ORWAY, NORWEGEN, NORVÆGE, in modern Norwegian, Norge or Noreg, and in Old Norse, Norrøn; the country takes its name from the North Way, the route to the north. Norway has one of Europe’s longest coastlines, divided by long fjords reaching back into the country, and partly sheltered from the ocean by a multitude of islands and skerries. The narrow country is penetrated by long river valleys and long, narrow lakes. On the rocky coastal zone where land and water meet, a large proportion of the Norwegian population have made their homes, and their way of life here has determined both the cultural pattern and the physical remains which it leaves in the landscape.

In recent years there has been an increasing appreciation of the fact that this maritime environment represents something special for the nation and that it is important to protect not only the physical remains of the past, but also the knowledge of past traditions which are associated with them. As a result, steps are being taken to preserve this maritime cultural heritage, and surveys are being made of monuments, sites and buildings, as well as boats, ships and other seaborne evidence of the past. Attention is also being drawn to the many physical remains of our cultural history which can be found on the sea-bed, including ancient settlement sites in the North Sea, wrecks, various structures, and not least objects which have been lost at sea or thrown overboard and which we are now able to recover thanks to modern developments in submarine technology.

Certain circumstances have helped to increase the interest in the maritime environment and the physical remains:

- the great activity attached to the exploitation of oil in the North Sea has had a great effect on some parts of the Norwegian coastline. It has led to a change in the traditional way of life and the traditional economic and commercial activities;
- as a result of the growing awareness among people of what we are in danger of losing, preservation societies and similar organisations are now being formed which can press their demands on politicians and on officials involved in preserving the cultural heritage;
- parts of the coast have become attractive recreation areas, representing an increased threat to monuments and other traces from the past, but at the same time opening up new possibilities for
danger croissant menaçant ce patrimoine, ont fait pression sur les autorités en charge du patrimoine culturel, et sur les politiciens;

- le tourisme, qui a transformé certaines régions côtières en endroits de récréation, ce qui représente à la fois un danger, mais aussi une possibilité de survie pour les vestiges du passé qui n’ont plus d’autres moyens de subsister;
- une évolution dans le concept de sauvegarde: le romantisme souvent associé au désir de conserver le passé a fait place à une exigence de représentativité: on s’intéresse maintenant à l’architecture anonyme dans son contexte environnemental.
The trading settlement at Kjerringøy, near Bode, in Nordland, had its economic base in the S Norwegian cod fishing industry. The settlement, comprising 15 houses with almost all their inventory intact, flourished in the eighteenth and nineteenth centuries.

The continued existence when their original economic function has gone— the romantic tradition associated with the preservation of the past has long since been replaced with demands for representativity. The more anonymous monuments and relics from the past and their association with the environment are therefore now receiving more attention.

THE PHYSICAL EVIDENCE OF THE PAST IN THE COASTAL LANDSCAPE

The coast of Norway can be divided into zones. These are often conditioned by the degree of adjustment to the different economic and commercial aspects which dominate in the area. One such zone consists of the west coast right up to the far north, where fishing has been a determining factor. The area of the south coast running eastwards from the southermost point of Norway at Lindesnes makes up another zone. This part has been dominated by shipping, shipbuilding and coastal fishing in various forms. Within both zones agriculture has also been an important, but nevertheless secondary factor, when compared with the other commercial interests. These zones can be further subdivided into smaller cultural areas.

The first zone, the fishing zone, which stretches right around the west coast from Lindesnes in the south, can in reality be divided into two areas, the west coast in the southern part of the country and the far north. These areas are ecologically conditioned. In the far north the economy has been adapted to a large extent to the cod fisheries, while in the south herring fishing has been the determining factor. These coastal areas have been among Europe’s most important sources of fish for long periods of history.

In any cultural area certain elements can be distinguished which are more important than others. When discussing the fishing zone, it is therefore possible in this context to look at two cultural patterns, one in the north which is based on the fishing of cod especially during its spawning season, and the other in the south based on the herring.

