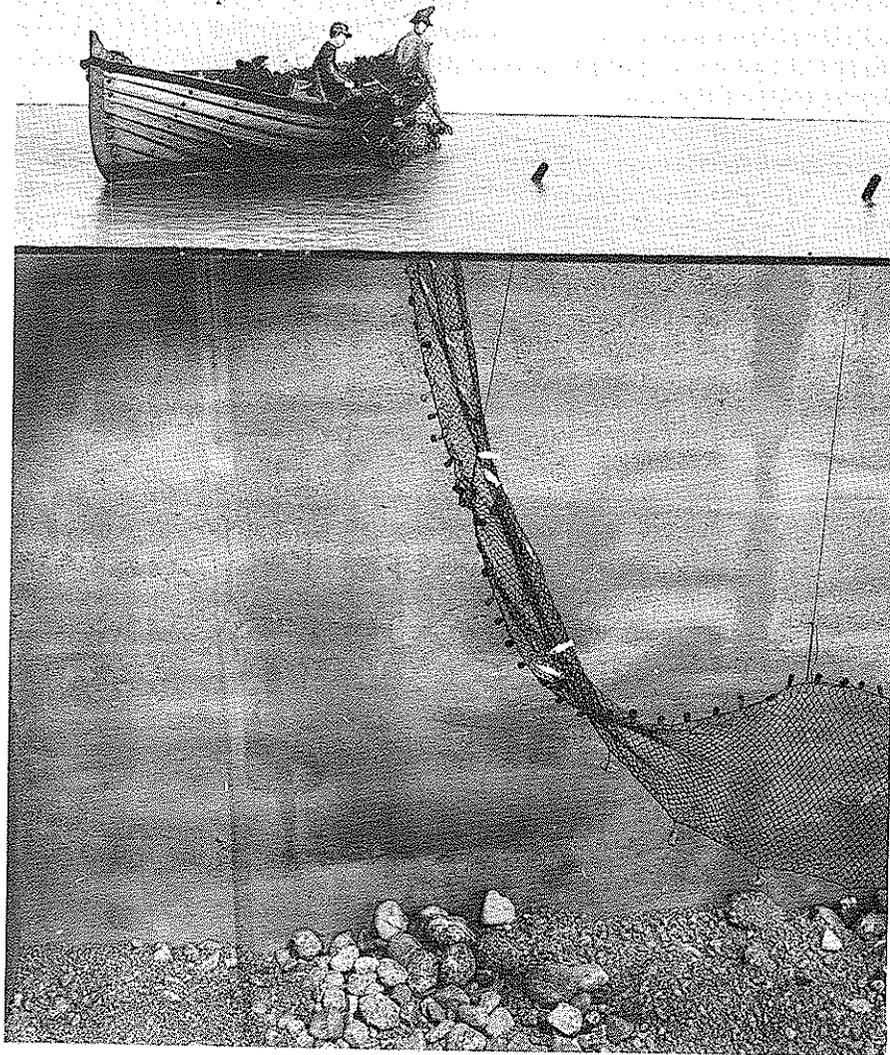
Along the Scanian coast the herring fisheries started in the early summer out at sea, while the autumn fishing was carried on close to the shore, as the shoals moved into shallower waters to spawn. Fishing was done with drift nets and crews of 4-7 men out at sea, while gill nets were used close to the shore.

In the Norrland waters the first herring was caught during the late spring, but the most important fishery was the *båtströmmingsrodd* (the herring row) in late summer, when the 'herring mountains' spawned on the banks out at sea. In the herring row from the harbour out to the grounds the crews consisted of two men or a man and a woman.

The fact that the herring fishery formed the cornerstone of the local economy in both regions gave the start of each new fishing season a certain aura. While the fishermen prepared boats and gear waiting for the approaching herring, there was much speculation about the outcome of the fishing. Would catches be better or worse than during previous seasons? Would there be enough earnings to prolong the yearly credit at the local store, or perhaps even enough to invest in a better boat or at least some new equipment?

The element of uncertainty was strengthened by the ecology of the herring fishing. More than other fisheries this was a chance hunting activity. The shoals of herring did not constitute a resource to be 'harvested' each year, but a prey that had to be located, stalked and caught. The mobile herring was the most elusive of all the marine resources exploited by the fishermen. The smallest changes in weather, water temperature of currents influenced the movements of the shoals, and the variations could be considerable from day to day and from season to season. Consequently the fishermen had little control over his most important source of income and his knowledge of the prey was fragmentary. Years of experience had taught the fishermen that the herring appeared at certain times, but if it was late or if the number of shoals was smaller than usual there was not always a ready explanation.

Thus we find a period of eager waiting for the herring at the start of the fishing season in both Scanian and Norrland villages. The journalist and author Ludvig (Lubbe) Nordström has described this very special atmosphere of waiting. He worked as a fisherman's apprentice in a Norrland fishing community around 1910 and shared the long days out at sea, scouting for the first signs of the approaching herring. When the first shoals revealed themselves by thousands of small bubbles out on the netting grounds, suspense was transformed into intensive activity in the harbour:



Norrland herring fishing was carried out from small, open boats like these. Success depended on the nets being placed at the right depth, as the herring moved with changing water temperatures. (Model in the Nordic Museum, Stockholm.)

The herring was on the banks. The herring had to be on the banks, for in the twilight over the fishing huts the noise was tremendous, the net sinkers streamed down from the quay into the boats, and young and old were running about with stacks of nets in their arms ... shouts were heard, boys in blue sweaters darted by each other, goats bleated from the folds, cows moored loudly ...

The boats moved out. The herring row had started. The boat-rows out to the Great Bank to get the best fishing location.

It is against this background of waiting, suspense and speculation that the many ritual activities before the start of the herring season must be understood. Prophylactic ceremonies, the use of incantations and magical aids formed an integral part of the careful preparations of boats and equipment. The forms of these rituals varied greatly between the two regions. Scanian fishermen could make their nets fish better by smoking them or shooting with guns over them, while Norrland fishermen could add various magical ingredients to the dye-bath. Many of these rituals follow the cultural language of Swedish peasant ideas of magical manipulation, where fire, silver and steel were common magical elements.

The period of waiting before the arrival of the herring was also magically loaded in the sense that even trivial details were interpreted as omens and premonitions of coming success or failure in the fishing.

Another category of ritual activities was directed towards the supernatural rulers of the marine resources. These supernatural powers took various forms: mermaids, 'the old man of the sea', 'the sea mistress', etc. The rituals usually had the form of direct transactions with these powers, who ruled over both the herring and the weather. Small offerings of silver coins or half a bottle of schnapps before the start of the season were common tributes in both districts.

The ritual framework around the actual fishing operations was even more elaborate. There existed a great many beliefs centred around the proper way of starting out a fishing trip, how to behave on board and what types of sanction could strike a fisherman who did not follow the ritual rules.

This abundance of ritual and magic elaborations is not surprising considering the situation in which the herring fishing was carried out. I have stressed the element of suspense and speculation that came from the ecological and economic conditions of the herring fishery. To this can be added that the actual fishing operation, especially in the case of drift netting, was a very strenuous job with many nights of hard work and little sleep. Drifting with the long chains of net was also a dangerous activity: a sudden change of weather, an approaching storm meant that the nets had to be pulled quickly, or else the fishermen could be forced to cut away the nets to keep the boat from being dragged down.

Conversely, it is not surprising that a description of ritual activities in the small Scanian fishing village of Kullen concludes that the winter cod fishery with hand-lines, which was a steady and not very strenuous form of fishing, an in-shore activity that gave a stable but relatively unimportant economic yield, was carried out 'without any ceremonies'. Summer herring fishing here, on the other hand, involved many magical operations.

The dominant role of the herring fisheries is evident not only in the supernatural ideas but also in other domains of the cognitive system. It emerges in the very complex terminology of the actual object itself. Among Norrland fishermen we find 25 different terms for herring, classified according to its condition,

its use and the way it was caught (Hedblom 1913:23). We find similar patterns of differentiation along the Scanian coast.

Another important part of the cognitive map in the herring fisheries was all the labouriously and gradually accumulated knowledge of the maritime landscape and the locations of herring banks, the ways in which locations were found and fixed with the aid of coastal landmarks, the ways of interpreting and predicting the movement of the herring during weather changes, or the reading of signs of an approaching storm which could threaten the nets.

It is evident that the herring fisheries are very much in the focus of the two local maritime cultures. This is not very surprising given the important role of the herring in the lives of fishermen. The analysis could end here, but as I argued earlier, the analytical perspective needs to be broadened considerably. The rituals have to be viewed as parts of more complex cognitive systems. In this way the collections of 'maritime folklore' may give us insights into the fisherman's perception, not only of the resources he exploits, but also of the social and economic system he is part of.

The Cooperating Competitors

This cognitive and social dimension of magic is perhaps most clearly seen in the supernatural explanations of success and failure in fishing. These beliefs must be seen in connection with some characteristic traits of the social organization in the villages under study. Here we find a social dilemma that seems typical of many pre-industrial Swedish fishing communities: the tensions between inter-group solidarity and the individual strategies of resource exploitation. There exists a conflict of interests here, which is to a great extent a product of the precarious ecological and economic adaptation of maritime settings, where the fishermen exploit a common property resource individually. In discussions of pre-industrial Swedish fishing communities great stress is often put on the egalitarian and cooperative character of the social relations among the fishermen. We have plenty of evidence of how social and economic life was patterned by institutions of solidarity and mutual aid. Fishermen who lost their equipment would be helped by others. Widows and old fishermen who could not fish themselves were granted part of the catches, and so on (cf. Löfgren 1977).

Such social institutions of mutual assistance are also found in the two regions studied. In most Scanian and Norrland fishing villages the *hamnlag* (the harbour team) was a central institution embracing all the fishermen in the community. This corporation was concerned with regulating the fisheries as well as the management of communal investments like the harbour works or the wooden chapel buildings that were used for both religious and secular meetings in the Norrland villages.

The activities of this *hamnlag* could help to curb conflicts and competition among the fishermen. This was made very clear to Lubbe Nordström by a Norrland fisherman. They were discussing the element of competition in the local fisheries when the fisherman exclaimed:

And listen to this, Lubbe Nordström! One thing in this connection. They talk about the envy of fishermen. Listen now, Lubbe Nordström! Think of a labour union, construction workers, for example. Well! Yes! Saturday arrives. And it's time for pay. One gets 100 crowns. The other gets nothing, although he has worked just as hard. How do you think *that* would look, Lubbe Nordström? Wouldn't that create envy? Oh, oh, oh! Talk about envy among fishermen. No, no, no! That is nothing but talk! Talk, talk, talk! – He points: "Look! Up there! What is that up there! The chapel. I will tell you something about the chapels of the fishing communities, Lubbe Nordström. They have been very important. Guess for what? For unity. Where there is no chapel unity has always been less. Lubbe Nordström, think of Höllik. You will never find any unity there. Never! And is there a chapel there? No! And what kind of people do you get then?"

There is no doubt that the collective investments, from the chapels in Norrland to the harbour works in Scanian villages, helped to strengthen solidarity among the fishermen.

Even more important in this respect was perhaps the attempt to regulate competition out at sea. In many Norrland communities the fishing waters were divided according to a system called *dygning*. This meant that the fishing crews switched fishing locations every night after rules laid down in order to secure maximum fairness. There are parallels to this system in some Scanian communities. In Kivik and Baskemölla, for example, the harbour team met during Lent and drew lots for the fishing locations which were to be used during the approaching herring season. Furthermore we find the teams of both regions regulating the time fishermen could spend out on the fishing grounds. A fixed time for departure from the harbour could be set each day, or Sunday fishing could be prohibited. It is important to remember that these attempts at resource regulation were not the result of government interference. The rules had grown spontaneously out of the activities of local harbour teams.

In communities where no attempts were made to regulate fishing activities, fishermen could sometimes make individual claims to certain locations. Even more common was the view of the waters close to the community as a 'home territory' to which fishermen from other communities should not have access. In some instances we have evidence of recourse to physical violence in order to defend such individual or local rights in the resource.

The situation of competition in the herring fisheries was rather special. It was the knowledge of *where* to find the herring, not the herring in itself which constituted the scarce resource. Much-sought-after information like this could be manipulated strategically or preserved as a secret. We find the same pattern in most mobile fisheries and it is very evident in contemporary herring fishing as well. In the endless discussions of catches, fishermen try to secure as much information about the movements of the herring without being too forthcoming with their own knowledge.

