

CULTURAL LANDSCAPE CHANGE ON THE OUTER COAST OF CENTRAL NORWAY

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It is a well-known fact that Norway has a very long coastline. The distance from Kirkenes to Oslo by boat is nearly 3,000 km (1,800 miles). The total length of Norway's coast, including all the fjords and islands, has been estimated at 57,000 km (equivalent to nearly one-and-a-half times the distance around the Equator).

For a substantial part of Norway's population, the sea has traditionally been as important as the land in providing a livelihood. This gave rise to a distinctive type of cultural landscape on the coast, the landscape of the fisher-farmer. This is typified by a small farm with a modest dwelling-house and a simple outhouse for animals, a small plot of cultivated land used mainly for growing potatoes and hay, a boathouse down by the shore, and a fishing-boat periodically anchored offshore.

Recent decades have seen rapid changes in this landscape, however. Agricultural rationalization and the modernization of the fishing industry have led to a marked decline in the numbers of both farmers and fishermen, and to the disappearance of many combined fisher-farmer holdings. New livelihoods have appeared. Oil-related activities have made their appearance on the coast, while people commute for three weeks at a time to the oil platforms in the North Sea. The last 10-15 years have seen an explosive growth in aquaculture. Recreational use increasingly makes its mark on shores and islands. All these things are superimposed upon general trends of urbanization and the depopulation of peripheral areas.

Starting in 1981, the Department of Geography at the University of Trondheim obtained finance from the Norwegian Research Council for Science and the Humanities to make a historical-geographical study of changes in the land tenure, settlement and cultural landscape

of the outer coast of Central Norway during the last 100 years. Figure 1 shows the coastal stretch along which this study was made, comprising the coasts of Møre, Trøndelag and Helgeland, extending over a distance of 800 km (500 miles). The investigation involved a comparative study of change in some fifteen fishing communities, mostly small island communities on the outermost coast. These communities are referred to in Norwegian as *fiskevær*, meaning that historically they were important for seasonally migrant fishermen as well as local fishermen. A number of fishing communities in the West Lofoten islands were looked at for comparison. In addition, material was drawn from theses and other student work, including several master's theses completed in the Geography Department at Trondheim, as well as published literature dealing with the coastal areas of Central Norway.

THE CULTURAL LANDSCAPE OF THE OUTER COAST AT THE TURN OF THE CENTURY

The physical basis of the outer coast of Central Norway is dominated by the strandflat, which extends along the coast of the mainland and larger islands and reveals itself offshore in the islands of the skerry guard. On the Helgeland coast, the strandflat reaches a width of up to 60 km, including the underwater stretches and islands. The resource basis of the coastal population has been closely related to the strandflat, both on land and sea. The flat coastal strip and islands have provided grazing, winter fodder and patches of cultivable land. The damp, cool, coastal climate favours the growth of grass and other plants suitable for animal fodder, as well as potatoes, but makes grain cultivation difficult. The shallow coastal waters have provided spawning places for the Arctic cod and the Atlanto-Scandian herring, the two most important fisheries historically. While the herring fisheries have been irregular in time and place, the annual migration of the cod to Lofoten has year after year attracted fishermen from the whole coast from Møre northwards.

The cultural landscape of the outer coast at the turn of the century was characterized by two important features. The first has already been indicated: the fisher-farmer livelihood, an occupation using a

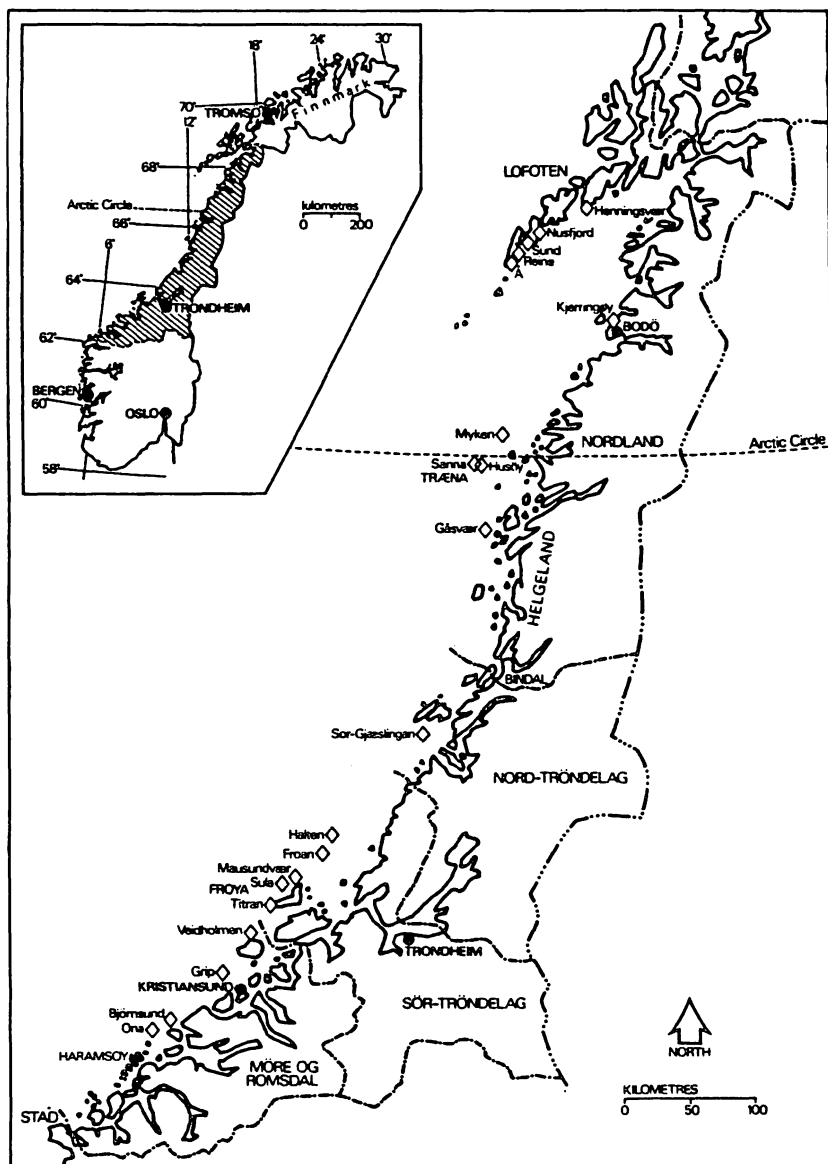


Figure 1. Central Norway with Nordland. Fishing communities studied in a research project at the Department of Geography, University of Trondheim, are marked with diamond symbols.

combination of resources from the land, the sea and the shore. The second was the existence of a proprietary system of land ownership. Along much of the outer coast of Central and North Norway (i.e. north of Stad), whole fishing communities with tenants and cottars were controlled by large landowners. This system, known in Norway as the *væreier* system, lasted in many places until well into the 20th century, and exists in an attenuated form still today in parts of Lofoten. In the rest of Norway, large landed proprietors disappeared largely by the early 19th century and were replaced by owner-occupier farmers.

