BALTIC SEA IDENTITY

Common Sea – Common Culture?

1st Cultural Heritage Forum

Gdańsk 3rd–6th April 2003

at the Polish Maritime Museum in Gdańsk

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Culture is a specific form for relaying past experiences to future generations. By establishing value systems as well as the criteria that determine a hierarchy of values, culture influences the social life of human communities. Respect for culture and its tradition builds an indispensable mechanism for passing down cultural heritage as well as preserving and shaping national identity. The shaping of an identity, which to a large extent facilitates a person's understanding of his place in the vital fabric of society, has various sources. The main source is undoubtedly local history, interwoven as it is with a delicate web of characteristic customs that allow each of us to spiritually identify our own roots, so important to the human spiritual condition.

The sea, which has always been a great challenge to man, the sea which he has thus far failed to subdue, joins the maritime communities of nations having access to it. The common needs arising out of daily communing with the sea have over the years given birth to similar life-facilitating solutions. The sea was a source of nourishment, but has also claimed a cruel price in the thousands of lives of those daredevils who sailed its waves. It has thus become a symbolic monument to the common memory of their courage and dedication.

Today, in an era when forms of life are undergoing unification, the need to display concern over the heritage of the past, which is creating a variegated and beautiful cultural landscape so important to a unifying Europe, arises ever more frequently. The Baltic Sea Region, a natural boundary as well as a natural waterway, poses a special challenge. That is because of the necessity of protecting not only its on-shore heritage but also the exceptionally valuable heritage resting in its seabed that is exposed to increasing devastation.

I should like to express the hope that Baltic Sea Identity: Common Sea – Common Culture?*, a conference entirely devoted to a broad spectrum of issues related to the region's cultural identity, will become a symbolic lighthouse pointing the right direction for future efforts to preserve the Baltic cultural legacy.*

Rafał Skąpski
Undersecretary of State
in the Ministry of Culture

Dear Participants of the 1st Cultural Heritage Forum at Gdańsk,

On behalf of the organizers of the 1st Cultural Heritage Forum at the Polish Maritime Museum in Gdańsk I would like to thank all of you very much indeed for coming to our country and for such active participation in the whole event.

In 2002, when the idea of organizing a Baltic Sea Identity Conference in Gdańsk was first mooted, I expected that some 20-30 people would come to present their papers. In fact there were four times as many, and among them famous specialists, plus we were able to meet many new, young researchers. This is a sign that the interest in investigating and protecting Baltic cultural heritage in our countries is expanding. More and more people are taking it up, and moreover, in all Baltic countries we can observe the growing interest in research and the conservation of various forms of human material activities. In addition, that in a country like Belorussia, research is oriented towards the cultural heritage of our common sea.

I was very pleased at the large number of researchers, conservators and other specialists, who came to Gdańsk from all around the Baltic and the high level of their presentations. I do very much hope, therefore, that our meeting will bear fruit in the future, for example, in the form of further symposia of this kind.

Much has already been done in the field for the protection of the cultural environment in Poland, but I reckon that in the near future we are going to witness even greater achievements. Moreover, I am convinced that this Conference will make a signal contribution to this.

The 1st Cultural Heritage Forum in Gdańsk has been the notable event in the history of the Polish Maritime Museum, a national institution of culture, strongly supported by the Polish Ministry of Culture. For the first time since its inception in 1960 it was able to play host to the top specialists and researchers of a Baltic cultural heritage subject from 11 different countries. They have responded with their contributions for these special proceedings, which I now have the great pleasure of offering to all of you.

I would like to give thanks to all of the authors and mention that almost all the speakers have sent their manuscripts for the publication.

The general shape of this book is the result of the efforts of our Museum's editorial team, Anna Ciemińska and Paweł Makowski to whom I would like to thank for their tremendous work. I want to express my thanks to Kate Newland (Stavanger Maritime Museum) for her assistance with the revision of texts.

In particular, I want to direct many thanks to the Polish Ministry of Culture for their great support in the preparation of the conference, as well as for the special grant that has made the printing of these proceedings possible in the same year as the event.

Jerzy Litwin
Director
Polish Maritime Museum
in Gdańsk

Christina von Arbin

Deputy Director General National Heritage Board, Chair Person of the Monitoring Group

BALTIC SEA IDENTITY – COMMON SEA – COMMON CULTURE?

When the Ministers of Culture in the Baltic Sea States meet in St Petersburg in December this year they will be presented with a final report on the development of the "Strategic Plan for Safeguarding and Developing the Common Baltic Sea Heritage". The main body responsible for this presentation is a Monitoring Group representing all member states with the commission and a mandate from the Ministers of Culture to enhance and develop co-operation concerning the Common Baltic Sea Cultural Heritage. One of the core items in this plan will be the proposal to hold a "Cultural Heritage Forum" every second year on a rotating basis in the member countries.

To test this idea – and to also use the opportunity to finalise the content and scope of the Monitoring Group with its four Working Groups – the Polish Minister of Culture and the Polish Maritime Museum in Gdansk generously offered to hold the 1st Cultural Heritage Forum as early as this spring.

And it is with great satisfaction one can note that this first Forum proved to be a success and thus most promising for future co-operation.

With participation from all member states and also guests from Belarus, with plenary discussions on Baltic Sea Identity as well as meetings of already existing and possible new networks and working groups, – the Forum served as a melting pot for ideas and initiatives. More than 60 scholars and speakers within the Cultural Heritage field presented their ongoing work and shared their views with one another and with a broad audience from all the Baltic Sea States. And according to the outcome, all participants welcomed the Forum idea as a promising vehicle for the exchange of ideas, networking and co-operation.

What then was included in this Forum, which were the target groups? And which were the responsible bodies? And in which way could these be relevant also in a future perspective within an established form?

Main idea

To create a meeting place where Baltic Sea Heritage issues could be brought to the fore, where urgent topics and ongoing work within the Baltic Sea area could be discussed in a broad context by professionals and NGOs, and where networks of different kinds could be both established and fostered whilst information and knowledge about the heritage and ongoing preservation and development actions could, at the same time, be spread widely.

Main themes

This first Forum was organised mainly within the theme "Coastal Culture" and so the Sea itself throughout history – its trade, shipping and fishery together with the living conditions for its sailors and tradesmen as well as its settlers and settlements were the main topics.

Two introductory sessions – "Common Sea – Common Culture?" and "The History of the Baltic Sea" with inspiring lectures and discussions on different angles into the notion of culture and history over the centuries gave the Forum a flying start with interesting references to be carried on into the following sessions.

More targeted topics were thereafter developed in two parallel sessions further investigating the themes "Ship building – history, preservation and reconstruction" and "Coastal Culture – a resource towards sustainable development and growth".

Four working sessions
The Forum also gave room for four parallel sessions where the Working Groups actively involved in developing the ideas in the "Strategic Plan" had the possibility to discuss their work in a wider audience and establish new contacts. Fruitful discussions led to further development of the ongoing work within the themes: "Coastal Culture", "Underwater Heritage", "Sustainable Historic Towns" and "Traditional Building Materials and Techniques".

Poster exhibition on Light Houses
A ceremonial launching of the poster exhibition "Baltic Lights" was at the core of the Forum event. And this summer this exhibition will be widely shown in museums, lighthouses, libraries etc. along the coastal lines of our countries.

As a token and a symbol of man using the Sea, the lighthouses stand as strongholds, catching man's fantasy, the thrill of danger and a tense feeling of loneliness. At the same time they are symbols of co-operation and relations irrespective of borders. But they constitute a "threatened" and outgoing species, as they are not needed any more when new technology has taken over as navigation aids. To re-use them e.g. as resources in coastal tourism is a possible challenge that is already underway in some places.

To produce an exhibition to be shown simultaneously in all our countries presenting this truly common heritage therefore has been felt to be a most relevant and eye-catching joint achievement.

One open session
In a concluding open session ongoing and/or planned activities and networks of relevance for the Baltic Sea Cultural Heritage were presented. And several new connections and interlinks were established for possible inclusion in a future Forum network.

Possible outcome
A solid report will be presented to the Ministers of Culture and one can already foresee upcoming volunteering countries to hold the 2nd and the 3rd Forum in the years to come. As Cultural Heritage now, by CBSS as well as by the Baltic Sea countries themselves, is brought into the discussions on the Nordic Dimension within the EU-structure, the Gdansk Forum will serve as an important stepping stone in the building and further development of common co-operation within this field.

BACKGROUND

At their third meeting held in Lübeck 1997, the Ministers of Culture in the Baltic Sea Region mandated a Working Group with participation from all the member countries to elaborate a "Strategic Plan for Safeguarding and Developing the Common Baltic Sea Heritage".

The plan was presented at the fourth meeting of the Ministers of Culture in Gdańsk 1999. The Ministers there decided to develop the Strategic Plan along the lines presented. They therefore transformed the Working Group into a Monitoring Group with the mandate to guide and foster the work and report back to the Ministers at their fifth meeting in Copenhagen 2001. And as a basis they adopted a set of Framework Statements concerning both general attitudes on heritage as a main human resource and more specific ones on areas of main interest as well as on means and tools when it comes to the preservation and management of this heritage. The Ministers at their Copenhagen meeting had Cultural Heritage as their main theme for discussion. They welcomed the results so far and seeing the need for a stable structure for the future, they with that aim prolonged the mandate for the Monitoring Group until their meeting in St. Petersburg 2003.

Sweden has throughout these mandate periods held secretariat and chairmanship of the Monitoring Group. Four working groups have been active within the framework developing ideas and structures within the themes, which have turned out to be most relevant for the time being. Most countries have contributed in all the four themes under the guidance of two of them, co-operating as chair and vice-chair. Norway and Poland have taken responsibility for the theme "Coastal Culture", Denmark and Germany for the theme "Underwater Heritage", Finland and Estonia for the theme "Sustainable Historic Towns" and Sweden and Latvia for the theme "Building materials and Techniques".

STATEMENTS
Adopted 1997 by the Ministers of Culture in the Baltic Sea States
as a framework for the development of Cultural Heritage Co-operation.

General statements

The ministers
- *recognise* everyone's right to have access to their heritage and history.
- *consider* public awareness on cultural heritage essential for the development of democracy.
- *consider* the understanding of our common cultural heritage in the Baltic Sea Region an important factor for the peace and stability in the area and by that also recognise the efforts done by Pax Baltica.
- *believe* in all efforts made for creating a sustainable society and that the protection of cultural heritage is inseparable from other environmental protection.
- *consider* all culture created in the Baltic Sea area, regardless of origin or age, our common cultural heritage, thereby also taking responsibility for heritage brought to us by others.
- *emphasise* that cultural heritage, in its broadest sense, contains both tangible and intangible aspects in a complex interaction.
- *stress* that moveables and artefacts are fundamental parts of the heritage and identity of every country and must be allowed to interact with their original setting and context.

Statements on areas of main interest

The ministers
- *consider* the Baltic Sea itself a fundamental factor for communication, exchange and co-operation throughout history between all the countries surrounding it and therefore consider the maritime heritage essential for a common Baltic Sea identity.
- *agree* that the Baltic Sea should be a safe place for underwater heritage.
- *recognise* the importance of traditional building materials as parts of our common heritage and the development of a sustainable society, thereby pointing out the need for training of craftsmen and for research necessary for preserving the materials and information exchange.
- *consider* the protection, promotion and preservation of wooden architecture in the region a main common value.
- *are aware* that our common heritage includes also industrial heritage and contemporary architecture and recognise and support the work by international organisations such as ICOMOS, TICCIH and DOCOMOMO.
- *are aware* that our military heritage, not least from our own century, will be one of the main issues for preservation and new uses in the near future, a challenge where sharing our mutual experiences will be of importance.

Statements on means and tools

The ministers

- *consider* the flow of heritage information essential for fostering the knowledge of our common culture and therefore support the development of effective tools and systems for information exchange.
- *recognise* the importance of developing common views on heritage protection as well as the co-ordination of economic, legislative and administrative structures for maintaining and enhancing our cultural heritage.
- *support* education and the exchange of experience in the heritage field.
- *stress* the need for relevant training of craftsmen in order to obtain the skills and knowledge necessary for cultural heritage preservation.
- *stress* the need for producing comprehensive and usable knowledge about the common heritage as the basis for town and country planning.
- *recognise* the importance of developing protection and presentation of the archaeological heritage in the region.
- *consider* sustainable cultural tourism important for economic growth, the creation of jobs and as a tool for deeper understanding between our countries.

PART I

"COMMON SEA – COMMON CULTURE?"

Merja-Liisa Hinkkanen

COMMON SEA, COMMON CULTURE? ON BALTIC MARITIME COMMUNITIES IN THE 19TH CENTURY

It is a great pleasure for me to have been given the honour of delivering the opening paper for this conference. In what follows, I shall attempt to provide some insights into the issue of whether Baltic maritime communities in the 19th century, which certainly shared the same sea, also shared a maritime culture.

Instead of maritime communities, of course, we might as well talk directly of maritime people such as Ida and Albin Eriksson from the Åland islands. Albin sailed towards the end of the century as a First Mate and master on board Åland sailing vessels while Ida stayed at home and took in some sewing work.

Or we might think of another maritime couple from the Åland at the end of the century - the crofter and petty trader Mats Alfred Mattsson, who traded with his small sloop to Stockholm and other nearby Baltic towns, while his wife Mathilda took care of the farming and their few animals. Though Mats returned home for the winter and often stopped at home even during the sailing season, the couple still corresponded with each other regularly. The short notes by Mats dealt typically with the practical matters of selling his cargo of potatoes and firewood at anything approaching a good price.

These two Åland families, in different branches of seafaring, most certainly shared a sea – but did Ida and Albin, Mats and Mathilda, also share the same culture with, say, the family of a Norwegian shipmaster from Arendal, or a Danish fisherman couple from Thurøhuse? Or did Mats and Mathilda in fact have more in common with their Baltic maritime counterparts than with the farming family of Matti and Liisa in the Finnish interior?

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The idea of a sea as a cultural area is an attractive one, and it has been addressed by several eminent scholars in the past. As far as the Baltic Sea is concerned, however, even historians who have chosen "The Baltic World" as their book titles – and there are several prominent books all dating from the mid-1990s which we might think of here, from David Kirby's "The Baltic World 1772-1993" or Matti Klinge's "The Baltic World" to "Mare Balticum. The Baltic – Two Thousand Years" by Ulla Ehrensvärd, Pellervo Kokkonen and Juha Nurminen – have nevertheless tended to treat the Baltic more in terms of a geographical rather than a cultural entity. These authors have refrained from going as far as arguing for the existence of a joint Baltic culture binding together the various nations, or their coastal areas.

However, if we look further afield – though no further than to the North Sea – the Dutch historian Lex Heerma van Voss has made a claim along precisely those lines. In what is one of the most innovative rethinkings in recent maritime history, Heerma van Voss has presented – again in the mid-1990s - the idea of a joint North Sea culture linking the shores of the North Sea together in the early modern era. Central to his argumentation were various shared features in the countries bordering the North Sea, among them a Protestant religion, linguistic affinity, a relatively high degree of literacy, urbanisation, religious tolerance, a certain family structure, the position of the accused in criminal trials, and, finally, a certain moderation in witch hunts.

Quite an imposing, though slightly eclectic list, and a highly interesting thought. In addition, some maritime scholars have argued for the existence of joint maritime cultures in more restricted regions than the coastlines of an entire sea. The Danish Ole Mortensøn, in his study of the sailors in the South Funen area, argues for a joint seafaring culture in that part of Denmark in the last flowering period of the sailing ship. Another important scholar thinking in the same vein is the German ethnographer Wolfgang Rudolph, who has likewise argued for the existence of a distinctive maritime culture linking the shorelines and maritime communities of particularly the Southern Baltic area.

For the moment, these various scholarly interpretations are best borne in mind as the background for our examination. Let us next test the hypothesis of a joint Baltic maritime culture by taking a direct look at the two main maritime livelihoods in the Baltic sea area in the 19th century, those of fishing and of seafaring.

And we shall begin with fishing, and Baltic fishing communities. Please note that for the sake of clarity I am here talking in terms of separate fishing and seafaring communities, though actually in many coastal communities it was possible for men to combine fishing with seafaring during the course of their lives.

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The first thing to note is that there appears to be some interesting overall differences between the North Sea and the Baltic Sea fishing industries, most notably in the way in which the fishing rights were organized. In the – broadly speaking – North Sea area of Denmark, Norway, Iceland and the Swedish west coast, coastal fishing was regarded as a part of open sea fishing – in other words, it was free for all. This was otherwise within the Baltic Sea – on the east coast of Sweden and in Finland, at least, the rights of land ownership applied to coastal waters and coastal fishing as well. It was thus the landowners who held the keys to coastal fishing.

There are also other differences of a general nature between the North Sea and the Baltic Sea fisheries. While in the North Sea fisheries women typically took part in the preceding and concluding stages of the fishery – they were responsible for acquiring the bait and cleaning fishing utensils afterwards but did not participate in the actual fishing – this could be otherwise within the Baltic. At least off the river Oder, on the Finnish and Estonian coasts, as well as on the Norrland coastline, fishermen's daughters and other young women could take part in herring or seine fishing, as well as in the winter net fishing, where that applied. On the islands of Lavansaari and Seiskari in the Gulf of Finland, the nets for winter fishing used to be relatively short, partly because it made them easier to handle in the winter conditions, but partly to take account of the fact that there would also be women handling them.

If we then move from comparisons between the two northern sea areas to comparisons between Baltic coastal and island regions on the one hand and inland regions on the other, there are obviously also some basic differences to be noted there. The results of a fairly recent Nordic research project, for instance, would seem to indicate interesting differences in, say, Danish household structures: with farmers the need to keep the homestead undivided raised the marrying ages of the sons of farming families, while on the coast fishing offered the young a chance to strike out on their own rather earlier in life. Likewise, the nuclear family was a much more common family structure in the coastal areas than in the inland ones. It has also been noted how fishing provided the fishing families of the south-western coastline of Finland with a greater range of subsistence opportunities than were available to the inland farmers.

One might also mention that coastal communities were in the 19th century often perceived by the inland people as being somehow "different", though the perception of maritime populations by non-maritime observers could also amount to sheer prejudice. While this prejudice perhaps most often took the shape of negative attitudes towards the coastal dwellers, perceptions of maritime populations by non-maritime observers could also be draped in the cloak of admiration.

The Dane Michael Ancher's paintings of the heroic, strong, calm and dignified men of Skagen, for instance, put this admiration into striking visual terms, while the Finnish painter Hanna Rönnberg, who visited the Skagen artists' colony in the 1880s, did much the same thing with words. Rönnberg claimed that "Nature in Skagen is so hard and bare, and the continuous struggle against the natural forces has made the Skagen people hard in a similar way… They have not been spoiled by civilization yet".

In these perceptions from the outside, the 19th century idea of nature and living conditions moulding people's outlook on life, character and mentality, is very evident. But, moving back to a more general level, it is best not to overemphasize the differences between Baltic coastal regions and Baltic inland areas, if only for the reason that in the coastal areas, fishing and farming were most often combined by the maritime populations. Indeed, the tripartite division suggested by Erland Eklund for the Finnish coastal areas from the mid-century onwards – he divides the coastal population into fishing farmers, coastal farmers and fishing crofters – is a good indication of the extent to which fishing went hand in hand with farming. And through farming and landowning even coastal fishing communities were closely connected to the agrarian states – or provinces, as the case might be – and their emphasis on land and land ownership.

One should also remember the highly significant social and cultural dissimilarities between the various Baltic fishing communities. As natural circumstances and fish varied, so fishing methods, for instance, also varied, which again created differences in the social context of fishing. Also, the overall role of women in fishing seems to have varied within the Baltic area. In the fishing community of Thorøhuse in the South Funen, women cleared the nets after fishing but took no part in selling the fish. In the fishing village of Borstahuset in Scania, however, the local fish trade to the town was in the hands of the women, while men handled the more prestigious fish trade to more distant markets such as Denmark.

Apart from the gender-based differences, there were naturally also significant class and social divisions within the fishing communities. In part, these flowed from the fact that on the east coast of Sweden and in Finland it was the landowners who controlled coastal fishing. The divisive impact of these social differences on coastal communities is implied by a telling quote from Stenbådan in the Gulf of Bothnia. There, the landowners were known to have thought that "the landless were an awkward race which was always whining and begging after the meagre resources."

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There are now several important questions for us to settle. I have briefly noted some features which set the Baltic Sea area apart from the neighbouring North Sea area, and, more importantly, picked up some

similarities as well as several dissimilarities between the various Baltic fishing communities. What, then, would be the best way to make sense of these features: should we interpret the similarities and dissimilarities in terms of a joint Baltic fishing culture albeit with significant regional variations and deep internal divisions, or alternatively to see these communities as belonging to different fishing cultures which existed in the Baltic region close to each other? And of course the same basic choice faces us with respect to maritime communities in general in the Baltic Sea region: are we dealing with one maritime culture with sub-variations, or with several distinctive maritime cultures – and where precisely should the dividing lines in both cases run?

The Danish scholar Poul Holm, who has studied the transition zone between the North and the Baltic Seas, i.e. the southern and northern coastlines of Skagerrak and Kattegat, has argued that the inhabitants of this geographically rather limited area were not, however, united by a joint maritime culture. To quote,"the varied ecology of the region and the different natural resources and trade wares have not created a common experiential content" for the maritime communities on those coastlines. And I am inclined to say much the same thing about Baltic fishing communities. In other words, I would regard the wide variety of the various fisheries around the Baltic Sea as evidence of several fishing cultures which often enough resembled each other or shared some features, but were yet distinct from each other.

On the other hand, as the quote from Holm and its reference to "experiential content" perhaps already indicates, before suggesting even preliminary answers to these questions, we should naturally first define what we mean by the wide term of "culture". Inevitably, that choice guides and organizes the analysis of the similarities and dissimilarities between various maritime communities.

Of course, no definition can, as such, be in some abstract sense "better" than another – indeed, it is an essential part of the concept of culture that it can be seen and defined in a variety of equally "right" ways. The importance of this choice lies elsewhere: one tends to catch the sort of fish one sets out to fish for with a particular conceptual implement, while other sorts of catch will remain outside that cultural bow-net. Some definitions of culture, for instance, have the idea of monoculturality inbuilt into them, while others *per se* lead to a more fragmentary view.

My own predilection is in culture as a cognitive system, a socially created mental horizon which also creates the basis for identity, and towards the end of this paper I shall briefly address the issue of the Baltic identities, or otherwise, of 19th-century maritime people. For now, however, I would like to take Lex Heerma van Voss's definition of culture in his North Sea theory as a starting-point when turning from fishing communities to a brief overview of the Baltic seafaring communities.

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Heerma van Voss sees culture as "patterns of settlement where the settled areas are held together by ways of transport and are separated from other cultures by relatively bad transport opportunities." This is a definition which he has borrowed from 1960s research into nationality, and although it could be argued that it perhaps does not agree all that well with the tenor of his overall analysis, it is nevertheless useful in pointing out one vital underlying factor for a discussion on maritime culture: the role of transport.

There seems to reign a virtual unanimity between scholars in seeing trading connections as the basis for cultural diffusion. This is to state the obvious, and the point, though it could be fruitfully discussed further in terms of the nature, intensity and directions of these contacts, needs no further elaboration here. I would nevertheless like to emphasize the very varied character of the contacts between Baltic maritime people in the 19th century – they embraced both rural and urban communities and ranged across a wide spectrum from the selling of fresh, salted or frozen fish to regular inter-Baltic passenger lines, and from coastal trading to inter-Baltic trading to blue-water shipping where the Baltic merely served as the starting, provianting and end point.

Other basic features which appear widely accepted in research are the observations that maritime populations were shaped in cultural contacts between their own local culture and the wider world, and that coastal populations therefore enjoyed far wider mental horizons than those possible for the agrarian populations. In shipbuilding, for instance, during the 19th century, it was usual for both Finnish and Estonian shipowners to employ master shipwrights or to acquire ship designs from Sweden, Denmark and, in the case of Estonia, Schleswig-Holstein. The cultural context of Finnish urban shipowners and shipmasters had, moreover, a distinctly international flavour to it. In running from the relatively small Finnish coastal towns an international business and the network of relations connected with it they were, in Yrjö Kaukiainen's words, "a small cosmopolitan element in an undeveloped periphery".

Though the role of Baltic seamen in the transfer of cultural impulses was probably modest compared to that of the shipmasters, seamen, too, brought home with them both their immaterial experiences and material souvenirs from the wider world. Between 1750 and 1800, Pomeranian faïence pottery spread all the way to the northern Baltic; around the mid-century lithographies made in Berlin travelled from north German port towns to the rest of the Baltic, as did the silver spoons that shipbrokers were in the habit of presenting to shipmasters. It is, moreover, precisely the spreading of these artefacts around the Baltic sea that Wolfgang Rudolph regards as the main indication of the joint maritime culture of the Baltic maritime communities.

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To sum up: Baltic seafaring communities had wide and active networks and business contacts which surely led to cultural diffusion. But are we entitled to see this as an indication of a joint Baltic seafaring culture? In contrast to what I said earlier about the fishing communities, in the case of seafaring communities I am inclined to answer in the affirmative. My reasons for this stance are however based not only on cultural diffusion through trading links, but also on the reasons broadly indicated by Ole Mortensøn. He notes that Northern European sailing ship seamen "on the whole sailed under the same general conditions, with the same technology and with the same norms guiding behaviour". And indeed, if we look at the sailing ships of the 19th century, the existence of a joint sailor culture which also embraced the Baltic coastal and island seafaring regions is very evident. Indeed, the existence of such a culture has been noted for earlier centuries as well, for instance in Maria Bogucka's studies on the mentality of early modern Gdańsk seafarers.

This overall conclusion of a joint maritime culture within the Baltic raises, however, some further questions. First of all: why should the view adopted in this paper be different for fishing communities on the one hand, emphasizing a multicultural model of explanation, and for seafaring communities on the other, tending more towards a monocultural model? Secondly, a question of terms: when speaking about the seafaring communities, are we talking of a sailor culture or a seafaring culture? Further: considering the generally gender-based divisions of labour in coastal communities, was this maritime culture also a gender-specific one – in other words, were women excluded from it? And finally and most importantly, was this culture really something we are entitled to call "a Baltic maritime culture", or was it just a part of a wider phenomenon which also happened to reign in the Baltic region?

Let us begin with the issue of naming. Of course both terms, seafaring culture as well as sailor culture, have been used in research depending on whether the context has been seamen on board during voyage, or seamen as part of their land-based communities. It seems therefore reasonable to suggest that the sailor culture of active seamen was at the core of the wider seafaring culture which also included retired seamen, shipowners, ship brokers and a varying assortment of other seafaring-related professions within the Baltic coastal communities.

As for the reason for my seeing the fishing communities in terms of a multicultural model of explanation and the seafaring communities more in terms of a joint culture, it again really boils down to the existence of sailor culture on board sailing vessels. This sailor culture managed to link seafaring communities to each other in a manner which was probably lacking for the fishing communities.

As far as maritime women are concerned, it seems to me that seamen's wives, widows, daughters and other female relatives certainly were in many seafaring communities part of the local seafaring culture – though there were also exceptions, as on the severely gender-divided island of Læsø in the Kattegat. However, maritime women were definitely excluded from the sailor culture on board 19th-century sailing vessels. And it is in fact a moot point whether women could, or were allowed to, partake of the traditional sailor culture even when Northern European passenger steamers began to employ female kitchen and cleaning staff from the 1810s or so.

Finally, to the most important question. Was this seafaring culture, with the sailor culture as its core element, a specifically Baltic one?

Here I'd like to return to the Baltic maritime couples mentioned at the beginning of this paper, to examine how important an ingredient the specifically Baltic framework was for their personal and professional identities, and for others like them.

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The Baltic Sea was, without doubt, one of the vital factors affecting the everyday life of sailors and their families, and this was particularly so for the sailing family of Ida and Albin from the Åland islands. Ida could not stand living alone while her husband was away on long voyages in the deep sea trades. Therefore, Albin at one point switched to taking berths within the Baltic Sea so that when the sailing season drew to an end, he could return home for the winter, as one still could do in the Baltic trades towards the end of the century. This arrangement Ida and Albin preferred for years, despite the fact that the Finnish wages within Baltic traffic tended to be somewhat lower than outside it.

Likewise, the Baltic seafaring people probably felt a strong identification with their maritime way of life comprising both maritime culture and nature, all those seascapes which seafaring people experienced and lived with. But though this is likely to have been the case generally, it should not be assumed that being employed in a maritime industry automatically would have led to a positive self-identification with it. In a moment of exasperation with his maritime life, the ageing petty trader Mats Mattsson, whom we met at the beginning of this paper, wrote to his wife: "My dear little wife… it is now so stormy and chilly on the sea that it is really depressing it would be so much better to be able to be on land but when there's no work to be had on land, I must tramp the sea although I do not want it. Your hubby Mattsson."

These everyday Baltic and maritime factors aside, however, I would nevertheless argue that for Baltic seamen – and probably also for other maritime people of the 19th century- the most important frame of reference for their identity was not the Baltic one. Instead, it was the local one, towards the end of the

century possibly or partly also the national one, and, for sailors in particular, the Northern European or international one.

The home locality was naturally a very significant point of identification: sea folk from Piteå, Gdańsk or Hiiumaa probably thought of themselves primarily as sea folk from Piteå, Gdańsk or Hiiumaa, and the pride which seafarers often felt for their home localities could be tangible indeed. As the Danish maritime author Knud Andersen – who himself was a former seaman – said about the shipmaster and First Mate on board his first vessel, for them "Marstal was the capital of the world".

But also the national level was relevant for late 19th-century seamen, both in terms of their own identity and as a category within the international sailor culture. Finnish seafarers – or "Russian Finns", as they often were called – had during the heyday of the sail a certain reputation within the international sailing circles. They were reputed to be competent sailors, potential wizards for raising a wind, and downright dangerous when drunk and fighting – prejudices and stereotypes all right, but nevertheless determinants which were assigned to a group of seamen on a national basis. Likewise, Ole Mortensøn has noted that the South Funen seafaring culture in the early 20th century was not just a local one, but had instead "a national and a strong Northern European element".

The reason Mortensøn here stresses Northern Europe as the mental and experiential frame of reference for the South Funen seamen's identity is the fact that the South Funen seafaring mostly took place within the Baltic and the North Seas, with very few vessels engaged in the international trades. But to take a different example, between 1865 and 1875 the real core of, say, Finnish shipping was in fact foreign cross-trading. Therefore it seems plausible to argue that at least for the Finnish seamen of the latter half of the century, it was not the Baltic but instead the international framework which was significant for their mental horizons. Moreover, the internationalism of the sailor culture was in the latter half of the century fostered also on account of the mixed, international crews which the growing rates of desertion tended to create on board deep sea vessels at some stage of the voyage.

Indeed, of all the varying levels of the local, the national, the Baltic, the Northern European and the international, I would in fact argue that for the identity of seamen hailing from the Baltic region, the Baltic level probably was the least significant of all. This argument is based on the strength of the local and of the international in the sailing-ship seamen's mental make-up, as well as on the fact that it would be conceptually very difficult to differentiate the specifically Baltic impact from all the other maritime impacts the young men of the Baltic experienced when sailing on all the seven seas.

If, however, we do wish to speak of seamen's identity in terms of a regional framework, I would stress the Northern European or the northern seas dimension of it, rather than the purely Baltic. Interestingly, Lex Heerma van Voss has also come to a similar conclusion. After having launched his theory on the premise of just the North Sea, he has since suggested that at least the southern part of the Baltic, up to the line from Stockholm to Tallinn, was part of the North Sea, or rather North Sea-and-Baltic culture in the early modern age. In any event, he also notes that the North Sea-Baltic culture became less important after 1800 with the growth of the state's role in the countries bordering on the Northern Seas.

To me, Lex Heerma van Voss's stimulating theory as well as the analysis I have in the foregoing attempted to give to you, highlights above all one important point as far as maritime cultures are concerned. This is the fact that it is difficult to adhere to primarily or exclusively regional definitions of culture, when the various layers of significances within seafaring and sailor cultures appear to lie closely interwoven with each other. Fernand Braudel has noted of the European civilizations that they have been "overlapping each other as the seeds of a pomegranate fruit", and this could also be said about the local, national, Baltic, Northern European and international levels of significance in the mental horizons of Baltic seafarers of the 19th century. The Baltic seed in this particular pomegranate fruit was just one of several, and the identities all these seeds gave rise to were liable to be intermingled ones. As ever, the Baltic Sea was and remains open to the world.

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Michael Andersen

MARE BALTICUM – REFLECTIONS IN THE WAKE OF AN EXHIBITION

"MARE BALTICUM – THE BALTIC SEA – 1000 YEARS OF MYTH, HISTORY AND ART".
THE NATIONAL MUSEUM OF DENMARK SEPTEMBER 2002 – JANUARY 2003.

The old Romans spoke about "Mare Nostrum". That was one of the names used for the Mediterranean Sea, a sea completely included in the Roman Empire.

All people, who live around The Baltic Sea, Mare Balticum, can call it theirs with exactly the same right as the Romans. As Danes, for instance, we need only have a look at the map of Denmark to be convinced, how almost all Danish ports pointed, historically, towards the Baltic region.

So power over the Baltic has always been the key to dominance in our part of Europe. During the Middle Ages Denmark gained the status as regional power through a number of luckily undertaken conquests and crusades south and east of the Baltic – it is often difficult to tell the difference – most of them dating back to the 12th and 13th centuries. When the Middle Ages ended Sweden started to gain power and during the 17th century Sweden was the dominator on the Baltic. Later on during the 18th century Russia took over. Thus was the shifting power game between the nations.

Most of us will be willing to confirm how our individual perception of the Baltic was influenced by the Cold War. Winston Churchill gave the name to the Iron Curtain, which led from Trieste to the Baltic and in fact all the way across the Baltic Sea from south to north. Due to that invisible, but still most substantial border our knowledge of the places "on the other side" was quite limited, which of course applies to the east as well as to the west.

The radical changes in Central and Eastern Europe in 1989 meant that borders and especially barriers were torn down – a development that will only accelarate now that the enlargement of the European Union with Poland, Lithuania, Latvia and Estonia has been decided.

The Baltic Sea has the chance for regaining its position as the main hub, the pivotal point, between a number of regional centres. The Baltic itself is actually placed almost in the centre of Europe. This may come as a surprise to many of us, but the geografical centre of Europe is actually to be found in Lithuania. In many ways we all need to look at our common "Mare Nostrum" with fresh eyes.

In Denmark fresh eyes are very much needed indeed, as historians and archaeologists through the past generations have been far too focused on Western Europe, although the key to Danish history must be found in the east. Why is that so? Well, Denmark is by its nature situated at the gate of the Baltic with control over the strategically important gateways: The Danish Belts and The Sound. This strategic situation has determined Danish policies and Danish history for centuries.

The history of the Baltic Region is characterised by a number of features that keep returning: they are the efforts by the strongest power to turn the Baltic into a closed sea; in Latin we could call it the "Mare Clausum". The idea is to keep rivalling powers out, for example by controlling the Danish straits.

In contrast we have the efforts of the other Baltic powers and of the Western European powers to create a "Mare Liberum", a free Baltic sea, by keeping the Danish straits open.

The main objective for the great powers of the Baltic Sea has through the centuries been to create a "Dominium Maris Baltici". It means to create and maintain a command over the Baltic Sea and thus most of the Baltic Region. This "dominium Maris Baltici" has changed through the centuries.

The exhibition "Mare Balticum – The Baltic – Myth, History and Art through 1000 Years", was a concept developed by the German historian Marie-Louise von Plessen. It was shown at the National Museum of Denmark in Copenhagen from September 2002 to January 2003 and was based on this story, but it was our clear intent to give it a wider perspective. A special occasion formed the background for the project, as the exhibition was part of the official programme during the Danish presidency over the European Union. As you all know the enlargement of the union had top priority on the agenda. Four new members from the Baltic region will, in due course, enter the EU: Poland, Lithuania, Latvia and Estonia.

The exhibition told the story of a region from around 1000 to the present day. And as the present day is not really the business of historians and definitely not of archaeologists, we invited 18 artists to contribute, showing their point of view. As the landmark of the exhibition – or should we rather say seamark – a ship was chosen. Without ships no Baltic communication. Even today only very few would endure the tiresome journey by road round the Baltic Sea. Too narrow roads and too much waiting at the borders. The ship was a creation, eight metres long, by the Polish artist Robert Rumas. It was a construction basically made from neon tubes in the shape of a boat floating

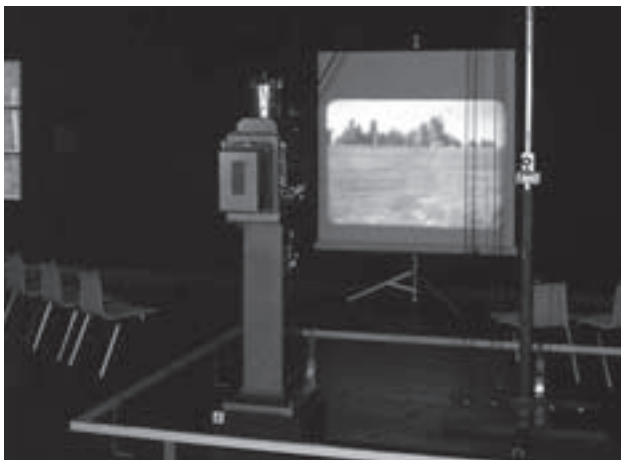
Entrance to the exhibition: a conscious decision was taken to divide the exhibition into 28 sections relating to specific fortresses and fortified cities rather than countries. In this way visitors were able to acquire an idea of the history of the Baltic area as well as its geography.

The Danish island of Bornholm *was the only place to successfully defend itself against Sweden during the battles that took place from the mid 16th century to the mid 17th century in Danish areas east of the sound.*

Jan Svennungsson's "Psyko-mapping Scandinavia" in the exhibition "Mare Balticum" consisted of 66 maps.

"One for All, All for One" was the name for the installation made by the Polish artist Robert Rumas in the exhibition "Mare Balticum".

Lübeck – *one of the important Hanseatic trading centres.*



The Lithuanian artist, Deimantas Narcevicius, made a 16mm film for the exhibition. It describes a voyage from the Lithuania's capital, Vilnius *to the centre of Europe – a few kilometres from the capital. It proved to be a real eye-opener to visitors whose conception of the "centre of Europe" was quite different to the reality.*

Photos The National Museum of Denmark.

through the exhibition hall with all its installations forming a tail in its wake: a beautiful creation and a symbol of all Baltic ships, past and present.

There were artists from all the countries around the Baltic, but none of them actually represented their home states in a national manner. They were representatives of Baltic art. This is essential both for the idea of the exhibition in Copenhagen and for the understanding of Baltic history. You should be very careful focusing specifically on Danish history, Swedish, German, Polish history and so on, because of the shifting powers. Scania in present day southern Sweden was an integrated part of Denmark until the mid 17th century, Karelia was Swedish, Russian, Finnish and now partly Russian again. And what about Gdańsk; the city's complicated history is of course well known. The "Dominium Maris Baltici" has changed, but the region as such is still the same.

The historical part of the exhibition presented 28 castles and fortified towns and cities around the Baltic inserted like a backbone into the surrounding works of art. The idea was not to tell the whole story of each place. That would have been impossible. Neither was it our aim to focus on military history. The fortresses have always served as landmarks along the Baltic coast, and the idea was to send the exhibition guests on a virtual journey along the coasts of the Baltic. They would not get the full story of any of the places, but after having visited them all the guests would have aquired a really good idea of the history of the region with its shifting powers and different peoples. And in addition the visitors would learn quite a lot of Baltic geography.

If we travel 1000 years back in time we will end up in the Viking Age. That is what this period is called in Scandinavia at any rate. The king of Denmark was Swein Forkbeard. He died in England in 1014, but he was buried in Lund in Scania – at home in Denmark (now Sweden) by the Baltic Sea – although he had actually founded a Danish North Sea empire. Swein became king after having killed his own father King Harold Bluetooth. King Harold Christianized the Danes at exactly the same time as the Poles and the Russians turned to Christianity. Harold was baptized around 960. His colleague King Mieszko 1st of Poland was also baptized around then, and the Russian, Prince Vladimir, became a Christian around 980. These landmarks reflect a remarkable and quite synchronised Baltic chain of events.

King Harold was married to an Obodrite that is a Wendish princess. His father-in-law was the Obodrite Prince Mistivoi, whose territory is to be found in present day Mecklenburg-Vorpommern in Germany. As a matter of fact King Harold had many close relations with the southern shores of the Baltic. He was for instance the founder of the Viking fortress Jomsborg. Many historians, and among them the Polish archaeologist Władysław Filipowiak believe that Jomsborg is actually the fortress and settlement that has been under excavation for several decades in the Polish town of Wolin at the estuary of the River Oder.

Some historians believe that Jomsborg and Wolin are equivalent to the mythological town of Vineta. The exhibition title actually mentioned a "myth of the Baltic", and this is it. The Vineta myth is hardly known in Denmark. I do not know how it is in other Baltic countries – apart from Germany where the myth is widely known as the myth of the Baltic. In Germany, especially during the 18th and 19th centuries many works of art were created based on the myth of Vineta. There are paintings, poetry and even a Vineta symphony.

According to the myth Vineta was a prosperous trading point at the mouth of the River Oder, but like some Atlantis it sank into the sea many centuries ago. Was there really a Vineta? Or is it just a good story? No one really knows. You will have to decide for yourself. Many maps from the Renaissance and later indicate the place where Vineta was engulfed by the waves. For the last two centuries cartographers have refrained from placing Vineta on the map. If you ask me, I will answer that Vineta reflects the needs for a myth and a mythical past. In the same way as the peoples of the Mediterranean had their Atlantis, we up in the north – or should we rather say in the centre of Europe – wanted our myth as well. By means of the myth we can demonstrate that we, too, are ancient cultures.

Realizing that his life was threatened, King Harold Bluetooth sought refuge in Jomsborg. And there he died. He was said to have been buried in Roskilde on the island of Sealand – at any rate that was what the Roskilde church boasted about. King Harold was a Christian. And Christianity was to become of utmost importance for many centuries to come in the quest for the dominance over the Baltic, the "dominium Maris Baltici" – for good as well as for bad. During the 11th century and well into the 12th century large areas along the Baltic coasts to the south, east and north were still pagan. The Baltic region actually formed a pagan pocket in medieval Europe. As a matter of fact the Lithuanians did not turn to Christianity officially until 1386.

Christian mission became one of the most important ideological as well as political instruments in the power games of the kings and princes around the Baltic Sea. In the beginning the Danes, the Germans and the Poles took the lead. Other people were forced to follow or simply submit. Inspired by Pope Urban II preaching, hundreds of thousands of Christian soldiers from Western Europe left for Jerusalem in 1096 and 1097 to fight against the Arabs. All crusaders were given the same promise: martyrdom if they were killed and at least remission of their sins. Many Scandinavians and Germans got passionately inspired. The conquest of Jerusalem in 1099 lead to a euphoric enthusiasm all over Western Europe, and at once the idea of a battle against evil, that is paganism and Islam, was spread to other regions.

Not later than 1088, the Archbishop of Magdeburg planned a great battle against the pagan Slavs on the Baltic. The Count of Flandres and a number of others

from the nobility were to take part, and the Danish King Niels had promised his assistance with a great army. All participants were promised the same reward in Heaven as the crusaders, who liberated Jerusalem. So the crusades in the Baltic region were right from the beginning regarded as equal to the crusades in the Holy Land. That also applied to the crusade in 1123 against the Swede Blot-Svend, which means "pagan sacrifice Swein", and other pagans around Kalmar on the Swedish Baltic coast. The kings of Denmark, Norway and Poland agreed to take part, and they were supported in their efforts by the Abbot of Cluny, the largest monastery in Europe. There were still pagan Swedes in the 1120's.

Denmark was the first Baltic power to gain "dominium Maris Baltici", power over the Baltic Sea. In 1168 King Valdemar the Great conquered the pagan island of Rügen in present day Mecklenburg-Vorpommern, and a number of conquests along the southern coast of the Baltic were quickly added. Christianity followed in the wake of the armies. To the present day Danish church buildings have been preserved bearing evidence of the Danish supremacy. Only a few kilometers from the centre of Gdańsk you can visit the cathedral of Oliwa, which is strongly influenced by the Romanesque brick architecture of the Danish island of Sealand. There is nothing strange about that, as the Cistercian monks who founded the institution around 1178, came from Kołbacz (you may still visit that church near Szczecin), and this monastery in turn was a daughter of Esrum in North Sealand.

The conquests along the southern shores of the Baltic formed the starting point for King Valdemar the Conquerer, who aimed at Estonia next. In June 1219 Lyndanisse fell to the Danes, after the good Lord had sent the crusaders a red banner with a white cross, which still survives as the national flag of Denmark, probably the oldest national flag still in use (although the original cloth does not exist any more, of course). You may wonder if it ever did exist, but that is a different story! At any rate Estonia came under Danish rule until the King of Denmark sold the land and the Estonians to the German Knights in 1346. Lyndanisse was known as Reval by the Germans. Today it is Tallinn, the Estonian capital. Tallinn actually means "the Danish town or fortress" in Estonian, and the red banner with the white cross forms Tallinn's city arms apart from being the Danish flag.

Denmark was never to be larger and remained the dominant power on the Baltic throughout the Middle Ages. Then Sweden took over. The battles between Denmark and Sweden took place from the middle of the 16th century until the middle of the 17th century, where Sweden conquered the parts of Denmark that were situated to the east of the Sound. Only the islanders on the island of Bornholm managed to kill the Swedish governor and proudly return themselves to the Danish king.

The 17th century was Sweden's century. New territories were founded or rather conquered all along the coasts to the south, east and north of the Baltic Sea. For quite some time Riga was the second largest city in the Swedish empire – after Stockholm of course. However, Russia prepared to take over. Tsar Peter the Great founded his new capital by the Baltic. Right now, this year, it is actually 300 years since St. Petersburg was founded. The peace Treaty of Nystad 1721 forced Sweden to let many of her possessions go, most of them to Russia the new Baltic power. Russian dominance continued until the beginning of the 19th century, when Great Britain started to act. One of the results was the Danish loss of the entire navy in 1807 after Copenhagen had been bombed by the British. The cards were shifted again in connection with the Vienna peace conference. Sweden gained Norway from Denmark, and Denmark in return gained Swedish Pomerania, but only kept this aquisition in Germany for half a year, as a war with Prussia was approaching. Swedish Pomerania seemed too close to Prussia, so it was swapped for the Duchy of Lauenburg close to Hamburg. This was really 19th century power play, and the Baltic was still the pivotal point.

Of course the stories continue, but let us stop here. It must be clear to everyone by now, what the quest for "dominium Maris Baltici" meant to the Baltic nations, great as well as small.

Let us return to the exhibition in Copenhagen. You may ask: Which fortifications and fortified cities from these parts of the Baltic, where our conference is taking part, Pomerania and East Prussia, were part of the scope – and why? And how is it at all possible to tell the complicated history of the Baltic in an exhibition?

Well let us have a look at the south eastern coast of the Baltic. Which places did we focus on from that part? We chose Darłowo, Gdańsk, Marlbork as well as Frombork. Nearby Kaliningrad was also represented.

We deliberately did not have a Polish section, a Danish section, a Swedish section etc. The whole idea was that by visiting these 28 sections, all of them fortresses and fortified cities, the guests would aquire an idea of the history of the Baltic region as well as a good idea of the geography. The last point is quite important. You cannot understand either the history, or the different cultures, if you do not have a well developed sense of geography. History and geography are closely linked.

Several of the contemporary artists, who contributed to the exhibition, were focused on geography. None of them had actually worked together, still they came up with similar ideas or should we say concepts: They focused on what you might call mental geography. What does that mean?

Basically there are at least two sorts of geography: the scientific one, the one that is based on surveying and on maps, and mental geography, the one that we all bear in our heads shaped by our minds. The Estonian artist Marko Laimre made two paintings, maps actually, called "My Map of the World in 1973" and "My Evacuations in 2001-2002". In 1973 Laimre was five years old, and

the map shows the world with the Estonian seaside resort Pärnu as the centre with his parents' house and the local grocery shop, and neighbouring towns such as Tallinn, with Granny's house, and St. Petersburg with the zoo. Quite obviously he had been there on an excursion. Sweden was drawn as a small, distant appendix to Estonia, and that was the world. We are all, young and old, forced to look upon the world from where we stand. On the other map, showing the world as he sees it now, Estonia is still in the centre, but Western Europe has been added as well as a small strip of land in the horizon called America.

The Swede Jan Svenungsson showed 66 maps of Scandinavia, one of them scientifically "correct", the others more and more distorted as you moved on – even beyond recognition. His work was called psyko-mapping Scandinavia. Like in an author's text the cartographer's ideological projections are almost always embedded in the contents; here in the graphics of the map. And in this sense one can speak of "mental maps". Svenungsson took this idea to the point of absurdity.

To me the most exciting work of art was a 16 mm film, made with a hand held camera and slightly blurred. It was the work of the Lithuanian artist Deimantas Narcevicius. The film describes a voyage from the centre of the Lithuanian capital Vilnius to the very centre of Europe. That was a real eye-opener. No one among the public seemed ever to have reflected upon the position of the actual centre of Europe.

I made it a habit to ask as many visitors among the public as possible, where they believed Europe's geographical centre is. Many said somewhere in Germany, more guessed Prague or Vienna. They were, however, all wrong. The geographical centre of Europe is to be found just outside Vilnius. There is actually a monument on the very spot, and the film documented a car ride out there from the city centre, through the suburbs, along fields and at last crossing a tiny wooden footbridge to the stone monument, which is situated on a field virtually "in the middle of nowhere".

Europes centre is to the north and east of us and not at all in what we usually call Central Europe. That means that we must bear in mind that the Baltic Sea is situated right in the middle of Europe. Halfway between the north cape of Norway and Sicily, halfway between the west coast of Ireland and the Ural mountains.