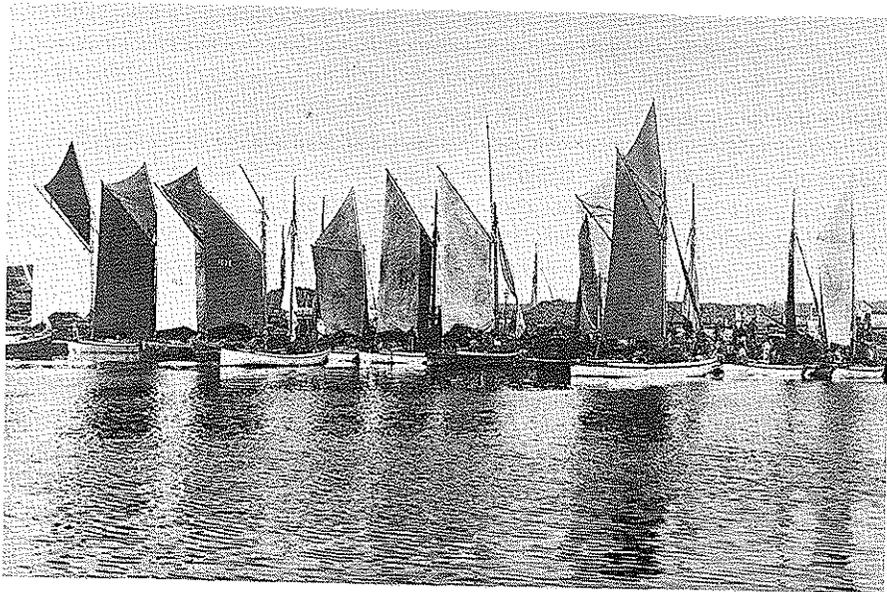
I would argue that the situation in the herring fisheries created particular tensions between cooperation and competition, solidarity and conflict. In the Norrland herring row no fisherman could leave the harbour before the master of the harbour team had struck the bell in the chapel, but after the signal we sometimes

find fishermen racing out to the banks in order to secure the best fishing locations for themselves. The regulating activities of the harbour team could diminish the sources of conflict but hardly eliminate them.

The most important source of conflict that remained to be dealt with was the uneven and often seemingly inexplicable distribution of success in the herring fisheries. It is important to remember here that success and failure were major concepts in the world view of the peasant fishermen. Students of maritime communities the world over have been struck by the intensive way in which fishing results are measured, judged and compared after each fishing trip. This critical evaluation is not necessarily linked to the participating fishermen themselves but often engages all the members of the fishing community: women, children and old people.

We find the same focus of interest in Scanian and Norrland villages. The highly varying individual results were judged after each day of herring fishing, and it is important to remember that the results were not measured absolutely but *relatively*.

"I got nothing and thank God, the neighbours did not get any more either", was a local saying in some Norrland communities. Success and failure were evaluated within the local community or within the group of fishermen exploiting the same waters. This is a pattern we find in many contemporary fisheries as well and it is of key importance to the understanding of individual strategies and patterns of cooperation among fishermen.



A fleet of herring boats in the harbour of Varberg on the Swedish West Coast. Before the emergence of marketing cooperatives fishermen could race each other in order to get in early and secure a good price. (Early 20th century photo.)

Luck - Its Loss, Destruction and Theft

The focus on success and failure in fishing and the great variations in the actual yields must have constituted a constant source of tension and conflict even in communities permeated by egalitarian and cooperative values.

After each fishing trip there is the need to explain differences in the individual catches and the need becomes greatest when the nets give only a poor catch. One can vent one's irritation against the pitiful herring that dangle in the nets. These were times when the herring were given bad names like 'lousy dogs' or 'suicides'. One can start to scrutinize the fishing trip: had the nets been set carelessly, sunk too deep in the water or had the currents entangled the chain of nets? If one was not prepared to find a cause for failure in personal carelessness or incompetence, there were, however, alternative explanations of a supernatural character. Had someone in the boat broken a taboo by whistling out at sea or by stepping over the nets down at the quay? Had there been an 'unlucky meeting' on the way down to the harbour? Perhaps more care should have been taken in shooting over the nets at the start of the season, and so on.

One or two failed fishing trips may be easy to explain, but the situation gets worse for the fisherman or the crew that are continually struck by bad luck. Why do we fail when the boat next to us hauls in nets loaded with herring?

In such situations one may resort to a special type of supernatural explanation:

When the fishermen continually shift locations day after day, and when everybody fishes at the same time, one would believe that the catch would be the same for everybody. This is not the case. Good and bad luck are concepts that are perpetually in the minds of fishermen. Some will get almost wealthy by good catches. Others only get poorer by their damned bad luck. In the past, more than now, they tried to explain this by referring to the infringement of supernatural powers. It was believed that spiteful competitors could "destroy" (*förgöra*) or put a spell on the nets, so that the herring avoided them. Even today there are one or two persons who have the power to do more than others. And still today one can hear about persons who have seen the ruler of the sea or a mermaid, or have received strange premonitions and much more (Viksten 1936:327).

This observation from a Norrland fishing village in the 1930s has many parallels in the folklore collections. We find a whole complex of beliefs centred around the magic manipulation of fishing luck of *förgörande* both in Scania and Norrland. In the many recorded cases where such a manipulation is believed to have occurred we can find certain patterns.

It is, for example, possible to analyse the material in terms of the type of social relations that are involved: who has destroyed my luck and why? Another answer is that I have to take the blame myself. I have in some way broken a taboo or a norm, and my bad luck can be explained as a punishment from the supernatural rulers of the sea.

As I have mentioned earlier, these 'rulers of the sea' were a firm reality in the beliefs of both Scanian and Norrland fishermen. Their forms and names

varied regionally, but like most supernatural beings in Swedish peasant tradition they were neither good nor bad. You had to be careful in your dealings with them. Successful fishermen were sometimes said to have good relations with a mermaid or a 'man of the sea', and there are numerous examples of fishermen being warned by supernatural beings of an approaching storm. But in the same way as the supernatural powers could help you they could also constitute a menace and a threat. They would punish a fisherman who had broken one of the norms of the sea or neglected a taboo. A story from the Scanian fishing village of Lomma illustrates a common pattern in these beliefs, where a breach of taboo is followed by supernatural retribution and then by the repentance of the culprit:

There is a fisherman in Lomma who is called Nilsson. Well, it is about forty years since this occurred. He was very good at swearing, and he still swears, by the way, and he has never been afraid of anything. But now I will tell you how it happened that he lost all his fishing gear. He was out fishing with a friend off Malmö. They were running before the wind and there was not much of it. Then they saw a couple of arms stretching out of the water towards the starboard rail and the whole boat was weighed down and started to take in water. Nilsson, who was a brave fellow, took the tiller and was going to strike out, but his companion said that this was something supernatural and that he should stay away, probably it was the ruler of the sea. But Nilsson did not care about what he said and struck the hands, which then let go of the boat. During this night there was only a small breeze, but Nilsson lost all his nets and gear. And after that night he turned into a Free Churcher and refrained from swearing for a long time, but now he has new nets and swears as well as he used to. I think he is 84 years old.

Against those situations where supernatural beings manipulate the luck of a fisherman there are the instances where suspicions are directed towards other members of the fishing community, against neighbours and colleagues. In both regions we find the belief that there exist certain evil-minded persons who may perform sorcery. Thus we often find that the accusations of magic manipulation are directed towards individuals with a marginal position in the social structure. They were the persons who could create 'an evil meeting'. If you met one of them on your way down to the harbour your fishing trip was already 'destroyed' and you might as well turn back home again. The notion of especially old women causing bad luck if you meet them on your way to work is common to many hunting cultures. In the Swedish material, however, we often find that these notions are focused upon certain individuals, men and women. An incident from another Scanian fishing village may illustrate this pattern:

Here there lives an old woman whom you should not meet on your way to fishing. If you meet her you get bad luck, the old ones say. A couple of years ago there was a fisherman here who was going fishing. He walked down towards the pier. There he met the old hag and he returned straight home and did not sail out to sea. The old ones said that if he had gone out fishing he would not have caught a single fish.

Once I, who am telling this, was going fishing. I was sitting on the quay attaching sinkers to the nets. Then the old hag appeared and touched the sticks on which I carry my nets with

her hand. After that she went away without uttering a word. "Now you won't have any luck in fishing", her two brothers told me, they were also going fishing. I did not care and set my nets in between theirs . . . But as I was going to take them up the following night, my net was torn to pieces and had very little fish in it, but in the nets that were next to me there was not a single hole and plenty of fish. So meeting that woman sure brings bad luck.

The fact that suspicions were directed towards some individuals had mainly to do with their reputation for magic power. Their acts were seen to be caused by sheer spitefulness or as sanctions for earlier instances of misbehaviour towards them. During his fieldwork up the Norrland coast Sune Ambrosiani was given many examples of this:

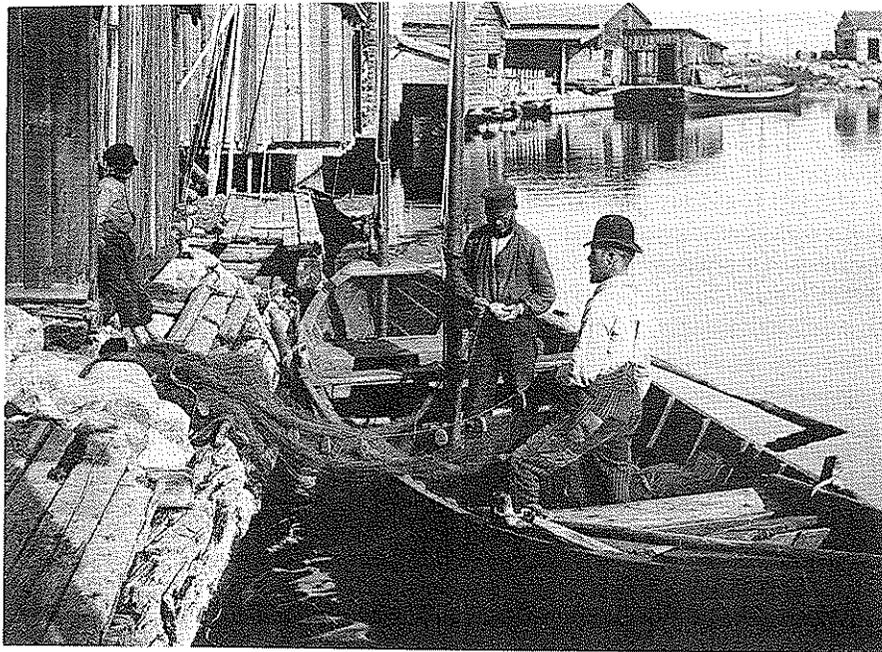
In order to damage the fishing of another fisherman they could make a cross of two twigs close to his boat. The informant's father often saw this, but he did not take notice. When the nets were hung to dry, they stole three net sinkers from the nets of fishermen with good luck. With the same intention to cause trouble they would kill a louse on the first float of the net, where the owner had inscribed his name. They could tie together a couple of meshes in the net with hair from a woman, they could let snakes into the nets, but the worst thing that could happen was to find frogs in the nets. Then they absolutely refused to go to sea. Then of course there were spells to be shouted to a fisherman on his way out of the harbour in order to destroy his luck in fishing (Ambrosiani 1916:307).

When the suspicions as in the example above are directed towards other fishermen it is not a case of malicious destruction of luck, but usually of *stealing* luck.

When old women in the Scanian village of Arild were observed sneaking around the nets and moving the net sinkers, this was not interpreted as malicious destruction. These old women had their own nets brought along by the fishing crews on a half-share basis, as a customary form of widow's pension, and they were anxious to move the fishing luck from successful nets over to their own. The theft of net sinkers or floaters was generally the most common way to manipulate luck in both Scanian and Norrland communities. One could also transfer fishing luck by cutting out a piece of the net and attaching it to one's own. A third technique is described by an old Scanian fisherman:

When a malicious person stole something from your boat and put it in his own, he also took the luck from the boat. One night many years ago I was asleep in the fore-cabin. Then there was someone walking on the deck. I woke up and climbed on deck and there was a man ready to jump ashore. His one hand was on the stay and in his other he had two herrings which he had taken from me.

Incidents like this could lead fisherman to take counter measures. If they suspected that their equipment had been tampered with and their luck manipulated, they could visit a local wise-man or a witch doctor. A crew from the Scanian village of Baskemölla had a long spell of bad luck in the herring fisheries and



Norrland fishermen preparing their herring nets before taking out. The man in the middle is attaching one of the sinkers, which could be stolen in order to gain some luck from a successful competitor. (Early 20th century photo, Museum of Maritime History, Stockholm.)

went away to consult 'Flanken', a woman with renowned supernatural powers. From her they received a mixture to smoke their nets with:

The fisherman thought it slightly embarrassing to smoke the nets in public down at the harbour, and therefore they carried all the eighty nets up to the doorway of a house. There the smoking procedure took place. At the end of the summer 'Flanken' was loudly praised and with good reason. The fishing had been uncommonly good with full boatloads almost every day.

The Social and Cultural Organization of Knowledge

It is evident that the ideas and practices I have described represented a considerable amount of knowledge. I have been able to give only a few examples of a rich stock of taboos and omens, magical prescriptions and ritual techniques. During fishing even the most trivial details could be given a ritual significance. Everyday occurrences and objects could be classified as positive, neutral and negative forces: pancakes in the food container brought along for the fishing meant bad luck, just as a silver coin under the mast ensured success. Smoke from burning pine wood created luck, while a birch broom on board was a negative influence.

When it comes to judging the actual distribution of magic beliefs in the community we face a special problem. The material that I have used for my analysis has mostly been collected in a period of disintegration and rapid cultural change. For many centuries the two ideological systems of the state church and the local peasant world view had existed side by side. Vehement attacks on 'folk beliefs' from priests and other representatives of the elite culture had but marginal effects on this coexistence.