The landscape of the fisher-farmer holding

Figure 2 illustrates the resources used at household level on the outer coast of Trøndelag around the turn of the century. Most important from the sea was the winter and spring cod fishing. Less stable than the cod was the herring, which could provide large catches in one period only to vanish in another. Salmon, saithe and other fish were also caught. From the shore, seaweed was used as fodder along with fish waste, especially where hay was limited. Seabirds provided both eggs and meat, and from eider ducks down was an important product. From seals were obtained skins, blubber and meat. Driftwood gave welcome fuel and even construction timber, which otherwise had to be brought from the mainland. On land, cultivation assumed modest proportions. Potatoes were the main food crop from the early 19th century. Otherwise farming was dominated by animal husbandry and fodder harvesting. The cultivated land provided hay, while the grass and heather of the outlying land and smaller islands gave summer grazing as well as being collected for winter fodder. Another resource was peat, used for fuel, building material and animal bedding. The cultivated land was fertilized by manure from cattle, sheep and pigs, supplemented by seaweed and fish waste.

The resources from land and sea were complementary. The land provided the basis for a subsistence farming economy, while the sea and shore gave products for a trade economy. Fish was traditionally dried and hung as stockfish, or dried on rocks and salted as *klippfisk*. Later, fish was laid on ice for transport to urban markets. The fish merchants sold in return equipment, utensils, clothing and food to the fishermen. Trade was also carried on with the fjord and inland

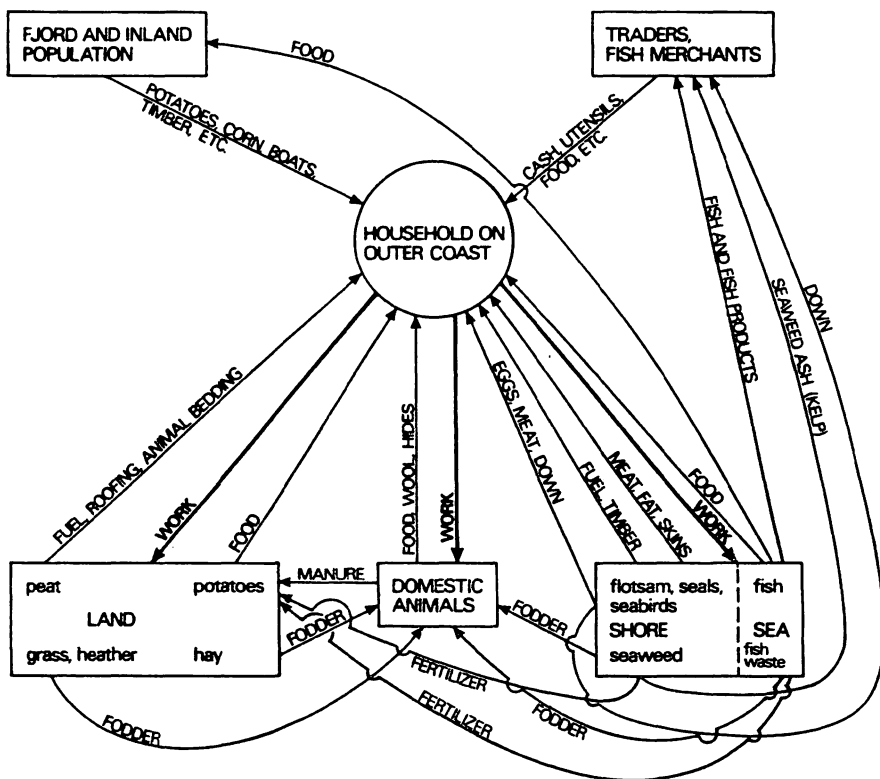


Figure 2. Resources used on the outer coast of Trøndelag around the turn of the century. The diagram is not quantitative nor does it show social differences in resource use, but aims to show the variety of resources used in fisher-farmer households.

Source: Olsen (1976,1977)

population, who exchanged timber and agricultural produce for fish. On the shore, seaweed was made into kelp. In the 18th century, seaweed ash was used in gunpowder production. In the 19th century, soda obtained from kelp was used in glass manufacture, and iodine was obtained for use in medicines until the 1920s. Today, seaweed is still collected as a source of raw material for fodder concentrate and as a stiffening-agent in food. Eider down and sealskins were also sources of income.

The annual rhythm of work on the fisher-farmer's holding was characterized by a marked seasonality in resource use. This is illustrated in Figure 3, which shows the annual work cycle for the cadastral farm unit of Kalvik in Bindal around the turn of the century. This is not an island community but is situated on the outer part of a fjord in Nordland county. The most important fishing seasons were in the autumn, winter and spring, while the heavier agricultural work was undertaken in summer. These two independent resource bases were complementary in that both did not usually suffer a bad year simultaneously. The combination also helped spread the household's work load over the year. However, there was a clear division of labour between men and women (as well as to some extent between different age groups). The men were fishing for a good part of the year, either at the winter and spring fisheries in Lofoten and Finnmark or nearer at home in early summer and autumn. The summer fishing was interrupted by the most important agricultural work periods, especially the potato and hay harvests, which were undertaken by the men and women together. The women were responsible for looking after the animals, as well as the home and children. Fodder cultivation and seaweed harvesting were also largely women's work, as well as making textiles in winter.