In the cultural landscape there are features which can be readily associated with each area. In the cod fishing area of the north, various fishery buildings connected with the maritime economy are the most characteristic, along with fishermen’s shanties and the different arrangements for treating or refining fish products, such as the fish-drying racks (fig. above). These must be regarded as an important feature of the cultural landscape, and good examples can be found in association with the fisheries at Kjerringøy, Nordland, and at Nusfjord, in the Lofoten Islands. On the west coast further south, the most dominant monuments are the great wharfside buildings where the herring was salted. Skudeneshavn in Rogaland provides a good illustration of the decisive role which the herring fishing has played in the formation of the local architecture (fig. p. 314).

In the other coastal zone in SE Norway, the picture is not so straightforward. The important

LES VESTIGES DU PASSE DANS LE PAYSAGE CÔTIER

La côte norvégienne peut être divisée en deux grandes zones, chacune définie par les conditions dominantes de l’économie de base. La première zone englobe la côte ouest jusqu’au grand nord. Ici, la pêche est le facteur dominant qui a déterminé le mode de vie. La seconde est comprise entre la pointe de Lindesnes à l’extrême sud et l’est du pays. Là, l’économie se base sur le commerce maritime, les constructions navales et la pêche côtière sous différentes formes. L’agriculture a joué un certain rôle dans les deux zones comme ressource secondaire. Ces deux grandes zones ainsi définies peuvent être ultérieurement subdivisées en régions.

Pour en revenir à la première zone, que nous pouvons qualifier de zone des grandes pêcheries, les conditions écologiques commandent deux subdivisions: la pêche à la morue dans le grand...
The buildings and other monuments which have been mentioned here represent the various ways in which maritime culture has been adapted to the Norwegian coastal landscape. They can only be fully understood when the economic conditions and the ecology are taken into consideration. When these conditions cease to apply, the appreciation of the cultural heritage is also lost to some extent. The most important features are also the most anonymous and most vulnerable ones. When the fishing industry dwindles, the fish-drying racks and the fishermen’s shanties will also disappear from the landscape.

The main role of monuments from the past is to provide a historic dimension which reflects the connections and the continuity in the cultural pattern. Apparently anonymous elements can be significant in this context, and this can be illustrated with an example from the coastal landscape in SW Norway.

The inhabitants of the south coast lived in a harsh landscape where the ecological conditions for maintaining their livelihood were absolutely major. They had a limited supply of fish and it was necessary to use a combination of different kinds of fishing equipment designed for the various types of fish in order to catch enough to live on. There was very little farmland, but what there was, was important and intensively worked. The once limitless forests which had provided timber for export and for shipbuilding were gradually being exhausted. Under such conditions the local communities were unable to support everybody, and the only solution was for the unmarried men to go to sea or migrate, in the first instance to the Netherlands, and later to the USA.

In order to maintain subsistence, this society was dependent on a flexible adaptation, which took the form of fishing based on a combination of the various types of fish which occurred at different times of the year. In addition, people would have a number of different trades in the course of their working life, and they combined various forms of livelihood depending not only on their age but also on the season of the year.

An understanding of the dynamics of this society can be found in both the social and the functional differentiation of the buildings, and in the poor but nevertheless intensively cultivated farmland. And it can also be found in the often bateau soit réparé, il ne reste aujourd’hui que la tour de vigile du pilote, les pilotes d’amarrer sur les rochers et les vestiges de petits chantiers.

Les différents bâtiments que nous avons mentionnés représentent les différentes manières dont l’architecture s’est adaptée à une culture maritime, elle-même dépendant de conditions écologiques et économiques. Quand ces conditions cessent d’exister, elle n’a plus aucun sens, à moins que nous soyons à même de la remettre dans un contexte historique. Les éléments les plus anonymes de cette architecture sont aussi les plus vulnérables. Ainsi, les tréteaux servent au séchage du poisson, et les entrepôts pour garder les salaisons sont-ils condamnés à disparaître.

Le rôle le plus important des vestiges du passé est de nous donner une dimension historique, d’être un lien entre nous et une tradition culturelle. Certains éléments apparemment anonymes peuvent avoir une signification contextuelle. Ceci peut être illustré par un exemple pris dans la région du sud-ouest.