During the nineteenth century we find a gradual disintegration of supernatural ideas in the process of modernization. The impact of change varied highly between different regions and different groups of local peasants. We can talk here of a gradual restructuring of traditional world views, as new 'rational' scientific explanations took the place of 'traditional', supernatural ones.

In the two coastal regions under consideration here, this change seems to have accelerated towards the end of the nineteenth century and at the beginning of the twentieth. Thus we find fishermen who still have a firm belief in supernatural powers, while others have a more wavering or downright sceptical attitude towards the old traditions.

On the other hand it is not a simple question of a gradual decay of traditional beliefs. It is hardly possible to construct a continuum ranging from firm believers to non-believers. The belief systems discussed often constituted *latent* knowledge, which was activated or brought out into the open only in situations of crisis.

As long as the herring fishing goes well and as long as one is not hit by misfortunes, one can distance oneself from the supernatural beliefs or even joke about the superstitiousness of the old people. When one is suddenly struck by bad luck these beliefs and rituals may well be actualized again (cf. Firth 1966:123).

It is evident that most of the informants grew up in a setting where the belief in supernatural powers in fishing was firmly established and where the learning of ritual techniques and magic prescriptions constituted a natural part of socialization into the occupational role of fisherman. However, the situation at the time of interviewing is often a different one. Some admit that they still turn their knowledge into ritual action, others are in two minds about many of the 'old traditions', while others give the impression that they are totally distanced from 'all that superstition'. This process of disintegration is also evident in the fact that some fishermen prefer to perform the rituals in secrecy in order not to risk the ridicule of others. The distancing can even be more marked and provocative, as in the following example of a very conscious break of taboo by a young Scanian:

As the old ones put out the nets in earlier times they said: "Now we start in the name of Jesus." But the younger fishermen were not interested in this and once there was a blasphemer who said: "None of that Jesus stuff here, but for hell's sake get the damned nets into the water."

A folklore collector who worked in a Norrland community in 1924 met a

75-year-old fisherman who gave a parallel picture of the conflicts between generations that developed as the young fishermen started to distance themselves from the supernatural explanations:

You should have been here 30-40 years back, when old man Lindelöv was alive... That was a fellow who dealt with sorcery and strange things, and he taught others quite a lot as well. They say he was born with a caul and there is something peculiar about things like that.

I remember one time - it was during the summer of '89, I think - one morning when we were working with nets, then suddenly before I knew anything he (Lindelöv) threw himself to the ground and kicked with his legs as much as he could and blew with his lips. I thought the devil had come over the fellow, so I said to him: "What is wrong with you, Lindelöv?" Then he shouted to me; "Get down on the ground and do like me, you idiot!" - Well, I threw myself to the ground, but I was so full of laughter that I could neither kick nor blow.

Yes, old Lindelöv believed that as soon as you saw the first swallow of the summer you should get down on the ground and blow after her and kick as he did, and then the herring nets would never get entangled during the coming fishing season.

I guess there were many who believed in that and I am dead sure there were others besides Lindelöv who used to do that here, although more in secret.

The same fisherman told the collector that out on one of the herring banks "they used to throw a silver coin for luck in fishing from the stern over the box to the *sjörå* (the female ruler of the sea). - I know my grandfather wanted me to do that, when I started going out to sea, but that had no effect in either direction for my own part, although I have to admit that I agreed to do it."

The same folklore collector was also told that 'the old ones' used to slip a silver coin between the meshes, when binding nets, in order to make them more 'fishable'. As he was visiting the house of his old informant he saw that the 25-year-old maid of the house, who was binding a new herring net, had a silver coin in her lap and that she was trying to conceal it "not without a markedly embarrassed blush."

Such direct observations are rare in the folklore collections. Most situations or evidence are hearsay. The delicate nature of the topic also makes one wonder how much the informants chose to hide. When Sune Ambrosiani had once finished an interview with some fishermen on the topic of magic, he asked: "Well, now of course you haven't told me everything you know about these types of customs and traditions?" He was given the frank answer: "No, indeed! You should understand that there are many things which are not told to outsiders" (Ambrosiani 1916:308).

In spite of these shortcomings the collected material mirrors a vital tradition, but it is a tradition that need never have been evenly distributed among *all* the fishermen. What earlier generations of folklorists and ethnologists often called 'collective tradition' has turned out to be a rather more specialized and differentiated knowledge, as later studies of the social organization of tradition have pointed out. The material from the two regions underlines this. Some fishermen know more than others. The magical techniques are not mastered by all, and there are ritual experts and wise men who are alone in their knowledge of how

to use magic in a constructive or destructive way.

It is also evident that some parts of the belief systems were more readily abandoned in exchange for other types of explanation. Accusations of witchcraft and beliefs in sorcery died out more quickly than the more passive type of beliefs reflected in the many prescriptions of taboo (cf. the discussion in Mullen 1978:62 ff.).

The way this fisherman's lore was integrated into wider cognitive systems and cosmologies emphasizes the need to look at this knowledge not as a neat and orderly cultural system, shared by all in the community, but as a repertoire which may function in direct contradiction to other ideas, or coexist through a system of cultural compartmentalization and situational selection.

Thus the ideas about supernatural manipulation in fishing constitute a field which, for example, is very clearly delineated from the body of Christian religious beliefs which formed another part of the fisherman's cognitive framework. The two systems are relatively autonomous and to some extent contradictory, but as they were used in quite different domains of life they could continue to exist side by side. The powers of God were rarely invoked in the domain of fishing. The presence of a priest out at sea or down by the shore was viewed as a destructive force, an unlucky omen. God's might and the ritual expertise of the local priest were used in other domains of domestic life.

Luck as Limited Good

Another aspect of the cultural organization of these traditions concerns their relations to basic notions in the local culture. It is evident that the supernatural explanations of success and failure in fishing are related to the widespread idea of *luck as an individual resource which can be manipulated by others*. Furthermore, this notion of manipulative luck has a strong element of a zero-sum-game: my success means failure for someone else and vice versa.

The same notion of 'luck' is found in other sectors of Scandinavian peasant culture (cf. the discussion in Honko 1962:86 ff., Joensen 1981:121 ff.). Luck in cattle raising and in hunting, to name two examples, was an individual asset under constant threat from others in the community. Economic success on a neighbourhood farm could create suspicions of magic manipulation and even lead to accusations of sorcery. The fact that one farmer started to enjoy conspicuous prosperity had to mean that someone else was suffering bad luck. In the same way misfortune in hunting could mean that somebody else in the community was out to steal one's luck. Closely tied to this belief we find the notion of *envy* as a destructive force among Scandinavian peasants. A successful farmer or hunter knew that the envy of others constituted a threat to his own success. There are, of course, close parallels to these beliefs in George Foster's much debated notion of the limited good as a central value in peasant culture.⁴

Without an understanding of the concept of luck and its magical destruction it is hard to explain the witchcraft beliefs that are connected to it. A closer look at the form and structure of these beliefs also reveals that they had relatively

little in common with the great witchcraft epidemics which swept through Scandinavian society during the seventeenth century. While many scholars have been studying this historically conditioned witch-hunt and its many continental counterparts, the 'little tradition' of sorcery manifested in the manipulation of luck has received but scant attention.

This little tradition of witchcraft functioned as a stable and well-integrated part of peasant life up to the present century. Unlike the spectacular witch-hunts of previous centuries it did not inject terror into the peasant community, being rather viewed as an outlet for tensions and irritations.

The fishermen's witchcraft beliefs cannot only be analysed in functionalistic terms on an individual psychological level. A witchcraft accusation may well be an expression of an individual's anxiety over constant failure in the herring fisheries, but it can only be understood as an integrated part of a cognitive system with well-established cultural perception of the surrounding world to back it up (cf. Douglas 1970:xiii ff.). Furthermore it is channelled along certain social relations and very directly mirrors latent social and economic conflicts and tensions in the community. An example from a Norrland community may illustrate this:

They are superstitious, the fishermen around here. I remember, when we had hung up two nets down at the harbour a Saturday evening, once. On Sunday evening when we took them down again to go out fishing, there was a round hole – around 3 decimeters – cut in each of them. We suspected one of the neighbours of that. He was awfully jealous, and folk used to do these things to others who were lucky, and then attach the patches to their own nets. After that had happened it was dead impossible for us to get any fish. Finally Daddy took some schnapps with him and travelled to Själevad, to old man Nischin Fors, the local wise man, and he was going to put it right again. After that we had a bit of fishing, but not much. This incident created a hell of a lot of enmity.

Although it may be possible to argue along functionalist lines that the witchcraft accusations created a culturally accepted outlet for frustration and aggression, the very existence of these beliefs must also have acted as a disruptive force in the interpersonal relations of the fishermen.

Through the folklore material we get a backstage view of the social scene in the fishing communities, that may serve as a corrective to an over-idealized Redfieldian model of the harmonious little community. There has been a tendency to depict Swedish peasant fishing villages as both conflict-free and totally permeated by cooperative values of solidarity and mutual assistance, as I have stressed earlier. The material on witchcraft and magic manipulation gives us a chance to balance that picture. This is not to say that we find instead of the harmonious fishing village conflict-ridden communities, characterized by sorcery and black magic, strife and bitter conflict. It can still be argued that the element of cooperation and solidarity was strong in most Swedish pre-industrial fishing communities, but the folklore material may temper the too rosy picture sometimes presented in earlier studies.

Luck and the Production of Cultural Tensions

I have argued against a functionalist reduction of fishermen's magic to a kind of 'safety valve' in situations of anxiety. If we instead view magical ideas as a cultural resource and a model of interpretation used in certain social situations, we find that these ideas not only create security and harmony, but are also used as weapons in conflicts: they give cultural form to social tensions, and if we are to understand their function our analysis must include their relation to the social structure.⁵

Functionalist studies of fishing magic and the view of good and bad luck often combine ecological, technological and psychological factors to produce an explanation. The common denominator is the exploitation of a natural resource where there are considerable elements of risk and uncertainty, and where variations in the catch are difficult to explain. This ecological factor is often linked to individual psychology: the need for security in an insecure undertaking is invoked to explain the complex of beliefs about good luck and bad.

As a counter to this ecological focus we may look at the social dimension. Dependence on as peculiar a natural resource as the sea obviously affects fishermen's culture, but *how* this influence occurs and the effects it has is a result of the social and economic structure in which the fishing population acts. These material and social conditions determine the forms of competition, conflict and cooperation among fishermen. This can be exemplified in some illustrations.

In this study of Faeroese bank fishing around the turn of the century, Jóan Pauli Joensen has shown the extent to which the fishermen had supernatural explanations for the fluctuations in their catch: it was common to suspect fellow fishermen of magical manipulation (1981:114). Yet if we are to understand this mentality, which appears more pronounced than that found among Swedish fishermen at the same time, we must relate belief to the social situation. The pay system on board these company-owned fishing boats was based on a percentage of each fisherman's individual catch, not only a share system. The fishing itself was done with a cod jig, every man for himself. The economic structure in which the fisherman worked thus accentuated the luck of the individual. This created a seedbed for competition and suspicions of magical manipulation by others in the team. The degree of uncertainty was thus heightened by the economic circumstances.

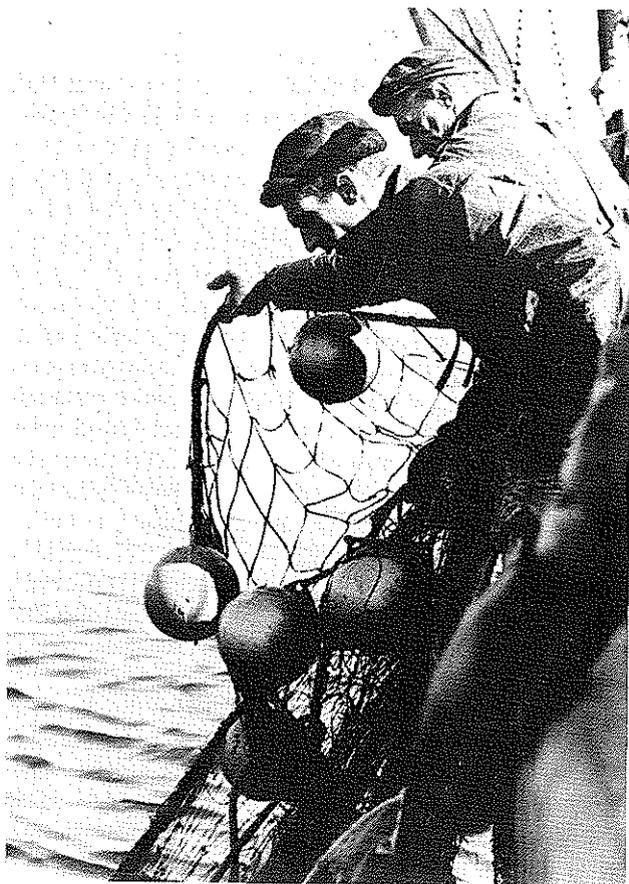
In the same way we can ask ourselves to what extent the 'competitive spirit' of Norrland fishermen was shaped exclusively by the unpredictable herring fishing. Apart from the boat race out to the herring grounds to secure good locations, fishermen could race each other on the journey back to coastal towns and the fish merchants, who usually paid much better prices for the first boatloads of herring that arrived in the harbour.