Elsewhere on the coast, women and children collected eider down. On Frøya, it was calculated that one kilogram of cleaned down required collection from 60-80 nests. The down had to be dried, and grass, seaweed and other impurities had to be removed. Up to one-and-a-half kilograms of cleaned down went into one eiderdown. It was also customary for the women to have some work related to fishing, such as baiting the lines, salting the herring and other forms of processing. By and large, however, the pattern was one in which the women were responsible for the subsistence economy while the men were responsible for the monetary economy. The men's field of activity meant, moreover, that they were highly mobile, while the women, especially after marriage, were largely stationary.

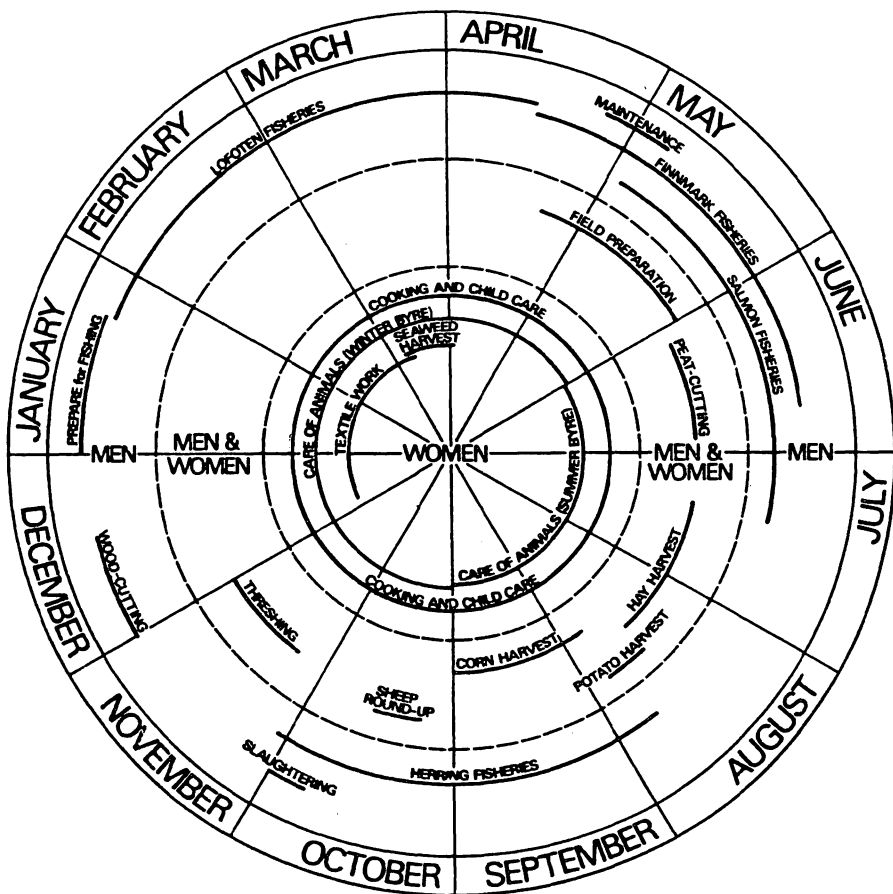


Figure 3. Annual work cycle for the cadastral farm unit of Kalvik, outer Bindal, around the turn of the century. The seasonality of resource use was accompanied by a division of labour between men and women.

Source: Redrawn using data from Wollan (1983)

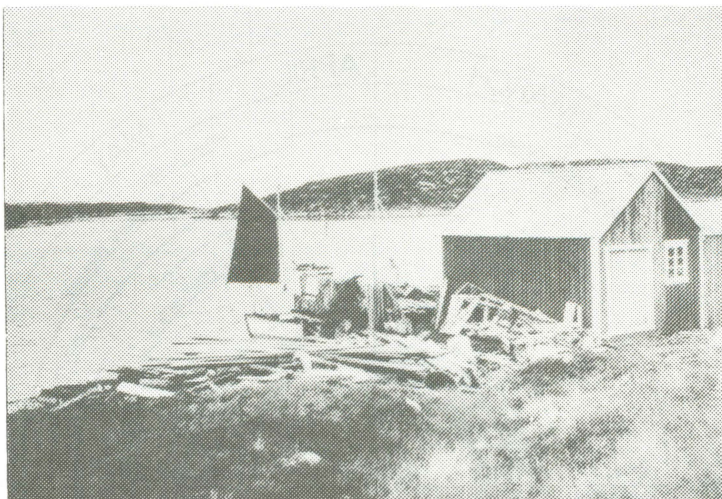


Figure 4. Traditional resource use on the outer coast: fishing-boat, storehouse for equipment and collection of flottsom, Gåsvær, Herøy, Nordland. Photo: M.J. 29.9.81.

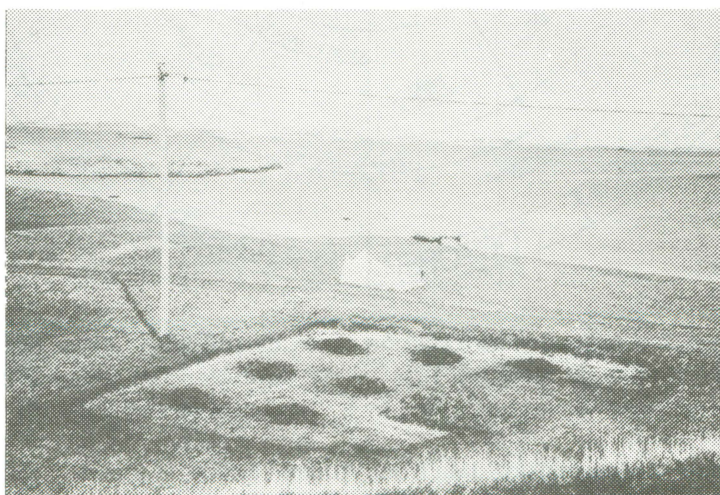


Figure 5. Traditional resource use on the outer coast: potato field with manure, and net-covered underground potato store in sand, Sanna, Træna, Nordland. Photo: M.J. 11.5.82.