Les habitants de cette région vivaient dans un paysage dans lequel les conditions écologiques n’assuraient que d’une façon marginale leurs possibilités d’existence. Les ressources de la pêche étaient limitées. Il fallait utiliser différents équipements selon les sortes de poisson. La terre était pauvre, mais l’agriculture était d’importance capitale pour assurer la survie, et chaque homme de terre était exploité intensivement. Les forêts vastes qui avaient fourni le bois pour l’exportation et pour les constructions navales étaient graduellement décimées. Dans de telles conditions, les communautés locales ne pouvaient subvenir aux besoins de tous et la seule solution qui restait aux cellules était l’émigration, en premier lieu vers les Pays-Bas et plus tard vers l’Amérique du Nord.

Pour pouvoir subsister, cette société dépendait donc de sa faculté d’adaptation. Il s’agissait alors de combiner la pêche côtière et saisonnière avec l’exercice de métiers variés, selon l’âge et les saisons. La dynamique d’une telle société se reflète dans les différents bâtiments, témoins des différences sociales et fonctionnelles. Elle se reflète également dans le mode de culture d’une terre pauvre, et aussi dans certains bâtiments anonymes, derniers vestiges d’un commerce florissant, chantiers, cales sèches, points d’amarrage et tours de vigile. Il reste aussi quantité d’objets faisant partie de l’équipement d’un bateau et d’outils qui economic factor here has been shipping, combined with fishing and agriculture. The ecology and geographical conditions have also determined the cultural pattern to a certain extent. The offshore islands and skerries along this part of the coastline provide only narrow fishing banks and the fishing industry is therefore of a more limited nature. The forests extend to the coast and have formerly provided large quantities of oak. There have therefore been a large number of shipyards in the fjords. The skerries are full of good harbours which lie close to the busy international shipping lanes in the Skagerrak and Kattegat, and the outermost harbours could also be used as ports of refuge when the weather was bad. In this area lived the fishermen and sailors in the characteristically dense settlements around the harbours. Today, only the lookout posts of the pilots, the mooring rings and posts on the rocks, and the remains of the small shipyards bear witness to the original function of these outer harbours where sailing ships waited for a fair wind or lay-to for repairs.

e ence que la pêche au hareng a pu avoir sur l'architecture locale.
L'autre grande zone côtière au sud-est n'offre pas une image aussi simple. Le facteur économique dominant étant le commerce par voie maritime, il se combine aussi à d'autres activités diverses comme la pêche côtière et l'agriculture. Les conditions géographiques et écologiques ont été déterminantes pour chaque région de cette zone. Les nombreuses îles qui parsèment la côte sud-est réduisent les bancs de poissons à d'êtres canaux. Les forêts qui, dans le temps, s'étendaient de l'intérieur des terres jusqu'à la côte, avaient fourni les chênes servant à la construction navale. C'est pourquoi tant de chantiers navals sont dispersés le long de cette côte. Enfin, les archipels ont fourni d' excellents ports, bien abrités et tout proches du Skagerrak et du Kattegat, où les navires pouvaient trouver des ports de refuge par gros temps. C'est là que les marins et les pêcheurs vivaient, dans de petites agglomérations caractéristiques. De ces ports de refuge où les voiliers attendant que le vent tourne, ou que le
anonyme monuments qui représentent le last vestiges of shipping, such as shipyards, keelhauling sites, ballast places, mooring rings and posts, and pilot’s lookouts. There are also a great number of loose and unattached objects from boats and the enormous variety of tools and equipment, much of which has already irretrievably lost, although in recent years there has been much activity concerning the preservation of boats and ships.

In both the south coast and the west and north coast landscapes it will become increasingly more difficult to understand the cultural history, as the most important physical features historically speaking have either already lost or are in the process of losing their economic significance. However, much can be saved with fairly limited means if only we are aware of their existence. They are seldom a hindrance and they are important.

**UNDERWATER MONUMENTS**

The coast of Norway is 2,600 km long with long fjords and river valleys. In addition there is an economic zone which stretches 200 km from the coast out into the North Sea. This area contains an unknown amount of past evidence in the form of objects which have either sunk or been lost at sea, or are the result of activities at a time when the sea-level was quite a different height from today’s. The development of modern underwater technology has opened up the possibilities for the exploitation of these monuments, at the same time as there is an increasing need for their protection.