An account from a Norrland fishing community stresses that the competitive element among local fishermen decreased considerably as the fishermen decided to pool their resources and transport the catches cooperatively instead of individually (cf. Scotte 1979). The same tension between competition and coopera-

tion can be found in many contemporary fishing communities, despite the fact that fishing is nowadays carried on with sophisticated technology and in forms which have drastically reduced the amount of danger involved.

The cultural forms taken by this tension have changed, however. Rivalry and frustration at one's own lack of success rarely lead to accusations of *black magic*, but the concept of luck still exists as a part of the world view of many fishermen, although in new forms.

Swedish fishermen still use concepts like 'lucky' or 'clever' to explain why some skippers or teams are more successful than others. Notions like this still enable them to explain ostensibly inexplicable variations in luck. We encounter the same pattern in a number of contemporary settings.



The moment of suspense: getting the gear in and judging the catch on a small trawler. (Photo from the Swedish West Coast 1966 by the author.)

Michael Orbach, who has studied the Californian tuna fishing fleet – the world's most capital-intensive and high-technology fishery, found that the concept of luck and the opportunities for magical manipulation of success had an important place in the world view of many fishermen (1977:182 ff.) and there are more examples of this (cf. Brandt 1972:156 ff. and Poggie & Pollnac 1988).

Naturally, such notions have an important function as alternative explanatory models, but they are just as much a product of the economic structure that many of today's fishermen work within. The skippers of the large industrial trawler fleets are not only competing about catches, but also about the position of top skipper. The struggle to obtain command over the company's best boats and to attract good crews makes skippers in the same company into competitors at sea. Competition creates a seedbed for secretiveness and attempts to mislead rivals in the competition for the best results, yet the uncertainty may also lead to a focus on good luck and bad. The economic structure can thus reinforce individual insecurity and with this the supernatural notions (cf. Andersen 1972).

Added to this is the fact that the view of 'luckiness' can also have a conflict-avoiding function: in closely knit fishing communities there is no need to rank one's neighbours and colleagues according to their skill, since it is sufficient to refer to the more diffuse quality of 'luckiness'. This pattern was found by Barbara Yngvesson in her study of a fishing village in Bohuslän:

It seems plausible to me that the stress on luck was not unrelated to the reluctance evidenced among all fishermen to rank Stenö teams relative to each other. Direct evidence regarding relative ranking or skill generated statements to the effect that no team or person was "better" but that some boats had more luck (n.d.:104).

In her study *West Indian Sea Magic*, Jane Beck has drawn attention to the same social function:

Perhaps ... supernatural practices operate as a psychological crutch giving the fisherman greater confidence in his own skills but one thing is certain, the presence and the application of magic removes any onus of defeat from the individual failure and at the same time tempers the social view of success, thus minimizing the difference and therefore alleviating the tensions between the successful fishermen (1977:210).

Yngvesson and Beck underline the ideological function ideas about luck can have, as a way of legitimizing an existing social order (cf. the discussion in Byron 1988).

The phenomenon called 'fisherman's luck' has over the years travelled through a number of different theoretical paradigms and has been given various explanations. I have advocated an analysis of these supernatural ideas on several levels. They are used, instrumentally, as *cultural props and weapons* in social activities, but they also express ideas about how society works or social relations should function.

First of all we need to analyze how ideas about magic and ritual are related

to and integrated with the overall cosmology of fishermen. Secondly we need to look at the material conditions under which these ideas are formed and how they reflect social life. Finally, we need to analyze the social dynamics of magic – the situations in which these ideas are expressed and used. Such an approach combines an interest in the ways ideas about fisherman's luck are produced and reproduced in a given setting but also what these ideas do to social relations among reluctant competitors.

In this perspective the notion of fisherman's luck may turn out to be a cultural phenomenon which operates in widely different ways under different cultural and socio-economic conditions.

Notes

1. Typical of this classic research tradition is Christina Hole's inventory of maritime folklore (1967).

2. The early studies of Mullen (1969) and Poggie & Gersuny (1972) are examples of this functionalist tradition. In a later and more elaborated monograph on maritime folklore by Mullen (1978) the analysis is much more complex and rich, but still there is an emphasis on the "anxiety thesis" (see for example p. 7 ff.). A similar broadening of the analysis is found in Poggie & Pollnac (1988), but again the search for a Malinowskian (and rather one-dimensional) cause and effect relationship still colours their discussion.

3. For a discussion of the sources used, see Löfgren (1975 and 1981), where all references to the Swedish material also are found. They have been omitted in this English version.

4. See Foster (1965) and the overview in Gregory (1975) as well as the critique in Silverman (1974).

5. Cf. Mary Douglas' discussion in *Natural Symbols*, where she points out that "witchcraft beliefs are likely to flourish in small, enclosed groups, where movements in and out are restricted, when interaction is unavoidably close, and when roles are undefined or so defined that they are impossible to perform" (1973:108). An example of such a structural conflict is the tension between competition and cooperation in the fishing communities I have discussed.

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The Ritual Taboos of Fishermen

An Alternative Explanation

Craig T. Palmer

Phoenix College

ABSTRACT This paper applies a new explanation of magic and religion to ritual taboos among fishermen. Instead of seeing the taboos as a means of relieving anxiety, the paper proposes that taboos promote cooperation by communicating a willingness to accept traditional patterns of authority. This approach predicts that taboos will be more frequent in situations where intensive cooperation between individuals is crucial. This prediction is tested against data on fishing societies that have been used previously to demonstrate a correlation between danger and taboos. The cooperation hypothesis appears to be at least equal to the anxiety-reduction hypothesis in accounting for variations in taboo usage in different types of fishing. It also has the advantage of not requiring the problematical assumption that the fishermen believe that the taboos they observe actually work.

The "anxiety-ritual theory" states that magic, taboos, and religious behavior in general functions to relieve men of otherwise irreducible anxiety. While Evans-Pritchard (1965) points out that its fundamental premise is found in a number of different works (see Marrett 1914), this idea is usually attributed to Malinowski. Although certain aspects of the theory have been questioned (Kroeber 1948; Radcliffe-Brown 1965; Evans-Pritchard 1965), the general premise remains widely accepted (Homans 1941; Kluckhohn 1965; Firth 1955; Rosenthal and Siegel 1959; Wallace 1966; and Gmelch 1971).

Taboos Among Fishermen

The most famous example used to support the anxiety-reduction explanation is Malinowski's description of Trobriand fishing taboos. Malinowski reported striking differences in the behavior of Trobriand fishermen engaged in different types of fishing:

While in the villages on the inner lagoon fishing is done in an easy and absolutely reliable manner by the method of poisoning, yielding abundant results without danger and uncertainty, there are on the shores of the open sea dangerous modes of fishing and also certain types in which the yield greatly varies according to whether shoals of fish appear beforehand or not. It is most significant that in the lagoon fishing, where man can rely completely upon his knowledge and skill, magic does not exist, while in the open-sea fishing, full of danger and uncertainty, there is extensive magical ritual to secure safety and good results (Malinowski 1948:30-31).

Since this fishing example remains the cornerstone of the anxiety-reduction explanation of religious behavior, it is not surprising that numerous authors have

used the anxiety explanation to account for the ritual taboos of fishermen, and other mariners, in modern societies (Poggie and Gersuny 1972; Gersuny and Poggie 1972; Poggie, Pollnac and Gersuny 1976; Acheson 1981; Orbach 1977; Sherar 1973; Mullen 1969, 1978; Clark 1982; Lummis 1983, 1985; Poggie and Pollnac 1988; van Ginkel 1987; but see Tunstall 1962). Since modern commercial fishing takes place in various conditions ranging from large ships far from shore for extended periods to lone fishermen in 20-foot boats who return home each night and never venture more than a few miles from shore (Acheson 1975; Poggie, Pollnac and Gersuny 1976; Mullen 1969, 1978), several authors have predicted patterns in the use of ritual-taboos paralleling those of the Trobriand fishermen. These studies will now be reviewed.

Previous Studies

While there is little agreement over the causes and functions of specific taboos (see van Ginkel 1987), previous studies have generally supported the anxiety-ritual theory. A correlation between economic risk and amount of ritual behavior has been stressed by Mullen (1969, 1978), Lummis (1983, 1985), and Clark (1982). The relationship between personal risk and ritual behavior has been stressed by Poggie and Gersuny (1972), Poggie, Pollnac and Gersuny (1976), and Poggie and Pollnac (1988).

A paper by Poggie and Gersuny (1972) is especially important in evaluating previous studies. These authors attempted to test for a correlation between personal risk and ritual in New England where some fishermen trap lobsters close to shore and others fish for extended periods on off-shore draggers. They predicted greater taboos among the off-shore draggers because of the greater danger assumed to be inherent in being far from shore for extended periods. However, their interviews with the two types of fishermen revealed that "each of the groups has about the same proportion of ritual beliefs" (Poggie and Gersuny 1972:72).

The inability of this study to find their predicted correlation between the amount of ritual taboos and the two types of fishing is probably a result of the small sample size used in the study (see Acheson 1981). What is more important is the fact that the authors suggested that the equal amount of ritual taboos in the two fisheries might be the result of a lack of variation in danger between the two fisheries. They suggest that the more congested waters and absence of certain safety equipment on lobster boats means that "... the risk factors involved in each of those types of fishing have been equalized more or less" (Poggie and Gersuny 1972:72).

Poggie and Gersuny's uncertainty over the relative degree of danger involved in lobstering and off-shore dragging in their 1972 paper is crucial to evaluating other studies that have found a greater amount of ritual behavior in types of fishing that involve extended offshore trips (Mullen 1969, 1978; Poggie, Pollnac and Gersuny 1976; Poggie and Pollnac 1988; Lummis 1983, 1985). This is because any doubt about the relative dangers involved in day-trip lobstering and

off-shore dragging disappeared from these later analyses:

The strongest positive relationship was between number of taboos and day versus trip fishing. ... A "day fisherman" who goes out for only one day at a time would be more "secure" than a "tripper" who spends anywhere from two to eleven days at sea. The latter is more exposed to storms, illness, injury, and disaster because of the nature of the ecological niche exploited and because of his removal from shoreside aid. In some cases these "trippers" are more than fifteen hours' steaming time from land. The positive relationship between number of taboos and day versus trip fishing thus suggests that the greater amount of risk associated with trip fishing results in anxiety which is lessened by more extensive ritual behavior (Poggie, Pollnac and Gersuny 1976:261; see also Poggie and Pollnac 1988:71; Lummis 1983; van Ginkel 1987).

The apparent correlation between amount of ritual behavior and extended trip fishing is consistent with my own questionnaire survey of lobstermen in a port in southern Maine which I will refer to as "Southern Harbor". Southern Harbor has existed as a small fishing village since the 1870s. While it has been influenced by the recent economic development and tourism of southern Maine, many of the 18 full-time and 14 part-time lobstermen have extensive kinship and social ties within the community. While in-shore lobsters are the dominant prey species in the area, many of the full-time lobstermen seasonally use their lobster boats to fish for shrimp, scallops, and surf-clams. Some of the lobstermen have also worked on larger off-shore fishing boats in the past. Questionnaires concerning 'superstitions' and other aspects of fishing were completed and returned by 19 of the 32 lobstermen (see Table 1). The correlation between ritual behavior and extended trip fishing is supported by the fact that nine of the eleven lobstermen who had also fished for extended trips on off-shore fishing boats reported that superstitions were "taken more seriously" on the off-shore boats.

In conclusion, while the modern societal data on the correlation of rituals and off-shore fishing is consistent with Malinowski's Trobriand example, these data also suggests the need for skepticism of the cause of this pattern. This is because the relative danger involved in day-trip fishing and off-shore fishing is not clear. The fact that even Poggie and Gersuny (1972) were uncertain about the relative dangers of the two types of fishing leaves the possibility of another variable being responsible for the apparent differences in ritual taboos.

There is also a more fundamental problem in evaluating the support the modern societal data gives to the anxiety-reduction explanation. This is the problem of establishing that fishermen actually believe in the efficacy of their taboos. Mullen (1969) criticises studies that have only recorded the taboos listed by informants. This is because: "Usually there is no indication whether the person who reported the item believes or practices it. This information is necessary for any analysis of superstitious behavior" (Mullen 199:214). Indeed, identifying the belief of subjects is necessary to testing the anxiety explanation because it is the belief in the efficacy of the taboo that allegedly relieves the anxiety. However, the problem of identifying beliefs is more troublesome than has been realized.

Previous studies have tended to focus on the discrepancy between the mere

knowledge and the actual observance of ritual taboos. They assume that the actual observance of a taboo can be taken as an indication of belief in it. In fact, the observance of a taboo has been assumed to indicate belief in it even when the fishermen claimed they did not believe the taboo had any efficacy (see Poggie, Pollnac and Gersuny 1976:123; Mullen 1969; Tunstall 1962; Poggie and Pollnac 1988; van Ginkel 1987; Orbach 1977; Zulaika 1981). However, my data from Southern Harbor illustrates the necessity of questioning the assumption that observance implies belief in the efficacy of a taboo or ritual.