Why did we choose among other places Frombork, Marlbork, Gdańsk and Darłowo to tell the history of the Baltic region? Well, the choice of Gdańsk must be evident to everyone present here today. Frombork was chosen because of its monuments, the castle and the cathedral, and of course because of Nicolaus Copernicus, the great astronomer who widened our minds introducing a new picture of the universe.

Malbork gives the opportunity of telling the story of the Teutonic knights, some of us will have the opportunity to spend the day there on Sunday. What about Darłowo then, a couple of hundred kilometres to the west along the coast from here? It isn't known by so many, although the castle is well preserved. Today it houses the museum of the local Pomeranian dukes. Darłowo is also known by its German name as Rügenwalde.

Darłowo's most famous inhabitant was King Eric, the duke's son who became king of the Union of Kalmar in 1412. His reputation is somewhat tarnished, but he actually was one of the great kings of the Baltic during the Middle Ages, a real Baltic cosmopolitan. His parents called him by his Slavonic name Bugislav, but already as a boy of six he was adopted by Queen Margrete of Denmark, Norway and Sweden and brought to Scandinavia, where he was named after the Swedish royal St. Eric. It was wise of the Danish Margrete to choose a Swedish name! The Queens own son had died young. It is interesting to realize that with the close Baltic contacts of the time, there was nothing ideologically against finding a new heir to the throne on the south coast of the Baltic. I am sure it did not seem so far away as it did twenty years ago.

King Eric became one of the most prominent and far-sighted Scandinavian kings. He erected the first castle of Elsinore on Sealand, he founded the town Landskrona in Scania, he made Copenhagen the capital of Denmark, which it originally was not and he was the first to impose the Sound Dues, the duty that every ship had to pay, when entering the Baltic through the Danish straits. This tax was in function until 1857, which is quite remarkable, as Denmark lost her lands east of the Sound in 1658. The Sound dues were one of the main sources of income for the Danish Crown for 400 years!

Eric's life started in Darłowo, Rügenwalde, and it ended there. The circle was closed. You may visit his grave in the church on Darłowo market square. In fact only very few Scandinavians know of its existence. Why does he not rest somewhere in Scandinavia? Well, one king from Pomerania was acceptable, but as King Eric, who had no children himself, suggested a Pomeranian family member as his successor, it became too much for the Scandinavian noblemen. It was one of the reasons at any rate. I believe it was a matter of balance not of culture. Eric was sent into exile in 1439. He settled on the island of Gotland and earned himelf a living as a pirate on the Baltic for ten years. In 1449 he was driven out of Gotland and returned to Darłowo, where he lived for the remaining ten years of his life. It all took place around and on the Baltic Sea.

It is impossible to underestimate the importance of Baltic contacts during the history of northern Europe. And it has never been more important to study these events.

REFERENCE (EXHIBITION CATALOGUE)

Michael Andersen, Nils Engberg, Vivian Etting, Poul Grinder-Hansen, Anders Holm & Marie-Louise von Plessen (ed.): Mare Balticum – Østersøen – Myte, Historie, Kunst i 1000 år. Copenhagen 2002.

Christer Westerdahl

SCANDO-BALTIC CONTACTS DURING THE VIKING AGE

Dear colleagues! I have been faced with this daunting task after only some hours of preparation. The subject was originally entrusted to my colleague, the historian Nils Blomquist, but he could unfortunately not attend the meeting. I am most flattered to get the opportunity of replacing one of the most eloquent historians of present-day Sweden.

WHY VIKING?

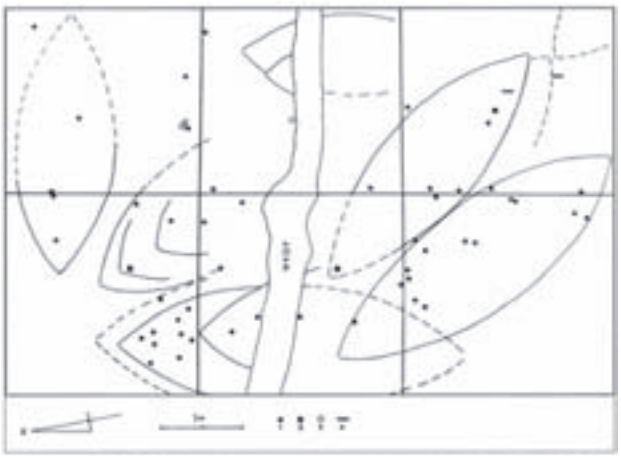
However, at such short notice I should be allowed some reflections on the task itself.

I will start with some comments on the title of the paper. Since we are charged with the important subject matter of surveying contacts in an obviously *multicultural* Baltic during the Viking Age it could even be questioned whether naming the period after Nordic Vikings in the Baltic might carry too much of an ethnocentric strain. If we would contemplate the possible ethnic map of the Baltic during this period, traditionally ca AD 800-1050, we would find that the western half is roughly or entirely Scandinavian/ Germanic and the eastern half is occupied by likewise linguistically defined Fenno-Ougrians, Balts and Slavonic peoples. And even if this linguistic division may not be entirely identical with the ethnic division it would surely be real enough to those once concerned.

It does not mean that we ourselves are as well informed. An observant guest would note that our host city, Gdańsk, at that time lay at the intersection of what was West Slavonian and Prussian territory. Anything that is found to the east of Gdańsk was accordingly Prussian, from distinct ship-building traditions to spots of Baltic contacts, such as the trading community of *Truso*, present-day *Janów Pomorski*, visited by Wulfstan in ca. AD 890. It was amongst the Prussian pagans in the upper delta plain of the Wisła that *St. Adalbert*, Pol. *Św. Wojciech*, the patron saint of Poland, in AD 997 met his fate. In the description of his martyrdom Gdańsk is mentioned for the first time, and on the strength of this evidence the city could celebrate its first millennium already in AD 1997.

Although ethnocentric to a certain degree, the period designation as the *Viking Age* in Scandinavia proper is in fact well motivated. The salient point is simply the problem of explanation on the character of the period, if you would use another term. It will be too complicated. For example one could digress on the *inception of the territorial state* (or isn't it a little early for that?), of *proto-feudal transition* (without true feudalism of the classical "Frankish" type?) or maybe with the Swedish historian Thomas Lindkvist (Lindkvist 1990/ 1988) about the *transition between external and internal appropriation* (but this might not be accepted by non-Marxists?). What could replace the Viking Age? Many aspects of Baltic antiquity have also in fact been served by this simplified concept. The cruel face of it can be called forth in an instant. Not least the aspects of the first written history make it natural.

The designation Viking Age is often followed in the eastern Baltic among non-Scandinavians. Another salient point is the chronological comparison with Europe at large. Among other formal alternatives the Viking Age could also, like in Scandinavia, be called *the Late Iron Age and the beginning of the Middle Ages*. But only around the Baltic. In Central Europe it is firmly part of the Middle Ages and even part of the High Middle Ages. There seems to be almost a consensus to refer to the Middle Ages the period c. AD 400–1450/1500, between the fall of Roman Empire and the Renaissance. Precisely because of this *transitional* status of the Viking Age its simplified name is well motivated. Maybe it is the last period when we can clearly see that most of the Baltic area is a rather special case in Europe.



Traces of early medieval boats with planks fastened by iron rivets, examined on the presumed site of Truso after M. Jagodziński.

THE SCANDO-BALTIC ORBIT

But if we are to speak of that age and call it Viking, our scope must be considerably extended beyond the Baltic area proper. Obviously the whole of Denmark is implied. Norway, although actually in its entirety outside of the Baltic is a necessary part not only as the one part to delimit the entrances to the Baltic Sea by way of the Skagerak and the Kattegat, from Lindesnes to the western corner of North Jutland. And it was even formally a part of the Baltic world since part of it up to Lindesnes, together with the present Swedish west coast, belonged to Denmark (or maybe better: to Danish kings) during parts of the Viking Age. Furthermore most of the salient historical sources on common Baltic history during the Viking Age hail from the Norse area (including Iceland). It is from precisely these sources that we can fragmentarily and cautiously, but all the same, delineate our space of action and of contact. The Baltic orbit in this sense should rather be called the *Scando-Baltic area*, since it incorporates the whole of Scandinavia as well as the areas around the Baltic Sea. Hence the title of this paper.

Fragment of a keelson of the Puck 2 wreck on site at Puck Bay. The construction of the wreck consists of elements characteristic for both Scandinavian (maststep) and Slavonic boatbuilding (planks fastened by treenails). Photo W. Stępień

BEGINNINGS AND END

However, if "the Viking Age" is accepted as our period, another problem has to be considered. Now, the scope is that of the significance of the concept "Viking". The obvious mental associations of the Viking Age are those of Viking raids and of naval warfare, in the sense that the enemy, in fact almost any enemy, comes over the sea. It thus has a distinct maritime tinge. And when it comes to maritime movements the differences on the time scale between the Baltic and the North Sea could be a few days. The only real difference in our knowledge is the fact that early historical sources only cover the west and, if concerned with the Baltic, they are only written from a western perspective. When the Viking Age starts in an archaeological perspective it is rather an illusive thing. But in the sense of plundering the coasts it has been made to start at the very end of the 8th century. The year is 798 and the raid is that of the Northumbrian monastery Lindisfarne. That attack was furthermore made directly from the sea by Norse people and presumably *in ships carrying sail*. But there are allusions to earlier raids. Maybe we should extend it a little backward beyond its formal time borders, into the 8th century? This would be reasonable if we surmise that the peoples of the Baltic, especially the Scandinavians and their immediate neighbours were so intertwined already that any upsurge of activity on the western (or for that matter the eastern) fringe would have had immediate consequences anywhere else. Indeed this is our general impression. In fact the Viking Age marks the inception of contacts that could be interpreted this way, as counteractions in an unending stream. And it might be repeated that these counteractions were maritime in nature. In the closed waters of the Baltic the interplay could be immediate.

Another reason for an extension of the period is that a couple of the other characteristics of the Viking Age (below) find their inception during the 8th century and that they are partly fulfilled in most of the Baltic orbit around AD 1200.

NON-SCANDINAVIAN VIKINGS

When it comes to the supposedly ethnocentric tinge of going "a-viking" there is also another reflection to make. The Slavonic and the Fenno-Ougrian south and south-east of the Baltic thus answered (reciprocated) to the incessant threats from the Scandinavian west with an extended Viking Age well into the Middle Ages proper. Arnold Toynbee did in fact once mention e.g. Finland and Ireland as comparable during the middle of the 12th century in the sense that they were at the fringe of Europe (Toynbee 1947). Otherwise there was no similarity. Finland was pagan and Ireland had been Catholic for a long time. But in a papal perspective neither of them did not follow the European standard, so the Pope entrusted the task of pacifying them to their neighbours (Sweden/ England). The same goes for other pagans who still upheld the ideals of early Viking society. They had to be curbed. This situation is the reason why the Viking Age ended finally with the northern Crusades. Therefore we may in fact extend the validity of the term Viking Age to include the 12th century.

This period has been covered excellently by Michael Andersen from Roskilde at this forum, so there is no reason for me to make more of it. But it should be remembered that although the kind of societies that made up most of the Baltic were in dynamic change during this period, the changes to a kind of incipient statehood checking the centrifugal petty sea kings, princes and magnates were gradual and uneven.

RUSSIA

Then we have to remember that parts of Russia are very much an integral part of the Baltic. It was so even more than today since much larger areas were directly involved. The waterways with their portages and crossings overland bound in particular Novgorodian Russia to the Scando-Baltic (e.g. Westerdahl 1992). The earliest Baltic contacts at *Gorodisjtje* close to Novgorod may have started in the same time as those in Birca and Ribe, before AD 750.The connections with Norway and Russia were as active as those of the other Scandinavian neighbours. Furthermore, intermarriages between Russian magnates, Scandinavian princesses and vice versa did not only concern the immediate entourage but also retainers and warriors with their families. However, it was here that the final coffin nail was hammered into the failing network of contacts dating from the Scando-Baltic Viking Age. The contacts were finally and very efficiently severed in 1240 by the arrival of the Mongols.

COMPARISON WITH THE HANSA

The new trading contacts of another kind were as efficiently -and lastingly- established by the Hanseatic League. At this forum Fred Hocker has surveyed this development. Like its predecessors it did not just concern trading, it was a movement of culture, of clothing, of new lingustic bonds. And finally it rested on the technological stages of shipbuilding too, in the shape of a cargo machine, the *cog* (German *die Kogge*) and its relatives, but in this case also on a true urban development, and on the specialization and division of labour. Thus, in many ways the Hanseatic Age reflects a striking contrast to that part of the Late Iron Age and the Early Middle Ages which we call the Viking Age. Although not only concerning the Scando-Baltic area, it spread to all its coasts from Bergen in the North and Novgorod in the east. But the original axis of its inception reflects the fundamental conditions in the Viking Age Baltic itself, from Germany to Gotland and furthermore the goal in Novgorod. And fragments of the proto-urban Viking Age survived in the Hansa period.

THE EUROPEAN SCENE

The contacts across the Baltic were always part of and triggered by converging developments of a larger scale, a European scale. It is possible that even the first plundering raids were a kind of counteraction to pressure from the late Merovingian or Carolingian realm. And within itself the Scando-Baltic area constitutes a common action space. The key-word would be *maritime interaction*.

It is difficult for me at this stage to pinpoint the exact significance of contacts in the Scando-Baltic area by way of archaeological artefacts. But I will delineate some lines along which the contacts were made and entertained.

The four salient developments are those of historical sources, proto-urban or market sites, incipient high-kingship, proto-statehood or whatever you would like to call it, and together with them the arrival of Christianity mostly in the form of the Roman Catholic Church. The last factor is the sailing ship, which made the Viking Age possible. All had European origins. All were intertwined and interdependent.

WRITTEN HISTORY

The *rise of historical sources* as the main source of knowledge on the past is a gradual process, but it starts with a feeble beginning in this area during the Viking Age. It is everywhere associated with missionary activities of certain saints and with the annals and histories of kings. The common background is the arrival of the church and its clerks. The saintly vitae of Willibrord and Ansgar are especially important to Denmark and Sweden, in particular the latter. The Russian Nestor Chronicle and the records of Arab travellers are contemporary or almost contemporary survivals. All other early sources are German, written in Latin, and more or less associated with official annals.

The Norwegian royal "chronicles" (the *Heimskringla*) are unique in the sense that they are written in the popular language and that they are not a product of the propaganda of any single king. They or their master versions are presumably never written down in their entirety during the Viking Age proper. They try more than two hundred years later to depict the deeds of the Norwegian kings of that age. In addition we get some snapshots from the Baltic and the Atlantic (Iceland, the Faroes, Greenland and the British Isles). There are a couple of other sources, sagas of persons, poetry, histories on late Danish Kings (Knytlinga saga, Saxo) and the like but they are essentially all from the same time as the Norse sources (12th-13th centuries). They may fail in certain details (the exact years, the sequences of pedigrees etc) but corroborating evidence confirm the general features.

MARKET SITES

The *markets or proto-urban settlements* (if they are such) exist in many varieties, from very small to fairly extensive. Some have been settled permanently to a certain extent but seasonal occupation of at least a substantial part of the site, maybe all of it, is the rule. According to the only area that has been exhaustively surveyed, the island of Gotland with more than thirty of these, there must have existed hundreds of such sites in the Baltic area. The classical inventory includes remains of pearl-, fibula-, and comb-making, metal-casting, of smithies, of weaving (cloth of sails/ tents?) of imported goods such as pottery, (often of Slavonic extraction), whetting stones of foreign rocks (often Norwegian). Some of the attractive goods brought here must have left no remains at all. For example we

do know of slaves from Russia as well as from Ireland being traded on a market place on an island outside of the Göta älv river mouth (*Brenneyjar*, not refound!).

No one has yet suggested that these sites would be the result of what Herodotos in the 5th century BC first described and called *silent trade*. The impression of the sites is that people understood each other fairly well. Perhaps they even had a *lingua franca*, a pidgin-Baltic language, possibly of a primarily Slavonic character. Trade must have taken place between equals. The huge number of small Viking Age trading ports with market sites in Gotland, which is the only area that has been thoroughly surveyed, testifies to a widespread phenomenon. The general impression is that of a large number of fairly ordinary people, free farmers, who traded with each other and with the people on the coast. Some of them would have been specialists in some handicraft. The traditional concept of such a trader is *farman* or farmannabonde ("travelling person" or "travelling farmer").

At the market place a prior right to buy for a magnate or a king, who protected the market rights of the merchants, may have been practised. But the very obvious sign of a separate stronghold is seldom to be seen. If it exists it is more like a refugium hill fort. Some sites seem to have been completely unfortified if not unguarded (*Gross-Strömkendorf*, Germany, *Åhus*, *Skåne*, *Fröjel*, Gotland). Sometimes just a ditch delimited the limit of the presumed royal protection (the first stage of the oldest of them all, at *Ribe*, S. Jutland). Others have a wall with gates, like that of *Janów Pomorski*, the site of *Truso*, close to present day Elblag, *Birca/Björkö* in lake Mälaren or *Haithabu/Hedeby* in Schleswig.

KINGSHIP

The most important process may be *the incipient statehood*. All other elements that we have dealt with here depend on that. Earlier small chiefdoms or statelets have existed everywhere and even large-scale monarchies might have existed, but only temporarily. They may have lasted only during the lifetime of a single powerful king or less, "cyclical kingships" according to Richard Hodges (Hodges 1989/1982). The smaller principalities in the Scando-Baltic area define themselves during the Viking Age in intermittent warfare, but never in order completely to crush or wipe out an opponent. It appears more or less as a kind of *peer-polity interaction* which is the theme of Colin Renfrew (although applied by him to a much earlier period). The significance is that these polities are fairly equal, and if one of them is raided the next year the stricken part would be able to launch a counter-raid. By the end of the Viking Age all the "polities" and independent magnates (often called *sea kings* in the sagas) of the main areas in southern Scandinavia seem to be curbed, and so to speak taken out of traffic, in the wake of the activity of one single king, the one and only over that particular area.

THE CHURCH

The *advent of Christendom* is thus strongly bound up with the needs of the incipient monarchy. The kings want to make royal power permanent and to leave at least one son to inherit it. Legitimacy had first been based on direct kinship to the pagan gods. The freedom of action of the aristocracy or the magnate class must be curbed in favour of royal rule in the land. Their Viking manners abroad (and sometimes even inland!) have also been curbed and checked by inclusion in the royal fleets. The necessary, ideological cement needed to legitimise this kind of power was provided by the Catholic Church. Probably Byzantine Christianity lost in the rivalry because it had less of that aura of the absolute power of the Pope. The Church in the new realm and its bishops were the elements, which together with the king and his dependent freemen were supposed to out-balance the magnates and their independent ways.

In addition to this argument there was an even more forceful pressure, the might of the German Emperor. The first princes to convert were those along his borders. To avoid being overrun by him in his zeal to Christianise pagans Prince Mieszko I of Poland induced his subjects to become Christians in AD 966. Like Russian kings, Mieszko used Scandinavian mercenaries. His son, Bolesław I Chrobry, The Brave, became the first king of Poland. In Denmark King Harald Bluetooth claimed even a little earlier, before AD 965, that he had made all the Danes Christians, presumably for the same reasons as Mieszko. In Sweden King Olof Eriksson tried the same procedure in c. AD 1008. It was the same gradual process in Norway. Olav Tryggvason (c. AD 1000) and St. Olav (AD 1030) were killed, the latter attaining the status of martyr. It is obvious that everywhere the conversion was a product of power. The first converts accordingly were the kingly class. But even in Scandinavia, people in the outlying areas may have remained pagans well into the 12th century.

When the Catholic Church had established itself in the west the old Viking Age parity or equality between the warlord principalities on the Baltic seaboard was broken. In the more fragmented chiefdoms in the east paganism and Viking manners remained until the crusades had obliterated or subjugated them, not only to the Church but also to permanent foreign rule. Lithuania was the exception. It officially became Christian with the Great Prince in 1389, but not effectively before the 16th century.

SHIPS

The Viking Age is an extremely maritime epoch. Never before nor thereafter have we witnessed such a dramatic upsurge in matters maritime (Westerdahl 1993). The obvious reason is *the spread of the sail* to the Scando-Baltic area. But at first the function of the Viking ships is not altered much. They are fundamentally rowing

The departure of the boat from Gdańsk with the Bishop of Prague St. Adalbertus in 997 AD. Scene number 10 from the bronze door at Gniezno Cathedral, c. 1180 AD.

galley-like long ships although somewhat adapted to sailing. The mere fact that they can sail with their armed crews directly to land is an immense tactical advantage. During the Viking Age the differentiation between long ships and round ships takes place, in the same elementary way as once in the Mediterranean. This means basically *military ships*, which were primarily meant to be rowed and secondarily to sail and *cargo ships*, which were exclusively meant to sail. Basically these two were reflections of the main types of contact in the Scando-Baltic area.

One could wonder why it took some thousands of years for the sail and for this differentiation to take place in the Scando-Baltic area. I have tried an explanation in a strongly militarised Iron Age "rowing society", where the outline of the ship even determined the pattern of the census of able-bodied farmers (Westerdahl 1995a). The galley ship on the West-Slavonic side of the Baltic was presumably sufficiently distinct as to be called *vindasnekkja* ("*Wendish snekkja*") in Scandinavian sources. Otherwise we can only surmise as reasonable that Finns, Balts and Estonians acquired the same skills as the other coastal peoples around the Baltic. However, there are astoundingly few ship finds from this period in this area, according to my knowledge only the remarkable *Lapuri* wreck from eastern Finland. No other type of technique would be disseminated so rapidly as military techniques. Fundamentally, the Viking Age ships meant that virtually all coasts were exposed to plunder. The only efficient countermeasure was to build ships of one's own with the same qualities as those of the enemy.

ARTEFACTS, GOODS AND BUILDINGS

The contacts of the Scando-Baltic are in archaeology epitomized by the distribution of certain artefacts or trading goods for which the attribution to a certain region is more certain than to others. These artefacts have been found together in individual graves as well as dispersed in different grave-fields. We have got quite a number of such cases around the Baltic. To some extent they could be the results of the settlement of sailors and mercenaries, either married or unmarried, or of marriages of women from overseas. The most famous examples appear as separate colonies in otherwise seemingly indigenous grave-fields. In general it could be said that these graves and grave-fields display a mixture of cultural elements, individually and as a group.

Another important way of demonstrating contacts is, as mentioned, traces of what we would call trade and handicraft in market sites or ports. We have already met them in this text.

In Scandinavia the small subterranean weaving booths (*grophus*) often appearing in small clusters at the market sites have been ascribed to possible Slavonic influences (the *ziemianki*) just as the timbering techniques of log houses have been introduced from Russia (cf Per Ramqvist in Hårdh/Wyszomirska/ Eds/ 1992). In Norwegian sources this introduction is ascribed *expressis verbis* to Harold Hardrada's initiative (1050's AD). Other constructions at market sites, if any, are built more in accordance with local tradition.

The same kind of mixture of cultural elements seems thus to be a characteristic of the market sites as in the graves

or grave-fields at some well-defined parts of the coasts of the Baltic. This must reasonably be ascribed to contacts of various kinds. Even individual ship finds may display the same tendency.

SHIP WRECKS

As a maritime archaeologist, always beset with a bias towards ships, I sometimes could claim to have found the same mixture of elements in ships as in the graves and market sites. In particular I am referring to a magnificent site in the Bay of Gdańsk, at *Puck* (German *Putzig*) where at least 5 Viking Age vessels have been found, including a log boat. Thus, finally, we find the mixture in the ship constructions themselves. One of the ships with a distinct Slavonic character with treenails between the planks (Westerdahl 1985a, 1985b) may have a distinctly Scandinavian type of mast-step, and on the other hand a ship fastened the Scandinavian way may look very Slavonic in other respects. There may be other non-Scandinavian features in Scandinavian ship finds but they have not as yet been treated as such. The overall impression is one of a common shipbuilding tradition along the Scando-Baltic area, but certainly with a longer Scandinavian development at sea than the corresponding Slavonic. On the other hand the inner waterways were an exclusive province of (West-) Slavonic boats. These may have been exported in natura or copied elsewhere already in the Viking Age. In the late 13th century the *pråm* (barge, from Slav. *pramú*) found in Falsterbo was built in the area of the Odra mouth. This might as well have happened much earlier. Considering the timber techniques, which will be mentioned below in connection with the works of King Harald Bluetooth, there might have been an import of Slavonic carpenters and techniques in inland Denmark.

GRAVES & GRAVE-FIELDS

As to problems of source criticism the limits of archaeology are obvious. We do not know very much about everyday signs and signals: what people looked like, how they wanted to show off their allegiances in their beard or absence of beard, in their hairstyle or in their possible tattoos. Did they want to show off primarily that they belonged to the people of power, of prestige, or did they want to give away their ethnic or local identity, or both or all three, if they could be combined? Another everyday expression of identity and habitus is clothing. Although the men may have a fairly homogenous inventory in their graves, usually including weapons, such as Frankish swords, the women appear to have more distinctly local or regional styles. Gotland is definitely the most special case. A classical theme would be the interpretation of certain parts of Slavonic, Prussian or Livonian grave-fields (*Wolin*, *Wiskiauten*, *Grobin*) as Swedish, Danish or generally East Scandinavian and Gotlandic. That this must have some foundation in reality is shown by a Gotlandic picture stone found in *Grobin*, Latvia. Before AD 1100 we also find Slavonic settlements on islands in lakes in southern Skåne (of exiles?) and a number of Slavonic place names in connection with a scrap ship yard at Maglebraende on the south Danish island of Falster.

BALTIC CONTACTS BY HISTORICAL PERSONALITIES AND MERCENARIES

Norse histories written down in the 12th and 13th centuries reveal tendencies in a personal guise. The facts may be reported just in passing, they may be embellished or distorted but some can be substantiated to a certain extent by archaeology. Since they are Norse they only describe exploits of the Norse. We can be convinced that if we had sources of the same kind for the eastern Scandinavians there would be another wealth from which to pick.

The Danish king *Harold Bluetooth* in the later half of the 10th century had a close relationship with the West Slavonic seashore, and in particular with Jumne (the legendary Jomsborg) or Wolin, one of our truly proto-urban settlements, at the Odra mouth north of Szczecin. It would appear especially interesting that he seems to have used the techniques of West Slavonic carpenters, maybe even importing them *in natura*, in building his famous bridge at *Ravning Enge* at Jelling in Jutland and maybe parts of the garrisoned forts, the *trelleborgs*. Harold was the first king to call him officially a Christian. He also claims to have conquered all Denmark and at least part of Norway.

Olav Tryggvason was the first king of Norway actively to enforce Christianity on his subjects. He was in his boyhood a somewhat adventurous exile captured by Estonian merchants and spent seven years in servitude in the neighbourhood of present-day Tallinn. Olav and his fleet were crushed in around AD 1000 in a sea battle (*Svold/er*) probably taking place on the southern Baltic seashore. His relative *Olav*, later king of Norway and called *St. Olav* as a martyr, spent his heroic years in the 1020's as a sea king among the Svea skerries of central eastern Sweden and when challenged, plundered on Balagardssida in Finland and pillaged the island of Gotland. He was as much at home in the Russian settlement of Aldeigjuborg (Staraja Ladoga) as in Norway.

Harold Sigurdsson Hardrada during his initiation rites to be a warrior king fought for the king of the Kievskaja Rus. He was then captain of the Vaering (Russ. *varjagi*) Imperial Guards in Constantinople. Later he took over Norway from the descendants of his half-brother St. Olav. He died at Stamford Bridge against Anglo-Saxon defenders in the same year as the Viking Age formally ended at Hastings, AD 1066. Other lesser-known captains of this guard are commemorated in texts on Swedish rune stones. It could be estimated that almost a thousand people in some way were personally connected to people who are mentioned as travellers or adventurous merchant

warriors on the rune stones. But only those raids have been mentioned which went the farthest way (Jerusalem included), gave most status and prestige, Arabic and Anglo-Saxon silver, or Byzantine gold. We could surmise that there must have been more everyday contacts, and maybe on a more mundane, peaceful and less boisterous level.

TRADE & LANGUAGE

Slave traffic, which probably made most money, is the least mentioned (late Christian influence?) and left nothing to posterity, except the equation of *slave* and *Slavonic*. The basis for this was the import of slaves to the Frankish realm of Slavonic thralls by way of Magdeburg in the 7th century.

The same can be said on the traffic of everyday trading goods, furs, wax, honey. The furs would refer to the north and the production of wax and honey has a particular expertise in the West Slavonic areas (Herrmann 1976). It is very probable that the Slavonic word for honey, *miod*, is the root of the Scandinavian Viking Age ale, the *mjöd*.

Trading and shipping gave impetus to other linguistic exchange. As I indicated above there might have existed a lingua franca even before Low German. From East Slavonic the conception of a market place, the *trg*, entered Scandinavia as *tor*, *torv* (cf the Finnish place name *Turku*) to remain, as well as implements as the steelyard, Polish *bizmer*, Swed. *besman*. The special term for a silver buckle in Scandinavian, *sylja* or *sölja*, could be of Fenno-Ougrian, perhaps more precisely Estonian, origin. The Germanic names of boat types, e.g. Pol. *szkuta*, Scand. *skuta*, *skute*, and boat terms, e.g. Pol. *wreg*, Scand. *vrang* for a rib, in Slavonic and Fenno-Ougrian areas probably as a whole antedate the Hanseatic German influence. At least it seems to be a reasonable supposition if we compare what happened in this respect on the western European seaboard (there a *vrang* would reappear as *varenga*, *varangue* etc.). And the Hanseatic Germans obviously themselves adopted the Scandinavian term *byrding* as *bording* for a vessel type in the outskirts of Gdańsk (Danzig). It may be that the late Slavonic or Estonian pirates even copied the tactics and the organization of the Scandinavian rowing societies when emulating them during the 12th century. In fact the Scandinavians may in their turn have copied some of it from the Frisians in the west in the early 9th century. In some respects the West Slavonians seem to have introduced tactical innovations, such as the use of cavalry with horses brought on their own ships (AD 1135 at Konungahälla, southern Norway).

THE TRANSPORT ZONE PATTERN AND THE POSITION OF GOTLAND

The Baltic is a test case in my exposition of traditional transport zones (Westerdahl 1993, 1994, 1995b). Despite the adventurous reputation of Viking Age sailors the general rule continued to be coast-hugging, especially in the Baltic. This is why the Southern Baltic appears to belong to at least two fundamental zones. They may antedate the Viking Age proper but also remain as the basis of "small-scale shipping" long after. One of them follows the east coast of the Swedish realm, defining this realm as basically a Baltic-facing maritime connection or control area and later its direct extension appears as the main axis of "crusading" on that side. The other zone intermittently covers the southernmost coasts of the Baltic, continuing with a Danish expansion in the same way up to Estonia in the 12th century. In both zones even a cursory glance of foreign finds earlier than the Viking Age seem to indicate the same origin of contacts. And they are reciprocal. On the present Finnish and North Estonian side the main targets (and maybe in a certain situation by colonial ventures) seem to be the present provinces north of (and partly including) Uppland in Sweden, along the Bothnian Sea and the Bothnian Gulf.

In the middle of the Baltic we find the large island of Gotland. In many ways it could be studied as a social laboratory to express "insularity", in the sense of a very outspoken special identity. Despite the usual limitations in archaeological material generally, this identity stands out exceptionally clear in Gotland. But insularity does not mean isolation, although the words may stem from the same root. On the contrary the material from Gotland reflects lively contacts with both sides of the Baltic. The traditional paradigm presents the island as an extension of the Swedish (and occasionally, and mostly in later times, Danish) mainland culture. The very obvious eastern connections and artefacts are accordingly judged as "imports". This is just one way and a very old-fashioned way at that, to look at the richest area in the whole of the Baltic. Another possible facet is to underline the character of imported styles or artefacts from both sides. The third and most reasonable is simply to recognize that Gotland has got a culture of its own, incorporating both east and west. The current discussions on the definitions of human culture in general certainly emphasise that any culture, however you survey its borders; topographically, ethnically or chronologically – would appear to be a mixture of elements from other "cultures", supposedly delimited in the same manner. Although this particular mixture might in itself be unique.

I would suggest that this peculiar situation is an immediate product of the fact that Gotland sits squarely on the border of both the fundamental transport zones of the southern Baltic. Its inhabitants could easily follow both ways, its visitors came both ways. And Gotland was the normal place by way of which to cross the Baltic from any mainland. St. Botvid of Södermanland wanted to repatriate liberated slaves in the early 12th century by hiring space in a ship at Rågö to Gotland. From there he could always find a ship to the other side. Another traditional direction of Swedish Viking Age southern forays by

way of Gotland appears to be parts of southern Livonia or Curonia/Courland (Grobin etc.) in present-day Latvia. From the south one of the crossing sailing routes to the Bay of Finland, in the Register of King Valdemar Sejr, before AD 1241 called *mare estonum*, the Estonian Sea or the Sea of the Estonians, went by way of the Fårösund straits between Gotland and its northern satellite Fårö. Later, the same sound was the meeting-place of the Osilians from Saaremaa in present-day Estonia or the Curonian pirates on the Livonian seaboard on their razzias to the south. This appears quite obviously as the reason why the island is rich beyond measure even before the Middle Ages. Yes, in fact, I did just suggest that the Gotlanders were partners in the traffic of slaves, as they were during the Viking Age. They may not have left this profitable trade entirely before being threatened by a possible Papal nuncio sanction in connection with the German crusades (Westerdahl 1988, 1985a, 1985b).

THE FACE OF THE VIKING AGE

When first trying to find a smashing caption for this presentation I thought of "From Bluetooth to Wrymouth." You know now that *Harold Bluetooth* was a Danish king in the 960's AD. *Wrymouth* (Pol. *Krzywousty*) is the nickname of *Bolesław III*, king of Poland in the 12th century. The subtitle would have been "The Face of the Viking Age." Apart from the fact that King Boleslaw III is not strictly Viking Age, the caption is still not quite inept. We could have continued with Scandinavian and other nicknames such as (Harold) *Fairhair*, the legendary founder of Norway, presuming that his hair also covered his face, or (Svend) *Forkbeard*, the Danish king who killed his father *Bluetooth* to attain ascendancy on the throne. The significance would be that Viking Age people knew their princes by their face. In their simplicity these nicknames indicate *a direct and a personal relationship between power and subject*. This is not without certain implications for the contacts across the Baltic. On this level people used their Baltic space as far as they could. Contacts were always personal and direct.

Anyway, it is a cruel face. It is the face of power. These were violent, turbulent times of mercenaries, slavery and plunder. If violence was futile to achieve the aim the perpetrators resorted to peaceful means, such as trade. It is a euphemism to use the concept trade during the Viking Age. The times were in no sense heroic except in the code of honour of their own authorities.

Their aftermath is neither heroic. Nor is it the opposite of such abominable phenomena as slave-traffic and slavery. It is just different, simply feudal and more European. The external appropriation has then become internal. Trading and retailing were gradually to be considered as, and even enforced, as specialised professions. In this sense maybe the Viking Age had greater importance for the contacts between some of the common people on both sides than later times?

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Fred Hocker

BALTIC CONTACTS IN THE HANSEATIC PERIOD

CHRONOLOGY

Common Sea, Common Culture is the proposed title of this meeting, but few people seem to accept the concept of a common culture encompassing the whole Baltic region. With three or four major language groups, ten countries (including Norway), and a geography that logically splits the land around the sea into two or three regions with differing orientations, it is easy to see the Baltic as an area of many diverse cultures, each with unique characteristics and values. If there is commonality, it might be seen as part of the general nature of Europe or Northern Europe as a whole rather than anything specifically and exclusively Baltic.

However, the idea of a unified or integrated Baltic region is not new. In the Middle Ages, we can see the emergence of a consciousness of the Baltic as a distinct region as well as deliberate attempts to consolidate political and economic control over the region. These were not organic expressions of shared interests among disparate peoples, but structures imposed by ambitious princes or merchants. None of these attempts was wholly successful or lasted for more than a few generations, but they have left traces on the landscape and in the different cultures around the shores of the Baltic Sea. The castles of Erik of Pomerania and the grain warehouses of the Hanse survive as reminders of an earlier consciousness of the Baltic region's potential, and perhaps as lessons to modern politicians thinking of more creative ways to weld the Baltic peoples together.

In looking at the Baltic in the Middle Ages, it is important to remember that even though there was a rising consciousness of the region as a distinct geographical entity, it did not exist in a vacuum. The Baltic was part of Europe, connected to the rest by trade routes heading east, west and south, most especially to the west. The 12th century is characterized throughout northern Europe by a wave of forest clearing and new settlement, bringing new land under cultivation, and is accompanied by the growth of populations and old and new towns. Especially in the rapidly growing towns of northwestern Europe, the demand for staples, building materials and other bulk goods, could not be met from local supplies. Baltic raw materials (grain, fish, timber, furs, wax) found a ready market, and the long-distance exchange of Baltic bulk goods for western manufactures (wine, cloth) and specie became the engine driving the economic development of the Baltic after about 1100. By 1250 or so, much of the long-distance trade was in the hands of German merchants, but the basic structure and routes of Baltic and North Sea commerce had been well established, by Saxons, Frisians, Slavs and Scandinavians, before the merchants of the northern German towns began to organize themselves into the association that has come to be known as the Hanse or Hanseatic League. Hedeby/Slesvig, Birka, Wolin, and Novgorod were centres of international exchange before Lübeck, Stralsund and Danzig put merchant ships on their city seals to symbolize their commercial power.

The Baltic Sea, far from being a barrier, had been an international highway connecting cultures for centuries, and in the Middle Ages became a busy thoroughfare, connecting the cultures around the nearly closed sea to each other and to the West. It provided an efficient means of moving people, goods and ideas over long and short distances, and in bringing the disparate peoples of the Baltic into closer contact with each other. This contact was deliberate and inadvertent, creative and destructive. Contact includes both commerce and war, pilgrimage and crusade, but due to the unique geography of the region and its role in the larger European economy, contact in the medieval Baltic was dependent on maritime connections and driven by trade.

THE HANSE

The Hanse is the first instance of a pan-Baltic structure encompassing peoples of different linguistic and cultural backgrounds, with important parts of the organization established in German, Slavic and Scandinavian areas. The basic development of the Hanse is by now an oft-told tale and thus does not need to be repeated here, but several aspects of Hanseatic organization and practice are relevant to this small study. First, it must be remembered that while the Hanse was culturally and linguistically a German institution (its "official" name in many contemporary sources was the community, or *Hanse*, of German merchants trading abroad), it was in no way a national institution. It had no effective government, no practical means of coercing its own members into following "official policy," and no single vision of

what "policy" should be. It was nonetheless effective for many years in securing the rights and privileges advantageous to its members.

Second, while merchants from Dordrecht in the west to Reval in the east all spoke the same language and their Low German was the *lingua franca* of the Baltic, they did not necessarily share the same interests, economic or political. The eventual division of the member towns into thirds, Westphalian, Wendish and Livonian, was a recognition of the unwieldiness of the organisation and the differing interests of different regions. The Wendish towns, dominated by Lübeck and Hamburg, had originally come to prominence through the control of the overland route across the neck of the Danish peninsula, and were thus concerned very much with the carrying trade, while the Livonian towns were the key middlemen for two of the lynchpin bulk goods of the East-West trade, grain and timber. Their interests were in the cheapest transport to a profitable market and thus directly at odds with the Wendish towns. The Westphalian towns were not even part of the Baltic region, but more directly linked to western markets via the Rhine, and thus had entirely different concerns.

The economic power of the Hanse inspired envy and fear in the other Baltic nations. The Scandinavian kingdoms in particular often found themselves at odds with the Hanse, but they also found it a convenient ally in squabbles among themselves and in internal dynastic struggles. Partly because the Hanse was one of the major players, the incessant wars among the Baltic nations in the Middle Ages are among the first consciously economic wars in European history. Baltic trade with the West was a tremendous source of revenue readily visible to kings and princes increasingly strapped for cash, and thus a ready provocation for conflict.

THE DANES

Although in many ways the Baltic in the Middle Ages was a "German lake," the Danes controlled the gates and thus had a special status. Before the Hanse bloomed in the 13th century, Danish and Slesvig/ Schleswig merchants and ships had ranged far into the Baltic and out into the North Sea. Dendrochronology indicates that the earliest large merchant ship finds, three cogs as well as large clinker ships such as the Lynæs find, were built in Denmark or on the Danish-German border. Two of these ships - the Kollerup and Skagen cogs- were found on the exposed northwestern coast of Jutland. This suggests that the residents of southern Jutland were probably among those who pioneered the sailing route for bulk goods that eventually replaced overland transshipment through Lübeck as the primary means of getting goods into and out of the Baltic. Dendro analysis also indicates that the waterfront of Slesvig, the harbour town that replaced Hedeby, was significantly expanded and redeveloped in the 1180s. As Denmark controlled the straight at Øresund, the development of the sailing route into the Baltic was to the advantage of Denmark, and well the Hanse knew it. It was an important part of Hanse policy, in as much as the Hanse had a coordinated policy, to keep Øresund open and thus the kings of Denmark had to be treated carefully. In a sense, every merchant in the Baltic had an interest in Danish economic policy, and thus it is no surprise that the dynastic squabbles that affected Denmark in the 14th and 15th centuries often involved foreigners weighing in on one side or the other.

Hanseatic towns blockaded or made war on the kings of Denmark on more than one occasion, the war of the 1360s was among the most dramatic, ending in Hanseatic victory and the temporary loss of the rich lands of Skåne. Denmark also made war on its neighbours and was in nearly constant conflict with Sweden from the mid-14th century onward. The Kalmar Union, agreed in 1397, was an attempt to limit the warfare that had become endemic among the Scandinavian kingdoms by uniting the crowns of Sweden, Denmark and Norway, initially under Erik of Pomerania, the adopted son of Margrete I. Erik took the idea of unification seriously, and until his exile in 1439 he spent much blood and treasure on the development of a pan-Baltic administrative network that could act as an effective counterbalance to the might of the Hanse. He built a series of castles from one end of the Baltic to the other, and sought to tap into Hanseatic revenues by the creation of the Sound Toll at Helsingør in 1427. Although it assured the united monarchy (and eventually Denmark after the collapse of the union) a regular stream of revenue, the toll was not popular with Hanseatic merchants, and several Livonian towns combined forces to try to block the harbour of Copenhagen with sunken ships in 1428. Three Polish-built clinker ships recently excavated at Dokøen in Copenhagen may well be the remains of this effort, one of several attempted blockages of Copenhagen in the 14th and 15th centuries.

The Danes also controlled the Scanian Market, the primary venue for the sale of the herring caught in the western Baltic. Until this fishery failed in the early 15th century and was replaced by the North Sea herring fishery dominated by the Dutch, it was one of the most profitable industries in the Baltic, employing large numbers of fishermen from several cultures. As a sort of Champagne Fair of the North, the Scanian Market attracted merchants from throughout the Baltic and the West, and the marks of their booths can still be seen in the ground at Skanör. The international nature of the market is demonstrated by the graves of foreign merchants in the church of Skanör.

THE SWEDES

Sweden had long been well connected to the rest of the Baltic and both the East and West. The excavations in the "Black Earth" at Birka have made that entrepôt famous, and Swedish Vikings were instrumental in

pioneering the long routes that connected the Baltic with the East. In the Middle Ages, Stockholm grew up as a more convenient commercial and administrative centre, with a German colony large enough for the town to eventually become one of the few towns outside Germany proper to be a member of the Hanse. Through much of the Hanseatic period, Sweden was engaged with Denmark in the struggle for control of Øresund and the rich lands of Skåne, Halland, Blekinge and Bohuslän at the same time that it was undergoing the painful process of state building. Denmark generally had the upper hand in the struggle until Gustavus Vasa managed to create a viable dynasty and durable apparatus of government in the 16th century. Historical sources suggest that Sweden was still developing its commercial and political power in the Hanseatic period, but came into its own in the Renaissance, as the first modern state to attempt to control the entire sea.

GOTLAND

Visby on Gotland was perhaps the pre-eminent medieval centre of international exchange within the Baltic, thanks to its central location. Its culture was its own, with German, Scandinavian and Slavic elements, and the island changed hands several times, passing back and forth from independent control to the Teutonic Order, to Denmark and eventually to Sweden. Visby merchants ranged far and wide, and the town was a powerful member of the Hanse until the end of the 14th century, when the increasing presence of the Hollanders and Zealanders greatly altered the balance of economic power in the Baltic-North Sea trade. For a decade in the 15th century, it also served as the pirate base for Erik of Pomerania after he was deposed from the thrones of Denmark and Sweden.

THE FINNS

And what about the Finns? Much of Finland in the medieval period is something of a mystery, as it was to the people of the time, a dark, brooding land of lake and forest. Peopled by strange, fearless white-haired men and malevolent spirits, but the southern coast was an active part of the Baltic maritime network, primarily under Swedish or German administration. Recent work by maritime archaeologists from the National Maritime Museum has included visits to medieval wrecks in the Finnish archipelago, confirming that the southern/southwestern coast was part of the larger maritime transport zone. Long-distance contact seems to have been focused on administrative centres around castles such as Viborg and Åbo, and shipping may well have been more feudal than commercial in nature. But by the late sixteenth century, there is good historical evidence for a small group of specialised "international" shippers based in Finnish ports, particularly Helsingfors/Helsinki.

THE SLAVS

We must not forget that while Germans dominated the social structure of the southern Baltic shore and its hinterland after the great wave of colonisation in the twelfth century, the population east of the Oder remained predominantly Slavic, with an established tradition of seafaring and trading. The new German towns may have replaced the old Slavic entrepôts like Wolin as the primary centres of exchange, but cogs did not entirely displace older ship types and methods of construction. Farther east, the Lake Ladoga region was a vital part of Baltic commerce and contact with the great centre of Novgorod, one of the main "foreign" trading posts of the Hanse. The Slavic proto-states, such as pre-Hanseatic Poland, the polity centred on Novgorod and Lithuania, were powerful participants in the flow of eastern goods until the arrival of the Mongols in the 13th century. The Slavic hinterland, thanks to the great rivers, reached far into central Europe and provided a highway for goods and people from even farther away and had done so for centuries. Russian furs and wax were among the most valuable products, in terms of their worth in relation to the hold space they occupied, to come out of the Baltic into the West.

TRAFFIC THROUGH ØRESUND AND IN THE BALTIC

Some very useful information about shipping in the Baltic in the later part of this period is provided by the records from the Danish toll collected at Helsingør from 1427 (published in tabulated form by Bang, 1906). All ships entering or leaving the Baltic had to stop and pay toll, and were registered. The earliest surviving records are for 1497, 1503 and 1528, with a more continuous series beginning in 1536. The early records provide less detail for this sort of study, while the later ones indicate in which direction a ship was passing, its port of departure, goods on board, and often an estimate of the vessel's size by division into three classes: under 30 lasts, 30-100 lasts, or over 100 lasts (one last of grain was approximately three cubic meters in volume, with a weight of approximately two tons).

The toll records must be used with some care, and it must be remembered that they indicate shipping movements, not directly the total number of ships involved in trade. The same ship often appears twice in a year, once entering and once leaving the Baltic, but it may appear even more often if it is involved in one of the shorter Baltic-North Sea routes. The later records indicate that ships entering and ships leaving are approximately equal, as one might expect, so the number of entries might usefully be considered to be at least double the number of ships in use for these voyages. For this particular study, I have been more interested in the overall volume of traffic and its participants rather than individual ships and so I have used the number of entries as a raw indicator of volume.

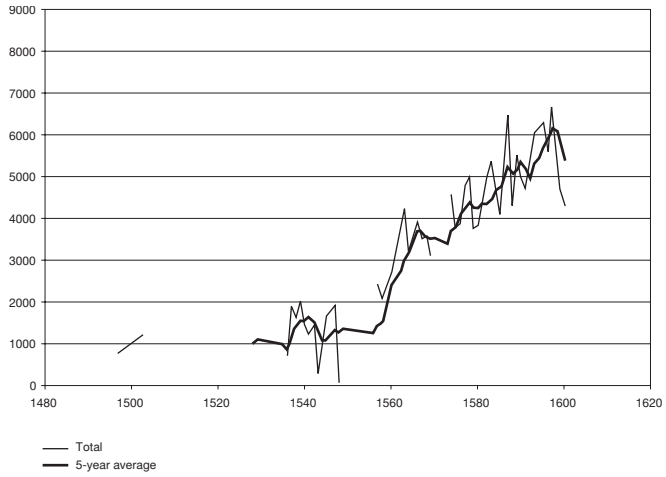

Figure 1. Shipping movements through Øresund 1497-1600.

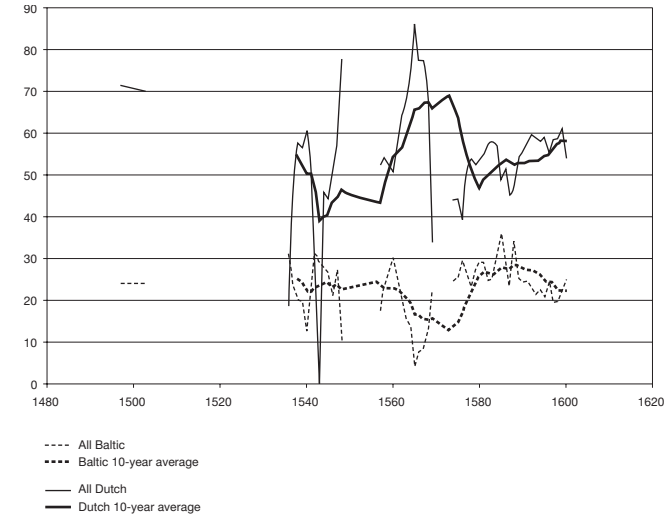

Figure 2. Dutch and Baltic shipping through Øresund as percentage of the total 1497-1600.