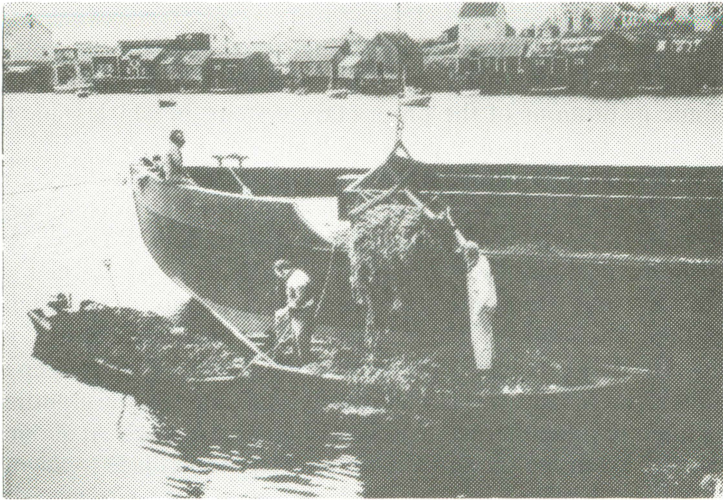


Figure 6. Traditional resource use on the outer coast: delivery of seaweed for the manufacture of animal feed, Sula, Frøya, Sør-Trøndelag. Photo: M.J. 5.8.80.

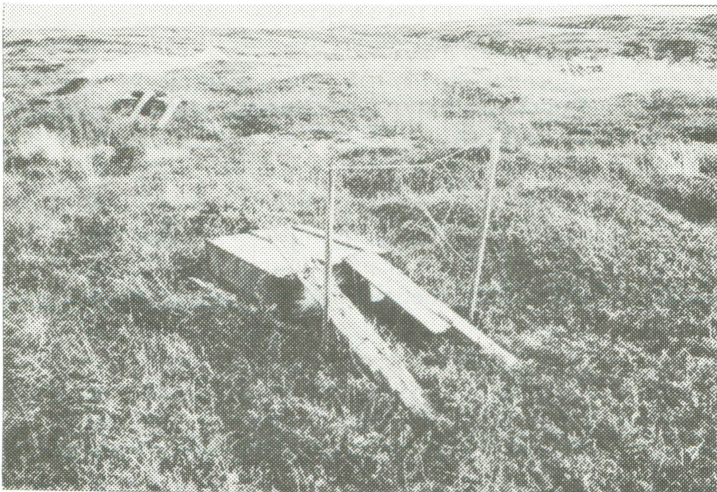


Figure 7. Traditional resource use on the outer coast: fish boxes and planks placed as nests for eider ducks for the collection of down, Gåsvær, Herøy, Nordland. Photo: M.J. 29.9.81.

The proprietary system

The second element contributing to the historical cultural landscape of the outer coast north of Stad derived from the social and economic institutions of the proprietary system, in which trade was largely under the control of powerful landowners. Trade in fish goes back to the Middle Ages, when the Hanseatic traders in Bergen exchanged corn for stockfish. Later, indigenous merchants in Bergen and Trondheim established themselves as fish traders. To begin with, the fishermen themselves transported their fish to Bergen and Trondheim, but from the 18th century a group of middlemen established themselves. These were often local innkeepers who obtained trading privileges. The trading monopoly of the Bergen and Trondheim merchants was also gradually weakened by the granting of staple rights to other places, such as Kristiansund in 1742. At about the same time, extensive sales of Crown property took place to augment State coffers depleted by war. In Helgeland, huge Crown estates including islands were sold to private interests towards the end of the 17th century. In Møre and Trøndelag, islands were purchased by fish merchants in Kristiansund and Trondheim from the Crown in the 1720s. In Lofoten, Crown and Church property was purchased by local innkeepers and merchants in the early 19th century.

The economic ideology of *laissez-faire* liberalism led in the 19th century to the progressive removal of the towns' staple rights and the freeing of trade. The last restrictions were removed in 1874. The upswing of trade benefited the landowners. They owned the fishing stations and were able to exclude competitors by not allowing them to rent land. There was some competition from fish merchants trading from vessels. In many of the island communities of Møre and Sør-Trøndelag, however, fishermen were obliged to sell their catch to the landowner or his agent as a condition of contract for the lease of their house or shanty. This practice, beginning in the mid-18th century and continuing to the 1890s, was comparable to the fishing tenures of the same period in Shetland. The fishermen were further tied to the landowner/merchant through his control of credit, even where, as in Lofoten, there is no direct evidence of lease contracts making delivery of fish to the landlord compulsory. The good herring years of the 1860s and 1870s allowed the merchants to expand their credit facilities.

Credit was given for the purchase of food, clothes and equipment, and the means of repayment were fish and fish products. The fishermen were guaranteed the sale of their catch, but had no control over the price. Competitors were prevented by the landowners from setting up shops and wharves. The merchant-landlord class also secured political influence when self-governing local authorities were established in 1838.

The proprietary system, as it developed during the 19th century, made its mark on the landscape of the fishing communities of the outer coast (Figure 8). Through his ownership of land, the proprietor had control over production and trade. He owned the fish wharf and the shop, and carried out fish-processing. Besides fish-drying racks, salting-houses and later ice sheds, the proprietor could have small wooden factory buildings where cod-liver oil or herring oil were manufactured or salmon were smoked. The proprietor also rented out shanties and drying-racks to migrant fishermen. As a rule, the proprietor (or his factor in the case of absentee landlords) was shipping-agent, ran the post-office and telegraph-office and provided lodgings for travellers, thus canalizing through himself much of the communication with and hence information from the outside world. Farming was another activity. The proprietor's farm was generally the largest, with outhouses distinguishing themselves from the small byres of the fishing families. He might also have an income from tenant farmers, from owner-occupiers who had mortgaged their properties to pay off debts, and from cottars and fishermen who could only afford to rent a house and perhaps a small plot of land. In addition, the proprietor would have rights to salmon-fishing, eggs and down from his shores and islets, and to a shore fee for fish landed by others on his shoreline.