Research in maritime history has long traditions in Norway. This is due to the major role played by the shipping industry in this country. In addition, there is the research into the technology of ships and boats which began with the discovery of three Viking ships around the turn of the century. Marine archaeology on the other hand is a young and not yet fully developed subject in Norway, which partly accounts for the relatively modest results so far in this field. Another reason is the lack of a properly developed system to enforce the legislation concerning ship’s finds.

Underwater archaeology in Norway has so far been concentrated essentially on one kind of monument—wrecks from post-medieval times. As investigations of other types of remains under the sea increase and new types become known, this branch of archaeology will probably produce rich finds and new discoveries with far-reaching consequences. This will be due to the fact that we will be able to investigate completely new types of monuments, in an environment where the processes of deterioration are quite different from those experienced on land.

Paragraph 14 of the 1978 Cultural Heritage Act deals specifically with ship’s finds, and decrees that ‘the State has the right of ownership of boats more than 100 years old, hulls, equipment, cargo and everything else that has been on board, or the parts of such objects, when it is clear that it is no longer reasonably possible to ascertain whether there is an owner or who the owner(s) might be. The appropriate authority under the Act may, without consideration to any possible owner, excavate, investigate, and raise the above-mentioned objects, and take any necessary measures to preserve or take care of these objects.’

The law also covers the question of monetary rewards to the finder, the control of activities which may affect an object which is automatically ainsi que prendre toute mesure nécessaire pour les sauvegarder.”

La loi fait état de récompense à celui qui découvre une épave, du contrôle des activités qui peuvent détruire un objet automatiquement protégé par la loi et de la nécessité d’entreprendre des recherches.


Opposite world meet. Photo: Nils Aukem.

"Les extrémes se touchent." Photo Nils Aukem.
protected by law, and the need to investigate in such cases.

There are five institutions which constitute the ‘appropriate authority’ in their respective districts: the local maritime museums in the south-eastern, south-western and western regions, and the local archaeological museums in central and northern Norway. In spite of limited staff and funding, there have been no less than twenty-six major marine-archaeological investigations during the past twenty years, as well as surveys and recording of a more routine nature. Eighteen of these investigations have been associated with wrecks, mainly from the seventeenth and eighteenth centuries, and eight have been investigations of harbours. Seventeen excavations have been carried out by the Norwegian Maritime Museum in Oslo, which is responsible for the south-east region, the other four institutions being responsible for the remainder. The work can best be illustrated with the following two examples.

THE FRIGATE ‘LOSSEN’

This was the first major marine-archaeological excavation in Norway. The vessel lay at a depth of only 10 m and was found to be admirably suited for a trial investigation. It was also a rich find. The reason for the excavation was both the desire to gain marine-archaeological experience, and also to learn more about the inventory of an eighteenth-century ship.

Most marine collections in Norway are dominated by objects from the nineteenth century or later, which have often been chosen for aesthetic reasons or else on grounds of their special status. The finds from a marine-archaeological excavation have not gone through this selection process and are consequently more representative, at least to the extent that they have survived physically.

A wreck is a sealed deposit. When the ship has been identified and the date of its capsizing ascertained, the total inventory on board will also have been dated in so far as everything was currently in use at that moment. There are other significant aspects: a ship is an enclosed society which is intended to survive on its own for long periods of time, and the categories and range of objects will reflect this.

The ‘Lossen’ went down in a storm on Christmas Eve 1717 off the island of Hvaler in Østfold. Even though little of the actual vessel had survived, the excavation produced an unusually rich collection of finds, which lay well protected in the bottom of the wreck under a layer of mud. They provide a detailed insight into the life on board an early eighteenth-century naval vessel and are extremely representative of the various activities on board (fig. p. 320). They cover 4,500 accession numbers and are fairly evenly distributed among the following categories:

Details of rigging
Ship’s equipment
Ship’s chests containing personal effects
Tools chests containing various equipment
Furniture
Navigation instruments
Equipment for storing and preparing food
Tableware
Clothing and accessories
Other personal belongings
Tools
Armaments and military equipment.