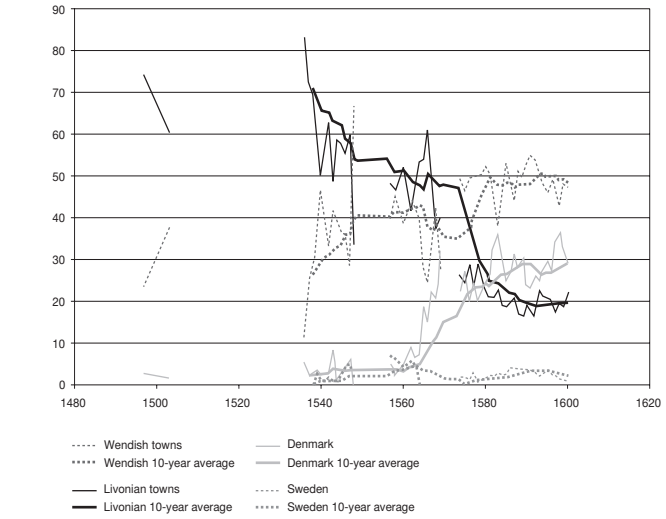

Figure 3. Regional shipping as a percentage of the Baltic total 1497–1600.

Although there are numerous short-term fluctuations in the returns as one might expect as a result of wars, embargoes, blockades, etc., several long-term trends are immediately visible. For this reason the graphs show both raw numbers and moving 5- or 10-year averages.

The most obvious is the sharply rising number of ship movements after the middle of the sixteenth century, peaking in the 1590s, with a dip in the 1560s during a period of intensified warfare between Denmark and Sweden (Fig. 1). Looking ahead, the tolls for the first half of the 17th century show that numbers of ships transiting the Sound dropped rapidly after 1600, falling to half or less of the peak by the 1620s (although ship size increased in the 17th century, at least partially compensating for the loss of tonnage). The economic boom of the later sixteenth century is clearly visible here, with some accommodation for the specific political conflicts of the Baltic. The size records indicate that the vast majority of ships before the seventeenth century remained in the 30-100 last class (for reference, the Bremen cog would find itself in the lower half of this group), with perhaps a quarter of the total in smaller vessels under 30 lasts and only a handful over 100 lasts, many of them big salt ships. This impression is confirmed by contemporary toll records from Reval (Tallinn, see Wolf 1986), which indicate that while the salt ships were well over 100 lasts in capacity by the mid-fifteenth century, such ships were not numerous, and the majority of normal Baltic traders were under 100 lasts. This was the case elsewhere in northern Europe as well (Friels 1995: 183) Despite its large and increasing volume, the demand for increased tonnage was primarily met by more ships rather than larger ships in trades other than salt. Salt was a commodity characterised by steady and predictable supply and demand, factors which encourage the use of the largest possible ships in order to reduce transport costs. Smaller vessels are, all other factors being equal, more costly to operate per ton of capacity than larger ships, but they give owners/shippers more flexibility. Earlier records are less specific regarding ship size, but suggest that Baltic traders had settled on this size of ship early in the Hanseatic period and stuck with it. Those earlier records also suggest that while there was a substantial increase in the size of the largest ships sailing to the Baltic in the early fifteenth century, the total number of ships may have declined from the late fourteenth century through most of the fifteenth (Friel 1995: 32). This may well be the result of a restructuring of bulk trades in staples and building materials in the wake of the drastic demographic changes (and ensuing collapse of agriculture) wrought by famine and disease after the mid-fourteenth century.

A second clear feature is the dominance of ships from the Low Countries (Fig. 2), and even though this fluctuated throughout the sixteenth century, there were only 13 years in which Dutch ships were less than half of the total passing through Øresund. Holland

and Zealand shippers had achieved this position in the fifteenth century, exploiting differences between the different Hanse regions and a superior organization of the commercial process, and Baltic trade remained the foundation of Dutch prosperity for centuries. Even when the VOC was at its height in the seventeenth century, its income was only half of that generated by Dutch Baltic commerce, and the Estates General of the United Provinces considered the Baltic trade of greater economic and political importance than the Indies trade. This means that the different regions of the Baltic were competing with each other for smaller shares of the pie, but the pie was so large that these shares were still significant.

Paradoxically, although the Dutch share of the traffic fluctuated widely, usually between 50 and 80 per cent of the whole, the share represented by all the Baltic nations together remained much steadier, not often venturing out of the 20-30 per cent range, except during the wars of the 1560s. The gains and losses in Dutch shipping were largely to the advantage or disadvantage of others, primarily shippers from England, Scotland and Hamburg.

Within the Baltic quarter to third, there were some significant developments over the course of the sixteenth century (Fig. 3). The dominant players were the old Hanse towns, who controlled over 90 per cent of the traffic until late in the 1540s, and then gradually declined but only to 60-70 percent. The dominant town in this regard was not, in the early period, Lübeck, the seat of traditional Hanse power, but Gdańsk, a major shipbuilding centre in the fifteenth century and the gateway to the rich Polish grain fields and forests. Even among the western Baltic towns, Lübeck ships were usually fewer than those from Stralsund. Over the course of the century, the old Wendish towns and the Livonian towns gradually exchanged places, with Rostock becoming the most represented town by the second half of the century.

The gradual decline of the old Hanse towns was to the advantage of Denmark (including Scania), which had captured almost a third of the traffic by the end of the century, and the western Baltic towns in general. Danish ships may in fact be over-represented, as they might be expected to be on shorter routes and thus able to make multiple trips. Most of the Danish ships reported Copenhagen as their home port, so the eventual loss of the Scanian counties to Sweden probably did not make a significant difference to the figures, even though it was a serious blow to Danish pride. Sweden was not in this period a major player in long-distance trade in and out of the Baltic, or at least Swedish shippers were not active participants, even if Swedish products (particularly iron and naval stores) were starting to be significant. Sweden would become a more significant long-distance shipping nation early in the seventeenth century. Finland is first seen in the toll records in 1560, a single ship, and then appears regularly from 1581, but only as a handful of ships, apparently a small group specialising in long-distance trade. This also changes in the early seventeenth century, especially as Finland becomes a centre for the production of naval stores.

These figures only tell a part of the story, if an economically significant part. They provide no indication of intra-Baltic shipping, although careful scrutiny of individual returns might reveal some ships and shippers who regularly engaged in long-distance trade and others who appear sporadically, suggesting that in other years they stayed in the Baltic. A long-distance, high-volume network such as the Baltic-North Sea axis requires not only the ships taking Baltic grain and timber to the West and bringing back wine, wool and silver, but also requires ships to collect bulk goods to central entrepôts and to distribute return cargoes to the hinterland. There must also have been a significant amount of coastal and intra-Baltic commerce which is not readily visible in the historical record.

Archaeology probably offers the best potential for revealing the nature and scale of intra-Baltic traffic. In addition to a relatively small number of finds of long-distance ships, such as approximately half of the known cog finds, Baltic waters have revealed to date many more small vessels, *skuder* in Danish. Jan Bill's work on small-scale seafaring in Danish waters provides a good example of this sort of material (Bill 1997 and in press). He catalogues over 90 ship finds from the period before 1600, yet where the origin of these vessels can be determined the majority are of local (western Baltic) manufacture and of no great size. Some of these, such as the well-preserved Gedesby ship, were apparently engaged in regular commerce between the southern Danish islands and the Baltic German coast. The nine vessels excavated in Roskilde in 1996-1997 represent a broad cross-section of vessel types of the 11th through 14th centuries, including a Viking long ship, but a significant number are smaller merchant vessels (Myrhøj, Gøthche and Bill 2000).

In Sweden, the Kalmar and Helgeandsholmen finds provide a similar assortment of Medieval and Renaissance vessels, many of which are in the smaller size range (see Åkerlund 1951 and Varenius 1989). Recent work by Friedrich Lüth's staff off the coast of Mecklenburg-Vorpommern at Darss has also revealed a number of medieval wrecks, some of them large clinker-built vessels of pine (described elsewhere in this volume), but also smaller, local vessels, including one of the earliest carvel-built vessels yet found in the North (I thank Thomas Förster for the opportunity to see these wrecks last summer). The work of maritime archaeologists off the coasts of the Baltic republics and Russia has shown that these areas were frequented not only by traditional Hanseatic ships, but also by smaller vessels of a more local character.

This motley collection of smaller ships, many of traditional clinker construction but others showing the influence of other shipbuilding traditions, particularly cogs after 1200, was the backbone of Baltic contact. Leading unspectacular lives, operating on the hairy edge of profitability or under the direct control of

feudal lords, these vessels connected individual farms with market towns, carried passengers between the often extended holdings of individual magnates, and provided ferry services between the growing towns.

A SUGGESTED AVENUE OF RESEARCH

Analysis of this wide range of material and better definition of the mechanisms of contact in the Baltic could be greatly facilitated through better sampling and analysis of the timber of which ships and other structures, large and small, are made. It has long been recognized that dendro analysis can not only date timber, but provenience it in a general way, and work done on medieval wrecks has shown that a large number of the larger, later cog finds were built of Livonian timber. Recent work in Denmark, suggested by Niels Bonde and put into practice by Aoife Daly (Bonde 2002, Daly 2002: 16-17), has shown that it is possible to localise the origin of timber to an even smaller area through dendro-analysis. If a sufficient number of samples are taken from a ship and analysed, the source of the timber can be pinpointed with surprising accuracy. It was possible, for example, to demonstrate that the three earliest cog finds, from Kollerup, Kolding and Skagen, were all built from timber felled in southern Jutland, and in fact probably from trees felled in the same forest. Such accuracy requires a larger number of samples than are usually taken from shipwrecks (at least ten, with 15 being better), and the development of specific regional curves on the basis of timber whose origin is known from other types of evidence. This type of analysis is of particular use for ships and other structures built before the later part of the fourteenth century, when historical evidence indicates that timber in dimensions suitable for shipbuilding was being exported from the Baltic to the West.

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Mirosław Kuklik

SELECTED ISSUES OF THE SEA FISHERY HERITAGE OF THE POLISH BALTIC COAST

The most northern part of Poland; corresponding more or less with the area of the Polish Baltic Coast prior to the Second World War; is inhabited by the largest group of active fishermen. These fishermen are mostly Kashubian who comprise of an indigenous ethnic group who distinguish themselves through the preservation of their original old-Slavic language. A substantially large number of fishermen inhabit the Hel Penisula.

This long, sandy peninsula is almost completely devoid of agricultural land. Its inhabitants were therefore forced to support themselves by catching fish all year round. Thanks to this they have created an interesting and exceptional – even in the Baltic conditions – maritime culture.

Native fishermen have always emphasised their own distinctive characteristics from the headland inhabitants. Due to this, just like their ancestors, they call everything that comes from the Peninsula "fishermen's": so there is a fishermen's forest, fishermen's church, fishermen's priest, teacher, fishermen's language, etc.

The presence of the indigenous group on the coast of the southern Baltic (from the border of southern Lithuania to the Szczecin Bay) is an exceptional situation.

Since 1945, a process of new colonial settlement has occurred in the territories lying to the east and west from the Kashubish Coast. New settlers often took up fishing. But they have done it without reference to the old heritage, thus creating a new maritime culture.

The region of the Gulf of Gdańsk, especially its western part called Puck Bay has for centuries been densely populated by people involved in the fishing trade. It results partly from the exceptional fishing quality of water in this region (in both sea and freshwater species). As well as the existence of large markets in the vicinity (Gdańsk).

Of course even here the old culture undergoes certain changes and is steadily disappearing, mainly due to new forms of administration. However extensive research carried out here proves that the old fishermen's tradition is still alive and can be perceived as a distinguishing feature of this region.

The maritime heritage of this region's fishermen is still so vivid that it provides exceptionally good conditions for observations and research. The research allows us to reach conclusions concerning the aims and direction for future undertakings that need to be carried out to improve our knowledge of the cultural environment, which owed its existence to sea fishing.

In my paper I would like to introduce some of the characteristic features of the sea fisherman's cultural environment. I have divided these characteristics up into four themes: people; localities and buildings; tools, methods of catching and work organisation; fish processing.

PEOPLE

Undoubtedly, the fishermen of the past, just like the other men of the sea possessed features, which distinguished them from farmers or craftsmen. To exemplify this I will use a description from the beginning of the twentieth century:

Fisherman's family from Jastarnia. Hel Peninsula, c. 1938.

The Budzisz family from Kuźnica. Passing down the fisherman's knowledge. Hel Peninsula, 1999.

The Kashubish Fisherman. Photo Henryk Kabat.

"Kashubian fishermen, so attached to the sea, differ spiritually from typical Landsmen. Their appearance embodies peace, composure, and concentration. They are composed, cautious, slow. They are not keen on colourful garments and their singing is not very lively. In life they are moderate at work, slow and cautious about their plans. They somehow resemble water with which they are so accustomed". (Alfred Swiekosz 1930)

Family plays a vital role in the traditional fisherman's environment. Children are the future and they will secure well-earned peace and well being. The role of a woman- a wife – is exceptional here. She usually comes from the same locality. As the man was away at sea most of the time his wife took over the role of the head of the family. She was responsible for the finances of the family. A fisherman usually gave all his basic wages to his wife. She took care of children and sometimes dealt with taking the fish to market and selling the catch. Her domain was the kitchen, her husband did not even look into it. On the other hand she didn't have to bother about fuel and heating the house or its maintenance.

Women helped prepare the fishing equipment, but she never accompanied the fishermen to sea (this holds true today, too). She was not supposed to be on the shore while her husband was working there.

A contrary situation can be observed in the neighbouring regions where women have been actively involved in the fishing itself.

Traditional fishermen's garments are worth our attention too. People doing research into marine culture are more interested in every day garments than formal attire. Everyday clothing had to meet special requirements, it had to protect the fishermen from the cold and wet. Old fishermen still remember different ways for impregnating clothes to keep them warm.

LOCALITIES AND BUILDINGS

Contrary to the farmer's work, which can be done individually or within the family circle, traditional fishing, especially sea fishery, involves teamwork. This is why in fishing settlements isolated houses

Fisherman's daughter is helping with preparation of fishing equipment. Kuźnica, Hel Peninsula, 1968.

do not exist. Fishermen did not pay attention to regular settlements especially if it was not legally required.

Typical fishing settlements lacked farm buildings. Cow sheds if present were always under the same roof as the farmhouse. Fishermen's houses are easily distinguished from those inhabited by farmers, not only by the tools present in the courtyard. The houses distinguishing feature were unique pyramid-shaped chimneys the base of which was the inlet of a large stove canopy.

The chimney was utilised as a fish drying-place. The chimney was also used as a smoke outlet for a small smokehouse. The excess smoke was disposed of through the door, which was divided into two parts, upper and lower. These doors, also known in other seaside settlements, were commonly used in Hel.

The increase in catches at the turn of the 19th century led to the extension and building of separate smokehouses.

The insides of fishermen's houses in comparison with farmhouses had much bigger vestibules, which also functioned as a kitchen. This was the place where the family gathered to, amongst other things, make and repair nets. The ceiling beams and walls had special hooks for fastening the nets.

Seaside fishermen's houses have changed their interior architecture together with adopting a new function – as boarding houses. This, in turn, led to limited storage space in the attic where the guestroom was prepared. This meant building separate tool sheds outside. Only the edges of the lofts could be used as before. To access it special small doors where made and through which oars, masts and other tools were placed inside. The remaining equipment was stored in sheds built nearby or on the shore.

The most characteristic fishermen's sheds were those built from old boats.

In order to build them boats were split and erected vertically and then the door was added. The last example of such a vessel existed at Jastarnia on Hel's Peninsula until 1998. Today the only example can be see at the open-air museum at the Fisheries Museum in Hel.

Fisherman's house in Hel from the beginning of the twentieth century.

Vestibule of fisherman's house at Hel, from the beginning of the twentieth century.

Fisherman's shed made from an old boat. Osłonino near Puck, 1980. Photo Roman Klim.

Setting out to catch fish. Hel, 1963. Photo Tomasz Zydler.

Fishermen's houses possessed one more characteristic element. If there wasn't a tower with a weathercock in sight, the fisherman fixed one to the highest point of his house. Checking the wind's direction was the first instinctive action of a fisherman when leaving his house and before setting out to sea. The wind was a vital criterion in terms of sailing and size of the catch. Certain winds brought fish and others repelled them from the shore.

TOOLS, METHODS OF CATCHING AND WORK ORGANISATION

A fishermen's workshop is, in my opinion, one of the most interesting topics relating to the fisherman's environment.

They contain centuries of experience and knowledge of fishermen. It is a pity that the descriptions of old nets are usually limited to superficial characteristics. It does not always permit their good identification. We can only make suppositions as to the materials they were made from, their floating and sinkers or clearance. These facts were vital for the efficiency and durability of nets.

We are left with only a general interpretation, knowing that these features depended on the site, the strength of currents and waves, the season, fish habits and local fishermen's traditions.

But customs connected with organising the catch are much better researched and described. The oldest description of the form of fishermen's organisation on our coast is "the outlay" system described in the 15th century local legal code for Hel. The system probably existed much earlier since it was described as binding in Hel for a long time. It consisted of agreeing on the principle of financing the catch of herring, the most important trade fish at the time. Via this agreement the fisherman became a hired sea worker. The merchant financed the catch, providing the necessary tools, and boats. In exchange the fisherman worked for him giving him the catch. The fisherman obtained his contract wages and herring, but only for his own use.

Nets used to catch eel, so culled "żaki" on the coast of Jastarnia. Hel Peninsula, 1965. Photo Tomasz Zydler.

If a fisherman could not meet his contract he became dependent on the merchant. This is why many fishermen ran away, although the local legal code had severe punishments for such deeds.

This system was not binding for fishermen catching other fish: cod, eel, salmon and hunting seals, and common porpoise. They formed separate groups called "Fisheries". "Mashoperias" were probably formed from these groups and existed on our coast until the mid-20th century.

The word "mashopeia" according to linguistics – comes from old-Dutch and means part-ownership. In fact these were teams of fishermen usually related, and had a common partnership structure. The head of each team was a skipper – a hereditary post on the Hel Peninsula. The members of the team were equal to one another. Each fisherman contributed the same share of equipment and his labour. He was entitled to an equal share of the profits. Even the skipper was named as the "older among equals". Part-ownerships, apart from earning money had an important social role, designating a part of the profits for the social needs of the partnerships. They helped orphans, the sick, the old and widows. They gave financial support to churches and schools. To prevent quarrels among different mashopieris functioning within one locality, the seacoast was divided into sections called "depths". Their number corresponded with the number of "mashoperias". Annually, before the fishing season, the sections were interchanged.

While talking about the organisation of fishing I must mention the term "merki". These were simple graphic signs, carved into wood or engraved onto metal parts of fishing tools so they could be identified by their owners. They can still occasionally be found on the Kashubian Coast.

FISH PROCESSING

Fish processing and preservation of perishable fish is an important topic in terms of maritime fishing heritage. Just like in many other regions of the Baltic coast

"Merki" signs on a net used today, Kuźnica, Hel Peninsula, 2000.

Richart's mashoperia in Jastarnia, Hel Peninsula, 1959. Photo Jadwiga Kucharska.

Hel fishermen with a porpoise, 1968.

the most important way for preserving fish is salting and smoking. It can be seen, as a matter of interest, that until 1900 on the Hel Peninsula smoke was mainly obtained from burning heather. This practice was officially banned due to the destabilisation of the newly forested dunes and caused the shift to deciduous wood. However, the fishermen protested against it saying that fish smoked in this way was not fit to eat. A special Imperial Committee came to Hel. They compared the two methods for a few days and decided that fish smoked in the new way were fit to eat.

For their own use fishermen also dried fish, but not in the traditional way – in the sun (just like the preparation of "stockfish").

Usually they dried flounders under the large canopies of the house stove. This fish was a kind of reserve food in case of bad weather or poor catches. Dried flounder were then cooked with potatoes. However it was common practice to pre-dry flounders in the sun to prepare them for smoking.

An interesting processing method was that used to obtain fat from sea-mammals: seals and common porpoises. We can still see well-preserved melting pots and tools used for the preparation of corpses. Old fishermen still remember traditional recipes for obtaining good quality fat.

Fishermen with their practical sense also caught birds and collected seaweed.

TO SUM UP

Baltic fishing heritage is a broad subject. It is hard to present all its distinguishing features in this short paper. I have not mentioned topics such as: fishermen's boatbuilding, knowledge of the fishing trade, or fisherfolk customs and culture.

It is essential that we conduct more comparative studies and research within the sea fishing environments from the different parts of the Baltic coast. The comparison of the activity and culture of groups, with the exception of fishermen who fish, both traditionally (inshore fishing) as well as deep sea fishing (on deep sea fishing vessels), may give us quite a full picture of the fishing trade on the Baltic sea.

The number of these types of comparisons conducted for our basin has been quite small.

PART II

UNDERWATER CULTURAL HERITAGE SHORT REPORTS

Marcus Lindholm

UNDERWATER CULTURAL HERITAGE – A SHORT REPORT FROM THE ÅLAND ISLANDS

The Åland Islands are an autonomous province of Finland with the right to pass laws concerning Åland's internal matters and also exercise budgetary powers. One of the matters in which the Åland Parliament can and does pass laws is in the field of education, culture and the protection of ancient monuments.

The Åland Islands have considerably stricter legislation regarding scubadiving and the protection of underwater sites than our neighbouring countries i.e. Finland and Sweden.

The Åland Protection of Wrecks Act (no 65/1974) was made after and in connection with a lot of newspaper articles concerning unlawful salvaging at the end of the sixties. The people responsible for that salvaging were the Nahlins, two Swedish divers who later were accused of unlawful salvaging and the sale of a couple of guns found outside Helsingfors.

Originally the law was intended to exclude divers from outside Åland diving in the archipelago and also to create a sort of monopoly of diving for the local diving club, the Nautilus. When the law was passed through both the Parliament of Åland, the "Landstinget", and the President of Finland, a main provision was that, literally speaking, scubadiving is prohibited, but you may get an exemption from the prohibition by making an application to the Executive Council/the Åland Board of Antiquity. The law also stressed that wrecks, parts of wrecks, artefacts from such wrecks and older than 100 years, are owned by the Åland government.

It is nearly 30 years since the Wreck Protection Act was enforced and the situation has changed considerably. Those changes have been especially fast during the last 10 years.

During the last five years commercial tourist diving has been developed and it is growing fast even if the number of operators involved remains the same.

The technical development of scubadiving has been very fast. Wrecks and other archaeological underwater sites, which hitherto, have been protected by their location out in the open sea or by water depth, can nowadays be found and visited by an increasing number of scubadivers due to their new technical equipment. Furthermore the increasing number of scubadivers has created problems but also new opportunities for the cultural heritage authorities. At the same time as more and more wreck sites become accessible to various visitors and of course more acts of vandalism and unlawful salvaging occur; there are also more new objects reported and registered to the cultural heritage authorities. Traces of vandalism, thefts and attempts to illegally salvage artefacts from newly discovered wrecks have recently been reported, but despite that the situation seems to be under control. There is now an agreement between the Åland Board of Antiquity and the Finnish Coast Guard to supervise certain wreck sites.

The maritime archaeological research work in the Åland Islands has, due to the lack of necessary resources, been restricted to mainly field-walking for wrecks and other maritime cultural remains along the shorelines; the registration of wreck sites reported by scubadivers and collecting historical information about ships, shipping and maritime life. In the near future the aim is to offer the scubadivers and especially the commercial divers at the diving centres, education about wrecks and the maritime history of Åland.

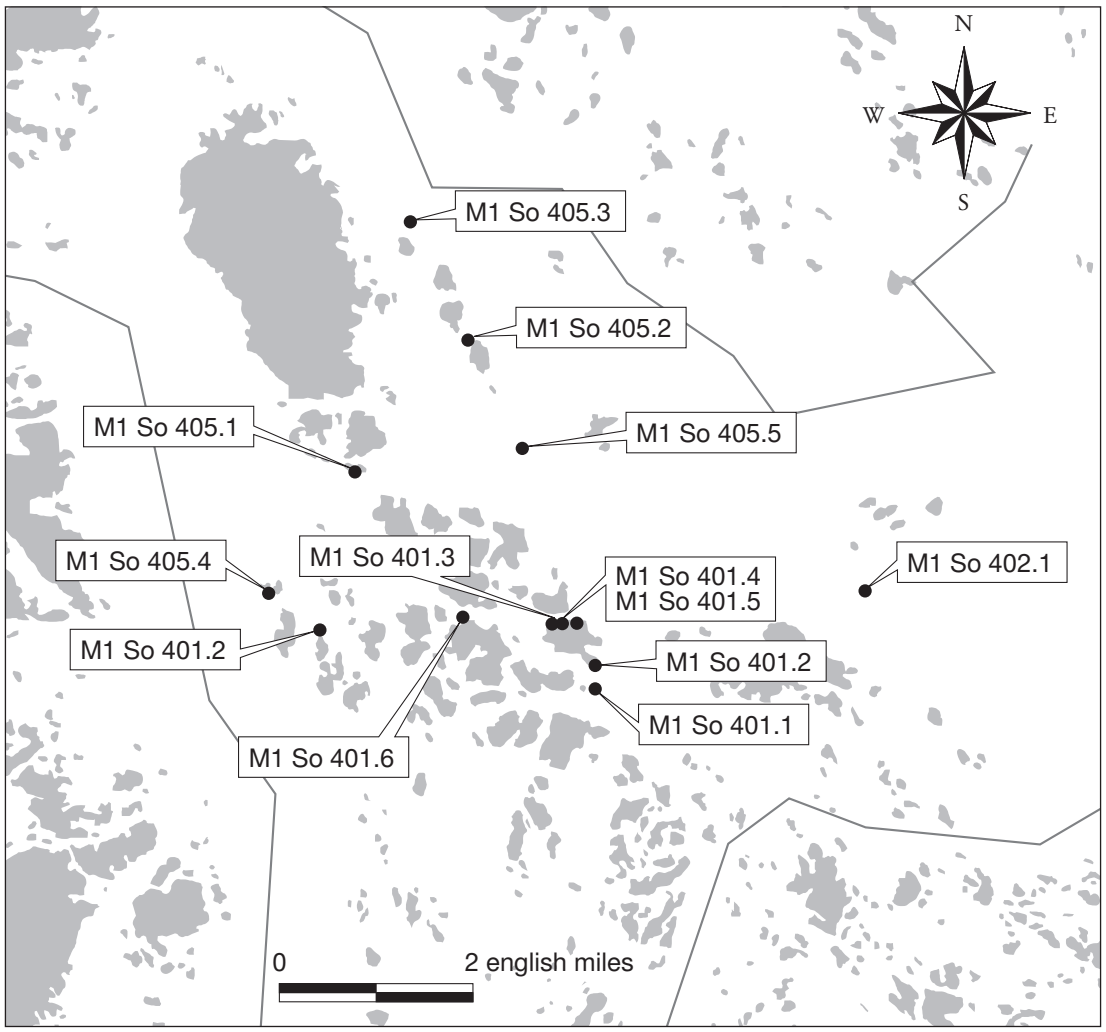
The Board of Antiquity is working to create a registry of underwater archaeological sites equivalent to the Register of Archaeology and Cultural Heritage. Our intention is that this register shall be published, not only printed but also on the web.

When it comes to the question of taking care of maritime archaeology; sites and wrecks; the aspect of protection still has the highest priority. It means that the sites of special interest will be totally protected from visitors or through considerably limited access to those sites by demanding special diving licences. The main principle is that a wreck or an archaeological site underwater shall have the same protection as its equivalent on dry land, and that means that those sites are open for visitors.

I am striving to make all diving in the Åland archipelago i.e. diving for recreation via some kind of licensed diving guides, who can give both information to and also supervise the visiting scubadivers. For the future it is a fact that the museum is heavily dependent on idealistic scubadivers to make an inventory of the seabed.

If the Board of Antiquity controls all diving activity inside the Åland boundaries, there is an opportunity for the Board to increase the number of more skilled divers through summer courses or study circles.

Practically, this suggests that to obtain a diving licence of your own or a commercial diving licence, you have to prove your knowledge in maritime history and/or maritime archaeology.



Shipwrecks in Sottunga County, taken from the Shipwreck Register.

The other kind of diving licence will be for registered diving clubs, a group licence as its called, and the group will not be allowed to dive on their own without a guide.

I am very much aware that these suggestions are going to meet serious resistance from both amateur divers and the Åland Tourist Board. But if we want to preserve our unique maritime milieu and protect underwater cultural heritage, diving as a recreational hobby has to be more strictly controlled than today.

In conclusion, I will mention the ongoing project, which is called "Skutan i åländskt 1700-tal" or "The Peasant Ship during the 18th Century". This is a joint project with the Sjökvarteret and Åland Maritime Museum in Mariehamn working together. It aims to recreate an ålandic "skuta" or a peasant coastal cargo ship. In the project "Sjökvarteret" is responsible for the fundraising and actual building; the Åland Board of Antiquity contributes with archaeological research on various wrecks to find out the building techniques and the appearance of the ship. The Åland Maritime Museum has done archival research for the project.

Friedrich Lüth

UNDERWATER CULTURAL HERITAGE – PRESENT SITUATION ALONG THE GERMAN EAST COAST IN THE STATE OF MECKLENBURG-VORPOMMERN

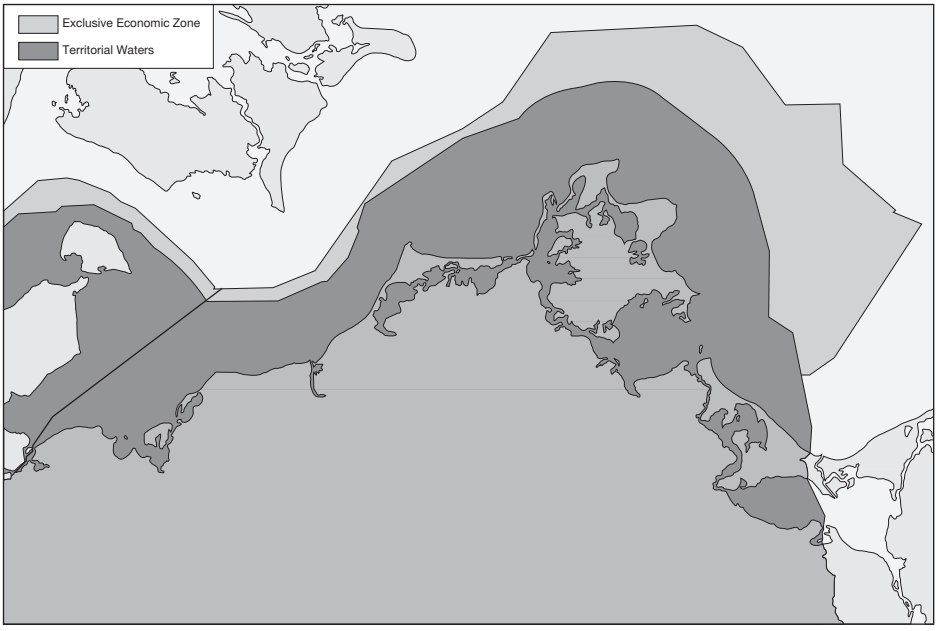
Due to the political situation in the years before 1989 neither private enjoyment nor scientific approaches led any interested parties into the Baltic Sea with technical diving-equipment and access was exclusively restricted to the inner circles of the security powers. Any cultural heritage in the territorial waters and the exclusive economic zone of the German Democratic Republic therefore was under total protection – rather by accident than by purpose.

The outcome of 50 years of total protection is an almost complete preserved submerged landscape including sites and monuments representing almost 10.000 years of (pre-) history. A rising water-table as a global phenomenon combined with a specific geological situation in the bight of Mecklenburg have led to a continuing process of sinking coasts during the Holocene.

Furthermore the long German tradition in seafaring, with a particular increase during the Hanse, period has left thousands of shipwrecks, more or less well preserved, along the shores and on the seabed within the territorial waters off the German east coast.

As part of the modern German federal system the responsibility for the management of cultural heritage lies with the 16 states, without any federal responsibility and federal framework legislation. Towards the Baltic, along the coast and within the German territorial waters the Minister for Education, Science and Culture of Mecklenburg-Vorpommern has the legal responsibility for underwater cultural heritage, with the State Agency for Archaeological Heritage as administrator.

The legislation on the protection of cultural heritage in Mecklenburg-Vorpommern (Denkmalschutzgesetz [DSchG MV]) was invented in 1993. It has been slightly changed in 1999. Regarding the underwater cultural heritage we can state that through the legislation all sites and monuments under-water are scheduled as archaeological monuments, that are of any scientific or cultural value for the history of man or mankind. This includes technological significance as well as economical or other aspects. As long as one of these significant aspects is detected a site can immediately become scheduled by law. The legislation does not require any special formalities besides registering to set protection into force. Finally we can report that there is no age limit within the legislation. There is thus no difficulty to register even "modern" sites and monuments, as long as they meet the required significance referred to above.



Territorial German waters and the coast of Mecklenburg-Vorpommern.

Darsser Cog from the Hanse period under examination.

Any discovery of an archaeological monument has to be immediately reported to the responsible authorities. It must not be touched or moved or taken into anyone's possession but must be held in situ.

To keep the local authorities engaged we regularly inform the coastguard of the locations of significant sites and monuments, and they have to ensure their proper protection. Once a year there is a training course for the coastguards carried out by staff members from the Heritage Management agency.

The Federal State is the owner of the seabed and its contents. According to § 984 of the civil act (Bürgerliches Gesetzbuch [BGB]) the finder of a lost item and the landowner share the value of the find by 50% each. When it comes to cultural heritage finds of significant scientific value, ownership is legally drawn to the State of Mecklenburg-Vorpommern (§ 12 DSchG MV).

The Minister of Education, Science and Culture obtains all necessary permission on activities directed at underwater cultural heritage. If there are other than scientific activities that are directed at or might conflict with the in situ preservation of archaeological monuments and sites; the responsible authority shall only give permission eg. for construction work or the exploitation of natural resources from the seabed such as gravel, sand or stones unanimously with the Minister of Education, Science and Culture.

When it comes to an environmental assessment of an area this has to include surveying and analysing of the archaeological sites and monuments. Any costs for archaeological surveys or rescue excavation have to be borne by the polluter.

While the Heritage Protection Act as such only applies to territorial waters, all the federal acts like the Building Act (Baugesetzbuch), Environmental assess-ment or Act for permitting the exploitation of natural resources (Bundesberggesetz) are also enforced within the exclusive economic zone. Protection then again undergoes a more difficult procedure with a regulator to determine removal rather than in situ preservation.

The basis for any kind of research is the finds register. The sites and monuments are kept in a register both in printed and electronic form that we call *archaeo-GIS*. This register now includes some 2000 sites and monuments, beginning with the Stone Age and extending to modern war equipment sunk prior to 1946. This register includes the location, a short description of the site itself, a description of the cultural and historical values of the site; it includes dates of detection, dates of control by our staff or other authorized bodies; it further contains brief information of ongoing work. The electronic version is based on a geographical information system (arcview) and the information can be accessed through the map.

Access to the register is limited to public bodies for planning occasions. A copy also goes to the coast-guards so they are kept up to date and can protect sites. We have different ways to identify sites such as: aerial photography and geophysical surveys using sonar and optical equipment e.g. a video sledge to record the ground surface on special deep locations. We also cooperate with several organisations: the federal authorities in charge of freeing waterways; the association of fishermen (net-hackers); research bodies on marine geology and environment, and with the authorities, both federal and regional, who manage the environment.

One of the most exciting ongoing scientific projects is concerned with the changes of water tables, climatic changes and the changes in the cultural sphere during the Holocene period. It is under research through a group of scientists, funded by the German Science Foundation (Deutsche Forschungs-gemeinschaft). More than 25 scientists from different parts of the scientific world are working under the umbrella of *SINCOS*, the acronym for Sinking Coasts (information under **www.sincos.org**). During the past two years we have discovered more than 25 submerged Stone Age sites from the later phases of the west Baltic Mesolithic to the early Neolithic period. All these sites have revealed extraordinary finds, especially of organic material due to exceptional preservation and conservation conditions in an unaerobic milieu.

Looking through the activities of the past ten years we recognize that there is a lot of progress in the scientific approach towards underwater cultural heritage. Although work is carried out under very limited financial possibilities the scientific outcome is enormous. Future work has to join forces along these lines. One of the greatest threats seems to be erosion, originating in different sources both natural and human. This is a major threat, and there is no polluter who could pay for future rescue work. Nevertheless many very important sites and monuments might vanish if work is not carried out consistently and regularly. Due to the costs of such work, any future undertaking will have to go through joint and cross-border cooperation. The underwater cultural heritage on and in the seabed under German legislation is part of the common maritime culture of the Baltic Sea States and has to be treated internationally.

LIST OF ACTIVITIES BETWEEN 1994 AND 2003

Year	Survey	Trial excavation	Excavation and research
1994	**Shipwrecks** • Peenemündung 1; • Jasmund 7, 12, • Hiddensee 4; • Wittow 11, 17, 26, 27, 28 • Darss 19	**Shipwrecks** • Wismar bight 1; 2(Hafen)	
1995	**Shipwrecks** • Wittow 5, 7, 8, 9, 12, 15, 29, 30, 31, 32, 33, 36, 38, 40, 42, 47, 49, 50, • Putbus-West 1, 2; • Jasmund 6, 10, 19, 48, • Neubukow 3; • Wismar bight5, • Rostock-Ost 17, 18, 19, 21, 22,	**Shipwrecks** • Rostock –Ost 18 (Pagenwerder) • Wismar bight (construction work)	**Shipwrecks** • Rostock – Ost 18
1996	**Shipwrecks** • Wittow 23, 24; • Hiddensee 3, 5, 6, 7, 8, 9, 12, 13, 14, 15, • Putbus West 3, 4, • Jasmund 40, • Mönchgut 2, 6, 7, 15, 19, • Rostock – West 8, 13; • Peenemündung 2	**Shipwrecks** • Stralsund 4 (Ostansteuerung) • Peenemündung (construction work)	**Shipwrecks** • Wismar bight 1, 2, 3, 5
1997	**Shipwrecks** • Wittow 64, • Hiddensee 19; • Jasmund 30; • Kühlungsborn 5; • Fischland 35,		**Shipwrecks** • Hiddensee 12 (Gellen)
1998	**Shipwrecks** • Wittow 56, 57, 58, 59, 60, 61, 62, 63, • Putbus –West 5; • Jasmund 8, 49, • Fischland 36,39, • Peenemündung 8, 9 • Barther Bodden	**Shipwrecks** • Wismar bight 6 (Wendorf-Wrack) • Glowe 58 (Hafen) • Bergen - Ralswiek2 (Wasserwanderrastplatz)	**Shipwrecks** • Wismar bight 6 (Wendorf-Wrack)
1999	**Shipwrecks** • Wittow 67, 72, • Putbus-West 6, 7, • Jasmund 85 • Poel 11, 17, 20, 21, 22 • Boltenhagen 1, 3, • Wismar bight10, 11, 13, • Barther Bodden • Peenemündung 2 **Prehistoric sites** • Mönchgut 21 (Reddevitzer Höft-West) • Poel 12 (Timmendorf-Nordmole) • Poel 14 (Timmendorf-Strandwall) • Poel 15 (Timmendorf-Tonnenhaken) • Poel 16 (Jäckelberg-Nord • Poel 18 (Schwarzer Busch-West) • Gägelow 2 (Platte-Nord) • Gägelow 3 (Platte-Ost) • Boltenhagen 5 (Tarnewitzer Huk) • Wismar 7 (Walfisch-West) • Wismar 8 (Wendorf-Steinort) • Wismar 9 (Hobener Bucht) • Wismar 14 (Zierow MF)	**Shipwrecks** • Wismar bight 6 (Wendorf-Anglerhafen)	**Prehistoric sites** • Poel 11 (Poeler Kogge) • Poel 12 (Timmendorf-Nordmole) **Shipwrecks** • Poeler Kogge

Year	Survey	Trial excavation	Excavation and research
2000	**Shipwrecks** • Wittow 3, 39, 65, 66, 75, 76, • Kl. Jasmunder Bodden 1, • Strelasund 2, 16 • Hiddensee 16, • Barther Bodden 3, 5 • Darss 40 (Kogge) • Peenemündung 2 **Prehistoric sites** • Gägelow 3 (Platte-Ost) • Wismar 7 (Walfisch-West) • Wismar 8 (Wendorf-Steinort) • Wismar 9 (Hobener Bucht) • Putbus-West 8 (Trendelriff) • Mönchgut 22 (Dorettagrund) • Mönchgut 23 (Großer Stubber-West)	**Shipwrecks** • Rostock-Warnowquerung • Jasmund 7 (Mukran Fischwerk) • Rostock-Ost 25 (Hohe Düne)	**Shipwrecks** • Poel 11 (Poeler Kogge) **Prehistoric sites** • Poel 12 (Timmendorf-Nordmole)
2001	**Shipwrecks** • SW Rügen 6, • Rostock Ost 34, 36 • Darss16, 18, 35, 44 **Prehistoric sites** • Poel 05 (Jäckelgrund-Strand) • Poel 13 • Poel 32 • Poel 39 (Jäckelgrund-West) • Poel 40 (Jäckelgrund-Furt) • Gägelow 7 (Wieschendorf-Huk)	**Shipwrecks** • Kühlungsborn Yachthafen • Poel 21 (Fährdorfer Brücke)	**Shipwrecks** • Darss 40 (Darsser Kogge) **Prehistoric sites** • Poel 12 (Timmendorf-Nordmole) • Poel 15 (Timmendorf-Tonnenhaken) • Poel 16 (Jäckelberg-Nord)
2002	**Shipwrecks** • Fischland 26, 30, 28, • Darss 42, 45, 92, • Rostock-Ost 28, • Hiddensee 16, 52 **Prehistoric sites** • Poel 05 (Jäckelgrund-Strand) • Poel 18 (Schwarzer Busch-West) • Poel 40 (Jäckelgrund-Furt) • Poel 41 • Poel 42 (Jäckelgrund-Orth) • Poel 45 (Jäckelberg-Huk) • Poel 46 (Rustwerder Hals) • Poel 48 • Poel 49 (Jäckelberg NNW) • Poel 50	**Shipwrecks** • Kloster Hiddensee • Strelasundquerung Rügendamm • Wasserwanderrastplatz Anklam • Warnemünde Marinehafen • Pommersche Bucht • Strandaufspülung Lubmin • Strandaufspülung Schwarzer Busch • Strandaufspülung Ahrenshoop **Prehistoric sites** • Poel 42 (Jäckelgrund-Orth) • Poel 47 (Nordmole II)	**Prehistoric sites** • Poel 12 Timmendorf-Nordmole • Poel 16 (Jäckelberg-Nord) • Darsser Kogge • Wrack Ahrenshoop
2003	**Shipwrecks** • Mönchsgut 46 **Prehistoric sites** • Poel 05 (Jäckelgrund-Strand) • Poel 18 (Schwarzer Busch-West) • Poel 40 (Jäckelgrund-Furt) • Poel 41 • Poel 42 (Jäckelgrund-Orth) • Poel 45 (Jäckelberg-Huk) • Poel 46 (Rustwerder Hals) • Poel 48 • Poel 49 (Jäckelberg NNW) • Poel 50	**Prehistoric sites** • Poel 42 (Jäckelgrund-Orth) • Poel 47 (Nordmole II)	**Prehistoric sites** • Poel 12 Timmendorf-Nordmole • Poel 16 (Jäckelberg-Nord) **Shipwrecks** • Darsser Kogge • Wrack Dranske (17. Jh.)

Flemming Rieck

UNDERWATER CULTURAL HERITAGE – THE DANISH SITUATION

Denmark's geographical position as a bulkhead at the entrance to the Baltic Sea – combined with often very shallow waters, narrow straits and windy conditions – has led to the wreckage of many ships through the ages. The geological development of the landscape and changes in the position of the coastline has opened the possibility of studying the submerged Stone Age sites on today's seabed. During the last ice age the region was partly covered by ice and the sea level was lower than it is today. The gradual melting of the icecap produced enormous quantities of water raising sea levels and submerging ancient sites. In addition, underwater cultural heritage also includes diverse remains such as sailing blockages, bridges and harbour facilities, stray finds etc. In other words – the possibility of discovering new and interesting finds, and not least, new information about Denmark's past history through underwater investigation is excellent.

The management of underwater cultural heritage lies with the Minister for Culture and is administered by The Cultural Heritage Agency. Actual excavations on the seabed are undertaken by museums following approval by The Cultural Heritage Agency. The central museum in this field of work is The National Museum with their staff of underwater archaeologists. In addition to this a small number of regional museums have taken up the challenge of doing work on the seabed. They are The Bangsbo Museum in Frederikshavn in Northern Jutland, The Strandingsmuseum in Thorsminde in Western Jutland, The Museum of Langeland in Rudkøbing and The Viking Ship Museum in Roskilde.

In Denmark the relevant rules and regulations in this field are to be found in two different laws: The Act on Protection of Nature §14 and The Act on Museums §28. The regulations in these two paragraphs are stronger than regulations for cultural heritage on dry land. In this brief paper only some of the content of the laws can be described.

Denmark and its territorial waters.

YEAR	LOCALITY	CAUSE	TYPE OF SITE
1993	Øresund region	Construction	Stone Age site
	Lynæs Sand	Erosion	Wreck (17th cent.)
	Classens Have	Construction	Wreck (19th cent.)
	Gislinge Lammefjord	Construction	Wreck (13th cent.)
	Fladestrand	Construction	Wreck (19th cent.)
1994	Øresund region	Construction	Stone Age site
	Gl. Skagen	Erosion	Wreck (17th cent., Spees)
	Lund	Erosion	Coins and wreck remains (17th cent.)
1995	Bøtø	Erosion	Wreck and coins (16th cent.)
	Grønsund (continued 1996)	Erosion	Wreck (15th cent.)
	Vedby Hage	Construction	Wreck (15th cent.)
1996	Roskilde Harbour (continued 1997)	Construction	9 wrecks (11th - 15th cent.)
	B&W-site (continued 1997)	Construction	8 wrecks (16th - 18th cent.)
	Mejlø	Erosion	Stone Age site
	Østersøen (continued 1997)	Erosion	Wreck (17th cent., Callmar Castell)
	Aggersund	Erosion	Wreck (13th cent.)
	Stængehus	Erosion	Wreck (19th cent.)
	Havnegade	Construction	Wreck remains in wharf
	Snekkersten	Erosion	Wreck with bronze mortar (17th cent.)
1997	Knuds Grund	Erosion	Wreck (16th cent.)
	Skibsted Fjord	Construction	Stone Age site
	Stavres Hoved	Erosion	Stone Age site
	Dyvig	Erosion	Barrier
1998	Mejlø	Erosion	Stone Age site
	Ellekilde Hage	Construction	No finds
	Østerå, Aalborg	Construction	Wreck remains in wharf
1999	Fløjstrup skov	Extraction	Stone Age site
	Fedkrogen, Stigsnæs	Construction	Stone Age site
	Hjarbæk Harbour	Construction	Stone Age site
	Middelgrunden	Construction	No finds
	Århus Harbour	Construction	Submerged forest
	Ronæs Skov	Erosion	Stone Age site
	Horns Rev	Construction	No finds
	Rødsand	Construction	Submerged forest
	Ebeltoft Fishing Harbour	Construction	Wreck (17th cent.)
2000	Sønderborg Habour	Construction	Bridge and wharf
	Hardeshøj	Construction	Stone Age site
	Rødsand	Construction	No finds
	Ebletoft Camping	Erosion	3 wrecks (17th cent.)
	Disken	Erosion	Wreck (18th cent.)
2001	Houget	Construction	Stone Age site
	Dokøen	Construction	3 wrecks (15th cent.)
2002	Saltholm Ø	Erosion	Wreck (19th cent.)
	Storstrømmen	Construction	Stone Age site
	Guldborgsund	Construction	Stone Age site
	Tudse Hage	Erosion	Stone Age site

Heritage protection fieldwork conducted by the Institute of Maritime Archaeology in the period between 1993 and 2002.

The Act on Protection of Nature's §14 states the following. No alterations shall be made to the condition of ancient monuments on the seabed wherein such monuments are found in territorial waters; or on the continental shelf, within 24 nautical miles from the base lines from where the width of the outer territorial waters are measured. It is stated that all monuments more than 100 years old are protected and that the Minister of Environment is authorised to designate wrecks of ships or other vessels lost less than 100 years ago to be protected. And finally it is prescribed that the Minister of Environment is authorised to require a preliminary marine archaeological survey financed by the "polluter" prior to any construction work or other activity encroaching on the seabed.

The Act on Museums §28 deals with the ownership of finds on the seabed and sets up rules for archaeological investigations. It is stated that any person who finds ancient monuments, including shipwrecks, cargoes or parts of wreckage which must be assumed to have been lost more than 100 years ago, in watercourses, lakes or territorial waters, shall immediately report such discoveries to the Minister of Culture. Objects covered by the above mentioned rule is the property of the State, except where the rightful owner can prove ownership.

The Minister of Culture is authorised to provide for the organisation of archaeological surveys of the objects belonging to the State and also the Museums Act gives, in exceptional cases, the possibility of taking into account objects younger than 100 years. The Minister of Culture allocates the objects found to the relevant museums and the person who has retrieved the object is not entitled to claim salvage money, but the Minister may pay a reward to the person in question.

The two laws mentioned here are without any doubt good tools when dealing with any human activities on the seabed. Any construction work and all encroachment/damage caused by users of resources on the seabed (sand, gravel, stones, oyster shells etc) are regulated, and it states who has to pay for what. The problems in the territorial waters of Denmark when it comes to protection of underwater cultural heritage and finances for excavation, lies with the erosion of ancient monuments caused by nature. Erosion is fierce in some parts of the coastal zone and money for protection or rescue excavations when necessary is scarce. There lies a future challenge to improve the possibilities to act in this important field of work. The investigations carried out in Danish waters during the last four decades have demonstrated that much new knowledge about our cultural history can be gained.