The mix of building styles in these fishing communities reflected the social stratification at the end of the 19th century. The merchant-proprietors constituted an upper class together with government officials and teachers. Owner-occupier and tenant farmers formed an intermediate class of fisher-farmers. The lower class consisted of cottars, fishermen without land, servants and labourers. The cottars might have a small plot of potato land and a few animals. Fishermen without land might rent only a house plot and were dependent on the

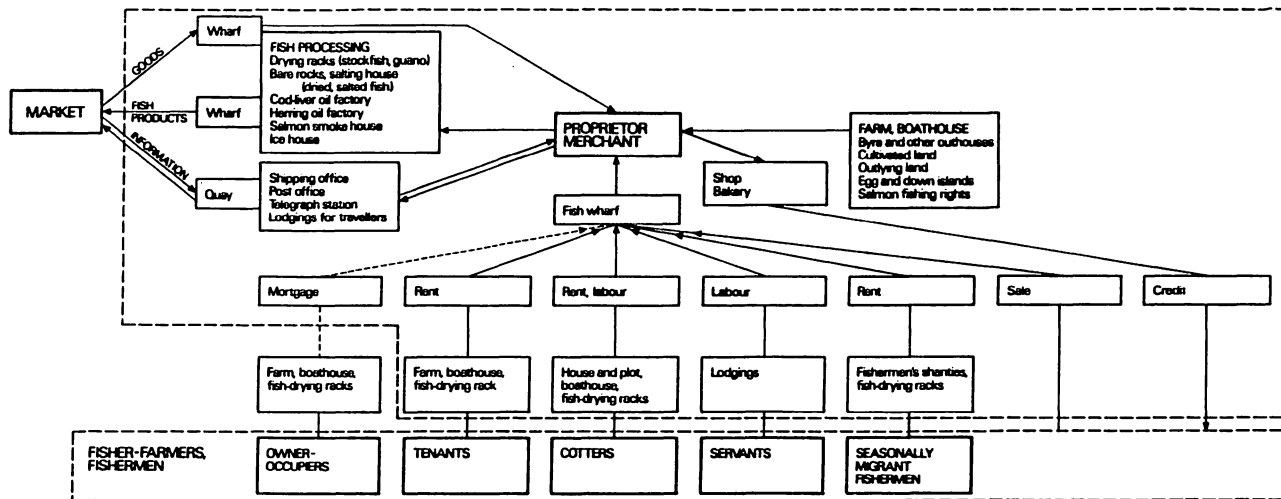


Figure 8. Diagram showing the socio-economic functions of the proprietor-merchant and associated landscape features in fishing communities with proprietary ownership in Central and North Norway at the turn of the century. The diagram is a schematic presentation, which in reality would show many variations. The proprietor and merchant was not in every case the same person. Not all types of activity were present in every community. The relative importance of farming and fishing showed marked geographical variations. To simplify the diagram, economic transactions between the proprietor-merchant and the fisher-farmer class are canalized through the fish wharf. Fish and fish products were the main source of income and the main means of payment of debts and rents. Servants, labourers and cottars worked frequently in fish-curing or on the proprietor's fishing-boats, but they might also do farmwork, housework or shopwork. Rent was frequently paid partly in the form of labour.

Source: Jones (1984)

sale of fish and handicrafts to buy necessities, even potatoes and milk. Fishermen, handicraftsmen, servants and labourers frequently lodged in the houses of others.

The typical settlement pattern of the proprietary-owned fishing communities and trading-places was a cluster of buildings set around the quay. Close to the shore were the wharves, curing station and shop. Shanties or booths for migrant fishermen and fish-drying racks were generally nearby. The proprietor's dwelling and farm (or those of his factor) might be set a little back, but at no great distance away. The houses of the fishermen lay spread around. In fishing communities with several owner-occupier or tenant farmers, it was not unusual for the farm buildings of separate farmers to lie intermixed with one another. Otherwise, freeholders and tenants were dispersed along the coast and islands of the strandflat.

PROCESSES OF CHANGE IN THE CULTURAL LANDSCAPE OF THE OUTER COAST

The partial dissolution of the proprietary system

The 20th century has seen a series of institutional, technological and economic changes, which have had a profound impact on the coastal landscape. Not least among these changes has been the partial dissolution of the proprietary system, beginning at the end of the 19th century. This involved essentially two processes: the transition to owner-occupancy, and the breaking down of the merchants' local trading monopolies.

The transition from tenant farming to owner-occupancy began in Helgeland around 1875, reaching completion by about 1950. In this area of geographically extensive estates, stretching from fjord to outer skerries and embracing more favourable farming areas as well as predominantly fishing areas, the interests of the large landowners were less focused on fish than either in Lofoten or further south in Møre and Trøndelag. Drawn by the prospects of obtaining better returns through investment elsewhere, they sold off their landed estates to the tenants.

One of the largest estates was that of Huseby, which in 1901 consisted of 100 tenant farms, including the fishing-farming communities of Husøy and Sanna in the Træna islands, located astride the Arctic Circle. On Husøy, the tenants began to purchase their farms just after the turn of the century. The farmers formed an association, which in the inter-war years acted as a collective proprietor in relation to cottars and fishermen without land. Until the 1930s, contracts forbade them to take in lodgers or to hold dances or parties in their houses. On Sanna, the small farms remained as tenant holdings until the local authority intervened and used powers of compulsory purchase on their behalf shortly after the Second World War.

Conditions in proprietary-owned fishing communities were investigated in Central and North Norway in the 1880s by a Government Commission. This led to Acts in 1892 and 1899 banning the compulsory sale of fish to landowners as a condition of lease contracts. The measure was of particular significance for the Møre and Trøndelag coasts, where such contracts had been common. It is of interest to note that this occurred at a similar period to the Truck Commission of 1872 in Shetland and the Napier Commission of 1884 in Scotland, leading to the Crofters Act of 1886, which among other things abolished fishing tenures.

In 1904, the Norwegian Government set up a bank to provide loans to fishermen (and other landless groups) for the purchase of their houses and plots. Laws providing for the compulsory purchase of land in fishing communities were enacted for Finmark in 1917 and for other parts of the coast in 1919, and similar measures were incorporated in the Land Act of 1928. These measures allowed the State to intervene on behalf of fishermen. Although these laws did not fulfil all expectations, they were based on an underlying ideology that owner-occupancy was the best form of landownership and reflected the strength of agrarian interests in the Norwegian Parliament. State intervention also occurred in connection with the financing of harbour improvements. Government finance was only forthcoming on condition that restrictive landowning practices were removed and that the free establishment of curing yards and wharves was permitted.

