SOCIO-ECONOMIC IMPLICATIONS OF A ZERO CATCH LIMIT ON DISTRIBUTION CHANNELS AND RELATED ACTIVITIES IN HOKKAIDO AND MIYAGI PREFECTURES, JAPAN

The attached report contains important information on socio-economic implications of a zero catch limit. The Government of Japan, therefore, submits this report as one of its documents to the IWC for reference to the Working Group on Socio-Economic Implications of a Zero Catch Limit.

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Socio-Economic Implications of a Zero Catch Limit on Distribution Channels and Related Activities in Hokkaido and Miyagi Prefectures, Japan

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EXECUTIVE SUMMARY

Anthropological field research on the lives of people involved in small-type coastal whaling (henceforth STCW), the distribution of whale meat, and related activities was undertaken in Hokkaido and Miyagi Prefectures, Japan, during the Spring and Fall of 1988, the first year in which the taking of minke whales was totally banned.

The imposition of the zero catch limit has had impact on communities in Hokkaido (especially Abashiri) and Miyagi Prefecture (especially Ayukawa) in many direct ways:

- — on employment in enterprises involved in whaling production, processing, and distribution, and hence on the life of families whose livelihood had depended on this employment;
- — on the viability of family enterprises that in some cases are several generations old;
- — on customary social relations, patterns of reciprocal gifting, and other social rituals within whaling communities;
- — on the viability of key institutions in the general maritime economy of Ayukawa, such as the Maritime Wholesale Market and the Fisheries Cooperative Association;
- — on other economic foundations of community life, such as tourism; and,
- — on patterns of consumption influenced by the strongly-held dietary preferences of local consumers.

The impact of the zero catch limit is particularly evident in Ayukawa, where the impact is intensified by the concentration of whaling activities, processing and distribution, consumption, and whale-related social and ritual activity all largely centered on a single small, isolated community. In Hokkaido, where these constellations of activities are more geographically dispersed, the impact is not so immediately evident, though it is clearly as severe in its effects on the "core whaling community" (Iwasaki 1988).

This background report is based on field research in Hokkaido in October 1988 and in Miyagi Prefecture in December 1988, with some additional information collected in April 1988 (in Miyagi) and between October 1988 and January 1989 in Tokyo. This field research primarily focused on the structure of the various channels of distribution for whale products, the networks of social ties that link producers, distributors, and consumers both formally and informally, and the social organization of the various family enterprises and other social units that distribute, process, and consume whale products[1].

During the field trips in October and December 1988, a total of 51 people were interviewed including whalers, distributors and processors of whale meat products, retailers and wholesalers, people in other maritime industries, officials of Fisheries Cooperative Associations (FCAs), officials of wholesale markets, officials of local governments, and other residents of whaling communities. In addition, published and unpublished statistical data was collected wherever possible.

INTRODUCTION

This background report discusses aspects of the socio-economic impact of the implementation of the zero catch limit on minke whales taken in the coastal waters off Hokkaido and Miyagi Prefectures, Japan.

This moratorium took effect on April 1, 1988, at what would normally have been the beginning of the six-month smalltype coastal whaling (STCW) season for minke whales as regulated by the Government of Japan, which in recent years has set a total quota of slightly over 300 minke whales[2] for the nine STCW vessels licensed by the Government.

This report focuses primarily on the impact that the moratorium has had or may have on: employment and the organization of traditional family enterprises; on customary social relationships within whaling communities; on consumption patterns and culturally determined food preferences; on various levels of retail and wholesale activity, particularly on the viability of institutions in Oshika-cho (Ayukawa); and, on other economic strategies including mariculture and tourism.

This background report is based on field research in Hokkaido in October 1988 and in Miyagi Prefecture in December 1988.

IMPACT ON EMPLOYMENT, ON FAMILY LIFE, AND ON FAMILY ENTERPRISES

The loss of employment resulting from the cessation of STCW is, of course, most directly felt by whalers and those who had been employed in the primary stages of processing and distribution.

In Abashiri, for example, the two local whaling operations employed crew members, flensers, processors, and clerical personnel totalling 30 people, many of them related to one another. One operation had four family members as owner-operators, eight crew members, one chief flenser (also a relative), and four to five part-time flensers. With the cessation of whaling, all but one of the owner-operators were fired or laid off and forced to find alternate employment. The other whaling operation included its owner-operator, a crew of seven, and five workers in a processing workshop. During the 1988 season operations kept going, hunting beaked and pilot whales, but the processing workers were fired when the processing workshop was closed, and the owner-operator expressed grave doubts that the operation can continue in the future.

The immediate employment impact on local wholesalers and others involved in the primary distribution of whale meat has been mixed. In both Abashiri and Ayukawa all these firms are family-enterprises[3], generally employing no more than three or four people all of whom are family members. Some have simply gone out of business; others have switched into new lines of business or refocused their energies on other existing lines of business (e.g., a whale wholesaler who now makes his income from his former sideline as a small-scale rice dealer). The impact on distributors and others at this level will be discussed in more detail below, in the section on **Impact on Retail and Wholesale Enterprises.**

The difficulties of finding new employment for males displaced from whaling and processing are common topics of conversation among people formerly active in whaling in Abashiri and Ayukawa. One official of Oshika-cho in charge of the town's economic planning section estimated that the earnings of the average whaler who managed to find a land-based job declined by about half. But he, and others, noted that many former whalers were unable to find jobs in the immediate area and had been forced to move to other towns and cities in search of work[4].

In recent years Oshika-cho's maritime economy has attempted to diversify, primarily through intensive maricultivation of silver salmon, in large off-shore enclosures that dot the bay of Ayukawa and those of nearby settlements. (For additional discussion of mariculture, see section below, entitled **Other Economic Impacts.**) Although salmon cultivation has provided some employment opportunities for displaced whalers — and indeed several former whaling-related concerns, including a whaling boat owner and a former whale wholesaler who have branched out into or have replaced their former activities with salmon cultivation — it has not absorbed all the displaced labor. And many whalers find that the work of salmon cultivation is physically more arduous than whaling; whalers and officials report lower back pains and hand injuries are common among workers on the salmon pens.

Officials of the Oshika Fisheries Cooperative Association (FCA) and others directly involved in whaling operations in the past spoke about the increase in working wives among whalers and whale processors, and the difficulties that these women faced both in finding work

and in reconciling domestic responsibilities and expectations with the economic difficulties their families now faced. Whaling crew members in Abashiri echoed these concerns about new tensions created in family relations both by the males' loss of earning power and self-esteem and by the new demands placed on their wives.

Work outside the home (except in the context of a family enterprise, as explained below) is not considered in Japanese society a desirable norm for women[5], and such work — however necessary it may be for a family's financial survival — is, at least, perceived as detrimental to other family members, especially children. Japanese beliefs about childrearing and children's educational success put a great premium on the presence of a devoted, directive mother to supervise the child's study, play, and social development [6]. Several interviewees in Abashiri commented on discipline problems stemming from the *kagikko* (latch-key children) phenomenon — unsupervised children who return each day to homes where all the adults are out working.

Concerns over juvenile delinquency were expressed by informants in both Abashiri and Ayukawa. Whalers in Abashiri commented on the loss of a prestigious occupational role model for boys growing up, but officials in the Town Office in Oshika-cho spoke of the more serious sense of alienation they found in young people in Ayukawa who could foresee no occupational future for themselves nor any social future for the community. Precise statistics were not available, but one Oshika-cho official formerly employed in the town's Board of Education reported increasing — though still relatively small — numbers of incidents of juvenile delinquency such as drinking, fighting, driving accidents, and inability of parents to control their children.

Informants predict a more direct impact on children's education simply from the loss of family income [7], and several Abashiri whalers commented on their financial fears regarding their children's future educational prospects [8] and talked of adolescents who had been forced to abandon further education in order to take a job. Similar comments were made by non-whalers — including officials of the Oshika FCA and the town of Oshika — regarding the educational impact on whalers' families and the families of whale processors.

In addition to the impact of the moratorium on family members and on the dynamics of family relationships, the implementation of the zero catch limit has had serious effects on the viability of family enterprises, families as productive units. Virtually every enterprise involved in whaling, whale processing, and distribution in Abashiri and Ayukawa is a family enterprise, employing the labor of relatives exclusively or predominantly.

One whaling boat owner discussed at length his feelings of anguish over the possibility that he will be unable to continue the family's enterprise, which he inherited from his father a dozen years ago. In part his concerns were pragmatically concerned with caring for himself and his family, as well as with such things as repaying bank loans and seeing after the welfare of his crew members and their families. But for him, as for others interviewed, the notion of preserving a family enterprise — what he refers to as his *seigyo*, his calling — is a powerful cultural imperative, implying a high degree of moral obligation.

The traditional Japanese family, known in Japanese as the *ie*, has always been organized around the principle of family enterprise as an enduring social and economic unit, which ideally exists through generations. It is a conception of family and household that is extremely different from the notions of family that underpin domestic organization in many industrial societies, where nuclear family households are presumed to be formed and to disappear as social units in the natural cycle of personal lives.

In Japan, the *ie* has not simply been a residential unit or a domestic unit that consumes what its members produce or earn elsewhere; it has been a unit in which members of a family both live and work together as a common unit. And within this family system, traditional notions of obligation and of filial piety place the highest moral value on the responsibility of the present generation to repay their debts to the members of previous generation by nurturing the family's enterprise and property though careful stewardship so that it may be bequeathed to the members of future generation.

Thus, for this whaling operator the prospect of being unable to continue his family's enterprise looms as a devastating personal, moral failure.

IMPACT ON CUSTOMARY SOCIAL RELATIONS

The disruption caused by suspension of STCW has had an impact on customary social relations on at least two levels. The first is on the social relations and interpersonal ties of various productive groups, such as crews and work teams, for whose former members their established social networks and social environment have been ruptured. The second level of impact is on the wider array of informal social relationships of neighborliness and community that integrate life in whaling communities, and in both Abashiri and Ayukawa, informants reported that the disappearance of fresh minke meat had disrupted a number of these kinds of customary social ties.

Members of one whaling crew in Abashiri, interviewed together in the crew quarters of their boat, talked of the close bonds that develop among crew members over years of working and living together in close proximity. (The most recent addition to this crew had joined more than ten years ago.) Although this crew was still working together (hunting beaked and pilot whales during the 1988 season) they spoke with intense emotion about the possibility they could no longer work together in the future. One commented, with a laugh, "We're closer to each other than we are to our wives."

The practice of distributing *wake-niku*, portions of meat cut off during the flensing process, has had strong social implications in addition to serving as a partial form of payment to whalers and flensers. All processors report that neighbors and relatives visit the flensing stations to receive meat in return for token assistance. While visiting Abashiri in October 1988 I had the opportunity to watch the flensing of a beaked whale, and noted that in addition to the bags of whale meat (roughly a kilogram in weight) that were put aside for the members of the flensing crew, relatives of the whaling operators showed up to request and were given blocks of whale meat of about four or five kilograms.

Whalers and other informants reported the attenuation of wide social networks as result of the cessation of minke whaling. They and boat owners in both Abashiri and Ayukawa reported that the rounds of reciprocal gifting that accompanied the whaling season had come to a halt. One boat owner reported he received no bottles of *sake* at the start of this season in contrast to the dozens he would normally have received; another owner reported a drop in the number of bottles of *sake* he received from roughly 300 in previous years to about 40 in 1988 [9]. Jokingly he speculated that the *sake* dealers must have suffered a severe drop in business with the end of whaling.

Accompanying the decline in the initial gifting of *sake*, and of course because of the absence of fresh whale meat, crew members and boat owners were unable to reciprocate with return gifts of whale meat, and consequently reported that relationships with neighbors and kin had declined. Several commented on the decline in mutual visiting among neighbors and the estrangement of formerly close relationships with other members of the community. Residents also noted that ties with relatives who have moved away from the area may also become attenuated as residents are unable to fulfill what they perceive as their obligation to send whale meat to kin on ceremonial occasions.

In Ayukawa wider community events are affected as well. One whale wholesaler heads a group of about 150 residents who gather each January 3 on the shrine-island of Kinkazan to celebrate the New Year with prayers and a banquet, which normally includes whale meat. But as one participant observed in December of 1988, "This year without whale meat, how can we even say *kampai* [cheers]?" He was simply stating the widely-held attitude, repeatedly expressed to me in virtually every interview I had throughout Hokkaido and Miyagi, that the ritual calendar of annual community events and of the events marking transitions in individual's lives (such as weddings) is intimately associated with consumption of whale, the absence of which is almost inconceivable.

The general scale of gifting for social purposes can be illustrated by one Abashiri whaling boat owner's comment that he recalled his father saying that he expended three whales a year on gifts[10]; he said that in recent years he hasn't given away this much, but that his whale gifts probably normally totalled one to two whales a year.

IMPACT ON CONSUMPTION AND DEMAND

As noted above, consumption of whale meat is intimately connected to important ritual and social occasions, but it is also considered simply 'good food' that carries with it strong overtones of local identity and identification with a valued way of life. Residents of Abashiri and Ayukawa often used the expression *sabishii* (lonely) to try to indicate their feelings about the absence of fresh whale from their diet, to try to convey an ineffable sense of loss they feel.

One place where this loss has been acutely felt is the municipal hospital in Ayukawa where whale meat has long been a staple of the hospital's menu, and where the hospital's staff feels that the lack of whale meat — of nutritious and most importantly familiar cuisine — may have negative effects on patients, particularly older ones. They report patients returning almost uneaten, meals containing pork or beef. In recognition of this demand for whale meat by the hospital, the Oshika-cho town office arranged for several hundred kilograms of frozen whale meat to be used at the hospital, when the town was distributing meat in December 1988 out of a special shipment from frozen stocks in Tokyo.

Throughout the whaling areas there seem to be strongly held local taste preference, in methods of preparation, parts of whales consumed, and species of whale preferred. In both Abashiri and Ayukawa, local residents are not accustomed to either beaked or pilot whale meat, and visibly expressed disgust or distaste when asked whether it could substitute for minke whale. Those who had tasted beaked or pilot whale meat discussed in great detail the ways in which it varied from their accustomed and preferred minke whale meat, generally agreeing that beaked and pilot whale meat are at best poor substitutes, for their palates and preferences.

According to informants' accounts of the consumption of whale meat in Hokkaido, demand is fairly uniform with probably a slightly greater demand along the Sea of Okhotsk around Abashiri and Mombetsu. Taste preferences reputedly vary between the southern region of Hokkaido, in and around Hakodate, and the Okhotsk coast, and even within the Okhotsk region. The more common forms of eating minke as sashimi do not seem to vary much from place to place, but according to informants quite distinctive dishes and methods of preparation of whale meat, particularly for festive or ritual occasions such as the New Year, distinguish one locale from another. It was frequently suggested by informants that these localized differences in tastes and in preparing dishes had their origins in cultural differences among the various regions in Honshu from which 19th and early 20th century settlers of Hokkaido migrated, and that these differences, not only

in food preferences but other aspects of cultural life including ceremony, folklore, and dialect continue to mark different settlements in Hokkaido off from one another.

Even among people intimately involved in whaling, these micro-level differences in preparation and preference are cause for comment, as in one conversation where whale processors from Abashiri and Mombetsu (which are about 120 kilometers distant from one another) professed open surprise at each other's local methods of serving whale on New Years.

In terms of generalized patterns of demand, one Abashiri fishmonger noted that demand for fresh whale meat had increased in the past three to four years, perhaps — he speculated — because of all the media attention whaling has received in recent years. Neither he nor his chief shop assistant thought that there was a ready substitute for whale in the minds of local consumers, certainly no substitute among the varieties of fish they sell[11].

Other dealers at higher levels in the Hokkaido distribution chain made the same point, that consumers do not see any foodstuff as being a simple substitute for whale meat and that the disappearance of fresh whale meat had not led to any readily observable increase in demand for any other particular product or products.

IMPACT ON RETAIL AND WHOLESALE ENTERPRISES

The disappearance of fresh whale meat has of course had immediate and direct impact on the lives and livelihoods of distributors and retailers involved in the whale trade, with the strongest impact at the most local levels.

One fishmonger in Ayukawa reported that during the season when fresh whale meat is available there (generally April to June), it is far and away the biggest selling item. He pointed at the refrigerated display counter — roughly two meters long and one meter deep — and said that fully half his counter would be piled deep with whale meat, which often was sold out before the end of the day. He reported purchases by a single household of 30 kilograms were not uncommon, and estimated that he might sell as much as 300 to 400 kilograms in a single day during the peak of the season in April[12]. For his shop, he said the loss of revenue from whale sales was extremely significant.

This fishmonger opened his working ledgers for my inspection, and we compared his gross sales for the months of April, May, and June in 1987 (before the implementation of the zero catch limit) and in 1988 (after). His gross sales for those three months dropped by 47.13% (¥8,029,085)[13]. (See Table 1 for figures.) Both the fishmonger and his mother (who handles the bookkeeping for the enterprise) were emphatic in attributing this drop in sales entirely to the loss of fresh whale meat.

Like the vast majority of enterprises involved in various aspects of whaling and whale distribution, this is a family enterprise. This fish store is in its third generation of family ownership. The present owner-operator is a young man in his late 20s who after graduating from college worked for a few years in Sendai, the prefectural capital, before returning to take over the business on the death of his father. He and his mother, in her mid-fifties, jointly run the business. He maintains a special relationship with one of the whale wholesalers active in Ayukawa but not resident there. The fishmonger keeps the wholesaler informed of the activities of Ayukawa's whaling boats, and when whales are landed he helps out the wholesaler in trimming, grading, and packaging the meat. The buyer for this wholesaling enterprise is relatively new to his job, and the buyer later explained to me that the fishmonger's assistance had been especially important during the buyer's first years when the fishmonger taught him how to distinguish and handle different kinds of whale meat. The fishmonger is paid for his time when he assists the wholesaler (¥5,000 to ¥6,000 per time), but more importantly he can buy meat from the wholesaler at the wholesaler's bidding price in the Market's auction.

One Abashiri retailer referred to fresh minke meat as a *medama shohin*, (eyeball merchandise; i.e., something that really attracts attention). He said when minke meat was available his small store, tucked away in the back of a small arcade of food shops on Abashiri's main street, would attract lines of several dozen customers waiting to buy minke, and he would sell his entire stock in no more than a day or two. In its absence this year, he reported his sales were down.

In both Abashiri and Ayukawa knowledgeable observers did not think that the absence of whale meat would put any established retailers out of business since none are so entirely specialized in the whale trade. However, distributors and peddlers are more directly threatened by the moratorium, and some have already gone out of business.

In Ayukawa, whale peddling has been carried on by two or three small traders who took whale meat to the various geographically dispersed settlements that make up the town of Oshika-cho. This business, of course, has ceased; one trader is now reported to be an ice cream peddler instead.

Distributors have made various accommodations to the moratorium. In both Abashiri and Ayukawa, some dealers have simply gone out of business, in some cases starting entirely new lines of business.

One dealer in Abashiri went out of business in the past year or so, but five others stay in business. One deals in whale as a small part of a general fish wholesaling business that caters to retail shops throughout the city of Abashiri, and for this dealer the impact of the moratorium will be limited. The same is true of the largest of the dealers, a secondary distributor of whale meat for whom whale is a small and recent addition to the lines of products the firms handles[14]. Two other distributors, however, have been highly specialized in whale products and their enterprises — essentially one-person operations — are of such small scale that the loss of whale meat may force

them out of business.

One Ayukawa distributor has left wholesaling entirely and now has a silver salmon cultivation operation. Another tried to start a business dealing in imported frozen fish, but after one year of operation he feels it is a failure; thus far his wholesaling business has been sustained by distribution of pilot and beaked whale. He had not previously handled these species and has found somewhat to his surprise that despite the lack of local demand for this meat, there is considerable demand in distant regions.

Still another distributor spoke with sadness at the estrangements in social and business relationships that he had suffered as a result of the moratorium, having to sever ties with other dealers with whom he had maintained close ties for decades. He remained in business as a small-scale fish wholesaler, primarily buying on his own account for a small general store that he (mid-60s), his mother (mid-80s), and his daughter-in-law (late-20s) operate out of their home. He had always been one of the smaller whale wholesalers operating in Ayukawa — sometimes dependent on the neighborly goodwill of larger dealers to whom he could appeal for supplies when times were really tough — but nevertheless he had always taken great pride in being a whale dealer. As he put it,

> "I used to introduce myself with a swagger as a *sakanaya* (fishmonger) who deals in whale, and then maybe I'd add that I sell a little rice on the side as well. Now, I have to tell people I sell some rice, and used to be a *sakanaya.*"

In addition to these immediate effects of the moratorium on local distributors, the cessation of whaling appears to have had a generalized impact on Ayukawa's local economy in combination with other factors is leading to the 'hollowing out' of the community's viability in a number of important respects.

In part because of improved transportation resulting from the construction of new highways between Ayukawa at the tip of the peninsula linking it to Ishinomaki requiring little more than an hour's travel time[15], retail businesses in Ayukawa have begun to suffer from competition with larger stores in Ishinomaki, and local Ayukawa have begun to suffer from competition with larger stores in Ishinomaki, and local Ayukawa businesses also report competition from peddlers (*gyosho*) coming in from Ishinomaki selling fruits, vegetables, fish, and other daily necessities from the backs of trucks. Statistics from the town office show that in 1988, against a total of 175 surviving wholesale and retail businesses in the town as a whole, 19 businesses had closed since the previous year. These data themselves do not indicate the causes of business failures, but officials of the town interpret these closings as part of the trend of general decline in the local economy which they fear may eventually result in the almost total disappearance of retail and wholesale business and jobs from Ayukawa.

Local wholesalers and retailers view the trend similarly, though they add that as they must compete increasingly with businesses outside Oshika-cho the loss of whale meat both removes a profitable item from their shelves and lessens the appeal of their businesses to consumers, thus significantly weakening their long term prospects for survival.

The case of Oshika-cho's Maritime Wholesale Market may be taken as a case study of the economic weakening of key institutions as a result of the cessation of whaling.

IMPACT ON THE OSHIKA-CHO MARITIME WHOLESALE MARKET

The zero catch limit appears to severely undermine the financial viability of the Oshika-cho Maritime Wholesale Market, the only local market for seafood and other staples of the local diet, and of the Oshika Fisheries Cooperative Association (FCA), the major institution in the local maritime economy and in the economy of Oshika-cho generally[16].

The Oshika-cho Maritime Wholesale Market is owned by the town of Oshika and is operated under its authority by the Oshika Fisheries Cooperative Association (*Oshika Gyogyo Kyodo Kumiai*) (henceforth abbreviated as Oshika FCA). The Oshika Maritime Wholesale Market is located in Ayukawa and is the sole maritime wholesale market in the town of Oshika. The market handles the catches of local fishermen, the silver salmon that are cultivated in large off-shore enclosures, and the whales that are landed in Ayukawa[17].

Analysis of figures provided by officials of the Oshika FCA and reported in the FCA's annual report to the town of Oshika (see *Oshika Gyogyo Kyodo Kumiai* 1986, 1987) demonstrates the impact that STCW has had on the finances of the FCA and of the wholesale market. (See Tables 3-9.)

In the four years between 1984 and 1987, the sale of fresh whale meat through the market accounted for an average of 66.21% of the market's total sales volume. Whale accounted for 78.93% of the market's sales in 1987, the last year prior to the implementation of the zero catch limit. Over the four year period, the value of whale sales rose from 348,967,000 yen to 723,538,000 yen, while the value of other products sold through the market in 1984 was 190,407,000 and in 1987 was 193,177,000. (See Table 5.)

The market earns a commission of three percent on sales of whale and three and a half percent on sales of other maritime products, except for live fish on which the commission is two and a half percent. These commissions from a major component of the total revenue for the market and for the FCA. During the 1984-87 period, commissions on whale sales accounted for an average of 61.92% of its total commissions, reaching 78.76% of total commissions in 1987. Though the percentage of commissions derived from the sale of whales inflated as the price of whale has risen (see Table 3), it is important to note that in the period 1984-87 the commissions earned on all products fluctuated wildly, with an overall decline in commissions on non-

whale products from 7,318,000 yen in 1984 to 5,855,000 yen in 1987. (See Table 6.)

Other operations of the FCA have also earned considerable portions of their revenue from whale-related activities. The freezing and cold storage service of the FCA earned an average of 43.42% of its revenue from storage of whale products during 1986-87, while the FCA's ice plant earned 53.52% of its revenue during 1984-87 from the sale of ice used in the handling and distribution of whale meat. (See Tables 7 and 8.)

As for overall earnings of the FCA, during 1986-87 income from whale-related activities (i.e., commissions on whale sales, sale of ice for whale meat processing, and charges for refrigeration of whale meat) averaged 29.96% of the FCA's total revenues.

Thus the disappearance of whale-related revenues will severely undermine the financial viability of the market and the FCA, and this is a matter of vocal concern to FCA officials, officials of the town office, and others involved in maritime industries. One measure to strengthen the FCA that the town office actively encourages is to promote mergers between the Oshika FCA and other FCAs that exist in other settlements within Oshika-cho. (Although the present Oshika FCA takes the name of the town as a whole and is the largest FCA in the town, it is actually only one of eight FCAs.) Currently five FCAs are negotiating a merger with one another, and the municipal office ultimately hopes that all FCAs will merge into a single one for the town as a whole, which will of course strengthen the viability of the FCA and the market. But the concerned town and FCA officials concede that to accomplish this will require lengthy and difficult negotiations among conflicting sets of economic interests of different maritime industries within the town and the fact that the existing FCAs now represent constituencies from what are sociologically and ecologically very separate and distinct communities geographically dispersed across the rugged Oshika Peninsula.

(N.B. The centrality of STCW in the survival of local FCAs and markets is not true for all whaling communities. For example, the impact of the cessation of whaling on the Oshika-cho Maritime Wholesale Market is not paralleled in Hokkaido. There, in the five officially designated ports for landing minke whales — Mombetsu and Abashiri on the Sea of Okhotsk; Shibetsu facing the Nemuro Straits; Kushiro on the southeastern coast; and Muroran on the southern coast — fresh whale meat does not necessarily pass through local wholesale markets administered by local FCAs. Instead each whaling operator relies on its own channels of distribution that vary greatly from operator to operator and from port to port. The possible options include: trucking whale meat back to the boat's home port for entry into distribution there; consignment of some or all of the catch to a local wholesale or broker; offering some or all of the catch for sale in a local wholesale market; or trucking some or all of the catch to wholesale markets in other regions of Hokkaido.)

OTHER ECONOMIC IMPACTS

Mariculture

Although silver salmon cultivation has emerged in recent years as a major new industry in Ayukawa, and is touted by its supporters as a solution to the economic displacement caused by the disappearance of whaling, officials of the local government, of the FCA, and knowledgeable traders in nearby towns and cities all comment on the riskiness of the silver salmon enterprises. Some fear market saturation, cyclical swings in salmon prices, and the possibility of bankruptcy for at least some of the local mariculture enterprises. Other concerns are the relative inexperience of local cultivators and the delicate balances of weather, feeding cycles, and harvesting that make such cultivation an inherently risky undertaking. And one town official pointed out that the mariculture inevitably conflicts with other local economic interests, including those of conventional fishermen and those of the tourist industry. In the latter regard he pointed out an incident last year in which fish feed and other effluents from the cultivation pens floated ashore and fouled the town's only tourist beach leading to immediate protests from local innkeepers and others in the tourist industry who demanded the town office take action to prevent this from happening again and to more severely limit the number and locations of cultivation pens. He and other interviewees clearly believe that the capacity of the waters around Oshika-cho to sustain silver salmon cultivation is nearing its upper limit in terms of ecological, economic, and political factors, and that further expansion of this industry will be difficult.

Tourism

The impact of the zero catch limit on tourism appears to be either neutral (in Hokkaido) or negative (in Ayukawa). Of the several communities surveyed in Hokkaido and Miyagi that were engaged in some stage of the process of catching, processing, distributing, and consuming minke whales, only one — the settlement of Ayukawa, within the town of Oshika — has explicitly tried to capitalized on whaling for its touristic appeal.

Hokkaido

In contrast to whaling communities on the main island of Honshu, such as Ayukawa and Taiji, which have developed a high degree of local identity as 'whaling towns' which have become a major component in local tourist industry, communities associated with whaling in Hokkaido do not appear to have developed this kind of touristic identification with whaling.

Abashiri, the home port for Hokkaido-based STCW vessels, is known as a tourist destination for a number of reasons, perhaps the two most notable being the ice floes (*ryûhyô*) that hug the coast and force the suspension of maritime activity throughout the winter, and 19th century prison buildings that have been reconstructed as a tourist

attraction. Because of its location as a regional transportation hub, Abashiri is also a gateway city for tourists going to the Shiretoko Peninsula (to the northeast of Abashiri) and to the northern and eastern peaks of Hokkaido's central mountain ranges (just south of Abashiri).

But whaling does not figure in Abashiri's tourist industry in any major way. Examination of tourist guides, maps for tourists, souvenir shops, and other tourist signs, plaques, and memorials in Abashiri found no overt mention of whales or whaling, nor any of the visual imagery of whales that is so prominent in the settlement of Ayukawa. Employees of souvenir shops in Abashiri had no knowledge of whale-related products being offered for sale in recent years, and fishmongers reported that sales of whale meat to tourists as *omiyage* (souvenirs) or *meisan* (famous local products) were negligible.

None of the other places visited in Hokkaido — Mombetsu, Kushiro, Sapporo, or Hakodate — displayed any evidence of emphasizing whales or whaling as a tourist attraction, with the possible exception of Hakodate where the Hakodate-shi Hokuyo Shiryokan (City of Hakodate Northern Seas Museum) includes some displays related to whaling.

Ayukawa

In Ayukawa, however, whaling is a central symbol of local identity that has been heavily exploited as a touristic motif. However, because of Ayukawa's geographic isolation from major population centers and its position at a 'dead end' in terms of transportation routes, the town has never been very successful in promoting tourism. At present the major tourist attraction is the island of Kinkazan just off Ayukawa harbor, the site of an important pilgrimage destination.

Local officials and residents report that the cessation of whaling has further decreased the viability of tourism and the several dozen souvenir shops, restaurants, and inns that depend on tourism. Plans are in the works for building an expanded museum that will center on a whaling vessel, but this is still some distance in the future. In the meantime, as one resident put it, "without whaling there's nothing for people to come and see here." And the owner-operator of a family-run inn mentioned her fears that the loss of whale meat may affect the ability of her inn and others to attract patrons seeking local flavor in their travels.

OTHER OBSERVATIONS

Public Health Concerns

Fresh whale meat has become available for consumption not only from the authorized and regulated operations of licensed STCW whales, but also at times from whales inadvertently caught in fishing nets or from beached whales. From time to time, such whale meat enters into commercial distribution channels, but data from central wholesale markets in Sapporo, Sendai, and Tokyo indicate that this is a minor source of fresh whale meat. (See Table 10.)[18]

However, these normally incidental and accidental additions to the supply of fresh whale meat are a matter of some concern, now that the standard source of supply has been suspended. Several interviewees in Hokkaido reported a widely publicized incident in the spring of 1988 on the Japan Sea Coast of Hokkaido where a beached whale was butchered and consumed by local residents, a number of whom subsequently fell ill. This case, and fears about other possible incidents, have led officials in the Sapporo Central Wholesale Market to agree to ban all transactions in fresh whale meat.

But several traders in Sapporo and other places reported their concern that in the absence of 'normal' supplies of fresh whale meat, local consumers may be increasingly tempted to consume whale meat that may be tainted or improperly processed, and has not in any event been caught, processed, or distributed by people who possess the specialized knowledge, skills and experience to judge the quality and edibility of these accidental landings and to ensure that the meat is properly handled.

These interviewees argued that the suspension of STCW operations does not eliminate demand for fresh whale meat, a demand that they fear may spur unregulated and potentially unhealthy consumption of accidentally landed whales.

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End notes

1. For a fuller account of this research, see Bestor (m.s.) *The Structure of distribution Channels for the Products of Small-Type Coastal Whaling in Hokkaido and Miyagi Prefectures, Japan*
2. In 1987 the nine vessels landed 304 minke; in 1986, 311 minke; in 1985, 327 minke; in 1984, 367 minke; in 1983, 290 minke; in 1982, 324 minke. Data from records of Nihon Engan Kogata Hogei Kyukai
3. In Abashiri and Ayukawa, nine enterprises involved in whale distribution were surveyed and all are family-enterprises. All but one of them are *reisai kigyo* (petty enterprises), with fewer than half a dozen employees. The remaining firm is a family-held and operated company that owns a fleet of fishing boats in addition to its distribution activities and in total employs over 100 people in all its various activities. This firm is a relative late-comer to whale products in that it only began to handle whale meat about 15 years ago and only acts as a secondary distributor for whale products. It has no direct connections to local whale producers but receives its whale meat through one of the local *reisai kigyo.*
4. Junichi Takahashi's report on displaced whalers and their current employment prospects in Ayukawa discusses these issues in much greater detail.
5. See Suzanne Vogel (1978) for a fuller discussion of contemporary Japanese cultural ideals of women's domestic careers.
6. Merry White (1987) discusses at length the expected relationship between mothers and the educational system.
7. Japanese compulsory education goes through 9 years, ending with the third and final year of middle school. High school and above are optional, and generally require extensive parental outlays for tuition and for special preparation for the highly competitive examinations for entrance into both public and private institutions.
8. Other researchers, including Junichi Takahashi and Milton Freeman, report specific cases of children of whalers or whale processors being forced to curtail educational plans as a result of the moratorium.
9. See Akimichi et al. (1988: 41-51) for an extended discussion of the cycles of reciprocal exchange and gifting, and for additional data on the scale of *sake* exchanges in whaling communities.
10. cf. Akimichi et al. (1988: 46) for Ayukawa boat owner's estimate of five whales a year expended for gifts.
11. This fishmonger claimed to never even have heard of tsuchi whale until this year.
12. Like other fishmongers in Ayukawa and Abashiri he reported that sales of fresh whale meat to tourists were negligible. In Ayukawa, sale of whale meat for tourist consumption is handled almost exclusively through the half-dozen or so souvenir shops along the water front, which have small packages of frozen meat available for visitors.
13. This figure of course includes his margin, which he reports varies between 20 and 30 per cent. At an exchange rate of US $1 = ¥130, his gross sales dropped by $61,762 during this period.
14. For this distributor the whale meat accounts for only two to three percent of the value of all products distributed. At higher levels in the distribution system, in regional markets in Kushiro, Sapporo, Ishinomaki, and Sendai, firms handling whale products report similar or lower percentages of annual
15. Transportation improvements were paid for out of compensation the town of Oshika received from the construction of a nuclear power plant in the adjacent town of Onagawa.
16. The FCA is based in Ayukawa and includes maritime producers from Ayukawa, and several other settlements (*buraku*) within Oshika-cho. At present the 15 *buraku* of Oshika-cho are divided among 8 separate FCA's, of which the Ayukawa-based Oshika-cho Gyogyo Kyodo Kumiai is the largest. As of April 1988 the FCA had 381 members (one member being one household or enterprise), including producers, distributors, and processors involved in maritime industries.
17. See Akimichi et al. (1988: 32-40) for description of the methods of whale sales through the Oshika-cho Maritime Wholesale Market.
18. One can only infer from the data summarized in Table 10, but presumably the fresh meat available in the October-March period is from accidental landings and the similar accidental landings during the April-September period do not constitute a major percentage of the total fresh whale supply during those months.

Appendix I
RESEARCH METHODS

This report is based on several separate periods of anthropological field research carried out in Hokkaido and Miyagi Prefectures during 1988.

In April 1988, Bestor was a participant in the International Workshop on Japanese Small-Type Coastal Whaling, and conducted research in Ayukawa. The results and the methods of that research are described in detail in Akimichi et. al. (1988). Bestor's contributions to that report are primarily in the sections entitled "The Commercial Distribution of Whale Meat," "The Non-Commercial Distribution of Whale Meat," and "The Organization of Small-Type Coastal Whaling."

During the Fall of 1988, Bestor carried out field research in Hokkaido (October 23-29) and in Miyagi (December 18-22). The present report is based primarily on material gathered during these two field trips. Intensive interviews were conducted with owners of whaling enterprises, members of whaling crews, distributors and wholesalers at various levels in the distribution system, municipal officials, officials of wholesale markets and fishery cooperatives, retail merchants, and ordinary residents. Interviewees in October and December1988 totaled 51 persons. In addition, wherever possible documentary and statistical information on the distribution channels for whale products and the impact of the moratorium were sought, both from public and from private sources.

Bestor conducted all interviews in Japanese. During each of the three field trips, Hideki Kagohashi served ably as research assistant.

Research in Hokkaido was conducted in: Abashiri, Mombetsu, Kushiro, Sapporo, and Hakodate. (Hakodate was visited by Kagohashi only, to obtain statistical and historical data.) Research in Miyagi Prefecture was

conducted in: Ayukawa (Oshika-cho), Ishinomaki, and Sendai. Additional information was collected in Tokyo.

I am grateful for the assistance of many people in the various communities where research was undertaken for their willingness to endure lengthy interviews and to reveal detailed, intimate information about themselves, their families, and their financial affairs.

Support for research during the International Workshop on Japanese Small-Type Coastal Whaling in April 1988 was provided by the Fund to Promote International Educational Exchange. Research during the fall of 1988 was supported by the Nihon Geirui Kenkyujo, which provided funds for the costs of hiring an assistant, for the travel expenses of the researcher and assistant between Tokyo and Hokkaido and between Tokyo and Miyagi, and for lodgings and meals in Hokkaido and Miyagi.

The data, opinions, and conclusions contained in this report are the sole responsibility of Theodore C. Bestor. This report may not be cited, quoted, or circulated without the written permission of the author, except as indicated on the title page.

Appendix II

STATISTICAL TABLES

LIST OF TABLES CONTAINED IN APPENDIX II

Table 1: Monthly gross sales of retail fishmonger in Ayukawa before and after implementation of zero catch limit, April – June 1987 and April – Jun 1988

	(in yen)		Percentage change 1987 to 1988
	1987	1988	
April	7,501,470	3,228,220	-56.96%
May	5,737,720	3,246,860	-43.41%
June	3,798,165	2,533,190	-33.30%
Total	17,037,355	9,008,270	-47.13%

N.B. April, May, and June are the primary season for retail sales of fresh whale meat in Ayukawa.