Research into and management of underwater cultural heritage in Denmark is deeply dependent on the data available. In Denmark two databanks of different natures are in existence – the Maritime Register and the Maritime Archive. The Register is run by the Cultural Heritage Agency while the Archive is the responsibility of the National Museum.

The Maritime Register is an integrated part of the Cultural-Historical Central Register and it is created to include all identified traces of cultural remains on the seabed or in freshwater areas. The Maritime Archive contains qualified information on sites, monuments and stray finds i.e. excavation reports, short descriptions on the present situation on sites visited, descriptions of finds, geological information etc. The two databanks combined with underwater topographical data creates the platform of knowledge on which to act in the management of our wet cultural history.

To illustrate the number and nature of projects going on concerning underwater cultural heritage in Denmark a list of sites where activities have taken place during the period 1993-2002 is shown here. It must be underlined that the list only contains sites visited or examined by the Institute of Maritime Archaeology at the Danish National Museum. In the same time span a number of significant investigations have been conducted by the regional museums mentioned above.

It is evident that there is much work to be done concerning the underwater cultural heritage within the territorial waters of Denmark. And it is likewise evident that there is much new knowledge to gain from the rich source of information that is situated underwater. At the same time it must be said that there are very few scientists and technicians who are actually able to carry out work with the submerged cultural history in a professional and safe way. Therefore it is very important that cooperation on a national as well as a multinational level is strengthened in order to get as much as possible out of the scarce resources and to open possibilities for alternative funding of programmes and projects. The Baltic Sea region holds all the elements necessary to further cooperation in this important field of management and science.

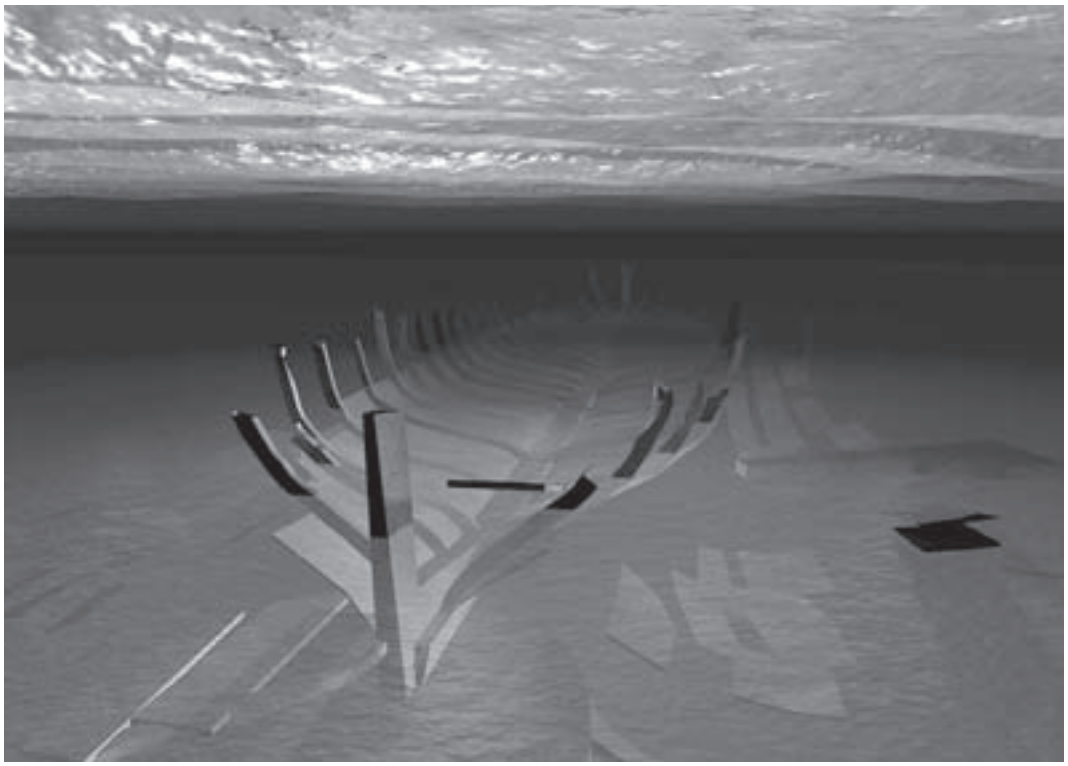
Willi Kramer

REPORT FROM GERMANY (SCHLESWIG-HOLSTEIN)

The *Denkmalschutzgesetz des Landes Schleswig-Holstein* (Law for the Protection of Cultural Heritage) was first decreed in 1958, corrected in 1972 and 1996. Archaeological monuments are defined as "mobile or immobile cultural monuments under the ground, in bogs or water" (§1.2). Monuments of recent history are also included. The *Archaeologisches Landesamt Schleswig-Holstein* is responsible for enforcing the law. There are five orders mentioned: Registration, Protection, Conservation, Excavation and Research. The registration of Archaeological Monuments first started in 1923. Until now about 300.000 Sites and Monuments are registered, among them 800 (estimated) in the Baltic Sea (length of the Coastline: 350 km). Transfer to a digital register has started using *Arc View* as Standard GIS.

Investigation of monuments in the Baltic Sea only exists in certain areas and subjects. In 1997 the Fehmarn-Belt Area was investigated within the scope of a feasibility study (Fehmarn Belt Bridge Project), executed in cooperation with the Danish National Forest and Nature Agency. As one of the results it was recognised that about 300 wrecks of unknown quality are recorded in this area. A lot of anomalies recorded by sonar and by local fishermen have not been investigated.

In the Schlei-Region, a narrow bay 40 km in length, conditions are much better. Hans Joachim Kühn has investigated 40 wrecks and wreck-sites, and this research-project, connected with the excavation of a medieval wreck (Karschau-Wreck), is still going on. In the same area sonar-investigations of an Early Viking Age sea-barrier *("Reesholm Schleisperrwerk")* are taking place. Finally, Soenke Hartz in the Ostholstein area is registering Mesolithic and Early Neolithic sites. In 2000 he started excavation of one of them near the harbour of Neustadt, Ostholstein. A further characteristic of underwater archaeology in Schleswig-Holstein is the use of digital documentation and 3d-visualisation. Thus we are able to make our cultural heritage more understandable.



3D computer generated image of shipwreck underwater.

Iwona Pomian

UNDERWATER CULTURAL HERITAGE IN POLAND

In Poland protection of underwater cultural heritage has been regulated in a few different areas:

1. Maritime Code[1]
2. Act on the marine areas of the Republic of Poland and maritime administration, 21 March 1991 Marine Administration[2]
3. Law on the Protection of Cultural Property and Museums, 15 February 1962[3]

According to the first two mentioned above, underwater cultural heritage is lost property. It means very simply: if it has been found on Polish territorial waters (12 nautical miles) and the owner is not found the property belongs to the state.

In the Polish exclusive economic zone Poland has reserved the right of "sovereignty" over "scientific exploration of the sea" and "protection and preservation of the sea environment".[4] Polish marine waters are administered by the Marine Offices with the State Coordinator for Wrecks (in the Marine Office, Gdynia). These decisions are controlled by the Department of Maritime and Inland Waters Administration at the Ministry of Infrastructure.

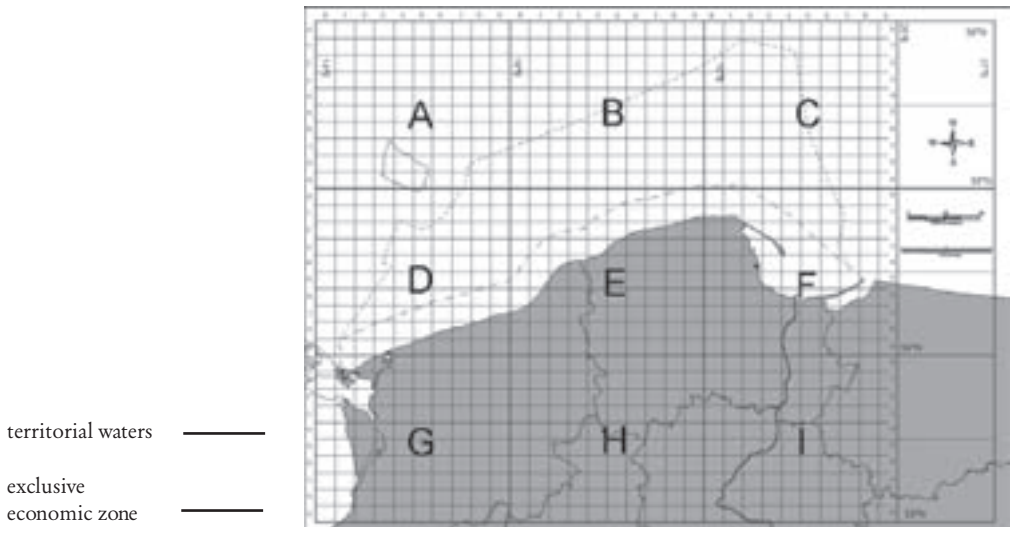
When the property lost in the sea is considered as a monument, we can then use point 3.

Law on the Protection of Cultural Property and Museums is administered by the State Service for Protection of Monuments and the Principal Inspector of Monuments at the Ministry of Culture.

In the Ministry of Culture there are three departments which are authorized to issue decisions concerning archaeological cultural heritage:

1. Department of Monuments Protection (Principal Inspector of Monuments)
2. Department of National Heritage
3. Department of International Cooperation and European Integration

In accordance with Art. 21 of the Law on the Protection of Cultural Property and Museums, all work and activities in respect of cultural heritage objects, as well as archaeological and excavation works, are allowed only after permission is obtained from a regional inspector of monuments.



Archaeological workshop Registration of underwater sites

1 The Maritime Code of 1 December 1961, Journal of Law, 1961, No 58.
2 Act on the marine areas of the Republic of Poland and maritime administration of 21 March 1991, Journal of Law, 1991, No 32.
3 Law on the Protection of Cultural Property and Museums of 15 February 1962, Journal of Law, 1962, No 10.
4 W. Kowalski, Legal Protection of the Underwater Cultural Heritage: National and International Perspectives, Poland, Kluwer Law International, The Hague, London Boston, 1998

Sallamaria Tikkanen

UNDERWATER CULTURAL HERITAGE IN FINLAND – SHORT INTRODUCTION

TERRITORIAL WATERS IN FINLAND

In Finland territorial waters include two zones where the Antiquities Act of 1963 protects underwater sites. These zones are: Straight Territorial Sea and Territorial Sea. The first one includes the zone, which is located between the shoreline and outer skerries. The second one includes the zone immediately 12 nautical miles (if not otherwise regulated) from the Straight Territorial Sea Baseline. These two zones are the areas where the Maritime Museum of Finland works.

THE LEGAL PROTECTION OF UNDERWATER CULTURAL HERITAGE IN FINLAND

Antiquities Act of 1963
The Antiquities Act from the year 1963 protects the antiquarian cultural heritage in Finland. According to this Act shipwrecks, or parts of wrecks that can be assumed to be at least 100 years old are automatically protected. The museum authorities must be immediately notified of the discovery of old shipwrecks and other types of underwater cultural heritage. Underwater cultural heritage is dealt with in the same way as archaeological sites and finds on land are. In legislation shipwreck sites are interpreted as non-movable cultural heritage.

The protection is supervised by the Maritime Museum of Finland, which works under the National Board of Antiquities and under the Ministry of Education.

Finds of military material
According to the Act of 1983, concerning finds of military material, all wrecked ships owned by the Finnish navy or other navies and found within Finnish territory are under the supervision of the Ministry of Defence. The Military Museum is responsible for military shipwrecks younger than 100 years.

REGISTRATION OF UNDERWATER SITES IN FINLAND

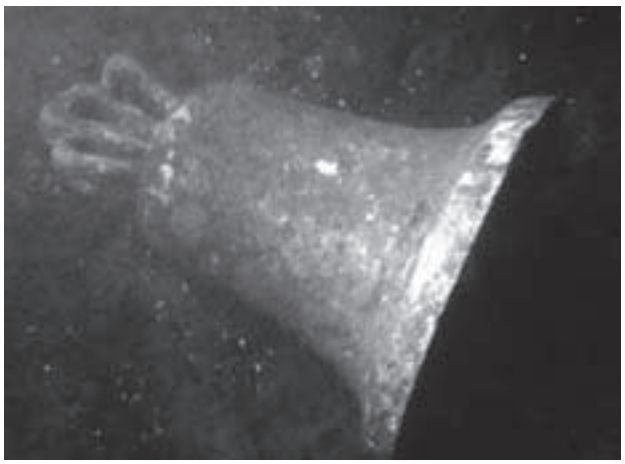
In accordance with the Antiquities Act, the Maritime Museum keeps a register of all underwater finds. The register includes information on about 1200 protected sites and finds from the sea, inland lakes and rivers. There are undoubtedly many more ancient sites than are presently known. Most of the underwater sites are wrecks, but there are also other types of underwater sites, for example old harbours, underwater defence constructions, prehistoric long boats, beached shipwrecks and 19th and 20th century steamships.

THREE EXAMPLES OF ONGOING UNDERWATER PROJECTS IN FINLAND:

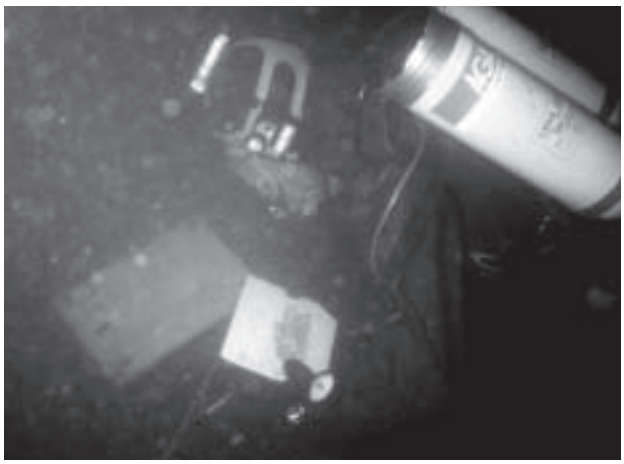
The Kronprins Gustav Adolf Underwater Park
In May 2000 the Maritime Museum of Finland opened the first underwater archaeological park in Finland at the wreck site of Kronprins Gustav Adolf, a Swedish ship of the line wrecked off Helsinki in 1788. The Kronprins Gustav Adolf was built in Karlskrona in Sweden in 1784 from drawings by the famous naval architect Fredrik Henrik af Chapman. The wreck was found in 1995.

The Kronprins Gustav Adolf is a suitable site for an underwater park: it is open, flat and in firm condition without too many loose artefacts. The depth is 20 metres and the visibility is good. When divers arrive at the park there are two mooring buoys for dive boats. In the park, along a rope path, there are 13 underwater signs to explain the details of the wreck. Divers who visit the site can take a plastic map of the site with them and learn more about the site from a paper brochure and from the Internet-site (in Finnish, Swedish and English, English site: http://www.nba.fi/MUSEUMS/MARITIME/gustavadolf/engl/park.htm). The park has been very popular and the divers are keen to have new ones.

The Vrouw Maria wreck site and MoSS Project
The wreck of Vrouw Maria is a two-masted Dutch snow ship that sank in 1771 in the southwestern archipelago of Finland on her way from Amsterdam to St. Petersburg. The wreck is almost intact and is located at a depth of 40 metres. Vrouw Maria has a reputation as a treasure ship because she carried works of art bought by Russian aristocrats and Catherine the Great. According to archive information, the crew of Vrouw Maria managed to salvage part of the cargo. The wreck of Vrouw Maria is a good example of a late 18th century European merchant vessel sailing on the Baltic route between the West and the East.



The Nauvo Medieval shipwreck site; a church bell made of bronze. Photo Matias Laitinen, 1998 The Maritime Museum of Finland.



The Kronprins Gustav Adolf Underwater Park; a diver at the site holding a waterproof diver's map and looking at an information sign. Photo The Maritime Museum of Finland.

Territorial waters in Finland. Map: The Finnish Maritime Administration, texts: the Maritime Museum of Finland.

The Vrouw Maria wreck site: an artist's view of the site. Drawn by Juha Flinkman.

Mr. Rauno Koivusaari and other members of a society called Pro Vrouw Maria found the wreck in 1999 using a side-scan sonar. Since the summer of 2000 the Maritime Museum of Finland has done field research at the site. From the summer of 2001 the Vrouw Maria site has been the Finnish wreck site in the European Commission Culture 2000 Programme funded MoSS Project (Monitoring, Safeguarding and Visualizing North-European Shipwreck Sites: Common European Underwater Cultural Heritage – Challenges for Cultural Resource Management).

The MoSS Project is a three-year shipwreck research project organized by six European countries (United Kingdom, the Netherlands, Denmark, Germany, Sweden and Finland) in 2001-2004. The coordinator of the Project is the Maritime Museum of Finland. The project opens an underwater window to four significant European shipwreck sites in the Netherlands, Germany, Sweden, and Finland. The MoSS Project aims to make people aware of the importance of preserving our common European underwater cultural heritage. MoSS is an important means towards the understanding of past events, present conditions, and future options for the preservation of underwater archaeological sites. More information concerning the MoSS Project is available from www.mossproject.com.

The Nauvo Medieval shipwreck site

The Nauvo Medieval shipwreck site (in the parish of Nauvo) was found in 1996 when biologists were doing underwater research work in the Archipelago National Park in South-West Finland. The Maritime Museum of Finland was informed immediately of the new discovery. The find consists of high quality stoneware ceramic vessels – mostly drinking tankards and jugs - whetstones, three legged pots made of bronze, a church bell made of bronze and remains of a small, badly damaged wooden cargo ship. The find is dated to the first decades of the 14th century.

The Maritime Museum of Finland has investigated the site together with medieval archaeologists from Finland and the United Kingdom. There are also volunteer divers participating in field research. The Maritime Museum has lifted 34 different types of artefacts from the site. The recovered ceramic vessels give us a great example of the variations of medieval upper class drinking vessels and urban dining culture. The ceramic vessels originate from the Bengerode production centre in Lower Saxony. Bengerode is situated in the Solling mountain area South of Hanover in Germany. The Nauvo Medieval shipwreck is a unique site in Finland; it gives us an exceptional opportunity to research the Middles Ages, Hanseatic trade and cultural exchange in Finland, the period where there is not much archival material available concerning everyday life, trade and seafaring in Finland.

Ants Kraut

PROTECTION OF UNDERWATER CULTURAL HERITAGE IN ESTONIA – CURRENT SITUATION

It is common knowledge that the Baltic Sea has favourable conditions for the preservation of shipwrecks. In addition, the geographical position of Estonia at the seaways' crossroad, our winding coastline and the dangerous relief of the sea bottom greatly contribute to the fact that numerous shipwrecks have occurred and are also preserved in the region.

During the last fifty years of the previous century, the coastal waters of Estonia were controlled by the Soviet border-guard. This meant that the coastline was closed; searching for shipwrecks was scarce, but at the same time illegal looting hardly ever took place. This is why our underwater cultural heritage is well preserved and attracts the interest of divers from both Estonia and abroad.

Several legislative acts and directives attempt to regulate the protection of underwater cultural heritage in Estonia. The Heritage Conservation Act only protects those shipwrecks and objects that are listed as cultural heritage. A government regulation prescribes the investigation of shipwrecks and their protection, also the procedures for importing diving equipment to Estonia. This regulation – "Procedures for the research, hoisting and protection of shipwrecks" was adopted on 24 July 1994. Based on two legal documents – Commercial Navigation Code and Heritage Conservation Act – all shipwrecks without an owner were declared state property. The Regulation established a system for issuing diving licences and an inspection procedure. Unfortunately the Regulation had no legislative grounds and did not allow any sanctions towards violators of the Regulation. Divers started to question the provisions of the Regulation, thus making its implementation extremely difficult. In fact, the Regulation was ignored. The Board of Estonian Border Guard also established rules for controlling the activities of divers at sea, but again without any legal base these had very little effect.

At a professional level, only one employee of the Estonian Maritime Museum is, on a regular basis engaged with researching underwater cultural heritage. The Maritime Museum has put together a register of shipwrecks that includes the locations of more than 400 wrecks. Of these four shipwrecks have been listed as cultural heritage: the frigate "Wachtmeister" (sunk 1757), the liner "Riksen Ständer" (1790), the minesweeper "Jenissei" (1915) and the sweeping sloop "HMS Myrtle". The value of other wrecks needs further research. In addition to the four shipwrecks, the remains of a coast battery "Tsitadell" at the bottom of the Tallinn Bay has been granted protection. In the river Emajõgi the alleged site of a Swedish warship "Carolus" (1704) is also under state protection. Unfortunately the National Heritage Board does not have the necessary funds or staff to regulate the protection and research of underwater cultural heritage. The Heritage Conservation Act does not foresee any control of Estonian waters. Without proper supervision, however, no legislation can be expected to follow. To monitor the activities of the increasing number of amateur divers the National Heritage Board issues diving licences and requires reports. The Border Guard can only carry out supervision of such activities, if the law so determines.

The present system of issuing written licences for diving to wrecks is, however, not really justified and should not be continued. The National Heritage Board does not have a competent specialist in maritime affairs and cannot establish a properly functioning inspection system on Estonian bodies of water. Activities of foreign divers in Estonian territorial waters need to be regulated by a legal act.

The state does not issue any licences for the raising and selling of objects found from the sea and other bodies of water as the legislation does not establish the ownership of such property. Similarly, the present Commercial Navigation Code does not protect sunken ships without an owner, regardless of their material or historical value. According to the Code the owner loses his rights to the property that has sunk if he does not file an application or hoist up his belongings within a year of the day of sinking. It is not determined to whom the property belongs in case the owner does not hoist it up, refuses it or if the ownership is unidentified.

All construction of underwater structures, ports, installations of cables, dredging work etc. should be preceded by archaeological research of the site. In the near future an extension of the North Port in Paldiski is foreseen, where historic sites *e.g.* an 18th century pier and the wreck of the frigate "Geroi" are located. Naturally the contractor ought to cover the costs for such underwater archaeological research.

For Estonia the problem is not so much illegal trafficking and export of underwater cultural heritage. The main danger is the damage that divers do to shipwrecks' value as historical sources.

It is due to the lack of equipment and big laboratories required for conservation work at such a scale that the raising of historical shipwrecks is not really possible in Estonia. For these reasons some unique shipwrecks are in danger of destruction.

Co-operation in the field of underwater cultural heritage between the Baltic Sea countries is of the utmost importance. The only trouble is that currently there is only one scientist and one post-graduate student involved in underwater archaeology in Estonia. A way out could be instructing the numerous amateur divers in Estonia who are well equipped, motivated and are united into specialised clubs (5-6 in Estonia). For this we need to mitigate the legal acts and initiate the tuition of amateur divers. Co-operation in this area can be manifold and promising. Exchange of information between states, both on a scientific level and especially regarding inspection and control of illegal diving and trafficking of objects is highly necessary. The role of Estonia in mutual co-operation could be the introduction of our largely, well preserved and untouched underwater heritage in the form of educational programmes.

IN CONCLUSION:

The protection of underwater cultural heritage requires more funds and human resources than we have been able to provide so far. We need strict legislation concerning failures to report finds and taking them into possession. Liability for a foreign diver breaking the law should be borne by the company or individual offering this person diving services. Similarly to other countries that have established sound legislative practice for the protection of shipwrecks, the Estonian National Maritime Board should establish a Wreck Keeper's Service, responsible for all the above mentioned activities concerning sunken objects and wrecks.

Juris Urtāns

REPORT FROM LATVIA

Latvia's sea boundary is 494 km long. This boundary partly faces both the open Baltic Sea and the Riga Gulf. Up to the present day due to economic queries there is no official agreement between Latvia and Lithuania about the sea boundary, but this is not influencing the problems of underwater heritage protection.

In the past the Latvian coast facing the open Baltic Sea and Irben Strait between the Cape of Kolka (Domesnes) in Latvia and Estonia was more dangerous for navigation. We can even talk of a ship cemetery in the Irben Strait.

The Latvian coast is a simple, slightly curved line without deep bays, archipelagos or islands, which is better for managing the protection of underwater heritage. Latvian sandy beaches and coastal waters are easily accessible from the inland and also from the seaside.

The reconnaissance work for stabilising underwater heritage has been conducted between 1990 and 2000 in all the Latvian territorial waters. This work was mainly undertaken on the north and west coasts of Latvia, and in the Riga Gulf closer to the mouth of the biggest Latvian river the Daugava.

Latvian legislation concerning maritime underwater heritage is not especially elaborate. Until now the main legislation consists of a general Latvian rule concerning the protection of cultural heritage adopted in 1992. In this rule underwater heritage is only mentioned. More elaborate regulations regarding the use and protection of heritage are in the process of being formulated, wherein shipwrecks, cargo, the seabed, etc. will be specially mentioned as important cultural items. Shipwrecks are also mentioned in the Latvian Sea Codex, but here the shipwrecks are nominated only as obstacles for current navigation.

Officially the Latvian Inspectorate for Heritage Protection is responsible for maritime heritage, but unfortunately in the Inspectorate nobody is exclusively responsible for this kind of heritage. There are three other institutions, which in some respect are occupied with maritime heritage investigation and also partly protection. One of them is the Museum of Jurmala City, where a special underwater department exists. This department really consists of one specialist namely Voldemars Rains, who conducts the work of wreck reconnaissance and the real underwater investigation of maritime heritage. The status of the local museum on the same scale limits the activities of the protection and investigation of underwater heritage in all territorial waters of Latvia. Another institution is the Latvian Museum of War, which is mainly interested in shipwrecks from the last two world wars. The Museum for the History of Riga and Navigation is the third institution, which deals with maritime heritage.

The preparation of the list of shipwrecks as cultural heritage items was started only after Latvia gained its independence in 1991. Unfortunately up to the present there is not a comprehensive list of all shipwrecks as cultural heritage items in Latvian territorial waters. Separate lists of shipwrecks have been listed by the aforementioned institutions. At present about 70 verified underwater sites are designated as cultural heritage. About 280 sites are unverified.

Shipwrecks from the air at Lapmezciems. Photo J. Urtāns.

Dockyard at Ventspils. Photo J. Urtāns.

In 1997 for the first time in Latvia three shipwrecks were included in the list of protected sites. These shipwrecks seem to be from the 19th and 20th centuries. The list consisting of some other shipwreck sites is being prepared to supplement the existing list of protected underwater monuments.

In the last decade major underwater works to investigate the shipwrecks in deeper seawaters have not been conducted in Latvia. Efforts of investigators concentrated on the investigation of the shipwrecks lying close to the coast (Kolka shipwreck) or those pushed by the ice and storms to the coast (Carnikava shipwreck). The Kolka shipwreck seems to be the remains of a small wooden battleship or ship for winter navigation. The Carnikava ship is dated by coins to the end of 18th century. Combined underwater, traditional and aerial investigation works were conducted in Ventspils, where the remains of a 17th century dockyard and its environs were investigated. Also aerial reconnaissance was undertaken in order to discover unknown shipwreck sites and other underwater sites close to the seacoast in the Gulf of Riga. Another project is concentrating on the establishing of an underwater park in the Riga Gulf close to Jurmala.

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Vladas Žulkus

UNDERWATER CULTURAL HERITAGE IN LITHUANIA – RECENT WORK

There is a long tradition in Lithuania for preserving old, valuable cultural buildings and towns, but up to 3 years ago there was no interest in preserving maritime and underwater cultural heritage. Today we have a network for the establishment of protection and investigation of maritime and underwater cultural heritage: the state department for heritage, the monitoring groups, working groups, museums and universities. But I think that underwater archaeology in Lithuania is only making its first steps.

Today the Klaipėda University is the main institution for research and archaeological activities and is involved with investigating maritime culture and underwater archaeology. The Klaipėda Maritime Museum and Klaipėda History Museum are concerned with maritime and coastal heritage. The State department for Heritage in Vilnius undertakes underwater research in the lakes of eastern Lithuania.

According to the draft, Legal Protection of Cultural Heritage Lithuania's Act February 2003, underwater cultural heritage is a special part of archaeological heritage. In this Act there are specific chapters for the protection of underwater cultural heritage. This states that:

Chapt. II, art 3.3:2.

2) Underwater (archaeological heritage) includes partially or totally submerged objects, solitary or complex, the sites and the cultural goods, immovable or movable. All stand under the category of immovable heritage.

Chapt. IV, art 12.4.

4) It is prohibited to remove, explore, put ashore underwater objects, theirs parts or archaeological artefacts from the internal waters territorial sea and contiguous zone, as regulated by the UNESCO Convention on the Protection of the Underwater Cultural Heritage without permission from the County administration.

In order to protect cultural heritage, the State Department for Heritage is currently concerned with listing the remains of historical harbours, wrecks and places with relics of ancients cultures and landscapes.

HISTORICAL HARBOURS

During the Viking Age, Palanga, on the Lithuanian Baltic Sea coast, in the land Megowe, was one of the most important South-Curonian trading centres. This was clarified following excavations between 1976 and 1993.

Earlier traces of human habitation were uncovered in the surface layers beneath the sand, which are between 0.5 and 2.5 m deep. The hill port of Birutė is located on the ridge of an ancient shoreline terrace. Four settlements already existed in Palanga c. 1150 AD. We can only guess where the port was in Palanga during Viking times, for no trace of its construction has been uncovered. It is possible that there was no port as such, and that trade vessels drew into the inlet at the foot of Birutė Hill. It could be that harbour facilities were on the banks of the Palanga River near the settlement (Žulkus 1997).

The only suitable river for navigation during the Viking Age between the trading settlements in Klaipėda (Žardė-Laistai) and Liepoja, was Šventoji (Heiligen-Aa) that flows straight to the sea. The former settlement, in the fall of the Šventoji River, together with its geographical and geo-political conditions, matches the standard development of centres of trade from the Viking Age and the West European trade centres of the Early Middle Ages and the Middle Ages perfectly (V. Žulkus & J.M. Springmann 2001).

In the 16th century in Šventoji there were attempts to accommodate big ships. In 1639 the first English merchants, who began harbour reconstruction work in 1679, settled there. The oldest buildings and piers of Šventoji were buried underwater a long time ago. The church, built in 1520 and foundations seen by fishermen in the middle of the 18th century, became objectives for underwater archaeology.

The harbour was reconstructed between 1923-1939. The remains of the harbour construction from these times is today an object of maritime cultural heritage. Today's problem is the reconstruction project of the harbour at Šventoji and the protection of old constructions and wooden – stone piers of the old harbour.

Archaeologists currently know where the remains of several wooden ships from the 17th-19th centuries are to be found in the areas around Šventoji and Palanga.

Wreck 1 – ship built c. 1699.
Wreck 2 – wreck near Palanga, 17th-18th century.
Wreck 5 – wreck near Šventoji, 18th-19th century.
Wreck 9 – wreck offshore Palanga, probably 18th century.

The remains of the harbour of Šventoji (Heiligen-Aa). Photo Vladas Žulkus.

The search for archaeological objects in the Baltic Sea and Lithuanian territorial waters was started in the year 2000. In the year 2001 and 2002 there was a Swedish survey ship "Altair" (the Royal Stockholm Technological Institute – Bengt Grisel) helping in the search for underwater artefacts. The Swedish survey ship "Nils Strömcrona" took part in 2002.

In the year 2002 the territory from the Latvian-Lithuanian border and almost to the Lithuanian-Russian border was explored, selecting separate squares and sites. Later the water area of the old harbour in Šventoji was explored.

Klaipėda University students and members of the Underwater Research Laboratory took part in the "Altair" expedition in 2002. On the seabed there even more ships were found, which had sunk in the 19th and 20th centuries during storms and wars.

In the waters of the Baltic Sea, under the layer of sea drifts, there are large areas of ground where people in the Stone and Bronze Age used to live. In the summer of 2002, the remains of the ancient forest were found approximately 3,5 km away from the coast (with the help of expedition ship "Altair"). Using sonar "Altair" found various undetermined objects. Diving was arranged the same day. At a depth of 27 metres, on the sandy bottom, a trawl was found. Its rope had snagged over a stump and broken. After two diving sessions, tree-stumps with roots bulging 0,5-1,5 meters from the sand were found. They are from 0,4 to 1 meter in diameter. A rather small (up to 1 meter in height) and low-pitched terrace with moraine exposures was found nearby.

The sample was dated using the C14 method (calibrated data – 8090 years BC). The stumps, remaining underwater, were pine trees that used to grow on the coast of the Joldia Sea 11,000 years ago. At that time in the Baltic people from the Late Palaeolithic culture lived there. In this situation it is especially important to use the experience of scientists from other countries and cooperate to use the opportunities presented by new research technologies and methods.

Frode Kvalø

MANAGEMENT OF UNDERWATER HERITAGE – A SHORT PRESENTATION OF THE NORWEGIAN SITUATION

INTRODUCTION

Norway does not have a Baltic coastline. Even if our main waters have different characteristics, we believe we have much in common with the states that surround the Baltic Sea when it comes to managing cultural heritage under water. We also face many of the same challenges concerning the development of a wide range of archaeological, legislative and other tools to protect and gain knowledge from our archaeological sites. Many of the shipwrecks along the South Norwegian coast are connected to the Baltic Sea area, either because the ships came with goods from the Baltic or because they were on their way to trade there.

A SHORT HISTORY OF MANAGEMENT OF CULTURAL HERITAGE UNDER WATER IN NORWAY

Underwater archaeology in Norway started in the middle of the 1950's when scuba divers began to report finds to the maritime museums.

From 1905 legislation protected all cultural objects underwater from, or older than, the year of the protestant reformation in Norway in 1536. Finds from the 1950s led to a change in the law in 1963 to also protect shipwrecks older than 100 years from the time the ship was built.

The first scientific excavation of an underwater site was conducted on the wreck site of *Lossen*, a warship from the Great Nordic War that was lost in a storm on Christmas day 1717.

But it was not until 1990 that the first official positions of underwater archaeologists were established to deal with the challenges to manage our cultural heritage.

In 1994 the first academic program for education in maritime and underwater archaeology was established at the Norwegian University of Science and Technology in Trondheim.

In 2001 the Directorate for Cultural Heritage (Riksantikvaren) established its first position assigned to work with cultural heritage under water.

THE MANAGEMENT SYSTEM OF TODAY

The purpose of cultural heritage management is described in the Cultural Heritage Act of 1978. It states that it is a national responsibility to safeguard archaeological and architectural monuments, sites and cultural environments "as part of our cultural heritage and identity and as an element in the overall environment and resource management".

Our Cultural Heritage Act protects any cultural object dated earlier than 1537 and ship finds have a separate paragraph. The law does not differentiate between different kinds of natural environment in which finds are made.

The §14 states that the State has the right of ownership of boats older than 100 years. It also includes ships' hulls, gear, cargo and anything else that has been on board, or parts of such objects, if it seems clear that under the circumstances there is no longer any reasonable possibility of finding out who or whether there is an owner.

The authority appointed under the Act may dig up, move, examine or raise objects as described in the first paragraph, regardless of who is the owner, and take other steps to preserve the object or take it into safekeeping. Such measures, or any other measures that may damage the object, may not be implemented either by the owner or by others without the permission of the Directorate, or if so, then subject to certain conditions.

The law also states that when a public or large private project is being planned, the person or administrative agency in charge of the project has a duty to find out whether it will affect an automatically protected monument or site. The costs involved in investigating automatically protected monuments or sites, or in implementing special protective measures to safeguard these on account of projects as described, shall be borne by the initiator of the project.

The Directorate for Cultural Heritage is under the Ministry of the Environment. The Directorate is responsible for the management of all archaeological and architectural monuments and sites, and cultural environments in accordance with the relevant legislation. The Directorate therefore plays a central role in public environmental management.

The maritime museums in Oslo, Stavanger and Bergen, the Museum of Natural History, Archaeology and Social History in Trondheim and Tromsø Museum have been appointed centres for underwater archaeology and made responsible for the day-to-day management of monuments underwater within their own region.

SOME CURRENT ACTIVITIES

The Directorate is developing a national underwater cultural heritage database. Until now each museum has had its own internal database that has not been available outside the museum. The national database, however, will be accessible to anyone through the internet, but with restrictions concerning especially vulnerable sites. The first test version will be ready by the end of this year.

We now work more in situ with the preservation of sites. Starting with Medieval wreck sites of which we have registered 39. A study by the Norwegian Maritime Museum last year concluded that several of these sites are in danger of deteriorating or disappearing altogether within the near future. To follow up this study we are planning a workshop this autumn to discuss priorities and plan further advances.

Last year the Directorate for Cultural Heritage together with Stavanger Maritime Museum and the Museum of Natural History, Archaeology and Social History in Trondheim, started a project on cultural heritage in the freshwater environment.

Our bodies of freshwater have received very little attention from archaeologists in Norway. The Directorate is now working to integrate this environment into the day-to-day management. To get a flying start the project is collecting examples from home and broad to give the management system a good foundation for future actions. We are hoping to expand the project with fieldwork next year, but that depends on whether we get external financing or not.

The Directorate is also supporting the development of geophysical methods for underwater survey. Most surveys in shallow waters are carried out with visual observation and probing with metal rods. This is often effective, but the management also needs effective, easily transportable and not too expensive, equipment for applying geophysical survey techniques. To gain experience and knowledge of use the Directorate is supporting different projects within Norwegian waters.

Another important task for the Directorate is the development of rules of conduct to make a more efficient management system. This is an ongoing task, but this year the Directorate will give it extra attention.

Petr Sorokin

THE UNDERWATER ARCHAEOLOGICAL HERITAGE OF NORTH-WESTERN RUSSIA

The eastern part of the Finnish Gulf (St. Petersburg and Leningrad Regions) and waters in the south-eastern part of the sea (Kaliningrad Region) are the two districts belonging to Russian territorial waters in the Baltic Sea. During the last ten years maritime archaeological activities have been carried out mainly in the first district.

From the point of view of geographical location, north-western Russia has been included in political, economic and cultural processes in the Baltic region since the Viking Age. According to the archaeology and written sources it is possible to distinguish several periods wherein the north-western waterways have been exploited.

The Russian-Viking period started from the middle of the 8th century and continued to the end of the 11th century. Vikings inhabited Staraya Ladoga and local Finnish tribes controlled part of the international waterways (the Finnish Gulf from the mouth of the Narva to the Lower Volkhov).

During the Russian-Hanseatic period (from the 12th century until the end of the 15th century) trade routes came through this area. The active development of the Novgorod's navigation on the Baltic Sea, plus trade with Gotland and the Hanseatic League started from the 12th century. There is a distinct tendency of gradual colonisation of the shores of the inner waterways during the Middle Ages. The forward bases of Russian vessels were transferred from the remote districts of the region closer to the coast as a result of this process. The important prerequisites for the development of Russian navigation on the Baltic Sea were formed here. The north-western territories of Russia were occupied by Sweden in the 17th century.

Following the building of St. Petersburg, this region became the most important centre for the Russian navy and maritime trade. The human influence on the natural environment increased significantly. Tens of thousands of cargo boats sailing from Central Russia to the new capital were shipwrecked in the southern part of the Ladoga Lake during the first 15 years following the foundation of St. Petersburg. For this reason the Ladoga Canals were built around the shoreline. The naval fortress and systems of military defenses were built on Kotlin island (Kronstadt) and at Vyborg Bay.

The Institute of the History of Material Culture of the Russian Academy of Sciences started a programme

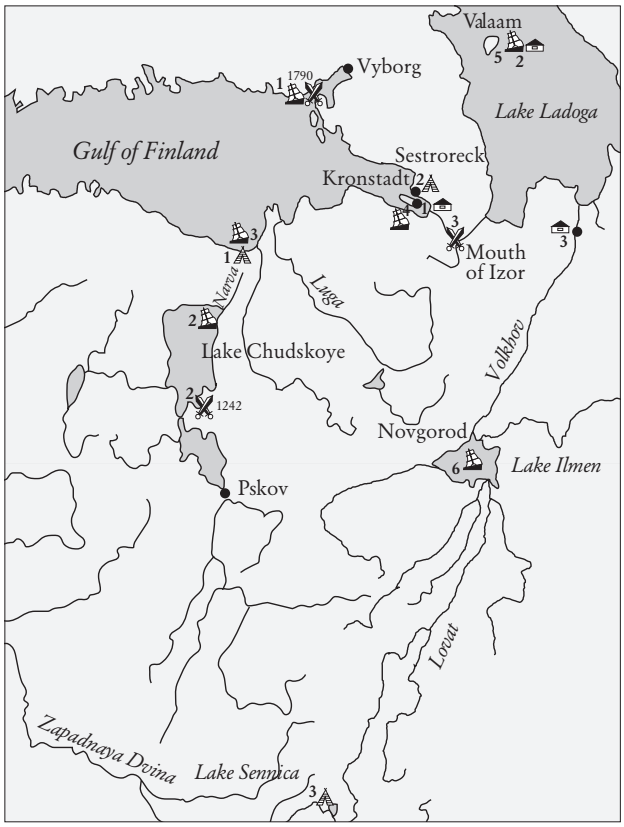

Fig. 1. The investigated marine archaeological sites in north-western Russia: 1. Neolithic sites, 2. Shipwrecks, 3. Old harbours, moorings and other historical sites, 4. Battle sites.

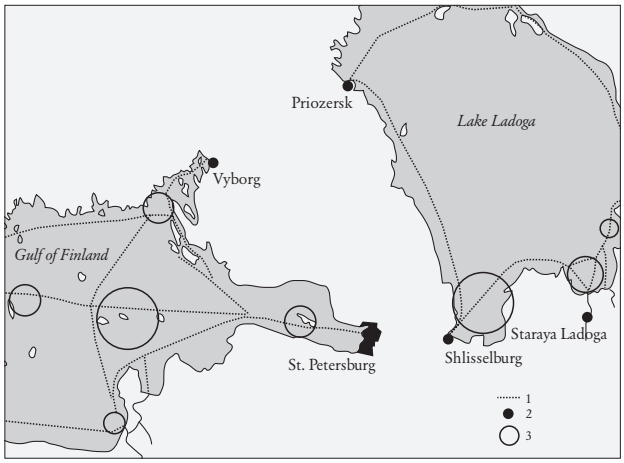

Fig. 2. Ships' cemeteries in north-western Russia. 2.1. Historical waterways. 2.2. Historical centres. 2.3. Ship cemetery sites.

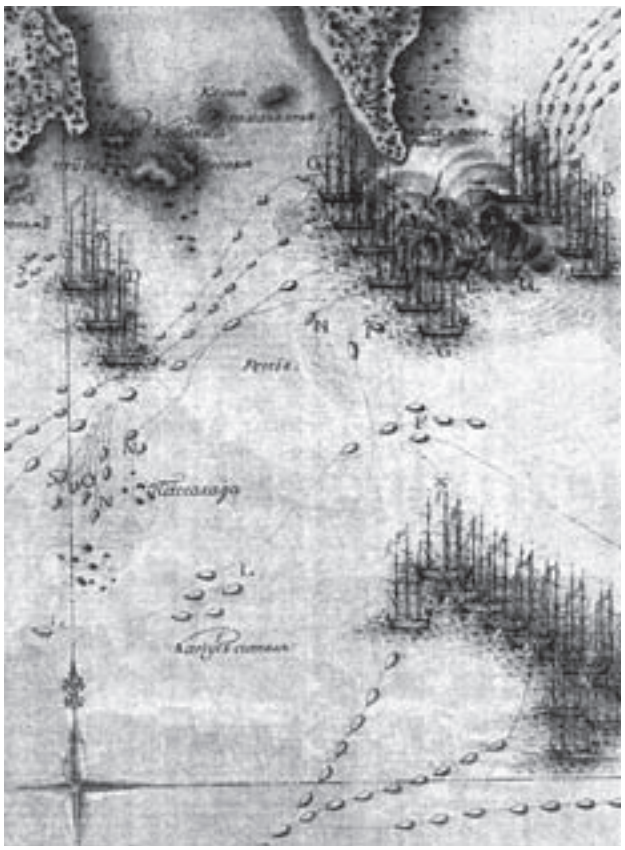

Fig. 3. Russian map of the Vyborg Bay Battle 1790.

of underwater archaeological investigations in the 1980s. Vyborg Bay, Narva Bay, water around Kronstadt, the islands of the central part of the Finnish Gulf and also some places in the Ladoga Lake and Thudskoe Lake were the areas under investigation (Fig. 1-3).

The "Legislation for objects of Cultural Heritage of the Peoples of the Russian Federation", which includes a point about submerged objects of cultural heritage, was established for the first time in 2002. Potential historical monuments must be at least 40 years old.

How does this law function in reality? Unfortunately there are no special mechanisms for the protection of submerged historical objects. The majority of them are unknown, which can lead to their destruction. The Russian Navy and Coastguard maintain a strong monopoly on visits to the Russian part of Finnish Gulf for any divers, as well as for archaeological investigation. But there is not any system of cooperation between them and the Board of Antiquities for the protection of sites and monuments.

Because of this there are groups of black-market archaeologists looking for treasures on the seabed. Some museums use these finds for their exhibitions. The list of archaeological monuments – six shipwrecks and five submerged Neolithic sites – was the result of a scientific inventory of underwater archaeological objects carried out by the Institute of the History of Material Culture, Russian Academy of Sciences. This includes three Swedish shipwrecks at the site of the Vyborg Bay Battle from 1790, two Russian Cargo ships 18/19th centuries and the battleship "Gangut" sunk in 1897 (Fig.4-6). Neolithic sites, dated 3000-1000 BC, are located in the Sestroreckoe Lake. They were submerged at the beginning of the 18th century after the building of a dyke on the Syster River.

A bad example in this field is the exhibition of maritime archaeology by the Naval Association "Pamiat' Baltici", opened in Vyborg's historical museum. It has artefacts lifted from different historical sites with neither scientific documentation nor suitable conservation. The protection of the Navy and Vyborg's museum allows this association to destroy historical objects (Fig.7).

In the last few years the Institute of the History of Material Culture of the Russian Academy of Science has included a search for and the preliminary documentation of several submerged and coastal objects: shipwrecks, moorings, old harbours. Four volumes entitled "The Study of Monuments of Maritime Archaeology", were published by the Institute of the History of Material Culture.

In 1990 research into the Vyborg Sea Battle of 1790, between the Russian and Swedish fleets was started by the Institute of the History of Material Culture of the Russian Academy of Science (head V. Tulenev). The naval battles of the 18th and 19th centuries that took place in the eastern part of the Baltic were of a significant scale and entered European naval battle history. Still, the majority of them left no traces behind. One of the exceptions from this rule is the Vyborg Battle of 1790, which judging from the number of ships that participated in it, is considered to be one of the biggest in the whole history of the Baltic. Considering this battle in its historical context it is possible to say that it became the turning point in the Russian-Swedish war of 1788-1790. This war concluded a hundred-year fight between Russia and Sweden for domination of the Baltic. As a result of naval battles at Vyborg and Rochensalm several ships remained at the bottom of the north-eastern part of the Finnish Gulf. At present they represent important historic and cultural heritage and are in need of research and preservation.

Archive materials provide evidence to show that several Swedish ships, amongst which: ships of the line "Hedvig Elisabeth Charlotta", "the Eighteen" and "the Lovisa Ulrika", frigates "the Upland" and "the Zemira", and also several small ships were sunk in Vyborg's bay.

The study of the site of the Vyborg Battle of 1790 has been going on for 12 years. As a result of these works significant amounts of material have been accumulated and collections of archaeological finds have been gathered.

The Russian-Swedish and Russian-Italian (with "Marenostrum" participation) archaeological expeditions into Vyborg's Bay made surveys of several shipwrecks in 1994-98. The site of the Vyborg Battle, with a concentration of sunk ships near Krestovy Cape is an

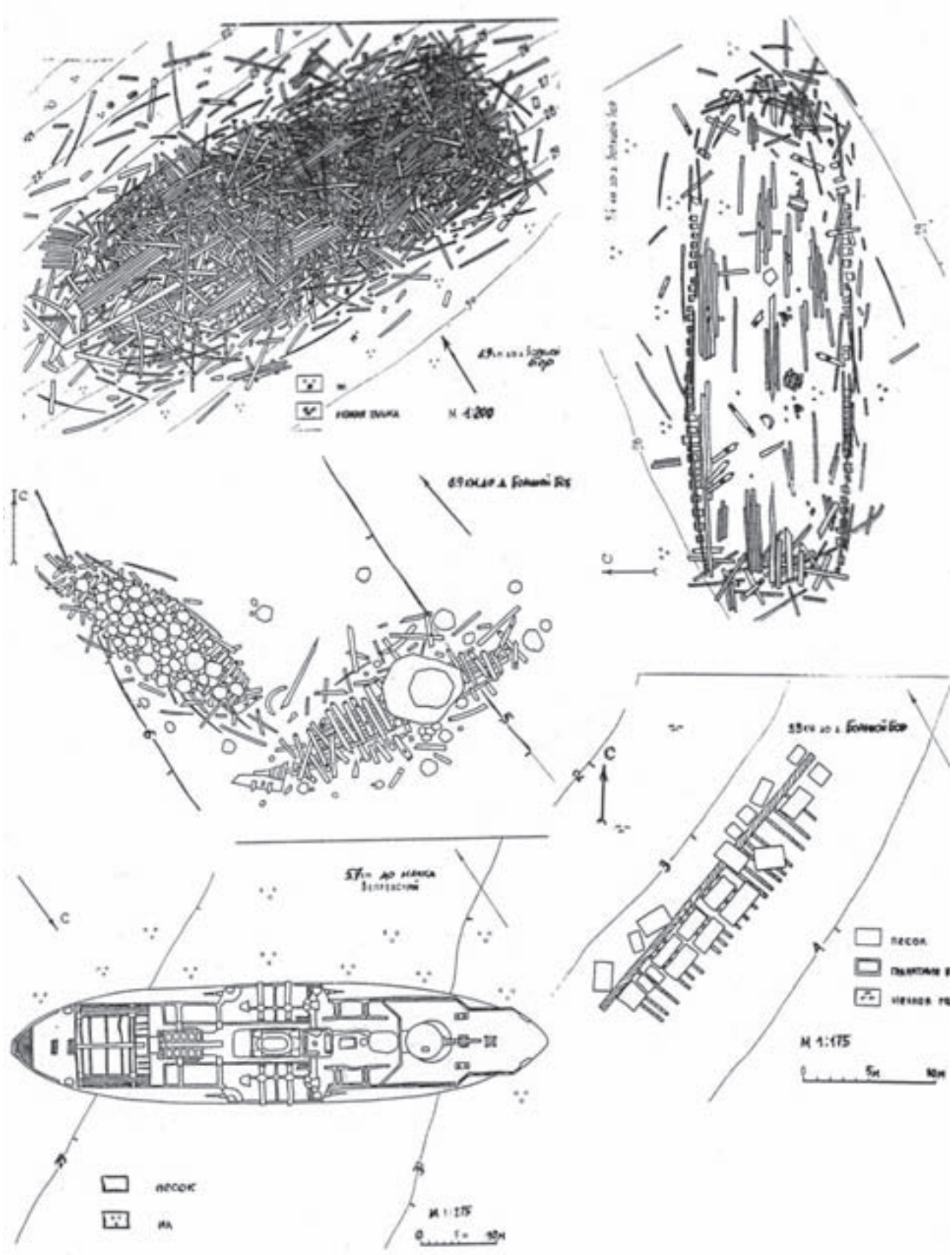

Fig. 4. Shipwrecks – archaeological monuments.