These finds have provided a new kind of appreciation of the life of an eighteenth-century ship’s crew and furthermore form an important reference material for similar finds at sea or on land.

THE EAST INDIAN ‘AKERENDAM’

This marine find is of quite a different category from the ‘Lossen’, and fulfills the more romantic notions of underwater archaeology. It is of a very spartan nature and has had some effect on the formation of paragraph 14 in the Cultural Heritage Act, part of which was quoted above. On this account at least, it deserves to be mentioned.

While diving in the open sea off the island of Runde on the west coast of Sunnmøre (Møre and Romsdal), three amateur divers discovered eight canons at a depth of 23 m. In the immediate area they also found a great quantity of gold and silver Dutch coins, spanning the whole period between 1618 and 1725 (fig. p. 316). Little else of interest was observed on or in the relatively firm sea-bed. The Bergen Maritime Museum and the University of Oslo Coin Collection were subsequently contacted in order to determine, with the co-

date of its naufrage confirmée, on peut en dédui-
re la date limite à laquelle les objets à bord étaient
en usage. D’autres aspects ont également une
certaine signification. Un bateau est une société
férme qui doit pouvoir se suffire à elle-même
pendant longtemps, l’équipement trouvé à bord
en est un reflet.

La frégate ‘Lossen’ avait coulé pendant une
tempête le soir du 29 décembre 1717, au large de l’île de
Hvaler à Østfold. Elle ne restait pas grand-chose du
navire lui-même, en contrepartie, son équipement
fut retrouvé au fond de l’épave, bien protégé
par une couche de vase. Cet équipement représen-
tant des activités variées jetées de lumières sur la
vie à bord d’un bateau au début du XVIIIe siècle
(jll. p. 320). On peut répartir les 4 500 objets divers
catalogués de la manière suivante:

Détails de rigging
Equipement
Coiffes contenant des objets personnels.
Coiffes contenant des outils.
Meubles.
Instruments de navigation.
Ustensiles de cuisine et récipients pour conser-
ver les aliments.
Couverts.
Vêtements et accessoires.
Autres objets personnels.
Outils.
Armes.

Tous ces objets ont donné des renseignements
jusqu’à présent inconnus sur la vie d’un équipage
au XVIIIe siècle. En outre ils servent maintenant
de référence à d’autres découvertes similaires,
qu’elles soient faites à terre ou en mer.

L’AKERENDAM,

LE NAVIRE DE LA COMPAGNIE DES INDES

Cette découverte fait partie d’une autre catégorie,
répondant à des notions plus romantiques de
l’archéologie sous-marine. Elle vaut la peine d’être
mentionnée à cause de son caractère particu-
lier qui en a une certaine influence sur la rédaction
du paragraphe de la Loi de 1978, cité plus
haut.

Trois amateurs de plongée sous-marine trouvè-
rent au large de l’île de Runde, sur la côte ouest
(Møre et Romsdal), huit canons à 23 m. de fond.
En outre, ils découvrirent dans l’entourage immé-
diat une quantité de pièces hollandaises en or et en
operation of the finders, both the historical significance and the monetary value of the find.

On closer examination, the remains of the vessel could be identified as the East Indian Company vessel, the 'Akerendam', which belonged to the Amsterdam office of the Vereenigde Oostindische Compagnie. Taking the northern route round the British Isles en route from Amsterdam to Batavia in Java in March 1725 with a cargo which included eighteen chests of money for trading in the East, she had been blown off course in a storm and had sunk off the Norwegian coast. Further excavation showed that little of the ship or its fittings had survived, and apart from 40 canons, the finds consisted of 56,433 gold and silver coins, including 6,624 Dutch gold ducats, 10,151 ducatons of Spanish-Netherlands origin, and 10,365 Mexican and Peruvian reals. The rest was small coin for payment and consisted of 29,249 two-stuiver pieces and 38 shillings, minted in Holland in 1724. There were also six miscellaneous coins.