Some proprietors, especially the absentee landlords in Møre and

Trøndelag, chose to sell out to the inhabitants of their fishing communities when they came into economic difficulties. A period of crisis in the export of *klippfisk* around the turn of the century led to several sales. Veidholmen was sold by the proprietor to his factor in 1896; in 1921, the local authority guaranteed loans to the inhabitants allowing them to purchase their land. On Mausundvær, 14 inhabitants formed an association which bought out the proprietor with the help of a State loan when he came into economic difficulties in 1900. Similarly, 21 inhabitants formed an association on Ona and purchased the island in 1901 with the help of a local-authority guaranteed loan when the proprietor ran into financial difficulties. The house plots passed into individual ownership, while all other land, including that between the houses, remains in common ownership. In the case of Grip (Figure 9), which had become an independent local authority district (commune) in 1897, the local authority bought the whole community from the proprietor in 1909 with the help of a State loan. This was after a period of complaints by the fishermen against the owner, which reached Parliament. Old houses were refurbished and new ones built in a period of hectic activity between 1910 and 1920, giving the tightly packed settlement a uniform appearance. The inhabitants rented their plots from the local authority until shortly before it was amalgamated with Kristiansund in the local-government reform of 1964. Until then, Grip was Norway's smallest commune. However, the population had declined from 250 in 1930 to about 100 in 1964, since when the island has become depopulated as an all-year settlement. Other communities changed hands in the inter-war period. Froan with Halten was sold to the Sør-Trøndelag Agricultural Society in 1927 after the proprietor went bankrupt. The factor then purchased the proprietor's buildings, wharf and shop, and the other inhabitants purchased their plots. Nearby Sula was sold to the State in connection with harbour improvements in 1939. The inhabitants were able to purchase their house plots, but most of the land was owned by the Directorate of Fisheries until 1966, when it was transferred to the local authority, Frøya commune.

While economic factors and State intervention were bringing about changes in tenure, the merchants were also losing their monopoly over trade. From soon after the turn of the century, the introduction of motorized and decked boats meant that migrant



Figure 9. Grip, Nordmøre. Once Norway's smallest local-authority district, the island is now depopulated in winter, but used for fishing and recreation by its former inhabitants at other times of the year. After the local authority purchased the island from the last proprietor in 1909, the houses were refurbished with the aid of master-builder Edvard Arntsen between 1910 and 1920. Photo: M.J. 29.6.83.

fishermen became less dependent on a particular base for fishing and therefore freer to fish and sell where they wanted. The establishment of savings banks gave the fishermen alternative sources of credit. The fishermen began to organize themselves into local trade unions and interest organizations in the early part of the century. The development of the co-operative movement led to the establishment of co-operative stores from the 1920s. These also competed with the merchants in purchasing fish. Just before the Second World War, the first co-operative fish-processing stations were established. In 1938, an important Act removed price-fixing from the hands of the merchants. The fishermen established their own marketing organizations, which were given a monopoly over the first-hand sale of fresh fish, combined with powers to fix prices.

Only in Lofoten has the proprietary system survived until today, although even here improved boats, new laws, the growth of fishermen's organizations and the banking system have reduced the power of the proprietors. House plots are still commonly rented, however, with clauses stating that the tenant cannot undertake activities in competition with the proprietor. The system has perhaps survived because of the presence of paternalistic, non-absentee landlords, closely associated with the community. The rich fishing-grounds of Lofoten have meant that economic problems have been less here than elsewhere. Compulsory purchase and other forms of official intervention have often not been applied because they have been felt to be time-consuming and uncertain in outcome. Nonetheless, there has been some use of compulsory purchase and the State has intervened in cases of both bankruptcies and harbour works. Economic pressures have recently produced new forms of ownership, such as the formation of joint-stock companies to manage fishing stations. Nonetheless, the characteristic landscape of the proprietary-owned community, with its marked social differences reflected in building styles and with the wharves and shanties often painted in one identifying colour, has maintained itself in marked contrast to the situation in fishing communities further south.

Industrialization and the rationalization of primary occupations

Beside the retreat of proprietary forms of ownership, a powerful force for change in the cultural landscape of the coast has been the effects of industrialization and the related rationalization of primary occupations. Industrialization in the late 19th and early 20th centuries saw the development of new fish-processing industries in addition to the traditional drying and salting of fish. This began with the so-called guano industry in Svolvær, Lofoten, in 1856, the first in Europe to use fish heads and other waste to manufacture fertilizer. The period just before the First World War saw the establishment of fish-canning factories and herring-oil factories in North Norway. The first Norwegian fish-canning factory was started in South-West Norway at Stavanger in 1879, and Stavanger interests were active in spreading canning factories to the north in the years before the First World War. Norway's first herring-oil factory was established in Svolvær in 1898. The growth of the fish-processing industry produced new landscapes,

with their characteristic smells, in fishing settlements along the whole coast of Central and North Norway.

After a stand-still period in the inter-war years, there occurred a rapid growth in the herring-oil and herring-meal industry after the Second World War. The 1960s and 1970s saw the rapid expansion of the fish-freezing industry. The period after the Second World War has also seen rapid technological developments in the fishing fleet, with improved gear and larger boats. State support for fishing was put on a regular basis in 1964, with the principal aims being improved profitability for fishermen and the effectivization of fishing methods, processing and marketing. In the 1960s, trawlers and seine-sweepers were built with the help of State subsidies, partly replacing the coastal fleet of small fishing vessels. The fish-processing industry similarly became the object of rationalization measures, with a decrease in the number of factories (except freezeries) and employees. The quantities of fish caught continued to increase until 1967, when increasing problems of over-exploitation began to make themselves felt. The resource crisis has led to new forms of State intervention with the regulation of fishing to preserve stocks.