Fig. 5. Remains of the shipwreck "Hedviga Elisabeth Charlotta" 1790.

Fig. 6. Parts of the name of the battle ship "Gangut".

Fig. 7. The cannon carriage from the shipwreck "Lovisa Ulrika". Vyborg Museum.

Fig. 8. Artefacts from the shipwreck "Hedviga Elisabeth Charlotta".

interesting and important area of underwater archaeological heritage in the Baltic region (Fig. 8). It is one of the most likely sites for the establishment of a future underwater archaeology park.

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Peter Norman

UNDERWATER CULTURE HERITAGE – SHORT REPORT FROM SWEDEN

SOME REMARKS ON THE LEGISLATIVE PLATFORM

The present Swedish Act concerning ancient monuments and finds etc. is from 1988. It regulates the legal protection of ancient monuments, buildings of historic value and churches. The care and preservation of our cultural environment is a matter of national concern. Responsibility for this is shared by all.

The ancient monument part of the Act is based on the original one from 1942 and it contains protection clauses for a series of permanent ancient monuments. For example ancient graves, rock carvings, deserted settlements, the ruins of castles and churches. However, the act did not include any protection of shipwrecks or other kinds of underwater remains.

The Ancient Monuments Act of 1967 received an addition concerning shipwrecks. A wrecked ship was regarded as a permanent ancient monument, and therefore placed under protection of the act, if at least one hundred years had presumably elapsed since the ship was wrecked. The Act applies within the limit of the territorial waters (12 nautical miles from the shore).

The Act concerning ancient monuments and finds etc. from 1988 contains a sentence concerning shipwrecks with the same meaning as the addition from 1967.

The act from 1988 also has a requirement concerning the "protection area" belonging to the permanent ancient monument. While the act from 1942 says that an ancient monument includes a large enough area of ground to preserve the remains, the act from 1988 says that an ancient monument includes a large enough area of ground *or on the seabed*. The requirement is necessary because in recent decades it has been possible to interpret not only remains on ground as permanent ancient monuments, but also underwater remains other than shipwrecks. For example permanent flooding settlements, fortification constructions and cultural layers in natural harbours in our archipelagos.

The Act concerning ancient monuments says that no one without permission from the State County Administration is allowed to displace, remove, excavate, cover or, by building development, planting or in any other way, to alter or damage an ancient monument.

Today the protection by the act applies to shipwrecks if at least one hundred years has presumably elapsed since the ship was wrecked and a lot of other traces of human activities in past ages. However, a problem is that the act doesn't include protection of wrecks younger than one hundred years. Especially wrecks from the First World War and older often are of high historic value and a lot of them are looted or destroyed in other ways. In Sweden it is an ongoing debate dealing with the question of how to protect these wrecks. A lot of people, among them amateur divers with a historic interest want to preserve these wrecks for the future. Therefore the Swedish National Heritage Board and the State Maritime Museum earlier this year, have started the discussion of how to protect these wrecks in a legal way.

SOME REMARKS ON THE REGISTRATION OF UNDERWATER SITES

Sweden has two different registers for underwater sites of archaeological interest. The Swedish Maritime Museum is responsible for the Swedish Marine archaeological Archive (SMA), which is divided in two parts. The first one, the Wreck Register, is a register mainly for located wrecks. This register contains information of 1.700 wrecks. The second part, the Founder Register, contains information of 10.000 unlocated shipwrecks.

There is also a digital SMA in two versions. One version is accessible only with an access code. This version is for authorities, scholars and experts. One web version, because for the need for confidentiality, contains only a small part of the information.

One copy of the web version is from late this year also available from the digital Ancient Monument Register at the National Heritage Board. The Ancient Monument Register contains information about 450.000 sites of all kind of ancient monuments. A smaller part of these are situated underwater.

A NATIONAL UNDERWATER ARCHAEOLOGICAL REVIEW, AN ONGOING PROJECT

This year the Swedish National Heritage Board is going to publish a compilation of important underwater archaeological information. The aim is to make a simple support for administrators. The aim is also to make the document understandable for the public.

The compilation is in four parts:

1. Instructions for how to deal with official underwater archaeological matters. This part contains information about how the cultural heritage administration is working, rules and regulations, competence of the cultural heritage administration concerning marine archaeological matters, threats against the underwater culture etc.
2. A review describing the underwater heritage in four different topographical areas, one archipelago area, one open shore area, one area of inland waters (streams, lakes etc.) and one river mouth area.
3. A review describing the underwater heritage in a chronological and functional way. For example settlements in the sea and the big lakes from prehistoric times, fortifications from the iron age and later, harbours and anchorage's, wrecks etc.
4. An analyses.

PART III

MARITIME HERITAGE AND COASTAL CULTURE
SHORT REPORTS ON BALTIC LIGHTS

Marcus Lindholm

BALTIC LIGHTS – A SHORT REPORT FROM THE ÅLAND ISLANDS

WHAT'S THE CURRENT SITUATION REGARDING LIGHTHOUSES AND LIGHTS ON THE ÅLAND ISLANDS?

The current situation in the Åland Islands concerning lighthouses and lighthouse stations is that nowadays they are automatically operated and the sites deserted. No lighthouse is protected by the Åland Protection of Architectual Heritage Act because they are still fully operational, but probably in the near future some of the lighthouses in the Åland archipelago are due to be switched off.

The lighthouses are owned by the Finnish Maritime Administration when in use, but the FMA only do maintenance on the light towers and not on the adjacent buildings at the lighthouse stations.

However there are discussions between the Finnish Maritime Administration and the Åland government to take over the ownership and responsibility of the lighthouses and their adjacent buildings when they are no longer in use.

The question of preserving and protecting the smaller lighthouses along the sea-lanes around the Åland archipelago is totally different. The lighthouses are rapidly switched off or taken down and replaced with light boards.

In this context the pilot stations and houses ought to be mentioned. A number of pilot houses have been sold to private owners, the town of Mariehamn, or private foundations, or have been taken over by the Åland government from the Finnish Maritime Administration or their predecessor the Board of Navigation and therefore been protected.

ANY GOOD EXAMPLES OF LIGHTHOUSE PRESERVATION?

No lighthouse or any other building at the more significant lighthouse stations is legally protected because as I mentioned earlier because they are all in operation.

Lighthouses in the Åland archipelago.

The Stegskär lighthose in its new surroundings outside the Sjökvarteret in Mariehamn. Photo Marcus Lindholm, ÅM.

However there are two examples of smaller lighthouses which have been preserved in later years.

The first example is the Sälsö navigation lighthouse, in the municipality of Sottunga in the Åland archipelago, it was restored by the Åland Board of Antiquity in cooperation with the Finnish Maritime Administration and the lighthouse is now the responsibility of a private foundation in Sottunga for its maintenance.

The second good example is the unused lighthouse from the Stegskär channel just outside Mariehamn, which was taken over by the Sjökvarteret in Mariehamn and is now used as a harbour light.

Both these lighthouses were due for scrapping when they were taken taken over by private foundations.

AND THE BAD EXAMPLES...

There are many examples of lighthouse stations where only the lighthouse tower is maintained and the adjacent buildings and installations are crumbling due to lack of money.

The Åland Board of Antiquity knows for instance that the buildings attached to lighthouse stations at the Märket (unmanned since 1976), Lågskär (1961) and Sälskär (1964) are rapidly decaying but there have not been any investigations on the level of damage at the different buildings and installations.

There have been talks about closing down the Sälskär lighthouse because of its lack of practical purpose and to save money. Sälskär was originally built in 1868 and rebuilt in 1897 after extensive storm damage and the lighthouse station was demanned in 1964.

The lighthouse station on Lågskär was originally built in 1840. But the lighthouse tower, and all the other buildings were destroyed by the Russian military forces in 1915. The lighthouse station was rebuilt in 1919-20 and it now consists of a number of buildings, which have been used as accommodation for the Åland Ornithological Society since 1962. From the beginning of the sixties an agreement between the Ornithological society and the Finnish Board of Navigation stated that the Society do the maintenance work on the building and the Board of Navigation supplied the material. This agreement was cancelled in 1981 due to lack of money.

Today the Åland Government and the Finnish Maritime Administration are discussing the take over of the lighthouse station by the Åland Government, with the exception of the lighthouse tower as long as it is operational. The problem is naturally the lack of funds for restoration and maintenance.

THE MAIN CHALLENGE FOR THE PRESERVATION OF LIGHTHOUSES AS PART OF THE CULTURAL HERITAGE?

The main challenge is to find a solution regarding the ownership and financing of the various lighthouse stations. As it is the Finnish Maritime Administration who own the sites, they only take care of lighthouse towers in operation and not the adjacent buildings; there has been a lot of decay in the last 10 years.

The last manned lighthouse station in the Åland archipelago was Märket, situated on the border between Finland and Sweden and it was demanned in 1976.

To conclude this presentation about lighthouses I will also mention the only lightship in the Åland waters.

This lightship, the *Storbrotten*, was built in Helsinki 1905-07 and moored in position in June 1908. In September 21st 1922 a stray floating mine hit the lightship and it sank with a loss of six lives.

The new *Storbrotten* was ordered in 1923 and moored in position in June 1925. The lightship was replaced by a floating light in 1958.

Morten Hahn-Pedersen

REPORTS ON BALTIC LIGHTS – DENMARK

INTRODUCTION – THE HISTORY OF DANISH LIGHTHOUSES AND LIGHTSHIPS

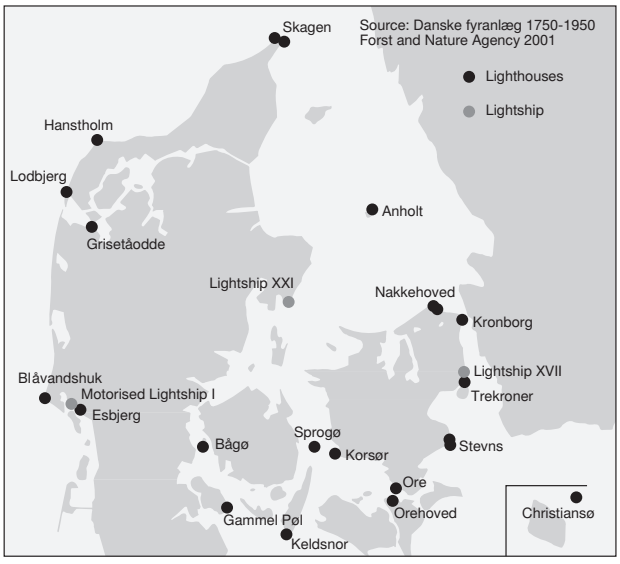
The establishment of lighthouses to increase safety at sea along Denmark's coasts started in 1560 when the Danish king Frederik II ordered the erection of bascule lights at Skagen, Anholt and Kullen to mark the main route through Danish waters from the North Sea to the Baltic. In 1747 the first "real" Danish lighthouse was built at Skagen, but it was not until the 1800s that there were advances in lighthouses in Denmark in the form of technical improvements and the establishment of a number of new lighthouses both along the old main route and also in the Great Belt.

With an increase in the number of lighthouses under the Danish Lights and Buoys Service from 39 to 185, the period from around 1870 until 1930 was the golden age of lighthouse building in Denmark. Until 1870 almost all the lights under the Danish Lights and Buoys Service were approach lights erected with the purpose of helping ships to keep clear of the coast and dangerous banks. In the following period some approach lights were built but the main part of the new lights were guiding lights and angled lights intended to help ships to navigate through narrow shipping lanes and into harbours. By the turn of the millennium the Danish Lights and Buoys Service had altogether 197 lights 88 of which were erected before 1950. Out of these 88 lights 28 were approach lights, 15 guiding lights and 45 angled lights. Due to the development in satellite navigation the number of lights is expected to decrease dramatically in the years to come.

Technical development has already put an end to the history of Danish lightships. The idea of lightships were discussed for a long time before the first Danish lightship was stationed at Læsø Trindel in Kattegat in 1829. It was the firm belief that the sea ice associated with the Danish winter made it impossible for lightships to stay in position. However, the experience gained from this first lightship in present Danish territorial waters showed results far better than expected and this method of marking the sea routes became more and more widespread as the increasing amount of international shipping in Danish waters revealed the need for it. All in all, the Danish Lights and Buoys Service commissioned 25 lightships, which over the years have seen service at some 20 stations in Danish waters. The Danish lightship fleet was at its hight in the 1920's and 1930's. In 1927 14 ships were on station, while 3 were held in reserve. The transition from terrestrial and astronomical to electronic navigation systems led to a rapid reduction of the Danish lightship fleet from the 1970's onwards and in 1988 the last Danish lightship – the Møn SE – was withdrawn.

THE PRESERVATION OF DANISH LIGHTHOUSES AND LIGHTSHIPS

Speaking in general terms all the Danish lighthouses and lightships were originally owned by the Lights and Buoys Service, the only exceptions being some of the harbour lights. When technical development reduced the need for lights, the Lights and Buoys Service naturally wanted to sell off the lightships and lighthouses no longer in use. This raised the question of how to preserve a representative body of this important element in Danish maritime history and coastal environment?



Map showing the preserved lightships and lighthouses in Denmark.

The Grey Lighthouse at Skagen – switched on in 1858. Photo The Fisheries and Maritime Museum, Esbjerg.

Some of the Danish lighthouse complexes were already preserved as monuments of cultural heritage, but in order to get a representative sample the National Forest and Nature Agency – who was the organisation responsible for this kind of preservation in Denmark – in 1999/2001 reported on the Danish Lights and on this basis a number of lighthouses were preserved. In 2002 public management of preserved constructions in Denmark was transferred to the newly formed National Cultural Heritage Agency.

On the map you will get an overview of the 23 lighthouses and lighthouse complexes in Denmark that have been preserved as monuments of cultural heritage. These complexes are marked with red spots while the green spots mark the three Danish lightships that are preserved as museum ships in Copenhagen, Ebeltoft and Esbjerg. The protection of the lightships was initiated by maritime museums or organisations in cooperation with museums.

To the lighthouses and lightships you can add 11 wooden beacons along the west coast of Jutland that have also been preserved and protected by the National Forest and Nature Agency. Put together the preserved and protected lighthouse complexes, lighthouses, lightships and beacons represent the variety of Danish light architecture, building periods between 1746 and 1914, different light techniques and the three main types of light purposes.

In short, today Denmark has a wealth of preserved lighthouses and lightships. Good examples are: The first brick lighthouse in Denmark that was designed and built by the naval architect Philip de Lange at Skagen in 1746-48 – owned by the Lights and Buoys Service. The Grey Lighthouse complex at Skagen, which was switched on in 1858. This complex is owned by the Lights and Buoys Service as well. The lighthouses at Nakkehoved on North Sealand which are owned by the local authorities and run by the museum in Gilleleje. And finally Motorised Lightship No. I in Esbjerg which is owned and run by the Lightship Foundation in cooperation with the Fisheries and Maritime Museum.

Beside these more or less publicly owned and preserved lights, Denmark is bursting with examples of private preservation of lighthouses with no official preservation declaration. A fine example is the lighthouse complex on the small island of Ærbelø northwest of Funen. The entire island including the light complex is owned by the Aage V. Jensen Foundation who uses the locality as a meeting place

The first brick lighthouse in Denmark – designed and built by the naval architect Philip de Lange at Skagen in 1746-48. Photo The Fisheries and Maritime Museum, Esbjerg.

Motorised Lightship No. I – built 1913/14 at Rasmus Møller's Shipyard in Faaborg – is now preserved as a museum lightship in Esbjerg. Photo The Fisheries and Maritime Museum, Esbjerg.

for researchers. A fair example of alternative use of a former lightship is Lightship No. XVIII owned by the Tvind Schools and converted into a three masted schooner named *Den store Bjørn*.

To some of you this may sound like a story from the sunny side of the street, but Denmark has some very bad and even horrible examples as well on how lighthouses and lightships are treated when sold off from the Lights and Buoys Service. The lightships no. X, XV and Motorised Lightship no. II were converted into floating restaurants by private owners who all went bankrupt trying to make a living this way. However the prize for horror goes to lightship no. XIII that has been converted into a house boat which makes you think of a floating shoe box rather than a former lightship. When it comes to lighthouses there are examples such as Møn and Sletterhage where some of the buildings have been sold off and rebuilt or renovated by the new owners in a way that does not fit very well with the overall architectural design of the entire complex.

However, none of these examples are preserved or protected lights, but in order to avoid such disasters, the National Cultural Heritage Agency are now working on how to regulate future changes on buildings that belong to a complex where the lighthouse/tower is protected as cultural heritage monument. This is one of the challenges for the future work on the preservation of lighthouses and lightships in Denmark. Another challenge is to preserve a representative portion of the 20th century lights and to find out whether it will be possible to preserve and secure the total system of lights around a harbour in order to be able to show future generations the complexity of such systems. The last and perhaps greatest challenge is to provide the economy needed to keep the lighthouses and lightships preserved as monuments of cultural heritage. Today the rather expensive keeping of such monuments rests entirely on the owner. As long as the owner is the Lights and Buoys Service, local authorities or museums this challenge may be overcome, but we do need to develop a system on how to create a solid basis for the future maintenance of cultural heritage monuments should they be sold off to private persons or organisations.

Urmas Dresen

MARITIME HERITAGE AND COASTAL CULTURE – BALTIC LIGHTS, ESTONIA

During the last ten years lighthouses and the lighthouse service have changed dramatically. The first phase was when the Estonian Department of Waterways took over the lighthouses and beacons from the Soviet Hydrographic Service. For some years most of our lighthouses were actually manned by the same staff as previous years.

Starting from 1996-1997 the Department of Waterways started with a programme to modernize the lighthouse lenses and power supply systems. In some occasions it happened together with restoration of the whole tower (for example Mohni/Ekholm lighthouse on the small island in the northern coast and Pakri/Pakerort). Usually only the light system was changed, but sometimes the whole upper part was also changed using helicopters for lifting. The negative aspect was that we lost some of the original lamp rooms, made mostly from copper and brass. That type of modernisation was stopped after two years and the Department of Waterways is now working in conjunction with the National Board of Antiquities.

Some examples from this period include the Estonian Maritime Museum's restoration of two of the old lamp rooms (from Suurupi and Naissaare lighthouses). The first mentioned is now on the top of our museum cannon tower and the second is converted to a ticket office at the Tallinn harbour, close to our museum ship "Suur Tõll". The biggest of these lamp rooms from Tahkuna lighthouse in Hiiumaa now belongs to the local museum and is awaiting its fate.

Almost all the lighthouses still belong to the Department of Waterways. Sometimes they are owned by the state, and they also include one of the technical buildings (for example the building for diesel generators). With new special plastic lenses and modern diode lights (invented and manufactured in Estonia) they are fully automated with a solar power supply. The other side is that more or less all the other buildings around the lighthouse are owned privately (mostly they are the same people who ranthem in previous years). Most lighthouses in the small islands (for example Mohni / Ekholm; Keri / Kokskär) are not manned any more and nobody lives in the surrounding buildings either.

The oldest and also the most interesting lighthouse Kõpu, on the island of Hiiumaa (Dagö), is owned by the local municipality. It is rented out privately with the conditions that the lighthouse must be open for the public and they must take care of the tower. This year we have signed an agreement with him that states that the museum will help to make a permanent exhibition of the history of the lighthouse. There is also a small cafe and other tourist facilities and without any doubt it will be one of the main tourist attractions on the island. The same kind of development (but on a smaller scale) is going on at the lighthouses at Suurupi, Sõrve and Vilsandi.

Suurupi (Suurop) lower lighthouse on the Gulf of Finland. Built in 1859, rebuilt in 1885 and 1998. The oldest wooden lighthouse in Estonia.

Estonian lighthouses. The current status of protection.

No	Lighthouse	Area	First mentioned	Built	Material	Height of the tower	Height of the light from sea level	Under protection from
1.	Kõpu	Baltic Sea	1505	1531	Stone+plaster	36	102	1973
2.	Suurupi I	Finnish Gulf	1760	1760	Stone+plaster	22	66	1997
3.	Keri	Finnish Gulf	1719	1803	Stone+plaster	31	31	1997
4.	Tallinna II	Finnish Gulf	1806	1806	Stone+plaster	18	49	1997
5.	Vilsandi	Baltic Sea	1809	1809	Stone+plaster	37	40	planned
6.	Mohni	Finnish Gulf	1806	1852	Brick	27	33	1997
7.	Suurupi II	Finnish Gulf	1859	1859	Wood	15	18	1997
8.	Vormsi	Moonsund	1864	1864	Cast iron	24	27	1998
9.	Kihnu	Pärnu Bay	1864	1864	Cast iron	32	28	planned
10.	Vaindloo	Finnish Gulf	1718	1871	Cast iron	17	20	planned
11.	Ristna	Baltic Sea	1874	1874	Steel	30	37	1999
12.	Tahkuna	Baltic Sea	1875	1875	Cast iron	43	43	1999
13.	Ruhnu	Riga Bay	1646	1877	Steel	40	65	1973
14.	Viirelaid	Moonsund	1857	1881	Steel	11	15	planned
15.	Pakri	Finnish Gulf	1724	1889	Stone+plaster	52	73	1997
16.	Käsmu	Finnish Gulf	1892	1892	Wood	5	8	1986
17.	Tallinna I	Finnish Gulf	1835	1896	Stone+plaster	40	80	1997
18.	Sorgu	Pärnu Bay	1864	1904	Brick	16	19	planned
19.	Laidunina	Moonsund	1907	1907	Brick	24	27	planned
21.	Kunda	Finnish Gulf	1859	1909	Wood	19		1986
22.	Abruka I	Moonsund	1897	1931	Concrete	36	38	planned
23.	Sõrve	Baltic Sea	1646	1960	Concrete	52	52	planned

Kõpu (Dagerort) lighthouse on the island Hiiumaa. Built in 1531, rebuilt in 1810, 1845 and 1990. The oldest lighthouse still in use in the Baltic Sea region.

Keri (Kokskär) lighthouse on the island Keri in the Finnish Gulf. Built in 1804. From the beginning of the 18th century at the same place there was a wooden tower, rebuilt in 1837, 1858, 1937 and 1974. The first lighthouse in Estonia that was provided with a Fresnel lens system in 1858.

Tahkuna (Tackerort) lighthouse on the island Hiiumaa. Built in 1875 by British engineer Gordon, it is the highest cast-iron tower in Estonia.

Ruhnu (Runö) lighthouse on island Ruhnu in the Gulf of Riga. Built in 1877, its iron components were shipped from Le Havre. Reconstructed in 1937.

Marja Pelanne

REPORT ON BALTIC LIGHTS – FINLAND

The National Board of Antiquities, namely the Department of Monuments and Sites and the Finnish Maritime Administration have together made an inventory of the built heritage of the Finnish Maritime Administration 1996-2000. It includes lighthouses, beacons and former pilot station buildings. The aim of the inventory is to identify the buildings that are valuable because of their historical, technical and architectural significance and importance in the maritime and coastal landscape. At the moment this survey covers the whole Finnish coastal area and the lake district excluding the Åland archipelago. The inventory in the maritime area contains 45 lighthouses, 44 beacons of wood or stone and 127 pilot stations.

The inventories are in themselves a tool for gathering information about cultural heritage in a consistent manner for the needs of research and conservation. All the inventories are a starting point for the promotion, supervision and implementation of the conservation of the cultural environment.

The protection plan based on the inventory for the built heritage of the Finnish Maritime Administration was compiled in the year 2002. At the beginning of this year different parties gave their opinions of the protection plan. The realization of the protection plan and the administrative decisions will be followed up this year. It can be foreseen, that for the implementation of the protection plan a wide range of tools and actions are needed.

The Finnish Maritime Administration is responsible for maintaining lighthouses. Today all the lighthouses are automatically operated and no longer require personnel. The last lighthouse keeper left the lighthouse Norrskär in the Gulf of Bothnia in 1984.

The Finnish Maritime Administration is aware of the importance of its built heritage and is engaged in the protection of its built heritage. This can also be seen in its publishing activities and in the maintenance and restoration work of the lighthouse buildings.

The lightship Kemi was taken out of service in the 1970s and is now moored at Finland's Maritime Museum as a monument to the era of lightships. Photo Markku Heinonen, Maritime Museum of Finland.

The main challenges in the preservation of lighthouses as cultural monuments is to find the right and sustainable restoration methods; to find new uses for these buildings; to integrate this on a large scale with the development of coastal areas and coastal societies. The maintenance and restoration of these buildings has to be backed up by the state. Very important organizations in this are the Finnish Maritime Administration, the National Board of Antiquities and the Ministry of Environment, as well as the the National Forest Agency (Metsähallitus), muncipalities and regional authorities and actors. At the moment some parts of the Finnish Maritime Administration are becoming commercial enterprises which might also threaten the financing of this valuable built heritage.

Here are some examples of the preservation and new uses for lighthouses and lightships.

The last lightship, **"Kemi"** was taken out of service in 1974 and is now moored at Finland's Maritime Museum as a monument to the era of lightships. Some lightships have been changed into restaurants.

Utö, built in 1753, is the site of Finland's oldest lighthouse. There is a museum near the lighthouse which contains the history of the lighthouse keepers, the pilots and soldiers who have all lived and worked on the island. Pilots continue to operate from here and the army still uses the island. The island as a whole within an archipelago society has exceptional historical dimensions.

Bengtskär, built in 1906, is now a very popular tourist attraction with a café, hotel, post office, meeting facilities and a museum. About 10 000 visitors visit the lighthouse a year. The light was automated in 1968 and is still in use today.

Strömmingsbådan was built in 1885. The Association for Strömmingsbådan Traditions uses the former lighthouse buildings, it includes the local fishermen, a boat club and the local museum.

Marjaniemi was completed in 1871 and is still used as a pilot station. The University of Oulu uses the former lighthouse keepers' buildings as a research and field centre. The Bothnian Bay Research Centre promotes research in biology and geosciences.

I have perhaps one bad example of a lighthouse. Söderskär lies in the Gulf of Finland and is no longer in use. Söderskär has been deemed unnecessary and extinguished.

Lighthouse Söderskär was built in 1862. By the tower there are a number of wooden buildings that belonged to the lighthouse keepers. They left the island during the 1950's and the light of the tower was put out in 1989. Beside the tower there was also a pilot station, which was closed in the 1960's.

The group of buildings is valuable, but nature is also very important on these rocky islets. Among other things a diverse bird population exists on the islets. The Game Research Institution under the Ministry of Agriculture and Forestry was established in the 1960s in the empty buildings.

Bengtskär lighthouse was built in 1906. It is now a very popular tourist attraction with a café, hotel, post office, meeting facilities and a museum. The light was automated in 1968 and is still in use today. Photo Ulla Klemelä, Maritime Museum of Finland.

Andris Biedriņš

LIGHTHOUSES ALONG THE COAST OF LATVIA

The sea border of Latvia stretches out for more than 500 km, therefore waterways have always been as important as overland routes. Until the beginning of the 20th century, the River Daugava was the main artery for water transport, but the other big rivers – the Gauja, Venta, and Lielupe were used for transporting goods and floating timber. Sea and river waterways were used in trade with foreign countries, especially with the ones of the Hanseatic League that mainly included ports of the Nordic and Baltic Seas. Luebeck, Hamburg, Brugge, Riga, and Revel (present Tallinn) were the most important Hanseatic cities maintaining regular trade relations and cargo transportation. At that time, sailors tried not to lose sight of the shore when navigating and, where possible, followed high buildings, usually church towers that had been built on the coast. Later on, such towers–lighthouses were specially built for navigation purposes. From the middle of the 16th century, Sweden played the leading role in this part of the Baltic Sea, but in the 17th century, also the territory of Latvia was brought under its influence. In the 18th century, as a result of the Northern War and the activities of Russian emperor Peter I, navigation and accordingly the construction of lighthouses in the Baltic Sea developed rapidly. In 1873, the committee of the Ministry of Sea of Russia made a plan for building lighthouses including the Baltic Sea. Within the framework of this plan, on a small artificial isle on the present seashore of Latvia, Kolka Lighthouse was built. Much attention was paid to the improvement of navigational conditions during the following years too, especially at the turn of the 19th century.

The coastline of Latvia is scarcely indented and the bottom of the sea is rather smooth, therefore navigation is not especially complicated. However, there are dangerous shoals where some ships have been stranded and even shipwrecked. At the beginning

***Pape Lighthouse (1910)**, situated Liepāja District, Rucava Parish, Pape. The 22.3 m high cylindrical tower is made of riveted steel sections framed in steel openwork. The tower is crowned with a small balcony and a light chamber with a weathervane above it. The illumination equipment has been modernised. The historical building complex includes a living house for the keeper, a machinery house, warehouse, and a cellar. Photo Andris Biedriņš.*

***Mersrags Lighthouse (1875)**, situated in Talsi District, Mersrags Parish. It is a freestanding cylindrical riveted iron tower 18.5 m in height. After it was destroyed in World War I, its lower part was embedded in concrete and fixed in reinforced concrete. In the upper part of the tower, there is an enveloping steel balcony supported by steel cantilevers. The light chamber is crowned with a domed roof ending in a decorative spherical projection and a weathervane. Photo Andris Biedriņš.*

***Liepāja Lighthouse (1868)**, situated in Liepāja The conical tower of the lighthouse 29 m in height was assembled from 30 mm thick cast iron segments joined together with screws. Inside the tower, there is a cast iron winding staircase. It is the only lighthouse tower in Latvia made of cast iron segment constructions. The author of the project, as well as the supplier of illumination devices was an English company: Chance Brothers Near Birmingham. The sections of the lighthouse shot during World War I were cast anew in the workshops of Liepāja Naval Port. The housing complex of the lighthouse includes a living house for keeper and machine house, both united under one roof. Photo Andris Biedriņš.*

of the 13th century, the Cours (tribes residing in the Western part of Latvia) used navigation difficulties to assail German invaders and merchants arriving in Riga. The shallow Irbe Sound between the Samsala (Saaremaa) Island and Kolka Cape has always been one of the most dangerous places for navigation. There are also dangerous shoals near Liepāja, Akmenrags, Ainazi, and Ovisi, as well as in the estuary of the River Daugava. From long ago, bonfires have been built in the highest seashore places to help ships steer the necessary course.

There are historical records about the establishment of lighthouses from the 16th century. The first lighthouse towers are thought to have been built on the Kolka Cope and Estuary of the River Daugava, in the first half of the 16th century, whereas there are records about a lighthouse at Ovisi built at the end of the 17th century. The earliest lighthouses used firewood and coal as fuel. Yet these fires had many drawbacks – they were hard to distinguish from other coastal lights, moreover – they often expired. Many fires were lit with malicious intent to cause shipwrecks and then rob. Later, huge lamps with coarse cotton burners replaced the fires; fat and oil were used to light them. Acetylene gas was a widely spread fuel at the beginning of the 20th century burning with a non-vaporous and very bright flame. At the same time, more and more lighthouses began to use electricity; automatic lighthouse lamps were introduced and used together with the lens system invented and later improved by French academician Augustin Fresnel in 1821 for intensifying the light effect. During the 20th century, lighthouse lamps were modernised several times, as well as equipped with radio technology,

***Užava (Bakofen) Lighthouse (1879)**, situated Ventspils District, Užava Parish. The lighthouse lies on steep seashore next to the River Užava. It was built as a round 19.4 m high brickwork tower with a balcony and a light chamber. In contrast with other lighthouses, it is not a freestanding tower, but also includes living accommodation and machinery houses. During World War I, the upper part of the tower was shot. The lighthouse was totally renovated and modernised in 1924. A rescue station was also established here. The equipment of the lighthouse has been modernised several times, but the buildings have not undergone big changes. View from the tower of the Užava lighthouse to seaside. Photo Andris Biedriņš.*

sound signalling and other devices. Today, several of the historical lighthouses (Kolka, Ovisi, and Užava Lighthouses) work as racon.

The lighthouses standing on the coasts of Latvia were severely damaged during World War I. After the war, all lighthouses committed to the care of the Hydrographic Service of the Republic of Latvia had to be repaired, but some of them could not be renovated. For example, Mikelbaka and Daugavgriva Lighthouses were built anew, however, they were destroyed again during World War II.

Today, the oldest lighthouses can be seen at Ovisi, Liepāja, Kolkasrags, and Mersrags.

Several lighthouses mostly alongside the western coast are recognized as objects with culture–historical value and recommended to be included on the list of the state protected cultural monuments.

On the whole, the technical condition of the lighthouses, especially towers that are still in use, are fairly good. Nevertheless, the preservation of lighthouses in Latvia faces some problems: some lighthouses are endangered due to modernization, lack of financial sources for inventory and renovation of the historical buildings, the will of the authorities to split the complexes into several parts and privatise all buildings except towers, difficulties in organising the opening of some of the lighthouses as tourist attractions.

Cooperation in the field of inventory, evaluation, preservation and reuse of the lighthouses all around the Baltic Sea would we very welcome. It will help to solve common problems for preservation of the lighthouses – one of the most attractive historical objects around the Baltic Sea.

Laisvūnas Kavaliauskas, Jonas Genys

LITHUANIA'S LIGHTHOUSES

Historical sources reveal that a few lighthouses were on the seashore of Lithuania. The oldest lighthouse, mentioned in 1796, was built in Klaipėda at the entrance to the port. In addition, a historical map of Klaipėda city and harbour of 1868 is very valuable, because all the then existing navigation facilities were mapped in detail along the highest churches in the city.

Historical lighthouses for safe navigation were found in Nida, Juodkrante and Šventoji as well. Unfortunately, they were not numerous and all our mentioned lighthouses located on the Baltic Sea shore were destroyed during World War II. Later restored they lost their historical and cultural value.

In Lithuania you can find only three lighthouses currently registered in the Culture Heritage list that are protected by the State. They are in Pervalka, Ventė Cape, and Uostadvaris. It is important to notice, that they were build for the safe navigation in the Curonian Lagoon. The Curonian connects directly with the Baltic Sea.

The oldest and most actively functioning among them is a lighthouse at Ventė Cape. It was built in 1852. The lighthouse is joined to the living quarters and is in a fairly good state and used to ensure safe navigation. It was built using red brick and has three levels. In 1929 Professor Tadas Ivanauskas, a famous Lithuanian zoologist, established a station for bird ringing at the Ventė Cape. The station has been functioning until now and is well known among zoologists worldwide. The Cape, combining these two functions, catches the attention of the public. Visitors are allowed to climb up to the top of the lighthouse and enjoy a wonderful view. In 1999 the Ventė Cape lighthouse became a place for the international festival of short films "Tinklai" (Fish-Nets). By the way, a famous film producer Peter Greenaway participated in this cultural event.

Pervalka lighthouse was built in 1900 and located in the Curonian Lagoon. It is surrounded by water and still used for navigation. At the moment the source of light at the lighthouse is a lamp with photo elements. The owner is the Inland Waterway Directorate.

The Uostadvaris lighthouse was constructed in 1873-76. The lighthouse is beside the River Atmata that flows into the Curonian Lagoon. Today the Uostadvaris lighthouse is not for navigation. Instead

The lighthouse station at Ventė Horn, built 1852. Photo Kęstutis Demereckas.

Pervalka lighthouse, built 1900. Photo Kęstutis Demereckas.

Uostadvaris, built 1873-76. Photo Kęstutis Demereckas.

it is a tourist attraction and popular with recreational fishermen. The lighthouse is in the territory of the Regional Park of the Nemunas Delta. Administration officers of the park pay scrupulous attention to tourism and recreational activities. This feature promises good future prospects for the Uostadvaris lighthouse. By the way, nearby the lighthouse there is another heritage object – an old water pumping station with original equipment, which strengthens the attraction of the site for tourists. This lighthouse belongs to the Inland Waterway Direction too.

Nevertheless, at the end it has to be mentioned, that despite few remains of historical lighthouses in Lithuania, they are represented on stamps and national banknote of 200 litas. The biggest Lithuanian brewery is located in Klaipėda and it has name "Švyturys" (A Lighthouse).

Eivind Lande

LIGHTHOUSES IN NORWAY

The first lighthouse in Norway was established in 1655 at Lindesnes – the southernmost point on the mainland. Actually this first lighthouse was out of business after just a few months. At the beginning of the 18th century, however, a couple of serious attempts at making permanent navigation lights succeeded. The further development was rather slow though – in 1828 there were only about 12 lighthouses along the Norwegian coast. During the following hundred years, however, the government gave this kind of infrastructure very high priority. By 1900 there were 162 lighthouses, and when the last manned station was established in 1932, the total number had reached 210. In addition thousands of smaller navigation lights and other seamarks were also built. Today 107 lighthouses are still in use. As a result of new navigation and automation technology, most of them are now demanned or will be demanned within a few years.

Without a resident staff, the lighthouses will soon disintegrate, especially as they are often located on very exposed sites. There is a real possibility that many objects will simply vanish in time. For a coastal nation like Norway, where shipping and fishing have always played a significant role, this situation is unacceptable. The Lighthouse Authority (The Coast Directorate) and the Directorate for Cultural Heritage therefore decided to co-operate on making a Lighthouse Preservation Plan.

This work ended up with a recommendation for protecting 83 lighthouses and 5 fog-warning signals. Representativity was a key concept in the selection process, and the following aspects were considered important in evaluating the lighthouses:

- age
- authenticity
- type of lighthouse
- technology
- construction materials
- building traditions and architecture
- the relationship between the lighthouse and other seamarks and its environment
- aspects of cultural history
- the lighthouse as a workplace
- geographical distribution
- accessibility and the possibility of alternative use

The final result, called *National Plan for Preservation of Lighthouses in Norway*, written by Danckert Monrad-Krohn (Directorate for Cultural Heritage), was published in 1997 – probably the first national preservation plan ever made concerning lighthouses. The plan, which is written in Norwegian with an English summary, has two main parts: the first gives a short overview of Norwegian lighthouse history and describes the methodology used for the preservation plan, the second part contains an illustrated catalogue of the chosen objects.

For the preservation plan, the national perspective has been paramount. But lighthouses are also part of a greater, global scheme, where the installations in one country are linked to the next in an almost endless chain with neither beginning nor end. It is therefore natural to view the work on preserving lighthouses in an international perspective and the

Lindesnes established 1655 and the site of Norway's oldest light. Photo Thor Ivar Hansen.

Grip lighthouse established 1888, fully automated and demanned in the 1970s. Photo Bjørn Arild Ersland.

Tungenes built 1828. Decommissioned in 1984 and now used as a museum and cafe. Photo Kate Newland.

coastal nations of the world should thus collaborate in this work. Even though lighthouses the world over have obviously similar features, they also have their special national characteristics. In a world-heritage context, it is important that these features are recognised and preserved.

The recommended formal protection of 83 lighthouses and 5 fog-warning has now been carried out in accordance with the Cultural Heritage Act. A protection order is a formal resolution, but it is not sufficient in itself to ensure that the main objective of meaningful preservation is achieved. Many of the lighthouses are in immediate need of maintenance and repair. It is important that this is done soon and with techniques and materials suitable for the specific lighthouse. For this purpose the two Directorates are in the process of developing specific manuals for preservation.

80 percent of the protected lighthouses in Norway are owned by the state (Coast Directorate). The other 20 percent are owned by the local municipality or by private owners. The owner has the total financial responsibility concerning maintenance. The cultural heritage authority gives advice and has to take final decisions if difficult questions arise concerning the type of materials or methods to be used.

Both cultural heritage and lighthouse authorities are convinced that the possibilities for long term preservation of lighthouses will be better if it is possible to find alternative uses. First of all the Coast Directorate is planning to use some of the stations as bases for maintenance of all kinds of lights and seamarks in a specific region. This actually means that some of the lighthouses will be remanned. They also want to keep some stations for representative purposes and holiday resorts for their own employees. The majority however should be open to the public as some kind of tourist or recreation site. Most of the stations consist of a couple of living units in addition to the tower itself, and these buildings can easily be used for visitors coming by boat for instance. A number of lighthouses along the Norwegian coast are already used in this way. There are however also a number of sites that are very difficult to reach, and these stations will really be a big challenge to preserve. Our common goal, however, is to preserve all the protected monuments, and to make as many as possible available to present and future generations. We have to remember that this is a very important part of our cultural heritage: “The lighthouses are the stave churches of the coast”, to quote the Director General of the Norwegian Coast Directorate.

Robert Domżał

POLISH "BALTIC LIGHTS": RESOURCES, CONSERVATION, PRESENTATION

The Polish Maritime Museum (PMM) as the national state institution has from the very beginning concentrated mainly on the collecting, conservation and preservation of the antiquities of Polish maritime history. Among the wide spectrum of subjects connected with maritime cultural heritage, the lighthouses and other navigation installations are of great importance.

Wisłoujście stronghold is the oldest complex of buildings, that among other things, was used for navigation. The first date of this lighthouse, 1482, is based on written sources. It functioned until 1758. Nowadays the department of *The Historical Museum of Gdańsk* is found in the stronghold. In the near future it will be renovated and used as a museum.

Generally the number of the lighthouses on the Polish coast is 15. Six of them lie within the Pomeranian Province. The other nine belong to the West Pomeranian Province. The institution in charge of the lighthouses that are in use is the Polish Maritime Administration in Gdynia, Słupsk and Kołobrzeg.

The preservation of most of the lighthouses is good. They are mainatined regularly by technical staff. All of them, except one "Kikut", have permanent personnel who work 24 hours a day. In some of them the job of the lighthouse-keeper has continued through the generations. To celebrate their difficult work, on 20 November has been established as the day of the lighthouse-keeper. On this day entrance to the lighthouses is free.

There is no evidence that lightships have ever been used in Poland. This may be due to the simple shoreline, without lagoons and bays. So it was always possible to build some navigation installations on the coast.

In the past, the lighthouses of the West Pomeranian Province belonged to the Polish Maritime Administration in Gdynia. The Society of Friends of the Polish Maritime Museum with the Polish Maritime Administration organized temporary exhibitions in the summer at some of them. Since 1996 these lighthouses have been operating independently from Gdynia. With the establishment of the new division of the provinces, the new *Society of the Lighthouses* has been founded there. It continues the education and museum work.

Besides the lighthouses that are used only for navigation purposes, there are some others that have different functions. The lighthouse in Gdańsk Northern Harbour is used as the building of the Port Authority. Before the Northern Harbour was built, the lighthouse in Gdańsk New Harbour was in use. Now the building is protected as a historical monument. In the near future the private museum of lighthouses will be founded there.

In some of the lighthouses new equipment has been installed recently. In Rozewie there is the

Lighthouse in Wisłoujście, unknown author, 18th century, property of District Muzeum in Toruń

Lighthouse in Kołobrzeg.
Photo Ewa Meksiak.

Lighthouse in Rozewie.
Photo Ewa Meksiak.

Lighthouse in Hel.
Photo Ewa Meksiak.

differential station for GPS. Another building has antennae for cellular phones. Each year in several lighthouses the Polish Maritime Authority, the Polish Maritime Museum and the Society of Friends of PMM organize temporary and permanent exhibitions. It is a big attraction for tourists in the holiday season. The exhibitions are mainly concerned with the history of Polish lighthouses. The money earned by selling the tickets, books etc. partly covers the maintenance costs of the buildings.

The most important exhibitions are to be seen in Rozewie lighthouse. On four floors there is the presentation of the different subjects connected with sea navigation, history of the lighthouses and the history of the Polish Maritime Administration. Additionally there is the unique collection of pictures, models and artifacts to be seen at Rozewie. Annually there are about 200.000 visitors to all the lighthouses. In the years 1993-1995 this number was a little bigger and in last years there was a small decrease in the number of tourists.

In the past there was only one example of a lighthouse being extinguished. It was the building situated on Swedish Hill (Hel Peninsula). This lighthouse was practically not in use. The access to the building was very difficult because of the military area surrounding it.

Besides the lighthouses there are also smaller navigation points and installations in the entrances to the harbours. They belong to the complex orientation system for sea and inland water transport.

In the near future there are no plans to extinguish any lighthouses. All of them are still going to be in use. Maybe some of the lighthouses will be used to a greater degree for education and museum purposes.

Per-Olof Remmare

SHORT REPORT ON THE PRESENT SITUATION OF THE LIGHTHOUSES IN SWEDEN

What is the current situation regarding the preservation of lighthouses and lightships as monuments for cultural heritage?

In Sweden there are about 40 lighthouses that are protected by law because of their cultural value. Most of them were protected in 1935. Within a couple of years we think that this figure will increase to approximately 80 protected lighthouses. The National Heritage Board is currently working on this issue. About a dozen of the lighthouses suggested for future protection are around or in the big Lake Vänern.

During 2001-2002 the National Heritage Board has pointed out 25 lighthouse stations which can be considered to be part of the "National Heritage". This has been done together with the Swedish Maritime Administration and the National Property Board. The co-operation has resulted in a written agreement – dated November 2002 – stating that these 25 lighthouse stations shall remain in public ownership in the future and also be open to the public. Today 24 of them are owned by the Swedish state. The exception is the Falsterbo lighthouse which is owned by the municipality of Vellinge in the south-west corner of Scania.

Sweden has two remaining and preserved lightships, owned by the Swedish Maritime Administration and being taken care of by the Maritime Museum. One of the lightships is at the Wasa Museum in Stockholm and the other one at the Maritime Centre in Gothenburg. They are both open to the public.

Can you give some good examples of lighthouse preservation?

Good examples of protected lighthouses with new uses are; Måseskär on the west coast (north of Gothenburg), Vinga (just outside Gothenburg), Högbonden on the east coast (north of Härnösand) and Långe Jan at the south point of the island of Öland.

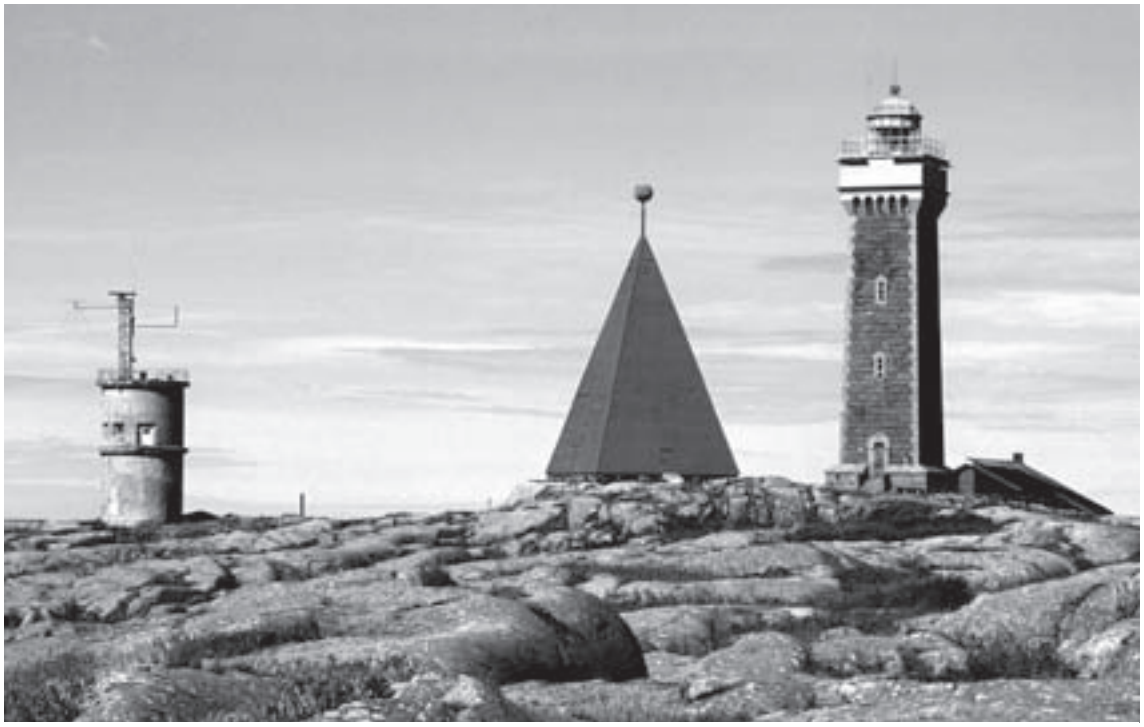
Måseskär is taken care of by a private foundation which maintains the Heidenstam tower. Today the lighthouse station is used as a youth hostel during the summer season. If you pre-book, the lighthouse is opened to the public.