Table 1. lists the ritual-taboos, or 'superstitions', known by the lobstermen. Table 2. lists the positive responses of the various lobstermen to the questions of whether they "knew of", "observed", and "believed in" each of the taboos. The previous studies would have concluded that the observed taboos are believed in regardless of whether or not the lobstermen reported believing in them. For example, they would conclude that lobsterman 14 believed that turning a hatch-cover upside down brought bad luck even though he denied having this belief. However, it is just as possible that this lobsterman observed this taboo without believing that it works. More importantly, is there any way to falsify either one of these claims about the fisherman's beliefs? Neither the assumption of belief or disbelief appears to be sufficiently testable for use in a scientific study. This fact is particularly clear in the case of lobsterman 4 who reported believing that saying the word "pig" on a boat causes bad luck but did not report observing the taboo on this word while on his boat. These examples illustrate the simple fact that beliefs are neither talk nor behavior, they are internal states that cannot be identified by our senses (see Steadman 1985).

The above discussion means there is probably evidence of greater ritual be-

Table 1. *The Number of Lobstermen Listing Each Ritual-Taboo*

Ritual-Taboo	Number of Lobstermen Listing Taboo
a) Bad luck to paint boat blue	12
b) Bad luck to launch on Friday	6
c) Bad luck to turn hatch-cover upside down	6
d) Bad luck to say the word pig	4
e) Bad luck to whistle (causes wind)	3
f) Bad luck to kill a seagull	2
g) Bad luck to talk about good fishing	1
h) Bad luck to fish with a "Jonah"	1
i) Bad luck to launch a boat bow first	1
j) Bad luck to take a minister on boat	1
k) Bad luck to throw away bottle from launching	1
l) Bad luck to carry a black bag	1
m) Bad luck to bring a woman on board	1
n) Bad luck to change name of boat	1

Table 2. *Taboos "Known", "Observed", and "Believed in" by Each Lobsterman*

Lobsterman	Taboos "Known"	Taboos "Observed"	Taboos "Believed in"
1	a b g	_____	_____
2	_____	_____	_____
3	a	_____	_____
4	a b c d e	a b c e	a b c d e
5	_____	_____	_____
6	a b c	a b c	_____
7	_____	_____	_____
8	a b c d e f h i	a b c d e f h i	a b c d e f h i
9	_____	_____	_____
10	_____	_____	_____
11	_____	_____	_____
12	a d l	_____	_____
13	a b k	a b	b
14	a c	a c	_____
15	a j	_____	_____
16	a b c m	_____	_____
17	a f n	a f n	a f
18	_____	_____	_____
19	a c d e	a c d e	a c d e

havior and talk of taboos among off-shore trip fishermen than there is among in-shore fishermen, but we are unable to test whether there is greater belief in taboos among off-shore trip fishermen. Fortunately, there is an explanation of taboos that generates testable predictions about variations in ritual behavior in different types of fishing without the necessity of identifying beliefs.

An Alternative Explanation

If one accepts the positivist notion that "it is of the essence of a scientific proposition that it be capable of being tested by observation" (Copi 1978:465; see also Popper 1959; Harris 1979), then a scientific explanation of rituals and taboos must be restricted to observable phenomena. Steadman (1985 n.d.) has proposed that what is observable about religion, and hence subject to falsification and scientific study, is not belief but behavior. He further suggests that all religious behavior is distinguished by "the communicated acceptance of another's 'supernatural' claim, a claim whose accuracy cannot be verified by the senses". (Steadman n.d.:2). Such behavior is likely to have an identifiable positive influence on the cooperation between co-acceptors. This is because the acceptance of a supernatural claim cannot, by definition, depend on the objective truth of the claim. Hence, by communicating acceptance of a supernatural claim one is

communicating a willingness to accept the speaker's influence unskeptically. Since a cooperative social relationship requires the acceptance of influence between individuals, such communication is likely to foster cooperative social relationships.

Ritual taboos involve the claim that certain actions have certain effects despite the fact that these effects are not observable. Communicating acceptance of such claims, either by following the taboo or by agreeing that the action has the unidentifiable effect, communicates a willingness to accept the influence of the other people following the taboo.

If this hypothesis is correct, ritual taboos should be found in situations requiring extensive cooperation between individuals – particularly situations where the lack of cooperation would produce costly consequences. Hence, a certain amount of some type of “danger” might be necessary to produce taboos, but the taboos should not occur unless some type of cooperation was also involved in the situation. Hence, rituals and taboos should be most common when a lapse in intense cooperation would be likely to have dire consequences. This hypothesis can be tested against the same variations in types of fishing previously discussed. The acceptance of ritual taboos should be regularly communicated during fishing that requires the intensive cooperation of a number of crew members, but nearly absent in solitary fishing.

Malinowski (1922) describes three kinds of Trobriand canoes. The smallest canoes are used in the lagoon and consist of only

a simple dug-out log, connected with a float. It never has any built-up planking, and no carved boards, nor as a rule any platform. In its economic aspect, it is always owned by one individual, and serves his personal needs. No mythology or magic is attached to it (Malinowski 1922:106).

The next larger type, which is used for fishing outside of the Lagoon, is manned by

fishing detachments each with a headman. He is the owner of the canoe, he performs the fish magic, . . . There is a good deal of fishing magic, taboos and customs connected with the construction of these canoes, and also with their use, and they form the subject of a number of minor myths (Malinowski 1922:10).

The third type of canoe is the largest and most seaworthy. It has a carrying-capacity of eighteen men (see Plate xxiii) and “its construction is permeated with tribal customs, ceremonial and magic” (Malinowski 1922:113). Firth similarly reports that ritual occurs with fishing in Malay “especially with the Lift-nets” (1966:122). This is a type of fishing which is presumably dangerous because it is done far from shore. However, it also requires the intricate cooperation of five boats and crews of over twenty-five men.

This same pattern is found in at least some modern fishing societies. While the superstition laden deep-sea fishing off the Texas gulf coast takes place on

boats with sizeable crews, the relatively taboo free bay fishing is performed by a fisherman who “goes out by himself or with one other person, perhaps a son, on his own small boat” (Mullen 1978:xxv). Lummis (1983 and 1985) also finds the largest amount of superstitions among “driftermen” who typically fish in crews of nine or more, an intermediate amount on trawlers with about six-man crews, and the fewest amount among in-shore fishermen who typically fish in two to three man crews.

In all of these cases there is a clear correlation between the degree of taboo and magic associated with each type of fishing and the number of men who must cooperate.

It is also interesting to note that another of Poggie, Pollnac and Gersuny's (1976) predictions generated from the anxiety hypothesis was not met. They predicted there would be fewer taboos on larger vessels because “larger craft provide more security in rough waters, a large crew size resulting in greater safety of numbers, more onboard safety equipment, etc.” (Poggie, Pollnac and Gersuny 1976:259). However, “the relationship between vessel size and number of taboos was not in the expected direction” (ibid.:260). Fishermen on large vessels with many crew members were found to have significantly more taboos than those on smaller vessels ($p < .01$) (ibid.:261).

The authors explain this unexpected correlation by stating that “it is important to note, however, that there was a strong positive relationship between vessel size and day versus trip fishing. When type of fishing [day vs. trip] was controlled for, the partial correlation between vessel size and number of taboos was reduced to .08 [from .32] ($p > .05$)” (ibid.:261; see also Poggie and Pollnac 1988). However, since the relative dangers inherent in “trip” versus “day” fishing appear open to debate, it is at least possible that a difference in danger is not the cause of the greater number of taboos among trip fishermen on large boats. I suggest that the greater taboos on the larger boats used in “trip” fishing may be the need for extensive cooperation among the many crew members on such vessels. Tunstall points out that “a deckhand at sea works, eats, is in conflict with, and places his life in the hands of a small group of other deckhands” (1962:12). This is in stark contrast to lobster fishing where the use of a single helper is a recent innovation and traditionally “virtually all of the full-time fishermen fish alone” (Wilson and Acheson 1980:213).

Conclusion

The cooperation explanation of fishermen taboos is at least as consistent with existing evidence as the explanation that taboos reduce anxiety over the possibility of economic or personal injury. It also has the distinct advantage of avoiding the problem of identifying the beliefs of another person. It even avoids the more general problem that has plagued nearly all attempts to explain religious behavior: “how does it come about that people capable of logical behavior so often act in a non-logical manner?” (Evans-Pritchard 1965:94). As Tunstall states, “to accuse somebody of being superstitious is to accuse him of being irrational”

(1962:12). Since the cooperation explanation does not require the assumption that people "believe" their statements about taboos, there is nothing necessarily irrational or non-logical about the fishermen's behavior. An increase in cooperation following ritual behavior and talk of taboos is as identifiable to the participants as it is to the social scientist. Orbach reports how an elaborate magical ritual took place after a period of bad fishing when "people were getting edgy and a little testy" (1977:212). If the ritual increases cooperation in such a situation, it is perfectly logical and rational to partake in the ritual.

Like a parent, or any person in a position of authority, the skipper of a boat plays a large part in maintaining the cooperation between those under his authority. Hence, the cooperation hypothesis is consistent with the fact that skippers are reported to be more interested in taboos and take them more seriously (see Lummis 1983; Knipe 1984). Crew members communicating acceptance of the taboos endorsed by the skipper communicate a willingness to accept the influence of both the skipper and other co-acceptors among the crew. This possible relation between taboos and the acceptance of a skipper's authority is suggested by Lummis who explains a particular crew's willingness to mock their skipper's rituals by the fact that "they were not getting much fish: which must have undermined the authority of their skipper" (1983:201).

The cooperation hypothesis generates several testable predictions. The simplest prediction is that taboos will be most frequent in fishing, and other activities such as warfare (Poggie and Pollnac 1988), in which cooperative relationships are crucial in avoiding some type of dire consequence. Another prediction is that fishermen should quit observing taboos after switching to a solitary style of fishing. Unfortunately, the small sample from Southern Harbor does not answer this question as 5 of the 11 lobstermen who had previously worked on larger boats still observed at least one taboo while 6 did not. Of course, the most basic prediction is that the communicated acceptance of a supernatural claim is indeed followed by increased cooperation. The different types of supernatural claims should also always be appropriate to the types of cooperative relationships important at the time. If the cooperation hypothesis is correct, the specific context in which this behavior takes place should be conducive to promoting important cooperative relationships.

Acknowledgements

The author wishes to thank Lyle Steadman, Reed Wadley, and Kathryn Coe for suggestions on an earlier draft of this paper.

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Sea Turtles and Resistance to TEDs Among Shrimp Fishermen of the U.S. Gulf Coast

David R.M. White

Environmental Affairs Division, Southern California Edison Company

ABSTRACT The National Marine Fisheries Service (NMFS) has issued regulations requiring Southeast Atlantic and Gulf Coast shrimp fishermen to use Turtle Excluder Devices (TEDs) on their nets. Significant opposition has developed among Gulf Coast shrimpers. Ethnographic data, including observations of turtle capture and mortality, suggest reasons for resistance to the regulations.

Paul Durrenberger (1988) provides an excellent description of a complex legal situation which has led to pending regulatory requirements that U.S. shrimp fishermen install TEDs (Turtle Excluder Devices) on their trawl nets.¹ Durrenberger notes that Gulf Coast shrimpers believe they pose no critical threat to sea turtles and are intent on resisting use of TEDs. Here I offer ethnographic details on why shrimpers hold these attitudes. Key points are that shrimpers are not antagonistic toward turtles and are being neither duplicitous, nor irrational; their reactions are basically forthright and firmly based upon experience.

The Threat to Turtles

Shrimpers are closely attentive to the varied fauna brought in by their nets. Captains constantly evaluate the mix of species as one means of gauging whether their nets are properly "tuned" to work on the bottom without "plowing" (White 1977b:214). Thus Gulf shrimpers are well aware that they sometimes catch sea turtles. (It is in the rhetoric of confrontation that "we don't catch many turtles" becomes "we don't catch turtles.") Until recently, they did so with impunity; what to do with a turtle was strictly up to those on board the vessel.

Some shrimpers are recent recruits to the fishery, but many are from families with several generations of experience in Gulf coast fisheries. Along the eastern shore of Mobile Bay, Alabama, many people recall going down to "the front beach," on the Gulf of Mexico, to dig for turtle eggs in early summer.² Sometimes used for omelettes, the eggs were especially prized for use in cakes and puddings. Over the past three decades, though, increasingly rapid beachfront development (first cottages, then high-rise condos and hotels) has led coastal people to perceive lessened access to beaches, both for themselves and for turtles.

Alabama shrimpers interviewed in 1987-88 consistently held that (a) other causes are primarily to blame for turtle mortality (they cited beachfront development, intensive turtle eggging in Mexico and Central America, ingestion of plastic

debris, potential disruptions in the food chain, mortality caused by snapper fishermen and longliners, and pollution), (b) shrimpers catch relatively few turtles in the Gulf of Mexico and fewer or none in the bays, (c) turtles captured are usually returned to the water alive, and hence (d) using TEDs would provide little meaningful benefit to turtles.

The first of these points is not addressed here, although it might be noted that environmental organizations stress many of the same factors (among others) when not directing their comments at shrimpers (e.g., Wexler 1981, Plastic 1983, Carothers 1987, House 1987, Keller 1987). In discussion of their "final rule" requiring the use of TEDs, the National Marine Fisheries Service (NMFS) also notes such factors (*Federal Register* 52[124]:24247, June 29, 1987). The next two points, i.e., perceptions of shrimpers about capture rate and live return rate, may be addressed with data gathered in 1971-73 and 1977, before turtle capture became an issue.