The post-war period has also experienced a marked rationalization of agriculture. In Norway as a whole, the number of fishermen has decreased by two-thirds and the number of farmers by one-half since the war. Both fishing and farming have become capital-intensive livelihoods. Many small fisher-farmers have been forced to give up the combination. Those who have not migrated to the towns specialize either in fishing, or where conditions are favourable in farming. In the fishing districts, there has been a marked reduction in the number of agricultural holdings and in the area of arable land. Mechanization requires holdings of a certain size for them to be profitable. State agriculture policies have encouraged specialization. Agriculture has lost its character as a subsistence livelihood.

This process can be summed up as a transition from a many-sided, labour-intensive and household-oriented production to a specialized, capital-intensive and market-oriented production. The replacement of the traditional fisher-farmer holding by specialized fishing or farming units has meant that especially women have lost part of their role in the

traditional division of labour. Fishing has always been a male occupation. Where the household has given up fishing, expanded the arable area and concentrated on production for the market, the men have taken over the farm. The lack of alternative work for women, despite the creation of some new work places in expanded local government and health services, has led to high out-migration, especially among young women. Many fishing districts have a severely imbalanced sex ratio, making it difficult for young fishermen to establish families. This leads in turn to problems of recruitment to fishing.

Other factors which have contributed to the depopulation of peripheral areas and islands have been the transition from sea to land communications with increased car ownership; the centralization of schools; the concentration of services in towns and urban agglomerations; and government grants to assist people to move from inaccessible places. Some attempts have been made to halt out-migration in the later 1970s and 1980s. There has been some reversal of policy regarding school centralization. New bridges have been built linking outer islands such as Veidholmen to larger islands. The islands of Ona and adjoining Husøy, with 120 inhabitants and 5 km road, have access by car ferry, which helps to keep at least some youngsters with an interest in cars at home. Nonetheless, only a few communities seem able to withstand the pressures of urbanization.

NEW CULTURAL LANDSCAPES

The traditional cultural landscape of the outer coast, with its combined fisher-farm holdings and proprietary-owned fishing settlements, is in the process of being replaced by new types of landscape. A classification of coastal landscapes today would include the following categories:

Landscapes of depopulation. Until 1960, government grants to assist removal from isolated communities were given on condition that the houses had to be pulled down. Later, it was made a condition only that they were not to be used as all-year dwellings. In some places, depopulation has been followed by the decay and disappearance of buildings and the overgrowing of agricultural land. Elsewhere,



Figure 10. Gåsvær, Herøy, Nordland. A retired fisherman has just received his annual supply of coal (in the wheelbarrow), delivered by boat. The island's youngest inhabitant is going to the shop with her mother, wife of the last full-time fisherman. The girl's elder sister was in 1981 the only pupil at the island's school, but now both go to school. The settlement, with about 40 inhabitants, hangs on by a thread. Photo: M.J. 29.9.81.

farmsteads are maintained as recreational dwellings for summer use, although outhouses (with the exception of boathouses) rot and the land becomes overgrown.

Recreational landscapes. These are probably more common than landscapes of total depopulation. Grip, although depopulated in the winter months, is still used by its former inhabitants for summer recreation as well as for fishing. The coast otherwise naturally attracts those interested in sports fishing, boat life and diving. Former fishing communities such as Nordre-Bjørnsund, which with the exception of one or two old people ceased to be inhabited all year round in 1971, is a hive of activity in the summer months. A school, built in 1962, is used as a children's summer camp. Private houses are undergoing

restoration as summer dwellings. New summer cabins are making their appearance here and elsewhere on the islands on the outer coast.

Specialized fishing landscapes. In a great many of the fishing communities of the outer coast, the inhabitants have ceased animal husbandry and cultivation altogether. Such is the case on islands such as Mausundvær, Sula, Ona and Myken. Their livelihood has become completely dependent on fishing and work at the fishing stations. Such communities are vulnerable both to market fluctuations and to the depletion of fish stocks. A response to the latter has been the development of aquaculture. Fish-farming began in Norway in the early 1960s, and there are now some 450 fish farms along the Norwegian coast, producing over 20,000 tons of salmon and trout a year. A system of licences has been introduced to prevent too rapid expansion. Government policy has been dictated by the desire to restrict disease and pollution and to guard against a market collapse. Fish-farming has become an attractive investment object, and, in an attempt to keep this new livelihood in the hands of local producers, limits have been placed on the amount of outside capital allowed. The farming of shellfish (mussels) is also a developing activity, while experiments are going on with the farming of lobsters and other fish. On the outer coast, a licence for a fish farm in conjunction with a fishing station is often seen as a means of stabilizing the local economy.

Specialized agricultural landscapes. As the number of combined fisher-farmer holdings becomes fewer, agriculture – where it has not been abandoned – has become increasingly a full-time occupation. Where conditions are favourable, the farm area is extended through the leasing of land from abandoned farms, and farm buildings are modernized. Some of the outer islands have specialized in sheep-farming. Specialization in dairy farming has occurred on some islands with good communications. At Ulla (Figure 11) on the island of Haramsøy in Møre og Romsdal, the former combined fisher-farmer holdings have become commercial dairy farms. Of the original eight farms, four are in operation and rent the land of the others, and modern outbuildings have been built. An old trading-place with fish-curing yards, where seasonally migrant fishermen landed herring in the 19th century, no longer functions. The first phase of agricultural modernization took place in the 1890s with the enclosure movement.