Source: Figures recorded by researcher from retail fishmonger's working ledgers, Ayukawa, December 1988

Table 2: Retail and Wholesale Enterprises in Oshika-cho, 1988

Oshika-cho enterprises:

Wholesalers	14
Retail shops:	161
Total	175

Size of enterprises:

Number of employees	Number of enterprises		Percentage of total enterprises
1	60		34.3%
2	68		38.9%
3	25		14.3%
4	10		5.7%
5	7		4.0%
6	1	--> total of -->	2.8%
10	1	enterprises employing more than 5 employees	
14	1		
27	1		
30	1		
	175		100.0%

Source: Calculated from survey of wholesale and retail establishments conducted by Town of Oshika Municipal Office

Table 3: Average wholesale price of whale meat through the Oshika-cho Maritime Wholesale Market, 1978 — 1987

	yen per kilogram
1978	671.10
1979	773.53
1980	853.92
1981	763.47
1982	706.51
1983	768.95
1984	784.18
1985	1,100.47
1986	1,290.88
1987	1,515.83

N.B. These average prices are calculated by dividing gross sales by gross weight and therefore do not reflect the average value of particular grades or categories of fresh whale meat.

Source: Figures provided by officials of the Oshika FCA

Table 4: Part 1 of 2. Sales of Fresh Whale Meat Through the Oshika-cho Maritime Wholesale Market, by Wholesaler, 1978 — 1987

	Sales to Ayukawa-Based Wholesalers					Subtotal for Ayukawa firms	Sales to Ayukawa firms as percent of total
	Firm A	Firm B	Firm C	Firm D	Firm E		
1978	131,949	35,752	0	1,557	0	169,258	67.21%
	52.39%	14.20%	0.00%	0.62%	0.00%		
1979	89,884	24,961	0	2,367	0	117,212	69.36%
	53.19%	14.77%	0.00%	1.40%	0.00%		
1980	161,540	6,143	0	2,617	0	170,300	69.21%
	65.65%	2.50%	0.00%	1.06%	0.00%		
1981	207,939	6,934	0	6,126	0	22,099	70.70%
	66.52%	2.22%	0.00%	1.96%	0.00%		
1982	169,667	21,497	0	3,775	0	194,939	71.56%
	62.28%	7.89%	0.00%	1.39%	0.00%		
1983	195,189	80,268	0	6,048	0	281,505	1
	55.38%	22.77%	0.00%	1.72%	0.00%		
1984	146,576	124,372	15,555	5,902	0	292,405	83.79%
	42.00%	35.64%	4.46%	1.69%	0.00%		
1985	160,322	80,754	3,528	2,988	0	247,592	84.60%
	54.78%	27.59%	1.21%	1.02%	0.00%		
1986	166,250	2,785	10,898	0	0	179,933	43.12%
	39.84%	0.67%	2.61%	0.00%	0.00%		
1987	303,861	1,027	20,566	0	0	325,454	44.98%
	42.00%	0.14%	2.84%	0.00%	0.00%		
Total	1,733,177	384,493	50,547	31,380	0	2,199,597	64.95%
	51.17%	11.35%	1.49%	0.93%	0.00%		

Upper figures are for annual gross sales in thousands of yen.
Lower figures are percentage of that year's total sales.
Table is continued on following page.

Table 4: Part 2 of 2. Sales of Fresh Whale Meat Through the Oshika-cho Maritime Wholesale Market, by Wholesaler, 1978 — 1987 (continued)

	Sales to non-Ayukawa Whalesalers		Subtotal for non-Ayukawa firms	Sales to non-Ayukawa firms as percent of total	Total
	Firm F	Firm G			
1978	82,581	0	82,581	32.79%	251,839
	32.79%	0.00%			100.00%
1979	51,768	0	51,768	30.64%	168,980
	30.64%	0.00%			100.00%
1980	75,766	0	75,766	30.79%	246,066
	30.79%	0.00%			100.00%
1981	91,581	0	91,581	29.30%	312,580
	29.30%	0.00%			100.00%
1982	77,478	0	77,478	28.44%	272,417
	28.44%	0.00%			100.00%
1983	70,942	0	70,942	20.13%	352,447
	20.13%	0.00%			100.00%
1984	56,562	0	56,562	16.21%	348,967
	16.21%	0.00%			100.00%
1985	45,084	0	45,084	15.40%	292,676
	15.40%	0.00%			100.00%
1986	27,609	209,711	237,320	56.88%	417,253
	6.62%	50.26%			100.00%
1987	30,153	367,941	398,094	55.02%	723,548
	4.17%	50.85%			100.00%
Total	609,524	577,652	1,187,176	35.05%	3,386,773
	18.00%	17.06%			100.00%

Upper figures are for annual gross sales in thousands of yen.
Lower figures are percentage of that year's total sales.
Source: Calculated from figures provided by officials of the Oshika FCA

Table 5: Gross Sales of the Oshika-cho Maritime Wholesale Market, 1984 – 87

	Sales in thousands of yen (percentage of change from previous year)			Sale of whale as percentage of total
	whale sales	other sales	total sales	
1984	348,967	190,407	539,374	64.70%
1985	292,677	253,709	546,386	53.57%
	-16.13%	33.25%	1.30%	
1986	417,253	272,339	689,592	60.51%
	42.56%	7.34%	26.21%	
1987	723,538	193,177	916,715	78.93%
	73.41%	-29.07%	32.94%	
average	445,609	227,408	673,017	66.21%

Source: Calculated from figures provided by officials of the Oshika FCA and from Oshika Gyogyo Kyodo Kumiai (1986, 1987)

Table 6: Commissions Earned by the Oshika-cho Maritime Wholesale Market on the Sale of Fresh Whale Meat and Other Maritime Products 1984 – 1987

	Commissions in thousands of yen (percentage of change from previous year)			Whale commissions as percentage of total
	on whale	on other products	total	
1984	10,469	7,318	17,787	58.86%
1985	8,780	9,156	17,936	48.95%
	-16.13%	25.12%	0.84%	
1986	12,517	10,556	23,073	54.25%
	42.56%	15.29%	28.64%	
1987	21,706	5,855	27,561	78.76%
	73.41%	-44.53%	19.45%	
average	13,368	8,221	21,589	61.92%

Source: Calculated from figures provided by officials of the Oshika FCA and from Oshika Gyogyo Kyodo Kumiai (1986, 1987)

Table 7: Revenue of the Oshika FCA from Sale of Ice, 1984 – 1987

	Revenue in thousands of yen (percentage change from previous year)			Revenue from whale related ice sales as percentage of total
	for whale related activities	for other activities	total	
1984	20,838	7,321	28,159	74.00%
1985	18,010	8,870	26,880	67.00%
	-13.57%	21.16%	-4.54%	
1986	14,613	17,154	31,767	46.00%
	-18.86%	93.39%	18.18%	
1987	13,224	24,557	37,781	35.00%
	-9.51%	43.16%	18.93%	
average	16,671	14,476	31,147	53.52%

Source: Calculated from figures provided by officials of the Oshika FCA and from Oshika Gyogyo Kyodo Kumiai (1986, 1987)

Table 8: Revenue of the Oshika FCA from Freezer Operations, 1984 – 1987

	Revenue in thousands of yen (percentage change from previous year)			Revenue from whale related activities as percentage of total
	from whale related activities	from other activities	total	
1984	n.a.	n.a.	18,081	0.00%
1985	n.a.	n.a.	14,723	0.00%
			-18.57%	
1986	9,289	10,643	19,932	46.60%
			35.38%	
1987	6,474	9,895	16,369	39.55%
	-30.30%	-7.03%	-17.88%	
average	7,882	10,269	18,151	43.42%

Source: Calculated from figures provided by officials of the Oshika FCA and from Oshika Gyogyo Kyodo Kumiai (1986, 1987)

Table 9: Gross Revenues of the Oshika FCA, 1984 – 1987

	Gross revenues in thousands of yen (percentage of change from previous year)			Revenues from whale related activities as percentage of total
	from whale related activities	from other activities	total	
1984	n.a.	n.a.	98,769	
1985	n.a.	n.a.	97,733	
			-1.05%	
1986	36,419	69,388	105,807	34.42%
			8.26%	
1987	41,404	112,505	153,909	26.90%
	13.69%	62.14%	45.46%	
average (1986-87)	38,912	90,947	129,858	29.96%

Source: Calculated from figures provided by officials of the Oshika FCA and from Oshika Gyogyo Kyodo Kumiai (1986, 1987)

Gross revenues from whale-related activities include: commissions from sales through the wholesale market sales of ice/freezer operations.

Gross revenues of the FCA as a whole include these as well as other sources of revenue.

Table 10: Monthly Volume of Fresh Whale Meat Selected Wholesale Markets, 1987

	Weight in kilograms				percent of annual total
	Tokyo	Sapporo	Sendai	Total	
Jan	3,706	7	556	4,269	0.74%
Feb	6,901	0	3,006	9,907	1.72%
Mar	7,622	0	1,609	9,231	1.61%
Apr	67,915	8,038	18,793	94,746	16.49%
May	127,671	8,633	21,392	157,696	27.45%
Jun	116,183	17,996	20,570	154,749	26.94%
Jul	72,066	6,606	12,671	91,343	15.90%
Aug	6,774	1,473	1,265	9,512	1.66%
Sep	27,203	3,149	3,460	33,812	5.89%
Oct	1,706	2,140	1,205	5,051	0.88%
Nov	1,806	0	246	2,052	0.36%
Dec	1,785	0	338	2,123	0.37%
Total	441,338	48,042	85,111	574,491	100.00%

Seasonal Subtotals

April — September	541,858	94.32%
October — March	32,633	5.68%

N.B. Figures are for volume of fresh whale meat of all species, not just minke whale meat.

Source: Sapporo-shi Chuo Oroshiuri Shijo Nenpo, 1987
Sendai-shi Chuo Oroshiuri Shijo Nenpo, 1987
Tokyo-to Chuo Oroshiuri Shijo Nenpo, 1987

SMALL-TYPE COASTAL WHALING IN AYUKAWA DRAFT REPORT OF RESEARCH

December 1988-January 1989

The attached report contains important information on Socio-Economic Implications of a Zero Catch Limit. The Government of Japan, therefore, submits this report as one of its documents to the IWC for reference to the Working Group on the Socio-Economic Implications of a Zero Catch Limit.
1989

SMALL-TYPE COASTAL WHALING IN AYUKAWA

DRAFT REPORT OF RESEARCH
December 1988-January 1989
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This report is for use for the preparation of material for the Government of Japan for submission to the International Whaling Commission. It is not available for distribution, citation or quotation outside of this purpose without permission.

This report is based on fieldwork undertaken by the authors in December 1988 and January 1989. This period of fieldwork coincided with New Year, providing us with a unique opportunity to participate in the religious and ritual life of Ayukawa village. The report reflects extensive observation of public and domestic ritual and everyday life but draws especially on information gathered from seventy informants, representing some 250 hours of interviewing. In addition we have drawn on published and unpublished material, including personal documents, made available to us by Oshika-cho and by villagers of Ayukawa. The discussions below represent our preliminary thoughts on issues central to whaling and the culture of whaling villages, and will be developed in future papers.[a]

GIFT-GIVING IN AYUKAWA

A. General patterns of gift giving and reciprocity

Personal, commercial, employment and ritual relationships are underpinned by the giving of *omiyage*, gifts. Formal occasions of gift giving occur in constellations — at New Year especially, during the summer festival (*obon*) in Ayukawa, also at the time of the whale festival (*kujira matsuri*), held on the 3rd and 4th of August ten days before *obon*. These gifts are named and require some description, since they stand apart from other, sporadic gifts, including of domestically produced food items.

Gifts given to mark the outgoing year — given until the 31 December of a year — are termed *oseibo*. *Oseibo* are given in thanks for services of the year past: typically,

they are given from those structurally subordinate to their superiors. Hence supporters of the shrine give the priest *oseibo*; within family run businesses, employees may send *oseibo* to their employer; a businessman may send an oseibo to other business houses on whom he is dependent (eg the fuel supplier, the bank manager, and so on). *Oseibo* include alcohol (particularly sake but also whisky) and packaged food products such as *nori*. Gifting may include a social occasion — the sharing of tea — but this need not be the case — the giver may simply stand in the foyer of the household, and hand the gift with name card (*meishi*) to the recipient without entering domestic space, utter a brief formulaic speech, and depart.

It used to be the custom to go visiting from 1/1 to 5/1 all through the village, so that anyone who had business relations which should be honored by a gift and a visit carried out these obligations during those days. Informants report that since the moratorium, however, the sense of obligation has been considerably reduced, to the point that if people get around to it at some point during the month of January they reckon that they have done their duty. At the New Year they would traditionally deliver gifts in person, but this custom of giving has decreased because of the expense. People used to keep open house for whomever wanted to visit, and this involved treating them to liquor and food as well as returning a gift to them for the one they brought. Now before they give a gift they feel they must calculate the cost not only of the gift but of giving hospitality, and they cannot afford to be so expansive as in the past. Hence they hesitate to give gifts as they used to. This seems to imply that the restrictions on employment, whaling, and income have reduced the community's ability to carry out the customary observances which used to help reinforce its solidarity. Those observances cost money, and when income is severely reduced, so is the community's ability to renew itself or to maintain its social organization.

Under the previous mayor, there was a move to rationalize the village visiting and gift giving at the first of the year. In order to cut down on the expense involved, the mayor set up a big party at the town office at the first of the year to make the former visiting patterns and consumption unnecessary. In the last couple of years, the town office party has been dropped (presumably because of the expense involved), and the former pattern of visiting and gg has not yet been revived, producing the sense that the New Year no longer is fulfilling its function of renewing communal solidarity.

Ayukawa residents maintain lists of all the people to whom they send gifts as well as a record of gifts they have received in the present and past years. This is kept in a notebook for that purpose. The previously mentioned president of an STCW company received over 100 *oseibo* in 1988 in connection with his whaling business; this figure does not include gifts that came to him via his other business enterprises. He himself sends gifts to roughly 80 persons and businesses, concentrating on sea products, chosen as an expression of his own identity. Geographically, his gift-giving network extends throughout the four main islands of Japan.

Nenshi (*o nenshi* or *o nenga*) are gifts given in the New Year, and anticipate the year ahead — services forthcoming, continued close personal or business relationships. They may be substantially the same as *oseibo*, although often the relationships between the giver and recipient of *onenshi* are less formal, and gifts tends to be more personal in consequence — an item of clothing, for example, or a box of soap, chosen to 'fit' the individual and to reflect in substance the affection of giver for recipient. The actual gift — its material form and value — is deemed unimportant: "It's not the gift itself that is important; its the spirit (*kimochi*-heart) of the gift that counts" — although in fact gifts given and received are assessed in a rather more calculated fashion, determined by the monetary value of gift, the quality of the product, its general unattainability (e.g. the food delicacy from a far-away prefecture), and so on.

The term *onenshi* is also used to describe certain gifts of reciprocity for *oseibo*, including *ofuda* (talisman) from the shrine or temple to be placed before the domestic shrine throughout the year ahead. However reciprocity for *oseibo* need not be immediate or in material form. People give either one or the other, but not both.

Nenshi seem to be given most frequently between kin or close neighbors, between persons whose primary relationship is not a business one, to be delivered in person, after the first of the year, during the first 5 days of the new year.

In addition to *onenshi* and *oseibo*, "one of the pleasures of the New Year" is the giving of *otoshidama*. This is money given in an envelope at New Year, and is typically given by elders to children: the exception is the gifting of *otoshidama* by children to their own aged parents. The amount of money for *otoshidama* varies from c. ¥ 2-3,000 for elementary school age children to substantially larger amounts for high school and university students.

At *obon* (the summer festival), people may also exchange gifts (*ochugen*); in Ayukawa employers may gift their employees in kind, although *obon* is also the occasion of a mid year cash bonus payment to workers. In addition, in Ayukawa, employers associated with the whaling industry frequently gave *ochugen* at the time of the whale festival, the *kujira matsuri*, rather than during *obon* itself, although in 1988, with the absence of whaling, the *ochugen* were made during *obon*. These gifts again include alcohol (sake or whisky), boxed sweets or biscuits, and *nori*.

In addition, sporadic gifting occurs throughout the year: when a villager travels out of the town for more than a brief business excursion or when a child or husband returns home from work or school, for example. These kinds of gifts, food items or souvenirs, are typically wrapped in *furoshiki*, handed to the intended recipient with a formulaic

speech of the humbleness of the gift, and accepted with equally formulaic reluctance and surprise, unless the recipient of the gift has anticipated its arrival and perceives it as an appropriate expression of reciprocity either for earlier proferred gifts or services or hospitality.

Supplementary to these gifts are constant spontaneous gifting and sharing, 'spur of the moment' gifts of items to a visitor, for example, who has complimented the host on a sweet served and is given a box of them is response, or a toy to a guest who has told an engaging tale of an absent child. Certain informal gifts are termed *fukuwake* — 'the sharing of good luck.' Whale meat gifts may fall in this category: following the distribution of whale meat late December 1988, when each household in Ayukawa was allocated for purchase from the town a 3.75kg block of minke, households distributed portions of the meat as *fukuwake* to family members living out of the town, who in turn would divide their meat amongst other family members, the daughter of an Ayukawa householder, for example, subdividing her *fukuwake* of meat with her husband's kin. In shops, any commodity may be gifted: a friend who walks into a shop may leave with gifted as well as bought produce, particularly if the given produce was processed by the shopkeeper. Ordinary customers may also receive gifts from shopkeepers, such as talismans, packets of tissue paper, gift packs of toothpicks, calenders and so on; these gifts are not always of insubstantial value.

But gifting extends beyond the exchange of such goods. The exchange of name cards (*meishi*) is another variant of gift exchange, and may occur either at the point of introduction of two parties, at the conclusion of a meeting when continued personal or professional associations are indicated, or upon the re-meeting of individuals when one party has changed his place of employment or changed jobs within his workplace. In addition, in Ayukawa, a name card exchange party was held on January 3 from the 1960s until the mid 80s, initiated by whalers and their business associates, which gave individual crew an opportunity to announce any change in employment status at the beginning of a new year and gave participants an opportunity to foster both business and political contacts, and in this respect fit also into the institution of *nemawashi* ('greasing' the wheels of professional associations).

Again, social interaction incorporates gift-giving and other kinds of reciprocity. Whilst the exchange of *meishi* mark the onset of association, personal links may be fostered by the giving of photographs of events or family members, and are reciprocated through the serving of tea and the offer of snacks (oranges, cake and biscuits, and in Ayukawa, whale meat snacks such as *tsukudani* and *kanten*). Gifts of whale meat, and other *fukuwake* gifts, occasion tea drinking and the exchange of village gossip. Drinking, both between male colleagues and friends in bars and restaurants, and within the home, also incorporates the spirit of the gift: mutual pouring of sake or beer, termed *toshunaujisezu* in Ayukawa to connote mutuality rather than heavy and unrestrained alcohol consumption, is commonly observed and contrasts with serving that reflects the status of the drinking partners.[b]

B. The gifting of produce

Historically, the people of Ayukawa have been primary producers, and today the products of both the domestic and commercial mode remain goods to be gifted as well as sold. As we shall explain, the distinction here between gift and commodity is an artificial one: within Ayukawa, many items are at the same time gift *and* commodity, and it is entirely possible for the same item to circulate within the community as gift and later to be distributed outside the community as commodity.

The gifting of produce varies according to seasonality and the prestige value of the item. Villagers who maintain small kitchen gardens for household use only, regularly give to friends, relatives and neighbours fresh produce at the time of harvest. Thus fresh cabbages, radish and spring onions are given whenever the supply exceeds household demand, or whenever a social visit is made and produce is on hand. Similarly, products gathered from the sea, particularly seaweeds (*funori*, *nori*, *kombu, hijiki*), but also sea urchins (*uni*) and abalone (*awabi*), are collected by householders for home use but may be shared with others. Since sea urchins and abalone are seasonally available, then gifts are made that often correspond to a 'first catch', but in addition, gifting occurs during the height of the season (*shun*), when the food is not only abundant but also especially tasty. The presentation of sake to mark the onset of the season does not occur in this case however, as opposed to customary practice for whaling, and since some of these products have low monetary value, giving does not create an obligation to repay. However, the freshness of the food item is highly valued by villagers and such food gifts are most welcome.

In addition, *wakame* seaweed farmers both retain a portion of their catch before sending the main catch to the fishing co-operative for auction, and irregularly distribute a proportion of their catch as gifts. Some of these gifts are in exchange for unpaid labour. Thus one *wakame* farmer reimburses assistance during the harvesting of the crop and its subsequent processing with gifts of 'mother *wakame,*' regarded as a delicacy within the town, and also gifts fresh *wakame* to paid help as a bonus to the hourly rate. Whilst *wakame* is harvested from around late March, farmers may bring in small amounts of young *wakame* from around the New Year, whilst the plant is tender, and this is frequently distributed through secondary and tertiary gift distribution, without expectation from *wakame* farmer or secondary gift-givers of a return gift since the notional monetary value of the product is low.

Fish are similarly distributed as gifts throughout the community. Meals frequently include fresh caught and gifted fish, of any of a number of species that are abundant in the waters of the village. Often a number of fish are given, and those to whom the gift might represent a substantial

financial saving (eg gifts of fish to *minshuku* and *ryokan* hosts) may be reimbursed with sweets, cigarettes or alcohol throughout the year. The giving of fish and *wakame*, however, are gifts among close friends and relatives, and the reciprocity lacks the formality that characterises certain whale meat gifts.

Finally, fish that is commercially farmed, rather than caught, is also given. A number of whalers and whaling companies have diversified into salmon farming, and in many respects the gifts of salmon echo those that were characteristic of whale meat. Salmon may be given to the shrine at Kinkasan in May on the occasion of the festival of the snake god, protector of the sea deity, and is salted to the local shrine, at New Year. In addition, employees receive salmon, weighing around 1.5kg, at time of 'first catch' and at the end of the season (August). New Year *oseibo* may also be in form of salt salmon. As with all other produce, salmon may be distributed more widely within the community through secondary and tertiary gifting. The distribution of salmon is nearest to that of whale meat, and some salmon farmers, former whalers, speak of the salmon as symbolic whale in the absence of that product. However, the first harvest of salmon, which takes place around May, does not occasion anticipatory gifting through the distribution of sake to the salmon farmers by other townspeople, and salmon is not in turn gifted throughout the community to mark this 'first catch:' 'first catch' gifts of fish are made predominantly to the employees of the licensed fishermen.

The gift distribution system associated with salmon farming derives its inspiration directly from whaling. When, traditionally, Ayukawa people have said that, "Fish is to be bought, and whale is to be received as a gift," the implication is that local people get as much whale as they want through gift exchange and therefore never have to buy it, while fish is a commodity, and therefore is to be acquired by purchase. Nippon Kinkai, a mariculture company originating in Nihon Hogei, a whaling company dissolved by the moratorium, makes a distribution of salmon, one fish per employee, on the occasion of festivals at the local Kumano or Kinkasan shrine. These fish are to be distributed to neighbors or friends. On the same occasions local fishmongers are allowed to buy fish at cost, and the company will make gifts of the salmon to the parent company, to the local refrigeration company, and other local businesses. These distributions occur once or twice in a year.

Having begun life as whalers, Nippon Kinkai employees think of the product of their labors as they think of whale, and thus for them salmon must be treated as whale and distributed as a gift. This relates back to their perception of their work as a 'work granted them by the grace of heaven;' as such its fruits cannot be commodified without first having an existence as a gift, in which state they function to renew social ties and reinforce the solidarity of the community, an existence which is separate from that as a commodity.

Seasons of other fish and marine products, such as *ika* (squid), *sanma* (mackerel), *shirazu*, and *merodo*, may also be marked by sake gifting from relatives and friends and reimbursed by 'first catch' gifts. However, the gifting networks for these items of production are substantially smaller than those that operate for whaling, and lack the institutionalization that characterizes the opening of the minke season.

C. Whale meat is to be received . . . .

a) The first catch

The gift giving of whale meat stands apart from other gifts within the community. As described in the earlier report (Akimichi et al. 1988), villagers anticipate the opening of the whaling season by sending to the whalers — including the owners of the whaling boats and the employees — bottles of sake. Gifts of sake are returned with meat from the first catch, although in effect the 'first catch' meat may be from the first several whales that are caught. First catch meat is brought to each household by employees of the boat owners, either by whalers or by land-based employees. At each house, the meat will be taken to the kitchen door — that used by close friends and relatives and for informal visiting and brief calls — and the meat would be handed to the woman of the household. One informant, once the owner of a company that produced fertiliser from whale meat waste, described the first catch thus:

> "Of course, we'd give sake for the first catch. During the heyday of whaling, this would be to all the companies, and later on, when we were only doing business with Kyokuyo Hogei, then only to them... they'd bring the meat to the house — the clerk of the company would bring it. There was a kind of ritual when it was brought: they'd say 'This is our first catch. Thank you for the sake and here is the whale meat in reciprocity of the sake.' This (meat) is in reciprocity. We'd get a small amount only, but enough for sashimi — perhaps 1.5 to 2.0 kg." (Field notes, 1989)

Clerks would come armed with several blocks of meat in a basket, so they would distribute meat to several house at a time. In the past, meat would be unwrapped. More recently, each gift of meat would be tied in a plastic bag with the name of the recipient on the outside, but the form of gifting has remained the same up to and including the minke season of 1987. First catch gifts of meat are usually prepared as sashimi and offered to the gods of the domicilliary shrine prior to the consumption of the meat.

Whilst the first catch gift of whale meat technically absolves the whaling companies from further gifts of meat, the number of household who send sake to the companies and hence the amount of meat available for gifting during the first month means that often only small amounts of whale meat would be available. As a result, on some occasions more than one first catch gift of meat would be made to a household: if the initial first catch gift was only around 500-1,000gm, then a supplementary gift of meat of

between 1.5-2.0kg would be made, with a formulaic expression of apology that the first gift was so small that it was an inappropriate return for the support, symbolised by the sake, that the household had given to whaling and the whalers.

b) Regular gifts of whale meat

Whilst the first catch gifts are the most important ritually in Ayukawa, whale meat continues to be given freely throughout the season through a variety of mechanisms. The constant gifting of whale meat from April through June, whilst minke are caught offshore from Ayukawa, and in the past, throughout the year when other whale meat was brought into the town for processing, leads villagers frequently to comment that 'fish is to buy, whale is to be received' (*sakana wa kau mono, kujira wa morau mono*).

Firstly, all workers employed as whalers, i.e. working on boats, regularly received whale meat as a bonus. Men employed in small-type coastal whaling received around 1-2kg with each catch whilst the boats were working off Ayukawa from April through June, and would also received a gift of meat at the conclusion of the season off Hokkaido. This meat would be used for household consumption, although as explained below, some of it would be redistributed to shrine or temple households, and portions of the meat might also be given to neighbours and friends. Hence one whaler, employed over a twenty year period as both a *makanai* (cook) and an engineer's assistant in small-type coastal whaling, recounts:

> "The size of the gift depends on the catch. The company would allocate a proportion of meat to the boat to be shared amongst the whalers equally. With a big catch it'd work out at around 2kg per person, usually 1-2kg, and this would typically be shared amongst neighbours and relatives, since we couldn't eat all of it anyway. We'd gift half. Of course we gift other things too, sake, vegetables, but whale meat is the most usual thing to give and with which to reciprocate for other things." (Field notes, 1989)

In addition, gifts of whale meat were made to employees working in whaling-related industries and to business houses in any way associated with whaling.

Flensers employed on land in the past would receive as much as 3-4kg from a catch to take home, in addition to cash bonuses received in June and December which supplemented their basic salary. Large gifts of whale meat might be received 3 or 4 times a year, particularly of sperm whale rather than the more prestigious and valuable minke whale; of these gifts of meat, usually one third would be retained for household consumption, one third given to neighbours, and one third to relatives. Others who helped to flense on a casual basis, donating rather than selling their labour, would also receive whale meat as payment.

Owners of companies handling whale by-products used also to receive gifts of meat whenever they made a purhcase from the flensing stations. The weighing station, the fertiliser factories, of which there were around 10 operating in Ayukawa in the 50s and 60s, the factory which processed sinew for tennis gut, the canning factory, and the *kabura* (processed cartilege) producers, and artisans producing craft goods from baleen, whale teeth and skin, always received whale meat when purchasing raw materials, and this meat would then be redistributed to employees, so that virtually all workers in Ayukawa regularly received gifts of whale meat. The owner of one fertiliser factory recalls:

> "For two generations we had free meat, we never had to busy it. Our especial relationship was with the Kyokuyo Co., although we also had business with Taiyo Hogei and Nissan — and it was Kyokuyo especially then who provided the fertiliser material. So we'd buy the scrap from the company, then get the meat free. There was no formal reciprocity of this gift, although at New Year and *obon* we'd always send sake. And if there was a big catch, we'd send down sake to the whalers to allow them to celebrate, and this was really also in reciprocity for the meat," (Field notes, 1989)

In addition, employees in subsidiary industries also helped flense, and might receive additional meat in return for their labour. A member of the *kabura* producing household recalls:

> "Most meat that came into this house was gifted. We'd go to a flensing station for meat, and it would be given free because we bought the cartilege — whenever a whale came in, we'd be rung up and advised. If we helped flense we'd also be given the cartilege at a discount price — 50kg at the price of 30kg . . . and we'd always be given meat. After the moratorium (on larger whales) we ceased to help flense and we weren't given meat — just bought the cartilege. It depended on the size of the catch how much meat we'd be given, but whenever we needed meat we'd just ask and receive." (Field notes, 1989)

Other villagers, whose businesses regularly brought them in association with whalers, also received frequent gifts of whale meat. Hence innkeepers in whose *minshuku* and *ryokan* whalers might stay would receive meat gifts from their guests, and would reciprocate not through formal gifts of sake but by providing some free alcohol to the guests. As a result of the extent of employment of Ayukawa villagers in whaling and whaling-related industries and through the mechanism of secondary gift distribution, most households received continual gifts of whale meat in the whaling season, with sufficient surplus to send meat to family members living out of the town and to salt, dry, and most recently to freeze meat to ensure a year round supply of meat for household consumption. The purchase of meat through commercial outlets was therefore uncommon, although stocked by own whale meat shop and by the fish shop; in addition, peddlars bought meat from the factory and carried it around, particularly to people living in the

mountains who were isolated from other outlets and from gift exchange networks.

Kin did not traditionally give each other whale meat, on the theory that they are together often enough that such a gift wasn't necessary. But at the whale meat distribution by Oshika Town at the end of December 1988 a lot of meat was put aside by people wishing to send it to their children and relatives who live outside of Ayukawa. So now that whale is a scarce commodity, as opposed to an everyday, ordinary, absolutely expectable part of a meal, it acquires a new kind of currency in gift exchange among kin which it did not use to have. As an ordinary food, it was appropriate that kin share it outside the gift-exchange circuit, but now that it is a scarce commodity, it enters that circuit as a highly prized item which is an appropriate item for exchange between kin.

c) Gifts to temples and shrines

Families of the shrine and the two temples that operate in Ayukawa regularly received a share of whale meat, for parishioners would bring meat as an offering to the gods, in thanks for a successful catch, to secure supernatural support for continued abundance at sea, and for personal safety whilst at sea. Whilst meat brought to priests would then be taken back home for domestic consumption, conventionally a proportion would be left with the priest's family for their own consumption. In addition, women belonging to the women's confraternities of the temples would often bring whale meat as gifts to the temple households, usually an irregular amount of around 1.5kg. Often the flow of meat to religious households would be extensive, to the point that one priestly household recalls throwing out meat that the household was unable to consume:

> "Here (at the temple) each time a whale was caught we'd be given meat. The people, the crew of the whaling boats, would bring meat up here to be purified, out of respect of the whales and for the repose of the souls (of the whales). Some households would bring meat to us for purification. There are memorial tablets to the whale at the temple and people pray before these. Part of the meat would be placed before them in respect of the souls of the whales. You should respect the life of all creatures. The whale is really important in the town....
>
> "Every time there was a catch someone would bring meat up to the temple. So we'd get about 2kg from them. We'd have this amount from a few households. Most of the people in the town were associated with whaling in one way or another and would bring us up meat so we never had to buy any. We'd never eat anything except whale meat. We used to season the whale meat with miso, beans and salt, and so on. We used to eat salted and dried meat too. But mostly we'd just eat sashimi.
>
> "Sometimes we had so much meat we'd throw it out." (Field notes, 1989)

Gifts of meat to the temples and shrines were usually reciprocated through immediate hospitality: the wife of a whaler who brought up a gift of meat would be served tea and snacks. But, as one ritual specialist pointed out,

> "the reciprocity here is in the form of a spiritual gift, of prayers said for safety at sea and a good catch. And it is the spirit of the gift that counts." (Field Notes, 1989)

During the 1950s and 1960s, when whaling was at its height and meat circulated throughout the village from both whalers and employees in subsidiary industries, the redistribution of meat through gifting was not always welcome: there was so much meat, villagers recall, that no-one was without gifted meat and no households needed to purchase it at all. But notwithstanding the abundance of whale meat in the town, secondary gift distribution was common and has been increasingly important as a means of distributing meat as whaling-related industries contracted. Thus meat might be given from the owner of a boat to his employees, who would in turn gift to the temple. The temple in turn might redistribute a portion of the meat to relatives and friends, within and beyond Ayukawa, who would then share the gift in a meal with their own friends or, for women who have married out, with affinal kin. In summary, a gift of 2kg of meat might continue to be divided as follows:

> boat owner whaler temple other parishioners
> affinal kin guests and other relatives

It is, as one temple informant stressed, "hard to guess where the gift might stop." (Field notes, 1989)

d) New Years food and ritual

Many communal rites of temples and shrines are build around a central motif of a communal meal shared by parishioners with the deities. This motif is pervasive throughout the liturgical calender of both Buddhist and Shinto institutions but is particularly prominent in rites of the New Year. New Year is a high point of the ritual year everywhere in Japan. Ayukawa's New Years customs reflect the centrality of whaling to this community through the prominent use of whale meat.

The centrality of the communal meal, or *naorai*, to Japanese religious life is not limited to whaling communities, but the *naorai* of a whaling town like Ayukawa is particularly marked by the way in which whale meat is incorporated. Normally it would be unthinkable for red meat to be offered on an altar to Shinto divinities, but this is precisely what happens in Ayukawa. Not only is whale meat included, but it is the most prominent and highlighted item among a large number of food offerings. In addition, traditionalists offer whale meat on their domestic altars to the Japanese gods (*kami*) for a full seven days at New Years, and some go so far as to continue this practice for the first 2 weeks of the year.

Whale meat is offered on the private and communal altars of this community precisely because it is the food that most uniquely symbolizes the source of communal

solidarity. Because Ayukawa's social and economic organization is so dependent upon whaling, whale meat is particularly appropriate as an offering to the community's tutelary deities, enshrined at the Kumano and Koganeyama Shrines. After it has been offered to the deities by being placed on an altar, this whale meat is taken down and served in the communal meal shared by the parishioners, and putatively, by the deities as well.

Local shrine priests sometimes speak of whale meat as a 'health food,' and they report the existence of a tradition holding that since the whale is a long-lived animal, one can acquire long life and health by consuming whale meat. These beliefs share much in common with the underlying assumptions of the ritual communal meals at shrines which have the intent of increasing the vitality of the community. In this context the idea is that the deities impart their own potency to the food offered upon their altars, and that potency is the imparted to parishioners. This infusion of human beings with the sacrality of deities is accomplished here through the eating of whale meat, and hence this meat becomes an important symbolic vehicle for continued reciprocity between human and divine realms in the local word view.

The New Year is also a time for pacification and ritual feeding of the souls of whales and whalers who have died. The mid-summer *obon* festival, described in detail in an earlier report, is the time of the year when this motif is most prominent, but it is also played out at the New Year as well. On 16 January in both Buddhist temples in Ayukawa, parishioners visit the temple to pay formal New Years greetings to the priest and to their ancestors, whose spirits are entrusted to the care of the temples. On this occasion, the back areas of the temple are opened for ordinary persons to enter and offer incense. There are special altars for offerings and prayers to the ancestors, and in addition parishioners are encouraged to enter a special alcove housing the memorial tablets representing the spirits of whales and whalers (the construction of which is sponsered by the whaling companies), there to make special offerings of incense and prayers.

A third type of New Years rite related to whaling is that renewing the Boat Spirits (*funadama*). These are the deities who protect the whaling boat and its crew at sea, and it is the local custom for the boat owner, captain, and harpooner to perform special worship for them on the last day of the year. The boat spirits are female, and they are represented by 3-5 strands of pubic hair of a virgin girl, a dice, and paper dolls.

The boat owner is responsible for the preparations. That means that he has to prepare a set of New Year domestic shine decorations, including not only the flags raised on the mast, but the pine branch tied to the mast, and the smaller rings of straw rope which are placed in the engine, harpooner-captain's, and crew's sleeping rooms. The boat owner brought a large bottle of sake and a tea kettle of water. The first order of business was to affix the three flags to the mast: the national flag at the top, followed by two colorful flags bearing the name of the boat. When everything had been arranged in front of the small shrine enshrining the Boat Spirits, he poured a cup of sake and a glass of water as offerings. Then in turn the harpooner, and the captain bowed and clapped in front of it, and that was the end of the ceremony.

e) When there is no whale...

The last catch of minke whale was in 1987. Thus there was no minke season in 1988, and boat owners told villagers who they knew would normally send gifts of sake to not do so. There was, in fact, limited whaling for *gondo* (Pilot whale) and *tsuchi* (Baird's beaked whale), but these catches were not marked through ritual gift giving and meat caught was not distributed through the community as was usual for minke meat. As far as villagers were concerned, there was *no* whaling in 1988, and there was no meat in the village as a result. Again, in fact, there was meat: the fish shop continues to buy frozen meat from the Antarctic. However, as we explain in the section on food preferences, Ayukawa people are uncompromising in their preference for locally caught minke meat. But in addition, meat available in the supermarkets is expensive, and through 1988 people have used up their domestically frozen meat supply and supplement this with a greater amount of meat than is usual.