The numismatic analysis by the University of Oslo Coin Collection concluded that the collection consisted of coins which were not generally current in the Netherlands when the ship had set sail. They could be grouped into three categories according to their origin:
1. Small silver coins (2-stuivers and shillings) and most of the gold coins, which had been struck specially for exporting to East Asia;
2. Ducatons which had long since been withdrawn from circulation, probably as far back as the 1680s, and which had since been kept in the bank-vaults in Amsterdam;
3. Spanish-American reals which had recently arrived in Europe and which had been bought up by the Dutch with the purpose of re-exporting to East Asia.

The find provides an interesting insight into the contemporary trading system, but compared with the 'Lossen', it is of limited cultural-historiographical value. It also demonstrates the variation in the preservation conditions for wrecks along the Norwegian coast.

At the time these two discoveries were made, the law only protected a vessel or its remains, not its contents. With regard to the Runde find, questions were raised concerning its ownership and whether or not the coins could be regarded as cargo. This resulted in cargo being specifically included in the text of the new Cultural Heritage Act which came into force at the end of the 1970s.

**EARLY WRECKS**

In recent years several early wrecks have been located, usually during dredging operations in harbours. These include four clinker-built trading vessels from the fourteenth and fifteenth centuries, the largest and most important of which was unfortunately totally destroyed by the dredger. The others were extensively excavated in 1985-86.

One of these lay in the approaches to the old but now dry sailing channel along the coast of Vestfold between Tønsberg and Sandefjord. Today this is agricultural land, with the burial mound which contained the Gokstad Viking ship lying close by. Another was found among the offshore islands and skerries between Kristiansand and Mandal, Vest Agder. It is a late fifteenth-century trading vessel which was carrying a cargo of c. 200 rough-hewn limestone slabs, a load of pantiles, a great quantity of circular copper ingots and some copper pans. A palaeontological analysis of the fossils in the limestone has shown that this had come from N Estonia, probably from theLASTAMäguqquarries near Tallin.

**OTHER FINDS**

The institutions with legislative responsibility for marine archaeology have not been granted any new appointments in this field and are therefore dependent to a great extent on the chance observations by amateur divers. Consequently, it has mostly been recent wrecks which have been recorded, and there can be little or no control of other kinds of archaeological finds which may have been encountered as a result of underwater activities.

A characteristic feature of the Norwegian coastal cliff landscape is the number of small harbours in the outermost islands which could be used by foreign ships requiring repair or waiting for favourable winds. They were also used as transfer points for goods. It has been discovered that there can be large quantities of objects lying on the sea-bed in these harbours, either goods}

2. ducatonos n'ayant plus cours probablement dépréciés en 1680, mais conservés dans les banques d'Amsterdam,
3. réales hispano-américaines récemment arrivées en Europe, achetées par les Hollandais pour les exporter en Asie.

Cette découverte nous donne un aperçu intéressant du système commercial de l'époque. A part cela, en comparaison avec la richesse de la frégate « Lossen », les renseignements historiques sont limités. Elle montre aussi à quel point les conditions de conservation peuvent varier.

A l'époque de ces deux découvertes, la Loi ne protégeait que l'épave du navire, à l'exclusion de sa cargaison. La découverte de Runde mit l'accent sur le problème de l'appropriation: cet argent devait-il ou non être considéré comme une cargaison? C'est ainsi que la cargaison fut incluse dans la nouvelle loi de 1978.

**ÉPAVES PLUS ANCIENNES**

On a localisé au cours de ces dernières années plusieurs épaves datant d'époques plus lointaines, spécialement pendant des opérations de dragage dans les ports. On a ainsi trouvé quatre navires de commerce du XVIIe et XVe siècle, construits à clin. Le plus important d'entre eux a malheureusement été complètement détruit par la drague. Les autres ont fait l'objet d'investigations en 1985-86.

L'un de ces bateaux se trouvait à l'entrée du chenal entre Tønsberg et Sandefjord (Vestfold), maintenant à sec. Il fait actuellement partie des terres cultivées, non loin du tumulte qui contenait le bateau de Gokstad.

Un autre fut trouvé dans l'archipel entre Mandal et Kristiansand (Vest Agder). Il s'agit là d'un navire de la fin du XVe siècle, portant une cargaison de 200 dalles de pierres grossièrement taillées, une quantité de lingots de cuivre et quelques chaudrons, en outre des tuiles. L'analyse paléontologique des fossiles trouvés dans la pierre calcaire montre que celle-ci provient d'Estonie, probablement de carrières situées aux environs de Tallin.