Vinga lighthouse – at the sea-approach of Gothenburg – is one of the most famous lighthouses in Sweden. The well known writer and singer Evert Taube was born there. An association – "Friends of Vinga" runs a small Evert Taube museum and guided tours around the island. The lighthouse is open to the public. Some of the houses are used for vacations by employees of Gothenburg Harbour and Stena Line. There is also a guest harbour. In the summer there are daily tour-boats from Gothenburg to Vinga. The Vinga lighthouse station is owned by the Swedish Maritime Administration.

The dramatically situated lighthouse station of Högbonden (on a rock more then 30 m high) was recently opened as a very sucessful youth hostel. The ligthouse tower itself is unfortunately not open to the public.

Måseskär lighthouse station on the Swedish west coast has a characteristic Heidenstam lighthouse. It is an example of a lighthouse run and taken care of by a private foundation.

Högbondens lighthouse north of Härnösand, on the Swedish east coast, is one of the most dramatically situated lighthouses in Sweden. A few years ago the lighthouse keepers' building was opened as a very successful youth hostel.



Vinga lighthouse and beacon is found at the sea approach to Gothenburg. The lighthouse is open to the public in the summer time and there are also daily boat connections with Gothenburg. At Vinga there is a small Evert Taube Museum – run by the private association Friends of Vinga. The famous Swedish singer and writer Evert Taube was born at Vinga where his father was a lighthouse keeper. Photo Dan Thunman.

The tall lighthouse of Långe Jan is one of Sweden's oldest lighthouses. It is situated within a world heritage list area – the cultural landscape of the southern part of Öland – as well as in a bird sanctuary, very famous among ornithologists. Långe Jan is one of the most visited lighthouses in Sweden – mostly because of the birds. In addition to the lighthouse there is a small lighthouse-museum, a bird-museum and a restaurant. Långe Jan is a good example of how different tourist attractions can be used in combination and with very good results.

Can you give some bad examples of lighthouse preservation?

Of course there are many examples where lighthouses have been neglected for too long. "Pater Noster" – outside the town of Marstrand and north of Gothenburg is the latest sad story. The Pater Noster islets were much feared by seamen in ancient times and a lighthouse was planned as early as in the 1750s. In 1868 the tall cast-iron tower of so called Heidenstam type was erected. In 1977 it was replaced by a modern caisson lighthouse and the intention was to pull down the iron tower. In order to save it the County Museum of Bohuslän then undertook responsibility for future maintenance of the tower and thus it remained in place. Unfortunately the museum did not possess the means – or the money – to do what they had promised and for 25 years now corrosion has gnawed the cast-iron construction.

In the summer of 2002 the situation had become acute. The entire tower was lifted on to a barge and transported to the mainland for restoration. The cost for this had been estimated to 6,5 millions SEK. The big problem now is the extremely bad condition of the iron-construction – made evident when the tower had been stripped of its remaining paint. The estimated restoration cost has increased enormously – from 6,5 to 22 millions SEK. The tower is now disassembled and nobody knows if it will ever be back in place ...

What is the main challenge facing the preservation of lighthouses and lightships as cultural monuments?

The big challenge is of course to find new uses for the lighthouse stations when they are no longer needed for shipping. The Swedish Maritime Administration is financed by fees from the shipping business and can not invest large amounts of money into something that the shipping business has no need for. Lighthouses are often to be found in isolated places and thus expensive to keep in good condition. So lack of money is the main problem. The creation of a "National foundation for preservation of lighthouse stations" is currently being discussed.

The last manned lighthouse station in Sweden was Holmögadd outside the city of Umeå in northern Sweden. The lighthouse-keeper went ashore on March 1st 2003.

Pater Noster, Sweden. Photo Jan Norman, National Heritage Board, Sweden.

Pater Noster lighthouse is situated on the Swedish west coast, close to the old city of Marstrand. The cast iron Heidenstam lighthouse was erected in 1868. Today there are major difficulties with the preservation of the cast iron construction. Until last year the lighthouse was taken care of by Bohusläns Museum, which had had responsibility for the last 25 years of maintenance. Unfortunately they were unsuccessful – mainly due to lack of money. Today Pater Noster has been dismantled and transported to the main land for reconstruction involving enormous restoration costs. Photo Dan Thunman.

Långe Jan from the 1760s is one of Sweden's oldest and also tallest lighthouses. It's situated at the very southern part of the island of Öland in a listed world heritage area. The lighthouse is one of the most visited in Sweden; mostly because of the bird sanctuary around the lighthouse station. Långe Jan is a good example of how different tourist attractions can be combined with each other giving good results for both locals and tourists. Photo Dan Thunman.

Which bodies/organisations are responsible for the future of your countries lighthouses and lightships?

The Swedish Maritime Administration is responsible for most of the still active lighthouses in Sweden. However the Lake Vänern lighthouses are administered by "Vänerns seglationsstyrelse", a sort of private company founded as early as in the 1790s. It is very common that the various buildings of a lighthouse station have been sold to private owners, and that only the lighthouse tower is still in the hands of The Maritime Administration. When an increasing number of lighthouses now are put out the Administration has to find ways to get rid of them since there is very little money for maintenance.

Among private initiatives concerning lighthouses "The Swedish Lighthouse Society" (Svenska Fyrsällskapet) with about 1700 members all over Sweden must be mentioned. This private – and very active organisation does a lot for spreading information and helps to create a broad public opinion and interest for the preservation of lighthouses.

What plans do the organisations have for the future of lighthouses and lightships in your countries?

The main answers to this question have already been presented. The National Heritage Board intends to double the number of lighthouse stations protected by law – from about 40 to about 80. The state authorities will accept a long-term responsibility for administra-tion and maintenance of the 25 objects on the "National Heritage list". For the rest of Sweden's c. 2000 lighthouses – many of great historical value – the future is very uncertain. Here it is of crucial importance that the plans to create a "National Lighthouse Foundation" can be realized.

PART IV

SUSTAINABLE HISTORIC TOWNS

Margaretha Ehrström

URBAN HERITAGE OF THE BALTIC SEA REGION

BACKGROUND AND DESCRIPTION OF THE ACTIVITIES OF THE WORKING GROUP

The Working Group "Sustainable Historic Towns", is one of the four working groups set up by the Monitoring Group of Baltic Sea Heritage Co-operation. It promotes preservation and sustainable development of the diversity of historic towns of the Baltic Sea. It does it by recognising urban heritage as a local resource and an asset of identity. It initiates co-operation to develop a common strategy, management and good practice for sustainable development in historic towns and tools to implement them. Furthermore it encourages research activities and promotes innovative projects in participation with national, regional and local authorities, NGOs and other sectors.

The partnership activities are carried out as seminars, workshops and conferences as well as inventory work in pilot towns in Finland, Norway and Sweden. Partners involved in the project are national, regional and local authorities, researchers, professionals from universities and institutes, as well as local operators.

Activities are set up for the years 2003-2005 and are carried out with financial support from the Interreg IIIB-programme. The title of the project is "Sustainable Historic Towns – Urban Heritage as an Asset of Development". The leading partner is the National Board of Antiquities, Finland. The main partners in the project are Finland, Norway and Sweden. Other partners are Denmark, Estonia, Germany, Latvia, Lithuania and Poland. They include both state authorities, universities and research institutes. The total BSR INTERREG III B project budget is 1 027.000 Euro and the estimated total budget of the planned PHARE-projects in Poland, Latvia and Lithuania is 542 000 Euro. Estonia participates in the network, but national activities are financed by national funding.

The preparation of the project has been carried out with financial grants from the Nordic Council of Ministers. A workshop "Identity as a Cultural Resource – Small Historic Towns Facing Development and Change" was arranged in Tallinn in May 2001 with members of the working group, representatives from pilot towns in Estonia, Finland and Sweden as well as invited lecturers. A multi-disciplinary conference "Contemporary Architecture and Design in Historic Urban Areas" was arranged in Riga on 5-7th December. Some 80 experts attended the conference. They were planners, architects, designers, urban developers and private investors. Co-organisers of the conference were the State Inspection for Heritage Protection of Latvia, UNESCO Latvian National Committee and the Council of Europe.

There is a long tradition in urban conservation co-operation in the Baltic, especially concerning the Nordic countries. The wooden towns in Finland, Norway and Sweden were facing serious threats in the late 1960s. By common actions taking in the countries concerned and with international seminars and conferences a number of towns were preserved through urban conservation plans. An important part of the national and local heritage was protected. After the independence of the three Baltic States the national authorities of Finland and Sweden initiated a co-operation scheme to enhance the values of the wooden urban areas in Estonia, Latvia and Lithuania. These urban areas were not protected by a conservation plan neither were they considered to be important heritage areas. Parallel with the activities in the Baltic States, the Nordic countries reconsidered the state of conservation in the wooden towns of Finland, Norway and Sweden. These activities were carried out at four conferences between 1997-2000 (Trondheim, Norway 1997, Stockholm 1998, Tallinn 1999 and Oulu, Finland 2000). The themes reflected the situation in the wooden towns; from values and protected areas, which were discussed in Trondheim. To the problems of infill, modern architecture in OLE. Partners to these conferences were the state authorities in the Nordic countries and Baltic States as well as universities and research institutes.

URBAN HERITAGE IN THE BALTIC SEA REGION

Throughout history and even today the Baltic Sea forms a unifying element for the countries around it. The waterways have always connected people and cultures, being the way in which goods, ideas and influences have reached people and places. The Hanseatic League, who maintained a strong hold over the Baltic Sea during the Middle Ages, was not only a strong economic unit, but also an important gateway for European ideas to reach the far northern countries.

The countries round the Baltic Sea have experienced different stages in history and development. Though similarities can still be traced in the tangible and intangible culture, as well as the heritage, of each country. The historic towns form an important part of the built heritage in these countries. The characteristics of the individual towns have to be analysed by the history of their past. The town plan tells of the founding conditions of the town, in time and topography. A medieval town is characterised by an irregular urban plan, while towns from the 16th and 17th centuries often were founded according to grid plans. The topographical conditions of the place give individual characteristics as to how the plans were executed and how individual public and private houses were built. A town with political and socio-economic functions, e.g. a regional capital is characterised by a number of public buildings and spaces. The religious strength of certain towns can be seen in the number of churches and monasteries present. Industrial towns were usually founded beside running water for power supplies. The industrial heritage in these towns forms an important core of individual buildings and high-rise chimneys as important landmarks. In the very centres of the towns more recent layers can be found, which tell us about the prosperity and growth during different periods.

The traditional local building material is another characteristic element common for the historic towns in the Nordic Countries and the Baltic States. Log timber houses have formed the important urban fabric in towns in Estonia, Latvia, Finland, Norway and Sweden. In Denmark skiftesverk-houses have been the most important building technique, while masonry is the traditional technique used in Lithuania, Poland and Germany. In addition the use of local materials, e.g. sandstone and limestone from the Southern Baltic Sea region, has always played an important role for decorating public buildings in e.g. Finland and Sweden.

The architectural exterior and details of houses have also shifted over time according to the origins of influences. It was very common for local craftsmen to transfer details of architectural styles used in Central and Southern Europe to new, individual and local interpretations in wood and plaster. These "innovations" were often retrogressive.

Since World War II many minor historic towns have undergone considerable change. The change has been due to political, economic and social conditions. Towns that were important regional capitals have lost their main functions and become urban areas of recession. Due to the uplift of the land, coastal towns have lost their physical contact with the sea, changes in economic conditions and inventions in new technology have led to the closing down of traditional industries and activities. The traditional Nordic town was, until the 1950s, built as a rural commercial town, with outbuildings for cows and horses. The strong urbanisation in the 1960s and 70s, with an acceleration in the late 20th century, is one of the world's largest movements of people from rural to urban areas.

Sustainability as part of town planning is today integrated in the national legislation in a number of countries around the Baltic Sea. Sustainability aims to control development in a sustainable way. A sustainable development is a development, which fulfils present needs without taking from the equivalent needs of future generations. In the context of urban conservation and planning processes, sustainable development is concerned with the diversity of the built heritage in terms of the economic, social and cultural aspects. The preservation of local heritage from different time periods and the enhancement and importance of different types of environments is crucial at a time when monotonous and short-lived buildings are churned out by industrial mass-production. In terms of sustainability the importance of preserving the *Genius Loci*, "the spirit of the place", is strongly stressed. The individual and collective memory plays an important role when evaluating the importance of a place.

Ann Mari Westerlind

SUSTAINABLE HISTORIC TOWNS – ACTIVITIES IN SWEDEN, PRESENTATION OF THE PILOT TOWN YSTAD

SHORT SUMMARY OF THE URBAN HISTORY

In Sweden 115 urban areas previously had the administrative rights to be a town. About 55 of them were founded before 1500, about 35 between 1500-1800, about 5 during the 19th century and about 20 between 1900 and 1950. Around 1970 the administrative towns disappeared. The 290 municipalities of today include the towns as well as their surrounding countryside.

The three large cities have historical backgrounds. Today more than ten or 25% of the medieval towns are county capitals. The rest of the county capitals were founded 1600 and 1800. Fifteen of the early medieval towns no longer exist.

The three large cities have 250 000 – 1 200 000 inhabitants. The county capitals and a few other towns have 30 000 – 200 000 inhabitants. Most of the other towns have less than 10 000 inhabitants. The smallest only some 1000 inhabitants. This gives very different possibilities for preserving and developing the historic towns.

In the year 2000 about 85% of the Swedish population lived in urban areas.

NATIONAL REGULATIONS

All archaeological remains, including the remains of medieval towns and every church built before 1940 are automatically protected by the **Act of Cultural Monuments from 1988.** But decisions can be made to protect other churches and particularly valuable buildings, parks and gardens.

Public buildings can in the same way be protected by the **Ordinance of Public Monuments from 1988.** The County Administrative Board and the Government take decisions.

Both just regulate the protection of monuments, which is just a very small part of the buildings of historic value in our towns. The total protection of all archaeological monuments sometimes causes problems in medieval towns. There is currently an official investigation being undertaken to see how to improve the regulations and their implementation.

The use of land, water and building activities are regulated by **the Act of Planning and Building from 1987.** In every planning activity the values of nature and culture are to be attended to. New buildings are to be situated with regard to the townscape or landscape and the natural and cultural values of the site. Buildings are to be given an external design and colour; aesthetically attractive, suitable for the actual building and promoting a good general impression.

- Changes of a building are to be carefully done and with attention to the characteristics of the building and to the technical, historical, cultural, environmental and aesthetic values.
- Buildings of special value from historic, cultural, environmental or artistic points of view or belonging to an area of such a character must not be transformed.
- Buildings are to be maintained. The maintenance should suite the value of the building from historic, cultural, environmental or artistic points of view and the character of the surroundings.
- In the comprehensive plan of the municipality it should be possible to find out how to take care of the areas of national interests pointed out in the Act of the Environment.
- In a legally binding regulation plan announcements for care, preservation or prohibitions to demolish can be done for buildings or sites with a special value from historic, cultural, environ-mental or artistic points of view.
- If a regulation plan is considered to cause significant impact on the environment an EIA, Environment Impact Assessment shall be carried out.

Dwellings in Monastery Street.

The River Street, to the left an old stable, now church.

Long Street.

The Municipal Council makes decisions according to the Planning and Building Act after an official examination. The County Administrative Boards have to check that national interests, including those of cultural heritage, are attended to.

In PBL, the Planning and Building Act, there are some very good and useful regulations, but they are not used very much because the PBL is mostly used in connection with the construction of new buildings or the reconstruction of old buildings to modern standards. There is a need for regulations concerning maintenance and careful changes of buildings and areas. EIA, Environmental Impact Assessment, is not used in a satisfactory way in the planning process. According to PBL owners of houses and property shall be economi-cally compensated if they incur high costs as a consequence of the regulations to protect a building or site, and the prohibition of building demolition.

The authorities dealing with planning and cultural heritage lack accurate competence and resources nationally, regionally and locally. There is a shortage of efficient supervision of planning and building. Taking care of the cultural or historic environment is not a priority task in the local communities today.

Today the PBL is 15 years old, an official investigation has now been appointed to solve a lot of problems.

According to the **Environmental Act from 1999** sites or areas of general interest for example which according to their historic values are to be *protected as far as possible* from activities causing significant damage to the cultural heritage. Areas of national interest *are to be protected* against such activities. In Sweden there are 1700 areas of national interest concerning cultural heritage, including 107 areas in historic towns.

According to the Environmental Act cultural protection areas can be established, but they are primarily meant for rural areas with significant cultural values.

Objectives for the maintenance of cultural heritage

- A defended and protected cultural heritage.
- A sustainable development with the maintenance of cultural heritage as the driving force.
- Everybody understanding, participating and being responsible for their own cultural heritage.

Cultural heritage is more often looked upon as a basis for development. The National Heritage Board is today working actively on a strategy to involve citizens, local politicians and officials dealing with planning and building in the maintenance of cultural heritage.

Objectives for the environment

The parliament has adopted 15 quality environmental objectives describing the ecological dimension of a long-term sustainable development. They shall be reached in one generation. Cultural heritage is one of the five fundamental dimensions for the work to obtain the objectives. The urban areas are mainly connected to the objective "A Good Urban Environment".

The overall objective: cities, towns and other built-up areas must provide a good, healthy living environment. Natural and cultural assets must be protected and developed. Buildings and amenities must be located and designed in accordance with sound environmental principles and in such a way as to promote sustainable management of land, water and other resources.

Two of the adopted interim targets deal with cultural heritage.

- The year 2010 physical planning and the building of society will be based on programmes and strategies for the maintenance and development of cultural and aesthetic characters and qualities.
- The year 2010 urban environment with historic and cultural qualities will be identified and a programme will be presented as to how to protect these qualities. At the same time at least 25% of those urban areas shall be long-term protected.

The National Heritage Board has instructions to produce a strategy for different activities in order to protect, develop and use the urban environment with heritage qualities. The demand is that it must be possible to follow the results of the activities.

The National Heritage Board has suggested that the first stage of the work should concentrate on the discussion of sustainable urban areas with heritage character and qualities.

Harbour Street.

Garden Street with a building from 1897.

The second stage is an investigation of how urban cultural heritage is taken care of in different parts of society today and how the qualities of the urban environment ought to be managed in a long-term perspective.

A NETWORK OF RESEARCHERS

Authorities, consultants and researchers divide the management of the urban environment. There is a great need to connect these fields, to use each other's experiences and to increase the exchange of knowledge and experience between authorities and researchers concerning planning, maintenance and development of cultural heritage in urban areas.

Actual questions are for example, to define and develop existing ideas, systems and methods for valuation. Developing the importance of urban heritage for different operators and different methods of maintenance, regulation and development of urban heritage.

A network has been formed between institutions dealing with the practical care of buildings but there is also a need for contacts between researchers and authorities dealing with planning, development and urban heritage.

The idea was at first discussed on a small scale with the people working in the universities in Lund and Gothenburg. The next step was to arrange a workshop with participants from 10 institutions. The existing works of research and the lack of research was discussed as well as possibilities for co-operation.

The intention is now to produce a list of ongoing projects and research; and arrange a Swedish seminar in the autumn of 2003. In the long run we hope to find possibilities for future co-ordinated research programmes or applications. This includes arranging seminars for researchers and courses for senior students with participants from different universities and technical high schools, as well as the authorities and consulting firms dealing with cultural heritage, planning and maintenance of urban areas.

Parts of the net work will also be connected to the planned co-operation within the Interreg IIIB project Sustainable Historic Towns – Urban Heritage as an Asset of Development.

MANAGEMENT PLANNING

The National Board of Heritage and The National Board of Housing and Planning have started a project called Management Planning in order the find good examples on handling cultural heritage with PBL.

The National Board of Housing and Planning intend to find out possibilities and problems with today's regulations – from the overall comprehensive plan to the detailed regulation plan.

The National Board of Heritage intends to test the possibilities to handle cultural heritage with so called area regulations in six different places. The intention is to connect an analysis of cultural heritage in the com-prehensive plan with area regulations where the former regulation plans are old and a threat to cultural heritage.

The work has started in Arboga, Hudiksvall, Lidingö and Ystad. The intention is to continue with Halmstad and Visby.

ARBOGA

The town was badly hit by the closing down and moving of big companies. There was a political opportunity to point out what was positive in Arboga. They decided to start with information instead of regulation. They produced a history of the buildings of Arboga. A small book with many pictures. They used pictures, the order of buildings, advice, a new register, exhibitions, a website, meetings and cultural examinations.

HUDIKSVALL

The town is situated in the middle of Sweden, but in a part with little development. Within a EU-project they have produced a website presenting the old cultural buildings. One of the old parts of the town is the Fishing Town. It is presented in the comprehens-ive plan as a part of the town representing the history and identity of the town. All the buildings and their history are presented on the website. The inhabitants are all included in the project to protect the wooden houses in regulated areas.

Great Wester Street with an old school, now office buildning.

Great Easter Street with an old cinema and former medieval chapel.

LIDINGÖ

Lidingö is a municipality on an island next to Stockholm. One small part of the island is the site of an old exhibition of national cultural interest called "Build and Live". The houses were designed by famous architects and built in 1925. The actual regulation plan from 1944 does not protect the character of the site. Some small changes have been made but most of the buildings and their surroundings are well protected. In the new comprehensive plan they say that the new regulations must be implemented.

PRELIMINARY OUTLINE OF A CULTURAL HERITAGE ANALYSIS AS A BASIS FOR THE COMPREHENSIVE PLAN AND THE AREA REGULATIONS

- The natural basis for the development of the town the coast, the topography, the earth
- The development of the town
  Pre-historic; medieval; 1500s -1800s; 1900s -2000s
- Historic periods specially characteristic of the town Medieval, 1600s and 1900s
- Overall characteristics and qualities
  Values, vulnerability, problems and relations concerning the borders with the sea and the rural landscape, streets and squares, vegetation, colours and material
- Detailed characters and qualities in parts or districts of the town
  Values, vulnerability, problems and relations concerning streets and squares, vegetation, colours and material etc and the possibilities to improve, complete and change different parts of the town.

THE PROCESS OF DECISION AND DETERMINATION

Good final results demand community values/consensus between the politicians, the heritage experts, the owners, administrators and users of the ground and the buildings. It is necessary that all operators – those, who decide, administer and use the historic town – have the same idea of characters and qualities of significance for the town.

The planning process according to the Swedish Planning and Building Act demands consultations with citizens. The procedures for this can be improved and developed for instance with input from experience of the processes used in other municipalities and countries.

COMPREHENSIVE PLAN AND AREA REGULATIONS – A PLANNING MODEL FOR CULTURAL HERITAGE

The Swedish planning system; according to the Planning and Building Act; is primarily based on the fact that the advisory comprehensive plan for the whole municipality, different districts or sectors contains guidance to protect and develop cultural urban heritage. The results of recent studies show that few municipalities fulfil these demands today.

Another basic fact according to the law is that the building activities are to be regulated by legally binding and detailed development plans or area regulations. That is not the reality today. Instead there are lots of old and irrelevant detailed development plans in the urban areas. They may contain unused rights to build on a property where there is an existing historic building or other possibilities to change buildings with great historic qualities, but also restrictions and limits that are no longer desirable. They often lack relevant regulations about the duty to have a building permit or regulations to preserve cultural heritage qualities. New detailed development plans are produced only to permit new building activities. The patchwork of small regulation plans does not solve structural problems, changes to existing buildings or the maintenance of their cultural characters and qualities.

In the project a new method will be tested. The first stage is an analysis of and programme for the existing buildings and environment. The historic characteristics and qualities demanding protection will be dealt with as well as the possibilities for development and change.

In stage two area regulations will be tested and developed in combination with a renewal of the comprehensive plan where the possibilities of development and security of cultural heritage will be discussed.

Great Northern Street with the so called "Angel House".

Detail of the Angel House.

Area regulations can be more general than the rules in a detailed development plan. They can be used for larger areas than one house or building site. This means that the process of consultation can include many property owners, which will make the process more efficient.

Area regulations can be used as a permanent and long-term regulation of the existing buildings aiming at maintenance, protection and cautious development. If new building activities are suggested detailed regulation plans must be used.

THE HISTORIC TOWN YSTAD

Objectives

Locally: A sustainable security of cultural heritage in the historic town

Nationally: Developing practical methods to describe the qualities of the historic town, new systems for legal regulations and civil participation as part of the strategy for the environmental quality objective "A Good Urban Environment".

Internationally: Presentation, discussion and comparison of the results in reports and seminars within the Baltic region.

Method

Initial renewal of existing registrations and programmes for cultural heritage will be produced in co-operation with the regional museum and relevant local organisations. Thereafter the replacement of old detailed development plans with overall principals in the comprehensive plan and area regulations.

Background and problems

The historic town of Ystad is of national heritage interest. The theme is: a shipping town with a preserved character of a major medieval and 17th century town, expanding with the development of railway and steamships from the end of the 19th century.

The registration of buildings started in 1975 and a protection programme was adopted in 1981. They both mainly deal with historic buildings and are regarded as out of date.

In the historic town of Ystad there is a patchwork of detailed regulation plans. There is a lack of overall knowledge of the legal situation. Many measures of great importance for urban heritage are not regulated in the current plans. On the other hand many of the historic buildings do not follow the existing regulations.

The situation in Ystad is not unique. Completed and ongoing studies of comprehensive plans and detailed development plans show, as well as the contacts with active planners, that the situation is similar in many parts of the country. The reason is that the local authorities find it too expensive to change the old detailed development plans if the only motive is to secure the historic qualities of the existing urban environment. New detailed development plans are produced for new buildings only. That is why there is a great need to find easier legal ways to protect and develop the existing cultural and historic values of the urban environment.

Hypothesis

An analysis of urban cultural heritage – well adapted to planning and broadly processed among local politicians and inhabitants – can be adopted as objectives and guidelines for protection and development of the urban heritage as a complement to the comprehensive plan. Legally binding general guidelines for blocks or districts of areas of similar qualities and character can be adopted in area regulations.

Procedure

In the project there has to be parallel procedures: the analysis of the historic and environmental characters and qualities; the planning process and the consultations of the citizens involved.

Analysis of the cultural heritage

- Renewal and computerisation of existing registrations
- Renewal and completion of the old heritage programme for the historic town

Planning process

- Analysis of the regulations and the threats caused by the existing detailed development plans: unused rights of new building areas; old buildings uncoordinated to existing legal regulations.
- Proposal for future needs of regulations as a combination of a comprehensive plan and area regulations.
- Proposals of and decisions about the comprehensive plan and area regulations for the historic town of Ystad.

Consultations

- Processing the new heritage programme among politicians and citizens
- Processing and consultation of the planning proposals and decisions to politicians and citizens

Co-operation

The project shall be discussed not only within the municipality and the National Heritage Board, but also with the National Board of Housing, Building and Planning and the regional authorities for planning and cultural heritage. Representatives from them and other municipalities working with the same problems will form a reference group.

Information about problems and success stories connected to the project will be mediated at seminars with researchers from Sweden and other countries.

A PLAN TO PRESERVE AND DEVELOP YSTAD

The background

There are about 100 half-timbered houses in Ystad. The oldest was built in1480 and made the town famous as the only real half-timbered town in the country. But Ystad does not only have half-timbered houses.

It is actually a varied town with different styles from different periods, as the architect Ingrid Kronvall knows. She documented the older parts of the town in 1975 and is now working with the new plan. Today she registers every building – even the newly built – they did not 30 years ago. She is also going to register the buildings in different parts of the town – to be able to describe the different characters and different needs for the future.

It is important to know where we have different cultural values and discuss how to take care of them. We also have to know where there are conflicts. In some places the owner of an old and small house is allowed to build a new and much higher building or a building not adapted to the medieval street pattern.

The town architect finds it important not to make a museum of Ystad. The town must be living but with careful management. That is why it is so important to describe and express the different values of the buildings, the streets, the squares and parks.

The town is one of the best preserved in Sweden, but "the small steps" are a risk. People change a little here and a little there. In the long run the whole has changed. It is important to have regulations for colours, materials and details.

THE SQUARES IN YSTAD

There are three big squares in Ystad. They have their own identity and history. They were developed for different purposes and in different times. It is important to declare the role, function and the principles for design for every square in order to create co-ordination and a better general impression.

Stortorget – The Great Square

The square is a part of the old country road passing Ystad. The Church was built here in the 14th century and the Old Town Hall in the 16th century. Administration, trade and communications were important around the square till the last century. Today this square is an obvious part of the medieval town, it is a traditional market place, with many restaurants and shops, and fairly heavy traffic around the square.

St Knuts torg – St Knut's Square

The square is situated where the mouth of the old river once was and the reason that people settled in Ystad. Probably the first trading and fishing square of Ystad was located here.

The trade was moved to the Great Square in the 14th century. The area was abandoned for a long time. It was regulated and surrounded with buildings in the beginning of the 20th century. The bus station was moved there in the 1930s. Two museums were also built at the same time. Today the square is an important traffic-point; there is a carpark, busses, the railway station and the ferries to Bornholm and Poland. It is the first place that most people see in Ystad. But there are no shops or restaurants.

Österports torg – The Square of the Eastern Gate

The place may have been important in the 17th century. It can be seen on a map from 1753. In the first decade of the 19th century a private palace was built south of the square. In the first two decades of the 20th century, the school in the north and the dwelling house in the east were built. In the same century three lines of trees were planted. Today the square is like a park, a nice place for relaxation with benches, shadows and water, fast-food, sometimes markets, important events, traffic and some parking lots.

The idea is to develop the historic character of the different squares and to give them a clear function as places for meetings, markets and events.

THE CONTENTS OF THE PROGRAMME

- The background and history of Ystad
- The buildings and the rooms of the town
- The architecture and epochs of the buildings
- Cultural and architectural values
- Rules for preservation and building

Gisle Erlien

SUSTAINABLE HISTORIC TOWNS – ACTIVITIES IN NORWAY

IMPROVED MANAGEMENT TOOLS

Background

Observation: We have the legal tools to enable us to preserve cultural heritage. Still, too much is lost.

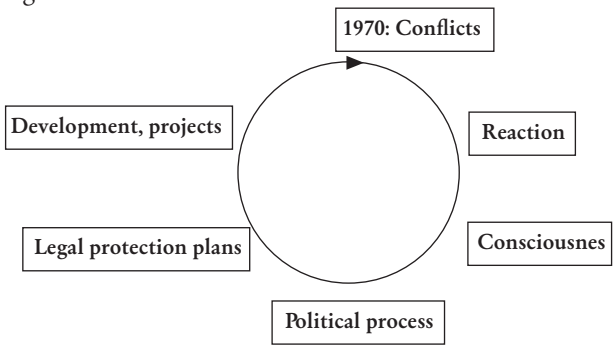
First some words on the Norwegian legal system. Cultural heritage is managed through the use of two different laws.

The Cultural Heritage Act is based on the former separate laws for building protection and for the protection of archaeological sites. It is applied to some 4000 buildings/constructions, and all archaeological heritage older than 1537 AD.

The Planning and Building Act is the main legal instrument for local government in managing the physical environment. Since 1965, the right to approve protection plans has been included. Local heritage protection plans were rarely proposed before 1970, but during the seventies a number of areas were placed under municipal protection.

	Planning and Building Act	**Cultural Heritage Act**
State level	Final decision in conflicts	Full authority
Regional level	Intervention if national values are threatened	Limited authorities on behalf of national level
Local/municipal level	Planning and building permits	

The development after 1970 may be described by the figure below.



Statistics and research

Local protection plans are easy to approve but difficult to manage afterwards – it is too easy to make exceptions from the rule. Political bodies are often persuaded to accept projects that damage heritage values.

Cultural Heritage often turns out to be the loser in buffer zone conflicts – we have problems explaining why developers should be careful, specially in towns with development pressure.

Feedback from municipal and regional levels confirms the picture.

Possible strategies

1. Strengthen the legal tools: gives better opportunities to ensure that plans are followed, but no guarantee. We still need goodwill from local political bodies.
2. Enforcing the law more strictly, applying national control: this will hardly be accepted on any political level in today's climate.
3. Use more money to "buy" goodwill, supporting conservation measures through the house owners. This may turn out to be popular, but it is doubtful whether parliament will grant the money needed.
4. Increase knowledge and create better understanding of heritage values. Like no. 1, this cannot guarantee success, but it may help us on the way, and we can afford it.

Project target

Better local understanding of the integrity and complexity of historic urban areas, and the specific qualities that constitute their heritage values.

More precise ways of discussing the vulnerability to development pressure and defining the limits for tolerance of change are needed.

Means

Develop tools and methods for describing and analysing the cultural heritage environment, aiming to identify their characteristics and their specific qualities and define the limit for tolerance of change. The project will be implemented through the use of two pilot cases, connected with local planning in the towns Røros and Mosjöen. Partners are the two municipalities and three research institutes. The Directorate for Cultural Heritage will act as Norwegian co-ordinator.

Milestones

1: Preliminary case-studies presented, as a basis for discussing and possibly adjusting the tools and methods for analysis. (July 2003)
2: Tools adjusted (September 2003).
3: Full-scale analyses completed in both pilot towns (2004).
4: Results of analyses discussed locally (2004).
5: Aims for local conservation and development plans accepted (2004).
6: Planning proposals prepared for local discussion (2005).
7: Planning proposals accepted (2005).
8: Process evaluated by the project partners (2005).
9: Results published (2005/06).

Some terms to deal with:

Levels and contexts
Values: artistic/architectural, age, political, social, technical…
Pressure: climate/weather, wear, fire, changes of use, development plans…
Criteria:

Some challenges:

Who has the right to define values, on whose behalf?
Vulnerability is a relative and subjective term.

How to establish systematic assessment based on subjective judgement?

The circle described initially may indicate that the acceptance of heritage protection has to be renewed and confirmed repeatedly, in short or long cycles. Protection plans do not last forever, and the city of tomorrow is different from the city of today, no matter how much we preserve of the past.

Visual/physical	The town in the landscape	Urban structure	Building- /property structure	Individual buildings
Historic context				
Industrial history				
Planning/architectural history				
Agricultural history				
Transport history				
History of Conservation				

Impact	3				
	2				
	1				
	0				
		0	1	2	3
	Vulnerability				

Limits for tolerance

Change		Consequences			
		0 – no consequence	1 – minor consequence	2 – medium consequence	3 – major consequence
	3 – major change				
	2 – medium change				
	1 – minor change				
	0 – no change				

Torbjørn Eggen

PRESENTATION OF THE PILOT TOWN RØROS IN NORWAY

Do not waste the waste knowledge.

Waste is not beautiful, waste is not ugly…
Waste exists, waste is "alive" and waste is growing day by day.
Waste is hiding a lot of environmental knowledge indicating the level of community health.
This environmental knowledge is necessary in understanding sustainability.
Without this knowledge we cannot build sustainable communities.
Do not waste the waste knowledge.

Torbjørn Eggen 2002

SUSTAINABILITY AND THE COPPER MINING TOWN RØROS

From 1644 to 1980: copper mining
A self-contained community in the Norwegian mountains. Living as an isolated mining community for 333 years.
From 1980 and onwards:
Continuing as a world heritage site and as a recourse of environmental knowledge to the world community standing as a readable "landscape" document for Mankind.

Description of Røros

1. Geographically isolated wooden town in the mountains of Norway.
2. Self-contained industrial community which developed many survival strategies.
3. An unique town, not comparable with any other place.
4. Readable in the natural and cultural landscape and very pedagogical industrial community.
5. An extremely well documented community. The mining company kept detailed records on all its activity.
6. Climatically the coldest town in Norway.
7. In understanding the mechanism operating in large towns, Røros is a possible arena for building urban knowledge.
8. Own music and dance tradition. The Røros Pols, developed from the "Polish dance".
9. A vital and strong winter market tradition (150 years old).
10. Within Røros, tourism is one third of total employment, industry is one third and governmental employment the last third.
11. Sustainability can be studied and compared between:
    the mining community in the town/the region,
    the farming community in the valleys/the forest/ in the mountains,
    the southern Sami community in the mountains/ in the valleys/in the forest.

The "Femund" dog race, seen here in Røros at the start of this annual long distance race.

Horse drawn sleighs laden with goods on their way to the market at Røros, a tradition which still continues today.

The smelting plant at Røros, seen here from the church tower.

WHO CARES

Eight principles honouring the thoughtful actions of man, for attaining/creating the best sustainable communities.

World – inheriting all traces of human activity in natural and cultural processes, commonly sharing relations to our past, present and future in our 'living memory' oriented towards the opportunity of a sustainable future.

Heritage of the world is often not even recognised as something we do inherit, especially on a fundamental level of knowledge and experience. It is of vital importance to understand and remember our common human responsibility in building up a sustainable future.

Occupying space for two is not one space won, but rather one space lost, thus wasting basis for our common existence.

Caring for our common existence on the globe is supported by those who initiate thoughful action. No action is often preferable to mindless action.

A small contribution to sustainability on earth with honest concern is better than making a large contribution from a bad conscience.

Respect human environmental rights as equally distributed, as those of one person, not more and not less.

Express your ecological concern on an open platform and revitalise your senses, thus preventing ignorance and keeping sustainable concerns alive.

Sustainability on earth depends on the combination of individual concerns, creating synergies.

Destruction happens almost without noticing.

Jim Nerdal

PILOT TOWN MOSJØEN IN NORWAY

Mosjøen is situated exactly in the middle of Norway, 120 km south of the Arctic Circle, and constitutes the urban community in the municipality of Vefsn.

Approximately 10 500 people live in Mosjøen, and 13 500 live in the municipality of Vefsn. In the entire region of Vefsn – the interior southern parts of the district of Helgeland – there are approximately 17 500 people, living in an area of more than 6000 square kilometres.

The name Vefsn was first used in writing in the 1200s, by the Icelandic historian Snorre Sturlason in "Egil's Saga" and in Snorre's "Edda". In "Egil's Saga" it says, "In the North of Hålogaland there is a fjord called Vefsnir".

The name Vefsn has been interpreted in various ways, the most recognized of which is that the name Vefsnir/Vefsn is derived from the Old Norse word Vefja, which means to "twist, to wind in different directions". The term applies both to the fjord and the river, which flows into the fjord in Mosjøen. The term "the curved, the crooked" suits both well.

Stone Age finds have been made showing people living in Vefsn about 6-7000 years ago, and in particular we would like to point out that Norway's oldest ski was found in Vefsn. 35 years ago, about 10 km outside the town centre, a ski dating back to 3200 BC was found in a bog. Considering the position skiing holds in Norway, you will surely understand that we are very proud of this find. I may also add that the oldest ski found in Scandinavia was discovered just east of Mosjøen, in Kalvtrask. However, that is on the Swedish side of the border.

The origin of Mosjøen was a settlement of small houses, and wharves, down by the water's edge where the river Vefsna in conjunction with another, smaller river – Skjervo – flows into the fjord. The farmers who made their daily bread in the surrounding valleys built these wharves. They stored boats, fishing tackle and the catch in connection with fishing on the fjord and along the coast, as well as the winter fisheries in Lofoten. The wharves more often than not were fitted out for use as overnight accommodation when the farmers went to church in Mosjøen.

Mosjøen is an old parish with the church on the Dolstad farm, which dates back to the Viking Age. The present Dolstad Church was consecrated in 1735, but we know for a fact that this is the third one at this place. The first one was devoted to Saint Michael, and as Norwegian church history tells us, no church devoted to Saint Michael was built after 1200 AD, so we may certainly assume that the first church in Mosjøen was built before that year. Thus, Mosjøen presents a history of more than 800 years as a parish for the southern interior rural district of Helgeland.

From the 1500s Mosjøen begins to develop as a community. In this period a lot of clearing and settling took place in the surrounding valleys. Those who settled there were in need of access to the sea, to fish, to keep boats and fishing tackle, to process the catch, and above all to store goods brought by sloop from Bergen. The Nordland sloop is a special kind of boat used in the important sea freight between Northern Norway and Bergen. The Mo farm, from which the name Mosjøen derives, had their sloops laid up at Mosjøen.

Development increased speed in the 1700s. At that time all the forests along the coast had been felled, and the increasing coastal population was in dire need of timber. The valleys surrounding Mosjøen afforded large areas of pristine forest as well as rivers, which served as means of transportation down to Mosjøen. The meeting of the rivers with the fjord, the meeting of forests and the mountains with the sea, formed the foundation of Mosjøen town.

During the 1700s and 1800s, Mosjøen gradually evolved into an urban community on the flat isthmus between the rivers Vefsna and Skjervo.

Then in 1865, with only 379 inhabitants, something happened, which more than anything else created Mosjøen town. An English company, "The North of Europe Land and Mining Company Ltd", or "the English mill" in the local vernacular, bought up all the forest in the Vefsn area. This amounted to almost 5000 square kilometres, and they started felling and exporting timber.

The sudden boom turned the old agricultural community at the head of the Vefsn fjord upside down. In the words of our most well known local historian: "During the age of the English mill the old community vanished, the new one sprang up".

In one way you might say that Mosjøen grew from a rural community into an urban one. During the 1780s and the 1880s the town developed rapidly; fortunately, it was a fairly controlled growth. As early as 1868 citizens with foresight began the process for obtaining the legal rights as a town. This was

important considering the booming timber export, the customs and export levies of which went to Bodø, the only legal town in the County of Nordland, 350 km further north.

On the 11th April 1874, the Swedish-Norwegian King Oscar II signed the "Law of Landing and Small Town Certificate for the Seashore Settlement of Mosjøen in the County of Nordland".

On January 1st, 1875 Mosjøen obtained the legal rights of a town, at the time 774 inhabitants lived there.

Only a year later the aforementioned foresighted citizens had a town plan properly prepared, rather unique at the time in Northern Norway. This plan served as a blueprint for the town development even into the 20th century. It was adopted in the fall of 1876, and despite the fact that most of the area the plan covered was still woodland and farms, the street names in the lion's share of the future town were determined simultaneously.

In 1886 the large-scale forestry and sawmill industry came to an end, and with it most of the forest had been felled and cleared.

But the the basis of the development of a small, but well-organised urban community at the head of the Vefsn fjord had been laid.

Till the end of the 1950s the town developed rather gradually, basically as a centre for trading and service industries, and in accordance with the original town plan, which was renewed in 1923.

At the end of the 1950s (1958) a big aluminium factory was established in Mosjøen and then there was another boom in the development. The town extended its built-up area and a lot of things changed in the town structure.

The early 1970s witnessed a growing consciousness of the value inherent in the old buildings and town structure as sources of identity and well being. In 1977 the oldest part of the town, the Sjøgata area along the riverbank, was turned into a conservation area.

The renewal of the town centre in the 1960s, clashed with the 1970s desire to preserve endangered qualities of the urban environment, and even today we must deal with the consequences.

In 1989 a new town centre plan was adopted, providing the guidelines for the development of parts of the original urban area.

However, this has not addressed in a satisfactory manner the challenge of an ever-changing urban environment, leaving us with the impression of something being left unfinished.

There is a need to develop a comprehensive, carefully prepared basis for the assessment of building operations, and for that purpose the participation in this project is considered to be crucial.

Mosjøen has managed to preserve much of its original identity, however, one has to find the means which may ensure the continuation of this development even in the years ahead. New challenges are bound to appear on the horizon, and we must secure the necessary readiness to meet these challenges.

Marianne Lehtimäki

SUSTAINABLE HISTORIC TOWNS – ACTIVITIES IN FINLAND

SHORT SUMMARY OF THE URBAN HISTORY

The origin of urban tradition in Finland can be traced to a couple of medieval towns, which were built on the sites of former market places or in connection with Catholic monasteries. The political expeditions of the Swedish kingdom in 17th century and mercantilism led to the foundation of a number of new towns mainly on the West Coast. To conciliate the power in the eastern parts of the country new towns were founded in the 18th century. The town plan of that era is the grid plan with rectangular blocks divided into 4-6 areas. The influences on the building stock can be traced to Sweden in 17th and 18th centuries, with the Russian influence dominant in the 19th century.

The traditional building material in Finnish towns is wood. The houses of log timber and wooden roofing have been very vulnerable to fire e.g. most of the Finnish wooden towns have burnt down at least once. A couple of them have suffered from a number of severe fires.

The strong urbanisation after World War II led to the demolition of important historic towns. Wooden houses built by local craftsmen were taken down and replaced by new blocks in concrete and brick. The urban pattern (grid plan) was widened to give place to new urban functions and promote accessibility to motor traffic. Only a few of the most important medieval wooden towns were declared as "Old Towns" under the building act.

Through an ICOMOS initiative in the late 1960s the Nordic countries started a joint project to preserve the urban fabric in the wooden towns in Finland, Norway and Sweden. A number of presentations, surveys and reports of individual towns were published. Over the next years many of the towns presented in the reports were preserved through conservation plans. That was the case even in Finland.

1998 formed a kind of turning point for the preservation of cultural heritage in Finland. The Council of State approved "The Finnish Architectural Policy". According to the architectural policy a special document on the "Strategy for Built Heritage" has been worked out in 2001. The New Land Use and Building Act, which came into force in 2000 states that the preservation of nature and built environment shall be an integral part of spatial planning. Urban and land use planning is being geared to promote sustainable development. The law promotes local people to take an active role in the planning processes. On the other hand authorities are adopting a more transparent and interactive approach to spatial planning.

In terms of the recently started Interreg III B-part funded project for years 2003-05, "Sustainable Historic Towns – Urban Heritage as an Asset of Development", which was initiated by the thematic working group Sustainable Historic Towns, the aim of the pilot activities in Finland is to develop better management tools to use the Land Use and Building Act. The pilot case in the town Forssa and even research work in the technical universities in Tampere and Oulu focuses on

- inventory methods
- guidance of infill architecture
- identification and awareness of urban heritage as a resource among other sectors and operators
- integration of conservation and proper management of urban heritage to development plans and policies, both locally and regionally
- and last, but not least, to house owners, inhabitants and workmen dealing with building repair and maintenance; interesting, easy, convenient access to concrete, clear and proper guidance of maintenance and repair instructions of properties.

Goals are wide but firmly woven within each other.

INVENTORY METHODS

In Finland we do not have any prevailing systematic method of inventory, but several variations, and a clear need for co-operation. The National Board of Antiquities is at the moment developing inventory guidance based on existing digital records, historical analysis, GIS and other relational databases, where the distribution of the material via internet is one of the topics. The Ministry of Environment develops instructions from the analysis of residential areas and there is also a lot of expertise among private consultants, municipalities and in the universities.

Activities in the above mentioned project, in the Working Package 2, "Professional Tools", will create a national platform for discussion and comparison of experiences and expertise on this issue. A pilot case in the Working Package 3, "Improvement of management tools will test practices of inventory and analyse methods, which clearly aims at developing the processes to

serve better planning; needs, threats and challenges of society and development integrated in the analyses of documentation material and environment in different scales. The essential question of the guidance of the infill architecture is also included in the project tasks.

Guidance of infill architecture

In general, arguments of conservation in plans are mainly based on architectural arguments, and the solutions are purely formal. Guidance of the infill architecture should take better consideration of: social structures of the area, geographic and cultural history of the place, and typology as part of a checklist of solutions. Thus giving a firmer argument to found architectural solutions on and for clarifying the framework of different factors of continuity in an area. The infill architecture should support and regenerate the qualities of an area in credible ways. To be able to do this, we need to identify the area and its qualities and produce inventories describing the continuity and changes of the areas. Proper maintenance of built heritage provokes the quality of infill architecture. So, you can't do one without affecting the other.

Raising awareness among other sectors and operators as well as integration of resources are essential for sustainable development. Sustainability should cover everyday life, not just special technical solutions. In our everyday life, in the ready-built environment, the question is very much of selection and attitudes of awareness. We also need improved practices for the public sector to guide house owners to maintain their buildings in a proper way, as a part of national and local heritage.

The milestones of the pilot case activities of the Interreg IIIB – part funded project in Forssa are:

2003 The inventory and analyses of the Kalliomäki area starts. A study is carried out on regional and local typologies of architectural infill in relation to the site. Study of spatial structure of the area is based on historic maps, old town plans, drawings and photographic material and the field investigation.
A web-site will be established for interactive planning and follow-up. Cross-sector training in heritage values of the Kalliomäki area and its surroundings will be arranged for local authorities, investors and inhabitants.
A technical survey and plans for repairs of the Kalliomäki houses will be carried out.
The municipality buys a block of wooden houses in Kalliomäki to establish a Repair and Recycling Centre. The local community is invited to take part in the Centre's activities.

2004 A first course on Maintenance of Wooden Houses (survey on technical condition) will be arranged for local inhabitants together with Häme Polytechnic for Ecological Building.
The analyses of the Kalliomäki area and its surroundings will be compiled into a comprehensive management plan together with local authorities and local communities.

2005 The comprehensive management plan and instructions for repairs and infill architecture will be completed. Exhibition on Traditional Building Materials and Techniques will be opened.
A second Course on Maintenance (e.g. repairs of roof and wooden window frames) will be arranged.
Evaluation of the process and contribution to the final report will be carried out, resulting in an outline for national guidelines for urban heritage management.

Juhani Hallasmaa

PRESENTATION OF THE PILOT TOWN FORSSA IN FINLAND

BACKGROUND OF THE SPECIAL HISTORIC CHARACTERISTICS OF FORSSA

The present town of Forssa belonged to the administrative parish of Tammela (the early name Loimo of which is mentioned for the first time in 1458 in the limit books of the parish of Kalvola). Forssa was formed from old villages around the Loimi River (Kuhala Haudankorva, Talsoila, Vieremä, Linikkala and Kuusto). The river leaves Lake Pyhäjärvi and heads towards the River Kokemäki and the Gulf of Bothnia. In the 17th century along the Loimi river there were several mills belonging to local farmers, but because the mill dams caused floods in Pyhäjärvi, most of the old mills were demolished. After that the mill of Talsoilan was established in the year 1782 and five years later in the village of Linikkala a modern cart mill, called the Mill of Kuhalan, was built.

INDUSTRIALISATION AND BIRTH OF THE TOWN

The birth of the industrial community at Forssa is dated to the year 1845. It is when Axel Wilhelm Wahren, a member of an old Swedish business and industrial family, rented the water rights of the Kuhala Mill from local farmers as 'eternal drivings'. In 1847 he built a new mill building and the first industrial buildings of the Forssa Cotton Mill Company.