Given the perception that there was "no meat" in Ayukawa, the town distribution of whale meat, frozen minke from pelagic research whaling, was of great moment. The town bought 13 tons of meat from the Institute of Cetacean Research in Tokyo, organised a formal means of distribution that allowed each household to purchase 3.75kg (one quarter of a 15kg case of meat). Forms were predistributed to households in December, and advance payment of ¥10,600 was made at the town office. Householders then presented to the distribution point — adjacent to the refrigeration plant of the fishing co-operative by the wharf — and collected their allocation. The actual distribution was done on 27th and 29th December, from 9-12 and 1-3 on the first day and from 1-3 only on the second, with members of the town office and the fish co-operative supervising the distribution and working the machine that further cut down each frozen block of meat. The distribution of meat was reported in the press and villagers reported numerous calls from outsiders also wanting to buy. Within the town some people tried to get access to other's allocations, and in a few instances, single person households gave to neighbours of friends their allocation as well. No special provision was made for business houses, but 2 ton was held over for the school, the hospital, for the national inn (the *kokumin shukusha*), and, as discussed in this report, for use by the *gokanichikai* of Koganeyama Shrine on the island of Kinkasan on January 3.[c] Since the distribution was immediately before New Year, villagers were delighted: it allowed them to celebrate New Year in customary fashion, whilst at the same time serving as a poignant reminder of their vulnerability to external forces.

FOOD AND RITUAL

A. Food preferences

"People living here have to eat whale meat.
They can't live without it." (Field notes, 1989)

The people of Ayukawa set themselves apart from other people on the basis of food preferences. At a first level, the distinction is made between the consumption of whale meat and other animal products: hence Japanese eat whale, westerners eat pork and beef. Related to this is their emphasis on the full use of the whale: Ayukawa villagers frequently claim, "we eat every part of the whale . . . there is no waste." In light of this, the moratorium makes little sense to the people of Ayukawa:

> "We cannot understand why we can't eat whale meat anymore, when Americans eat beef and pork. So what's the difference between this and whale? I really miss not having whale meat. It's been a terrible year. We eat all parts of the whale, you know, so we don't waste any: we really can't understand it." (Field notes, 1989)

But in addition, villagers stress their familiarity with whale meat as opposed to others from Japan, and women who have married into the village speak at length at their need to be taught to prepare whale meat by their mothers-in-law, and of the change in diet determined by marriage and residence in Ayukawa. Further, Ayukawa people are, in their representation, people who eat fresh *minke whale* rather than other kinds of whale meat: the availability of frozen minke, caught in the Antarctic, and of Pilot whale, Baird's beaked whale, sperm or fin whale does not, in their minds, disprove their claim that "there is no whale meat anymore."

Central to this account is the emphasis that villagers give to people's eating patterns: offered a variety of foods, it will always be the whale meat sashimi that goes first:

> "If you serve sashimi — tuna, bonito and whale — then all the whale will be eaten first. Everyone really loves *kujira* sashimi here." (Fields notes, 1989)
>
> "If kujira sashimi is available then people don't want other food, since most people prefer *kujira* sashimi over all other food." (Field notes, 1989)

Associated with the prestige of whale sashimi and the preference of minke over other foods, is the absence of significant repertoire of other ways of preparing and/or cooking whale meat. Fresh minke is, according to villagers, tender and delicate to taste, and villagers claim to be able to distinguish the age and sex of the whale from the taste of sashimi. Young, female whale meat is especially prized. Since fresh minke is regarded as a great delicacy, although eaten on a daily basis throughout the whaling season, it is regarded as a travesty to process or cook it, and as whaling has declined, villagers are increasingly less likely to serve it in any other way: "We just eat sashimi. If there was a lot of meat, then we'd try other recipes, but when there's only a little, its just sashimi." (Field notes, 1989).

Whale sashimi is cut across the grain and is typically served in bite-size pieces, either paper thin or to half a centimetre thick, with thinly sliced blubber and skin (*kawa*). A piece of blubber and a piece of meat is then eaten together with a dip of soy sauce and grated ginger. Other seasonings are not used for sashimi made from good red meat, although they may be with other kinds of raw whale meat. Meat from the gum (*haniku*), for example, is either boiled or eaten raw with vinegar; the fin of Pilot whale is again eaten raw with vinegar. Blubber is eaten, either with or without oil being extracted first, and may be served cooked or raw. Blubber was also used in the past by villagers to flavour vegetables in mixed cooked dishes, and oil-extracted blubber was sometimes used in a soup served at *obon*.

Cooking or further processing is a means to disguise meat that is aged or unfresh or tough, or from species regarded as less palatable than minke, and for the consumption of scraps of meat (*hagi niku*, scraped from the spine) and internal and reproductive organs. Whale tongue is lightly cooked; meat with blubber attached may be boiled and sliced, sometimes salted also as 'bacon' (*beikon*). Cartilege is processed as *kabura*, as described elsewhere in this report, and served instead of radish with whale sashimi during special meals. Internal organs, such as the kidneys and the small intestine, are boiled and then finely sliced; the heart is eaten diced, grilled and served with soy and ginger.

Meat from the sperm whale, and minke meat when there was an abundance, might be processed as *tsukudani*; the gelatinous meat from the base of the spine would be boiled with *mirin* (sweet sake), ginger and soy sauce, set and cut as *kanten*. Any whale meat might be processed as *misozuke*, sliced, put into *miso*, sliced and grilled, or as *yaki kujira* — dipped in soy, dried then grilled, and as sukiyaki (lightly cooked with vegetables in a broth). Whale meat might also be fried in butter, and tail meat (*sarashi kujira*) is eaten sliced, blanched in boiling water then cold water, and eaten with vinegar. In addition, some people make up a *kujira-jiru*, a stew made with meat and/or blubber and vegetables, but this is not a feature of New Year's cooking as it is in northern Honshu or in Hokkaido. Local recipes for *kurjira-jiru* vary, like most dishes, according to household, but often include both red meat and blubber, green onion, soy bean curd, konyaku, *miso*, potato, burdock, carrot, and radish. The vegetables would be fried with blubber, then cooked in water. The raw meat, stock, tofu, spring onion and *miso*, would finally be added and the stew brought to boil: large households would often cook up enough for a number of meals. Meat may also be fried up as *tatsutage* (deep fried in a batter with grated ginger), or made into a curry: chopped meat and blubber, without the oil extracted, would be sliced fine and curry powder added; it was, according to informants, "a pretty greasy sort of dish." (Field notes, 1989). Meat from sperm and minke whales would also be dried (*hoshiniku*) or salted and dried, thereby providing households with a continuing supply of meat through

the winter months. And, as one informant recalled, cooking was an effective disguise of the strong taste of aging meat:

> "Even if the meat went off, we'd stew it and then it was really delicious. Also we'd make a *kujira kanten*. We would be given around 2kg of meat if we helped flense, so we used to eat it all the time. Even if it was just a coffee break, we'd have *tsukudani* and *kanten* as snack food." (Field notes, 1989)

The reluctance of people from Ayukawa to eat the meat from Pilot and Baird's beaked whale relates to their perception of the lack of delicacy of flavour of these meats; resistance to these meats is reflected both in the absence of gifted meat from the 1988 catch of these two species by Ayukawa whalers, and by their unavailability in local shops: the only whale meat sold is from sperm and minke meat. Informants argued that:

> "We only like minke, so if it's not minke, then we'd rather not eat it. Of course, if that's all there's going to be then we'll have to get used to it, I guess. But we've been eating minke for 70 or 80 years. We are not going to die if we don't eat it, but, I don't know, it's a real mess." (Field notes, 1989)
>
> "*Gondo* tastes different: the meat is a different color. Few people will eat *gondo* as sashimi here because we don't like the taste. Some people will buy it and salt and dry it, then have it as *tsukudani*, but that's all." (Field notes, 1989)
>
> "People have caught *gondo* and *tsuchi* but they are not keen on eating it. You have to flavour it really well to eat it. The smell is really different from minke. We haven't eaten it so we don't really know what to do with it. So if we end up with a situation of no minke, then we'll have to learn how to handle other meat. But we'd be pretty unhappy about this: it's not the same." (Field notes, 1989)

A lengthy discussion with a whaler and his wife highlights the distinctions that villagers make between different kinds of whale meat, and their reluctance to eat other species:

LM: So Ayukawa people don't eat Pilot and Baird's beaked whale?

Mr A: Well, yes, we do eat them.

Mrs A: But we don't really care for it. We haven't eaten it much. I hate to say it, but...we've hardly ever eaten it....

Mr A: ...no one here likes to eat *gondo* as sashimi. And because there was minke up until 1987, hardly anybody had *gondo* up to that time. But they will have to get used to eating it.

Mrs A: If there's no minke whale, they'll just have to. But we really don't like it.

Mr A: ...and nobody here eats *gondo* as sashimi....

Mrs A: Because they just don't like it much....

Mr A: There was plenty of it to be sold in Kyushu and Western Japan....

LM: But does it taste very different from minke?

Mr A: In Taiji they catch and eat *gondo* so they think that it is better than minke. Because they seldom eat minke whale.... we don't eat gondo because we've eaten minke up until now. So even if we're told to eat *gondo*, we think "Stupid! It doesn't taste good!". That's how it is.

Mrs A: ...and no matter how expensive it is, we'd still prefer it to other species.

Mr A: *Obachan*, don't say that. Because there's hardly any minke left. Even the frozen Antarctic minke. (Field notes, 1989)

B. Food of the New Year

As we have pointed out above, Ayukawa people — unlike those of northern Honshu, of Hokkaido, and particularly of the whaling community of Abashiri — do not prepare a thick soup or stew from seasonal vegetables and whale meat and blubber (cf. Iwasaki 1988), known as *kujira-jiru*, as the central dish for New year's eating. New Year's fare has much in common with other parts of Honshu, and includes *mame* (red beans), *kamaboku*, made from fish and rice flour, *mochi* (a rice cake made from finely kneaded, steamed rice) and a soup known as *ozoni* and varying in its ingredients from one household to another. *Ozoni* can include radish, carrots, yam, dried bean curd, *karatori*, salmon roe, herbs, octopus, three different kinds of *kamaboku* (*naruto*, made in a pink and white spiral, *kastera*, yellow squares, and the conventional pink and white half moon form), abalone, and chicken. The vegetables are stewed with water and soy sauce; the chicken and *kamaboku* boiled separately. To serve, a cake of *mochi* is placed in the base of the bowl, the vegetables and stock are added, the chicken and *kamaboku* are placed on the top. Other recipes exclude the roe and chicken, but some seafoods, vegetables, the *mochi* and *kamaboku* are always featured. On the other hand, in Ayukawa recipes, whale meat is not included.

During the first three days of New Year, most households served two meals only: a meal of *an mochi* (mochi with a sauce of red beans) and *ozoni* sometime between 8.30 and 10.00 am, and the evening meal, of rice and a variety of side dishes, from around 4.00 pm. Side dishes include cooked fish, and a number of small symbolic dishes: of *kuromame* (black beans), served because of the homonymity of *mame* (beans) and in the expression for good luck; of *tazukuri* (anchovy) symbolising prosperity, and *kazunoko* (herring roe), symbolising fertility. On the fourth day of the New Year, villagers conventionally eat yam and rice, in order to regain some harmony after the gastronomic riches of the preceding days.

Whilst special New Year's food does not include whale, New Year is also a time for the consumption of whale meat, both because it has been, in the past, the major food item of all villagers — in some households eaten three times a day — and because it is the preferred food: "It's customary to eat whale here at New Year. Whale

isn't available throughout the year, but people keep enough in the freezer so they can use it at New Year also." (Field notes, 1989) Whale meat, particularly sashimi, is both the staple and the prestige food, and no ceremonial occasion, including New Year, would be complete without it. Hence villagers were extremely grateful to receive meat through the auspices of the Town Office at the end of December, and all New Year evening meals included whale meat sashimi as the central plate.

In addition to the inclusion of whale meat in New Year's fare, whale has also been central food in the formal, public meals of the New Year: the lunches held at the Kumano Shrine on 2 January, attended by representatives of some 50-60 households in the village, and at the Koganeyama shrine on Kinkasan on 3 January. In 1989, there was no whale meat at the Kumano Shrine, but it remained the major food item of the Koganeyama meal. In her speech of welcome to members of the *Gokanichikai* confraternity of the shrine, predominantly villagers from Ayukawa, the head priest of the shrine commented:

> "We didn't know is we could get whale meat sashimi for today's meal but thanks to your co-operation we can provide it this year. Since whale sashimi is eaten each year in Ayukawa we could not possibly have had this meal today without it, and so we are deeply grateful to those who have provided it." (Fields notes, 1989)

Another priest of the shrine elaborated the importance of whale meat, underlying its significance not only because, as implied above, it is the staple food of the people of Ayukawa, but also for ritual reasons:

> "There is a close tie between this shrine and whale meat. After prayer, we have a meal, called *naorai*, and the dish is from the shrine. From the old days we have had whale meat and regard this as necessary: we offer to the gods whale meat despite the usual injunction of red meat. Now we might serve chicken also, a whole chicken. If there is no chicken, then we'd offer an egg. After a whale catch, meat is brought to the shrine and offered to the *kamisama* (gods). So it's necessary to have whale meat for this meal: if whaling was prohibited then we'd also be in trouble." (Field notes, 1989)

WORK AND EMPLOYMENT IN AYUKAWA

A. Occupation and employment in Ayukawa

Nearly every household in Ayukawa was involved in whaling before the moratorium, either directly or indirectly, and consequently the economic base of the town and the identity of its residents are both inextricable from whaling and severely undermined by the moratorium on whaling. This section of our report outlines the moratorium's impact on patterns of work and identity, beginning with a brief account of the town's major categories of whaling-related employment before whaling ceased.

a) Whaling Crews

Most Ayukawa workers have not actually been employed on whaling boats, but the whaling crews have without a doubt been a major focus of community identity, and whaling crew members have traditionally enjoyed high prestige. In the heyday of whaling as it is remembered by local residents, whalers are described as generous benefactors of the community and as the primary role models for young men. Since so many Ayukawa people were involved in whaling, nearly everyone has numerous relatives so involved, and therefore there is no one who is unfamiliar with whaling life.

Patterns we found during this period of research seem to echo trends seen much earlier in the century, as recalled in the reminiscenses of an Ayukawa doctor writing about the town in the period from roughly 1905 to 1945; Ibuki Kozo, *Harukanaru Ayukawa* (Memories of Ayukawa), Sendai: Seitosha, 1977.

> "In Ayukawa people didn't buy whale but received it from the companies (*Ayukawa de wa geiniku wa kawanai de, kaisha kara morau koto ni natte ita*). You'd bring it home in square blocks with a hole in the middle, tied together with a rough rope and hung from a pole. You'd get more if you sent a young woman for it."

When a whale was caught the boat would sound its steam horn, one blast per whale.

> "Then Ayukawa entered a state of war. Everyone put on their oily smelling work clothes and hurried to the company with pine torches blazing. Sometimes a single ship would come in slowly, dragging as many as eight whales, and on nights like that, people worked through the night by torch light. The flensers ate their meals at their canteen standing up. 'You eat just like a flenser!' was what we would be told when our table manners were bad.
>
> "In summer when a whale boat returned after two or three days chasing whales they would open the whales' abdomens, and if you prodded them with a flensing knife they'd let out a brown steam of foul-smelling gas. Onlookers would flee from the terrible smell, shrieking 'Waa!'
>
> "When whales passed close to Kinkasan on a summer's morning, it was a beautiful sight to behold the 12 catcher boats setting out from the harbor one after another, belching smoke." (pp.40-41)

A 60-year-old former whaler (previously involved in STCW, LTCW, and Antarctic whaling) described his own childhood memories of whalers and whaling with great nostalgia, pointing out that as a child he ate whale almost daily, and that his father had originally moved to Ayukawa to sail on a whaling boat, and that his elder brother and wife's elder sister's husband were all involved in whaling. He remembers Ayukawa as the liveliest town of the

peninsula, with lots of entertainment places and lots of foreign whalers.

Whaling provided this informant with his major images of abundance and happiness. Each year began for him with whaling, as on New Year's day at 8 am all the catcher boats blew their sirens at once (a custom which continued until 1945), and they would shoot off three harpoons. He and his family and friends went to the harbor and were served with all kinds of whale dishes by the whalers on the New Year.

As a child he would spot whales off Kinkasan. He would swim out to the whales tied in the bay and climb up on them. When a half-dead one was brought into port he would pour water into the spurt in order to make it blow. He and his friends would swim out to the whale ships, and the whalers would pull them out of the water and give them a meal. They loved children. They were kind to children and would give them abalone by the armload. Back on shore, the flensers would give away as much as 10 kg to a child, who would then take it home on a pole. This informant thus associated whalers with generosity and kindness in his earliest memories of childhood, and from an early age he desired above all else to become a whaler himself, idealizing whalers as benefactors and as having a sincere dedication to the community's welfare.

In 1953 this informant started whaling and continued until the moratorium took effect. He was an engineer and thought of whaling as a profession on which his life depended. He talks about the teamwork involved in whaling, and about the way older whalers helped him mature into a grown man and an accomplished whaler. On an STCW boat there were rather informal senior-junior (*senpai-kohai*) relations which existed to help new crew members learn their duties and the full spectrum of whaling techniques. The crew created solidarity through socializing and teaching the younger to obey orders. The engine group had a sub-leader responsible for training new crew. Senior-younger relations were very strong, with the authority of the *senpai* absolute. The head engineer consulted with the captain, and then orders came down to the junior workers. But there was always a forum for the younger to express their opinions. These authoritative relations were maintained only on board the boat; on shore everyone was free, so long as he returned to the boat on time. The companies did not try to control their employees off the boat. As described below in reference to flensing, senior-junior relations were rather more formalized in the case of Antarctic whaling.

The paternalistic character of the senior-junior relations was echoed in the relation of the company to its employees, and thus the companies took a broad view of their interests in the on-shore lives of employees. This was more prevalent in STCW than other types of whaling. When a member of an employee's family died, the company would send a telegram and tell the man to return home immediately. The company would donate to the funeral expenses, and the fellow crew members would also take up a collection to send flowers. Crew members would contribute to auspicious occasions in their colleagues' lives such as births and weddings. The companies would also help find spouses for their employees.

Other villagers share these images of Ayukawa, particularly during the 'heyday' of whaling, in the 1950s and 60s. Men commonly speak of their aspirations as children to be whalers, and of their pride in the job:

> "When I was young, you were really proud to be a whaler. Of my classmates, say 40 or 50 of them, most became whalers; only 4 or 5 furthered their education and did other jobs. We were proud to be whalers. We got whaling from our ancestors.... People can do other kinds of work, but catching and flensing whales is just the kind of work for Ayukawa people."

The prestige of whaling accrued not only to the whalers but to the town of Ayukawa itself, making it a desirable place to live in the minds of other people in the region. Villagers speak of Ayukawa as being the "busiest place out of Tokyo," as being cosmopolitan, sophisticated, and friendly:

> "When outsiders got into town, we'd be real friendly — we'd always say 'good morning' and 'hi' to them and we weren't at all wary of them. You know, we still keep in touch with them — people from Kyushu and Nagoya and Hokkaido and Nagasaki and so on."

The view of Ayukawa among people from the island of Ajishima provides further illustration of the status of Ayukawa within the region.

Hardly anyone from Ajishima became a whaler, although a couple of harpooners were born on the island. Most Ajishima fishers were conventional fishers for bonito, cod and shark (the latter sold in Ishinomaki for *tsukudani*). They practised line fishing, and, from the Meiji period, large-scale net fishing.

There is a long history of marriage relations between Ayukawa and Ajishima, and according to the official town history of Oshika Town, Ayukawa people were more likely to contract marriages with Ajishima people than with persons originating anywhere else in the township but Ayukawa itself. There was, however, not an equality in this exchange but a marked tendency for more Ajishima people to try to marry Ayukawa people than the reverse. In other words, Ayukawa men and women were, in the eyes of Ajishima people, highly desirable as spouses, while the reverse was not necessarily true. This is to say that there were many incentives for Ajishima people to marry into Ayukawa. Ajishima women were attracted by the salaries that whalers made, but Ayukawa men had little incentive to seek marriage partners from Ajishima, since the island did not offer significant employment or business-expansion possibilities.

This assessment of the advantages in an Ayukawa-Ajishima marriage has been directly affected by the

contraction of Ayukawa's economic base. It is now more preferable for Ajishima women to marry an Ayukawa man and then settle in Ishinomaki or some other larger town, than to marry an Ayukawa man and settle in the village. There is little work now available in either Ayukawa or Ajishima, and for this reason the prestige of Ayukawa has declined.

B. Flensing

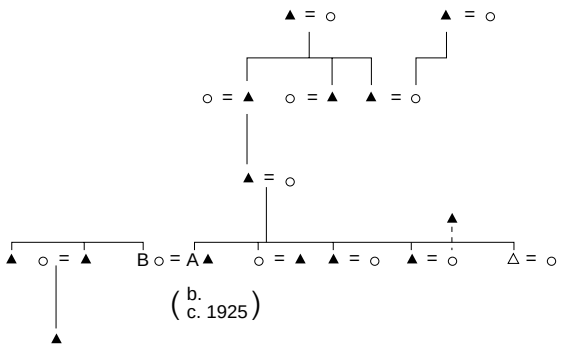
Images of whalers typically constellate around the harpooner, whose occupation is certainly the most prestigious and best-paid. Most whalers, however, held occupations other than that of harpooner or captain: they included drivers, engineers and engine room attendants, cooks, deck hands, and flensers. Flensing for small-type coastal whaling offshore of Ayukawa was land-based. When the STCW boats were working off Hokkaido, flensing was undertaken in part on board the boats, with assistance from Hokkaido land flensers. Flensing for LTCW and pelagic whaling was undertaken on board the 'mother boat,' with refrigeration ships regularly returning to Japan with flesh whilst the catcher and mother boats remained at sea. Flensing tends, in Ayukawa, to be a family-based occupation: hence the sons of flensers are most likely to seek employment as flensers, either on ships or on land, rather than to move into other areas of whaling. Flensers are proud of their skill, and speak with some passion of their occupation:

> "Some jobs, you can master in 2 or 3 years, but this is not true for whaling. For flensing, it takes a good ten years to truly master the skill. After about 8 years at it, you'd be pretty good — you don't just cut up the whale, you really need to know how to handle each part. The people who were involved in (land-based) flensing would hear the steam siren go off, and they'd all rush down to see the whale come in. Sometimes there'd be 10 boats down there (at the harbour) with whales — we really depended on whaling."

Organisation of labour among flensers working in pelagic whaling reflects the complexity of work-based social structure and of the hierarchical relationships that characterised the life of whalers. On the mother boat, one man would be appointed *incho* (leader) of the occupational group, responsible for group integration, the organisation of labour, allocation of tasks, ensuring supplies, equipment and so on. He would be supported by the *fukuincho* (vice-leader). Both of these positions were company appointments, made before the ship left port. *Incho* and *fukuincho* were not necessarily *senpai*, since skill in interpersonal relationships was premium. However, they were more likely to be *senpai*, since they enjoyed seniority and commanded the respect of others.

Each occupational group, including that of the flensers, was divided into sub-groups (*han*), with an appointed leader (*hancho*) responsible for work on the floor and the immediate allocation of duties. The four han included that for men involved in flensing proper (the *kaibô-gakari*),

Figure 1: Occupational Inheritance Among Flensers



those involved in the finer cutting up of meat (*niku-saikatsu*), those working in the processing and boiling of bones (*hone-gakari*)[d], and those involved in making bacon (*une saikatsu*). Another group of whalers, organised similarly to the flensers, were responsible for the extraction of whale oil. These groups were subdivided into working shift groups, with each group working for eight hours, resting for eights, working for eight, and so on. The exceptions to this were the *incho*, who worked a twelve hour shift from 8.00 am to 8.00 pm, and the *fukuincho* who took control of night work. When there was a lull in catching, workers would socialise and take care of personal affairs.

Relations between *senpai* and *kohai* (master and apprentice) within the flensing group parallel those described above for small-type coastal whaling, although pelagic flensers emphasize that social relationships on the boat were not primarily structured along these lines, and that "within whaling, all men are the same . . . we all sleep and eat and bathe together, and there's really no room for standing on status or having formal hierarchical relationships." (Field notes, 1989) A number of occupational groups were characterised by *senpai-kohai* relations, including the cooks and harpooners, although not the drivers, all of whom needed a licence and were therefore qualified before being taken on.

As we have already indicated, flensing was pretty much a family occupation. The complex genealogy of one flenser illustrates this well: as the informant of this genealogy argued, "You can't understand anything about the Japanese if you only look at one generation." (Field notes, 1989) Figure 1 provides an incomplete representation of occupational inheritance within one family, insofar as it does not give the full family relationships to flensing and other whaling related occupations of A's wife B. However, the figure makes clear that all men in A's family were flensers, and that a number of the women of the household married sons of other flensers. These men were employed variously in small-type, large-type, and pelagic whaling. Other families, related to this household through marriage, where also involved in whaling and whaling-related occupations.

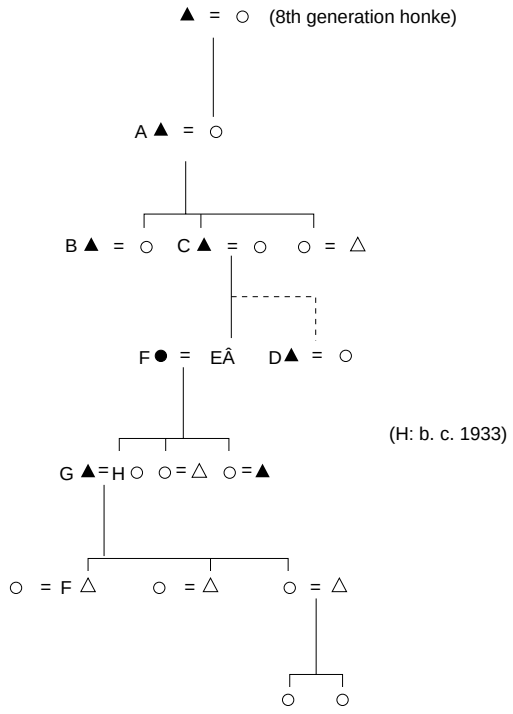
C. *Kabura* production

Kabura was made from the cartilege of whales. Processing involves shredding and drying; when softened with water, it is then ready for use instead of grated radish as a base on which lie whale sashimi. Expensive to purchase, tasteless and with a slightly crisp but chewy texture, it is regarded as a gourmet food item. It appears to have been eaten in Ayukawa and its environs primarily at large parties, but it is purportedly a popular food with Osaka people and much of the *kabura* manufactured in Oshika-cho found its way to retail outlets in Osaka and the whale restaurants of Tokyo. Fresh cartilege, from whales caught off the coast of Ayukawa, had to be used in *kabura* production; the household involved in *kabura* production would be notified when a whale was brought in for flensing, and would assist in the flensing operation, thereby securing the cartilege at a discount price (50kg for the asking price of 30kg)[e] and gaining gifts of meat for household consumption at the same time. Cartilege from whales caught off Hokkaido, or from northern or Antarctic catches, is frozen and becomes powdery: this powdered cartilege cannot be used for *kabura* but was apparently used in topical pharmaceutical products, including in eye drops and in ointments for muscular pain.

Kabura was made by one family in Kugunari, the village adjacent to Ayukawa and within the same town (Oshika-cho) from around 1915 and until 1987, when the last minke whales were caught off Ayukawa waters. The technique was learnt from Taiji whalers, and was handed through the family for four generations. The founder of the family-based occupation was born in Kugunari, and as the genealogy illustrates, the family employed a variety of adoption mechanisms in order to maintain the *honke* and the occupational tradition. The founder [A] (see Figure 2) had been adopted into the household on marriage because of the absence of a male heir, and initially took on the responsiblity of the family's fertiliser processing business, using waste whale products. Whilst still alive, he seceded to the husband [B] of his eldest daughter's (of his first of three wives); this man temporarily managed the business until the eldest son [C] reached maturity. C was assisted by a son [D] who he had adopted as a child, but when C died at the age of 39, he was succeeded by his biological son [E]. E died at the age of 27. His wife [F] then took over the management of the business in association with the husband [G] of their eldest daughter [H], who had also been adopted into the family in the absence of sons. G himself was the younger son of the owner of a whale fertiliser factory. When F died, the adopted son and eldest daughter continued the business.

The work of the business was primarily a family affair, and was a subsidiary activity to the fertiliser business until it closed during the pacific War. Employees used to help with *kabura* production, in the fertiliser industry, and in rice and vegetable production. During the 1950s, when the whaling industry and *kabura* production was at a peak, three employees lived with

Figure 2: Inheritance Patterns in *Kabura* Production Family



the family, but others, predominantly wives of fishermen, worked on a part-time basis. At the time that the present generation took over the business, in 1949, there were four or five employees; in the 1950s and 1960s, there were around seven part-time workers, all employed on a daily basis and working usually mornings only.

As explained above, *kabura* is made from cartilege (*nankotsu*). This is grated finely, then washed in water. The shredded cartilege is then placed in a cane basket and foot pressed for 10 minutes: the cartilege from one minke might yield two to three baskets of cartilege for treading, but a sperm or sei whale might require 17 or 18 baskets to be trodden. Whilst grating was mechanised after the war by using a hand-fed electric shredder rather than a traditional *kanna* (grater), foot pressing continued to 1987 and was a task undertaken by the male household head. After the treading, the cartilege is soaked in water for around 48 hours, with water being changed around three times, until it is clean and there is no blood left. Part-time workers were responsible for drying the cartilege: spreading the clean kabura on tatami mat sized mesh drying racks (175 cm x 89 cm), which were placed on tressles for sun drying. Five to 10 frames were needed for one minke whale; bigger whales would take 40-50 frames. In summer the *kabura* would be dry in 3-4 hours, in winter this would take a full day, with the *kabura* being placed in a shed overnight if necessary. During busy periods, there might be as many as 60-70 frames drying. In wet weather the *kabura* was kept in water, with the water being changed regularly to prevent mould: it could be kept for about a

week through this method; and once dried the *kabura* would last for 2-3 years. Whilst part-time workers were employed to spread out the *kabura* for drying, members of the family were responsible for packaging the finished product. One tatami mat of kabura would yield 15 small packs for sale, with each square being folded and wrapped in brown paper and cellophane for distribution.

D. Fertiliser production and subsidiary industries.

A significant proportion of people in Ayukawa were employed in fertiliser factories and in other whaling-related industries, including the processing of sinew for tennis gut making, a whale-meat canning factory, and a processed protein factory. The fertiliser factories numbered around 10 during the 1950s when whaling was at its height, but most of these operations were family-based operations which had been established from the turn of the century.

Fertiliser production utilised parts of the whale not regarded as edible, and including damaged flesh as well as bones and some internal organs. This waste was boiled, ground (in a 'chopper') and sun dried flat on the ground in front of the fertiliser plants; when dried it was shovelled into large bags (ca 20kg) and shipped off to wholesalers, who then distributed it, sometimes mixed with fish,to rice farmers within and beyond the prefecture. Fertiliser production was concentrated in Ayukawa because of its stable supply of whale. Companies would employ eight or more people at any time — when production was especially busy, as many as thirteen or fourteen. Whilst many workers were from Ayukawa households, others came from outside of the village and were boarded in the houses of the company owners, typically in a special room set aside for employees. Women as well as men were employed, usually the wives of fishermen or farmers from Ayukawa. There was some sexual division of labour: men would do the work that was physically the most strenuous, women would be responsible for drying the ground material, men for chopping and boiling it before the drying. Women were paid around two thirds of the male wage, although they were said to be 'hard workers.' (Field notes 1989) Employees in the factory received good money, with special bonus payments the hardest workers; the stench that permeated their clothes and the air of the village was, according to one villager, "the smell of money."

The sinew factory and the canning factory both provided further opportunities for female employment: both factories were reported to have employed about twenty women and three men, the men as supervisors and storemen. Sinew was extracted from whale meat and then processed into string for tennis racquet companies in Osaka, Tottori and Shimane prefectures. The founder of the company also owned a catcher boat for small type coastal whaling and had operated a fertiliser factory before the sinew factory, and distributed whale meat. Production ceased when sperm whale ceased to be available. Sinew was extracted in lengths of about 3-4 metres, and was washed in fresh water for a three-four day period to cleanse it of blood. Individual strips were then picked out by hand until there were very thin lengths; these were then dried, split again and then entwined and glued by hand.

The canning factory opened after the Pacific War, and was another site of employment for women. Meat from sperm, blue, sei, fin, and humpback whales, all caught in local waters by large-type coastal whalers before moratorium, was boiled, chopped and put into cans, which were then sealed and sterilised.

The processed protein factory bought up meat and bones, particularly of sperm whale after the extraction of oil. This material was then boiled and reduced to a rich semi-liquid protein, them mixed with other nutritive additives to produce animal and fish feed. The plant was established in the mid 1950s, and continued to operate until 1987. As a subsidiary activity, the plant also packaged minke whale, frozen, for human consumption, and made *hoshi niku* and *tsukudane* for local sale and consumption, and acted as a broker of meat between local companies and the markets of Sendai and Tokyo.

In addition to these, a number of shopkeepers, often former whalers, organised the production of craft items — jewelry from whale teeth, model ships using baleen, wallets and belts from skin; many of these items were made within the village and were sold in local souvenir stores. The extensiveness of these goods in stores in 1988-89 provides some evidence of the work of these artisans in days past.

a) Continuities with demographic patterns throughout rural Japan

While Ayukawa and other whaling towns are uniquely affected by the 1988 moratorium on whaling, they share with the rest of rural Japan a number of demographic trends which make an already stressful situation much worse. Of these, the most conspicuous are depopulation, ageing of the population, shrinking employment opportunities, and outmigration.

i. Depopulation

From 1955 to 1985 the population of Ayukawa has declined more than 40 percent, and this decline of 1,550 persons represents roughly one-third of the total population decline of the whole of Oshika Township, composed of Ayukawa and fifteen other villages. As of September 1988, the population of Ayukawa was 2,212 persons.

ii. Ageing of the population

Elderly persons now comprise some 12.5 percent of Ayukawa's total population of 2,245 (as of 1985) (*Oshika choshi hensaniinkai*, 1988: 106). This high proportion of elderly persons in Ayukawa comes just at the time when those of an age to participate in the labor force are pressured to move elsewhere to find employment, leaving an increasing number of the elderly alone or with a spouse, a condition regarded widely in Japan as abject, lonely, and pitiful. In addition, of course, an increasing proportion of elderly persons represents an added burden on local social services existing to care for the health and welfare of the elderly at a time when the tax base is shrinking and the town can least afford to assume this burden.

At present Oshika Town employs one public health nurse and two 'home helpers' to aid in caring for elderly persons. The public health nurse is charged to provide counseling services, to assist in the prevention of disease, to provide domicilliary care to elderly persons newly released from hospital, and, in addition, to care for pregnant women and newborn babies. The home helpers visit the elderly who live alone or as a couple to provide whatever assistance they can, usually on a twice weekly basis. One of the home helpers reported in an interview that her case load is far more than she can handle, and that there are many more elderly persons needing help in the town than she and her colleague can care for. She said also that the unavailability of transportation to some remote areas makes it impossible to visit some of the elderly who are most in need of care.

iii. Shrinking employment opportunities

Whereas Ayukawa used to be considered the liveliest town in the region, local residents describe its present condition as "lonely," "a ghost town," and these perceptions are closely linked to shrinking employment opportunities. At present the town office of Oshika Town, located in Ayukawa, is one of the biggest employers, employing 201 persons full time and 5 persons part-time. Of the full-time workers, 124 are men 77 are women; of the part-time workers, 3 are men and 2 are women. To residents of Ayukawa, this situation presents a stark and objectionable contrast with the period of whaling's heyday, when the nine whaling companies were the most significant employers, and when whaling and its subsidiary occupations involved virtually every household in the town in some way. Now there are more non-working persons than those employed, not because of an increase in young children, but because those seeking but unable to find employment are moving out rapidly. As discussed below, some exwhalers have been absorbed into fishing and mariculture, but the greater proportion of those displaced by the moratorium on whaling and the concomitant shrinking of employment opportunities in Ayukawa have either left the area or remain there but unemployed, with no realistic expectation of finding regular work in Ayukawa or the surrounding area.

iv. Outmigration

From 1975 to 1985 Oshika Town has lost 4,921 persons by outmigration, gaining 2,867 by in-migration. Thus out-migration exceeds in-migration by some 52 percent. In Ayukawa itself between 1975 and 1988, the population has decreased from 2,612 to 2,212, a loss of 400 persons or 15 percent. Outmigration is a direct consequence of reduced employment opportunities, and for that reason, there is little prospect that the overwhelming trend to outmigration can be stemmed, let alone reversed. Furthermore, the fact of the population's ageing means that the tendency to decrease will not be compensated for by new births. Whereas young men leaving school in the heyday of whaling would have been absorbed immediately into some part of the whaling industry, the disappearance of these opportunities means that this age cohort is now pressured to leave the area to find work, further decreasing the proportion of working to non-working residents of the town.

Statistics on unemployment do not fully represent the situation of work in Ayukawa, because they do not take account of the fact that many people have left Ayukawa in order to avoid becoming unemployed there, where there are few opportunities for re-employment. In the statistics kept by the Oshika Town Office, 'unemployment' is defined as the number of healthy perons who have the intention to work, who apply for unemployment insurance, and who request the assistance of the Town Office's Employment Security Bureau in finding work. This means that persons who are unable to find employment but who do not directly apply to the town office or notify it are not counted in the town's assessment. For these reasons the town office's finding that in 1985 (the most recent available statistics) there were 42 unemployed persons in Ayukawa, representing 3.4 percent of the village's total work force, of whom 39 were male, does not reflect the existence of many other persons of both sexes who want work but are unable to find it. Nevertheless, this rate of unemployment is significantly higher than the national average, 2.8 percent in 1987,[f] showing that Ayukawa has undergone a major undermining of its economic base. Those 42 unemployed persons in Ayukawa in 1985 represented more than 40 percent of all persons unemployed in the fifteen villages of Oshika Town in that year, and one can surmise from that proportion that unemployment in Ayukawa is significantly worse than elsewhere in the town.

Numerous informants were interviewed on the subject of how many of their classmates had remained in Ayukawa after leaving school, and the consensus was that fewer than 10 percent have remained from graduating classes over the last ten or fifteen years. Of these, a significant proportion have been first sons who feel obligated to stay on to care for ageing parents and to carry on the family name at the place of its traditional residence. Daughters marry away wherever possible, and second and succeeding sons almost universally move out. The reason unanimously cited for this dramatic outmigration is the constriction of employment opportunities and the spectre of facing unemployment in a small rural town with a shrinking economic base.

b) Impact of the moratorium upon Ayukawa work patterns

i. Time-frame

The moratorium had been foreseen several years before its actual imposition; hence whaling companies began to constrict their activities in the town some years earlier. The whaling company Nihon Hogei is a case in point.