**DÉCOUVERTES DIVERSES**

Les institutions légales responsables de l'archéologie sous-marine n'ont pas assez de personnel pour entreprendre des investigations systé-
broken in transit and dumped overboard during unloading, or personal objects thrown away by members of the crew when the ship was in the harbour. They provide a good picture of articles in daily use during the past, from the Middle Ages almost to the present day. Large-scale investigations have taken place at many sites.

Compared with other European countries, there have not been many discoveries of early structures in the many lakes and waterways or along the coast. This is probably due to a lack of systematic surveys and not having the capacity to keep structural work or commercial development under observation. The occasional discoveries of early settlement sites in the North Sea, however, are both illuminating and thought-provoking. These include finds of palaeolithic tools found during fishing operations and various finds in the core samples from the Frigg and Ekkofisk oilfields. Botanical analyses published recently have shown that areas which now lie at 150 m below present sea-level were used for settlement c. 8000-9000 years ago. The discovery of finds from these depths indicates the possible existence of areas potentially rich in interest- ing finds of significance for prehistoric studies.

KEEPING THE RELICS OF THE PAST AFLOAT

Ships and boats have been a prerequisite for any settlement on the coast of Norway and they are also significant in helping to explain the physical remains of the cultural heritage found in the coastal zone. While larger ships reflect the technological developments elsewhere in Europe, local vessels represent a long national tradition with its own special features. This has consisted in the first instance of clinker-built boats following a tradition with its roots in prehistory, and later of medium-to-large carvel-built vessels. Around the coast the traditional way of building and of using these vessels has survived right up to our own time, but there have been noticeable regional differences, conditioned by various ecological, economic and functional requirements.

A surprisingly large number of old open rowing and sailing boats have survived to the present day (fig. above). If, on the other hand, we wish to

preserve any of the traditional types of larger decked vessels, urgent action is required, as these are no longer as functional as they used to be and are rapidly being rebuilt or condemned.

In the course of the last 20 years, a number of private preservation societies have been formed with the purpose of saving specific boats, and this in its turn has also led to a greater involvement on the part of various official public institutions (see Svett Molaug, this vol.).

In 1977 a special committee was appointed under the aegis of the Norwegian Council for Culture which was to stimulate private initiative by helping to fund and co-ordinate particular projects. The committee’s report in 1978 more or less fixed the policy which has been followed ever since concerning official involvement in the preservation of vessels. The main points are as follows:

- The State would take responsibility for a basic national collection of vessel types. This would consist of boats and ships which are considered to be representative as possible with regard to type and function. Criteria were established for the selection of vessels, and these will be con- stantly evaluated and updated.

- Conditions were formulated concerning resto- ration and maintenance. It was suggested that a controlling and consultative body be estab- lished.

- Individual involvement in the preservation of vessels will be officially encouraged.

It was presumed that some financial system would be set up consisting of an annual grant from the State and the establishment of a fund for rescue operations and for more extensive and properly organised restoration projects.

Since 1981 the preservation of boats has come under the Ministry of the Environment. In addi- tion to a number of special grants for rescue operations, the annual grant has been around 1 million kroner. It would perhaps be relevant to mention a few special points which apply to this new aspect of the cultural heritage.

THE AIMS

With regard to the preservation of vessels, the aim has been to keep them afloat and in use, so that they can serve as living evidence of the past and

objects in usage, depuis le Moyen Age jusqu’à nos jours. Certaines investigations sont en cours dans ces ports.

En comparaison avec d’autres pays d’Europe, il n’a pas été fait de découvertes dans les cours d’eau ou dans les lacs. Nous manquons probablement de recherches systématiques et notre capacité de contrôle est par trop limitée.

D’un intérêt tout particulier sont les découvertes, faites occasionnellement, d’habitations dans la mer de Norvège. Il s’agit de la découverte d’outils paléolithiques tirés de la mer au cours de pêches. D’autres découvertes de ce genre ont été faites autour des plate-formes pétrolières de Frigg et Ekkofisk. Des analyses botaniques récentes montrent que la zone sous-marine actuelle, jusqu’à 150 m. de profondeur, était habitée il y a quelques 8000 ou 9000 ans. La découverte d’outils à ce niveau de profondeur indique donc l’existence possible de sites très importants pour l’étude de la préhistoire.