The first living accommodation for the factory workforce was built in 1848 along Wahrenstreet, which connected the factory area to the main road of Tammela. The industrial community grew quickly and in 1853 the factory employed 250 people. Wahren's idea of a self-sufficient industrial community; where farming and industry work hand in hand; came true in 1852 when he was able to buy Wiksberg manor house which was located south of the spinning mill. Wahren built a textile factory on the manor's land in 1854. The textile factory was steam-powered and therefore placed on the upper reaches of the Loimi River where it was easy to float firewood. The industrial community expanded quickly. Wahren built new residential buildings for the officials and workforce nearby; a school, a hospital, hotel, a general park with its green areas and so on. Behind the skilful planning and land use was the Swedish-born county architect of Turku, Theodor Chiewitz (1815-1862). The company's own planning office operated in Forssa during 1872-1978 and there were plans for example Kymi Oy, a Tervakoski paper mill and the mechanisation of several saws and the broadcloth factory of Tampere and Tampella.

Old Forssa (1840-1940) was clearly divided into three areas with a unique townscape and with idiosyncratic building methods and social structure.

The village was a close-knit but free-formed area of Uusikylä between a spinning mill and textile factory. It was built without the external controls by the entrepreneurs and mill workers on small irregular plots, which were rented from farmers.

The area of Kalliomäki (Ronttismäki) on the east side of the Church had a regular town plan. The company obtained the area in the 1870s and it was parcelled out and divided into rented sites for workers. The area was mainly built at the beginning of the 1900s.

As a contrast to these residential areas there is the company's systematically planned and built, sophisticated residential and industrial areas, which serve as a comparison with model communities such as Saltier.

TOWN: PRESENT AND FUTURE

In the beginning of the 20th century Forssa was among the ten biggest towns in Finland, although it had no town privileges. In 1923 Forssa became a township and in 1964 a town. Its population at that time was about 11000 and by the beginning of the 1980s the figure had almost doubled.

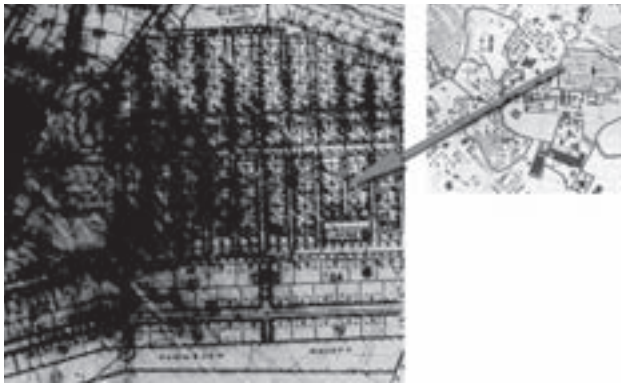
Even though Forssa does not rely on cotton any more, it has remained a mainly traditional industrial town. The cotton industry has been replaced by food, building material, IT and graphics industries. The town's problems are the same as most small towns in Finland and Europe. The basic industry is very dependent on trade cycles and does not need labour to the same extent as before. The population is slowly decreasing (now about 19 000) and the town requires new invigorating measures and solutions.

KALLIOMÄKI, RONTTISMÄKI

The Kalliomäki residential area is an equally important and fundamental part of the built history of Forssa as the elaborately designed cotton mills, housing areas and official buildings built by the Forssa Cotton

Kalliomäki, aerial photo from 1945.

Kalliomäki, aerial photo from 1999.



Kalliomäki, town plan from 1944.

Kalliomäki, view from the church tower.

Kalliomäki, town plan from 1966.

Kalliomäki, illustration of the present town plan (1978).

Company. This connection is one of the main reasons why all the town plans for Kalliomäki have respected the basic structure and scale of the area. Since the town plans have not created strong needs or temptations to renew the area, the social structure and townscape have remained quite intact.

Town Planing History of Kalliomäki

Kalliomäki is a south-facing hill near a weaving mill. During the establishment of the Forssa Cotton Mill Company it belonged to Linikkala village and it was mainly pasture grounds for the village. In the 1870s, the company bought several houses in the Linikkala village and Kalliomäki was part of the deal. In 1875 the Company started to settle the area with its workers. Kalliomäki vas divided into 300-500 m wide building sites. These were divided by 3-4 m wide fire alleys and south-facing 6-8 m wide streets or lines, as they were called. Building sites were first leased out to workers, but in 1920 they were sold to leaseholders. Since the houses were built by workers the building materials and styles were modest and the houses quite small but well populated.

In 1925 well-known Finnish architect and town planner, Berthel Jung, made the first real town plan for the area. In his town plan fire alleys were joined to the building sites and new 12 m wide Mäkikatu (Hillstreet) was built across the lines from Church Hill to the east.

In 1944 the town plan was renewed so that new buildings could be built in the middle of the building sites.

In the 1960s the Kalliomäki area was already in the middle of the town. The main goal of the new town plan in 1966 was obviously to cultivate the area for wealthier citizens (in the 1960s there were no drainage or water systems). The low building plot ratio (permitted building volume) for the blocks indicates a desire to unite building sites. During that period in Kalliomäki few brick houses were built. As a counter reaction for these changes local people started to demand a new town preservation plan.

The present town plan was ratified in 1978. It was one of the first so-called town preservation plans in Finland. Although giving no strict protective orders (except for museum buildings), it tends to guide building and planning so that repairs, extensions of buildings and new buildings fit with the old townscape. As part of the preservation plan the Kalliomäki area was in the 1980s one of the so-called renovation experiment areas in Finland. The aim of the experiment was to improve old buildings, the standard of equipment and energy saving with the state financing the old valuable town areas.

Okay so the story had a happy ending, so why are we here, what's our problem?

About 20 years has passed and we can now evaluate how well the town planning and state financing has succeeded. Without going into details one can say that all the measures have not worked out as originally planned.

Entrance to Ronttismäki Industrial Museum from III line

- Guidance and instructions for repairs were insufficient and it has not answered the inhabitants basic questions.
- Town plan orders have been too abstract.
- Co-operation between authorities has not worked properly.
- Financial support has been aimed to improving more standards of housing equipment and saving energy, rather than environmental improvements and sustainable repairs.
- Knowledge and know-how about repairs in old wooden houses was not accurate and there was no easy way to get it.

Alfredas Jomantas, Jurate Jureviciene

ENHANCEMENT OF DRUSKININKAI'S URBAN HERITAGE

The project *Enhancement of Druskininkai's Urban Heritage* is the Lithuanian sub-project under completion for Phare financing. The applicant is the Druskininkai municipality. The project partners are the Lithuanian National Department for Cultural Heritage Protection and BSR Interreg III B Sustainable Historic Towns group.

The aim of the project is the enhancement of Druskininkai's urban heritage by promoting its sustainability and participation in the BSR Interreg III B Sustainable Historic Towns project, "Urban Heritage as the Asset of Development", as one of the BSR pilot towns (together with Mosjøen, Røros, Forssa, Ystad, Czaplinek and Jastarnia).

The target groups are the local community, municipality, researchers of urban heritage, national and regional authorities for architectural heritage protection and students. The main activities are: dissemination of advanced knowledge, exchange of information, architectural research and architectural training.

Advanced experience of BSR towns should be used for defining urban heritage features most vulnerable to development pressure and describing the limits for tolerance of change. Also it would be used to promote the safeguarding and renewal of urban heritage, and encourage owners and tenants to participate in the protection and development of a sustainable urban environment.

Participation of Druskininkai in the net of BSR pilot towns would be beneficial both for the preservation of the built, mostly wooden, heritage of this historic health resort and social development of its community.

Håkan Hökerberg

METHODS FOR PRESERVATION PLANNING

During the last decades a new and more complex meaning of "preservation" has been established. It is based upon the idea that preservation aspects must affect not only individual buildings of cultural value and their direct surroundings but also all built entities of such importance. The main responsibility for preservation planning in Sweden has now been decentralised to the municipalities. According to the Swedish Planning and Building Act, each municipality now has to indicate – in its comprehensive plan – how physical development and preservation shall take place. Municipal preservation planning where all important and relevant aspects are included requires qualitative and complex data. However, the accessibility to such data varies a lot in different Swedish municipalities. Local programmes for the cultural environment and building inventories are of various qualities and the ambitions and aims differ. In some cases the information is no longer valid and many municipalities do not even have a programme or inventory.

In short this was the background for my choice of PhD thesis at the Institute of Conservation, Gothenburg University, Sweden. The title of my thesis is "Methods for Preservation Planning", and it is based on studies of different available methods for preservation planning. As a reference for my studies the SAVE method (Survey of Architectural Values in the Environment) is used. The method reflects the gradually renewed concept of the architectural heritage; from monuments and individual buildings to a more comprehensive conception of built environments. The Ministry of Environment and Energy developed the SAVE method in Denmark in the late 1980s, but it is now also applied to localities in other countries. My studies only focus on urban conditions, not on built environments in the countryside, which are also included in SAVE.

The process of the SAVE system is divided into three phases and ends with the publication of a Preservation Atlas. Today c. 25% of the 275 municipalities in Denmark have such an Atlas, both urban and countryside municipalities. But from now on when new SAVE projects are decided by the Government authorities, priority is given to historic towns and the suburban municipalities surrounding the big cities.

The essential principles in the design of the SAVE system are:

1. Fixed method and fixed terms
The SAVE system is based on a uniform method where certain aspects are to be included. The uniformity makes it possible to store the results in a databank from which the conditions in different municipalities can be compared.

2. Fixed time and price
The whole process can be carried out in nine months for an area containing c. 6 000 buildings. Provided that the municipality agrees to the conditions of the SAVE system the Ministry covers the costs except for the publication of a Preservation Atlas.

The relatively short time allowed for the project meant it had to be compared with its aims. Today, the fabric of the municipalities, and particularly in the towns, is transformed in a more radical and accelerated way than hitherto known, so the time factor does not allow a procedure of long duration.

The authors of the SAVE system compare it to "rescue excavations", known from archaeology. Earlier registrations of historic buildings had a tendency to be very detailed and therefore time-consuming so their results and conclusions often had lost their value when they were finally published.

3. Flexibility in relation to local conditions
In spite of the principle of uniformity, each municipality has the possibility to focus on its own characteristic features. Local topographical, historic and architectural conditions are given much attention in the project.

4. Establishing working groups involving local political, economic and other local interests
When the Atlas project is initiated a local consultative group is set up. Its members are representatives of the local authority (politicians and technical employees), the central authority, local merchants, the local museum, the local archives, preservation associations and other interest groups. Thus the local authority group is familiar with different aspects of relevance to the project. The group evaluates the procedure and gives supplementary information.

The three phases of the SAVE method are:

1. The Preliminary Investigation
The preliminary investigation includes a topographical investigation, an historic analysis and an architectural observation of the municipality. Emphasis is placed upon the townscape and the built environment's development during the last 200-300 years. Attention is paid to buildings of a cultural-historic value where this quality is not immediately obvious or possible to see. Local architects and master-builders, local architectural styles and other characteristic local features are observed. In these initial studies the profound knowledge of local conditions offered by the local consultative group plays an important role.

2. The Field Work
The architectural features are described in two different ways: mapping of developed structures and registration of individual buildings. The developed structures comprise anything from a few buildings, squares, districts and even whole towns – the basic considerations are architectural, historic and topographical criteria. The structures are divided into three categories: dominant architectural features, building patterns and selected urban elements.

The registration of individual buildings includes all buildings built before 1940. Basic information such as age and materials is registered. The most important part of the registration is the valuation of the building from five different aspects: architectural value, cultural-historic value, environmental value, originality and technical state. From these five assessments, but not as an average of them, a *preservation value* of the building is decided – high, medium or low.

3. The Preservation Atlas
The works ends with the publication of a Preservation Atlas. The purpose of the Atlas is to make the most important results readily accessible to the local community, creating in this way a common point of reference for the local authority and the local population. All Atlases have a uniform layout and the titles of the chapters are usually the same.

Besides an evaluation in my thesis of how the characteristic features in urban built environments are designed in the SAVE system, its design is compared to that of other methods used in Sweden and abroad. The thesis also focuses on different conditions for preservation planning in Sweden and Denmark. Tradition, legislation and organisation in the two countries are compared.

From observations made in some Danish municipalities I analyse how the results from the Preservation Atlas are implemented in municipal preservation planning and to what extent the Atlas has influenced the view of preservation values and the interest in local architecture among local politicians and the residents. My observations are compared to the conditions in Danish municipalities not having an Atlas.

Preservation planning also has a democratic aspect, which is emphasised in the thesis. Participation of local residents in the protection of the cultural heritage, including the preservation of built environments, has become an important issue on the political agenda during the last decades. Projects where local residents have been involved in the mapping of preservation values in built environments show that locals and professionals often have quite different priorities in preservation matters. ("Architecture and the Cultural Environment in the Big Cities", a project initiated by the Swedish government) If the democratic aspect in preservation planning is to be fulfilled, the locals' opinions have to be considered and in this context information and an open debate play an important role. Establishing a local consultant group (as in the SAVE process) is a possible way to secure this aspect, and therefore I study the activities and influence of the local consultant groups in some Danish SAVE projects.

A part of my dissertation is a pilot study made in the Swedish town Kungälv (about 20 km north of Gothenburg). In Kungälv I only applied the first part of the SAVE method (developed structures) and did not register individual buildings. Since the analysis and mapping were made by myself, without a local consultative group, some modifications of the process were necessary. All parts of the town were included in my study as I decided not to make an explicit valuation of preservation qualities, but rather to describe all characteristic features in the town's built environment. The result of the pilot study will be evaluated in my thesis but it will also be published separately as an "Atlas". My hope is that this Kungälv Atlas will be useful for the municipality's preservation and renewal planning and that it will also stimulate the local residents' interest and awareness of the environment and the architectural heritage as part of the local identity.

Hain Toss

SUSTAINABLE HISTORIC TOWNS IN ESTONIA

In the framework of the Baltic Sea working group "Sustainable Historic Towns" the Estonian National Heritage Board appealed to 10 small town authorities to describe the main criterias of the identity of the towns in 2001. The work was carried out in seven towns – Abja-Paluoja, Kallaste, Kohtla-Järve, Kuressa-are, Põltsamaa, Räpina and Sillamäe. The preliminary method was worked out by architect Lilian Hansar on the basis of the urban aspects of the Danish SAVE programme. The results were drawn up at the end of the year.

In 2002 the work was carried out in 4 small towns – Kunda, Jõhvi, Märja-maa and Põltsamaa. The methodology was improved and the Ministry of Environment (which is responsible for urban planning in Estonia) joined the project with the aim of working out recommendations for the small towns, and how to use the criteria for working out their identity in their land-use plans (master plans). The results of the project will be drawn up at the end of 2003.

Lilian Hansar has described this work as follows:

SUSTAINABLE HISTORIC TOWNS

CRITERIA OF IDENTITY METHODS FOR DETERMINING URBAN VALUES

The following methods are based on the Danish SAVE system. These methods, tested in 6 towns in Estonia during the year 2001 as identity case studies, may be used to determine urban values.

The main criteria for urban values may be:
1. The symbols of the city – city dominants (city landmarks)
2. The areas of environmental cultural value – city patterns
3. Urban structures
4. Buildings, constructions
5. Details and decorations of buildings

THE FOLLOWING CRITERIA WERE CONSIDERED WHEN ANALYSING THE CASE STUDIES:
1. The symbols of the city – city dominants (city landmarks)
2. The areas of environmental cultural value – city patterns

The town of Räpina, showing the manor house, park and church.

A typical one-family house in the town of Kallaste.

A characteristic Stalinist apartment building from the 1950s in Sillamäe.

1. The symbols of the city – city dominants (city landmarks)
The symbols of the city are dominating and structurally important buildings and constructions or spatial connections in the city. For example panoramic views, topographic characters, dominating constructions (buildings), specific streets, squares, parks.

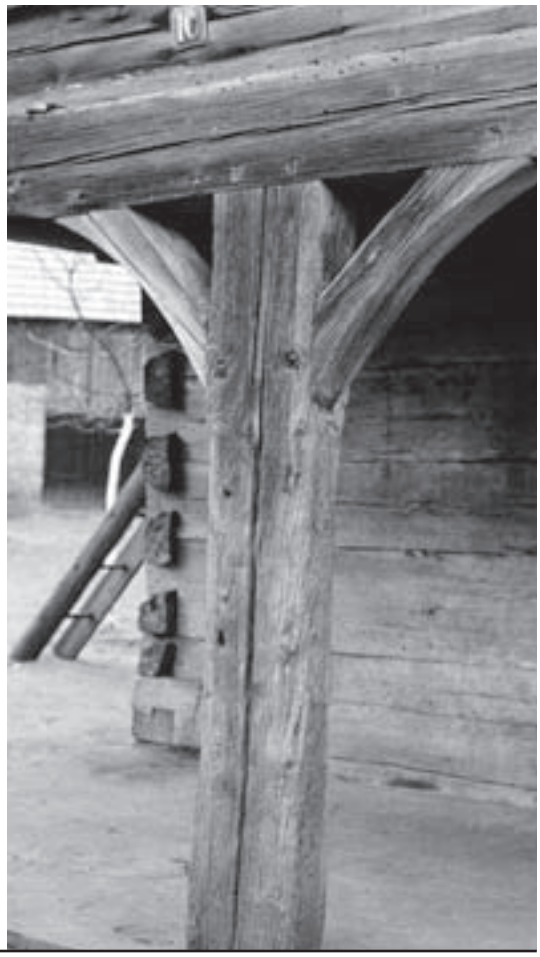
The criteria for evaluation include:
- Visual prominence and outstanding position in the townscape
- Architectural or aesthetic values
- A distinctiveness on the city-map
- Significance in the history of the city, both cultural or economic

2. The areas of environmental cultural value – city patterns
City patterns are specifically urban areas, blocs or ensembles of houses with a planned structure and spatial construction, having their own building prescriptions and models. These areas are characterised by an established integrity, influencing the general impression of the city the most.

The criteria for evaluation include:
PLANNING STRUCTURE
- **Character of planning** – the established integrity of planning structure, its originality (singularity)
- **The street network and the streets** – the historically formed or planned geometry, the characteristics (broad-narrow, curvy-straight etc) of streets, open views
- **The location of buildings** – the location of the buildings on the streets (building line) and the plots
- **The greenery and the boundaries (palings, board fences)** – the principles of furbishing, the typical ways of fencing

SPATIAL STRUCTURE
- **The architectural characteristics** – style, volume, and architectural characteristics of buildings, dominating building materials, authenticity of buildings
- **The homogenity of housing** – compatibility of buildings with each other and with the area

The identity of the urban area can be preserved on condition that local inhabitants understand and appreciate it and are willing to preserve it.



PART V

BUILDING PRESERVATION AND MAINTENANCE IN PRACTICE

Hans Sandström

BALTIC SEA IDENTITY – COMMON OBJECTIVES

BACKGROUND

The built environment around the Baltic Sea area is characterised by the natural resources of the region – wood and timber, limestone, granite, iron etc. Traditional building materials, based on these resources, were used in restoration and new building until World War II, when "modern" materials came on the market. The sustainable preservation of our built heritage is dependent on a reintroduction and continuous use of the traditional materials and craft skills.

From this common background the working group has chosen the following main objectives:
- Codes of ethics for conservation and restoration
- Survival of traditional crafts and skills
- Supply of traditional building materials

The group agreed upon a work programme in Tallinn in February 2001. Activities are organised by the participating institutions – the main responsibility for implementation circulating among the countries involved. Each participating country has been responsible for at least one activity. Ongoing bilateral or national projects have been extended to "Baltic Sea level".

ACTIVITIES AND RESULTS

Seminars to establish "codes of ethics" (or a common policy) for conservation:
A seminar was organised in Riga, November 2001, focusing on the preparatory work done by architects, historians and restorers and with the Latvian-Swedish projects as a basis. In the same series a four day seminar and workshop will be held on the island of Saaremaa (late April 2003); the objective to develop policy and methods for conservation of plaster on Medieval churches. A two day seminar in Kaunas (September 2003) will be a follow-up of the Riga seminar, but with a focus on brick buildings.

Workshops to support the survival of traditional building crafts:
Workshops have been organised on timber work and carpentry at Ungurmuižā (Latvia), on lime plaster and paint in Sabile (Latvia). Another seminar/workshop in two stages is under preparation in the Kashubian Park in Pomerania.

Carpenters at work at Ungurmuižā manor house in Latvia.

Networks for the supply of traditional building materials: Reports have been compiled – in order to get an overview of the situation for some of the key materials, and to create networks for producers and researchers. The reports include lists of literature, research documentation, manuals and information sheets – establishing a basis for translations and exchange of experience. Till now four reports have been completed: wood tar, window glass, building lime and brick tiles.

WEBSITE FOR CONTINUOUS COOPERATION

The common website, developed within the project, will be an important basis for sustainable co-operation. It is suggested that it should be continuously updated by the secretariat in Stockholm, supported by contact persons in all countries around the Baltic Sea. The site is connected to the site of the CBSS (Council of the Baltic Sea States). The objective of the site is to inform about the Baltic Sea Heritage Co-operation, to give access to reports produced within the project and to facilitate co-operation and networking.

The information on the website (at its present stage):

- Information about areas of co-operation
- Baltic Sea contact persons in each country
- Links to the sites of the national boards, information centres etc.
- Ongoing Baltic Sea projects, seminars, workshops etc.
- Traditional building materials around the Baltic Sea, institutions, networks

The working group hitherto has had members from nine countries – Estonia, Latvia, Lithuania, Poland, Denmark, Sweden, Norway, Finland and the Russian Federation – but not all have been active. Mecklenburg-Vorpommern (Germany) recently joined and will take part in the continuous co-operation.

It will be suggested to the ministers meeting in St. Petersburg (December 2003), that the heritage co-operation should be allowed to continue. There is a potential for research projects, for seminars and workshops focusing on common problems and based on common experiences. There are many common objectives to be derived from the Baltic Sea Identity.

Tarmo Elvisto

INFORMATION CENTRE FOR BUILDING PRESERVATION

The purpose of the centre is to contribute to the preservation of buildings valuable for their architecture, history and atmospheric location in a worthy manner. For that purpose the centre is gathering and communicating information and organising training courses.

Historical background of the building at Väike-Patarei 3

The information centre is located at Kalamaja; in the district situated in the neighbourhood of the Old Town and Port and it is the oldest suburb of Tallinn. The district is made up of more than 600 unique wooden houses, mostly built between 1850-1930. The great location of Kalamaja, its integrity and friendly architecture, are preconditions for becoming an attractive residential district. Furthermore, the surroundings of Kalamaja hide a considerable potential for tourism. The basic idea of the pilot project of Väike-Patarei 3, financed by the Swedish Government, was sustainable renovation. Renovated rooms conform to modern living standards and the purpose was initially determined to use as many traditional and environmentally friendly building materials and technologies as possible. The pilot project of this renovated house has been a good precondition for the development of further co-operation between other countries of the Baltic Sea area in this field.

Activities

The purpose of the Information Centre of Sustainable Renovation is to convey knowledge and concepts as to when and why the preservation and renovation of existing buildings should be preferred to demolition and replacement.

- Collection, systematisation, mediation and dissemination of information on sustainable renovation
- Initiation of projects related to old buildings and areas notable for their surroundings and participation in co-operation projects
- Printed materials, videos, specimens, photos
- Training courses, workshops for house owners and specialists
- Consultations, panel debates with specialists, seminars, lectures, information days (quarterly programme)
- Receptions of groups
- Media events, communication with the press

Target groups

- Assistance of residents and property owners to get necessary information and practical help for sustainable renovation of the houses. Assist activities that would enable renovation and keep the houses in the most historic and culturally friendly ways possible. Find solutions for renovating and making effective use of old buildings, preserving at the same time their historic uniqueness.
- Promotion of awareness and improvement of the skills of renovators, builders, project managers of renovation works, site managers etc. with regard to the renovation and use of buildings with historic and location value.
- Inform interested people, distribution of information materials and advice. Increase of overall awareness in the sphere of sustainable construction and repair work.

Ann Lepp

KALAMAJA – POSSIBILITIES OF A WOODEN TOWN

The film *Kalamaja – Possibilities of a Wooden Town* was awarded the prize for best scientific film at the first Europa Nostra Film Festival 2001. The film has been produced as part of an Estonian-Swedish co-operation in building conservation. It follows the renovation of a wooden house at Väike-Patarei 3 in the Kalamaja district of Tallinn over the course of one year. Experts and ordinary citizens share their opinions and points of view on the future perspectives of the wooden town and the wooden house. The use of traditional crafts and materials is emphasised, as is the wooden town as common Baltic-Nordic heritage.

The house on Väike-Patarei 3, Kalamaja, Tallinn.

Sakari Mentu

PRODUCTION AND USE OF WOOD TAR (FINLAND)

Pinewood tar is made of resinous pinewood. The wood material has to be prepared several years in advance by repeatedly barking the pines in order to extract as much resin as possible before felling the tree. Pinewood tar consists primarily of aromatic hydrocarbons, tar acids and tar bases. Wood tar can be used as a surface treatment for shingle roofs, boats and other wood surfaces needing special protection against humidity.

Tar was already being exported from Finland in small quantities in the late 16th century. The earliest production area was located by the great lakes of eastern Finland. The production later moved to the Ostrobothnian area by the west coast, and finally eastwards to the wildernesses of Kainuu province, which was to be the last major production district. The international tar market diminished from the 1870s onwards, as tar was no longer needed for shipyards.

After World War I only marginal quantities of tar were exported. Tar burning survived in Finland throughout the 20th century, cherished by tradition enthusiasts and a couple of small-scale producers, and there has been a revival in the 1990s. In addition to domestic production there are about 30 professional small-scale tar-burners. The Kainuu Tar Project, started in 1997, has had a great influence on this revival and the beginning of active heritage research.

The effect of the renewal of the European Parliament and Council Chemicals Act on the use of tar is likely to endanger the use of traditional pit tar, if it is interpreted in a strict sense. Pinewood tar was identified as an old substance in March 2002.

Tar production

The dry distillation process can be made either with a direct method (tar pit or tar kiln), that partly burns the raw material, or indirectly in a retort with an external heat source. The quality of tar made by the direct method is considered superior to other aforementioned tar types. Pit tar has a lighter brown colour and a smaller nominal weight than kiln tar, since the latter contains more carbonates. The quality of pit tar depends on the burning temperature (above 400 degrees required) and the size of the tar pit. Best results are reached if the volume of the pit exceeds 80 cubic metres.

A typical tar pit is dug in springtime into soil (sand, if possible) and preferably on sloping ground in order to avoid digging a deep ditch for drawing off the produced tar. The bottom of the pit is formed like a funnel and sealed with clay and turf covered with spruce bark. A wooden pipe leads outside to the tapping place from the bottom of the funnel. The wood material is piled in the pit following a radial pattern and the completed rounded heap is covered with turf. A pit master controls the burning by opening and closing air gaps in order to secure an even burning and to avoid overheating. After two or three days it is time to draw off the tar into casks, where it has to stay for several weeks. During this period the wood acid and other unwanted components rise to the surface of the tar and can then be separated.

Women stacking a tar pit with pinewood.

A traditional method for transporting tar casks.

Ilmars Dirveiks

RESTORATION OF THE UNGURMUIŽĀ MANOR HOUSE – A LATVIAN-SWEDISH CO-OPERATION PROJECT

Ungurmuižā is a unique example of Latvia's architectural heritage of estate buildings. Its manor house was built in 1732 and is one of the rare still existing wooden manor houses in Latvia dating back to the first half of the 18th century. There is no other estate complex about with so much documentary information. Historically the building has always been used as a dwelling house. Only in the 1950s, after carrying out radical reconstruction, was a school established in the building. After these works and the unsuccessful renovation started in the 1980s the building's structure was very fragile. Any construction activity could cause further losses of the remaining original substance. Therefore the motto of all activity was that only essential and necessary action should be carried out.

The renovation concept intends to turn the building into an Ungurmuižā Museum and Guesthouse. The renovation of original divisions was determined not only by artistic considerations, but also by the necessity to ensure construction stability. The rooms with walls painted in the middle of the 18th century are one of Ungurmuižā's main "elements of fame", and the aim of the project is a full interior reconstruction.

The basic principle is to use traditional materials and working methods. Modern materials and technologies are offered as an alternative in cases where they essentially improve functional qualities of the building. In order to ensure the necessary humidity and temperature in this wooden building with paintings, a combined solution was accepted; to install an autonomous central water heating system in combination with a local electric heating. Fire safety has been ensured through a new concept; not saturating the building with chemicals, but taking all necessary measures to ensure sufficient technical provision and to educate staff.

The masonry was carried out during the warm season of the year using lime and gravel mortar. An impregnated chip roof covering was renovated. The fragments of painted beams moved during the 1950s reconstruction were inserted in their original locations. They were put on the inventory list, identifying more than 130 fragments, which, unfortunately, is less than 1/3 of the lost amount. The quality work of Latvian craftsmen gained praise, and the co-operation was a valuable experience for everybody.

The limitations of the commercial activities put restrictions on the building's autonomous existence. Its full and economic functioning will be possible only within the context of activities of the whole estate complex. At the moment decay of the building and its cultural historic value has been stopped, and the aim of renovation is to restore its place in culture and to make use of its financial potential. The project was implemented through co-operation between the State Inspection of Cultural Monuments Protection of Latvia and the Swedish National Heritage Board. Architect I. Dirveiks developed the renovation concept, AIG LTD. (architect A. Lapins) made the technical draft and the consultants were architect Hans Sandström, Per Jerk Rydberg and Ann Lepp.

Irma Grigaitiene

TRADITIONAL BUILDING CRAFTS IN LITHUANIA

Different types of Lithuanian dwelling houses and other buildings were developed under specific historic conditions. The formation of building type in different ethnic territories depended on the landscape and traditions of a region.

Traditional Lithuanian architecture was timbered throughout, except for the west, where brick buildings appeared earlier than in other parts of the country. Still most of the cult buildings and manors were also built from wood till the end of the 18th century. Hence traditional crafts are related to the construction of wooden buildings. The art of building belonged to carpenters who were the first architects too. A proficient carpenter had to know how to integrate parts of a building, to arrange an enduring construction, to match angles in the right way using prepared material. Carpenters used to have two specialities. A carpenter-builder had to arrange the structure of a building and a roof, while a carpenter-woodworker would arrange the interior part of a building: lay floors, set up ceilings, doors and windows, decorate parts of the building with carvings. It is possible to even retrace the style of single masters and regional peculiarities. Carpenter-builders and carpenters-woodworkers divided not only work but the equipment as well. Moreover, they specialized in constructing different types of buildings. The craft of a carpenter was popular and reputable in Lithuania and it has been known since the times of the Great Duchy of Lithuania. Towns and manors had their own carpenters whose duty was to built castles, manors, churches, bridges and etc.

Another traditional Lithuanian building craft was thatching. Until the beginning of the 20th century, roofs in villages were thatched with rye straw and with reed by the sea. From the beginning of the 20th century, peasants started to thatch their roofs with laths. People started to roof with tin only in the beginning of the 20th century. From the 16th to 19th centuries clay tiles prevailed in towns. However, the knowledge of laying such tiles, as well as brick laying cannot be said to be a traditional Lithuanian practice, since it was introduced by foreign masters.

A great deal of attention was given to stove heating. The art of stove installation developed in the 19th century. The stove-builder was a very important figure in building. Stoves were set from raw bricks formed out of clay or simply beaten from clay. A stove-builder used to set the chimney as well.

One more Lithuanian craft that could be attributed to building was smithery. Metal came to the villages very late: until the middle of the 19th century houses were put together without nails. Locks and handles were brought from abroad. Smiths used to forge nails, hinges, door and window fastenings.

Apart from farming, animal husbandry and Carpentry being closely related to folk life; there were many other quite rare trades such as tar, pitch, turpentine making and the production of charcoal. Wooden tar was used in building to soak wooden constructions and to protect vehicles.

Craftsmen subsisted by village and town building. The development of crafts depended on landlords since craftsmen settled close to manors and used to get their orders from them. In towns, craftsmen united into workshops or guilds. Nowadays masters of traditional building crafts are very rare and, to make matters worse, they do not nurture successors. Therefore, it is necessary to organize training programmes, seminars, and workshops where traditional crafts can be taught.

Tadeusz Sadkowski

LOG HOUSES AT THE OPEN AIR MUSEUM IN WDZYDZE KISZEWSKIE, POLAND

An analysis of traditional folk culture in Poland shows the existence of two distinct zones: the northwest and southeast. The two zones reflect to a certain extent the division between former Russian and Prussian occupation zones after the partitions of Poland. This separation is also the result of former and current cultural events penetrating from the west. The Kaszubi, who are a distinct ethnic group in Poland, are members of the northwestern group.

One such event, typical for the northwest of Poland, was the replacement of log houses with timber frame houses at the end of the 18th century. Up to 1772 the spread of timber framed houses had all the characteristics of a so-called diffusion of cultural elements; the major landowners encouraged such constructions in contrast to traditional log houses. After 1772, Prussian law supported this process, with an edict issued in 1779, which banned "quoin and pole" constructions, due to the need to save timber. The ban was not strictly observed and therefore log houses, although increasingly rare, were still being built until the beginning of the 20th century.

The co-existence of log and timber frame structures in the countryside with the continuing retreat of the former technique in favour of timber frame and brick houses was part of the cultural pluralism seen in Central Pomerania (Gdańsk Pomerania).

It is quite characteristic that timber frame structures both in residential houses and in farm buildings can be seen east of the Vistula River. But only in the areas which once belonged to German-owned East Prussia and West Prussia following the division between former Prussian and Russian monarchies, established in the 18th century. They can therefore be found in Żuławy, Warmia, Mazury and Ziemia Chełmińska.

The structural concept of the Kaszuby Ethnographical Open Air Museum in Wdzydze takes the above mentioned facts into account. The Museum has acquired and plans to acquire additional typical regional examples of all types of buildings: log houses, timber frame houses and brick houses built of sun-dried bricks.

The church in Szczodrowo; type of corner joint made by carpenters. The church (its nave) was built in 15th century.

The church in Swornegacie. The old and new church in a village in the southern part of Kashubia. The wooden church was built about 1700 (between 1695 and 1702), after fire destroyed the former church on the site. The belfry was added in 1740. It was decided to protect the old church as a monument of wooden church architecture from the beginning of the 20th century. The church belongs to a group of 37 traditional wooden churches on the territory of Pomerania (Gdańsk Pomerania). Among them there are eight churches made solely of wood. The rest of the churches have a framework construction (half – timber construction). The church was rebuilt by the museum at Wdzydze in 1985 and after consecration in 1987 performs its former duties.

The church in Swornegacie. The church before dismantling; without exterior boarding.

The manor house in Luzino. The wooden single storey building was erected at the end of the 17th century. It was first the seat of the steward in a convent property. Then it belonged to kashubian nobilities, after the secularization of ecclesiastical estate made by Prussia in 1773. At the end of the 19th century it belonged to a Prussian officer. The Museum bought the house from the Kashubian family. Half of house was made of horizontal oaken logs (hewed logs); the second half from half-timbered wall (brick nogged timber-wall).

Luzino, gable-end frame work wall.

Luzino, detail of corner construction (Quoin).

The yeomanry farmstead in Czarna Dąbrowa with buildings from the 18th and 19th centuries.

The farmstead in Czarna Dąbrowa. The gable-end of the barn. On the left a stone pigsty and a byre.

Czarna Dąbrowa, detail of the quoin construction.

Czarna Dąbrowa, the wicket gate in the middle of the barn.

A recent comprehensive ethnographic investigation of traditional folk buildings has confirmed that the Kaszuby region can also be divided into two zones depending on the dominating building technique. It is worth nothing that ethnographers managed to complete their studies almost at the last moment, because about 40 years ago the rural areas in Poland turned away from their old traditions. Irrespective of the reasons of this process, which shall not be discussed here, one should be aware that as its result, wooden houses rarely appear in contemporary Poland and in fact have become unique. The research undertaken showed that the northern and central parts of Kaszuby region are dominated by timber frame structures with very few log houses, most of which were built before the end of the 18th century. Log houses remained popular in the southern and western part of Kaszuby, similarly to eastern Gdańsk Pomerania, where they were still being erected in the mid-20th century.

The spatial arrangement of the Ethnographic Museum in Wdzydze has been based on the above simplified description of housing traditions in Kaszuby. The Park has sectors for housing constructions from Southern and Western regions where log houses prevail, and sectors for buildings from Central and North Kaszuby, where timber frame houses dominate.

Researchers specializing in the folk culture of Northern Kaszuby emphasize that the introduction of timber structure, which was a new solution in country building, did not mean a departure from traditional techniques of the past. A good example of this is the construction of arcades, which are found both in log, timber frame and sun-dried brick houses in Kaszuby. A multiple pillared arcade was an inherent element of the majority of residential houses built in the countryside between the 17th and early 19th century. Carpenters who used the technique in building houses commissioned by town investors introduced this tradition in rural houses. Market places of towns and cities in the Pomerania region were surrounded by arcade houses made of timber, as can still be seen in some surviving buildings or on pictures or photographs.

The arcades of rural houses, although protecting the entrance against wind and rain, did not have much practical significance. They served as a decorative element, which increased the prestige of the house owner and added splendour to the building. In the 18th century arcade houses were built by farmers who managed to buy themselves out of serfdom or were able to pay their obligations towards the landowner in cash. They were the owners of small forest glass factories, owners of sawmills in the forests, new settlers who developed new plots of lands, parish priests and noblemen.

The basic material for house building in the Kaszuby region was pine timber hewed with axes to produce logs that were rectangular on cross-section. In the oldest surviving buildings, the logs were placed

The house in Loryniec. The house with arcades; remodelled in 1930. We are going to show its original form at the museum. The walls are of horizontally set pine beams, dove-tailed at the corners.

The house in Zdrojno, one of the prettiest arcaded Pomeranian houses, originally with five pillars. Remodelled at the beginning of the 20th century.

Zdrojno, arcades.

Zdrojno, detail of the arcade's construction.

The house in Wdzydze Kiszewskie. This is a copy of an 18th century farmhouse which was made into a museum in 1906. From 1906 the museum had existed in Wdzydze Kiszewskie in one of the arcaded cottages typical of the region; purchased from a local farmer. The museum was organized by Izydor Gulgowski. Gulgowski was a teacher in Wdzydze. He was deeply interested in the indigenous Kashubian folk culture and the author of many valuable works on the subject. In 1932, the cottage and the ethnographic collections were burnt during a fire in the village. Thanks to the initiative of Teodora Gulgowska, the widow of the founder, the building was reconstructed and equipped with original implements and utensils in 1936. In 1969, a planned, large scale expansion of the Museum was undertaken in connection with the organisation of the Kashubian Ethnographic Park, at present the Gulgowskis' Museum.

The house from Skorzewo. A corner arcades house built in the second quarter of the 19th century.

The house in Garcz, a half-timbered house built c. 1830.

matching the thinner top part of the original trunk with the thicker bottom part of the next one. In the 17th century and in rare cases at the beginning of the 18th century oak timber was used, but later it was replaced with pine.

With the passage of time the quality of timber steadily worsened. More and more houses were built of log processed in sawmills or sawed with saws. Parameters of logs such as their thickness, width and length were also changing. In the oldest building, without wall plaster made of clay, the logs are approximately 20 cm thick. Houses built at the turn of the 19th and 20th century have logs of 10-20 cm or even 6-8 cm. Thinner logs required inside plastering for proper insulation. The clay insulation layer would be up to 10 cm thick. Deteriorating timber quality forced different structural solutions, for example with shorter logs interconnection poles had to be used. Poles were used also to incorporate more windows, with shapes and proportions different to those used in the 18th century.

The length of available logs limited the size of the oldest log houses, because the oldest houses in Kaszuby did not have any interconnecting poles. Characteristic examples are log barns, combined of two or three separate constructions or so-called bays, arranged in a square. The bays were erected close to one another and covered with a single roof. The space between bays, protected with a gate, was used as a floor for threshing, cleaning the corn and other farm work.

One of the techniques of interconnecting logs was to interlace them at the corners, leaving the ends protruding. This is an ancient tradition, so examples of such buildings are rare. It can be seen in the structure of one of the oldest churches in Gdańsk Pomerania with its nave built in the 15th century. In Wdzydze Park one can also see a similar solution applied in a very modest farmhand's house from the 19th century.

There are equally few examples of interconnecting logs at the corners using dovetails with a hidden tenon. Such a technique was popular in other regions of Poland for constructing log churches, dating back to even the 14th and 15th centuries. In the Kaszuby Region, such solutions were found in 18th century churches, noblemen manors and peasant barns.

Examples of the structures have also been transferred to Wdzydze Ethnographic Museum. The most popular technique of interconnecting logs was dovetailing, often with an additional fastening with a wooden peg. Wooden pegs were also used to fasten logs lying over one another. The caulking was made of bog moss, or – rarely – with waste generated from flax processing.

Wooden roofs were popular in the 18th century and were made of 4ft long pine boards or 2ft long oak shingles. They were replaced in the 19th century with thatched roofs of straw or reed. Until the end of the 19th century fireproof roof coverings such as ceramic shingles and copper or zinc sheets were used only for churches, government buildings and manor houses.

Jørn Andreasen

THE NORDIC CENTRE FOR TRADITIONAL CRAFTS

The history goes back to 1977 when The Council of Europe founded a craft-training centre in Venice on the island San Servolo. The Venice centre became an inspiration to other European countries where industrialised building techniques had squeezed a lot of traditional crafts into the ditch. The Council of Europe hosted a group of specialists representing the needs of well-educated craftspeople to do restoration and repair on listed and other buildings worth keeping. The Fulda Centre in Germany was founded in 1980, Avignon in 1983, Vienna in 1985 and Raadvad in 1987.

Some 18 km north of Copenhagen you will find Raadvad, one of several watermills along the approximately 20km long stream Mølleåen (the millstream), leading to the east. This stream is called the cradle of Danish industry, due to the mills that produced copperware, cloth, paper and weapons from 1370 to 1992. The industrial watermills are the remains of patriarchal owned industrial communities, which beside the production also offered residences for the workers, schools for the children and social welfare for the families. Similar towns are known from England but you will also find them in Sweden and Norway. When the industry abandoned Raadvad in 1972, the whole plant was bought by the Danish State (The Ministry of Environment). Raadvad, Nordic Centre for Traditional Crafts was established in 1987. Some dedicated master craftsmen joined with their workshops as an integrated part of the centre.

The organisation lasted a couple of years and was reformed as a foundation where the centre and the workshops became economically independent of each other. But they are still dependent in spirit and they work together in practical matters. Visitors and trainees are briefly informed about the workshops and the workshop tour is a part of the training, as well as this they are shown the exhibition of tools and methods of repair. When specific training is a part of the further education of craftspeople, the master craftsmen from the workshops are their teachers.

The Raadvad Centre is concerned with knowledge and information regarding the restoration and conservation of architectural heritage, traditional craft skills and building materials. The centre is a part of the network of similar institutions throughout the Scandinavian and European countries.

Throughout the last ten years, we have experienced a growing interest all over the country to restore old buildings sensitively, with a respect for the original building materials and according to the traditional craft skills. This is the case, whether it is private house owners or municipalities and other official bodies or consultants and craftsmen. Many people are also very interested in the traditional methods and materials, because they are environmentally degradable and technically superior to modern materials and methods. The main activity is therefore the further training of these people and bodies.

Further training for craftspeople is related to the knowledge and training in various craft techniques. The joiners are taught in window repair, the painters in wood and stone imitation, the blacksmiths in forging, to name a few. Further training in the knowledge of materials are offered to craftspeople, architects and engineers. The owner will mainly get a little of everything, which gives them the possibility of demanding the right materials and methods for specific repairs.

As a natural part of the activities the Raadvad Centre is a vital part of the countrywide activities of the European Heritage Days, as a producer of posters, activating the local associations of “Buildings Worth Preserving”. Not to forget booklets, information, educational videos and television performances all related to the field of restoration and repair of buildings.

In co-operation with the Technical University of Denmark, Raadvad has launched a project concerning the quality and ability of traditional window construction in the field of durability and insulation, versus modern thermopane windows.

Another major initiative is the establishing of “Raadvad’s Bygningssyn” (Raadvad’s Building Care) in 2000 from a Dutch model named “Monumentenwacht”.

The basic idea is that specially educated craftsmen examine the building, once a year for a subscription fee. They look all over the exterior from ladders and lifts, the basement interior and the attic. The subscriber will receive a report of the condition of the building, pointing out what is in bad shape and should be repaired immediately, what can wait half a year or so and what is to be done within the next few years. The report points out various activities, which should be a part of the weekly, monthly and yearly routine. If they find a broken windowpane, a broken tile, a flapping

flashing or other minor damages, they do a temporary repair and report to the owner, they clean the gutters and downpipes before leaving. This system gives the owner a confidence and a knowledge of the building, whether it is his home or his firm. It gives him the answer as to what needs to be done to bring his building up to standard. It is important to stress that these craftsmen, beside their own craft, have experience in other crafts as well. They have been briefly trained in architecture and the legislation of protected buildings.

When it comes to repair we have a strong need for skilled craftsmen. I have to admit that we for some years have bent our knees to more theoretical studies at the expense of the crafts and their values. It is important to increase the understanding and respect for the crafts. If we cannot repair our buildings as a product of the craftsmen's daily work, it will be difficult and expensive to get experts to do what, these days, are normal activities.

My advice to the benefit of our buildings is to make demands on the craftsmen, use their ability and knowledge because that is the only way to pay them the respect they deserve.

Tatyana Saprykina

THE MIR CASTLE COMPLEX

Mir Castle is an exceptional example of a central European castle, reflecting in its design and layout successive cultural influences (Gothic, Baroque, and Renaissance) that blend harmoniously to create an impressive monument to the history of this region.

The region where Mir Castle stands has a long history of political and cultural confrontation and coalescence, which is graphically represented in the form and appearance of the building.

The construction of this castle began at the end of the 15th century, in Gothic style. It was subsequently extended and reconstructed, first in the Renaissance and then in the Baroque style. After being abandoned for nearly a century and suffering severe damage during the Napoleonic period, the castle was restored with additional elements at the end of the 19th century, and and the surrounding areas were landscaped as a park. Its present form is graphic testimony to its often, turbulent history.

Mir Castle is a unique monument of Belarusian architecture, it was built by Duke Ilinich in the early 16th century near the village Mir (Grodno Region) instead of a wooden feudal farmstead, which existed there in 15th century.

This is a square-planned building with towers at the corners. The fifth tower had a drawbridge and a portcullis that could quickly stop a sudden attack. The castle was well adapted for gunshot defence. Its walls had two rows of loop-holes, and its towers were designed so that heavy cannons could fire from them.

The basis of the castle's composition is its high towers, which jut out beyond the wall-line. All of them have the same structure – tetragonal core with octagonal top, but they are decorated differently, giving an original decorative value and beauty to the castle.

Characteristic Belarusian Gothic decoration was used at Mir Castle: Gothic bricklaying (with alternating long and short sides of bricks) with walled up bricks, division of walls with plastered niches with various forms of ornamental brick belts.

Since 1568 Mir Castle has been owned by the Dukes Radziwils, who finished its building in Renaissance style. A three-storied palace was built along the eastern and northern walls. The plaster facades were decorated with limestone portals, plates, balconies and porches. During excavations a lot of glazed tiles with vegetable and geometrical ornaments, and coats of arms of the castle's owners were found.

Earth walls were made around the castle with bastions at the corners and a water-filled moat to surround them. To the north of the walls an Italian garden was laid, to the south; an artificial lake.

Despite a great deal of damage(the heaviest during the 1812 war) the Mir Castle has survived until now; and at present it is being successfully restored. This monument is under the patronage of UNESCO.

An example of the elaborate and decorative brickwork found at Mir Castle.

A view of Mir Castle seen from the water-filled moat.

PART VI

SHIPS: HISTORY, PRESERVATION AND CONSERVATION

Jerzy Litwin

SHIPBUILDING TECHNIQUES FROM THE MEDIEVAL AGE ONWARDS

INTRODUCTION

Although the origin of Baltic navigation goes back far in history, all documentary evidence confirms the beginning of real shipping around the 4th-5th century AD. It was then that a number of nations with a typical early-medieval culture established their first permanent settlements on the Baltic coasts. Succeeding centuries saw the growth of these communities and the evolution of centres of political and economic power. Both commerce and hostilities required the use of ships, and these were built along the Baltic coast.

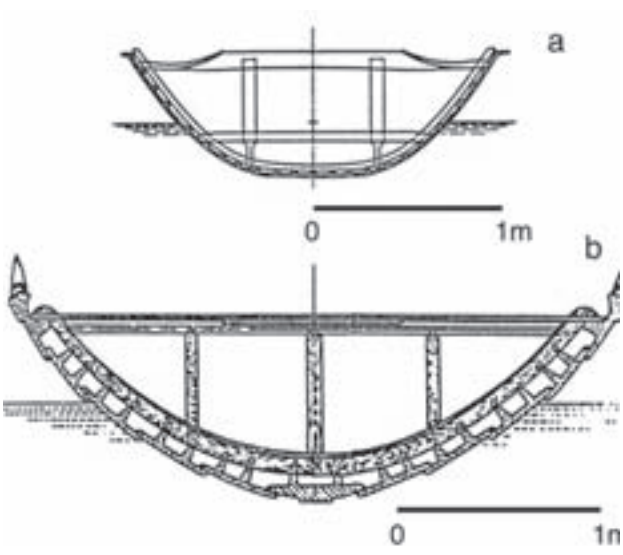
From the 9th to the 12th centuries the Baltic Sea was most readily accessible to the Scandinavians, the Western Slavs, then known as Wends, the Balts, subdivided into Prussians and Ests. Some contemporary sources also use the name Ests for the Prussians. The north-eastern shores of the Baltic were inhabited by the Lapps and the Finns. However, the Scandinavians living along the northern coasts of the Baltic were in possession of the longest shoreline. At this time the lands of the Slavs stretched from as far west as the area around the present-day city of Kiel to the mouth of the river Vistula in the east. Beyond, towards the east and north, lay the territories of the Prussians and Ests.