As early as 1985 Nihon Hogei realized that the end of whaling was highly probable in he near future. Seeing a responsibility to give its employees work even after the end of whaling, it established a salmon farming division of the company. During the 3-year period during which this enterprise continued as a part of Nihon Hogei, the company sustained substantial losses due to inexperience and unfamiliarity with the new work. In 1987 the salmon

farming division of Nihon Hogei became the independent company Nippon Kinkai, which is not a subcontractor to Nihon Hogei, but which nevertheless maintains substantive relations with the parent company.

Nippon Kinkai is headed by Mr. Abe Toshihiko, who was previously the chief of land-based operations within Nihon Hogei. Thus his headship of the new company represents one important form of the continuity between the 2 companies. Since Nippon Kinkai was founded in the first place to employ persons thrown out of work by the end of whaling, Abe sees this goal as a continuing mission of Nippon Kinkai; that is to say, the responsibility has not come to an end simply with the establishment of Nippon Kinkai, but Nippon Kinkai is still obligated to keep trying to bring former whalers back into the company in one form or another.

ii. Diversification of whaling companies to mariculture

Nippon Kinkai presently has two divisions; the major one is salmon farming, and the secondary one is whaling for *gondo* and *tsuchi* whale. Nippon Kinkai operates a boat, the Dai ni Taishô Maru, for this purpose. There are 8 people employed full-time in salmon farming, 7 as whalers, and 7 part-timers in salmon farming. This figure does not include office workers. Meanwhile, of Nihon Hogei's former employees, 76 were put out of work by the end of whaling (47 employed on the boats and 29 on land (again not counting office staff).

Recognizing 4 years ago that whaling's end was inevitable, Nihon Hogei started to shrink its operations by stages. It began to make arrangements to sell its salmon farming equipment to Nippon Kinkai (though of course Nippon Kinkai had not yet formally come into being). At each stage a number of employees were separated from Nihon Hogei and work found for them in related companies or in companies with which Nihon Hogei did business. When whaling came to an end in 1988 Nihon Hogei's workers in Ayukawa were dismissed, though some few remained with Nippon Kinkai, when it started its formal existence in April 1988. At that time also, Nihon Hogei changed its name to New Nippo, since it no longer made sense to call it a whaling company, which the word *hogei* implies.

Nippon Kinkai leases its office space and much of its equipment from the former Nihon Hogei. Nippon Kinkai is undertaking to buy much of this equipment, and it expects to complete that purchase within three to four years. Thus they are heavily indebted to Nihon Hogei and the company's account books will show that it is heavily extended in this way. On the other hand, Nippon Kinkai is making enough income to cover its ordinary operating expenses, to pay salaries and a yearly bonus. The salaries, however, are between one-fifth and one-third of those paid during the heyday of whaling.

Nippon Kinkai was able to buy salmon farming rights here through the Ayukawa fishing cooperative, but only indirectly. Membership in the fishing cooperative is restricted to Ayukawa residents, so the company was unable to apply in its own name for rights to fish here. Some employees, however, held membership in the cooperative, and the company applied through them. These employees lent their names to the company while it provided the necessary capital. However, one individual can only acquire the right to put out two salmon frames, so the possibility for expansion is quite limited under the present circumstances. There is, however, a plan for expansion by national initiative that may produce a bit more room for negotiation than presently exists, by blocking off the bay between Ayukawa and the island of Tashiro on the one side, and between Ayukawa and Kinkasan on the other.

iii. Re-employment of some whalers to mariculture

Those former whalers who were taken into Nippon Kinkai were the younger, more skilled, and those who lived close by (since the new company was unable to underwrite the expense of commutation costs for those living farther away or to house them in Ayukawa). Only 15 were taken on in this way, and the reason relates not only to the meager capital resources of Nippon Kinkai, but also to the work experience and attitudes of the former whalers who were now being asked to adapt themselves to salmon farming, a new and entirely unfamiliar occupation.

Most whalers took up the profession immediately after completing compulsory education and have never had any other work experience. They think of whaling as "work granted them by the grace of heaven" (*tenshoku*). It is their whole lives, and to give it up destroys their conception of self and work. Other than whaling, they have no skills and it is extremely difficult for them to take up something else.

The crew of a catcher boat is liable to originate from all over the country, with a concentration on historic whaling areas. They may have been stationed in Ayukawa, but most of their families continued to maintain residences and their strongest ties in their home towns. When their work came to an end in Ayukawa, most of these men did not wish to remain in Ayukawa, but to find work in their home areas. It was extremely difficult for Nihon Hogei to accommodate this desire on the part of its former employees, because its ties were generally not in Nagasaki, Taiji, or the other towns involved, but in the areas presently connected with whaling or so connected in the recent past. It was generally unsuccessful in aiding workers desiring to return to a distant home town in finding a new job. Age constituted another difficult; the average age of whalers in 1988 was around fifty, and while these men might have worked another ten to thirteen years in whaling, few employers were willing to take them on and train them in some new work, knowing that they could be employed for a limited time only, compared to the alternative of employing a younger, cheaper worker.

The age factor not only made re-employment more difficult but also came at the worst possible time in the life course. Whalers generally expected to build their own houses in their forties, and by the time they were fifty,

they still had the bulk of their mortgages left to pay. Not only that, but this was also precisely the time when they faced major expenses for the education of their children. To lose all income at any point is of course a major tragedy, but its impact was particularly profound in this case, coming as it did at just the time in whalers' lives when they most needed income.

Most of these men who were put out of work in April 1988 have unemployment insurance which will end in April of this year. After that time they will be without any income at all. Abe personally has found work for some of them, and Nihon Hogei has been able to place others, but the parent company itself has been so devastated by the end of whaling that it cannot possible incorporate everyone who is now out of work. Nevertheless, Nippon Kinkai continues to feel a responsibility to those still unemployed. This paternalistic attitude extends to the style of management of Nippon Kinkai towards its present employees. It aims to adopt a familial style and to take an interest in a broad range of the affairs of its employees. It feels responsible to them far beyond the paying of the expected salary and yearly bonus. In return, employees cannot take a 'nine-to-five' attitude toward the company; this is not merely a matter of returning the benefice of the company, but because the company's business is the care and raising of living things. Fish don't keep a nine-to-five schedule as far as when they need to be fed and otherwise cared for, and therefore Nippon Kinkai employees must be prepared to adapt themselves to the needs of their charges.

iv. Women's employment before and after the moratorium

In the heyday of whaling, Ayukawa residents say, the wives of whalers did not work outside the home. Part of the prestige of whaling as a profession was that it removed women from the labor force and enabled men to be their families' sole source of support. That situation was in strong contrast to patterns of family labor in other parts of the economy of rural Japan, where it is assumed that women share the work of farming, shop-keeping, or whatever the enterprise with which their family may be associated. The possibility of a life not dependent upon women's participation in the labor force was an important part of the prestige and attraction of whaling for both women and men. This is not to say, however, that women have been absent from the subsidiary industries associated with whaling, or that they have been idle in Ayukawa. As discussed above, women have participated in a variety of capacities in fertiliser production, flensing, other industries associated with whaling, and several kinds of mariculture.

The Oshika Town Office does not maintain statistics specifically on women's conditions of labor, but it is the impression of the officials in charge of general statistics on labor that most of the women employed in Ayukawa are employed on a part-time basis. As far as we have been able to determine, these impressions seem to be correct, and the only businesses offering women full-time employment are the Town Office, a garment factory called Sanyo Sewing, a small electronics firm called ASA, and a fish processing factory which had formerly operated in the production of protein from whale meat for animal feed.

Although there was insufficient opportunity for data collection on this point, it seems to be the case that most part-time female workers work nearly as long hours as their full-time work-mates, but that they arrive later in the morning and work a total of 38 hours per week while full-timers work for 40 hours per week. Because of this small difference in hours worked, part-timers are ineligible for annual bonuses, which may amount to as much as four months pay.

ASA produces electronics parts for domestic and export markets and employs 26 workers, of whom 23 are women from Ayukawa and the neighboring village of Kugunari. All employees are engaged full-time. Sanyo Sewing is a local factory of Sanyo Shokai, and manufactures women's outerwear, covering the full process from cutting through to finishing all garments. The company employs 56 people, of whom 50 are women; men are employed as pressers, storemen and supervisors. Sixteen of the women are part-time workers, and workers are resident not only in Ayukawa but from all of the villagers of Oshika-cho. Endo Suisan, the fish processing factory, employs 26 women and eight men on a full-time basis, of whom half are from Ayukawa and the remaining employees from the near island of Ajishima. During the salmon season, as mature fish are brought to shore, the workers are engaged in cleaning, filleting and packing the fish for sale through the local market and through the Ishinomaki and Sendai central markets; out of the salmon season, workers clean and fillet other fish and marine products (eg squid), including frozen fish and squid caught in the North Sea.

v. The organization of the 1988 *gondo* and *tsuchi* whale catch

Although the catching of minke whale came to an end in Ayukawa in 1988, a special arrangement was made to catch *gondo* and *tsuchi* whale. The STCW Association requested an emergency quota of minke, but the government refused and granted a special *gondo*/*tsuchi* quota instead, providing for 97 *gondo* and 47 *tsuchi* whales to be caught in coastal waters by ships and crews of the STCW Association. This quota was insufficient to allow individual operation of all the boats of the association, so it was decided to pair the vessels and their crews to cooperate in the catch. The 86 crew members were voluntarily laid off and then some were picked up again to staff the crews for this catch.

The allocation of number of whales per vessel was determined by the STCW Association meeting in Tokyo. A proviso of the pairing of the vessels was that one from each pair would 'rest' in 1988; i.e., one from each pair did not whale. If whaling should be revived or another emergency quota be granted in a later year, the one that 'rested' in 1988 will have the next go.

The boats were 40-ton boats, except for the Seishin Maru from Taiji, which is 20T. The 40T boats take 7-8 crew members, while the 20T boat takes six. The 40T boats

took crew from all the home ports, so the crews were completely reshuffled. The ground for this whaling is all off Kinkasan. The allocation of the quota is as follows:

Gondo (Pilot whale)

Pair 1:	Seishin maru (Taiji)	22 pilots
	1 Yasu maru (Abashiri)	
Pair 2:	31 Sumitomo m. (Chiba)	22 pilots
	21 Sumitomo m. (Chiba)	
Pair 3:	Kô ei m. (Ayukawa)	22 pilots
	Taishô m. (Ayukawa)	
Pair 4:	2 Taishô m. (Ayukawa)	20 pilots
	Takashima m. (Hokkaido)	
Odd boat	Katsu m. (Chiba)	11 pilots
Total		97 pilot whales

Tsuchi whale

Pair 1:	1 Yasu m.	9
	Seishin m.	
Pair 2:	Takashima m.	9
	2 Taishô m.	
Pair 3:	Kô ei m.	supposed to get 9; actually got 13
	Taishô m.	
Pair 4:	31 Sumitomo m.	9
	21 Sumitomo m.	
Odd boat	Katsu m.	4
Total		47 pilot whales

The STCW Association made up the boat pairs, matching the type of whale with the character of the whaling ground. The Katsumaru had a crew of only 4 and operated mainly in Wada because the *tsuchi* whale is more numerous there, and the season starts earlier.

The Japanese government has identified 2 stocks in the Japanese range, one south and one north. They assign no southern stock because the whales are judged to be very numerous whereas the northern one is limited. The line is somewhere between Taiji and Wadaura.

The special 1988 quota allotted for *gondo* and *tsuchi* whale gave some relief in the face of the moratorium and allowed for the temporary employment of some STCW whalers and boats, but there is no guarantee that such as emergency quota will be granted in succeeding years, and the overall situation of unemployment among whalers has not been substantially affected by this limited dispensation. Any extension or repetition of the emergency quota would have to be re-negotiated between the STCW Association and the Fisheries Ministry.

c) Work and identity

STCW whalers have been deprived not only of their source of livelihood for themselves and their families, but they have also had to endure what to them is a direct assault upon their identity as members of the community of Ayukawa and as individuals. These changes come about as a result of the 'criminalization' of their profession.

Whaling is a profession requiring the mastery of numerous complex skills. The apprenticeship of a harpooner or flenser might last as long as ten years, and the acquisition of other skills is facilitated through senior-junior relations on board the boats. While the position of harpooner enjoys the highest prestige among the crew, the captain, boatswain, and engineer must also acquire extensive technical knowledge for the performance of their duties, and they and all crew members regard their work as an autonomous profession which they are both entitled and obligated to pass on to junior colleagues.

The view that whaling is a profession "granted by heaven" has been mentioned above. This conception of whaling is in fact a complex understanding of the work as first, a profession, second, a livelihood, and thirdly it includes the idea that it is a tradition which must be passed on to future generations, not only for its obvious economic significance in the lives of its practitioners, but because it is an inherent good, an honorable way of life worthy of perpetuation. It is not only that whaling is regarded as 'worthy' of perpetuation, but that whalers believe themselves *obligated* to pass it on.

This understanding of life and work is not dissimilar to the view that any professional has of her or his work. The desire to perpetuate the profession included the desire to transmit to younger colleagues the techniques and technologies involved in actually catching whales, but it also takes in the desire to have the satisfaction to nurture a younger colleague in a more comprehensive way of life. As junior whalers mature, they want to take a teacher's role toward their juniors, to look after them and to see them mature not only in their technical abilities but in their appreciation of the coherent cultural complex associated with whaling.

What happens to this view of life and work, then, when whaling is banned? It is as if we as academics were to be told today that the work for which we had trained ourselves for many years, and in the pursuit of which we have spent our lives and our substance were suddenly declared a criminal occupation, not only unworthy of civilized people but one that must be abolished form the face of the earth. It means that those who until today had drawn their major sense of identity from the pursuit of the profession and who had come to maturity as human beings through its practice were to be informed abruptly that their skills were no longer useful or valuable. It means also that former practitioners would be prohibited from transmitting their accumulated skills and knowledge to a younger generation and deprived from the satisfaction of seeing younger colleagues mature.

Added to that in the case of many former whalers is the prospect of it being impossible to find any substitute form of labor, an immediate and precipitate loss of income and prestige, and an inability to interact with other members of the community any longer as a self-supporting member of it. He who was granted high prestige until today becomes an impotent indigent, humiliated in the eyes of his children and the community. In all these senses, the end of whaling for former whalers is a deep personal tragedy.

End notes

a. We were assisted in the field by Kayo Ohmagari, Akiyo Yamamoto, and Chikako Shiratori, and are very grateful to them for their good humour, energy and diligence. We wish also to express our sincere gratitude to the Ministry of Fisheries, particularly Mr. Shima Kazuo, and the Institute of Cetacean Research for their funding and support. We are most grateful too to Mrs. Shigeko Misaki for her assistance in organising our visit to Ayukawa, to the Mayor of Oshika-cho and to his staff within the town office for their time and commitment, and to the people of Ayukawa for their co-operation and extraordinary generosity during our stay. Mr. and Mrs. Yojiro Toba's warmth, concern and care leave us indebted to them, and this report is dedicated to them with our admiration, love and respect.

b. Thus social and structural inferiors pour sake for the elite of the town at public functions and younger pour for older at meals where alcohol is consumed; in contrast tea is always poured by the woman of the household, and in the presence of both mother and daughter-in-law, by the daughter-in-law.

c. People paid ¥100 to have the block cut into smaller pieces (typically into four either horizontally or cross cut). The cost of the meat to villagers covered the cost to the town of purchasing it from the Institute of Cetacean Research, trucking it into Ayukawa, renting the machine to cut the pieces down, and of time for handling meat. However, there was no profit made from this distribution.

d. The bone group was also known as *bonso gakari*, from the English bone-saw.

e. In 1987, cartilege cost ¥1800 per kg. This was its peak price and compares with an earlier price in the 1960s of around ¥300-400/kg. As whaling contracted, the price began to rise at ca ¥50 p.a.; at the time of the peak, the family was able to negotiate a discount at ¥1,600, since only around 2kg of 10kg of raw cartilege was usable, the rest being skin, blood, and flesh.

f. Statistics Bureau, Management and Coordination Agency, *Japan Statistical Yearbook* 38th edition, (Tokyo: Japan Statistical Association, 1988), p. 71, Table 3-1.

CONTENPORARY SOCIOCULTURAL CHARACTERISTICS OF JAPANESE SMALL-TYPE COASTAL WHALING

The attached report contains important information on various aspects of the small-type whaling in Japan's coastal seas. The Government of Japan, therefore, submits this report as one of its documents to the IWC for reference to the Working Group to Consider the Situation of Various Kinds of Small-type Whaling.

1989

CONTEMPORARY SOCIOCULTURAL CHARACTERISTICS OF JAPANESE SMALL-TYPE COASTAL WHALING

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INTRODUCTION

Background

At the 40th Annual Meeting of the International Whaling Commission (IWC), the Technical Committee adopted the recommendation of the Ad Hoc Working Group on Consideration of the Definition of Aboriginal Subsistence Whaling to establish a working group "to consider the situation of various kinds of small-type whaling, and to report on its deliberations to the Technical Committee at the 41st Annual Meeting of the Commission" (IWC 1988:28).

For centuries, Japan has been involved in whaling that has evolved into three distinct forms: large-type coastal whaling (LTCW), large-scale pelagic whaling, and small-type coastal whaling (STCW). In compliance with the IWC's moratorium aimed at halting commercial whaling, LTCW and pelagic whaling both were completely discontinued after the 1987 season, and STCW ceased its harvest of minke whales in 1988. (STCW continued, on a limited basis, to harvest Baird's beaked and pilot whales during the 1988 season; see Table 1.)

At the IWC's 40th Annual Meeting, Japan reported that the cessation of whaling in Japan had "caused hardship to the affected communities in the form of socio-cultural, dietary, religious, occupational, and psychological stresses" (IWC 1988:25-26). At this same meeting, Japan presented the findings of the 1988 International Workshop on Small-Type Coastal Whaling in Japan (Akimichi et al. 1988). This workshop concluded (IWC 1988:26):

1) the activity was historically based with centuries of tradition;
2) it is small scale but functional, exploiting unendangered species and is remarkably stable;
3) a significant proportion of the products is distributed through non-commercial channels including gifting throughout many elements of the community;
4) the activity has some commercial characteristics but is not totally market oriented;
5) it satisfies regionally diverse diet preferences — no community uses all parts of the whale but a historically organized distribution network ensures total use;
6) the activity has a socio-religious basis.

"Thus, the workshop by its holistic approach, identified the socioeconomic, cultural, religious and nutritional factors that were important to the continued existence of the small-type coastal whaling communities" (IWC 1988:26). Japan maintained that STCW within its 200 mile zone shares some features occurring in both commercial and aboriginal subsistence whaling and is not properly characterized by either category. Japan asked that the IWC address the issue of STCW and consider a category of whaling distinct from both aboriginal subsistence and commercial whaling. It was agreed at the IWC 40th Annual Meeting that further discussion of this issue will take place at the next IWC meeting and that the Japanese position will "be a matter of priority for the Working Group established to consider various kinds of small-type whaling" (IWC 1988:29).

Purpose of Report

The purpose of this report is to provide to the Working Group relevant information on the sociocultural characteristics of Japanese STCW to aid this group in making recommendations concerning a distinct category appropriate to small-type whaling. All three forms of Japanese whaling have a common heritage, and many similarities exist between these forms of whaling (see Takahashi et al. 1989). However, STCW also contains special characteristics that distinguish it as a separate subculture within the larger Japanese whaling culture. While acknowledging that some features of STCW are of a commercial nature, this report describes the complex of sociocultural and economic behaviors and traditions of Japanese STCW so that this form of whaling can be

understood and defined within an appropriate social, cultural, and historical context. Specifically, this report will describe:

- the common heritage and similarities of the three types of Japanese whaling that substantiate the concept of a Japanese whaling culture within which STCW is a subculture,
- the characteristics of Japanese STCW that distinguish it from the large-scale commercial whaling banned by the IWC, and
- how STCW continues to fulfill traditional social and cultural functions.

Methods

This report is based on a variety of sources of data including published and unpublished documents and fieldwork in Japan. The study team conducted a thorough review of the available literature in both the Japanese and English languages related to coastal whaling in Japan. In addition to published materials, several recently completed reports on Japanese STCW prepared by social scientists from seven countries have been reviewed; these reports are listed in the 'References Cited' to this report, in Akimichi et al. 1988 and in Japan 1989. Detailed catch records maintained by the STCW companies have been made available to the authors as have the records of several years of anthropological fieldwork conducted by Dr. Junichi Takahashi in the three Honshu whaling towns.

The authors of this report have carried out fieldwork in Abashiri, Ayukawa, Taiji, and Wada variously since 1986. Research in each case has been based upon extensive interviews with individuals in the whaling towns who are directly involved with whaling (e.g., whale boat owners or crewmen) or otherwise having a direct relationship with whaling (e.g., crew family members, flensers, whale meat processors) or having a less direct relationship (e.g., retailers, innkeepers, co-op, temple, or town officials). In addition to individual interviews, several group meetings were held either in the whaling towns, or (on one occasion) with the whale boat owners. The number of individuals interviewed by all researchers numbers in the several hundreds and the number of hours of interviews totals well over one thousand. Much of this research is in the process of being published in the international social science literature; the authors of this report are indebted to the scholars involved for permission to use their unpublished reports for the purpose of preparing the present document.

JAPANESE WHALING CULTURE

Introduction

Japanese whaling constitutes a cultural complex in which its three component forms (STCW, LTCW, and pelagic whaling) are fundamentally distinct both from whaling as practiced elsewhere and from other Japanese subcultures (e.g., those based on other modes of maritime exploitation, agriculture, or craft production) (Takahashi et al. 1989:1). In this report, the term 'culture' is used in the recognized anthropological sense to refer to an integrated and coherent system of shared behavior, knowledge and beliefs. The term 'whaling culture' refers to the distinctive manner in which whales are perceived as well as caught, processed and consumed. The catching, processing and consuming of whale products are activities that take place within the context of particular social structures that sustain and are sustained by whaling; in addition, these activities sustain the knowledge, beliefs and values that constitute the historical and intellectual heritage of whaling communities.

During the centuries-old history of the Japanese whaling culture, various forms of whaling have been practiced: net whaling in the pre-modern period, and more recently, pelagic whaling, LTCW, and STCW. The historic continuities and similarities among these various types of whaling that support the concept of a Japanese whaling culture are described in Takahashi et al. (1989: 1-19) and are outlined briefly below. The differences between STCW and the other forms of Japanese whaling as well as the ways STCW continues to fulfill traditional social and cultural functions are discussed later in this paper.

Historical Background

Active whaling in Japan probably started in the 16th century, though evidence of whale utilization by inhabitants of the Japanese islands predates that beginning by many centuries. By the end of the 16th century, Japanese whaling had developed into large-scale commercial enterprises, perhaps the largest business organizations in feudal Japan until the modern era started in the late 19th century. During this phase of Japanese whaling, several boats cooperated to harpoon whales. The whales were flensed and processed into food, oil and a variety of other products at shore-based factories. This form of whaling (*tsukitori-ho* or harpoon method) was practiced in several areas in southwestern Japan. Communities such as Taiji and Katsuyama (in Wakayama and Chiba prefectures respectively) continued harpoon whaling for small cetaceans until recent times. As discussed below, this whaling tradition influenced the development of modern STCW.

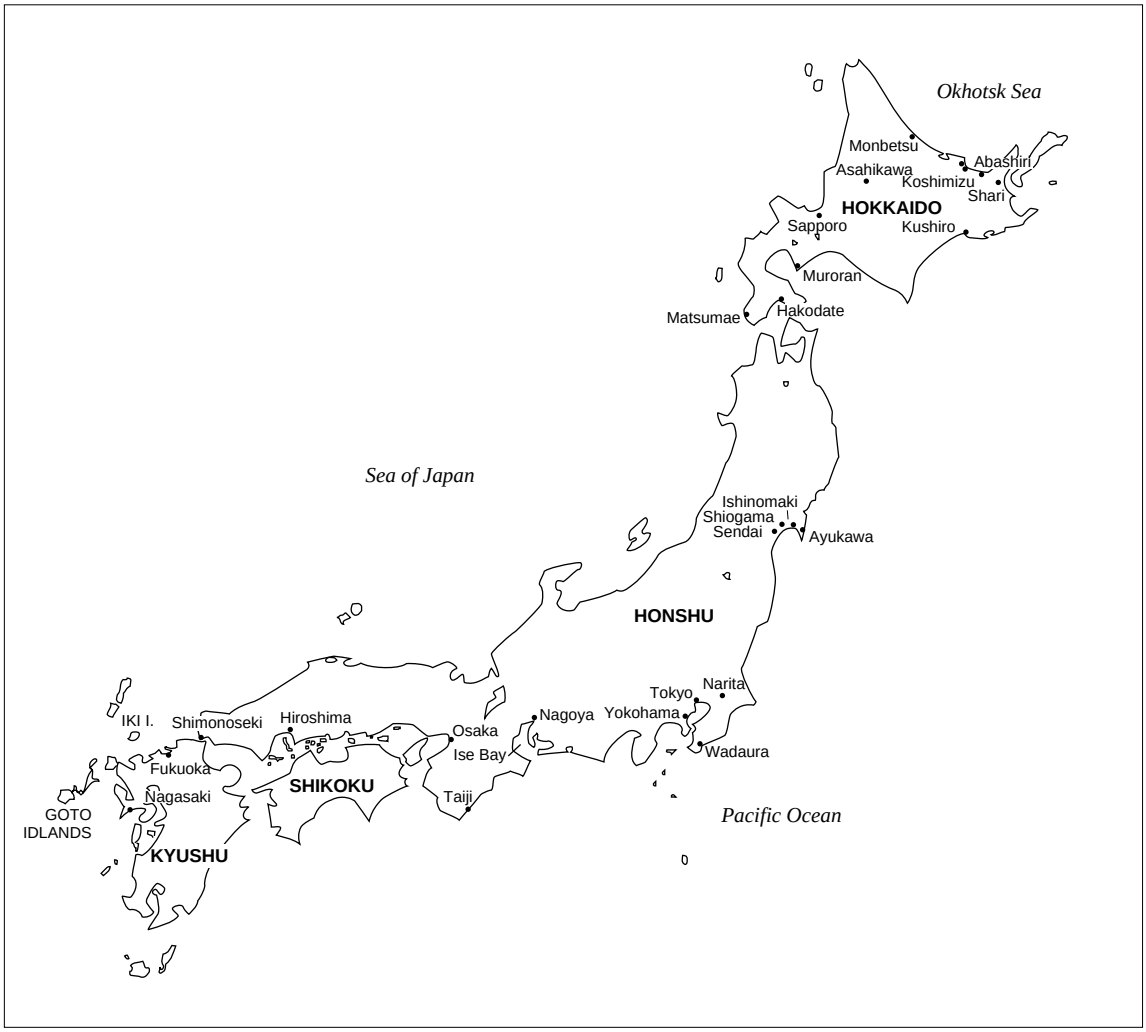
As Japanese whaling continued to develop, the net whaling method (*amitori-ho*) invented in Taiji in 1675 gained in popularity over harpoon whaling. In this form of whaling, large whaling groups cooperated to drive large whales into nets where they could be more easily dispatched before being towed to nearby shore-based processing facilities. Net whaling spread rapidly throughout southwestern Japan and continued to dominate Japanese whaling until late in the 19th century. This whaling method involved substantial capital investment, and the proprietors frequently moved their operations from one whaling area to another, necessitating relocation of skilled flensers and whalers with each move (Kalland 1989). Feudal fiefs granted rights to exploit particular whaling grounds in exchange for fees. Whalers paid additional monies to local

communities as compensation for the inconvenience their large-scale whaling operations caused to local residents. The organization of these net whaling operations, including hunting and processing procedures, was in many ways similar to the organization of modern whaling operations (Takahashi et al. 1989: 3-4).

By the early 19th century, whaling boats from the United States and Europe began to exploit the whale-rich waters off Japan's coast. These activities coincided with a significant reduction in the number of whales the Japanese harvested in the 1850s using their net whaling method (Omura 1977: 89-90). Japanese whalers reacted to this situation by moving to new whaling grounds (e.g., off the Hokkaido coast) and/or adopting the American method of whaling (hand-held guns and bomb lances). Although neither approach proved successful in increasing whale harvests, the introduction of the Norwegian method of whaling proved more beneficial.

Around 1900, Japanese whalers successfully adopted the Norwegian method of whaling, characterized by a bow-mounted harpoon gun on a steam-powered, ordinarily steel-hulled ship (Takahashi et al. 1989: 5). Use of this technology led to the establishment of many new whaling companies and land stations along Japan's Pacific coast and gave rise to LTCW. The combination of the Norwegian harpoon gun and the tradition of hunting small cetaceans (e.g., pilot whales and dolphins) along the Kumano coast (including Taiji) using hand harpoons influenced the development of STCW. In the early 1930s, a small Taiji pilot whaling vessel outfitted with a Norwegian harpoon gun was brought to Ayukawa and was used to hunt minke whales. Thus, for the first time,

Figure 1: Map of Japan



Stephen R. Braund & Associates, 1989

Japanese whalers hunted minke whales with a harpoon gun from a small vessel. Pelagic whaling began in 1934 when Japanese whalers brought a mother ship from Norway that allowed the Japanese to send its first fleet to the Antarctic. A few years later pelagic fleets also went to the North Pacific. Thus, by 1935 three distinct types of Japanese whaling had emerged: LTCW, STCW, and pelagic whaling.

Whaling in all three categories increased in the post-World War II years and then gradually declined. By the mid-1960s, Antarctic whaling peaked with the harvest of 20,000 whales caught by seven fleets. By the 1986-87 season, Japanese Antarctic pelagic whaling consisted of a single factory ship (over 23,000 tons) and four catcher boats (700 to 900 tons). As a result of the IWC moratorium, this company dissolved in 1987.

The number of boats involved in LTCW peaked in 1952 (42 vessels), whereas the number of whales harvested by LTCW peaked in 1968. By the 1987 season, three companies operated five large catcher ships (400 to 600 tons) that hunted large cetaceans offshore of Japan. At the end of the 1987 whaling season, these three companies closed their whaling divisions as a result of the IWC moratorium on commercial whaling.

STCW consisted of 83 boats in 1947. By a 1964 government regulation, these boats were limited to 48 tons and could only hunt small cetaceans (e.g., minke, Baird's beaked, and pilot whales). The number of STCW boats declined from 80 in 1950 (Ohsumi 1975) to nine in recent years. The current nine STCW boats (between 15 and 48 tons) are operated by eight small companies located in the communities of Abashiri, Hokkaido (two boats), Ayukawa (three boats), Wada (two boats), and Taiji (two boats) (see Figure 1). These communities have current populations of 2,223 persons (Ayukawa), approximately 7,000 persons (Wada), 4,313 persons (Taiji), and 43,082 persons (Abashiri) (see Akimichi et al. 1988:26-28 for a description of these communities). The number of whales caught by STCW vessels fluctuated around 1,000 from 1951 to 1967, with a gradual decline since that time. The minke whale harvests were relatively stable between 1951 and 1987, with a peak of 541 in 1973 and a low of 220 in 1963 (see Table 3).

Hunting and Processing of Whales

Many similarities in catching and processing procedures exist between the three types of contemporary Japanese whaling and the pre-modern net whaling period (Takahashi et al. 1989: 16-19). In terms of hunting, historic and contemporary similarities exist in the methods of deciding on hunting grounds, searching, chasing, killing, and securing the whale. In terms of processing, the techniques used for the various historical and contemporary types of Japanese whaling are unique to Japan and are designed to use all of the red meat, cartilage, internal organs, skin, flukes and blubber for food. Flensing and processing require great care and skill and specialized tools. Because each part of the whale is put to a different use (discussed below), flensing takes years to master and earns the flenser recognized prestige in the community.

Use of Whale

Use of the whale in Japan has changed little over the centuries. With very few exceptions, the Japanese, unlike whalers in many other nations, have sought to use all of the non-bone parts of the whale carcass for food. A main characteristic of the Japanese whaling culture is a consistent, longstanding and diversified usage of edible whale products. Virtually all parts of the whale have been used, principally for food and oil, but also for a variety of other utilitarian and artistic purposes both in pre-modern and modern times. Today whale meat is used for food, bones are used for fertilizer or oil, entrails are used as food, fertilizer, or oil, blubber is used for oil and food, skin and flukes are used as salted food, and baleen, teeth and sinew are used for craft production.

The whale carcass provides valued and irreplaceable foodstuffs used in highly elaborated local cuisines. These local cuisines are famous throughout Japan and are a source of pride and local identity for residents of whaling communities. Production of this elaborated cuisine requires a specialized knowledge of food preparation, and also requires that the whale carcass be carefully and knowledgeably butchered; hence the importance of the flenser's skill and expertise. As a consequence of this specialized end use to which the whale is put, Japanese whalers and processors are faced with a number of technical and organizational problems common to all three forms of modern Japanese whaling, but found in no other whaling cultures. Moreover, the longstanding and valued use of whale as food (see, e.g., Glass and Englund 1989: 46) reinforces the marked sense of historical and cultural continuity as well as occupational worth among those engaged in the catching and processing of whales.

The demand for whale meat is nationwide. Related to national demands for whale, the distribution system is already in place; in Japan, for many centuries, there has existed a well-organized commercial distribution system for whale meat (see Takahashi et al. 1989). One reason for this large distribution network is that some regional cuisines do not utilize some parts of the whale, while others do; this widespread distribution of whale product ensures total utilization of whale and prevents wasteful misuse of the resource.

Dispersion and Mobility of Whalers

Another remarkably persistent feature of Japanese whaling from feudal times to the present is the recruitment of whale boat crewmen from specific, occupationally specialized yet geographically dispersed villages (Hidemura and Fujimoto 1978: 167; Hidemura 1954: 88; Kalland 1986: 37-39). This feature, also quite pronounced in modern pelagic and large-type coastal whaling, is strongly preserved in STCW (Kalland 1989; Takahashi et al. 1989: 18).

The high mobility of whalers, from early times to the present, is also a marked feature in all types of Japanese whaling. This mobility involves techniques and capital as well as personnel, as whaling grounds moved from location to location. People in areas with abundant whale resources invited whalers from noted whaling communities to share their knowledge. Whalers traveled widely in Japan from the 17th century onward to learn new whaling techniques from others. Whalers, due to their respected status, were allowed exceptional freedom to travel in a feudal land where travel was strictly controlled (Nicol 1989: 72). These conscious efforts to facilitate diffusion of whaling expertise contributed to the spread of whaling stations to suitable locations throughout the Japanese archipelago. Thus whalers, dispersed from the Okhotsk Sea coast in the north to the Goto Islands in the extreme southwest, share the same heritage.

DIFFERENTIATION OF SMALL-TYPE COASTAL WHALING

Introduction

Although all forms of Japanese whaling have a common heritage, STCW is in many ways distinct from the other forms of whaling. Contemporary STCW is characterized by such things as the species of whale harvested, the relatively small size of the catcher boats and crew, the coastal nature of the fishery and its close ties with the land station, the flexible organization and egalitarian nature of the crew, and a commercial distribution system originating from the land station community. This section addresses these distinguishing characteristics.

Species Hunted by STCW

As discussed above, Japanese whalers have hunted various species of small cetaceans for centuries. Modern STCW whalers primarily hunt minke, Baird's beaked, and pilot whales, with incidental harvests of other small whales (e.g., Cuvier's beaked and killer whales) (Ohsumi 1975). The government of Japan does not allow STCW to harvest either baleen whales (except the minke) or the sperm whale. (Prior to the moratorium, LTCW hunted sperm whales and the larger baleen whales, but not the minke whales.)

Vessel Size

Historically, STCW catcher boats have been relatively small. Up until the end of World War II, STCW catcher boats ranged from five to 20 tons. Since that time, the average tonnage has increased coincidental with the decrease in number of boats (from 83 boats in 1947 to nine at present). Currently, the nine STCW boats range in size from 15 to 48 tons (average 36.6 tons) and cannot be larger than 48 tons by regulation. (See Akimichi et al. 1988: 18-20 for a detailed description of the size of each boat.) The STCW boats are equipped with a bow-mounted 50 mm whaling gun that fires an explosive harpoon.

Associated with the small size of STCW boats is the small size of their crew. The STCW crew generally consists of between five and eight members. Thus, compared with the catcher boats associated with LTCW and pelagic whaling that range from 100 to 900 tons and have a crew of 20 or more, the STCW boats are small.

STCW as a Coastal Activity

Because the STCW boats are small and have a short cruising range, their whaling grounds are limited. Furthermore, it is dangerous to operate these small boats in bad weather, so they do not leave port on inclement days (Ohsumi 1975: 1113). Hence, STCW is a coastal fishery generally operated on a day-trip basis from two ports[1] on the main island of Japan (Honshu) and from four ports on Hokkaido (see Figure 1). These ports are Ayukawa and Wada on Honshu, and Abashiri-Mombetsu, Nemuro-Shibetsu, Muroran and Kushiro on the island prefecture of Hokkaido (see Table 1). The boats generally return to the port at night bringing in the day's catch.

In most cases whaling occurs up to 30 nautical miles from shore, though often considerably closer to shore; in the case of whaling in the Nemuro-Shibetsu port area, all whaling occurs within four nautical miles from shore, i.e., entirely within Japanese territorial waters.

As the small whaling boats do not stay away from port for more than part of each day, the range of whaling is ordinarily 30 to 50 nautical miles from the landing port, and often considerably less. Whaling requires windless, calm seas for optimal operations. In practical terms, sighting of whales occurs when conditions do not exceed windforce, wave height, or swell condition two. These conditions are satisfied on approximately half of the days during the whaling season, which extends from the beginning of April until the end of September[2] (see also Akimichi et al. 1988: 20-22).

The advantages of returning to port each night include the safety of not drifting in darkness on fishing grounds where other vessels are operating, the opportunity for all members of the small five to eight man crew to obtain sufficient rest on shore, and the landing of whale meat in the freshest condition for human consumption. Though returning to port every night results in greater fuel consumption and more days at sea when no whales are caught, the advantages nevertheless are considered to outweigh the disadvantages.

Locating whales is greatly facilitated by the active cooperation of all the whale boats and also those non-whaling fishing boats in the same fishing areas (Akimichi et al. 1988: 41, 47). No electronic equipment is used for whale location, only whalers using binoculars. Since the beginning of STCW in its pre-modern as well as modern form, cooperation has been the norm, especially among boats sharing the same home port. When whaling off the coast of Honshu, all whaling boats cooperate by sharing information on whale locations, as well as in capturing, towing and processing whales. In cases of joint whaling operations, all proceeds from selling the whale meat are evenly divided among cooperating boats.