Table 1 shows data from 29 trips on Gulf trawlers, with trip date (year and month), boat size and material, number of nights per trip, number of drags, and number of turtles captured. The data do not provide adequate comparison between large and small Gulf boats nor between shrimping in different areas or depths; most data are from small boats working between 10 and 30 fathoms. Fishing effort was not evenly enough distributed over time to allow meaningful comment on seasonality of turtle capture. The "bottom line" is simply that six sea turtles were captured during 195 nights at sea. In this, the data do provide a clear contrast between shrimping in the East-Central Gulf of Mexico and shrimping in the Cape Canaveral area of the Atlantic Coast; there, NMFS tests netted 42 turtles in 15 forty-five minute drags with a single TED-less "control-net", while the TED-equipped net caught none (*Federal Register* 52[192]:37153, October 5, 1987). When I mentioned this NMFS experiment to one shrimper, he exclaimed, "Damn! If I ever caught that many turtles, I'd *hafta* use them TED's, or *something!*" If capture rates in the East-Central Gulf and at Canaveral were closely similar, we would have netted nearly ten thousand turtles, rather than six.³

The reason Gulf Coast shrimpers say they do not catch (many) turtles is that, in fact, they catch very few. The capture rate varies, from year to year and place to place; one shrimper told me that he caught over a hundred turtles one year, but in other years he caught none. Even if my direct observations represent fortuitous timing or microlocations, and a capture rate only 10% of 'normal', the capture rate would still be only 0.6% of that suggested by NMFS for the Canaveral area.

Turning to mortality, shrimpers raise again questions. NMFS suggests an overall 23.3% mortality rate among turtles captured in shrimp trawl; if, per NMFS estimates, 47,973 turtles are captured annually, 11,179 die (*Federal Register* 52[124]:24246, June 29, 1987). Alabama shrimpers do not believe this, consistently claiming that most turtles are returned to the water alive; they also suggest that intentional butchering of turtles for food was a more substantial mortality factor in the past than accidental drowning in trawls. My observations lend some

Table 1. Frequency of Sea Turtle Captures in Shrimp Trawls (Ship Shoal, Louisiana to Cedar Key, Florida; 1971-73, 1977)

Trip#	Date	Boat/size/mat.	#Nights	#Drags	#Turtles
01	7107	"A" 43' wood	6	19	0
02	7108	"	4	10	0
03	7108	"B" 51' wood	7	25	0
04	7108	"	1	20	1
05	7201	"C" 76' steel	1	1	0
06	7207	"D" 85' steel	11	35	0
07	7207	"E" 57' wood	9	23	0
08	7208	"	13	32	0
09	7208	"	5	18	0
10	7209	"	7	20	0
11	7210	"	14	31	1
12	7211	"	9	23	0
13	7212	"	6	24	0
14	7212	"	3	9	0
15	7301	"	7	26	2
16	7301	"	2	0	0
17	7301	"F" 62' wood	5	13	0
18	7302	"	5	12	0
19	7303	"	7	16	0
20	7304	"	2	8	0
21	7304	"	5	11	0
22	7306	"E" 57' wood	11	29	1
23	7709	"	7	19	1
24	7709	"	3	9	0
25	7710	"	9	26	0
26	7710	"	13	39	0
27	7711	"G" 53' wood	2	4	0
28	7711	"	9	16	0
29	7712	"	7	22	0
Total			195	540	6

credence to both contentions, as indicated in Table 2 (this includes not only the six turtles I saw captured, but four others mentioned by personnel on other boats)

This sample of turtles caught is too small to be significant in discounting drowning; NMFS figures merely suggest that one of the six observed turtles might have been dead, and one (notably, the one caught during the longest drag) did come up stunned. Even so, reports from shrimpers suggest much lower mortalities. The man who reported catching over one hundred turtles during one year said he had caught two dead turtles in twenty years. But at the same time,

Table 2. Details of Reported and Observed Sea Turtle Captures in Shrimp Trawls (1971-73, 1977)

No.	Date	Lctn	Species	Drag Time	WDF	Cndtn	Fate
1	710820	4	Loggrhd	?	11	Alive	Released
2	710820	4	Green	?	11	Alive	Butchered
3	710821	4	Loggrhd	?	10	Alive?	Released?
4	710821	4	Loggrhd	1.8 hrs.	10	Alive	Released*
5	721016	2	Loggrhd	6.8hrs.	14	Alive	Released**
6	730113	5	?	2.5 hrs.	13	Alive	Released
7	730114	5	?	3.0 hrs.	13	Alive	Released
8	7304?	5	?	?	?	Alive	Butchered
9	730626	1	Loggrhd	4.3 hrs.	12	Alive	Butchered
10	770909	3	Hawksbl	2.5 hrs.	11	Alive	Released

Notes

Nos. 1-3, 8: Reported by other boats.

Nos. 4-7, 9-10: Directly observed.

Date: YR-MO-DA.

Locations: (1) Lightship LA, (2) North and South Bottom LA, (3) South of Horn Island MS, (4) Mobile Bar AL, (5) Apalachicola FL.

Species: Two turtles directly observed were not identified by species as they were in the wings of the net and were released without being brought on deck.

WDF: Water Depth, Fathoms.

Fate: * Release involved intervention; see footnote 5.

** This turtle appeared dead at first but was only stunned; it revived unassisted after about half an hour on deck.

my figures suggest that roughly 15-30% of turtles may have been butchered in the 1970s and before (current practice is unclear, but I am told that butchering has ceased).

Green turtles, though seldom captured, were prized by Alabama shrimpers; they did not sell them,⁴ but took them home or gave them to relatives or friends. Loggerheads were also valued for their tasty meat. Turtle shells were used, as flowerpots for the front yard or as home ornaments, but I know of no instance in which a turtle was killed simply for its shell.⁵

It is not my intention to directly challenge NMFS capture rate figures for the Southeastern U.S. as a whole, nor the mortality rates; my data are from only 6% as many observation-hours as put in by NMFS observers (*Federal Register* 52[124]:24244, June 29, 1987). NMFS recognizes the "unusually high concentrations of sea turtles at Cape Canaveral" (*Federal Register* 52[40]:6180, March 2, 1987), and TED requirements were scheduled to go into effect earlier there; it is clear that the total estimated annual turtle capture figures were not simply extrapolated from that extraordinary setting.

But even though my data do not "disprove" NMFS conclusions, it is also clear that the NMFS figures could in no wise be derived from my observations. My point is that observations noted here are probably typical of the experience of

many shrimpers who work the East-Central Gulf. Thus there should be little wonder if their view of reality scarcely resembles that seen by NMFS.

Surprisingly, shrimpers still bear little if any animosity toward turtles. In 1987-88, several voluntarily expressed beliefs that turtles "are God's creatures, too" and "have the right to live." Some indicated that they have always tried to resuscitate any turtle they didn't intend to eat; most expressed willingness to learn the NMFS techniques for resuscitation.

Shrimpers are fighting TEDs rather than turtles; a director of the Texas Shrimp Association and supporter of a Galveston turtle nursery project is quoted as stating that "everything we do for the turtle is going to be good for the shrimp, too. They both need a clean, healthy environment" (Edwards 1988b). Such attitudes could change, of course, if shrimpers find themselves economically harmed by TED regulations (Durrenberger's comments (1988) on the Iowa Cow War of 1931 are especially cogent in this regard).

Resistance to TEDs

Some environmentalists have explained shrimpers' resistance to adoption of TEDs by resorting to stereotyped images of fishermen. For instance, an Audubon Society newsletter editorialized that "... shrimp boat captains like to fish the way their daddies fished and didn't take to the newfangled contraptions" (Wille 1987).

Such characterizations are contradicted by the history of technological development in shrimping. Before 1918, the commercial fishery was negligible, depending on cast nets and hand-hauled seines; within living memory, shrimpers have (a) adopted trawl nets and motorized vessels, (b) switched from gasoline to diesel engines, (c) expanded into the Gulf with larger vessels, (d) largely replaced lugger-rigged boat pulling single nets with "double-rigged" boats pulling two nets, and (e) adopted a wide spectrum of electronic communication and navigation gear. Within the past fifteen years, Gulf shrimpers have begun pulling two nets from each outrigger (a configuration sometimes referred to as "four-bangers"); this involved much experimentation with center "sleds," "torpedoes," and "dummy doors" as alternative devices in conjunction with the paired otter boards or "doors." Also, new net designs have been developed recently, including a "bib net" particularly effective with white shrimp.

Shrimpers constantly work with their boats, rigs, and nets, rigorously testing performance; the double-rigged configuration is ideal for measuring results of experimental modifications (i.e., only one rig is changed, and catches are then compared). It is at best silly to suggest that shrimpers are afraid of technological innovation or unable to recognize a beneficial device when they see one, and at worst it is a rationalization which attempts to excuse ignoring their opinions.

The fact that shrimpers have not widely experimented with TEDs voluntarily is best explained by the observations that they see no potential benefit worth the bother. "Cannonball shooters"⁶ (Durrenberger 1988:200) were developed by shrimpers to deal with a problem they recognized, but the conceptually relat-

ed TEDs have been spurned. In fact, the precursor of the "soft TED" was developed in the 1950s by a South Carolina shrimper who had a significant problem with bycatches of jellyfish and stingrays (Voss 1988).

The ostensible benefit which shrimpers have been most widely expected to embrace is the decreased catch of finfish, jellyfish and "trash" with TEDs (Wille 1987, Edwards 1988a). Advocates of this view have suggested that the "TE" in TED should refer to "Trawler Efficiency" rather than "Turtle Excluder." Seen from outside, the logic is as follows: shrimpers catch large volumes of "trash" species which are unmarketable or bring such low prices compared to shrimp that processing is not economical; time spent sorting through "trash" for valuable species is a major labor activity on shrimp trawlers; hence shrimpers should welcome the reduced "labor costs." The argument rests on basic misconceptions about labor arrangements and costs on shrimp boats.

First, many Alabama and Florida trawlers include among the crew an apprentice deckhand or "fishboy" (White 1977a:163) who, like the "header" on Texas shrimp boats (Maril 1983:12), is not paid a direct share in the catch. Unlike Texas headers, who are paid on a piecework basis, fishboys are paid with "fish money" (White 1977a:225). However little economic return finfish may bring, it is usually enough to buy the labor of a young extra deckhand who assists significantly in sorting shrimp from trash.

Second, even with regular deckhands, sorting time has no direct effect on income or labor cost, and only rarely or indirectly on total catch or vessel efficiency. Captains and regular crewmen earn a percentage of "share" of the catch; quick processing means more time for relaxing or sleeping, but it does not enhance income. It would be different if deckhands were paid an hourly wage for processing; then, they would have incentives for taking longer at tasks, and boat owners would have incentives for reducing the time required. As it is, work 'slow-downs' are virtually unknown on shrimp boats. Boat owners and/or captains, like crewmen, are seriously concerned about processing time and bycatch mass only if it takes so much time as to deprive the crew of essential sleep or if bycatch damages the rigs or prevents efficient re-setting of the nets.

Thus while TEDs might make the labor process more efficient, they would not make labor less costly. Proponents of TEDs have also suggested that fuel efficiency on trawlers would be improved (Fitzgerald 1988:30), but at best this would be a 1-2% reduction in fuel use during certain limited operating circumstances. All of the "efficiency" arguments apply at best to marginal costs, while overlooking the possibility of significant catch losses.

The various arguments for increased "efficiency" with TEDs are rationally constructed, but empirically uninformed. In contrast, shrimpers know of various fishing conditions which they reasonably fear will make their rigs inoperable with TEDs. Seaweed beds of various sorts are a primary concern. For example, "sauerkraut," found near Louisiana's Chandeleur Islands and Mississippi River passes, clogs webbing and accumulates around the "choke strap" at the net's throat; it often reduces drag length from three or four hours to two, and with TEDs could block the net within minutes. Buckmaster (1988) and Edwards

(1988a) report similar problems with seaweed in the Carolinas. Other organisms such as "loggerhead sponges" (*Speciospongia vesparia*), common on winter grounds around Apalachicola, Florida, would pile up in front of a TED without being ejected because they are larger than the 25"-35" openings. Edwards (1988a) reports clogging with both sponges and starfish around Key West, Florida. Ironically, larger sea turtles could also be trapped, deflecting fish and shrimp out through the TED escape hatch while they remain pinned inside.