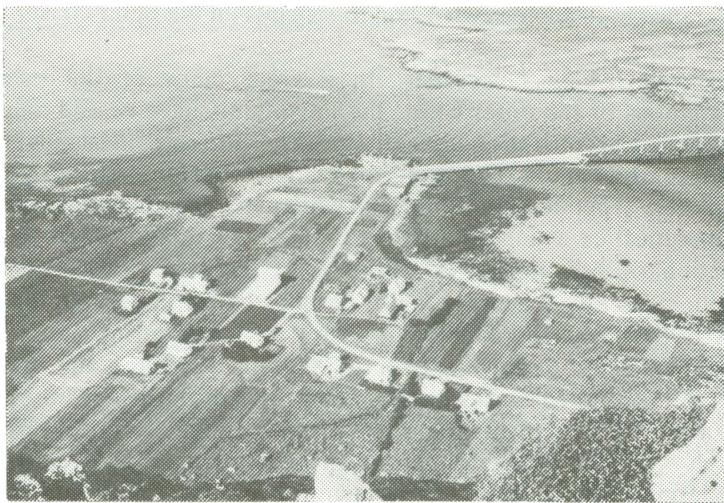


Figure 11. Modernization of agriculture on the strandflat at Ulla, Haramsøy, Møre og Romsdal. Six of the eight farms were moved out of the nucleated settlement at the enclosures of the 1890s. Originally farming was combined with fishing, but agriculture is now the sole occupation. Today, four holdings rent the land of the other four. New farm outhouses have been erected. The former peat cuttings on the island of Ullaholmen (background) have been brought under cultivation. The row of boathouses by the shore are now used only for hobby fishing. Photo: M.J. 19.8.78.

The final demise of fishing, except as a hobby, has occurred within the last twenty years.

Conservation landscapes. At a few places, an attempt has been made to preserve characteristic features of the traditional coastal landscape through architectural conservation. Kjerringøy, a classic example of a former merchant's complex just north of Bodø, was taken over in 1959 by Nordland County Museum. Kjerringøy was the last stop of fishermen travelling from Helgeland and further south to the seasonal fisheries of Lofoten. In Lofoten itself, Nusfjord (Figure 12) received special conservation grants in connection with the European

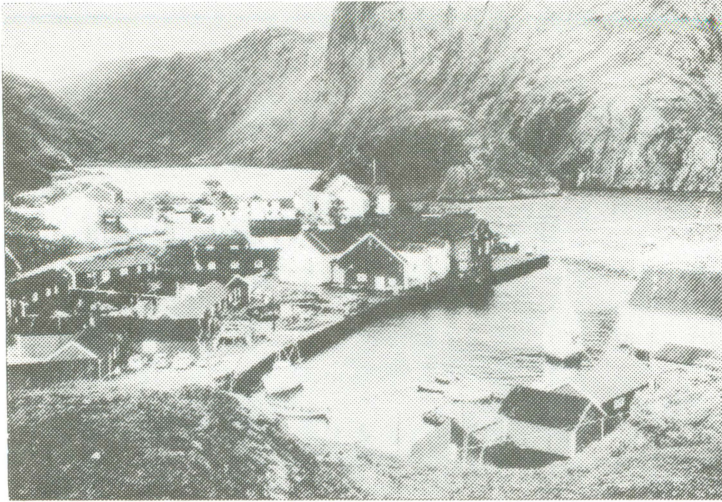


Figure 12. Nusfjord, Lofoten. The shanties are used by seasonally migrant fishermen from Helgeland in winter and by tourists in summer. Most of the ground is still owned by a single proprietor, whose house is identified by the flagpole. The fishing station has become a joint-stock company, of which the landowner is the managing director. Nusfjord became a conservation area in connection with European Architectural Heritage Year in 1975, as a representative example of a 19th-century North Norwegian merchant-owned community. Photo: M.J. 24.7.82.

Architectural Heritage Year in 1975, when it was one of three pilot projects in Norway (along with Stavanger and Røros). Nusfjord is a relatively unchanged example of a 19th-century North Norwegian merchant complex and seasonal fishing centre. It remains a living community, with the shanties continuing to be used by migrant fishermen from Helgeland in the winter and by holiday-makers in the summer. Tourism and fishing are seasonally complementary in Lofoten. Against the backdrop of dramatic natural scenery, the attractions of a holiday in a genuine fisherman's shanty have contributed to the preservation of some of the classic features of Lofoten's proprietary-owned settlements. Further south, in

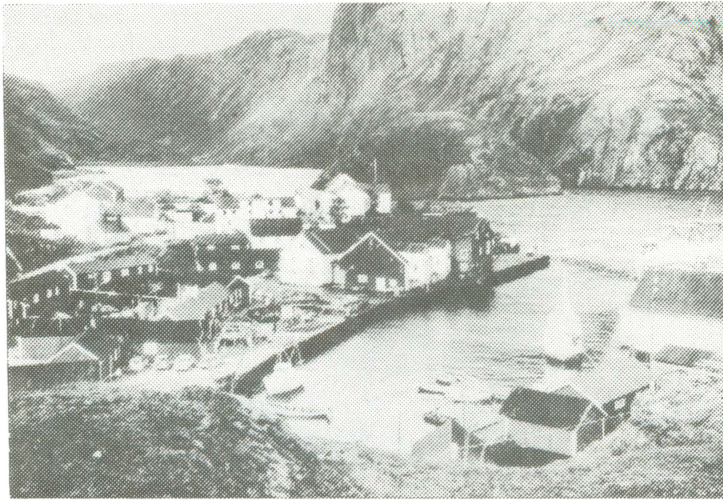


Figure 12. Nusfjord, Lofoten. The shanties are used by seasonally migrant fishermen from Helgeland in winter and by tourists in summer. Most of the ground is still owned by a single proprietor, whose house is identified by the flagpole. The fishing station has become a joint-stock company, of which the landowner is the managing director. Nusfjord became a conservation area in connection with European Architectural Heritage Year in 1975, as a representative example of a 19th-century North Norwegian merchant-owned community. Photo: M.J. 24.7.82.

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and destruction from the weather. Moreover, coastal culture has traditionally been a mobile one, with new ideas being rapidly adopted. The building of later additions and the use of new materials and styles seems almost an integral feature of the typical coastal dwelling. Economic swings and resource fluctuations lead to changes in settlement patterns. Nonetheless, the rapid changes of the post-war period in the economic and social fundamentals mean that the traditional cultural landscapes of the outer coast – represented by the combined fisher-farmer holding and by the proprietary-owned settlement – are facing either modernization and structural rationalization, or depopulation, decay and disappearance. The conservation of a few representative examples of these traditional coastal landscapes provides a visual historical record of a society which, while providing a physically harder life, a greater dependence on local resources and a less egalitarian social structure than enjoyed by most Norwegians today, is a fundamental part of Norway's cultural heritage.

SOURCES

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Map and diagrams drawn by Morag Gillespie, Department of Geography, University of Edinburgh.