When whaling off the Hokkaido coast, pairs of whaling boats generally operate as a unit. The pairs may call upon other nearby whaling boats to join them when such a strategy is seen to be most effective. Even though nearby vessels may not be invited to collaborate on a particular hunt, each vessel will inform all other vessels by radio when whales are sighted. This announcement enhances safety of navigation, and follows a formal rule which governs the question of priority of sighting and capture of whales which is followed by all whale boat captains and harpooners.

Information on location of whales is also passed on to whale boats by non-whaling fishing vessels. An estimated 15 to 20 percent of catches off the coast of Honshu and up to 30 percent of catches off the coast of Hokkaido result from sightings made by fishing boats. These sightings typically come from sand eel and krill fishing boats in the case of Honshu, and round haul netters, trawlers, gill netters and crab fishing boats in Hokkaido waters.

The catching areas are remarkably constant due to the short effective range of the whale catching boats (average 320 horsepower, range 180-450 horsepower) which return to port each evening and due to the proximity of the whaling ports to whale feeding or migration locations. Figures 2 through 6 illustrate the catching areas for minke, Baird's beaked and pilot whales for one Ayukawa-based whale boat in each of the five years 1984 through 1988. The equitable division of the annual quota for each species is decided upon at the start of each season by the Japan Small-Type Whaling Association.

Figures 7 and 8 provide a second example of the coastal nature of Japanese STCW. The catch areas illustrated are for a Hokkaido (Abashiri-based) boat which obtained a whale quota closer to its home port and received most of its annual allocation in the form of minke whales (it caught only three Baird's beaked whales most seasons). The high minke allocation was due to the traditional demand for fresh minke whale among Hokkaido residents, and the distance Hokkaido is situated from the traditional consumers of Baird's beaked and pilot whales.

In terms of harvest levels, the Japanese STCW whale fishery has remained remarkably stable over the past several decades. As discussed above (Historical Background), the number of whales caught by STCW vessels fluctuated around 1,000 from 1951 to 1967, with a gradual decline since that time as the number of catcher boats and land stations decreased. The catch of minke whale, which represents the largest portion of the harvest (see Table 2), was relatively stable between 1951 and 1987, with a peak of 541 in 1973 and a low of 220 in 1963 (Akimichi et al. 1988). Between 1951 and 1987 (37 years), the STCW minke harvest averaged 348 whales per season (Table 3), close to the average harvest of 320 whales per season for the six most recent years shown in Table 2.

Another measure of stability is the apparent constancy of the landed volume of whale meat, which for the six most recent years averaged about 960,000 kilograms per year (range: 809 to 1,169 thousand kilograms) made up of varying numbers of the three principal whale species (minke, beaked and pilot in descending order). Other species ordinarily contribute very little to the annual harvests (Japan 1989: Table 6).

STCW Organization

Related to both its origin in pilot whaling and its small scale, STCW is more egalitarian and flexible in its organization and activities than LTCW or pelagic whaling (Takahashi et al. 1989: 20). Because the crews are smaller, individuals are not confined to specific tasks as they are in LTCW and pelagic whaling. Rather, crew members often perform a number of tasks. For example, anyone may climb to the masthead in search of whales in STCW (forbidden in LTCW and pelagic whaling) or the gunner in STCW may be both the owner and captain of the boat. The same flexibility exists at the land stations where individuals often may perform otherwise distinct sets of activities.

Ties Between STCW Whalers and Land Stations

Another characteristic that distinguishes STCW from LTCW and pelagic whaling in Japan is the closeness of the ties between whalers on the whaling boats and the workers at the land stations (Takahashi et al. 1989). Because STCW boats do not leave port for extended periods (as is the case with LTCW and pelagic whaling) but rather make day trips in search of whales, they have continuous contact with both other whaling crews and the flensing and processing personnel at the landing stations. When a whale is landed, processing teams and vessel crews are always in close contact with each other. When the boats remain in port due to bad weather, social contact occurs between land-based flensers and boat crew members. This close working relationship between land and boat workers strengthens the social ties between the whalers and the community (Takahashi et al. 1989: 21). Community members often gather at the waterfront when a whale is landed to assist in miscellaneous tasks in return for gifts of whale meat (see Gifting below).

The relationship between STCW and the local community is reciprocal as the whalers are dependent on the community for the specialized skills associated with flensing, processing and distribution, just as the community is dependent on whalers to provide them an economically and socially valuable product. This interdependence contrasts with LTCW and pelagic whaling where large, centrally based companies and distribution networks are capable of handling much larger volumes of product, and where land station workers are regularly recruited from outside the community where the whales are landed and processed. STCW remains inherently connected to the local community and, by its nature as a community-based, operation is not likely to grow very large or independent from the community.

Commercial Distribution from the Local Community

STCW is also set apart from other forms of Japanese

whaling by the structure of the commercial distribution system that handles that portion of the whale meat not subject to non-cash distribution. Pelagic whaling was characterized by a centralized, national distribution network (Bestor 1989; Takahashi et al. 1989). The whale meat from pelagic whaling was landed at central ports in freezer ships and belonged to urban, centrally controlled national corporations. The product was transported to central wholesale warehouses from where it was trucked to wholesale markets to be auctioned to the highest bidder. The product was marketed primarily to consumers in large urban centers. In contrast to this situation, the meat from LTCW was landed in a number of whaling towns, including some involved in STCW. However, distribution of LTCW meat to national markets, as in the case of pelagic whaling, remained under distant corporate control with the product distributed through national networks.

STCW whale meat, however, is landed at one of the STCW communities (or a nearby designated port) and passes through local distributors and markets (Ayukawa) or local brokers (Abashiri). In Ayukawa, for example, whale meat from the boat owners is sold at auction at the local fish market to the highest bidder. The local fish market receives a small commission. The bidders for the whale meat are generally local buyers from either Ayukawa or nearby Ishinomaki.

In Abashiri, the two boat owners are not members of the local fishing cooperative, and hence, the whale is not sold through the cooperative. In this community the boat owners have their own small processing facility, and they sell the meat to a broader variety of people who want whale meat (e.g., local residents who buy both for family consumption and for gifting, local Abashiri wholesalers, and wholesalers from nearby Hokkaido communities). In contrast to the large volume sales from pelagic and LTCW operations, which are organized to meet a widespread national need for whale products, STCW is primarily intra-regional (and only to a markedly lesser extent inter-regional) with the principal need for fresh, cooked or dried (rather than frozen) whale meat being satisfied in the traditional market area served by small-scale family or cooperatively owned businesses (for details see Akimichi et al. 1988: 18-20; 89-91).

Minke whales are not landed at Wada, however, beaked whales caught elsewhere (e.g., offshore of Hokkaido) are shipped to Wada for local processing and distribution. Processors in Wada have sent skilled workers to teach Abashiri people how to flense beaked whales in the appropriate manner to satisfy consumers in the Wada distribution area. The STCW fishery exhibits functional linkages among the nine boats from four distinct whaling villages insofar as the beaked whales from Hokkaido coastal waters are transported to Wada by the boats catching these whales, whether they are from Taiji, Ayukawa, Abashiri or Wada. Thus, from the point of view of the final consumer or the small retailer, whale meat from STCW originates locally (as opposed to originating from a national distribution center), passes through the local marketing economy, and in the case, of Ayukawa and Wada more especially, sustains the local fishing cooperative (Bestor 1989: 26; Japan 1989: 31-32). One knowledgeable observer referred to STCW distribution as a "locally originated, interregional distribution system, not a national distribution system." A local distributor may have a buyer elsewhere, but that buyer is part of his own distribution network that he has established. The direction of STCW whale meat distribution is always from the local community out, not the reverse.

STCW and Self-Sufficiency of Small Whaling Communities

In the STCW communities, whaling is important in both promoting the local cultural identity of the community as well as significantly contributing to its economic self sufficiency. As STCW whaling opportunities decline related to the cessation of minke whaling, the economic viability of these small communities also declines. For example, the fishery cooperative association in Ayukawa is losing its principal source of income as a result of the cessation of minke whaling (Bestor 1989). This loss has impacts on other local businesses such as whaling-dependent tourism, and in general, employment options in the community decrease. Young people leave to look for employment elsewhere and the overall viability of the community is affected.

As a nation, Japan values the continued existence of small, rural communities. Toward this end, the Japanese government has a national policy to promote the maintenance of these small communities through economic subsidies. In some Japanese communities, especially those of the core whaling towns, whaling provided a significant part of the local economic base. As is discussed elsewhere (Japan 1989), the discontinuation (in the case of large-type and pelagic whaling) and the reduction (STCW) of whaling opportunity has significantly affected the economics and self-sufficiency of these small communities.

FULFILLMENT OF TRADITIONAL SOCIAL AND CULTURAL FUNCTIONS

Introduction

Having established STCW as a modern component of Japan's longstanding whaling complex, and having characterized STCW as a unique form within the whaling tradition, the following section of this paper examines the ways that STCW maintains and fulfills important traditional social and cultural functions as the only remaining form of whaling in Japan. Among the aspects of STCW to be discussed are: the symbolic value of whaling; the cultural value of whale meat for dietary, gifting, and ceremonial purposes; the importance of whale meat for regional cuisine, local identity, and health; prestige associated with whaling; the transfer of culturally valuable traditional skills; and the spiritual relationship between whalers and whales.

Symbolic Value of Whale and Whaling

Since the traditional net whaling period, whales, called *isana* (brave fish) in Japanese, have been symbolically identified with strength, growth, wealth and courage (Nicol 1979: 34; Shiba 1988: 60). Social and cultural activities in the whaling communities center around such symbolic meanings of whales and whaling. Presently in the STCW communities, whale symbolism is still evident, and not only serves as a reminder of the importance of whales and whaling to the sociocultural and economic life of the community, but also of the spiritual relationship existing between the community and nature.

Whalers and local people have great respect for the whale as a provider of a large quantity of food. This feeling of respect is expressed during numerous local festivals where whales and whaling as a way of life are honored through the dramatization of the various techniques and traditions of whaling. Such festivals continue to be celebrated; two STCW communities, Ayukawa and Taiji, continue to hold annual whale festivals. These festivals are intended to give thanks for the annual catch and to pass on to future generations the spirit and methods of whaling (Akimichi et al. 1988: 56, 61-65).

Special celebrations, such as New Year and weddings, are not complete without the sharing of whale dishes, which symbolically represent the sharing of wealth. The local people believe that by eating a part of a whale, they will gain the strength, courage, long life, and wealth that whales symbolically represent. In some whaling communities, whale is especially appreciated on Children's Day when parents celebrate and wish for the continued health and growth of their children. Parents believe that providing a whale-based diet ensures their children will grow big, healthy and strong.

Similarly, whaling symbolizes men who are brave and manly. The degree of danger and risk involved in whaling is extremely high, and the Japanese consider whaling a prestigious job involving an elite group of men who are physically fit and who come from traditional whaling families (Fukumoto 1960: 112-114). Symbolically, those who take part in capturing whales and thus bringing wealth to the local communities are regarded as brave, worthy and manly. This notion historically and currently provides a positive example for the people in the whaling communities including whalers and non-whalers, men and women, and adults and children. This is especially true for male children. From the time they are very young, boys in whaling communities have dreamt of becoming whalers when they grow up. The presence of such positive role models has motivated generations of young members of the community to learn whaling skills and to aspire to socially beneficial occupations. Adult members are also influenced by the positive morale associated with whaling. They frequently refer to their communities as a "town of whaling" and are proud to be identified with whaling and to be united under the symbol of the whale.

The whale also symbolizes the whaling culture's heritage and serves to promote a sense of continuity with the past, which is a significant value in the Japanese cultural context (see, e.g., Glass and Englund 1989: 45-46, 48). Local people experience closeness to their ancestors through eating whale meat and blubber and are proud to continue their centuries-old dietary tradition. Whalers also express strong obligations toward their ancestors and the consequent need to maintain and transmit traditional occupations and life ways; to fail to do so would be cause for shame and moral disgrace. They believe that they need to do the same things as their ancestors did in order to strengthen ties with them and to accord them the respect that their social and religious traditions demand (Akimichi et al. 1988: 52; Bestor 1989: 9-10).

Cultural Value of Whale Meat

Both historically and currently, Japanese people, especially residents of former and present whaling communities, place a high cultural value on whale meat. Whale meat is important for numerous reasons, including its high dietary value, its symbolic value in gifting and ceremonial consumption, its value for maintaining regional identity, and its perceived and actual health qualities. The following sections describe these cultural values that the Japanese ascribe to whale meat.

Dietary value of whale meat

Whale meat is considered "simply 'good food' that carries with it strong overtones of local identity and identification with a valued way of life." (Bestor 1989: 14) Residents in STCW communities report that they never tire of eating whale, prefer it in their diet (Akimichi et al. 1988: 67-70), and feel 'lonely' if fresh whale is absent from their diet. (Bestor 1989: 14) These opinions are expressed by all age groups, including those in their early teens. (Nicol 1989: 83)

Associated with this generalized value of whale meat as an everyday food is the locally held view that whale meat is also health promoting. Whale meat does not contain antibiotics, chemicals, or growth hormones and is a 'pure' and therefore preferred meat. The 'natural state' or 'purity' of food, i.e., its lack of deliberate chemical contamination, is important in the Japanese culture. Whale meat, rich in iron, is considered to be especially beneficial for pregnant women and the elderly and is recommended by local physicians and dieticians. Its long-time inclusion in school lunch programs relates both to its high acceptance by young people, as well as the widespread Japanese belief that it promotes health, strength, and growth (see Healthy Aspects of Whale Meat Diet below).

Non-commercial distribution of whale meat

People in the STCW communities obtain whale meat both outside the market system and by buying it. STCW meat is distributed extensively outside the commercial market through numerous customary and socially obligatory exchanges that occur at all stages of whale harvesting and processing. These non-commercial distributions can be

divided into two broad categories: those that "reflect both reward for duties performed (as in meat distribution following the killing and flensing of each whale), and [those given in] the return of gifts received" (Akimichi et al. 1988: 41). The gifting of whale meat for social and ceremonial purposes, the more personal form of non-commercial distribution, is discussed in more detail below.

Non-gifting, customary exchanges of whale meat

The non-gifting, customary exchanges take place between people who are either directly involved with the whaling operation or who have direct contact with the whaling operation. For example, a formal system exists through which whale meat is equally distributed among crew members on board the vessel, among flensers at the flensing stations, and among others involved in the processing of the catch. In addition, local fishermen who notify whaling crews about the location of a whale are regularly given meat in appreciation. Exchanges also occur outside of the official distribution system, such as when the ship's cook (usually a junior crew member) uses a portion of the catch for the crew's meals or when he trades whale meat with nearby fishing vessels for fresh fish. When whaling in Hokkaido waters, crew members distribute whale meat among local fishermen in exchange for information useful during whaling operations (Akimichi et al. 1988: 42).

Value for gifting purposes

Gift-giving is a highly developed ceremony in Japanese society; the appropriate selection and presentation of a gift relates to cultural valuation (ascribed worth) rather than economic or material attributes of the item gifted. Gifting is the second way in which whale meat is distributed outside of the commercial market. These exchanges involve a large number of people, most of whom live in whaling communities, but who may not be directly connected with whaling itself. Gifts are given to relatives, friends and neighbors in reciprocation of gifts or other considerations, while visiting, or for special occasions, including ceremonial gift-giving. In the four STCW communities, the gifting of whale meat enforces community solidarity, maintains longstanding customs, and serves to distribute the wealth derived from the whale throughout the community (see Figure 9).

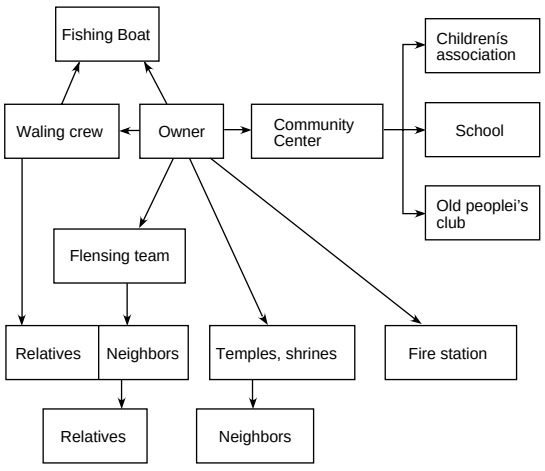
A common adage heard in all whaling communities which reflects the cultural tradition of gifting whale meat states, "Whale is for giving; fish is for buying." Vessel owners and crew members often receive gifts of sake (rice wine) from well wishers prior to the whaling season. Farmers and fishermen commonly provide whalers with fresh produce and fish throughout the year in anticipation of receiving fresh whale meat after the first catch of the season. Meat from the first-caught whale is always given in return for these gifts, though subsequent gifts may also be given. Meat is also given to family, friends and neighbors who will in turn give some to their family or to people who have done favors for them. In this manner, the meat is widely distributed throughout the community by means of a wide-ranging, mutually beneficial exchange network.

The exchange of gifts is a strong tradition in Japan. Whale meat is among the most honorable gifts to give and receive and is traditionally presented to family, friends and business associates while visiting. Gifting is so closely associated with visiting that if people do not provide these customary gifts, visiting breaks down and a loss of community solidarity results (Glass and Englund 1989: 48; Manderson and Hardacre 1989: 4). Residents of whaling communities also send whale meat to relatives who now live away from home, thus symbolically reinforcing the recipient's connection with their home community. Hence, gifting has a social value within the community and also reinforces customary social ties between communities.

Several special ceremonial occasions require a gift of whale meat (e.g., the end of year gift, *seibo*, the mid-year gift, *chugen*, or the first-catch distribution, *hatsuryo*.) According to Bestor (1989: 13), 'the ritual calendar of annual community events and of the events marking transitions in individual's lives (such as weddings) is intimately associated with consumption of whale, the absence of which is almost inconceivable." One Abashiri whaling captain commented that his father gifted the equivalent of three whales a year, whereas he gifted one to two whales per year (Bestor 1989: 13). A boat owner in Ayukawa estimated that he gifted the meat of up to five whales each year (Akimichi et al. 1988: 45-46).

There is an important symbolic value in the gift exchange associated with whale meat that cannot be replaced by any other item (see Japan 1989: 23; see also Symbolic Value of Whale and Whaling above). Whale meat possesses an assemblage of symbolic and cultural meanings, and its non-availability can cause a total withdrawal of parties from the reciprocal exchange, as no substitute is

Figure 9: Non-Cash Whale Meat Distribution in Ayukawa



Source: Akimichi et al. 1988: Figure 1

perceived as being completely appropriate to the situation. For example, one whaler in Abashiri spent the equivalent of one month's salary to purchase meat for the important *seibo* (end of year) gift because it is so important to honor his social obligations in the culturally appropriate manner (Iwasaki, field notes, January 1989).

Value for ceremonial purposes

In addition to whale meat being valued at certain times of the year, it also has a high value for ceremonial consumption (Takahashi et al. 1989: 21-22). The symbolic value of whale meat in a dish at a certain time of the year is important in the four STCW communities. It is important to eat whale meat on special occasions such as funerals, New Year, new house construction, memorial services, weddings, first day of school, Children's Day, community and national festivals, launching of a new boat, and periodic community gatherings by such groups as senior citizens, local fire fighters, and children's organizations. The reason whale meat is included on these special occasions is that whale symbolizes good luck, good health, long life, and local identity as discussed in Symbolic Value of Whale and Whaling above.

Value associated with regional cuisine and local identity

Whale meat also has a high value as a special regional cuisine related to home place (*furusato*) identity. Regional cuisine serves an important role in maintaining regional cultural diversity. Although many people eat whale meat in Japan, there are distinct and customary regional preferences. Different whale species, different parts of the whale, and different ways of preparing and consuming whale dishes are the basis for differentiating the characteristic and highly elaborated local and regional food cultures of Japan.

Many people who consume whale live in Tokyo. Because they are from a certain area specializing in a particular whale dish, they eat at certain Tokyo restaurants that serve that dish. To these people, the opportunity to eat their home food in Tokyo represents a connection with and affirmation of their regional identity through the familiar food associated with their home of origin. The taste of whale meat varies considerably (depending on the species and part of the whale), and therefore whale can satisfy regionally diversified taste preferences (see Akimichi et al. 1988: 67-68, 92-95; Takahashi et al. 1989: 21).

Healthy aspects of whale meat diet

Many Japanese consumers of whale meat associate it with a number of health-promoting qualities, including its intrinsic nutritional value, its 'purity' in coming from the sea and as a non-domesticated (i.e., natural) food species, its usefulness in combatting food allergies, its value in obtaining other high quality foods through local exchange networks, and its perceived value in maintaining social and psychological well-being.

Whale meat is iron-rich and the fat does not promote the harmful cardiovascular consequences associated with eating beef, pork, poultry, or lamb. Therefore, whale meat consumers, and especially elderly Japanese who require more careful diet control, have utilized it for its healthful qualities. In the past, the elderly had easy, economical access to whale meat. Now, because of the low supply of whale meat and its higher price, consumers are required to substitute foods considered to be less healthy (e.g., more fatty meats such as beef and pork) for whale meat (Japan 1989: 33). Although good tasting and nutritional 'healthy foods' (i.e., naturally caught — as opposed to cultivated — fish, or naturally raised or wild animal meats) are available, they are not realistic substitutes for whale meat because of their prohibitively high cost and in some cases unfamiliar taste. In Japan, cultivated fish are considered less healthy because they contain more fat (obtained through the artificial feed) and various growth-promoting and antibiotic chemical contaminants. The fish that whalers receive in exchange for whale meat are of a higher quality than they could afford to buy even if available locally.

A further value of whale related to health in Japanese society is its role in promoting psychological well-being among both producers and consumers. Whaling serves an important role in maintaining the identity, longevity, vitality and social integration of these small whaling communities (Hardacre and Manderson 1988: 28; Manderson and Hardacre 1989; Takashashi et al. 1989; Japan 1989). As whaling and whale meat consumption are centuries-long traditions in parts of Japan, the continuance of STCW safeguards against the social and psychological stress associated with the externally caused termination of this historically based and distinctive Japanese fishery (see Japan 1989; Glass and Englund 1989).

Prestige Associated With Whaling

From feudal times to the present, Japanese whalers have been regarded highly and have enjoyed considerable social status in the community. In Japan, whaling is still considered "an honorable way of life worthy of perpetuation." (Manderson and Hardacre 1989: 74)

Because whalers provide their community with locally esteemed traditional dietary items, contribute positively to the local economy and manifest such positive virtues as generosity and industriousness, residents look up to them and accord them prestige. The prestige afforded to whalers is, to some extent, shared by other residents of whaling communities. In addition to having a supply of whale meat for their own consumption, whaling community residents are also able to give whale meat to those living in neighboring communities and to their relatives who live away from the whaling community. This ability adds to the prestige and recognition accorded to the entire community and enhances its status in the eyes of others as well as confirming its unique identity. Positive human needs are thus satisfied by the productive activities of Japanese whaling communities.

Among members of the STCW crew, there is a ranked social order. The harpooner, who takes many years to

acquire the necessary skills, occupies the top position, while younger and less experienced whalers accord respect to the harpooner and other more experienced and knowledgeable whalers. Japanese whalers consider themselves members of an honorable profession with an obligation to pass on their skills to the younger generation (Manderson and Hardacre 1989: 74 and see below).

Transference of Culturally Valuable Traditional Skills

Japanese people employed in STCW believe theirs is an honorable profession based on centuries of tradition; because of this long tradition they feel obligated to pass on their skills to succeeding generations of whalers. They view themselves as the living heirs to a centuries-old traditional specialization, in a nation which accords respect and recognition to practitioners of such living traditions. Many years are required for STCW crew members to learn their specialized skills (see Akimichi et al. 1988: 28-31). It "takes 10 years to master flensing skills" or to become a harpooner (Manderson and Hardacre 1989: 47).

In Japanese society, the traditional Japanese family "has always been organized around the principle of family enterprise as an enduring social and economic unit which ideally exists through generations." (Bestor 1989: 9). Thus, from the Japanese point of view, it is important to sustain those families that live and work together maintaining the often longstanding family occupational tradition. The loss of whaling threatens the erosion of traditional family values, especially in these small whaling-dependent communities. Conversely, the continuance of STCW in the four communities serves to actively promote the maintenance of this customary social pattern and the underlying socially-stabilizing belief system (see, e.g., Glass and Englund 1989: 47).

Spiritual Relationship Between Whalers and Whales

Japanese whalers have developed special relationships with whales that have been transmitted through generations until the present time. The unique ties between whales and whalers is most evident in the religious/spiritual sphere of the whaler's life and in the whalers' perception of whales (Akimichi et al. 1988: 53). Many whaling activities, from the preparation for whaling to the thanks given for the harvest, involve some form of religious acts and are integrated in the Buddhist and Shinto practice of each whaling family and the entire community.

First, whaling is inseparable from the everyday religious activities of the whalers and members of their immediate family. At home, whalers and their wives offer daily prayers at the family Buddhist altar or the Shinto altar for a successful harvest and crew safety (Iwasaki, field notes, 1988; Akimichi et a1. 1988: 64). Whalers place offerings of cooked rice in the altar on the boat. At the beginning of the whaling season, they offer communal prayer at the local Shinto shrine or Buddhist temple (Akimichi et al. 1988: 67). In some cases, such ceremony is conducted on the boats (Iwasaki 1988). Whalers give a special prayer for more whales when they are experiencing poor catches. Finally, when the whale is harvested, part of the whale is offered to the altar on the boat (Iwasaki 1988: 67; Akimichi et al. 1988: 62-64), and part is taken to the local Buddhist temple as an offering (Manderson and Hardacre 1989: 21).

The above-mentioned religious activities are partly motivated by hope for better harvests and for the safety of the whaling crew. However, what distinguishes whalers from other fishermen lies in their perception of whales. The Japanese have categorized whales as fish from the traditional net whaling period. Because they were considered fish and not mammals, Buddhists could eat this form of animal protein, whereas animal flesh was otherwise prohibited (Nicol 1979: 33). This perception is still evident in the present whaling communities where no animal flesh is allowed as an offering to the Buddhist temple yet whale meat is allowed (Manderson and Hardacre 1989). On the other hand, whalers' estimation of the whale is very different than other fishermen's regard for fish. For example, whalers also recognize the distinctive nature of the whale. One gunner stated, "We cannot help chanting a prayer when we pull the trigger as we know that we are taking their life." (Iwasaki, field notes, 1988)

Since the net whaling period, concern for the peaceful repose of whale souls has been emphasized, and whalers have been intensively involved in the appropriate Buddhist ceremonies, with whale tombs built for each whale as an expression of appreciation for their sacrifice (Fukuyama 1943; Akimichi et al. 1988: 52-65). In modern whaling communities in Japan, continuing expression of these religious values are manifest in whalers' homes, on whaling boats and in the temples and shrines where whale memorials exist and ceremonies are carried out (Iwasaki 1988: 66-72; Akimichi et al. 1988: 57-61; Manderson and Hardacre 1989: 21-27).

CONCLUSION

First, this report has reviewed the characteristics of the Japanese whaling culture based on Japan's centuries-long tradition of whaling. During this long whaling history, various forms of whaling were practiced: harpoon and net whaling in the pre-modern period, and more recently, pelagic whaling, LTCW, and STCW. The common heritage and similarities of the different types of Japanese whaling, including the methods of hunting and processing whales, the virtual use of all non-bone parts of whales for food, and the historic mobility of whalers and whaling operations are some of the features that substantiate the concept of a Japanese whaling culture within which STCW is a subculture. Because of this long history of whaling in Japan, this activity has acquired important cultural and social significance, especially in those communities where harvesting locally available whale stocks continues to be practiced.

Second, this report has outlined the differences between STCW on the one hand and LTCW and pelagic whaling on the other hand. Although all forms of Japanese whaling have a common heritage, STCW is in many ways distinct from

large-scale commercial whaling banned by the IWC. Contemporary STCW is characterized by such things as:

- the species of whale harvested;
- the relatively small size of the catcher boats and crew;
- the coastal nature of the fishery;
- the close ties between whaling boats and the land station;
- the small size, flexible and egalitarian character of the whaling crew; and
- the existence of a commercial distribution system originating from the land station community.

Finally, this report has described briefly how STCW continues to fulfill important social, symbolic, religious and dietary functions in Japan in its role as the continuing manifestation of a whaling tradition extending through several centuries. This report discusses:

- the high symbolic value of the whale and whaling;
- the high dietary value of whale meat;
- the high value of whale meat for gifting purposes;
- the high value placed on whale meat for ceremonial purposes;
- the high value of whale associated with regional cuisine and local identity;
- the health-associated aspects of the whale meat diet;
- the high prestige associated with whaling in Japan;
- the importance of transferring socially and culturally valuable traditional skills, values, and attitudes from generation to generation; and
- the spiritual relationship between whales and whalers in Japan.

In the STCW communities, this form of whaling has been remarkably stable over time and is highly integrated into the social, economic and cultural life of the community. As described in this paper, other social and economic interdependencies exist between those engaged in STCW and residents of the communities where this form of whaling is based. These interdependencies, the large role STCW plays in the communities, and the relatively small size of the communities has resulted in greater impacts associated with the IWC moratorium on the STCW communities than other communities in Japan (see Japan 1989). Hence, the moratorium is affecting these STCW communities more than other areas of Japan.

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End notes

1. Catching of various small cetaceans for food occurs elsewhere in Japan, but as it does not involve a minke whale fishery, it is not recognized administratively as small-type coastal whaling and is therefore outside the scope of this report.
2. Some beaked whales are caught in October in Hokkaido coastal areas.

APPENDIX

FIGURES AND TABLES

Related to STCW Whale Harvest Locations and Amounts

Table 1: STCW Catch Landed at Authorized Landing Ports, 1986-1988

Landing Ports	1986				1987				1988			
	Minke	Beaked	Pilot	Other	Minke	Beaked	Pilot	Other	Minke	Beaked	Pilot	Other
Nemuro-Shibetsu	7	0	0	0	1	0	0	0	0	0	0	0
Abashiri-Mombetsu	67	5	0	0	64	5	0	0	0	22	0	3
Muroran	49	0	0	0	27	0	0	0	0	0	0	0
Kushiro	83	0	0	0	89	0	0	0	0	0	0	0
Ayukawa	105	0	28	2	123	0	0	0	0	13	98	2
Wada	0	35	1	0	0	35	0	0	0	22	9	0
TOTALS	311	40	29	2	304	40	0	0	0	57	107	5

1. An additional 22 pilot whales were landed at Taiji.
Source: Japan Small-type Whaling Association
Stephen R. Braund & Associates, 1989

Table 2: Annual Production from Nine STCW Boats, 1982-1988

Minke	1988	1987	1986	1985	1984	1983	1982	Averages/1
	0	304	311	327	367	290	324	321
Beaked whale	57	40	40	40	38	37	60	45
Pilot	128	0	29	62	160	125	85	84
Other	7	0	2	0	0	1	0	
TOTALS	192	344	382	429	565	453	469	440

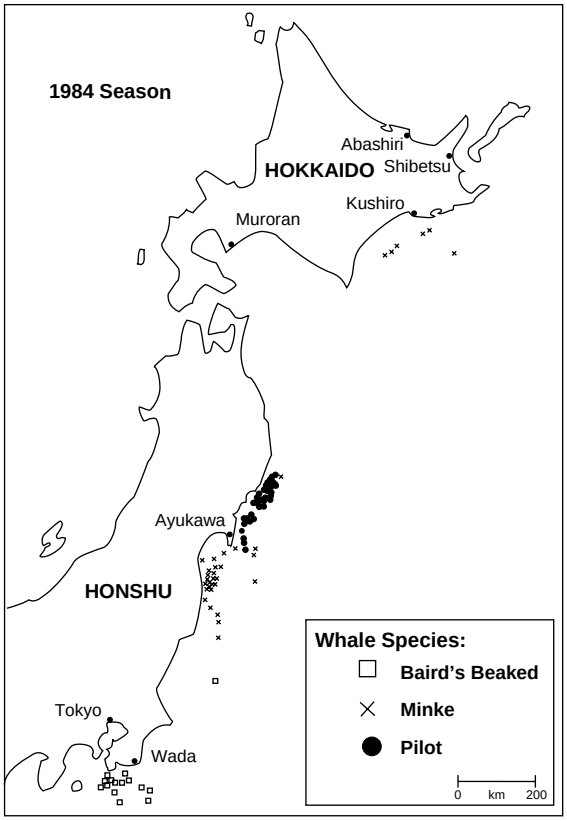
1. Excludes minke whales for 1988
Source: Japan Small-type Whaling Association
Stephen R. Braund & Associates, 1989

Table 3: STCW Catch of Minke Whales, 1951-1988

Year	Number of Whales	Year	Number of Whales
1951	334	1970	320
1952	485	1971	285
1953	406	1972	341
1954	365	1973	541
1955	427	1974	372
1956	532	1975	370
1957	423	1976	360
1958	513	1977	248
1959	280	1978	400
1960	253	1979	407
1961	332	1980	379
1962	238	1981	374
1963	220	1982	324
1964	301	1983	290
1965	334	1984	367
1966	365	1985	327
1967	285	1986	311
1968	239	1987	304
1969	234	1988	0
Average 1951-1987			348

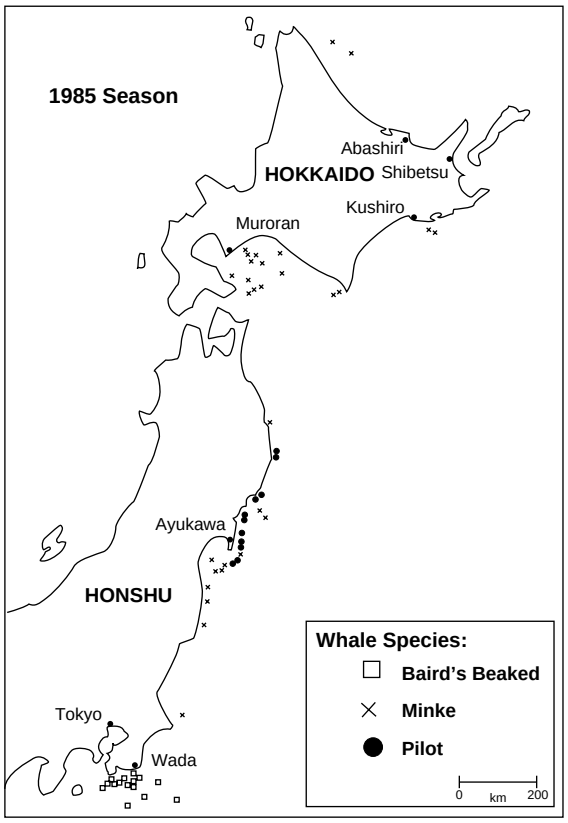
Source: Government of Japan
Stephen R. Braund & Associates, 1989

Figure 2: STCW Capture Locations for One Ayukawa-Based Whale Boat, 1984



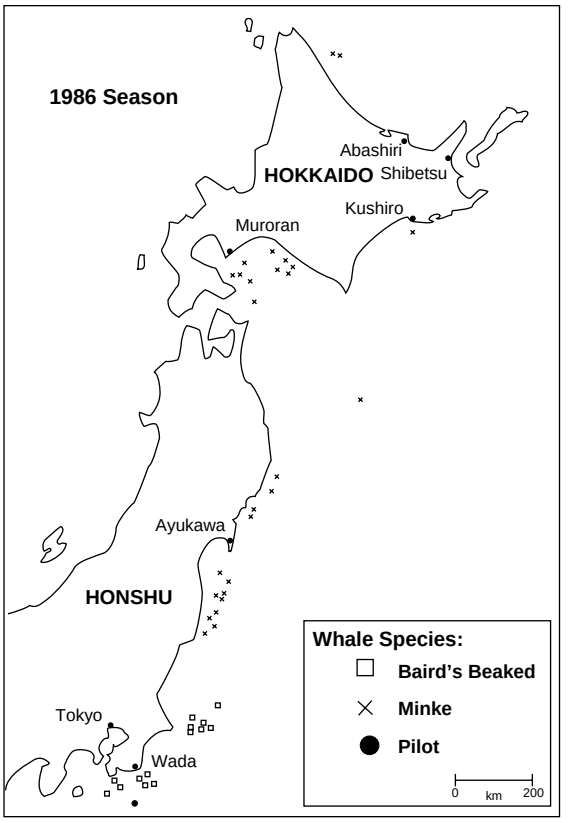
Source: Japan Small-type Whaling Association
Stephen R. Braund & Associates, 1989

Figure 3: STCW Capture Locations for One Ayukawa-Based Whale Boat, 1985



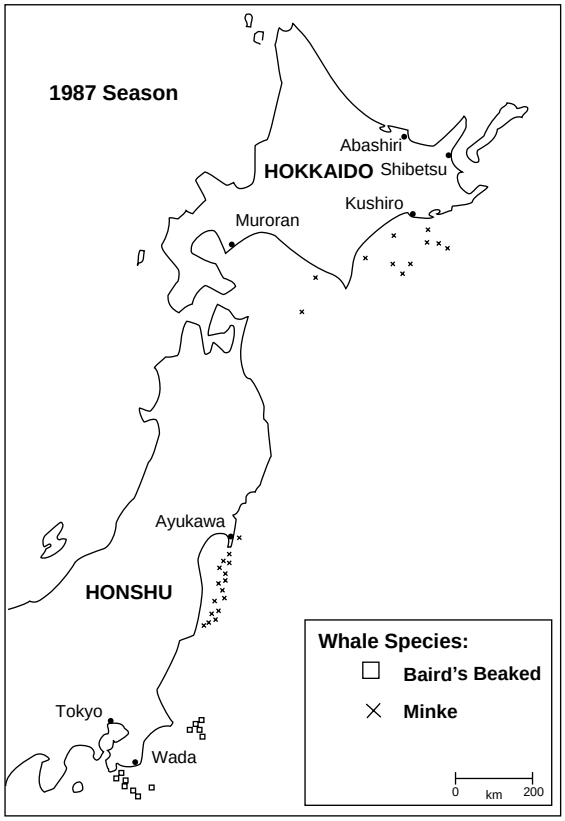
Source: Japan Small-type Whaling Association
Stephen R. Braund & Associates, 1989