The bay fishery deserves separate mention, as it faces extreme problems even by NMFS reckoning. As initially proposed, the NMFS rule would have exempted from the requirement to use TEDs all nets with "a headrope length of 30 feet or less," because "TEDs are not efficient, both in terms of turtle exclusion and shrimp retention, when used on small nets" (*Federal Register* 52[40]:61871-82, March 2, 1987). As issued in final form, the rule permits no exemptions based on net size, but allows boats less than 25' long to work without TEDs so long as they make drags of 90 minutes or less (*Federal Register* 52[124]:24244-262, June 29, 1987; *National Fisherman* 1988).⁷ This excuses only the very small "Lafitte skiff" commercial boats, and "recreational" shrimpers who fish from skiffs with outboard motors.⁸ At least in some states, the larger commercial bay boats are left with a requirement that they either limit drag time to 90 minutes, or use a device which NMFS has stated neither excludes turtles nor catches shrimp with nets the size many of them pull (Alabama allows no more than 50' of headrope netting, and double-rigged boats use twin 25' nets).⁹

Any inshore boat is exempt from using TEDs if drag time is limited to 90 minutes, but bay shrimpers say this would be "impossible" given present work patterns and crew arrangements. Bay boats rarely carry more than two crewmen, and ever since the escalation of fuel prices in 1973 it has become increasingly necessary for them to work "days and nights;" the 100-hour week which was previously the extreme (White 1977b:201) had become the norm in 1987. In order to accomplish this, the captain and crewman must alternate wheelwatches with naps; to get sufficient sleep, three to five hour drags are necessary. With 90-minute tows, the shrimpers could get eight hours of sleep per day only if they consistently held deployment, retrieval, and processing time to no more than thirty minutes, and took meals separately during their respective wheelwatches. But eight one-hour naps per day over a four- or five-day period is a more strenuous routine than anything shrimpers have previously had to endure. The only solution would be a larger crew, but production is considered insufficient to support three men.

The Management Problem

As noted by Durrenberger (1988:209), resistance to fishery regulation is exacerbated when policy objectives are peripheral to fishery issues per se, or when policy development does not take fishermen's interests into account. Both problems are evident in the case of sea turtle protection and the "solution" of TEDs. Shrimpers have not been shown (to their satisfaction) that they are a primary

threat to turtles, nor that protecting turtles will help the fishery; the trawl device being required promises no visible benefit to them, but the adverse consequences they anticipate seem all too real. The image of NMFS, not favorable to begin with, has been sullied by a widespread perception that NMFS does not understand the issue as it affects shrimpers.

NMFS experiments with TEDs have been directed toward achieving >96% reduction in turtle capture, with no criteria for acceptable extent of shrimp loss; NMFS does, however, have a "research protocol" for studying loss of shrimp (*Federal Register* 52[40]:6181, 6198-99, March 2, 1987). NMFS has claimed that TEDs are capable of "maintaining shrimp catches equal to standard rigged trawls," and formally defined a TED in 50 CFR 658.2 as "... a device ... that reduces the catch of sea turtles and finfish bycatch, while not reducing shrimp catch" (*Federal Register* 51[992]:17488-89, May 13, 1986). But elsewhere they admit that "some TEDs may reduce shrimping efficiency" (*Federal Register* 52[40]:6181, March 2, 1987). Here NMFS also speculates that certain TED designs (yet to be developed) "may improve shrimp yields." Perhaps NMFS should have said that other designs may lessen shrimp losses. Some environmentalists, of course, boldly claimed that "studies now show that the improved equipment causes no loss in shrimp yields" (Reilly 1987) or that "some TED designs actually appear to increase the shrimp catch" (Historic 1987:1). NMFS' most consistent claims of no shrimp loss apply to their own rigid-frame TED design; with the "soft TEDs," attractive to some shrimpers because they seem safer, NMFS notes shrimp losses ranging from 17% to 79.5% (*Federal Register* 53[170]:33820).

Shrimpers remain unaware of NMFS data indicating maintenance of shrimp catches with TEDs (much less, improvement). Contrarily, shrimpers who tested the devices report losses ranging from 20-50% (Howard and Brownfield 1987, Buckmaster 1988). Alabama shrimpers I talked to expected losses of 20-30%. Prevalent industry assessments are exemplified by Edwards (1988a:76): "The consensus of researchers not promoting a particular type of hard or soft TED is that all will lose a certain amount of shrimp under some of the bottom conditions encountered by shrimpers in every local area."

In spring, 1988, NMFS finally began a study of shrimp catches in TED and non-TED nets; results are expected by January of 1990 (Piatt 1988). By then, it will be too late for the information to assist shrimpers in choosing a TED design appropriate to their particular circumstances. Perhaps even worse, from a management perspective, is the fact that it will also be too late for NMFS to redeem themselves in the eyes of the shrimping industry.

Summary and Conclusion

I have presented here some of the specific objections which shrimpers have to the TED regulations; this required outlining their criticisms of NMFS. It must be stressed that an adequate explanation of shrimpers' antagonism toward NMFS cannot be based on political attitudes. Some shrimpers could be

described as anarchists (albeit apathetic) and many express commitment to *laissez faire* economic policies, but this is not the crux of the matter. No matter how much negativity one hears regarding NMFS personnel or regulations, it must be understood that these expressions are situational.

Shrimpers are not opposed to any and all regulation of fishery resources. The best evidence of this is that permanent closures in some waters, and seasonal closures in others, have been an accepted part of inshore shrimping for many years. Shrimpers realize that times are changing, and that regulations must change with the times. They ask only that their interests be recognized and balanced with other interests. Also, if other interests must prevail, shrimpers will be satisfied (which is not to say pleased) only if the decision "makes sense" and is "fair." In the present instance, this would require (a) convincing them that turtles are in fact endangered, (b) presenting them with evidence that their activities are a significant threat, and (c) demonstrating that all culpable parties (whether beachfront developers, or foreign countries) are being proportionally burdened with responsibility for setting things right.¹⁰

Acknowledgements

Paul Durrenberger and Maria-Lydia Spinelli read drafts of this paper and provided useful comments. I thank them. This research was self-supported. Views expressed are not intended to reflect adopted policies, positions, or interests of the Southern California Edison Company.

Notes

1. Durrenberger's account ends in July 1988 with the Endangered Species Act (ESA) awaiting action in the House of Representatives, which had previously rejected Senator Howard Heflin's delayed enforcement amendment. Since then, both Houses of Congress passed the ESA with the Heflin amendment, and it was signed by President Reagan. Implementation was delayed by 10 months in offshore waters and 22 months in inshore waters (i.e., until May 1, 1989 and May 1, 1990, respectively) (Fee 1988:21).

2. Turtle egg-hunting time on Alabama beaches has been identified by some as the first full moon in June (Buskens 1986:184, 201).

3. Calculated from NMFS capture rate of 7.47 turtles/hour, if double-rigged; correcting for assumed 20% smaller nets on Alabama boats, 540 3-hour drags would yield 9,681 turtles.

4. There have been exceptions elsewhere along the Gulf Coast. In March, 1973, an inshore shrimper from Cedar Key, Florida, reported fishing for turtles whenever possible; he mentioned several breaks in Waccasassa Reef where he would stretch a net 100 yards wide, and told of getting 14 turtles "in one tide." Local restaurateurs also caught turtles "whenever we can" and were soliciting Texas and Apalachicola boats temporarily in Cedar Key to bring in any green turtles captured (those weighing >125 pounds). They paid \$3.85 per pound, dressed, and did not want loggerhead turtles.

5. In one instance (see Table 2), I personally intervened to secure release of a loggerhead turtle which a crewman initially wanted to take home as a curiosity and then expressed a desire to kill. Perhaps notably, he was from a non-fishing family and did not stay with shrimping; I neither observed nor heard of similar behavior among those from fishing families.

6. The name for "shooters" involves a play on words; it could as aptly be spelled "chuters."

7. The shift in focus from net size to boat size seems to reflect an enforcement consideration (it

being difficult to judge the size of a net, visually, whereas boat size is easily assessed) rather than being based on matters of effective turtle capture/exclusion.

8. In 1973, commercial bay boats in Bon Secour, Alabama, ranged from 27' to 52' in length. Now, two trends are apparent: first, toward modified Lafitte skiffs (Piatt 1989) which are less than 25' long, and second, toward larger boats (some > 60'). In most cases, even the latter continue to pull small nets.

9. The mischief (and fruitless expenditure) caused by changing from proposed regulation of net size to final regulation of boat size is suggested by what happened with Mississippi state requirements. Before TEDs, boats shrimping in Mississippi waters had never been allowed to pull double rigs, and most trawled with single 38' to 50' nets; in July 1987 Alabama shrimpers told me that Mississippi had changed their law to allow re-rigging with twin 25' nets, in anticipation of TED regulations.

10. The NMFS Office of Protected Species and Habitat Conservation conducts "Section 7" (Endangered Species Act) consultations, so the Fish and Wildlife Service (FWS) is not directly involved in NMFS policy directions. Nonetheless, it is noteworthy that parts of the shrimpers' critique (i.e., regarding the extent of turtle endangerment by shrimpers, and the question of whether regulations should apply equally to the Atlantic and the Gulf) have just been echoed in broad terms by a General Accounting Office (GAO) report requested by Representative (D-Mass.) Gerry E. Studds. According to the *Los Angeles Times* (Friday, January 20, 1989, page I-2), the GAO report criticized FWS for concentrating attention on species with high "public appeal" and for taking actions based more on expedience than effectiveness.

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Book Reviews

ELLIS, Carolyn *Fisher Folk. Two Communities on Chesapeake Bay*. Lexington: The University Press of Kentucky, 1986. xi + 202 pp., notes, references, index. \$ 20.00 (cloth).

The east coast of the United States is dotted with isolated settlements where independent petty fishermen and their families strive to maintain their way of life. Until now, anthropologists have paid little attention to the 'watermen' of Chesapeake Bay. *Fisher Folk* is therefore a welcome contribution to ethnographic knowledge of this region. Sociologist Ellis did fieldwork on Fishneck Peninsula and Crab Reef Island (pseudonyms) for extended periods between 1972 and 1984. Her short book "explores the different ways bay residents struggle with their identities and the conflicts and contradictions that occur when contact with mainstream America increases" (p. 3). In seven chapters, Ellis vividly portrays the two fishing communities, paying special attention to their social, religious and economic organization. By using a comparative approach, she throws light on similarities and differences in the residents' response to assimilation into 'the American way of life.'

Fishneck, a community of approximately 600, comprises six shabby marshland settlements. At the core of its social and economic organization is the family. Kinsfolk work and spend their leisure time together, and have reciprocal obligations and responsibilities. Men are mainly breadwinners, women mothers and homemakers. Women do, however, sometimes earn extra income through wage labour in one of the local fish packing plants. Ellis deals at length with sexual permissiveness in a community where divorces are nonetheless rare. The seven churches, of four denominations, do not and cannot interfere with sexual attitudes. Religion is preeminently an individual experience for Fishneckers. In social life, the churches are of little importance.

Quite the contrary is true of Crab Reef Island, a community of 650 living in well-kept houses. The Methodist church is the linchpin of social life. It plays a dominant role and serves as the local government, providing several services to the community. As such, it exercises a strong hold over the life of its members, urging them to put their energy at the service of the community, e.g., in one of the church-based voluntary associations. If a problem arises, the church (and not some kin group) will try to solve it. Kinship is still important, however, but only at the level of nuclear families. Women keep house, guard the household budget, help their husbands when necessary, and are the backbone of voluntary organizations. Even so, divorces are common.

Maritime pursuits dominate the economy of both Fishneck and Crab Reef. Fishneckers work with small, relatively inexpensive boats, and fish for crabs, oysters, or clams according to the season. During summer, fishing for hard crabs (i.e., crabs with hard shells) is their main economic activity, in winter oystering, while clamming and other 'fill-in' work, for example wage labour in one of the local fish houses, provide an alternative source of livelihood. Decisions to go out or stay home, and about which species to pursue, are made on a day-to-day basis. Incomes therefore fluctuate, a situation exacerbated by the unstable prices seafood fetch on the market. Yet the watermen value their independence more than the accumulation of wealth. They spend their money when earned; saving and reinvesting for upward mobility are rare; and those who adopt such a strategy often leave Fishneck or become fish house owners or storekeepers. These middlemen usually build up a network of loyal clients by offering credit and loans.

Crab Reefers also fish for crabs in summer and oysters in winter in one-or-two-person operations. They use larger diesel-powered boats, rigged with various kinds of gear, which

cost more than the craft used on Fishneck. Many own two boats, one for crabbing and one for oystering. In most cases, those who fish soft crabs (i.e., crabs that have shed their shells) act as their own middlemen to control marketing. Hard crabbing is less capital intensive and profitable, however, and the catch is sold to one of the local crab packing and canning houses. Oystering is usually done to bridge the season and yields lower profits than soft crabbing. Crab Reefers value their independence, hence they despise wage labour. It provides a living 'for those who cannot make out.' An ethos of hard work prevails and money earned is reinvested in vessels and gear, but there are three limits to upward mobility. One is conservation laws, which restrict expansion of the operations; a second is the emphasis on independence; and a third is communal norms and values. The latter inhibit overt competitiveness, invidiousness and achievement differences, and stress mutual help, cooperation and communitarianism. Nonetheless, this egalitarian ethos is in part a facade, and watermen do strive for success and prestige, though in a covert way. One can achieve prestige, for instance, if one becomes an economic broker or a leader in community (usually church) affairs.

Following her ethnographic account, Ellis rigorously compares the two communities. She painstakingly traces similarities and contrasts, especially with regard to their economic, social and religious organization, and norms and values. She aims to show that such communities cannot all be lumped under the heading *Gemeinschaft*, because doing so would obliterate marked distinctions: "Fishneck and Crab Reef differed visually, in how people living there experienced community life, in the culture of work and work values, and in their mode of organization" (p. 141). Therefore, Ellis reintroduces John Embree's concepts of 'tight' and 'loose' communities. Whereas Fishneck is a loose and open community, Crab Reef is tight and restrictive. In the former, the family is the focus of organization, integration, and solidarity; in the latter, it is formal institutions, especially the church. Fishneckers enjoy considerable personal freedom, while Crab Reefers publicly conform to community norms and values, since the residents exercise a strict social control on each other.