LA SAUVEGARDE DES BATEAUX À FLOT


On a conservé un nombre surprenant de bau- ques à rames ou à voiles. Mais si nous désirons sauvegarder certains bateaux plus importants, il faut alors faire vite car ceux-ci ne sont plus fonctionnels et risquent d’être transformés ou condamnés.

Un certain nombre d’associations de sauve- garde ont vu le jour ces dernières vingt années. Elles ont pour objectif de sauver certains bateaux à flot. Cet engagement a suscité un renouveau d’intérêt de la part des institutions publiques (voir Molaug, ce vol.).
La conservation des navires est un enjeu majeur pour les historiens de la mer et pour les sociétés maritimes. Les sites historiques, tels que les phares, sont des éléments clés de l'héritage maritime. Le processus de conservation des navires nécessite une approche intégrative, en tenant compte de la science, de l'éthique et de la culture. Pour que la conservation soit efficace, il est crucial de comprendre les processus de dégradation et de mise en valeur des navires. Les travaux de recherche et d'études sont essentiels pour assurer la pérennité de ces sites historiques. Les initiatives de conservation doivent être soutenues et encouragées pour assurer la préservation du patrimoine maritime et pour en faire un élément important de l'identité culturelle des sociétés maritimes.
Attempts to clarify the official guidelines concerning preservation work have proved to be difficult to carry out in practice. This is due to the many compromises which often have to be made when an old vessel is to be kept afloat and in active use.

Certain minimum conditions must nevertheless apply. The restoration must be carried out in accordance with principles designed to bring out certain original qualities in the vessel. Here we can mention:

- the exterior appearance;
- the characteristic and functional features of the vessel;
- any very special technological features which make a vessel unique in its class;
- examples of special craftsmanship;
- the introduction of other than original material or installations can only be allowed as long as this is reversible.

The sometimes drastic conversions which some vessels have undergone represent both a financial and a conservation problem. Important ways to limit this are:

- a thorough evaluation programme;
- special guidelines for the restoration, maintenance and use of especially valuable vessels;
- a more traditional form of preservation for vessels which cannot be preserved in functional use.

The preservation of vessels through their continued use afloat represents a valuable supplement to traditional solutions in museums. This applies especially to larger vessels which can only be brought ashore with difficulty and which otherwise would be lost. However, there are clear limitations, and it can easily mean that a particularly valuable object becomes worn out. It can therefore only be a supplement to more traditional museum solutions.

The preservation of vessels has, however, shown that with relatively limited public means and control it is possible to tap valuable resources in the form of active involvement on the part of the many boating enthusiasts in Norway. Preservation projects are now encountered all round the coast and include:

- large and medium-to-large ships and vessels which are owned and run by museums or private organisations;
- smaller vessels and boats owned by private individuals;
- replicas of old boats and vessels.

First and foremost these old vessels represent a valuable source material for the cultural historian. By keeping them in active use, they also represent an environmental factor which helps to keep alive the knowledge of early seamanship and craftmanship which is in danger of disappearing. From the research point of view, they are able in practice to provide the answers to many questions which we would not find by sitting and working at our desk.

La sauvegarde des bateaux a néanmoins montré qu’il est possible de réunir les fonds nécessaires en éveillant l’intérêt de nombreux enthousiastes bénévoles, et que cela demande relativement peu de moyens et d’instances de contrôle. Tout le long de la côte des projets sont en cours et incluent:

- grands, et moyens navires qui sont la propriété de musées ou d’organisations privées;
- petites embarcations en propriété privée;
- copies d’anciens bateaux.

En conclusion, il ne faut pas oublier que ces anciens bateaux représentent avant tout une source indéniable de connaissances pour l’historien. Utilisés, ils sont un facteur positif pour l’environnement et pour la maintenance des traditions maritimes en voie de disparition. Du point de vue scientifique, ils peuvent donner une réponse à beaucoup de questions impossibles à résoudre du fond de notre bureau.