Figure 4: STCW Capture Locations for One Ayukawa-Based Whale Boat, 1986



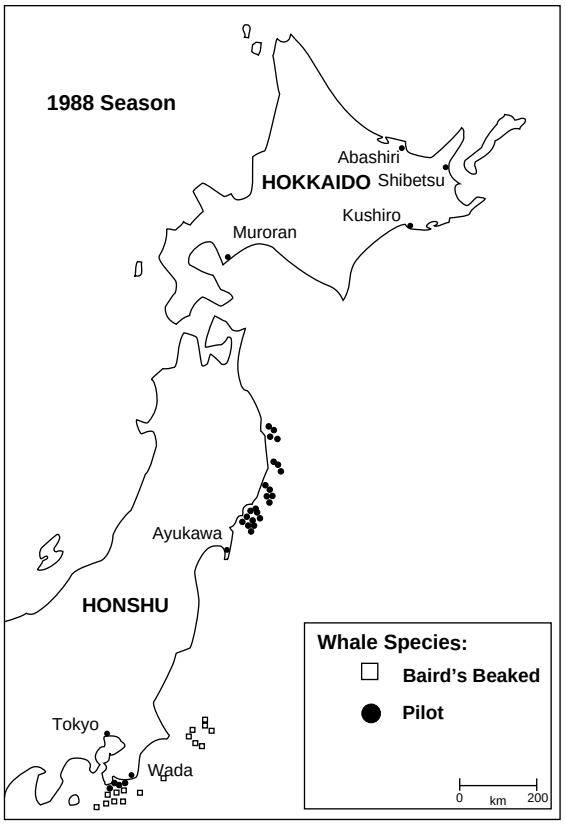
Source: Japan Small-type Whaling Association
Stephen R. Braund & Associates, 1989

Figure 5: STCW Capture Locations for One Ayukawa-Based Whale Boat, 1987



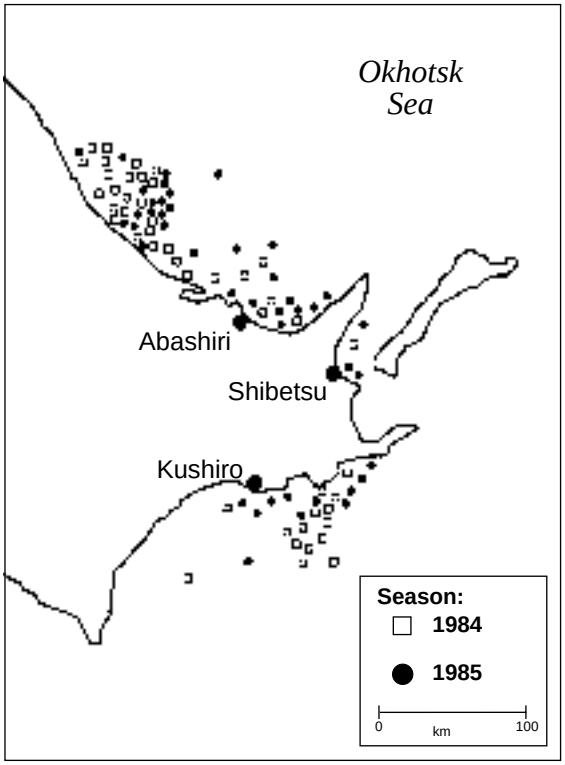
Source: Japan Small-type Whaling Association
Stephen R. Braund & Associates, 1989

Figure 6: STCW Capture Locations for One Ayukawa-Based Whale Boat, 1988



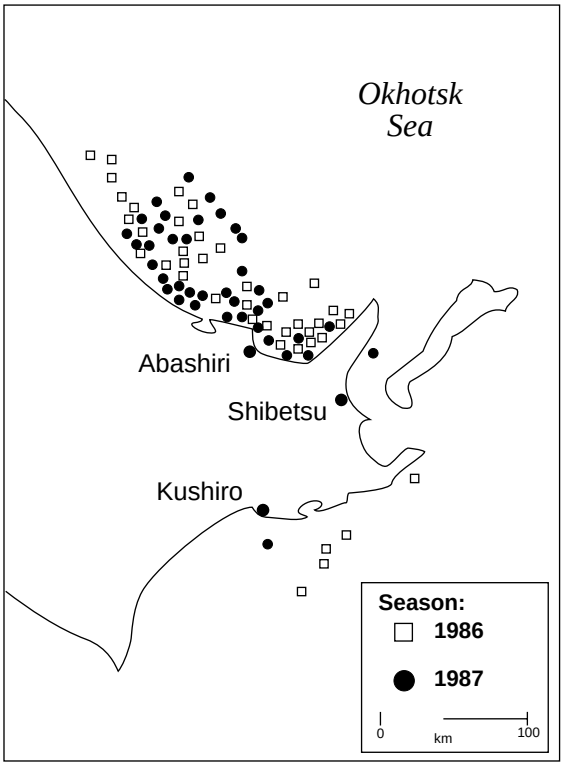
Source: Japan Small-type Whaling Association
Stephen R. Braund & Associates, 1989

Figure 7: Minke Whale Capture Locations for One Abashiri-Based Whale Boat, 1984-85



Source: Japan Small-type Whaling Association
Stephen R. Braund & Associates, 1989

Figure 8: Minke Whale Capture Locations for One Abashiri-Based Whale Boat, 1986-87



Source: Japan Small-type Whaling Association
Stephen R. Braund & Associates, 1989

JAPANESE WHALING CULTURE: CONTINUITIES AND DIVERSITIES

The attached report contains important information on various aspects of the small-type whaling in Japan's coastal sea. The Government of Japan, therefore, submits this report as one of its documents to the IWC for reference to the Working Group to Consider the Situation of Various Kinds of Small-type Whaling.
1989

JAPANESE WHALING CULTURE: CONTINUITIES AND DIVERSITIES

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INTRODUCTION

In this paper we examine the practices involved in whaling in Japan from pre-modern times to the 1980s. We rely upon a concept of culture as an integrated and coherent system of specific tools, techniques, skills and the attendant bodies of knowledge and forms of social organization that are necessary to locate, identify, harvest, process, distribute and consume particular resources that are found in specific ecological niches. As such, our definition of the culture of whaling, which centers on catching, processing, and consuming whales, necessarily includes the social structure of communities that sustain and are sustained by whaling, and the knowledge, beliefs and values that are present in those communities.(1)

We will demonstrate that, as an integrated culture, Japanese whaling culture has an internal consistency that enables one to define it as distinctive — in comparison both with whaling in other nations, and with other Japanese sub-cultures, such as those based on other modes of maritime exploitation (e.g. Kalland 1981), agriculture (e.g. Shimpo 1976), or craft production (e.g. Moeran 1984). That is, we believe Japanese whaling culture to be distinctive along dimensions both of intercultural and intracultural variation.

Within the Japanese whaling culture, however, it is important to note that various forms of whaling have been practiced — net whaling in the pre-modern period and more recently, pelagic whaling, large-type coastal whaling (LTCW), and small-type coastal whaling (STCW). We will argue that on the productive side of the whaling culture, the fundamental cognitive, technological, and organizational dissimilarities between catching whales and processing whale carcasses are sufficiently significant to enable us to distinguish hunting and processing as separable sub-cultures. And although it is the overarching similarities and continuities among the various forms of whaling mentioned above that enable us to speak of Japanese whaling culture as a whole, important differences have existed among these forms. In this paper, we will examine these differences — focusing particularly on small-type coastal whaling — after examining the factors which integrate the several forms of whaling into a single cultural complex.

HISTORICAL BACKGROUND

Pre-modern Times

Whaling has been carried out in Japan for many hundred years, during which time there have been many changes in technology, in species caught, in hunting grounds, and in the location of whaling communities. It is the purpose of this section to outline the historical processes leading up to the days of modern whaling. In particular, we will describe the social organization of pre-modern whaling in order to provide background material for an understanding of the continuities which, we will argue, exist in the ways whaling activities are still carried on.

Fukumoto (1960) has divided the development of whaling in Japan into five stages. In the first, lasting well into the sixteenth century, whaling was not yet established as a business. Whales occasionally were hunted with bows and ordinary fishing nets, but most whales taken were either dead or wounded whales that were caught as they drifted in the seas nearby. This kind of whaling has been labelled 'passive whaling." in contrast to 'active whaling" in which hunters pursued healthy animals (Hidemura and Fujimoto 1978).

Active whaling is thought to have started in the sixteenth century, but it was only toward the end of that century that whaling developed into large-scale enterprises, thereby marking Fukumoto's second stage. Here whalers rode in several boats and made use of harpoons in the hunt, a

technique that came to be known as the harpoon method (*tsukitori-ho*). Killed whales were brought back to specially established processing facilities on shore. This technique was practiced in Wakayama, Shikoku, Northern Kyushu, and on the coast of Yamaguchi facing the Sea of Japan.

Some communities such as Taiji (Wakayama Prefecture) and Katsuyama (Chiba Prefecture) continued until recent times to specialize in using harpoons to catch small cetaceans such as dolphins, pilot whales and Baird's beaked whales, a tradition which has had, as we will shortly see, an important bearing on the development of modern small-type coastal whaling. But toward the end of the seventeenth century, Japanese whaling entered its third stage through the invention of the net method (*amitori-ho*) in 1675 by Wada Kakuemon in Taiji. In this method, large whaling groups were organized to drive whales into large nets set around processing facilities on shore. This method spread rapidly throughout most of Southwestern Japan and continued to dominate Japanese whaling until the end of the nineteenth century. Net whaling of this form involved substantial capital (including investment by Osaka merchants) and the proprietors themselves frequently moved their operations from one whaling ground to another, bringing skilled workers with them. Rights to exploit particular whaling grounds were granted by feudal fiefs (*han*) in exchange for fees to the authorities and compensation to local communities for the inconveniences whaling operations caused them.

Given that the organization of these net groups was in many ways similar to the organization of modern whaling, we will briefly outline here the main features of the net method. The operations fell into three separate stages — preparations for a new season, hunting, and processing the whale — with each of these stages requiring special skills and modes of organization.

The preparations for a new season (*maesaku*) usually started in September and included a range of activities centered on the land station (*nayaba*). Large quantities of hemp were brought in, often from a considerable distance, as raw material for ropes made by women living in the host and neighbouring villages. Male experts (*ami-daiku*) used the ropes to make new nets since many of the old nets had to be replaced every year. These experts were usually recruited from villages that specialized in this trade, often from distant provinces. Every year some of the oldest boats had to be replaced by new ones built by specially employed boat builders (*funa-daiku*), while harpoons, knives, containers, and so on were made by smiths and coopers. The working sheds had to be repaired or rebuilt, new furnaces made and firewood collected.(2)

Next, several activities were involved in the hunting of whales. First, once the weather was regarded as suitable for the whaling season to begin, the search was initiated. Lookout posts on hilltops, commonly manned by five persons, sent smoke or flag signals to convey information to the land station about whales that they had spotted. In areas where there were no suitable lookout points, search boats were used to look for whales and the land station was informed of sightings by means of flag signals.

Once a whale had been spotted and the land station was informed, between ten and twenty swift hunting boats (*seko-bune* or *oi-bune*), each carrying a crew of about twelve persons under the command of an expert harpooner (*hazashi*), set out in pursuit of the whale. The boats split into three groups each led by a chief harpooner (*oyaji*). By surrounding the whale on three sides and by beating the sides of the boats, they managed to frighten the whale in the desired direction. Meanwhile the net-boats (*sokaisen*) and their assistant boats (*amitsuke-bune*) had arrived at the scene and the nets were lowered under the direction of a commander-in-chief (*mito-oyaji*) through signals to the net-boats, which worked in pairs — one pair for each of the nets.(3)

As soon as the whale was entangled in the nets and its speed had been slowed down, the hunting boats approached the animal and the harpoonist threw harpoons secured with ropes toward the whale. The first harpoonist who managed to spear the whale was financially rewarded. The most daring task was accomplished by one harpoonist who had to climb onto the whale's back, cut a hole near the mammal's nose, and thread a rope through this hole to secure the whale. Another daring operation was to dive under the whale with ropes and tie the whale to two beams laid between two boats that served as floats (*mosso-bune*). Only after this had been done was the animal killed by a sword and the whale towed to the land station by the *mosso-bune*, leaving the hunting boats to chase other whales that might have been spotted in the area.

Whale processing was carried out at land stations containing a number of working sheds (known as *naya*) living quarters, offices, and winches — all centered around the beach up which the whale was dragged. The land stations varied somewhat in their physical lay-outs, but the different stages in the processing of the whales were mostly the same. These involved, firstly, bringing the whale from the sea onto shore by means of a hand-powered winch (*rokuro*) which was then used to strip the blubber from the whale as the main flensing (*uo-kiri*) began. This *uo-kiri* (lit., 'fish cutting') consisted of rough hewing of the whale's carcass and simultaneous separation of the blubber from the meat. This was followed by 'middle cutting' (*naka-kiri*), in which the meat and blubber were cut into smaller pieces capable of being carried by two men with a pole. Both *uo-kiri* and *naka-kiri* were carried out by highly skilled flensers.

All of these activities were conducted outdoors, before the meat and blubber were carried indoors into separate sheds. Although there were some variations in the organization of these sheds between land stations, we find that there was a frequent separation of sheds where meat, blubber or entrails were further cut into smaller pieces and processed independently. The major part of the meat was used fresh or salted as food. The blubber was mainly boiled and used to extract oil which was in great demand as insecticide. The entrails, for their part, were used both as food and for oil production. The whale's bones were taken

to a separate shed where they were crushed and processed into oil or fertilizer. In many *nayaba*, sinews were also processed in a separate shed, as were sperm whale teeth and baleen. Processed sinew was used in a wide range of products such as musical instruments and bow strings; sperm whale teeth and baleen were also utilized in a variety of crafts, including the making of bunraku puppets; shamisen plecturns were produced from whale jawbones. There was thus virtually total use of the whale.

The Transitional Years, 1860-1935

Early in the nineteenth century whaling boats from the United States and other western powers began to appear in Japanese waters to exploit the rich whaling grounds off her coasts. Their activities coincided with — and are widely believed to have caused — a drastic reduction in the number of whales caught by the Japanese in their nets, so whalers found themselves having to cope with the situation in several ways. Some tried to open up new catching grounds using their established net methods, while others tried to introduce the American-type whaling, using hand-held guns and bomb lances. Neither had much success and Japan entered a new age in whaling only with the introduction of the Norwegian method, characterized by a bow-mounted harpoon gun on a steam-powered, ordinarily steel-hulled ship.

The Norwegian method was first used in Arikawa (Goto Islands) in 1897, but ended in failure. Two years later, however, Oka Juro, who had been on a study trip to Norway, established a company that was to become known as Toyo Hogei K.K. Using catcher boats bought or chartered from Norway and manned by Norwegian gunners, this company managed to survive the troubled years as it learned the new technologies. By acquiring new Russian catcher boats captured during the Russo-Japanese War, in 1906 the company was able to start catching whales in the waters off Ayukawa in Miyagi Prefecture. This successful attempt marked a turning point in Japanese whaling, and many new whaling companies and land stations were established in the following years along the Pacific Coast of Japan. This ushered in the start of Japanese large-type coastal whaling, discussed in more detail below.

Within five years, Japanese whalers were active throughout Japan, the Kurile Islands, Korea, Taiwan, and Ogasawara, catching large whales and bringing them to processing stations on land. In 1934, however, a mother ship was bought from Norway and Norwegian supervisors were employed, to allow the first Japanese fleet to be sent to the Antarctic. Within a few years, fleets had also been sent to the North Pacific and pelagic whaling had surpassed large-type coastal whaling (LTCW) in economic importance (Tatou 1985).

During this same period other pre-modern forms of whaling also influenced the development of modern whaling, particularly of small-type coastal whaling. In pre-modern times, the net whaling operators along the Kumano coast (including Taiji) often allowed their whalers to catch small cetaceans such as pilot whales and dolphins outside the net whaling season. This hunting of small cetaceans was different from net whaling operations in that it involved individuals, rather than organized groups, who worked independently as and when they felt like it, and who used hand harpoons from individually owned boats crewed by small groups (generally no more than seven men, a considerably smaller crew than that of the net whaling boats). After the collapse of net whaling in Taiji following a disaster in 1878 when 111 whalers lost their lives (cf. Taiji 1982), this traditional form of pilot whaling became of greater importance in Taiji. Attempts were made at driving pilot whales into nets, but without much success. After the introduction of the semi-diesel engine and the invention of the Maeda five-barreled harpoon gun in 1904 (probably stimulated by the development of LTCW harpoon guns), traditional vessels (in Taiji called *tentosen*) were outfitted with these innovations and pilot whaling became a viable form of whaling which continued into the 1970s.

In the early 1930s a seven-ton pilot whaling vessel was brought to Ayukawa from Taiji, and by outfitting this boat with a newly introduced 26 mm Norwegian harpoon gun it became possible for the first time to hunt minke using a small vessel. The Norwegian gun was mounted behind the Maeda gun which was used to fire the first harpoon; the 26 mm gun was used to fire the second, and fatal, shot. Experimentation in Ayukawa led to modifications of boat design, and eventually the Maeda and 26 mm guns were replaced with a more powerful 50 mm harpoon gun of Norwegian design. The new designs thus developed proved their worth and led to the general adoption of small-scale whaling boats (generally 15 to 20 tons) used for catching minke (Omori, ms.).

By about 1935, therefore, three distinct types of whaling had emerged: large-type coastal whaling (LTCW), pelagic whaling, and small-type coastal whaling (STCW). In the following section we will be taking a closer look at each of these types of whaling in order to show that, in spite of certain differences between them, there are striking similarities in the three types and that they complement each other in such a way that we feel justified in talking about the concept of an 'integrated whaling culture.'

THE ORGANIZATION OF PRODUCTION

Any type of whaling can be broken down into a series of distinct components which represent stages of production. In this section we will attempt to outline the main features of each of the three types of whaling defined above, in order to bring out structural similarities and historical continuities among differ forms of whaling that have existed in the past and still exist today. In particular we will show that there is a sharp division between activities involved in hunting and processing in all types of whaling — a division which transcends differences among the three types of whaling under discussion.

Large-Type Coastal Whaling (LTCW)

Large-type coastal whaling is characterized by the species it pursues — sperm whales and the larger baleen whales (excluding minke) — by the scale of the boats (which were

often the same as those catcher boats used in pelagic whaling), by its reliance on land-based processing, and by the absence of mother ships.

In LTCW, each catcher boat (varying from 100 to just over 600 tons in size, with crews of roughly 20) was a separate unit able and expected to make all decisions connected with hunting whales, including decisions about where and when to initiate a hunt.

Within seasonal and geographical limitations imposed by the authorities, the gunner on the catcher boat decided the whaling grounds to be worked for each trip, basing his decision on his extensive knowledge of seasonal migration patterns, as well as on information obtained from such natural phenomena as tides, currents and wind. He would also observe the activities of fishing boats.

Once the boat reached the hunting ground, the actual search could begin. In general four men headed by the bosun (boatswain) gathered at the masthead to keep a look out for whales. Constantly monitoring the water temperature, as well as changes in water colour and wave patterns, the crew searched for where different currents met, knowing that this was where whales satisfied their appetites on fish, krill, squid, and other creatures. Sighting of seabirds was of great importance (as could be the presence of dolphins) since these signified the presence of whales in the area.

The next step was to look for the spout of a whale. An experienced whaler could tell from the spouts what species had been sighted, the direction in which the whales were moving, and, in some cases, how many were present. If the whale could be hunted, the catcher boat would then embark upon the chase. Here traditionally there was very close cooperation between the bosun at the masthead and the gunner who stationed himself initially on the bridge of the catcher boat. The bosun sent instructions verbally (via the voice pipe or by microphone) to the ship's engineer relaying orders about the speed and direction of the boat. However, it is important to point out that it was in fact the gunner who was in charge of the catcher boat throughout the hunt, even though he might delegate authority to the bosun in the early phase of the chase. As the catcher boat closed in the gunner moved forward to the harpoon platform and took over firm control of the final approach to the whale.

In the past, both the gunner and bosun needed to have as near perfect as possible a knowledge of whale behaviour for the pursuit to be successful. Their roles were, however, modified by the invention of an echo sounder known as the *geitanki* (literally, 'whale searching device'), introduced on all types of catcher boats from about 1960. The *geitanki* is both a sonar-like device that can be used to actively locate whales through returned echoes and an apparatus that can also simply passively receive the sounds of whales. The device was of use only after a whale had already been visually spotted and the boat had approached to within catching distance. If turned on too early, the signals emitted by the *geitanki* would scare the whale away. Once the whale was in range, catcher boats equipped with a *geitanki* could pinpoint precisely the presence of a whale, together with its direction and distance from the vessel. It was particularly useful when the whale dived and became invisible to the bosun, since — by tracing the path of the whale under water — it permitted the gunner to position his vessel perfectly for the final approach to the whale. The innovation also allowed catcher boats to follow whales throughout the night and hence enable them to take up the final stages of the hunt the moment daylight returned.

More importantly, however, the invention of the *geitanki* affected the role of the gunner aboard the catcher boat during the chase, in that his detailed knowledge of whale behaviour and the likely movements of the type of whale being pursued were no longer as important as they used to be. This made the difference between good and bad gunners less obvious than it had previously been. Moreover, whereas in the old days it was the relationship between gunner and bosun that was vital for to a successful pursuit, a new line of communication was now set up between the gunner, bosun and the sonar apparatus operator (*geitanshi* or *tsuigeishi*), who was himself a new addition to the composition of the catcher boat's crew.

Indeed, the decline of the authority of the gunner on the catcher boats mentioned by informants appears to have coincided with the introduction and adoption of the *geitanki*. The fact that considerable care was taken to ensure that the sonar operator did not infringe upon the sphere of influence hitherto wielded by both gunner and bosun indicates that this technological innovation brought about a potential source of conflict in crew organization aboard the catcher boats. For example, *geitanshi* were careful not to make any statements that might suggest that they were issuing orders about the vessel's course, and instead restricted themselves to reporting simply the location of the whale. Moreover, the fact that the operator now gave information about the whale's movements over the boat's loudspeaker system meant that what was once secret knowledge and once of the main sources of power supporting the gunner's authority now became shared knowledge, allowing other crew members to assess the performance of the gunner and of the bosun.

In order to shoot a whale, the catcher boat had to pursue it to within a range of 40 to 60 metres, after a chase of perhaps several hours before this close an approach became possible. In the final stages the gunner manoeuvred his vessel so that it approached the whale at an idea angle of about thirty degrees. Depending on the species, the gunner may have had as little as two or three seconds in which to take aim and fire, but he also had to take into account such factors as the distance between the catcher boat and the whale, the absolute and relative speeds of the two, wind and wave conditions (preferred timing being when the bow of the boat is rising), and acquired knowledge of the behaviour of the whale itself (for a gunner's account of shooting techniques, see Tanaka, 1985). Before the invention of the exploding harpoon, the whale was not killed instantly, and a second harpoon (*niban*

mori) — sometimes aimed by the apprentice gunner — had to be fired. The introduction of the explosive harpoon made a second harpoon unnecessary in most cases, and in this respect, modified the on-board training of new gunners to some degree.

The next stage was marking and securing the dead whale. Large baleen whales such as blue, fin and sei, were in general pumped full of air to keep them from sinking — something which was not necessary for whales rich in oil content such as right and sperm whales. The carcass was secured to a buoy and marked by a flag and, in later years, a radio transmitter.

Finally, the whale was brought back to land. It was the gunner's task to decide when to collect whales and bring them back to the land station, marking the end of a hunt that may have lasted several days or may have been concluded in a single day if the hunting was successful. Here again the species of whale had an important influence on his decision. Baleen whales, for example, had to be brought back to the land station promptly since they were primarily consumed as fresh meat, and prices fell sharply with deteriorating quality; sperm whales, on the other hand, which were prized mainly for their oil, or used for preserved meat — either salted or canned — did not need to be towed to land so quickly. Moreover, in some places like the East China Sea, where the water temperature is comparatively high, baleen whales were first bled by an incision in the neck and then in addition had their entrails removed. In deciding to convey whales back to land, other considerations included sea conditions, speeds of currents, the distance of the whales from the land, and of course the number of whales caught.

On being secured to the side of the catcher boat, whales of all species had the corners of their flukes cut both to make their handling easier and to ensure that the carcass was not lost should wave action snap the tail of the carcass. All species of whale were also bled at this stage, if this had not already been done.

In LTCW the whale had to be processed on specially designated land stations, and station operators had to pay compensation to the local fishing associations for the inconvenience caused to fisheries by whaling operations. Seven main processing activities were carried out at these land stations, although some of the tasks were sometimes subcontracted elsewhere: flensing, oil extraction, salting, icing of fresh meat, crushing of bones for fertilizer production, drying of sinews, and boiling of entrails for food. Subsidiary tasks occasionally undertaken by employees at land stations included the cleaning of sperm whale teeth and baleen, for use in craft production.

When the catch boat reached the harbour, it was met by a small tow-boat that came out to take the whale in tow as far as the slipway. There it was winched up on shore, tail first, the winches being operated by experienced workers who were not, however, exclusively specialists in this task alone. Flensers (*kaiboin*) would often start their work while the whale was being dragged up by the winches onto the slipway, since they could thereby exploit the movement of the carcass in making the first cuts lengthways in it. Otherwise, they would wait until the carcass had been winched right up the slipway before making long cuts along its sides and, as soon as the carcass came to a rest, along the whole of the topside of the whale before cutting its tail off. (The fluke was put aside to be sliced up later, and then salted or transported to salting facilities, if these were not available at the same station.) The winches were also used to peel off the blubber while the flensers carefully separated the blubber from the meat. The blubber was put to one side, while the winch operators proceeded to peel the meat from the carcass and the flensers carefully trimmed the meat from the bone.(4) The meat was then cut into blocks 30 centimetre across, before it was further cut up into smaller chunks (sometimes by less skilled workers locally hired on a daily basis during especially busy periods) and placed in an ice tank for cooling. The same was done for meat scraps.

Next, the blubber was cut up in a similar manner into 30 centimetre wide strips. Since blubber had different uses, depending on the species of whale from which it was taken, some was used for salting and some for oil extraction. In the latter case, the large blocks were taken to the boiler section of the land station, where they were further cut up and placed in the boilers and prepared for oil.

Other portions, including the ventral grooves, dorsal fin, flukes, flippers (in the case of the humpback whale), skin of the whale, and — in the days before refrigeration enabled large quantities of red meat to be consumed as fresh meat — red meat in general, were all sliced and salted.

The remaining skeleton was sawn into pieces, before being taken from the land station to nearby fertilizer plants, which were often operated by local people, where it was crushed, dried and made into fertilizer. The sinews were also removed by a subcontractor who washed, stretched and dried them in preparation for musical instruments, tennis rackets, etc.

Fresh intestines and other organs such as the heart, liver, esophagus, and kidney were boiled, either at the land station, or elsewhere by a subcontractor. If these entrails were not fresh, or those employed at the land station had no time to process them, they were sent with the bones to be made into fertilizer.

Pelagic Whaling

In pelagic whaling, a procedure similar to that described for LTCW was followed, but there were certain important differences in the search and carcass collecting phases, on the one hand, and in processing, on the other. These differences were reflected in the composition of the pelagic whaling fleets, which varied somewhat from fleet to fleet, between catching grounds and over time. During the 1951-52 Antarctic season, for example the (Taiyo operated) Nisshin-maru fleet consisted of a total of 23 vessels: the mother ship (*bosen*), two salting/freezing ships, two freezing

ships, four transport carriers, one tanker carrying diesel oil for the fleet, ten catcher boats, two towing boats, and one search vessel (Maeda and Teraoka, 1952). In 1976, on the other hand, the Nihon Kyodo Hogei fleet operating in the North Pacific, consisted of a mother ship and 9 catchers only. Both freezing and salting were done on the mother ship, and no other support vessels were needed because the hunting grounds were relatively close to Japan.

A major difference between LTCW and pelagic whaling, so far as hunting is concerned, was that the hunting phase of whaling was closely coordinated and directed by a commander-in-chief (*sendancho*) from the mother ship. Basing his decisions on international whaling regulations and information on whale behaviour and sea conditions accumulated from previous years' whaling trips, the commander-in-chief first decided on the general area in which his fleet would pursue their whaling activities, and then sent out his search vessel to move ahead of the mother ship (*bosen*), reporting back by radio when sightings of whales were made. Another search strategy, especially before the official hunting season for the economically more important baleen whales opened, was to hunt for sperm whales using the hunting as an opportunity to carry out general reconnaissance. On the basis of these various kinds of information, the commander-in-chief deployed his catcher boats, ordering them to maintain a certain distance between themselves and to proceed towards the area in which whales were sighted. From this point, the catcher boats took over the hunt and the search, pursuit and killing of the whales proceeded in exactly the same way as that described above for LTCW.

The manner of securing and retrieving the carcass, once a whale had been killed, was another major difference between LTCW and pelagic whaling. This concerned the bringing of the carcass back to the processing facilities. As in LTCW, the dead whale had to be secured with floats or pumped with air in order to prevent it from sinking, while the catcher boats proceeded with the hunting of other whales in the area, leaving the carcass to be collected and taken back to the mother ship by special tow boats. Before a catcher boat left the whale, however, its gunner made sure to attach a long bamboo pole to the carcass with a flag on top to identify ownership and which catcher boat was responsible for the successful killing. A radio transmitter attached to the carcass enabled the collecting vessel to identify the whereabouts of the whale and tow it back to the mother ship for processing.(5)

A pelagic fleet operated on the open ocean for months at a time. This influenced the range of products into which whales were processed, as well as the work organization of the processing fleet, which included the mother ship for flensing and oil processing, and other ships where fine cutting, salting, and freezing were carried out. And such things as bones, which on land would have been processed into fertilizer or other products, were as much as possible, on shipboard, processed into oil. And, of course, at sea sub-contracting and employment of extra workers during busy seasons were impossible. The work on the fleet nevertheless resembled that of the LTCW land station.

The persons working on mother vessels were organized into two main groups: the crew (*ogata sen'in*) of roughly 90 operating the ship, and an additional 250 managers and processing workers (*jigyo-in*), who were further subdivided between the flensing section and the factory (mainly oil extraction) section (Nihon Suisan, 1966). There were two flensing decks on a mother ship, one at the stern where rough flensing was done and one in the center of the ship where secondary cuts (*saikatsu*) were made.

As processing of a whale began, the carcass was winched tail first up the slipway at the stern of the boat by workers who were specially employed for this task. Then the flensers (*kaibo-in*) cut off the tail which was winched to the second flensing deck where it was cut up later by butchers (*saikatsu-in*) into smaller pieces for salting. The flensers, at least one on top and one on each side of the whale, cut the blubber along the length of the whale, before it was stripped off the meat by the winch operators.

The blubber was hauled by the winch to the front of the flensing deck where butchers cut it up in blocks 30 centimetres wide with the help of *kagihiki* ('pullers') who used hooks to spread the blubber as it was cut open by the butchers. Sometimes, the latter then separated the skin from the blubber so that the skin could be further cut up into 3 by 30 centimetre pieces for salting by other specialists (*enzo kakari*), either on the mother ship or on special salting ships. Most of the blubber was sent down through the deck for processing in a Hartmann-type boiler by those employed in the boiling section (*saiyu-bu*).

The next step in processing involved the flensing of whale meat. Since the *onomi* is particularly important in Japanese dietary tastes, the flensers were particularly careful when cutting this kind of meat, found near the whale's tail. They then separated the meat from the bones, an extremely skilled operation, after which the butchers proceeded to cut the meat up with the help of the pullers , who would ensure that the membrane covering the meat was always turned upside so that cutting was easier (again using hooks to help with the cutting). Until the late 1940s, the meat was then shipped by dories from the mother vessel to a separate boat (*fuzokusen*) where it was further cut up into smaller pieces before being salted by about 180 workers employed there. From the late 1940s, efficient freezing ships were gradually introduced, but freezing did not entirely replace salting. As whaling operations contracted in the late 1970s and 80s, mother ships were refitted so that, in addition to their previous functions, they were also able to freeze, salt and store meat, blubber, ventral grooves and entrails until these were taken back to Japan by the transport ships that came to meet the Antarctic fleets.

As a final stage in the flensing operation, the remaining meat scraps were scraped off the skeleton by specialists, before the bones themselves were handed over to another

set of workers who cut them into small pieces with chain saws. They were then crushed and, unlike at LTCW land stations, put into a Kvaerner-type boiler operated by people from the boiler section. The remaining entrails were also processed into oil.

It should be emphasized that the relative importance of the various products prepared by a pelagic fleet changed over the years as a consequence of changes in the market for whale products. In the 1960s the demand for whale oil decreased. At the same time the number of captured whales also declined, which caused a higher price for whale products processed for human consumption. This led to a marked shift in the use of blubber from oil extracting to freezing and salting for food.

Small-Type Coastal Whaling (STCW)

As we have seen above, hunting of small-type cetaceans has been practised in Japan in some form or another for many centuries, but the origins of what is now commonly referred to as small-type coastal whaling (STCW) can be found in the beginning of minke whaling off the Japan coast in the 1930s. This type of whaling is characterized, firstly, by the species of whale caught (minke, Baird's beaked and pilot whales), and secondly, by the small size of the whaling vessel (between 15 and 50 tons) (see Akimichi et al. 1988).

Although the hunting season is now fixed by Japanese government regulations, STCW has in fact been carried out when whales are close to the coast. This means that the administratively regulated season also has been an ecological season. At the same time, the fact that the boats are small means that STCW has been essentially a single day hunting operation, for the boat leaves its harbour in the morning on a clear day when the sea is calm and returns in the evening after dark. Only very rarely, when the sea is very calm, does it stay out overnight.

The crew of each whaling vessel is small compared with other types of whaling catcher boats, consisting of between five and eight persons (compared to between 16 and 23 crew on a pelagic fleet catcher boat). Here the gunner has had greater influence than was the case in the LTCW and pelagic operations, and may often be gunner, captain and owner of the boat all at once. Other crew members consists of an engineer and deckhands only, there being no specialized communications officer employed, even though there is, of course, advanced radio communications equipment on board the whaling vessel. It will be appreciated that this lack of specialization among other members of the crew contributes greatly to the overall authority of the gunner who takes over complete control of the vessel once it leaves port.

As in LTCW, the gunner first decides the general area in which he will conduct his daily search. This will be based on past experience, seasonal variations of currents, whale migrations and general availability of food for the whale, together with information supplied daily by local fishermen. As in LTCW and pelagic whaling, he pursues his search carefully monitoring the temperature of the water and the flow of the currents, while looking for other clues such as the activities of birds, dolphins, and large fish. At the same time, he has to have a more specialized knowledge of the topography of the seabed than is the case in LTCW or pelagic whaling, since the STCW boats operate closer to shore and in shallower waters, the depth of which also affects the behaviour of the whales sought, especially Baird's beaked whales. A whale will either be sighted directly or be tracked on the basis of information received from fishing vessels at sea which will relay news of sightings directly by radio to the whaling vessel with the expectation of reward of whale meat should the information lead to a kill.

In STCW, both the structure of the whaling vessel and the type of whales hunted affect the way in which the chase is carried out. For example, a slow boat in search of minke whales may launch a small power boat which it sends out to slow down the whale and drive it eventually towards the whaling vessel.(6) A fast boat, on the other hand, obliges the whale to swim very fast and so prevents it from diving — in which case it is overtaken by the whaling vessel on its own. Unlike minke whales, Baird's beaked whales dive very deep for long periods (up to 45 minutes) at a time. This means that the gunner has to try and work out where the whale would resurface and position his vessel accordingly. It is important to note that the echo sounder used in LTCW and pelagic whaling was not used in STCW as a tracking device, in part because the beaked whale is extremely sensitive to its signals, and hence easily scared by it.(7) Therefore, the gunner's traditional — and secret — knowledge remained extremely important to success in the pursuit of the whale. Moreover, his skills are tested much more fully when it comes to sheeting the whale, since the target is smaller and the whaling vessel itself is much less stable (because of its small size) than were LTCW and pelagic catcher boats.

Once a whale has been caught, and provided there are no other whales in the vicinity, the whaling vessel will usually secure the carcass by tying its tail to the side of the boat, bleed it, and then tow it back to the landing station. There are two exceptions to this rule. Firstly, if there are other whales nearby which the whaling vessel wishes to pursue, it will attach a radio buoy to the carcass, before continuing its hunting activities. Secondly, in Hokkaido waters, rough flensing of minke whales is permitted on board the whaling vessel, in part because there has in recent years been only one authorized land station in Hokkaido (at Abashiri). Since minke whale meat requires prompt flensing to preserve its freshness, on board flensing is essential to meet demand, though whalers point out that there is some trade-off in terms of the shrinkage of the meat after on-board flensing occurs. The crew first winches the whale up onto the flensing deck situated in the stern of the vessel, before the expert flenser (a land-based specialist from Honshu, who is added to the normal crew when vessels operate in Hokkaido waters) flenses the whale with the help

of other members of the crew. The flensing operation usually goes as far as the second stage only, in which the 30 centimetre chunks of meat and blubber are prepared prior to finer cutting up into smaller blocks, which will be undertaken on land.

With the exception of minke taken in Hokkaido waters, however, all whales taken in STCW must — according to law — be taken back to designated land stations for flensing. The STCW flensing stations are generally smaller and simpler in layout than those used in LTCW. Since nowadays whale blubber is used for food and not for extraction of oil, there are no boilers operating.(8) Though some whaling operators, like those in Abashiri, may process some whale meat and blubber themselves in small workshops, most processing such as the salting and drying of meat, as well as the preparation of fertilizers and so on mentioned for LTCW, are carried out by other processors who specialize in such activities and who purchase their necessary raw materials either directly from whaling operators or through middlemen. The methods of sale vary from port to port and among different species.

The smallness of scale of the STCW land stations thus gives rise to a structure of organization in which very few full time specialists are employed. The only experts are the chief flensers who separate the meat from the blubber, and cut the meat from the skeleton of the carcass. Other tasks may be carried out by women and old people, who form the bulk of the work-force and are employed on a casual part-time basis, coming from the locality in which the station is found. Middlemen and distributors my lend a hand with flensing, and when necessary catcher boat crews may work on flensing as well. Not surprisingly, perhaps, the speed with which the work is conducted is slower than in pelagic waling mother ships or on LTCW land stations.

SIMILARITIES, CONTRASTS, AND LINKAGES

It can be seen from the above description of net, large-type coastal, pelagic, and small-type coastal whaling that there are invariably two main sets of activities common to all types of whaling. One set relates to catching the whale; the other relates to processing it. Within each of these sets of activities there are certain similarities, as well as dissimilarities, among the four types of whaling described above.