In the last chapter, Ellis tries to explain why the two communities took different routes of social change. Though they once were quite similar, Fishneck and Crab Reef "have diverged for more than the last 150 years" (p. 164). She argues that this is so owing to their different response to growing economic opportunities and the importance of the church in Crab Reef's social organization. Whereas Fishneckers resisted integration into and dependence upon a money economy, Crab Reefers readily accommodated it, not least because of the labour ethos promulgated by religious leaders. Yet, things are changing rapidly. Fishneckers are increasingly exposed to contact with the mass society and culture, especially through their children, who visit mainland schools. They no longer resist integration into it. Paradoxically, it is exactly this contact that makes them aware of their 'otherness' and sharpens their sense of themselves as a community. By contrast, Crab Reefers have been exposed to mainstream values and customs for a much longer time, thanks to tourists and islanders who have moved to the mainland. This has led them to question traditional community values and institutions. Though in both communities social change owes largely to increasing contact with mainstream society, on Fishneck "contact is leading to cohesion and emergence of a sense of community that moves across family ties", whereas on Crab Reef "change is contributing to cleavage and breakdown

of consensus" (p. 181).

Ellis's book is an interesting ethnography that enhances understanding of the different responses of domestic commodity producers to contact with the outside world. Nevertheless, there are critical points to be made. Firstly, social change is almost entirely attributed to adaptation to external forces. We hear little about endogenous dynamics. Secondly, Ellis is not very clear as to when the communities began to diverge; was it 200 years ago (p. 187), 150 years ago (p. 164), or even more recently? It is also confusing to read in one section that "the two communities are similar in resistance to assimilation" (p. 3), while elsewhere Ellis maintains that "Crab Reefers' ties with the larger society were established, mainly by market relations, much earlier than on Fishneck" (p. 181). Are we to believe that the communities previously were self-sufficient 'primitive isolates'? This does not seem likely. Thirdly, why does she use Embree's hotly debated concepts of 'tight' and 'loose' communities? These tautological labels have little analytical value. Moreover, I wonder if Fishneck really is a 'loose' community. The data Ellis presents toward the end of her study seems to contradict this viewpoint. Fourthly, too little is said about how formal or informal access to marine resources is regulated. Apparently, the Bay is a common property resource. There are, however, conservation laws, but Ellis omits information about the county, state and federal political and judicial regulatory systems. Ellis does not even mention the States in which these communities are located. Why not? She reiterates much information, while some observations need elaboration. Given the title of her book, one would expect a more detailed account of fishery management, fishing operations, marine ecology, territoriality, patterns of occupational inheritance, and so on. Lastly, the arrangement of data is somewhat odd. Why, for instance, is the history of both communities presented only near the end of the book? All in all, Ellis contributes to ethnographic understanding of these Chesapeake Bay communities, but is weak in her analysis and unbalanced in the presentation of her data.

Rob van Ginkel
University of Amsterdam

AUBAILLE-SALLENAVE, Françoise, *Bois et bateaux du Vietnam*. Paris: SELAF (Ethnoscience 3), 1986.

This highly technical book illustrates the originality of naval architecture in Vietnam. The author is the daughter of a former colonial civil-servant responsible for water conservation and forestry in the French protectorate of Tonkin (North Vietnam). His first-hand knowledge of traditional Vietnamese ship-building provided the groundwork for this book. The first part is arranged around two opposing theories concerning mechanical resistance of naval craft. The European theory stresses resistance through rigidity, the Asian adaptation through flexibility. Vietnamese build their boats by combining lightness and resistance. First, there is the judicious choice of plant materials (timber, resin, lianas), selected for physical and mechanical properties best suited to meet the various requirements of each part of the boat. Then comes caulking, which is of prime importance in Vietnamese craft with their woven bamboo bottoms. The first stage in shipbuilding is the right choice of timber in the forest according to species and tree-shape. The

timber trunk is dragged, floated and rafted to the shipyard, where it is then made ready for use. Descriptions of tools and of various techniques of rip-sawing and bending are given along with a specialized vocabulary.

The second section of the book examines 138 species of plant materials used in different parts of Vietnamese craft. The author bases her analysis mostly on materials her father gathered during his stay in Vietnam. She apologizes for not having travelled to Vietnam during the Second Indochina War, but given her non sensitive subject it is quite incomprehensible why this was impossible. Even nonspecialist travellers today can see in the seaports and coasttowns how the Vietnamese devoted themselves to the repair of their traditional craft. The famous bay of Halong, near the port of Haiphong, presents a vivid museum of all the jonks the author's father described in the thirties.

For the social anthropologist who hopes to find information on Vietnamese fishing communities or social organization, this book is no help. From the studies of Langrand (1945) and Moréchand (1955), the author uses only some technical details. One wonders, having in mind Malinowski's superb description of Trobriand ritual and magic in canoe construction, what rituals and ceremonies attend shipbuilding in a mainly Buddhist society. The theoretical ambitions behind this book are modest and certainly subordinate to any interest in material culture. Nevertheless, readers interested in technical description and details of traditional Vietnamese shipbuilding will find here a good reference work.

John Kleinen
Center for Asian Studies Amsterdam.

HOUSE, J.D. (Ed.) *Fish versus oil: Resources and rural development in North Atlantic societies*. (Social and Economic papers no. 16). St. John's: Institute of Social and Economic Research, Memorial University of Newfoundland, 1986. xii + 197 pp., notes, references, photos. Cdn\$ 13.95 (paper).

During recent fieldwork among Norwegian small-scale fishermen I noticed that some of them were also involved in the oil business. Due to strict state regulation of the fisheries, expansion of the industry is hardly possible. Since the oil industry is based on a free-market system, some fishermen have tried their luck in this industry. They use their old fishing vessels as service-, supply- or standby-boats.

My impression that the oil industry is a major influence on fishing is confirmed by Bjørn Hersoug's article in which he describes the results of fieldwork done by a group of students at the Institute of Fisheries at the University of Tromsø. Hersoug focuses on small fishermen firms which have entered the oil industry and act as important intermediary agents linking fishermen with the relevant qualifications to the oil jobs. This article is one of the twelve essays dealing with the implications of the coming of the oil industry for the fishing industry in several North Atlantic countries in the book edited by J.D. House.

The book had its origin in the 1982 annual conference of the Atlantic Association of Sociologists and Anthropologists. After the discovery in 1979 of oil off Newfoundland and natural gas off Nova Scotia many in this part of Canada began worrying about the likely effects of an offshore oil industry upon established industries and communities.

It was for this reason that the conference choose 'Fish and Oil' as its theme. The concern of the book is rural development: "... the interaction between fish and oil has to be understood in terms of the wider and longer-term context of social and economic development in rural areas" (p. xi).

The authors differ about the severity of the conflict between the oil and fishing industry. Aspects of this conflict are: Debris caused by the oil industry, for instance debris dumped from platforms and pipelaying barges which causes damage to nets and gear of fishing vessels. Lack of access to fishing grounds due to restricted areas around rigs, platforms and pipelines. Pollution of fish stocks by oil, caused by accidents on platforms or with oiltankers. Competition for such resources as harbour space and repair facilities. And finally market effects: higher prices for goods and services and loss of labour to the oil industry.

Jentoft, writing on Norway, deals with this last aspect. He asks if there is a conflict between the fish and oil industry with respect to the labour market. He maintains that there are few fishermen in the oil sector in Norway today, though the changing job opportunities in coastal communities will affect the fishing industry. Jentoft says that the number of Norwegian fishermen has dropped drastically since 1945. This decline has caused fear among community members and government personell about the survival of the fishing industry and coastal communities. The lack of interest in the fish industry in certain communities is indeed worrying, but Jentoft does not mention that this decline is also caused by modernization and restrictive government rules. In the 1950s, for example, crews of purse-seiners consisted of 20-25 men. Due to modernization they need only 10-12 men today.

Though the authors differ about the severity of the conflict, most agree that the arrival of offshore oil has been harmful to the fishing industry. According to Mackay however, who writes on Scotland, conflict is too strong a term. In recent years the two industries have cooperated to the benefit of both. There were problems in the early years, over debris and competition for harbour facilities, but most of these have been solved by compensation agreements between the oil and fish industry.

House argues that it is not so much the nuisance problems (debris, pollution etc.) that pose the main threat to the fishing industry in Atlantic Canada. These problems can be dealt with, for example, by measures such as compensation funds. More serious are the fundamental problems: the economic and financial dependency of the local economy and the government upon the oil industry; loss of people from, and of people's commitment to, the fishing industry; and the erosion of fishing communities and cultures.

McNicol and Blackadder's papers demonstrate that oil is unlikely to serve as a replacement economy. Even where it does it will only be for a limited period. McNicol's contribution systematically examines oil's economic impact on several rural areas in Scotland. He shows that disappointingly few linkages develop between the oil sector and the other sectors of the local economy. Oil persists only as an enclave economy. Blackadder demonstrates for the Shetland Islands that many people are working in the oil industry, that the unemployment rate is one of the lowest in the U.K. and that people are earning more money than before. So far, the impact of oil has been beneficial. But Blackadder is pessimistic about future developments because of the unpredictable nature of oil. The island economy is dependent upon the oil economy and the traditional industry is on the decline.

According to him the problems in and even the decline of the fishing industry (and other traditional industries) cannot be attributed solely to the impact of the oil industry. But the development of the oil industry certainly hastened their decline. This is also the opinion of Byron concerning the Shetlands.

From Goodlad we learn that during the first years of oil exploration fishermen's associations on the Shetlands reacted slowly. The national government also paid little attention to the interests of the fishing industry. Goodlad concludes that the bargaining position of the Shetland fishermen has not improved. Andresen notes the same issue for Norway and points to the fluctuating influence of the Norwegian fishermen's organisations. Heber concludes that the Nova Scotia fishermen are poorly organized to take any effective part in development planning for the offshore industry.

Almost all contributors agree that the fishing industry needs to be protected during the oil era, and by means of government regulations. Unfortunately, the interests of central governments are often much greater than those of small peripheral communities. Hersoug is rather pessimistic about the fishermen's ability to compete with large national oil-service companies also because of the absence of special government support programmes. Canning notes that there is consensus that traditional industry makes a valuable contribution to Newfoundland's economic life and there is a growing commitment to protect it from external disruption. Blackadder summarizes the Shetland Islands Council's strategy for future development. It envisions a central role for the fishing industry which has been adversely affected during the first decade of Scotland's oil era.

The last contribution by Marchak is an overview. She concentrates on general and theoretical issues which the preceding chapters raise, such as the nature of staple economies as dependent economies and the relative economic and political powers of peripheral regions. She maintains that the task of social scientists in such situations is "... to alert governments, demonstrate the consequences, show comparative data and provide a voice for the less powerful" (p. 186). This of course is a very noble ideal, one which should be incorporated in social science, but one which, unfortunately, is not very realistic. Besides, it is very easy to say such things but gratuitous remarks are better omitted.

Though not all contributions are of the same weight 'Fish versus Oil' is an interesting and stimulating book for those interested in the fisheries. From a comparative perspective, the consequences of the oil industry for the fisheries appear to be much the same everywhere.

Christa Ran
University of Amsterdam

Books Received

Anthropologie

- 1988 *Anthropologie Maritime. Histoire des pêcheurs ... Histoires de pêcheurs.* Cahier No. 3. Paris: Centre Ethno-Technologie en Milieux Aquatiques.
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1982 *Belonging. Identity and Social Organisation in British Rural Cultures.* Social and Economic Papers No. 11. St. John's: Institute of Social and Economic Research, Memorial University of Newfoundland.
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1989 *Deep Water. Development and Change in Pacific Village Fisheries.* Boulder & London: West View Press.
- Ruddle, Kenneth & Gongfu Zhong
1988 *Integrated Agriculture-Aquaculture in South China. The Dike-Pond System of the Zhujiang Delta.* Cambridge: Cambridge University Press.

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4. Place figures, tables, graphs, charts, and maps (titled and numbered) on separate pages, and note clearly in the text where they should appear. Draw charts and maps in black waterproof ink, and submit them camera-ready.
5. Use author-date references (Byron 1980:228-31; Taylor 1983; Löfgren 1979), and list all works cited alphabetically by author:

Byron, R.

- 1980 *Skippers and Strategies: Leadership and Innovation in Shetland Fishing Crews.* *Human Organization* 39(3):227-32.

Löfgren, O.

- 1979 *Marine Ecotypes in Preindustrial Sweden: A Comparative Discussion of Swedish Peasant Fishermen.* In: R. Andersen (Ed.), *North Atlantic Maritime Cultures. Anthropological Essays on Changing Adaptations.* The Hague: Mouton. Pp. 83-109.

Taylor, Lawrence J.

- 1983 *Dutchmen on the Bay. The Ethnohistory of a Contractual Community.* Philadelphia: University of Pennsylvania Press.

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