Let us start with the main dissimilarities in activities connected with catching. First of all, there is an obvious disparity between pre-modern net whaling and modern methods of whaling in the selection of hunting area, which was subject to local feudal government permission in the case of net whaling, but not in that of coastal whaling today; in the generally static nature of the search phase in net whaling, whereby whalers had to wait for the whales to pass by rather than actively go out and look for them; and in the use of several boats to drive the whale towards the net, as opposed to modern methods of using fast, powered boats equipped with harpoon guns. (9)

Secondly, there are disparities between the various types of modern whaling methods. For example, in pelagic whaling a special vessel searched the area for whales and relayed information back to the mother ship, whereas in coastal whaling (both large and small) catcher boats worked totally independently. Moreover, whereas, in STCW, the echo sounder is used as a device to bring the minke whale to the surface, in LTCW and pelagic whaling it is used to help the catcher boat keep track of all types of whales (ASDIC). Finally, in pelagic whaling, specialized boats were used to collect whales and take them to the processing unit, whereas in coastal whaling, the catcher boat itself performed this task. However, it should be noted that the use of specialized craft to tow the dead whale to be processed was also found in net whaling in pre-modern times.

This point brings us to a discussion of the similarities to be found in the catching set of activities. Many of these will have been apparent from our description of the four types of whaling outlined above, but it should be stressed that in all types we can break down the set of catching activities into five distinct phases: deciding on hunting grounds, search, chase, killing, and securement.

In deciding on hunting grounds, the gunner in the case of LTCW and STCW, or the commander of the fleet in pelagic whaling, relies on his knowledge of whale behavior accumulated through long experience, and on information obtained from recent hunts or supplied by other vessels in the same waters. Considerations of fuel consumption and time factors enter into his decision.

Similarities in the search phase include the use of look-outs and signals (which may be secret, as in pelagic whaling), the monitoring of natural environmental phenomena, and the identification of the species of whale sighted. The same set of abilities, which includes good vision, concentration, and keen senses, is considered to be essential to being a good whaler in all types of whaling.

In the chase phase, we find close cooperation between the harpoon/gunner and his crew, the supreme authority of the harpooner/gunner on board his vessel and the prestige accruing to his position. In addition, the harpooner/gunner necessarily requires a good knowledge of the whale's behaviour in order to anticipate its movements and reactions.

We find that in the killing phase, the skill of the harpooner/gunner in bringing his vessel to within range of the whale, his accuracy in shooting it, and the timing of the shot itself are all essential. All types of whaling make use of harpoons equipped with ropes. The fact that one harpoon was usually insufficient to kill a whale (before the introduction of the exploding harpoon) has meant that new harpoonists/gunners could be trained by allowing them to fire subsequent shots.

Finally, in the securement phase, the whale has to be prevented from sinking, either by being pumped with air, or by having floats attached to it, before it can be towed

away to the processing unit. A great care was taken in order to prevent the damage or loss in quality to the meat of the whale caused by the waves and high water temperatures while it was towed back to the port.

In the processing set of activities, there are more similarities than dissimilarities among types of whaling, and the disparities are fairly minor. On a land station, for example, bones tend to have been used for fertilizer and entrails for food, whereas on a mother ship they have both been boiled to extract oil. Some land stations, too, may subcontract part of the processing (bones, sinews, and intestines) rather than carry out all aspects as on the mother ship.(10) In other technological respects, however, the processing that takes place aboard the mother ship and the other non-hunting ships of the pelagic fleet is for all practical purposes identical to the land station, so that the processing fleet can be conceptualized as a floating land station.

Unlike Norway, the Soviet Union and other whaling nations, which used most of whale for oil extraction only, in Japan there were markets for other products that were more valuable than oil, and which thus made it financially rewarding for whaling enterprises to diversify their output. For this reason, the work organization of Japanese mother vessels is in some respects more similar to the organization of pre-modern land stations than to, say, the present-day work organization of Norwegian or Russian mother vessels.

The use of the whale as such has changed very little over time. With very few exceptions, the Japanese — unlike whalers in many other nations — have sought to make total and variegated use of the whale. In addition to the full utilization of red meat for food and blubber for oil and food, the fact that various usages were found for the skin and flukes (as salted food), the bones (fertilizer or oil), entrails (fertilizer, oil or food) and for baleen, teeth and sinews (for craft production) has affected the processing of the whale to such an extent that this st of activities is very distinct from those found among other whaling countries. This is true, moreover, for all the four types of whaling described.(11).

The point to be made here is that, because each part of the whale is put to different uses and because various types of red meat are differently valued on the market, the various flensing activities have to be done with great care. This means that the early stages of flensing require great skill and that only local casual day labour can be employed, if at all, for the later stages of processing.

Another remarkably persistent feature found in whaling in Japan from pre-modern times to the present day is the fact that those who man the whaling vessels have been recruited from specific, occupationally specialised villages that have been widely dispersed geographically. In pre-modern net whaling, for example, it is known that the Misaki net group (in Hirado) employed crews for 27 hunting boats (*seko-bune*) from 18 villages, while the crews of the 38 hunting boats in the Katsumoto group (Iki) were recruited from 17 villages, all in the northern Kyushu area. Characteristically, the harpoonist (*hazashi*) for each *seko-bune* recruited his own crew, mostly from his own village (Hidemura and Fujimoto 1978: 167; Hidemura 1952: 88; Kalland 1986: 37-9). In the two examples cited above, only one boat from the host village for the whaling group participated in the former group, and none in the latter. Most of the net groups in Kyushu employed net makers from several villages in the Inland Sea area, and these workers also crewed on the net boats. In more recent times, too, certain villages — like Taiji in Wakayama Prefecture — specialized in crewing on whaling vessels. Moreover, we find that those employed on fisher boats in pelagic whaling tended to come from the same area and were often recruited informally through the gunner and his wife. This latter trend is even more strongly observable in STCW, and it needs to be stressed here that personal connections with the gunner were a vital means of recruitment in all types of modern whaling.

In processing as well, we find different types of recruitment patterns. In net whaling, for example, specialists (particularly flensers) were often employed from a wide geographical area, whereas unskilled laborers tended to be casually employed on a day to day basis from local communities. With the opening up of land stations for LTCW in the early part of this century, the story was repeated as expert flensers were brought in from villages in the south of Japan that had traditionally specialised in processing, while unskilled labour was locally recruited.(12) In the same fashion as was true for catching activities, particular villages tended to have specialised knowledge of processing skills, but as was the case of Arikawa and Ukushima in the Goto archipelago, some villages specialized in catching techniques and others in processing activities.

What we find in both pre-modern and modern Japanese whaling, then, are two sets of activities centering on catching and processing, which are accompanied by two sets of knowledge. Not surprisingly, the career patterns of those employed in each set of activities are different. There is career mobility between LTCW, pelagic whaling, and STCW, but not generally between activities relating to catching and processing. This might seem to imply that there are two isolated spheres of knowledge, but in fact this is not the case because there are a number of important linkages that serve to bridge the gap between them, and which thus justify the concept of an integrated whaling culture.

One of the main links, especially in pelagic whaling and LTCW, is that of the whaling company which acts to create barriers between itself and other companies, while at the same time enclosing its own employees in an identifiable group (cf. Clark 1979; Nakane 1970; Rohlen 1974, and others). Each company makes use of certain strategies such as rituals, songs, company newspapers, and former employees' associations (*OB kai*) to create the kind

of in-group feeling that so often is a feature of Japanese society.(13) In Arikawa, for example, whalers employed in the same company would go on a pilgrimage to one or more shrines before leaving for, and after returning from, a whaling trip (Kalland 1989). While the whalers were away, their wives would form informal groups based on company affiliation and make a monthly pilgrimage to the same shrines to pray for their husbands' safety and good catches.

Another way in which the whaling companies acted as a linking institution can be seen in the methods of informal recruitment practiced by whalers. As mentioned above, there is clear evidence that personal connections were vital in the recruitment of labour and that such connections allowed members of a whaler's family to enter into the same company, without necessarily being employed in the same set of activities (of hunting or processing) as the relative already employed there. This meant that there could be intergenerational differences in specialized knowledge within the same family, so that, whereas a father would be working on a catcher boat, a son might become a flenser (or vice versa); where an uncle worked as a boilerman, a nephew could be employed as a mechanic on a catcher boat; or brothers my be employed in a wide variety of occupations within the same company. However, the normal case was that such personal forms of recruitment were within the same sphere rather than between different spheres of activity. Thus, intersphere recruitment bridged activities without eroding their distinctiveness.(14) The existence of different specializations within a family group, however, enabled the free communication of specialized knowledge adhering to each of the two sets of activities emphasized above.

A persistent characteristic of Japanese whaling from pre-modern times has been the great mobility found among most types of whalers. This mobility has involved not only personnel, but skills and capital, as whaling groups moved from one locality to another, giving rise to widespread communication among whalers. Even as early as the 17th century, whalers made trips to other regions specifically to learn new technologies, and were invited by whaling and non-whaling settlements to teach those techniques. Those conscious efforts to diffuse technology throughout pre-modern times encouraged further mobility which in this century contributed to the building of whaling stations in various parts of Japan. Ayukawa is a prime example of this pattern. Thus, we find that there was, and still is, a shared knowledge and common background to whaling, transcending the locality in which any particular operation may be taking place, and based on the technology required to catch and process whales. A recent example of such mobility, entrepreneurship, and communication of technology is to be found in the way in which one whaling company, based in northern Japan, has decided to establish a land station in the south west part of the country, bringing in skilled workers from various parts of Japan for both catching and processing.

KNOWLEDGE AND IDENTITY IN STCW

Although we have argued strongly for the unity of a single whaling culture on the basis of the continuities and shared elements that may be found among the several forms of Japanese whaling discussed above, it is important to note as well the special characteristics that set apart STCW as a distinctive sub-culture within the larger Japanese whaling culture. This is because small-type whaling has historically been an integral part of the Japanese whaling complex existing in complementarity with large-type whaling, and performs today some of the traditional social and cultural functions which modernized and industrialized large-type whaling failed to maintain.

STCW is more egalitarian and more flexible in its organization and activities than LTCW, in part because it originates historically from pilot whaling rather than net whaling of large cetaceans, and in part as a result of its small scale. Thus, the bridges both within and across the two sets of activities, catching and processing, mentioned earlier are particularly apparent in STCW. In the first place, the crews on board vessels and processing teams are much smaller in STCW than in LTCW or pelagic whaling. This means that they are not confined to carrying out single tasks within each set of activities, but perform a number of different tasks therein. For example, the STCW gunner can be both captain and owner of his vessel. Moreover, anyone can go up to the masthead on an STCW vessel, whereas this is forbidden in pelagic whaling. On the land station, there is no specified winch operator, which means that this task may be performed by a flenser or even a sales manager, and the latter may act as unskilled labour in the final stages of cutting up the whale meat and blubber. A particularly good example of this kind of bridging across otherwise distinct sets of activities can be seen in the way in which crew members of the minke STCW vessels will help in on-board flensing of whales taken in Hokkaido waters. Again, in pelagic fleets, we find that there were separate sleeping and eating quarters for gunner and the catcher boat officers, on the one hand and for crew members on the other. On some STCW vessels, however, officers and crew share the same quarters and on one boat they all sleep in the same cabin. Thus the rigid social hierarchy found in pelagic fleets and LTCW catcher boats does not exit in STCW.

A second distinctive feature of STCW is the close ties between those working aboard the whaling boats and those on the land stations. Since whaling vessels are continually making day trips to and from a particular land station during the whaling season, members of both processing teams and whaling vessel crews are always in contact with one another. When a whale is taken, of course, they find themselves working in proximity. But when the weather is too bad for vessels to put to sea, crew and flensers may often socialize together during the day, as they may commonly do in the evenings. The social distance between the two groups brought about by their specializations — which is most obvious in pelagic whaling where members of catcher boats

will not visit the mother ship for weeks on end — is less pronounced in STCW.

Such close working and social relations are naturally transformed into ties between whalers and the local community in which the land station is situated. Informants frequently spoke of the way in which local villagers, including retired whalers and women, would gather down by the waterfront when whales were brought in to carry out miscellaneous tasks in return for gifts of whale meat. Indeed, the non-commercial distribution of whale meat among relatives and neighbours of those involved in whaling is remarkable. Not only was meat distributed widely every time a whale was taken, but on special occasions — such as the launching of a new whaling vessel, or the completion of the first catch of the season, for example — there was an extensive chain of gift giving involving whale meat and sake. Indeed, throughout the year, gift giving was a major activity in whaling communities like Ayukawa, and frequently involved exchanges between local residents and shrines and temples (cf. Akimichi et al. 1988: 41-51).

The commercial distribution of whale meat from STCW has, until recently, been very different from that practised in LTCW and pelagic whaling. In pelagic whaling, frozen whale meat used to arrive at various major ports before being nationally distributed via the central wholesale markets. In LTCW, too, although whale meat was processed in various local land stations, it was then generally shipped to the national central wholesale markets as and when thought fit by corporate managers in major cities. The distribution of products from STCW, on the other hand, has generally passed through local market institutions and thence into the hands of local brokers and middlemen who distribute the products locally and regionally. In this way, not only has the STCW distribution system satisfied local demand reflecting local tastes; it has also provided, as in Ayukawa, significant financial support for local market institutions, thereby benefitting the maritime community as a whole (Bestor 1989b).(15)

Another important aspect of community identity is to be found in the use of whale meat in local cuisine — a subject about which all informants talked endlessly throughout Japan. Food preferences are closely connected with the history of whaling in particular communities. In Taiji, for example, people prefer pilot whale; in Wada-ura, they have a particular liking for Baird's beaked whale; in Ayukawa and Abashiri, minke is the favourite type; in the Tohoku region, sperm whale was preferred and in the northern part of Kyushu, fin whale is widely eaten.(16) These general food preferences are accompanied by preferences in preparation of the food (cf. Akimichi et al., 1988: 67-70, and 92-5). Whalemeat is always served in community gatherings, and residents of places like Ayukawa and Arikawa regard this form of food — either cooked or raw — as an essential element that reinforces their identity as whaling communities, and is particularly important in celebrations. This community identity is further strengthened in ritual events, where people offer whalemeat to the deities.

The role of ritual in Japanese communities in general is, of course, important since the local shrine in many respects defines both geographical and social perimeters of the local community (Yamamoto 1978; Bestor 1989a). In whaling communities, there are many rituals involving shrines. Before the season starts each year, for example, whaling crews in Ayukawa visit Kinkazan to pray for a good catch and safety at sea, and during the whaling season itself there may well be daily visits to the local shrine by female members of the whalers' families.(17) Other festivals involve thanksgiving ceremonies and the dramatization of whaling techniques (cf. Akimichi et al., 1988: 63).

Apart from these Shinto ceremonies, there are also Buddhist rites in local whaling communities. There are two main rites. The first involves a 'memorial service' (*kuyo*) designed to appease the soul of the dead whales and to permit them to rest in peace and not torment whalers in future as 'hungry ghosts' (*gaki*). The second is for the soul of the whalers, to forgive them and compensate them for their kharmic demerit acquired by taking life. This *kuyo* is particularly important for gunners, of course, but the whole community (particularly in Taiji) is involved in the memorial rites.

It can be seen, therefore, that not only is there a merging of specializations in STCW, but that all those involved in separate sets of activities — owners, whalers, and distributors — come together in ritual activities. This serves to strengthen the sense of community that is fostered by on-shore socialization among whalers, by shared food preferences and ceremonies in which food is eaten together, and by the sharing of meat among relatives and neighbours in the various whaling communities. In these respects STCW is very different from LTCW and pelagic whaling.

CONCLUSION

In this paper, we have outlined the historical background of pre-modern and modern whaling in Japan, before describing the three main types of whaling practised in Japan in recent decades — large-type coastal, pelagic and small-type coastal whaling. By comparing these types, we were able to show that there are two distinct sets of activities concerned with production which show remarkable continuity within the catching and processing spheres, respectively. At the same time, the differences between these spheres are also bridged by a number of social and cultural institutions (which are particularly apparent in STCW where whaling is closely integrated with local community life). These continuities and similarities, and the several bridging mechanisms, have enabled us to argue for the existence of an integrated whaling culture in Japan.

In conclusion, we may ask what are the main characteristics of this whaling culture. In the first place, there is a consistent and diversified usage of whale

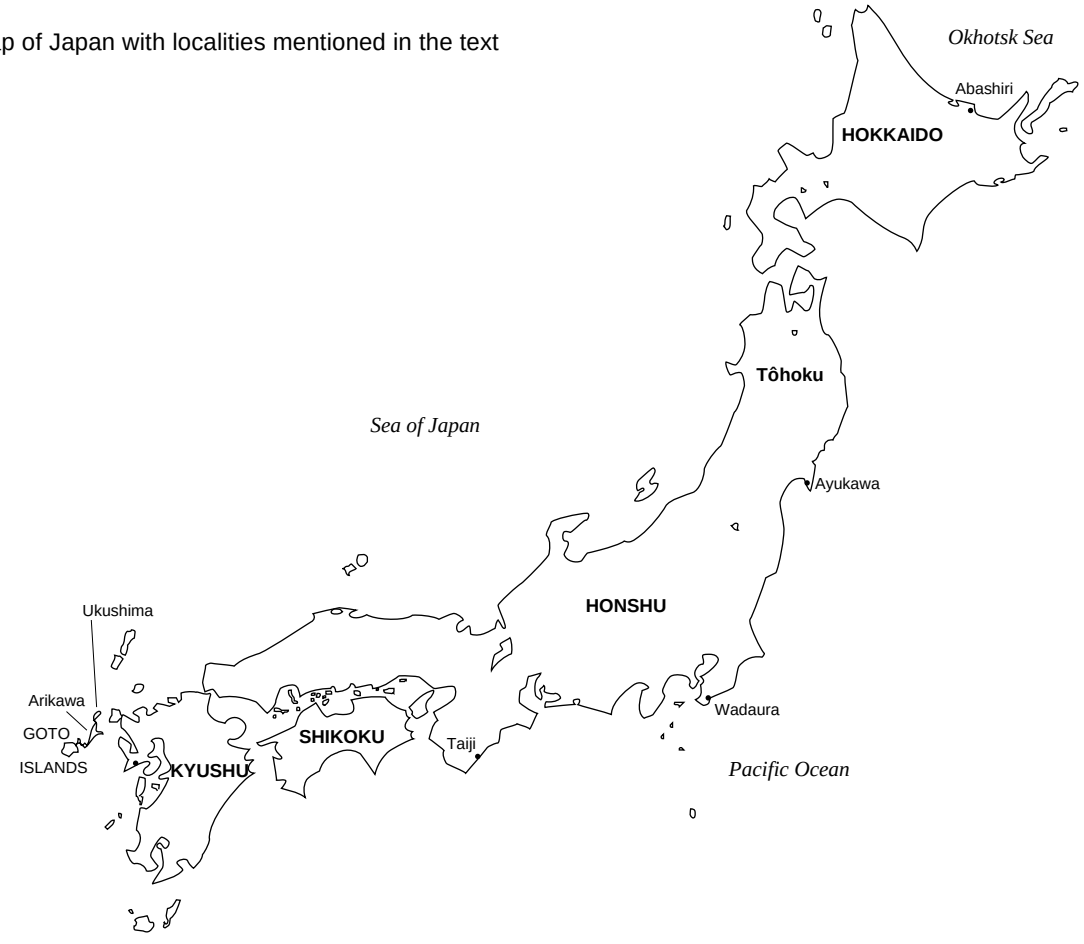
products which has changed little over the centuries. Different parts of the whale have been used for food, oil, fertilizer, and handicrafts both in pre-modern and modern times, and meat in particular is classified into a wide variety of products.(18) Such fine categorization is accompanied by a diversified knowledge of cooking, which means that the whale itself has to be processed very carefully and in particular ways. Consequently, Japanese whalers are confronted with a number of technical and organizational problems, common to all three types of whaling, but not found in other whaling cultures. As a consequence of this persistent tradition in the use of the whale as food, we find that there is a strong sense of continuity in the organization of activities relating to the catching and processing of whales.

The organizational continuity found in whaling is not confined, of course, to whaling alone, but is a pervasive feature in other spheres of Japanese culture as well. For example, there is the concept of sea rights and tenure systems, which have over the centuries regulated relations between producers and host villages. The former have always made payments to the latter as a form of compensation for causing local people inconvenience, and we find that whaling operators make similar payments and may (in the case of SCTW) distribute their products through the local fish market, thereby serving the important function of subsidizing other activities in the host communities.

This notion of give and take, and the general sense of reciprocity found in Japanese society, can be seen in the way in which whale meat is freely distributed as gifts among the friends and neighbours of whalers. In this respect, meat is used as a force to stabililze relations between producers and host communities, as well as to give each community a distinct identity vis-a-vis other communities in the area.

Reciprocity is also apparent in the relations between man and the deities, and the rituals that he conducts to

Map of Japan with localities mentioned in the text



appease them. Such ritual activity is frequently a result of people's attitudes toward nature and life, and the festivals that result help integrate the whaling community as a whole. By combining its indebtedness to the village with such ritual activities, the whaling operators themselves become integrated more totally into community affairs. Although this tendency is strongest in STCW, it was also found in other types of whaling in the past.

These continuities in whaling, on the one hand, and Japanese culture, on the other, have blended into a unique form of adaptation which, owing to the activities of certain groups, is now in danger of extinction. Mankind would be the poorer for such a loss.

NOTES

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End notes

1. The partial definition of culture presented here owes much to the work done by anthropologists interested in the relation between society, culture and environment (e.g. Barth [1956] on the concept of 'ecological niche'), and variously referred to as 'cultural ecology' (Steward 1968), 'ethnoecology' (Frake 1962), 'cultural materialism' (Harris 1968) (or 'vulgar materialism' (Friedman 1974)), 'anthropological ecology' (Anderson 1973), 'ecological anthropology' (Rappaport 1971, Orlove 1980), and so on. We have based our approach, however, on the intrarelationship between production and variables affecting consumption — such as the market demand for whale products, on the one hand, and government and international regulations, on the other.
2. 8,165 working days were spent during this stage by one net group consisting of 61 identified artisans plus an unspecified number of firewood cutters and female rope makers at Tsushima in 1802 (see Takeno [1979]) or Kalland [1986: 34] for details).
3. Usually there were three nets set outside each other, but some smaller groups had only two nets.
4. In the case of baleen whales, the *onomi* tail meat was removed first since it is considered a great delicacy in Japan (see below for further discussion of flensing techniques for different types of whale).
5. When the scale of pelagic whaling contracted, the number of catcher boats was reduced and both search and collecting vessels were eliminated. This meant that the hunting operations in pelagic whaling became very similar to that of LTCW.
6. This innovation in fact resembles in some important respects the way in which whales were driven towards nets in pre-modern whaling by special fast boats (*seko-bune*).
7. STCW vessels do make use of a transmitting device which frightens minke whale, making them surface and swim fast. This device does not, however, have a receiver of the kind employed in LTCW and pelagic whaling catcher boats.
8. The blubber of Baird's beaked whale used to be used for oil extraction in STCW, but this was stopped in the early 1980s for market and environmental reasons.
9. The technique of chasing whales in this manner is not unknown today. In STCW, for example, fast powered boats are used to bring the whale towards the whaling vessel, while in certain communities in the south west of Japan groups of small fishing boats are occasionally used to herd dolphins and pilot whales into bays, where they are trapped by nets placed at the entrance of the bay.
10. It should be noted that over time the new processing technique of freezing (introduced in the late 1940s) allowed a shift in preparation of whale meat from salting to freezing. Moreover, changes in market demand have brought about a shift in the use of blubber which is now mainly eaten rather than made into oil. These changes apply, however, to all three types of modern whaling.
11. That the Japanese are very conscious of this difference can be seen in the way in which Oka Juro, the founder of one of the whaling companies, Toyo Hogei K.K., as far back as the beginning of the century stressed that, when it came to Norwegian technology, Japan should adopt new technologies in the catching not the processing, of the whale (Toyo Hogei K.K., 1910).
12. It is know that, throughout the history of whaling, this casual employment was welcomed by local farmers during the slack winter season, and even in pelagic whaling most of those working on mother ships were recruited from farming households.
13. These employees' associations both separate people at the lower level, while uniting them at a higher one. In most large whaling companies, the Old Boys Associations are organized according to whether former employees worked on catcher boats, as crew on mother ships and other support vessels, or as processing workers (Taiyo Gyogyo, 1984). Each regional branch of the association is organized hierarchically on a national grid, however, and this allows members from different specializations — both at the national and local levels — to gather together on certain occasions. In Taiji, however, a universal *OB kai* was formed in 1982 as a reaction to the IWC's moratorium decision which was seen as an attack on the whaler's culture and identity. This *OB kai* includes the membership from all companies of all types of whaling.
14. The way in which connections of this sort are used in recruitment to companies in general in Japan has been discussed by Vogel (1967) and White (1982), among others.
15. In recent years, the reduced quota on the number whales to be taken together with restrictions on international trading in whale products, has created a scarcity of supply which has itself brought on a sharp increase in prices. This has led to products from STCW being distributed throughout regional wholesale markets, and thence possibly to the national central wholesale market, thereby bringing the system as a whole more in line with the LTCW distribution system. However, in STCW, the commercial distribution flow is still initiated locally.
16. Present supplies of fin whale meat are imported from Iceland in accordance with international regulations.
17. In Ayukawa, the female relatives are accompanied to the shrine by the wife, or daughter-in-law, of the company owner, thereby revealing one more way in which the patterns of hierarchy are broken down in STCW. Another event — of which the ritual eating of whale meat is the essential part — involves a visit to the important local shrine of Kinkazan. This is organized by the main local distributor and attended by the community at large.
18. According to *Kumano Taiji-Ura Hogeishi Hensan I'inkai* (1969:465-472), there were in 1,832 seventy named edible parts of the whale, including meat, blubber, organs and bones.

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THE SPREAD OF WHALING CULTURE IN JAPAN

The attached report contains important information on various aspects of small-type whaling in Japan's coastal sea. The Government of Japan, therefore, submits this report as one of its documents to the IWC for reference to the Working Group to Consider the Situation of Various Kinds of Small-Type Whaling.
1989

THE SPREAD OF WHALING CULTURE IN JAPAN

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May 1989

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INTRODUCTION

During the twentieth century there has been a marked shift in the areas in which most of the coastal whaling in Japan has been conducted. Until 1906 most of the whales were caught outside southwestern Japan, but beginning in that year the center for the whaling operations moved northwards (Map 1). In 1935 38.6 percent of the large-type whales were landed in Hokkaido or the Kuril Islands and another 39.3 percent were landed in Tohoku (Ayukawa and Kamaishi), whereas only 1.4 percent (24 whales) were landed in Kyushu, which was the center of whaling until late nineteenth century (Terry 1950: 46-47). Many whaling stations are thus of relative recent date.

Amongst the four small-type coastal whaling (STCW) communities in Japan, whaling in Taiji and Wadaura has undoubtedly ancient roots. Taiji claims an 800 years history of whaling, and the method of catching large whales with nets originated there in 1675 (*Kumano Taiji-ura Hogei-shi Hensan I'inkai* 1965, 1969). At the same time small-type coastal whaling (STCW) primarily catching pilot whales and dolphins with spears and harpoons continued from small boats. There are clear continuities between this old form of STCW in Taiji and the development of modern STCW (Akimichi et al. 1988, Takahashi et al. 1989). The catching of Baird's beaked whale in Wadaura is a heritage from the Tokugawa period (1600-1868) when this species was caught by harpoons from Katsuyama in Tokyo Bay (Akimichi et al. 1988, Takenaka 1976, Kaneshiro 1983).

At first sight it might appear, however, that whaling in Ayukawa and Abashiri are of more recent development. Attempts at organizing large net groups were made near

Ayukawa toward the end of the Tokugawa period, without much success. It was only with the establishment of a modern whaling station by Toyo Gyogyo in 1906 that whaling become firmly established in Ayukawa (Omori n.d.). In Hokkaido there has been ancient whaling conducted by the Okhotsk and Ainu people, but there is no cultural continuity between this early whaling and the present one (Iwasaki 1987).

Despite the relative short history of whaling in Ayukawa and Abashiri, there are strong continuities between whaling conducted from these two communities and whaling done in other parts of Japan in the past. One of the characteristics of Japanese whaling has always been the great geographical mobility in terms of its operations. This has facilitated strong cultural continuities both spatially and historically.

This report will analyse the ways by which whaling culture was transmitted from one area of Japan to another, culture in this context being defined as "an integrated and coherent system of specific tools, techniques, skills, and the attendant bodies of knowledge and forms of social organization that are necessary to locate, identify, harvest, process, distribute, and consume particular resources that are found in specific ecological niches." (Takahashi et al. 1989) More specifically, diffusion of whaling culture will be seen as an incidental consequence of the great mobility of the whaling operations and the extensive migration — both seasonal and permanent — this mobility caused, as well as deliberate training of local people whenever new whaling stations were opened. But this diffusion has at the same time been restricted by cultural factors such as attempts at secrecy over individual skills, the tendency of Japanese groups (households, villages, companies, etc.) to retain some privacy related to the 'way of the house,' and the importance of connections in the recruitment process, which all worked to slow down the speed of diffusion which the mobility of whaling in theory made possible.

THE MOBILITY OF WHALING OPERATIONS

The great mobility of whaling operations has been fundamental in preparing the ground for a national whaling culture in Japan. Already during the Tokugawa period the whaling groups moved their operations from one area to another (1). The catching rights rested with the local feudal authorities (*han*), and licences to catch whales were usually given only for a few years at the time. The authorities in Fukuoka, for example, gave licences for only three or five years at the time, and licences were seldom renewed (2). This fluid situation brought the villagers into contact with a number of whaling groups and each group was composed of whalers from a great number of villages. It is known that the Misaki net group (in Hirado) employed crews for its 33 boats from 22 villages, while the crews of the 44 whaling boats in the Katsumoto group (Iki Island) were recruited from 21 villages. Both groups crewed some of their net boats with people from the Inland Sea area (Hidemura 1952: 76). This brought whalers from a large area together and there was a fertile ground for cultural exchange.

The huge capital investments required in order to organize the net groups destabilized the operations to some extent. Several net groups went bankrupt and the others were heavily indebted both to the feudal authorities and to large merchants in Osaka and elsewhere. Occasionally the feudal authorities had to intervene and take over the operations themselves, as happened several times in Arikawa (Kalland 1989). Experts on whaling thus emerged both within the bureaucracy and among the financiers, and this also facilitated diffusion of knowledge.

With modern technologies using steam ships and harpoon guns the range of operations enlarged considerably and the whole of Japan, Korea and Taiwan were brought within the reach of the whaling companies. Most coastal areas of Japan became exposed to whaling and many persons were attracted by the blooming land stations. With the development of pelagic whaling a new step was made to bring whalers from all parts of Japan together (Table 1), uniting villagers throughout the nation in a way never achieved before (3). After retirement the whalers continue to be in contact with each other through the Old Boys' Associations (*OB-kai*), which are organized in a national hierarchy (see Appendix 1 for the case of Taiyo's *OB-kai*), and through the company newspapers.

Also the STCW boats today have a wide field of operation. Although each of the nine boats have their home ports in Taiji, Wadaura, Ayukawa and Abashiri, respectively, they are free to hunt the whales where they want to, within the limitations imposed on them regarding seasons and quotas. Hence, all the boats operated outside Hokkaido during the summer 1987, and all but the Abashiri boats hunted outside Ayukawa during the spring (Akimichi et al. 1988: 21-23). The crews are thus able to observe each other's behaviour and exchange information. At the level of management, the owners meet regularly at the Small-Type Whaling Association, further facilitating exchange of experience and knowledge. Similarly, the leaders of the large whaling companies met at the Japan Whaling Association.

There were thus many opportunities for whalers on all levels and widely dispersed in space to meet, exchange knowledge, and take part in an evolving integrated national whaling culture (4). We shall in the following sections take a closer look at the channels through which a whaling culture was transmitted from the southern parts of the country to the new whaling communities in the north.

SEASONAL MIGRATION

As has been discussed elsewhere (Takahashi et al. 1989) whaling operations can be divided into two sets of activities, the catching of the whale and the processing of the carcass.

Table 1: The Homes of Whalers Employed by Nissui for the Antarctic Expedition of Tonan-maru in 1965/66

Place of residence/ Prefecture	No. of persons working on:						
	Factory ship "Tonan-maru"		Catcher boats	Refrigerator ships (2)		New Georgia	Total
	Crew	Workers		Crew	Workers		
Kagoshima	1		2	3			6
Miyazaki			3				3
Kumamoto	3						3
Oita			2	4			6
Nagasaki	5	52	24	2	50	22	155
Saga	1		2	2			5
Fukuoka	5	3	9	2	2	1	22
Ehime	5		5	5	1		16
Tokushima	2		1	2			5
Kagawa	2	6	1		14	9	32
Kochi	2		3	4	1		10
Yamaguchi	4	17	11	2	13	10	57
Hiroshima	15	10	13	14	14	4	70
Okayama	3		1	2	1		7
Shimane	3		6	5	1		15
Tottori	1						1
Hyogo	6	2	25	5	3		41
Osaka	9	6	6	5	1	1	28
Kyoto	1	1	2	2		1	7
Nara	2						2
Wakayama			3	1			4
Mie	1		1				2
Fukui	8			3	1		12
Ishikawa	24	7	9	22	23	2	87
Toyama	1	2	1	1	3	1	9
Niigata		1	8	1			10
Shizuoka			4	1			5
Kanagawa	13		6	12		1	32
Yamanashi			1				1
Saitama	1			3			4
Gumma			1				1
Tokyo	9		4	6			19
Chiba	3	4	9	4	4		24
Ibaragi			7				7
Tochigi			1				1
Fukushima			2				2
Yamagata			1	1			2
Miyagi	5	8	32	8	6	7	66
Iwate	1	3	5	1	13	4	27
Aomori	1	28	2		50	19	100
Akita		11			61	10	82
Hokkaido	1	5	2	5	47	1	61
No of pers	137	167	215	128	309	93	1049

Source: Nihon Suisan K.K., 1966

Table 2: The Early Whaling Companies with Stations in Ayukawa

Year	Company	Headquarter	Many whalers from:
1906	Toyo Gyogyo	Shimonoseki	North-Kyushu, Yamaguchi Pref.
1907	Tosa Hogei	Kochi Pref.	Tosa Prov. (now Kochi Pref.)
1908	Kii Suisan	Wakayama Pref.	Kumano (incl. Taiji)
1911	Nagato Hogei	Senzaki	Yamaguchi Pref.

Both sets of activities require great skills which are not learnt easily. It takes many years to be a good gunner or a skillful master flenser. Naturally then, there were few local people who possessed the skills needed to crew the catcher boats or to man the flensing stations when whaling first started outside northern Japan on a regular basis in 1906. The whaling companies therefore brought in skilled whalers from other parts of Japan. Most of these early companies were established by entrepreneurs with background in old whaling communities in the southwest. Given the importance of personal connections when applying for jobs in Japan — a theme stressed by many of the informants — these companies recruited whalers from a limited area, which gave most of these companies a strong regional base. All the companies that established stations in Ayukawa during the first decade of this century had such strong regional orientations, as also can bee seen from the names of these companies (Table 2).

In Kyushu there was a series of small locally based whaling companies, such as Goto Hogei, Enyo Hogei, and Arikawa Hogei. Most of these were short-lived, but Nagasaki Hogei which was established in 1901 when its founders chartered the whaling boat originally operated by Arikawa Hogei, managed to stay in business for several years. One of the leaders of this company was Hara Shinichi from Arikawa in Nagasaki Prefecture, and he brought many whalers from that old whaling center into the new company. When Nagasaki Hogei in 1908 was merged with Toyo Gyogyo and two other companies to form Toyo Hogei K.K., Hara became one of the directors of the new company, and his co-villagers followed into Toyo Hogei. Arikawa men came to play an important role in Toyo Hogei and from 1934 in Nihon Suisan (Nissui, cf. Table 1).

Whalers from whaling centers in Southwestern Japan — particularly from the prefectures of Wakayama (i.e. Taiji), Yamaguchi (the Nagato Coast), Nagasaki (particularly the Goto Archipelago, including Arikawa) and Kochi (Map 2) — were sent by their companies to the newly opened stations in the north, as well as to the stations in

Table 3: Place of Residence of the Nihon Hogei Employees When They Were Laid Off in 1987

Province	Town/City	Worked on catcher boats	Worked on flensing station
Miyagi	Oshika Town		1[e]
	Ayukawa	5[a]	13
	Kugunari		3
	Tomari	1	
	Ishinomaki City	7	4
	Onagawa Town	1[b]	
	Ogachi	1	
	Yamoto	6	2[e]
	Kogota	1	
	Naruse		1[e]
	Shiogama City		1[e]
	Sendai City	1[c]	
Aomori	Hachinohe City	1	
	Oma		2
Kanagawa	Yokosuka City	1	
Fukui	Fukui City	1	
Wakayama	Taiji Town	13	
	Katsura		1[e]
Yamaguchi	Shimonoseki City	1[d]	
	Ube City	1	
Fukuoka	Fukuoka City	1	
Nagasaki	Arikawa Town	1	
	Sasebo City	1	
TOTAL		44	28

Notes:

a: one born in Nagasaki Prefecture, Hirado
b: born in Niiyama, Oshika Town
c: born in Taiji
d: born in Kugunari, Oshika Town
e: born in Ayukawa, Oshika Town

Korea, Taiwan, Kuril Islands and Ogasawara. Before World War II most of the whalers spent the summer months in the north; in Tohoku, Hokkaido, Etorofu or the Kuril Islands. The winters were spent whaling off Korea, Taiwan and Ogasawara or farming at home. When Antarctic whaling started in 1934 this became the most important activity during the winter.

With the establishment of new land stations the local villagers were exposed to a new way of life, but despite great demands for workers they were only slowly recruited into the whaling activities. To the companies local workers were cheaper than outside whalers who had to be brought in and often supported in dormitories at extra costs. But this was in many cases more than offset by the higher productivity of the trained whalers from the well-established whaling communities.

This was in particular the case in the hunting operations where a well-trained and coordinated crew was a great asset. In the old days when nets were used, it was commonly the responsibility of the harpooner (*hazashi*) to recruit the crew on the boat, and frequently the crew came from one village. The harpooners were the ultimate source of authority on the whaling boats and the success or failure of the whaling operations rested very much on them. The same is true for the gunners today, and until recently it was also common that the gunner recruited many of the crew members on the catcher boats. This is particularly the case with the STCW boats. When the father of one of the owners in Abashiri bought his first STCW boat in 1953, most of the crew came from Kagoshima Prefecture from where the gunner also came (5). On the other Abashiri boat several of the crew members were recruited through the late gunner and his wife. The gunners tend still to have more influence over the recruitment procedures that the owners, which also tends to narrow the recruitment base considerably.

Even today, there is a clear difference between those employed on the catcher boats and those employed on the flensing stations as to their place of residence. Of 44 men who worked on Nihon Hogei's two catcher boats in Ayukawa until they were laid off in 1987, only six persons lived in Oshika Town, of which Ayukawa is a part. One of these was born in Kyushu. Thirteen of the crew members lived in Taiji (Table 3). Almost half the crews lived outside the prefecture. The situation among those who worked on the flensing station was the opposite as more than half lived in Oshika Town and only three persons (10.7 percent) lived outside the prefecture (6). The situation on LTCW thus paralleled that for pelagic whaling (Table 1 above).

On the land stations, the initial flensing was an operation which required high skills and exact timing, factors that were less crucial in the later stages of processing. Local people were therefore first employed at the land stations where they did the less demanding tasks, leaving the tasks that required great skills — such as the initial flensing — to a group of skilled migrant whalers. This is a strategy also the STCW companies employ. Gaibo Hogei brings in their master flensers from Ayukawa to Wadaura during the season there, and when one of the Abashiri boats operated outside Nemuro, the master flenser went from Abashiri to Nemuro in order to do the main flensing.

Another factor that slowed down the learning process was the fact that some whalers were reluctant to teach newcomers their skills. As one informant said: "To teach your skills to others is to invite unemployment!" Many of the whalers therefore guarded their skills carefully. One of the informants deplored this situation as much of the training was done through *minarai*, to 'learn by observation,' a method much used in Japan. The seniors only seldom answered direct questions.

Although some individual whalers were reluctant to teach their skills to others in fear of being unemployed — and probably more in order to monopolize knowledge and thus gain influence — most companies made arrangements for training local people in order to reduce labour costs. Nihon Suisan, for example, ran a training program for flensers in Onagawa.

Another factor which inhibited the rapid spread of the whaling culture was the importance of connections when applying for a job in Japan. It is often necessary to have somebody to guarantee for your good behaviour, and without such connections it is very difficult to get into an organization. We have seen that such connections were particularly valued on the catcher boats. "You need relatives among the whalers in order to get in," was a frequent respons among informants. When whalers from the south started to marry local girls and settled down in the new centers in he north, the original villagers got the connections they so badly needed.

PERMANENT RESETTLEMENTS

Through seasonal migration whalers from Southwest Japan became acquainted with the whaling communities in the north and several found wives there. Some whalers brought their wives back to their natal homes but many settled permanently in the north. For this and for other reasons whalers from Southern Japan — first of all from the prefectures of Nagasaki, Saga, Kochi, Yamaguchi, and Wakayama — settled throughout Northern Honshu and Hokkaido. People in Arikawa in Nagasaki Prefecture, for example, could name a number of whalers from Arikawa who settled in the Tohoku region (i. e. Onagawa, Ayukawa, Kamaishi) and in Hokkaido (i.e. Kushiro, Kiritappu, Abashiri). It is very difficult to quantify this migration to the north, however. The limited time available for research and the restrictive Japanese laws regarding access to the *koseki* (household registers) prevented us from making statistics on the subject of migration from Arikawa to other whaling communities (7).

It is thus very difficult to get a good picture of the migration out of the old whaling communities in the south. It is not much easier to get the full picture of the migration into whaling communities in the north. But a few figures will nevertheless provide some insight into this matter.

Ayukawa was a small fishing community before Toyo Gyogyo established he first whaling station there in 1906. In 1887 the village had only 332 inhabitants. This had increased to 3,660 in 1952. During the same period the number of surname groups found in Ayukawa increased from 12 in 1879 to 67 in 1911 and finally to 261 in 1985 (Table 4). Although we cannot rule out that old Ayukawa residents adopted new surnames for reasons of convenience (such as to avoid military service), the explosion in the number of surname groups clearly testifies to a considerable immigration. In 1985 only 22.4 percent of the households in Ayukawa used one of the original surnames represented in the village during the late nineteenth century, and this is considerably less than the percentages for the other hamlets of Oshika Town (8).

But were did the people come from? Information exists as to the geographical background of the household heads in Ayukawa thanks to a dedicated local researcher who a few years ago interviewed most of the households in Ayukawa and cross-checked with other sources. Although these figures cannot be as accurate as if they have been based on the *koseki*, they do give a clear picture of the pattern of migration into Ayukawa. Only 28 percent of the household heads came originally from Ayukawa. The other households had been established in Ayukawa either as a result of whole households moving in, or more frequently by men marrying local girls and settling. These immigrants came from most parts of Japan (Table 5). Whereas people from Nagasaki, Kochi, Wakayama and Yamaguchi

Table 4: The Number of Surname Groups Found in Ayukawa in 1879, 1911, 1960 and in 1985

	1879	1911	1960	1985
No of original surname groups	12	12	12	12
No of households with old surnames	52	82	186	181
in percentage	100.0%	55.0%	23.2%	22.4%
No of new surname groups	0	55	259	249
No of households with new surnames	0	67	616	627
in percentage	0.0%	45.0%	76.8%	77.6%
Total no of households	52	149	802	808

Source: From Oshika choshi, pp.131-135

Table 5: The Geographical Background of 1,340 Household Heads in Ayukawa

Prefecture	County	Township	Section	Number	Percent
Miyagi	Oshika	Oshika	Ayukawa	378	28.2
	Oshika	Oshika	others	153	11.4 [a]
	Oshika	others, incl. Ishinomaki		181	13.5 [b]
	Senenmiyagi incl. Sendai, Shiogama			99	7.4
	Monoo			99	7.4
	Shida			25	1.9
	others			120	9.0
Hokkaido				11	0.8
Aomori				8	0.6
Akita				10	0.7
Iwate				41	3.1
Niigata				9	0.7
Yamagata				23	1.7
Fukushima				21	1.6
Tokyo				25	1.9
Ishikawa				8	0.6
WAKAYAMA				8	0.6
KOCHI				10	0.7
NAGASAKI				18	1.3
YAMAGUCHI				16	1.2
Others				77	5.7
TOTAL				1,340	100.0

Notes:

a: These household heads came from Kugunari 33, Niiyama 22, Ohara 20, Kobuchi 17, Kyubun 12, Tomari 12, Ajishima 10

b: Among these 76 came from Ishinomaki and 25 from Watanoha, now a part of Ishinomaki City

Source: Oshika choshi, pp.129-130

prefectures mostly came to Ayukawa in order to crew catcher boats and to man the land stations, people from Tokyo and other places not formerly related to whaling activities, established various forms of businesses supporting the whaling industry.

These figures do not support claims made by informants in Ayukawa that a third of the population are descendents of settlers from Nagasaki, Kochi, Wakayama, and Yamaguchi. Although settlers from the southwest may not be so prominent in Ayukawa quantitatively, they nevertheless play important local roles. A marriage did not only establish social relations between two individuals, but marrying into Ayukawa meant to acquire a set of relatives. Moreover, certain institutions particularly strong in the Tohoku area enmeshed the newcomer into a large social network.

One such institution was the lineage group, *dozoku* (in Ayukawa called *make*), consisting of a main household *honke*), branch households (*bunke*), branches of branches and so on, all "bound by mutually recognized links of genealogy." (Fukutake 1982: 31) In Ayukawa there seems to have been five strong kinship groups in the past, each centered on an affluent *honke* that built its wealth on land holdings and as owner of large nets (*amimoto*). It was these *honke* who together established the whaling company Ayukawa Hogei K.K. in 1925 (9).

The other institution was the relationship between *ebisu-oya* (the 'ebisu parent,' Ebisu being a deity particularly important to fishermen and merchants) and *ebisu-ko* (the 'ebisu child'). In the old days it was common to change one's name in connection with important *rite de passage*, such as marriages. The new name *ebisu-na*, ('ebisu name') was given to the *ebisu-ko* by the *ebisu-oya*, and the relationship between the two should ideally be very close, "almost like that of a child toward his father." The head of the *honke* often served as the *ebisu-oya* for members of the branch households (although the reverse also occured), and net owners served as *ebisu-oya* for those working on the nets. More important, heads of old Ayukawa households often served as *ebisu-oya* for the immigrant whalers who married local girls.

A marriage between a whaler from the south and an Ayukawa girl thus meant that the whaler became firmly integrated into the community, by linking him to one of the existing kinship groups, and through his *ebisu-oya* linking him to an even wider social network. This network was, and still is — kept 'warm' by an extensive exchange of gifts — in which whale meat until 1988 played a crucial role (Akimichi et al. 1988: 41-51) (10), and by mutual obligations to assist each other. One such obligation was to introduce the other to a third party, i.e. to the whaling company where one is employed. One marriage therefore provided a number of young men with connection into the whaling companies.

The whalers from the south play important roles in the whaling communities in North Japan even today. The three board members of the Old Boy's Association (*OB-kai*) of Nissui are all from the south (11). One of them is also the present chairman of the Fishing Cooperative Association in Ayukawa (12). Of the three STCW boats registered in Ayukawa, one is owned by a person from Kumamoto Prefecture in Kyushu (13), and has a captain from Yamaguchi. The manager of Nihon Kinkai is from Yamaguchi. Only the owner of the third boat is from Tohoku as he was born in Iwate Prefecture to the north of Ayukawa. He has also married an Ayukawa lady.

There are three craftsmen producing artifacts from sperm whale teeth in Ayukawa, and all three are descendents of settlers from Kyushu. The father of one of them came from Arikawa and worked for Toyo Hogei and Nissui as a flenser. The son followed in his father's footsteps but soon found it more interesting to sit on the deck carving whale teeth. The other craftsmen are brothers born in Karatsu, an old whaling center in Saga Prefecture. Their father's brother-in-law made picks for the *shamisen* instrument from the whale's jaw, but as his supplies of raw-materials were running short their father was sent to Hokkaido. He never got further than Ayukawa, however, as he found rich supplies there. He sent whale bones back to Karatsu but finally got his own family moved to Ayukawa where he made various artifacts of jaw bones and teeth. His two sons carry on this work today.

Abashiri is a city of about 43,000 inhabitants and whaling plays a minor role there. Two STCW boats are registered in the city and both have important crew members who have their family background in the south. On one of the boats the captain hails from Kagawa Prefecture on Shikoku whereas on the other two brothers (one of them bosun) are sons of a gunner from Arikawa (see case study below). The present gunners on the two boats are from Tohoku (Aomori and Miyagi Prefectures). Moreover, both the two STCW companies were established by men from Honshu, from Fukui and Miyagi Prefectures respectively.

Both the seasonal migrants from the south and those who settled permanently have contributed much to the development of a whaling culture in the north. They have played, and still play, leading roles as agents of cultural change. In the following section we shall, through a case study, see how one kinship group has contributed importantly to a whaling culture both in the south and in the north.

A CASE STUDY: A KINSHIP GROUP FROM ARIKAWA

In this section we shall look at one kinship group based on the patrilinear principle, i.e. all the household heads in the group are related to each other through the male line (with one exception involving an adopted heir). The kinship group was originally based in Arikawa, but have today affiliated households in Hokkaido. Through this case study several features will become apparent: the importance of connections, the great geographical mobility

of the members within one kinship group, the flow of personnel between the various forms of whaling (i.e. STCW, LTCW, and Pelagic), that members of one kinship group could work in various whale related jobs, and the often close teacher-pupil relations that existed in training for new skills (14).

In Figure 1 the household heads in the group are named from **A** to **K**, important brothers-in-law are numbered, and their linking wives are marked by '0' (15).

A was not a whaler but a fisherman, although this does not necessarily rule out that he occasionally worked on the Arikawa flensing station. **A**'s younger sister's husband was, on the other hand, employed by Toyo Gyogyo and worked on a catcher boat. Three brothers — **B**, **C**, and **D** — all got jobs through this uncle (person **1**). The eldest of the brothers, **B**, who remained living in Arikawa in order to take over his parents' house, became a flenser on a factory ship, whereas his younger brother **C** became a flenser on land stations. He was sent to various places in Japan, and got married to a Hokkaido woman and settled in Kiritappu. One of his sons lives in Abashiri and two in Nemuro and all three have worked with their uncle, **D**, on STCW (16).

The youngest of the three brothers, **D**, was employed by Nissui and started as a cook under his uncle and went three times to the Antarctic before World War II. He was also sent to various stations in Japan and to Korea and the Kuril Islands. He met his wife in Hokkaido and brought her to Arikawa just before the outbreak of the Pacific War. During the war Nissui bought five STCW boats and **D** took employment on one of these boats which was operated from Abashiri by Hoyo Hogei, a subsidiary of Nissui. After the war he preferred to continue working with STCW, and he brought his family to Abashiri. He worked as gunner on several boats, also operating from Ayukawa and Fukui, before he took employment on one of the present boats in Abashiri. Two of his sons took employment on the same boat, and the youngest was the bosun until he was laid off in 1988, and he has strong wishes to become a gunner like his father.

The brothers **E**, **F**, and **G** are sons of a flenser, but it seems that it was their mother's brother (person **2**) who was most influential in getting them into whaling. This uncle worked on a catcher boat and he made a lasting impression on his nephews. The youngest brother (**G**) became a flenser for Taiyo whereas the two eldest became gunners for the same company.

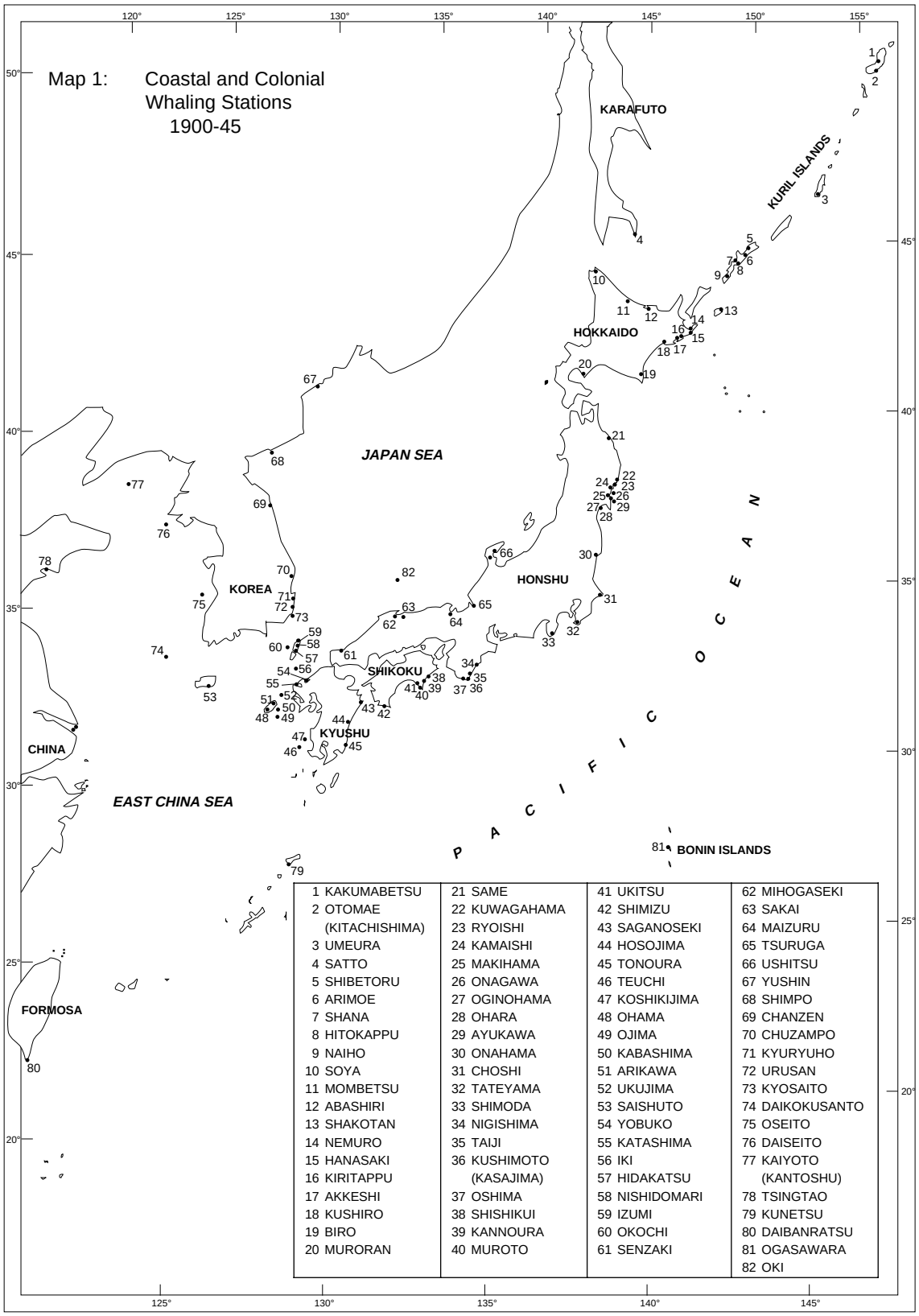
F started his career in Nissui as a 'boy,' but quickly displayed his talent in spotting whales. After six years with Nissui his uncle **D** invited him to Abashiri in order to train him as a gunner. After training for about two years he became the gunner on a STCW boat in Ayukawa where he worked when he was offered a job with Taiyo (17). Before he left the Ayukawa company, however, he trained a new gunner, originally from Arikawa but later killed in an accident when he was loading the harpoon (18). After altogether eight years in STCW, **F** became a gunner with Taiyo, a position he held until his retirement fifteen years later. He invested his saving money in a fish shop and his retirement money in a souvenir shop, both in Arikawa.

His elder brother, **E**, had a similar career. He also started in Nissui before being trained as a gunner in STCW. He was recruited by Taiyo three years before **F**, and he likewise trained his successor as gunner on the STCW boat, a person who was born in Arikawa but who has now settled in Shiogama City in Miyagi Prefecture. **E** met, however, a tragic death in the Antarctic when a wave threw him on the deck. He left a 39 years old widow and one daughter. People from the company helped the widow to set up a whale wholesale business. Today this is the only wholesaler engaged in the distribution of whale meat to any significant degree in Arikawa, and it is operated by the husband of **E**'s daughter, (**K**). In his small workshop he processes the whale meat (including blubber) into a range of products specially cherished by the people of Arikawa.

The members of this kinship group have contributed to the development of whaling culture in important ways. D's widow remembers how her husband taught her Arikawa rituals related to whaling, and he took great care in religious matters and always offered some of the whale's tail at the boat altar (*kamidana*), which is an old tradition in the south. Several of the members have trained new whalers both in Abashiri and in Ayukawa, and by switching between STCW, LTCW and pelagic whaling they contributed to the formation of an integrated whaling culture encompassing all types of whaling. Back in Arikawa the main house (*honya*) has moved into wholesale business and processing of whale meat thereby developing new knowledge locally and his brother-in-law (**F**) runs the largest retail shop for whale meat in the township. Both prepare dishes for hotels and inns and both are thus caretakers of a rich culinary tradition.

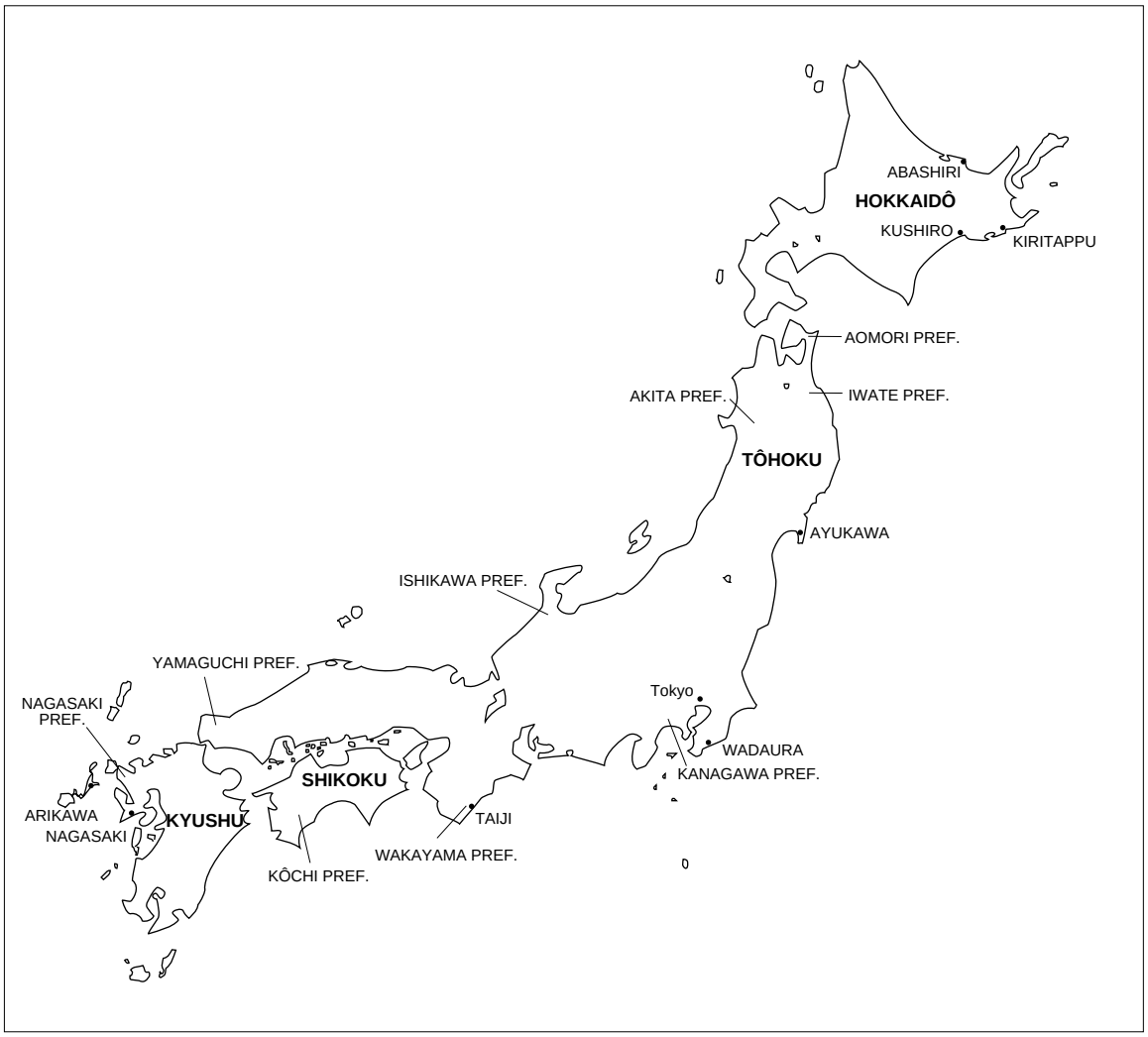
CONCLUSION

The Japanese enthusiasm for learning is not of new date. One can only be impressed by the scope of technological diffusion during the Tokugawa period (1600-1868), a period which is known for its rigid social control and severe restrictions on movement. Feudal lords in Kyushu invited early in the seventeenth century (if not earlier) entrepreneurs from Kumano (now Wakayama Prefecture) in order to teach the local people whaling. In the 1670s Fukazawa Gidayu, who was one of the main operators of whaling groups in Kyushu, went both to Kayoi (Yamaguchi Prefecture) and to Taiji (Wakayama Prefecture) in order to study the net method (Kalland 1986). In the nineteenth century the Sendai domain tried to develop whaling outside Ayukawa by inviting whalers from Taiji and Yamaguchi and the central feudal authorities tried to establish whaling in Hokkaido by employing people from Katsuyama at Boso Peninsula in present Chiba Prefecture (Iwasaki 1987: 14-17). People from Fukui were also brought to Hokkaido



1 KAKUMABETSU	21 SAME	41 UKITSU	62 MIHOGASEKI
2 OTOMAE (KITACHISHIMA)	22 KUWAGAHAMA	42 SHIMIZU	63 SAKAI
3 UMEURA	23 RYOISHI	43 SAGANOSEKI	64 MAIZURU
4 SATTO	24 KAMAISHI	44 HOSOJIMA	65 TSURUGA
5 SHIBETORU	25 MAKIHAMA	45 TONOURA	66 USHITSU
6 ARIMOE	26 ONAGAWA	46 TEUCHI	67 YUSHIN
7 SHANA	27 OGINOHAMA	47 KOSHIKIJIMA	68 SHIMPO
8 HITOKAPPU	28 OHARA	48 OHAMA	69 CHANZEN
9 NAIHO	29 AYUKAWA	49 OJIMA	70 CHUZAMPO
10 SOYA	30 ONAHAMA	50 KABASHIMA	71 KYURYUHO
11 MOMBETSU	31 CHOSHI	51 ARIKAWA	72 URUSAN
12 ABASHIRI	32 TATEYAMA	52 UKUJIMA	73 KYOSAITO
13 SHAKOTAN	33 SHIMODA	53 SAISHUTO	74 DAIKOKUSANTO
14 NEMURO	34 NIGISHIMA	54 YOBUKO	75 OSEITO
15 HANASAKI	35 TAIJI	55 KATASHIMA	76 DAISEITO
16 KIRITAPPU	36 KUSHIMOTO (KASAJIMA)	56 IKI	77 KAIYOTO (KANTOSHU)
17 AKKESHI	37 OSHIMA	57 HIDAKATSU	78 TSINGTAO
18 KUSHIRO	38 SHISHIKUI	58 NISHIDOMARI	79 KUNETSU
19 BIRO	39 KANNOURA	59 IZUMI	80 DAIBANRATSU
20 MURORAN	40 MUROTO	60 OKOCHI	81 OGASAWARA
		61 SENZAKI	82 OKI

Map 2: Main Places Mentioned in the Text



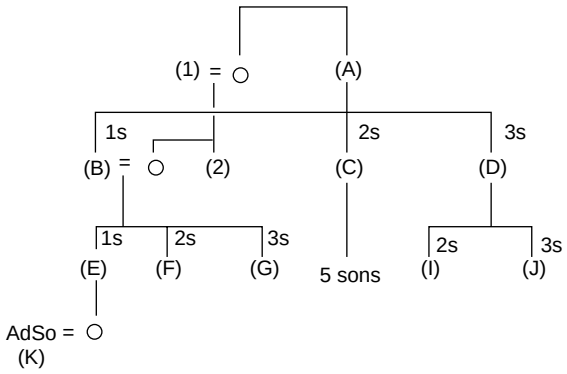
in order to develop the whaling industry, without much success. In more modern times the founder of Toyo Gyogyo, Oka Juro, travelled to Norway to study modern whaling and for more than 30 years Japanese whaling companies used Norwegian gunners, partly for the purpose of training Japanese. And in the early 1930s a STCW boat with crew was brought from Taiji to Ayukawa in a successful attempt to modify it for minke whaling.

Today this readiness to learn manifests itself in several ways. The owner of one of the Abashiri boats plans to travel to Wadaura in 1989 in order to learn how to process Baird's beaked whale properly, and another company plans to hire flensers from Arikawa in order to train local villagers if its attempt to open a new flensing station for pilot whales in southwestern Japan is successful.

But as we have seen, there were also constraints working against a rapid diffusion of knowledge. Some whalers were reluctant to teach newcomers their skills, and few novices were given detailed instructions, although the companies tried to run some training programs. The most severe obstacle was, however, the importance of good connections in order to get employment in a whaling company.

These constraints were only overcome by the great mobility of the whaling fleets, and most importantly, by whalers from the southern parts of Japan marrying and settling in the emerging whaling towns in the north. Through these processes — learning by observing the migrant whalers from the south and establishing real and fictive kinship (i.e. *ebisu* relations) ties with settlers — villagers in northern Japan managed to partake in a national whaling culture. There are certainly strong cultural continuities between whaling in northern Japan and in the south.

Figure 1: Genealogical Chart of a Kinship Group from Arikawa



Notes

1. This was particularly the case in Northern Kyushu. In Taiji, however, the same operator, the Wadas, were in charge throughout the Tokugawa period.
2. Between 1766 and 1799 at least six operators (probably more since we have no information for the periods 1770-83 and 1794-98) worked in succession the whaling grounds off Fukuoka's Oshima. None of them renewed their licences. All the operators came from outside the Fukuoka Domain, i.e. from Karatsu, Yobuko, and Omura (Kalland 1986: 50).
3. Table 1 is not meant to give a correct picture of the spatial distribution of the whalers in Japan as the table is based on one of the Nissui expeditions to the Antarctic only. Most conspiciously, whalers from Taiji were not employed by this company and relatively few were employed also from Ayukawa. However, the table indicates that the residences of the crew members on the factory and refrigerator ships were more widely distributed than those of the "workers," i.e. those handling the whales. The crew members were sailors, and typically many of them lived in cities whereas the 'workers' lived in the countryside. The crews on the catcher boats were also recruited from a wide area. See also Appendix 1 for the distribution of whalers who are members of Taiyo's Old Boys Associations.
4. Within this integrated whaling culture there are, however, sufficiently distinct forms of whaling and activities related to whaling that the concept of sub-cultures might be warranted. (See Takahashi et al. 1989.)
5. There are no descendents of these whalers in Abashiri today. Most of them are believed to have returned to Kagoshima in Southern Kyushu.
6. This is the same situation that prevailed during the Tokugawa period when those working on the land stations tended to be recruited from farming and fishing villages nearby whereas the harpooners, their crews, and the crews on the net boats were recruited from a much wider field (Kalland 1986).
7. These restrictions have been introduced for the very valid reason to make it more difficult for intruders to use the registers in order to identify persons belonging to the *burakumin* outcasts. Changes that have been introduced in the registers make it also more difficult to construct genealogies than in the past. I am indebted to employees at the Oshika and Arikawa town halls who did an excellent job in providing the requested data within the limitations imposed by the law and the registers themselves.
8. The percentages of the households that in the 1980s used one of the original surnames found in the respective villages are as follows: Ayukawa 22.4% (12 original surnames), Kugunari 62.1% (12), Kyubun 76.6 (6), Kobuchi 69.6% (9), Ohara 66.0% (16), Koamikura 75.4% (7), Niiyama 85.3% (5), Tomari 90.5% (6), Yagawa 63.0% (8), Oyagawa 84.4% (5), Samenoura 93.3% (2), and Yoriisohama 69.4% (3 surnames).
9. This company shared one of the important characteristics of the organization of large set nets in the past. The *honke* operated as the owners whereas the branch households crewed the boats. But Ayukawa Hogei also employed many whalers from outside the township. The brother of one of the founders believes that about half the employees came from outside Ayukawa. Whether these 'outsiders' had married into kinship groups of the founders, served as teachers to the local people, or simply performed the tasks that required most skills, is not known. In any case, the company was important in bringing Ayukawa men into whaling. Ayukawa Hogei was bought by Kyokuyo in 1937, thus bringing many Ayukawa whalers into that company.
10. The importance of gift-giving in Ayukawa is analysed in Akimichi et al. 1988: 41-51. With the moratorium on whaling, whale meat does not any longer enter this distributional network, which has adverse consequences for the social organization in Ayukawa as well as in the other whaling communities (Government of Japan 1989: 21-23).
11. The father of the chairman came from an old whaling community in Yamaguchi and was employed by Toyo Gyogyo. He was sent to Ayukawa in 1907 where he met his wife. The wife accompanied her husband to various land stations until the first child was born, whereupon they set up residence in Ayukawa where the chairman was born. The two vice-chairmen were born in Arikawa and Ukushima in Nagasaki. Both are married to Ayukawa women. The secretary was born in Niigata.
12. He was introduced to Nissui by his uncle (mother's brother) who worked as a gunner for that company. The uncle had a wife from Ayukawa and he married the niece of his uncle's wife. His wife's mother worked for the same whaling company in which he himself is employed at present.
13. He was first employed in Taiyo Gyogyo when 18 years old through the introduction of his brother-in-law. He has worked both on refrigerator and factory ships and spent a couple of seasons at Ayukawa, partly to supervise Seiyo Hogei, a Taiyo subsidiary engaged in STCW. He resigned from Taiyo in 1985 when he bought Seiyo Hogei. He moved his family to Yokosuka in 1961, and in 1988 he brought his wife to Ayukawa.
14. This example involves the training of gunners, but such relations are by no means confined to this work. A master flenser from Arikawa expressed how he found the person in Ayukawa who could teach him how to flense sperm whale properly. "He was like a god (*kamisama*) for me," he admitted, a sentiment commonly found in Japan particularly in the field of arts and handicrafts.
15. I interviewed the following persons in this kinship group: **D**'s widow, **F**, **J**, **J**'s elder brother, and **K**.
16. Two other sons work for the Fishing Cooperative Association in Kiritappu and as a driving school teacher in Kushiro, respectively.
17. When pelagic whaling expanded during the 1950s there was wide-spread head-hunting of gunners in particular. Large whaling companies like Nissui, Taiyo, and Kyokuyo could offer much higher salaries than the STCW companies, and there was also more prestige to be employed by these companies. STCW served as a training ground for gunners and the efficiency of these boats declined. Lately the process has been reversed. With the contraction of pelagic whaling and LTCW, some laid-off whalers have found employment in STCW.
18. His wife, who also was from Arikawa, returned to her natal home with the children after the accident.

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Appendix 1: The Organization of *OB-Kai* for Taiyo Gyogyo

Place of residence, Prefecture	No. of members in for:							
	ships' crews	catcher boats					"workers"		
		M	C	TA	S	G	A	TO	Total
Kagoshima	2				1		46		49
Miyazaki	1								1
Kumamoto	2				1				3
Oita	3		1					2	6
Nagasaki						18	43		65
Saga					2		1		3
Fukuoka	10				9			2	21
Ehime	3								3
Tokushima	2								2
Kagawa	4		1					11	16
Kochi	2		4					2	8
Yamaguchi	17				53			14	84
Hiroshima	6				4			1	11
Okayama	3								3
Hyogo	7		3					2	12
Osaka	2							1	3
Kyoto	3		3						6
Wakayama	2			34				10	46
Mie	1		1						2
Fukui	2		2					7	11
Ishikawa	33		4						37
Toyama	1		1						2
Niigata	2		1					1	4
Nagano	1								1
Shizuoka	3		3					2	8
Kanagawa	71		82					3	156
Saitama	6		3					1	10
Gumma	3		2						5
Tokyo	20		21					2	43
Chiba	10		24					2	36
Ibaragi	3		27					1	31
Tochigi	4								4
Fukushima		1							1
Yamagata	2	2							4
Miyagi	8	114						11	133
Iwate	1	3					75	1	80
Aomori							252	12	264
Akita		2					113		115
Hokkaido	2		1					9	12
No of pers	246	122	184	34	70	18	530	97	1,301

Legend:

M: Miyagi Association
C: Shonan Ass. (Central Japan)
TA: Taiji Association
S: Sekimon Ass. (Shimonoseki)
G: Goto Association
A: Regional associations, see text below
TO: Tokyo Association

The Old Boys Associations for the former employees of Taiyo are divided according to work and residence. There is one national *OB-kai* for those who worked as sailors on the large ships (factory and refrigerator ships). The retired whalers who worked on the catcher boats are organized into five regional associations: Miyagi ('M' in the Table above), Shonan (central parts of Japan, 'C'), Taiji ('TA'), Sekimon (Yamaguchi, 'S') and Goto ('G').

Those who worked in the processing units on the factory and refrigerator ships, are organized in eleven regional *OB-kai* as below: Those who lived in Aomori Prefecture were organized into three associations:

Aomori-Hiromae (67 members), Aomori-Nobeji (73 members of whom 66 lived in Nobeji Town), Aomori-Nango (112 members of whom 111 lived in Nango Village). Those who lived in Akita Prefecture were also organized into three associations: Akita-Senbokuseibu (47 members of whom 39 lived in Nishi-Senboku Town), Akita-Rokugo (34 members of whom 27 lived in Rokugo Town), Akita-Oga (32 members of whom 25 lived in Oga City). The other associations are: Iwate (75 members of whom 71 lived in Ninohei City), Tokyo, Nagasaki (excluding Arikawa, one lived in Saga Prefecture, the others in Nagasaki), Nagasaki-Arikawa (43 members of whom 41 lived in Arikawa), and Kagoshima.

Not included in the Table are the *OB-kai* for those who were employed in fishing activities and office work on land.

Appendix 2: Research Methods

The author has for several years studied fishing villages in Northern Kyushu, and in this connection he has done extensive research in historical archives. As a part of his study on fishing villages during the Tokugawa period (1600-1868) he first became acquainted with the history of whaling in Japan.

Needless to say, the historical background material has been used for this report. Nevertheless, the report rests first of all on anthropological field research carried out in periods since April 1988 when the author participated in the International Workshop on Small-Type Coastal Whaling in Japan (see Akimichi et al. 1988).

In April 1988 the author did field research in Ayukawa in connection with the above workshop, and he also visited Taiji and Wadaura. In September 1988 he made a short field trip to Arikawa in Nagasaki Prefecture. This was followed by a research trip in March/April which brought him to Abashiri in Hokkaido, Ayukawa in Miyagi Prefecture and again to Arikawa (including an overnight stay at the hamlet of Enohama).

Long interviews were made with nine persons in Arikawa in 1988 plus a number of municipal officials. During March and April 1989 a total of 54 persons were interviewed; whalers, whalers' wives, owners of STCW boats, temple and shrine priests, distributors of whale meat, shop and restaurant owners, municipal officials, politicians, local historians, craftsmen, and others. In addition, secondary sources and statistical material have been used, including household registers of Oshika and Arikawa.

Many people have kindly given much of their time and energy to this study and made this research a pleasure despite the tight time schedule. We have got many new friends both in Abashiri, Ayukawa and in Arikawa, and it might be unfair to single out special persons to thank, but the author wants nevertheless to express his great gratitude to Toba Yojiro in Ayukawa and Tanaka Kameta in Arikawa. They worked hard to make all kinds of arrangements on short notice and were always enjoyable companions. Thanks also go to Mrs. Misaki Shigeko for valuable help in all practical matters.

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Three reports have been written as a result of the present research. The two other reports are: Arikawa and the Impact of a Declining Whaling Industry and Japanese Whaling Culture: Continuities and Diversities (April 1989, written jointly with J. Takahashi, B. Moeran, and T.C. Bestor).