The settlements of nations in the 10th-11th centuries around the Baltic coast: a-a) Danes, b-b) Swedes, c-c) Finns, d-d) Russians, e-e) Ests, f-f) Prussians, g-g) Slavs.

THE EARLIEST BALTIC BOATS

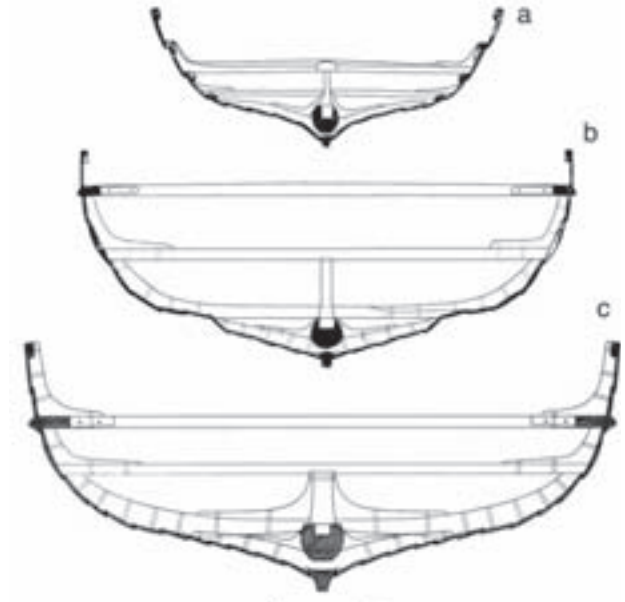
The most interesting boatbuilding region on the Baltic appears to be the area of Denmark. The numerous islands and the Jutland peninsula separating the North Sea from the Baltic, were a convenient site for the growth of settlement and a maritime economy. Long before the early Middle Ages this area had been a crossroads where the civilizations of northern and southern Europe met those of the eastern and western Europeans. It thus comes as no surprise then to learn of the scientifically valuable finds of boatbuilding remains in Denmark. Some of these are of exceptional importance, *e.g.* the Hjortspring and the Nydam boats. Further wrecks, from the Viking era, as well as ships from the post-Viking period, have made an invaluable contribution to our knowledge of boatbuilding in northern Europe.

Methodical studies of the history of boatbuilding began in the late 19th century, when a number of boat-wrecks were excavated. Since that time remains of ancient boats continue to be found, and they are

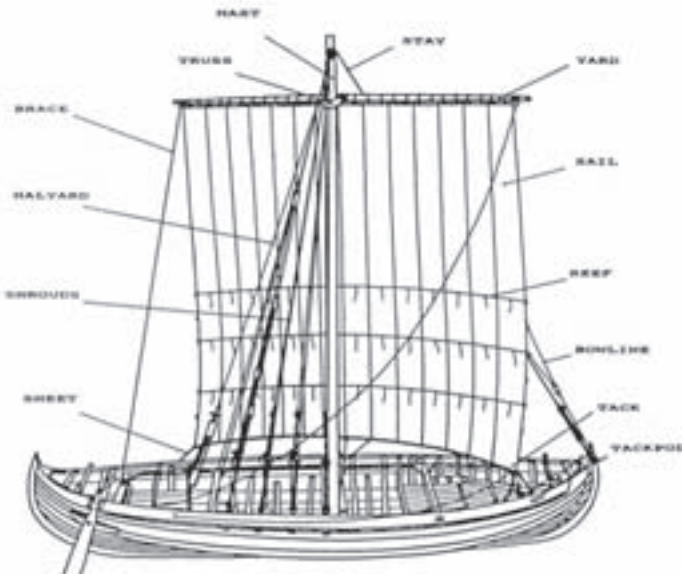


Cross-sections of the early wooden Baltic boats: a) the Hjortspring boat – 4th-3th BC, b) the Nydam boat – 3rd cent. AD.

The Nydam boat on exhibition at the Landesmuseum für Vor- und Frühgeschichte at Schleswig.



Cross-sections of the Scandinavian cargo boats: a) the Skuldelev 3 (the small cargo Baltic boat), b) the Skuldelev 1, c) the Hedeby 3 (both the ocean-going knarr type craft).



The rigging of the Skuldelev 1 replica boat "Saga Siglar".

enriching our knowledge of local shipbulding. The upshot of these studies was a fairly early attempt at defining the line of development of Scandinavian watercraft, derived from boats made from hides, and regarded as one of the four prototypes of present-day boats and ships. A key role in this theory is played by the oldest known Nordic plank boat, the 4th-3rd century BC Hjortspring boat, whose form resembles that of skin boats, but which was made from five broad planks of lime wood sewn together with bast cord. Moreover, the method of forming the ends of the hull is reminiscent of the skin boats depicted in the numerous rock engravings found in northern Scandinavia and dating from a much earlier period. The wrecks of the boats from Björke (1st-2nd century AD) and Nydam (3rd century AD) are representative of a later stage in the technical evolution of Scandinavian boats. The traditional sewing of planks had been replaced by riveting.

As far as the historical development of boats from the Baltic coasts of Scandinavia is concerned, the view is that they could have evolved from either rafts or dug-outs. In the low-lying areas of today's Denmark and in the forest-covered regions of southern Sweden, there was no lack of materials for building boats. Their construction enlarged the range of Nordic boatbuilding techniques, as a result of which a series of boat types emerged during the Viking period. Many of these have been excavated, *e.g.* the boats from Kvalsund, Oseberg, Gokstad, Tune, Ladby, Skuldelev, Hedeby and Galtaback, to mention but a few. Scientific analysis of this rich material has enabled the typical features of Scandinavian boats from the 8th to the 12th century to be established.

STRUCTURAL FEATURES OF 9TH-11TH CENTURY SCANDINAVIAN BOATS

Typical features of early-medieval Scandinavian boats were the rounded stem and sternpost fixed to the beam keel, the central part of which was roughly T-shaped in cross-section. The keel, stem and sternpost were made from oak. Applied from the stern to the bows in clinker fashion, the strakes were fastened together with iron rivets and were caulked with plaited strips of animal hair. The ends of the strakes were usually rabbetted into the sides of the stem and sternpost.

Up to around the 9th century every strake of a Nordic boat had characteristic elongated projections with openings through which ropes could be threaded in order to fix the transverse reinforcement elements to the planking. By the end of the 9th century this type of joint had been replaced in Scandinavia by pegging: the strengthening elements were joined together by means of wooden pegs 20-30 mm in diameter. The state of the boatbuilding art of the day required the boat to be built by the shell technique, and as work progressed, the floor timbers and keelson were fitted into the interior of the hull, followed by the thwarts, knees and stringers. The construction was completed

with the addition of rowlocks. The rudder was fixed to the starboard side of the hull near the stern.

An important aspect of technical progress in the construction and use of Baltic boats was the introduction of sail propulsion; on the Baltic this took place during the 8th or 9th centuries. Therefore, boats that were to be moved by wind had a mast step in the keelson and a mast yoke in the thwart above. The rigging consisted of one set of ropes for supporting the mast and another for controlling the sail.

The Scandinavian sagas have handed down a lot of information about the names of the types of vessels sailing in those times. The snekar and drakar were combat craft. Vessels also came to be known by the number of oars on each side used to propel them. Usually these were 'fifteeners', 'twentiers' or 'thirtiers', which were classed as 'longships' (langskip), although gigantic craft with 60 oars on each side were constructed from time to time.

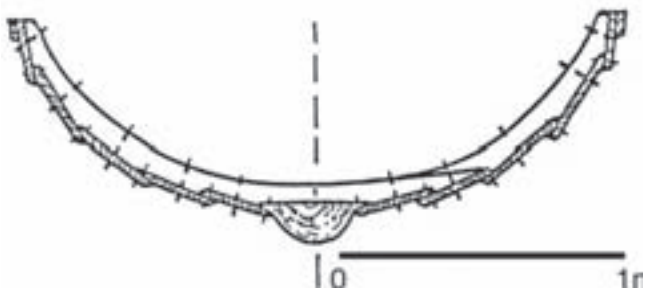
The largest merchant vessel was the 'knarr', and smaller ones included the 'feria' 'byrdingr', and 'skuta'. Though they were all sailing ships, they could also be rowed.

EARLY MEDIEVAL SLAVIC BOATS

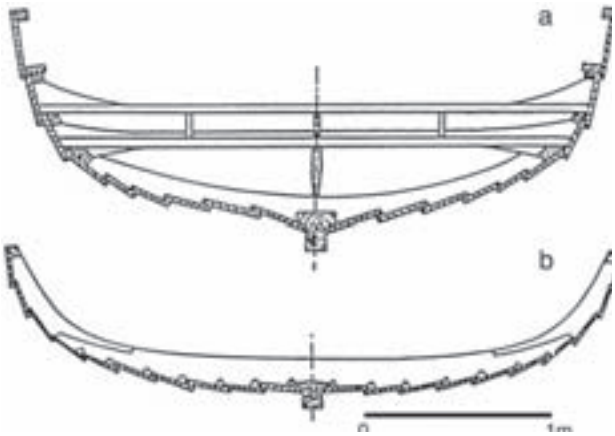
The oldest written sources telling of the riparian settle-ments and navigation of the Slavic peoples date back to the 6th century AD. The West Slavs first ventured out into the open sea in the 9th century. To meet their needs for fishery and transportation, they produced rafts and dugouts from the trunks of oak, pine, willow and poplar. To sail in safety at sea, however, appropriately construc-ted craft were required. Though better than a raft for this purpose, even a dugout had to undergo modification: this involved raising its sides by attaching overlapping planks to them. In the larger boats, the dugout part of the bottom was of no great significance and, in time, came to be left as a semicircular beam – the keel. This development is well illustrated by the keel of the wreck of a 9th century fishing boat found at Szczecin.

By the end of the 9th century keels had become T-shaped in cross-section. Dugout keels in small local boats persisted on the southern Baltic until the beginning of the 20th century. Ancient Slavic boatbuilding reached the peak of its development in the 11th-12th centuries, when large plank-built boats undertook long commercial voyages and naval campaigns, against the Vikings amongst others. Many parts of Slavic vessels from this period have been discovered along the south-western shores of the Baltic.

Slavic boats of the 9th-12th centuries had a number of characteristic structural features: they were made of oak; in silhouette, they resembled Viking ships, but their bottoms were flat. They were built by the shell technique, and overlapping planks were caulked with moss. The use of 9-15 mm diameter pegs, to fix the planking together, became the characteristic solution in the Slavonic boatbuilding technique.



The Szczecin boat's cross-section.



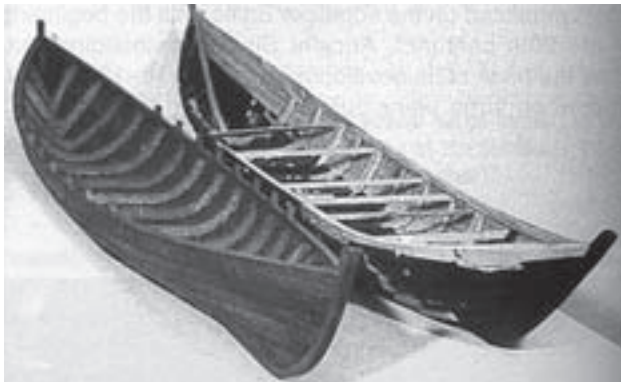
Cross-sections of the Scandinavian and Slavonic type of boats represent the typical form of the bottom: a) the Skuldelev 3, b) the Czarnowsko I.

The Ralswiek 2 boat and its reconstruction by Peter Herfert.

Originally propelled by oars, these boats were additionally fitted with a rectangular sail from around the 10th century onwards. As in the Scandinavian boats of the period, the rudder was attached to the stern end of the starboard side. The surviving sources make no mention of the names of these boat types; however, like the Nordic boats, they did have names.

EARLY MEDIEVAL PRUSSIAN BOATS

The eastern neighbours of the Slavs on the Baltic were the Prussians, up to their demise in the 13th century, when they were conquered by the Teutonic Order. Their boatbuilding traditions were clearly influenced by the Scandinavians if one accepts that the wrecks excavated here were built locally. Their hull shapes were reminis-cent of typical Baltic boats, but some constructional details were clearly derived from local traditions. Archaeological excavations on the presumed site of Truso have brought new material to light, *e.g.* traces of boats whose sides had been fastened with iron rivets.



Two reconstruction models of similar medieval boats from Prussian area – on the left the Frauenburg (Frombork) boat from the Viking period – according to investigations from the year of the discovery in 1895; on the right the Tolkmicko I boat, from the and of the 15th cent. Photo Ewa Meksiak

BOATS OF THE PEOPLE OF THE NORTH-EASTERN BALTIC

Archaeological remains indicate that the boats built on the Gulfs of Bothnia, Finland and the northern part of Sweden in the early Middle Ages were no different in external appearance to their Scandinavian prototypes. However, the remoteness of these boatbuilding sites from the main trading centres precluded frequent contact with them and contributed to the survival of ancient boatbuilding techniques into the 19th century. These included the mechanical splaying (by steaming) of a dugout's edges, which were subsequently raised by planks aligned in the clinker fashion and sewn on to them. The capacity of the hull was thus increased. The dugouts and the planks used to raise their sides often had projections to which the frames could be lashed.

The oldest known illustration of the sewn boat from Finland – the part of the title page of the French translation (1674) of the J. Schefferus book Lapponia.

13TH-15TH CENTURY BALTIC SHIPS

Urban growth in Western Europe created a great demand for raw materials and agricultural produce. The holds of the very much larger ships built since the 12th century now carried not luxury items but bulk cargoes, and in the 13th century vessels of this kind became an ever more frequent sight on the Baltic. These ships, including types such as the cog and holk, had come originally from ports on the North Sea. The increase in trade stimulated Baltic boatbuilders to construct new types of ships, not only similar to those arriving from elsewhere, but also evolving from traditional sea-going craft; this activity gave rise to ships like the kreier and bording (byrdinger). However, the most common class of ship on the Baltic in the 13th and 14th century was the cog. It is generally thought that the cog came into existence at the mouth of the Rhine, and that the Frisians using them had spread its design in northern Europe. It is known from written sources that cogs were arriving at Gda*f*sk already in the first half of the 13th century and that they were the largest vessels to sail even up the Vistula. By the end of that century they were certainly being built in Baltic shipyards.

The seal of Elbląg (Elbing) from 1242 represents the early type of cog.

As a result of the numerous discoveries of wrecks identified as cogs, our knowledge of this particular ship is now extensive. Particularly significant was the discovery, excavation and scientific examination of the cog discovered at Bremen in 1960.

The earliest design of a Baltic cog is depicted on a seal of the town of Elbląg (Elbing) from 1242. This image is regarded as one of the earliest showing a single-masted ship with a hinged rudder. The straight, beam stem and sternpost are also an innovation. A late-13th century seal from Gdańsk depicts a cog with platforms

The seal of Gdańsk from 1299 depicts a cog with platforms above the bow and stern.

The seal of Gdańsk from 1400 represents the typical holk from the first half of the 15th century.

above the bow and stern. Further modifications to the cog's design are reflected in the 14th-century seals from Baltic towns, *e.g.* Stralsund and Elbląg, and these versions are very similar to the Bremen cog. These ships still have the characteristic straight, sloping stems and the castle above the stern.

Cogs had a flat bottom, and sides clinker-built by the shell technique. They had fairly short, low beam-keels extended at either end by naturally grown crooks, and these in turn were raised by the stem and sternpost. Characteristic of all wrecks identified as cogs, are the methods of joining the planks and caulking the hull. The planks were nailed together, with the end of the nails being bent inwards on the inside. The gaps between the planks were usually caulked with strips of moss held in place with wooden slats stapled to the planks.

Typical overlapping sides planks observed in wrecks of the cog ships – clenches nails and the caulking compressed by battens stapled to the planks.

Important elements in the cog's construction were the transverse reinforcement beams. These were attached to the planking during the hull's construction.

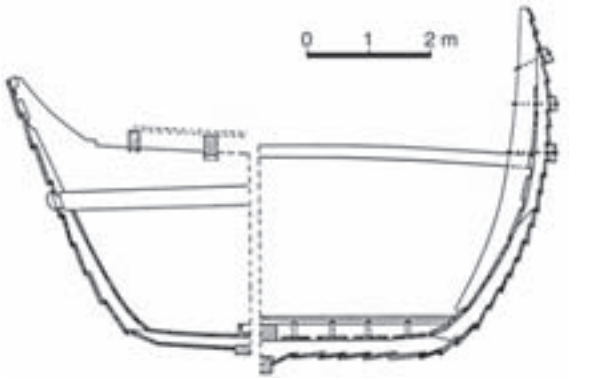
The discovery of the Bremen cog also made it possible for the method of deck construction on a medieval ship to be examined. Since the hull was built by the shell technique, and the transverse reinforcement constituted not a frame but merely a set of crooks abutting on to one another in various ways, the transversally aligned deck planks were supported on longitudinal beams.

In all probability, the earliest holks were built on the North Sea around the 10th century; however, they did not become common in the Baltic until 400 years later. In the opinion of some researchers, they were technically the successor to the boat derived from raising the sides of a dugout. Other researchers, however, consider the holk to have evolved from the early medieval plank boat, such as the knarr for instance. Though it resembled the cog from the technical standpoint, the hull of a holk was clinker-built in its entirety, and the stem was rounded. The hull was built by the shell technique, and the planks were riveted, but before this were caulked with strips of animal hair. The deck is laid out transversally as on the cog.

The remains of the vessel known as the 'Copper Ship', raised in 1975 by the Polish Maritime Museum, are presumed to be the structural elements of a holk. Even so, the appearance of the 'Copper Ship' cannot be described with any certainty. The stern planking makes a sharp angle with the sternpost; this aspect of the design is similar to that of the ship on the 1424 Elbląg seal, which is recognized as a holk.

In the 15th century, holks had two and then three masts. An innovation was the use of a triangular sail on the mizzenmast, borrowed from Mediterranean ships.

Besides cogs and holks, smaller types of Baltic craft were built. For instance, the ferry used in coastal shipping as a lighter was flat-bottomed, as the wrecks at Falsterbo have shown. Other types, like the 'krejer', 'smack, 'ligurna' and 'bording' were large, clinker-built vessels. The wrecks excavated at Kalmar are the remains of such craft.



Two cross-sections of the most popular medieval ships: a) the Bremer cog, b) the "U 34" ship from Holland represents the holk.

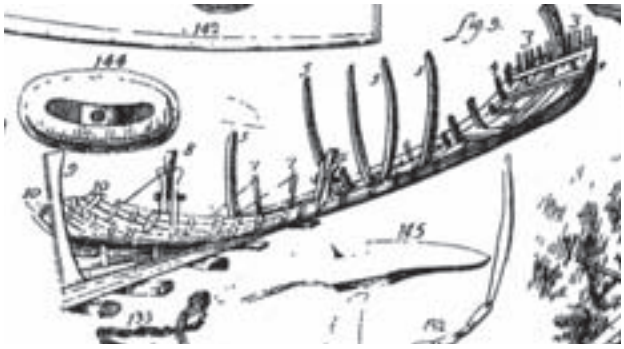
"BALTIC CARAVELS"

By the turn of the 15th century the first three-masted merchantmen from south-west Europe, made their appearance in Baltic countries. They had been set in motion by the carracks that sailed here from the west coast of France. Because of their characteristic flush planking, they became known as caravels, although they were quite different from the true caravels of Spain and Portugal.

The techniques of carrack construction were unknown to Baltic shipbuilders. Those of Gdańsk had to wait until 1470, when they were able to examine one of those carvel-built hulls in detail. This happened after the 'Peter van Rosseel', a carrack of large proportions, caught fire and was abandoned by her French owner in the port. The ship was taken over by the city authorities and put back into service around 1470. Now named 'Peter von Danzig', it functioned as a privateer, and was the contribution of Gdańsk to the Hanseatic League in its war against England.

The O. Lienau's reconstruction of the "Peter von Danzig" – the model from the Polish Maritime Museum collection. Photo Ewa Meksiak.

Some researchers believe that the refit of this carrack in Gdańsk was crucial to the acquisition of this new technique by the local shipbuilders. However, this fact should not be overestimated. It seems unlikely that even a close examination of a finished hull could ensure the successful application of the new technique without technical knowledge. This would have required many years of practical experiments which, so far as one can judge, were undertaken. Shipbuilding records do not make it clear whether early 16th-century Baltic ships were carvel-built. Conservative attitudes probably prevailed and most vessels were built with clinker hulls. Other shipyards in northern Europe also attempted to build the new type of hull. Nevertheless, the pictorial evidence shows that even as late as the 17th century many north European shipyards were still using the shell technique to construct carvel hulls.



Fragment of a shipyard view of the illustration in A.C. Raalamb's book "Skeps Byggerij" of 1693 presenting the shell first method of a carvel ship hull construction.

The conversion of vessels into fighting ships is quite clear from images of cogs and holks. They had crenellated fore- and sterncastles, and protected platforms on the masts. As the standard sea-battle strategy at that time involved boarding, this was facilitated by special anchors at the end of chains cast from raised bowsprits on to the enemy vessel, and the hooked ends of the mainsail yard-arms. When in the 15th century firearms were first used on ships, the first cannon were placed at the sides of the castles. It was not possible to accommodate heavy guns on the decks as they were made at that time. Deck structures had to be strengthened and this was something that was accomplished during the Renaissance.

INTO 16TH TO 19TH CENTURY

In the second half of the 16th century in Denmark, Sweden and Poland there appeared a new kind of ship, the South European galleon. They were brought from western Europe, or built on site, as happened in Poland in 1570-1572, where such ships were constructed under the supervision of the Venetian shipbuilders.

These galleons had flush planking, developed castles, and three masts on two of which the two square-rigged sails were put. They were also equipped

A model of the "Smok" – one of the earliest galleon type ships on the Baltic constructed in years 1570-1572 by two Venetians in Elbląg (Elbing) for the order of the Polish king Zygmunt August. Photo Ewa Meksiak.

Swedish and Polish galleons during the battle at Oliwa (1627) a picture by Adolf Boy – very good example of similarities in the Baltic warship construction.

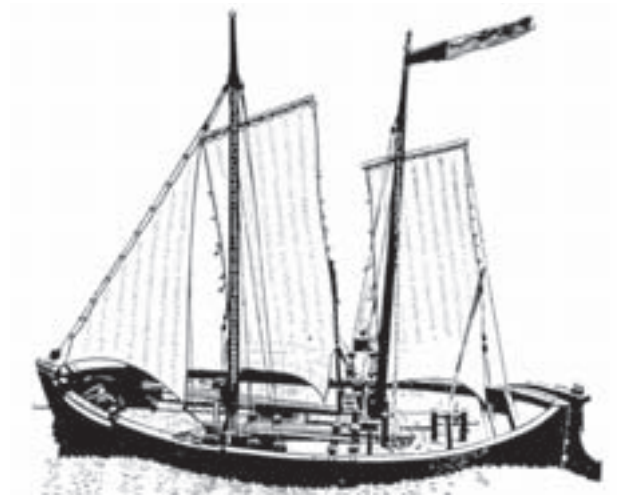
with artillery placed under the deck and in the quarterdecks. Along with the building of these vessels the types became unified and the construction got more and more alike.

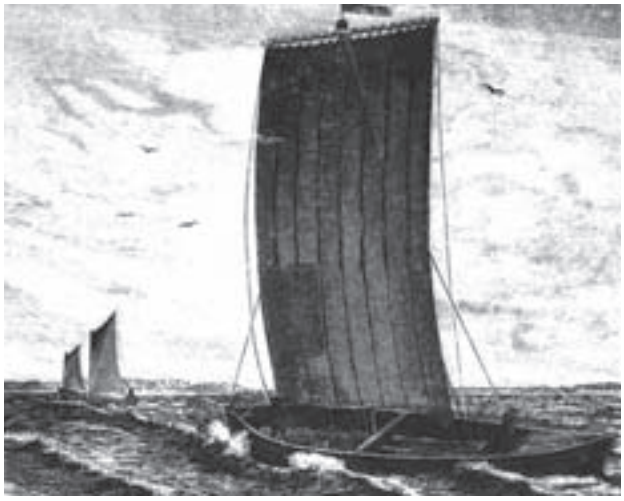
The development of the Dutch trade in the 17th and 18th century resulted in the appearance of the new kinds of vessels on the Baltic Sea. Those were the fluits, pinnace, galiots, smacks, hokers, and many others. In the 18th century these ships were often built in the Baltic shipyards under the supervision of the Dutch masters or the shipwrights, who were settling down there. The Baltic builders were also looking for the most favorable hull forms. For example Peter the Great, the founder of the Russian navy, used Dutch solutions, whereas the Mediterranean styles, mainly rowing-sailing ships – chebecks, inspired Frederic Chapman to build the vessels used in the fights in the Swedish and Finnish skerries. The situation was similar at the end of the 18th century and in the 19th century in terms of building big cargo ships such as barks, brigs and frigates used for sailing across the Baltic Sea. In fact these ships, although built in different shipyards, did not differ much.

The situation in the building of local small ships and fishing vessels was however, very different. Small cargo ships were built for the same aim – coastal transport. They were built in the workshops in all the Baltic countries and had similar forms of sails – fore and-main masts with rectangular sails and mizzen with a gaff sail or ship's had a complete gaff rigg. They differed locally in shapes and names of types. Very often they did not have the equivalent, like the lomme from Tolkemit (Prussia), *Klaine* and *Grossereisekahme* built in the ports of Curland, German *Galeas*, or Nordic yachts. As the pilots' books say, such ships were the first to begin and the last to end the sailing season in the Baltic ports.

The "Stadt Elbing" galleon from the end of the 18th cent. A typical trade ship constructed in many Baltic shipyards.

The ship "Balder" from Marstal (Denmark) represents the galeas type of small trade vessel.





Typical fishing boat used on the Baltic lagoons – a Taglerpolten from the Oder Lagoon, Angelkhane from Vistula Lagoon and Kurrenkahm from Kurland Lagoon representing various forms of a local type of watercraft.

Compared to the cargo ships (even the smaller ones with local differences in hull forms, names, and form of sails) there are major constructional differences in fishing vessel hull forms. The age of the regional tradition, and limited sailing areas; along with the most favorable forms for the hulls and sails; had a great influence on maintaining their uniqueness until contem-porary times. Unfortunately, the traditional boatbuilding of the Baltic Sea is dying out, whereas in other places it has survived in the forms similar to the ones of the early Middles Ages. In such a way the regional differences have survived. It is strange though, for example, in the 19th century and at the beginning of the 20th century that on the three lagoons: Oder River, Vistula River and Curland *i.e.* Nieman River, which are similar to each other in terms of hydrographical conditions, fish species, and governed by the same national fishing organization, and in spite of the unification of the fishing gear up to World War II; the fishing boats were very different from each other. For example the Taglerpolte from Oder estuary, Aagelkahne from the Vistula lagoon, and the Kurenkhane from Curland. Similarly, the boats used on the open sea, such as the zees boats from the Kashubian district had very different shapes than the similar eeke – boats from the Blekinge province in Sweden. In the way the small boats were built we can also see many options, which are examples of "borrowings". Such are the designs of the Scandinavian (Swedish) drift cutters and the Danish and west Pomeranian cutters used by the fishermen as the first sea-worthy Baltic ships.

When it comes to the traditional shipbuilding of the Baltic countries we can observe the courses of the necessary, common investigation. All our countries have already got the scientific materials and listed our domestic boats. However, we are still lacking the synthesis, although the first trials for this have already taken place. In 1998 Statens Sjohistoriska Museum in Stockholm organized an exhibition and issued a catalogue about the folk boats from the North of Europe. In the catalogue many specialists presented peculiar types of watercraft. This material, and other important publications, are a perfect source for the beginning of the synthesis and describing the common features and the differences in the folk boats. I think that such a study could be done with the cooperation of a few scientists from the Baltic countries.

FINAL REMARKS

Finishing my speech I would like to stress that the aim of my presentation was not the description of all the common features in shipbuilding over past ages, but to stress the most important problems and suggest ways for further investigation. That is why I skipped the part about building steel boats with mechanical power, which, especially when compared to contem-porary times, can have many interesting aspects. In my last sentence I would like to claim that the common features of the vessels increase with their size, which seems to be an issue that is obvious, and does not demand further investigation.

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Åsmund Kristiansen

SHIP PRESERVATION AND SHIP PRESERVATION CENTRES IN NORWAY

Dear colleagues thank you for inviting me and the Hardanger Ship Preservation Centre to this conference. It is a great pleasure for us!
My name is Åsmund Kristiansen. My background is wooden boat building and an honours degree in ethnology. I work as a ship preservation adviser. That means I work with historic and technical documentation, research and communication in connection with ship preservation projects.

CULTURAL IDENTITY

The concept of cultural identity gives an understanding to the background of this task. Ship preservation in Norway is one field within the preservation of coastal culture, and the construction of cultural identity. There is now major activity associated with the preservation of coastal culture. The last 20 years has seen an increasing interest in this area, especially for boats and vessels.

Ship preservation has been recognized as a sort of "people's movement". Groups or individuals acquire a boat, often in a sad state, in order to repair, restore or rebuild and put it back into service as a private yacht, charter vessel, youth training ship, museum or similar. The driving force in this field is the personal engagement, plus the official responsibility to create incentives is also important.

Sailing the ships, working with them, gaining knowledge and the skills in this way provides materials for the construction of a cultural identity.

Ship preservation in Norway means keeping historically interesting vessels alive as floating, working objects, or on display at museums. While preserving objects on permanent display is consiadered a museum task, and thus governed by the Ministry of Culture; the preservation of vessels as working objects is considered an environmental activity and is under the jurisdiction of the Ministry of Environment and Energy.

HISTORY

The official Norwegian heritage policy has been focused on inland artefacts. As cultural identity has grown into a "movement" people have started to be interested in boats and vessels. This is no wonder, since the population of Norway has always been greatest along the coast. Since 1967 official sponsorship has gradually increased. This year the total sum is about 32 million kroner (approx 4 mill EUROS). The political interest and acceptance for this field has grown during the last few years. The Norwegian Parliament has now expressed several times that coastal culture is a priority area.

Keeping maritime heritage afloat has now developed into a well-organised, public sponsored system. The Directorate for Cultural Heritage manages the official sponsorship.

BRIEF OUTLINE OF HISTORY

- **1967:** Norwegian Council for Cultural Affairs first contribution to a ship preservation project – the schooner "Svanen".
- **1977:** Norwegian Council for Cultural Affairs starts work on a report concerning ship preservation and nationwide registration of old vessels.
- **1981:** The Ministry of the Environment gets the responsibility for the co-ordination of public involvement concerned with ship preservation.
- **1983:** Separate item on the national budget.
- **1985:** The Norwegian Association for Ship Preservation (NFF) founded.
- **1989:** The Directorate for Cultural Heritage, under the Ministry of the Environment, gets the public responsibility for ship preservation.
- **1995:** The Directorate for Cultural Heritage prepares the *Ship Preservation Plan 1996-2000.*
- **1996:** Three national ship preservation centres established.
- **2002:** A new ship preservation plan (2002-2006) launched by the Directorate for Cultural Heritage.

GOALS AND STANDARDS

The Directorate's goal is to preserve a representative group of boats and vessels fulfilling certain aspects: age, authenticity, geographical importance, building material, type, shape, function and historical significance. In Norway, the term "ship preservation" has been synonymous with preserving vessels longer than 30-35 feet in a floating condition.

In the late 1970s the goal was to develop a stock of 25-30 vessels. Later this idea was abandoned. The list of

The steamship "Oster", a local fiord steamer built 1908. Ship preservation in Norway is one field within the preservation of coastal culture. It is a "people's movement", and many kinds of boats and vessels have been preserved.

An important motivation for preserving vessels is going out sailing and other activities related to the use and upkeep of the boats.

Personal engagement is the most important driving force in ship preservation. The old fishing vessel "Vikingen" is raised, ready to be taken through a 15 year restoration process.

"Vikingen" today, as she appeared in 1916.

vessels now contains 170 vessels, 33-300 feet, where the owners have entered into a voluntary agreement with the Directorate.

By granting the funds through the Directorate, one hopes to establish a certain credibility in the methods used for the preservation and showing the aesthetic and historic value of the vessels receiving financial support. The owner's private preferences are therefore secondary to the vessel's inherent historic characteristics. The preservation of historic ships should therefore follow certain standards, called antiquarian guidelines. A book published by the Directorate in 1998 presents thorough guidelines detailing the different aspects of ship preservation and how the standards are put into practice.

The antiquarian guidelines:

- Keep original materials and parts
- By replacement: use the same sort of materials and techniques
- Restoring interior/exterior requires good documentation
- Restoration work should be well documented
- Changes in arrangements should be reversible and readable

LEGAL AND OTHER OFFICIAL MEANS FOR SHIP PRESERVATION

- *Cultural Heritage Act § 14a*: Protection of boats, which are of particular historic value.

- *Cultural Heritage Act §23*: Without permission from the Directorate for Cultural Heritage boats older than 50 years may not be exported.
- Declaring vessels as "historic ships" i.e. a vessel of significant historic value and worth preserving. To obtain this status the owner has to follow antiquarian guidelines.
- When receiving financial support, the owner has to follow the antiquarian guidelines.

SHIP PRESERVATION IN FIGURES

There is increasing diversity amongst the preserved vessels. Motor vessels are highly represented with 110 vessels. We have 22 steam driven vessels and 38 sailing vessels. If we look at original use we have 72 fishing vessels, 28 cargo vessels, 26 passenger vessels, 11 pleasure vessels and 33 in a group called special vessels, i.e. pilot boats, rescue boats, tug boats, surveying vessels.

Information about some historic vessels, to show some of the diversity:
Skånevik, built 1967, ferry. The Directorate considers safeguarding the preservation of Skånevik as the number one priority in Norway. Still in operation by the shipping company.
Atløy, built 1931, local fjord steamer. In Bergen, the largest city in Western Norway, 90 local steamers had their base until 1950.
Skibladner, built in Sweden 1856, the world's oldest paddle steamer (inland).
Alta, built 1953 in the USA, minesweeper. One of the largest wooden ships in Norway.
Hestmanden, built 1911, steam freighter.
Pauline, built 1898, sailing freighter.
Borgenes, built as escort vessel in Canada, 1942. Bought to Norway after WWII and rebuilt as a trawler.
Vikingen, built 1915 as a fishing vessel.
Tysso, built 1917 as a pleasure boat, from the 1920's fjord steamer for the industrial and power companies in Hardanger.
Heland, built 1937, fishing vessel.
Olav Østensjø jr. built 1951, rescue vessel.

SHIP PRESERVATION CENTRES

Since 1996 we have had three official ship preservation centres in Norway. Their main task is to keep shipbuilding knowledge and skills alive, so that we are able to restore and maintain historic ships for the future.

Three centres have been established: in Northern Norway (about 5 employed), Western Norway (about 20 employed) and Southern Norway (about 30 employed). The centres are supported directly, and indirectly by the Directorate for Cultural Heritage through funding granted to the ships.

The two wooden centres are more or less new, purpose-built facilities. The steel and iron centre is situated in a dry-dock, with surrounding facilities (cranes, workshops etc.) dating back to 1873. The steel centre, Bredalsholmen, is uniquely qualified for riveting steel ships.

The centres are also museums where visitors can come and learn about restoration, crafts, and the history associated with the ships.

All of the centres own vessels themselves, and use them for different purposes. The sailing jakt (sloop) Mathilde in Hardanger is used as a museum ship, camp school and in the summer as a charter and tourist ship.

In addition to wooden shipbuilding, restoring working vessels and pleasure boats, Hardanger Fartøyvernsenter carries out building of small boats, rope making, rigging, interior work on steel vessels, smithy work, and mechanical work.

The centres are meant to be and are a resource for the whole field working within ship preservation. Thus we are not only restoring and documenting the work done. The centres also arrange courses for ship's owners, answer questions, survey and give advice about preservation and restoration. We also do general documentation and research within the fields connected to shipbuilding.

The challenges connected to working with historical ships on antiquarian premises are sometimes great. Therefore, we are also developing restoration techniques.

To a certain degree, the centres and the commercial boatyards compete for restoration jobs. This is not totally unproblematic, but we are getting on quite well and in some cases we help each other.

DOCUMENTATION

In Norway the keyword for ship preservation is authenticity. All work on the vessel must always consider the vessel's historic integrity. This is a goal for the centres. In professional preservation work documentation is essential. The danger is that if a ship is torn apart without documentation, rebuilding becomes very difficult. All traces and evidence of former use is completely lost. More research is needed to understand building techniques as these can often be misunderstood during the restoration process. Understanding of the vessel is essential for good restoration work. In Norway the training of boat builders has been informal. The result is variations in building techniques.

A project often starts with a survey of the vessel to evaluate its condition. This is the basis for a cost estimate and is used by the owners and the Directorate, to decide whether or not they want to go ahead. In this phase we also do some research into the vessel's history. When the vessel is ready for restoration we take measurements, take photographs of details, store important components, and in some cases we take off the lines to make drawings.

Different project gives us different challenges. To restore a vessel's interior and exterior sometimes requires the study of old photographs, archives and

Hardanger Fartøyvernsenter (Ship Preservation Centre) is one of three centres restoring ships and vessels following antiquarian guidelines. The centres are directly and indirectly supported by the Directorate for Cultural Heritage through funding granted to the ships.

Interior works on a fiord steamer, a steel ship. Bredalsholmen, one of the ship preservation centres, has the expertise for steelwork. The other two centres' expertise is with wooden vessels. Hardanger Fartøyvernsenter carries out interior work on steel ships.

The smith is an important craftsman in traditional shipbuilding. Hardanger Fartøyvernsenter also carries out small boat building, rope making, rigging, interior work on steel vessels and mechanical work.

Caulking of decks is an important skill in the upkeep of the old vessels. Maintenance using traditional techniques and materials is important for retaining the historic value of the vessels.

literature. We also consult old shipbuilders. The current trend is to keep the vessel's appearance as it is when it is taken out of service, which presents other challenges.

MAINTENANCE

Taking care of old vessels in such a way that prevents them from losing their historic value requires more than just keeping them afloat. Traditional maintenance skills are important. The caulking of wooden decks, use of pine tar and paints based on linseed oil also retains their historic value. However, modern use of the vessels does not always permit the use of the same procedures as when the vessel was working, so we must use some modern techniques as well. The use of dehumidifying equipment during the lay-up period is used on some vessels with good results. Or just a fan blowing air through the vessel is a good thing. A good cover over the vessel reduces the maintenance of the decks. A well thought out maintenance plan is used by some vessels, but should be used more frequently.

SUBJECTS OF DISCUSSION

The tendency within this field has been to find vessels in a sorry state. Many years of wear and tear result in extensive restoration. In some cases one can almost talk of building replicas. Today the Directorate seldom recommends the restoration of a vessel's appearance to its original form or an earlier phase of its working

Learning from old craftsmen is important to understand the crafts and the boats.

As a museum Hardanger Fartøyvernsenter has made a special effort in working with children. To let them do, and not only hear and see, is a good way to awaken their interest in maritime heritage.

life. The lack of enough documentation can lead to the creation of new cultural monuments rather than preserving old. Thus the attitude has now changed, and newer ships in good condition are preferred.

We sometimes ask ourselves when we stand in front of a vessel in sad condition: wouldn't it be better to document the ship well, conserve it in some way on shore, take out the good parts and build a replica? This discussion has lead to more replica building of smaller boats, but not the larger vessels and ships

Officially this is not a professionally acceptable approach. But if we see the skills and knowledge as an aim of preservation, as well as the ships themselves, the building of replicas should be officially sponsored. There have been a few replica projects of a high professional standard, but they have not been carried out as an alternative to restoration. Even though replica building and restoration has its basis in the same trade, the challenges and attitudes towards it would be different. An important question here is safety at sea, and the project's relationship with the safety regulations.

CHALLENGES

As a preservation centre working with old vessels and crafts, we have profited from contacts with old craftsmen. Some of their knowledge is impossible to comprehend from the old vessels, e.g. their understanding of construction, design and certain working operations. The collection of such knowledge has been organised through a special documentation and research project, the Carvel Project, in cooperation with other museums.

But we must also take care of young people. Recruiting young people, getting them interested in crafts, boats and their history, is a great challenge. Most of the people involved in the non-professional preservation work are *men* who have or have had their work on board ships. To bring the skills and heritage further, recruitment is essential. At the Hardanger Fartøyvernsenter we have made a special effort to communicate with children and young people, something that we find very meaningful.

Romaldas Adomavičius

THE RETURN OF THE KURĖNAS. SAILING BOATS OF THE FISHERMEN OF THE CURONIAN LAGOON

Since 2000 the Lithuanian Sea Museum has been implementing a project aimed at preservation and propagation of ethnocultural heritage under the title *The Return of the Kurėnas*. The aim of the project is to organize educational activities by using the *kurėnas*, a reconstructed fishing sailing boat of the Curonian lagoon; such actions are expected to promote interest in the past and traditions of the Curoniaan lagoon region. This is highly important for preserving the ethnocultural heritage that can still be found in this region following the demographic changes in the region in the middle of the past century. Due to the fact that the local residents moved somewhere else and the newcomers brought along a different cultural orientation, the continuity of the economic and spiritual lifestyle that had developed in the course of a few centuries was disrupted. Those processes had an impact on sailing boats of the lagoon fishermen, a unique object of the cultural heritage of the Curonian lagoon region.

The sailing boats of the fishermen of the Curonian lagoon are a product of local natural conditions. The Curonian lagoon is a water basin of ca 1,500 km^2 separated from the Baltic Sea by a narrow strip of sand called the Curonian Spit. On the eastern shore of the lagoon large areas are covered by the delta of the River Nemunas. The Curonian lagoon is connected to the sea via the narrow Klaipėda strait, which was considered the mouth of the River Nemunas in the middle of the 13th century, when the Memelburg (Klaipėda) castle was built. The lagoon is shallow and rich in fish (especially till the beginning of the 20th century, when there was no pollution with industrial waste). In the middle of the 20th century the average depth of the lagoon was 3.8 m. An important factor related to the origin of various types of sailing boats was not only the abundant fish in the lagoon (fishing), but also natural and geographical conditions, due to which the importance of sailing boats as means of transport and communication became quite significant. Up till the mid-19th century and even later, water and bad roads isolated the people living on the Curonian Spit from the administrative and cultural centres, which could only be reached by sailing boats. All this determined the highly unique everyday lifestyle, customs and traditions of the residents of the Curonian Spit. On the other shore of the lagoon, opposite the Curonian Spit, there stretched the marshland of the Nemunas

Kurėnas – boats from Nida village in the Curonian Lagoon c. 1910.

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The different stages of the boatbuilding process of the Kurėnas boat at the Lithuanian Sea Museum in the summer of 2001. (pictures 1, 2, 3)

delta with numerous old riverbeds and channels. The people living there badly needed rowing boats and sailing boats for fishing, transport and communication. Along the shores of the Curonian lagoon the basic occupation was fishing. Fishing was essential for the Curonian Spit, where only a few small land plots were suitable for agriculture and live-stock breeding. On the eastern and southern shore of the lagoon, the land was gradually cultivated and the water level controlled, so agriculture developed more rapidly (especially vegetable growing), however, the importance of fishing did not diminish.

In the Curonian lagoon and in the lower reaches of the rivers falling into the lagoon, rowing boats and sailing boats of more than a dozen different types were used for fishing, cargo transport and communication. Their typical characteristic is the combination of several features. The fishermen of the Curonian lagoon used the *kurėnas* not only for fishing, but also for bringing hay from the meadows on the other side of the lagoon. Sailing boats were also used to carry livestock to the pastures. A specific type of sailing boats, market boats, were used to carry fish to the market. Sailing boats of various types differed in size, but the principal construction features of all the boats were the same: a flat bottom, 4 pairs of frames, edge-type connection of side boards (pigeon-type connection), and leeboards. Since the Curonian lagoon is not deep, and there are a lot of shoals in it, the sailing boats had flat bottoms. Therefore, their draft is small, a mere 30-40 cm. The bottom parts were made of pine or oak boards up to 12 cm thick. Wide (up to 4 m) and heavy sailing boats were very stable in short and sharp lagoon waves. The sails were hoisted on the big mast fastened to a massive beam, and the small mast leaned against the cabin bulkhead. Sprit rigging was used in the sailing boats of the fishermen of the Curonian Spit, whereas in the boats of the fishermen from the eastern and southern shore of the lagoon gaff rigging was used, too.

The largest sailing boats were used for the so-called Great fishing with drag nets. The nets gave the names to the boats. A sailing boat (up to 14 m in length, usually equipped with gaff rigging) that drifted and dragged a trawl-shaped kiudelis was called kiudelvalt kiudelvaltė (Keitelkahn). Kornas-type boats called *kurėnas* (Kurrenkahn), 11-12 m in length, dragged a long three-walled net, a kornas, in pairs down-wind. Such sailing boats were equipped with sprit rigging. By the way, a *kurėnas* fishing boat with a kiudelis-type net was called kiudelvaltf, and vice versa: the type of the net used dictated the name of the boat. As time passed, the people began calling all the sailing boats of the Curonian lagoon by a single name, "the Curonian boats" (Kurenkahn), but fishermen themselves never called their boats this.

From 1844 fishermen were obliged to hoist windcocks showing a geometrical sign assigned to every village on the masts of the largest sailing boats. The signs and inscriptions on the sails and the boat sides introduced by E.W. Beerbohm, the chief fishing

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The Kurėnas, built at the Lithuanian Sea Museum, floating in the Curonian Lagoon in 2001.

supervisor of the Curonian lagoon, helped the fishing supervision service control fishing in the lagoon. Fishermen used to decorate the windcocks of their sailing boats with carvings and colourful flags. In the beginning of the 20th century, windcocks became very popular among holiday makers on the Curonian Spit and enjoyed high demand as souvenirs.

Although the Order documents contain data of fishing tackle and methods used in the Curonian lagoon dating back to the 14th and 15th centuries, one can only guess what the boats of those times looked like. They could not differ much from the boats seen in the first drawings from the late 18th and early 19th centuries that have survived till our times. Thanks to the regulation of the regional administration that permitted fishing in the Curonian lagoon with sailing boats only, rowing boats and sailing boats of various types were widely used till the middle of the 20th century. In 1939 in the fishing settlement of Nida alone there were 64 kurnas boats. The total number of the large fishing sailing boats in the Curonian lagoon was c. 250 at that time.

After the war, in the 1950s, there were major changes in the Curonian lagoon region due to political circumstances. The composition of the population, the administration and the way of life changed. Nearly all the local residents had either to leave or were deported. During the expedition around the Curonian lagoon in the summer of 1990, I had a chance to talk to the people from the Kaliningrad region, who had come to the region in 1947 from Middle Russia. They told me that the oakwood sailing boats that the local fishermen had left behind were cut for fuel. In the Lithuanian part of the lagoon the sailing boats were used for fishing until 1956-1958, when they were replaced by engine-driven dory boats. No sailing boats remained in the lagoon. A few boats of this type were displayed in open-air museum exhibitions.

The first steps towards the restoration of the fleet of the Curonian lagoon sailing boats were made by the Lithuanian Sea Museum. In 1989 in Klaipėda, the museum used its own funds to restore and launch a *kurėnas* originally built in Nida in c. 1935. In 1989 there were no old shipbuilders living along the shores of the Curonian lagoon, whose experience might have helped avoid errors during the restoration. Nevertheless, for ten years the *kurėnas* "NID. 1" sailed to the Curonian lagoon every year, took part in the regatta of the old sailing boats, and in the Sea Festivals in Klaipėda. In August 1990 a crew of ten sailed around the Curonian lagoon in 18 days making records of the remnants of the heritage of architecture and fishermen's culture. Since 2001 the *kurėnas* "NID. 1" has been displayed in the exposition of the old fishing vessels of the Lithuanian Sea Museum.

In 1992-1993 two more *kurėnas* were built in Klaipėda and Nida. The initiators of their construction were private persons interested in the preservation of the heritage of the Curonian lagoon. At present these sailing boats are used for business purposes.

In 2000 the Lithuanian Sea Museum started implementing an ethnocultural project entitled *The Return of the Kurėnas*. The intention was to build a replica of the *kurėnas* in the museum, to organize educational voyages on the new *kurėnas* in the Curonian lagoon with international crews on board. The museum also intended to involve persons and institutions concerned from similar natural and cultural regions in Russian, Latvia, Poland and Germany. *The Return of the Kurėnas* was not only the return of the sailing boat to the lagoon; it was also activation of ethnocultural research of the region, an incentive to get interested in its past and the revival of the tradition.

The replica of the *kurėnas* was built at the Lithuanian Sea Museum in 2000-2001. The site for the construction of the sailing boat was set up within the museum, next to the ethnographic homestead of a seaside fisherman. The construction process developed in front of the visitor's eyes; they could also get more detailed information there. The builders tried to use authentic materials and technologies as much as possible. Naturally bent oak stems were used for the frames and stem posts of the sailing boat, the bottom was assembled from soaked pinewood beams, and the sides from dried oakwood planks. Parts of the sailing boats were connected with hand-forged nails and braces, and the sides were impregnated with natural tar derived from pine stumps. The problem, which was solved successfully, was the search for project executors, i.e. shipbuilders. The *kurėnas* was built by young carpenters, and not professionals; it was the first boat they had built. As a model they used an authentic *kurėnas* standing nearby. Some technologies had to be restored anew. The most complicated task was to bend oakwood side boards above the fire according to a template, and then to connect them with nails. The solutions for most of the arising problems could be found in a detailed study on the fishing boats of the Curonian lagoon by Werner Jaeger. The *kurėnas* was launched on July 20th, 2001. This stage of the project was financed by the Lithuanian Sea Museum.

In May 2002, within the framework programme of the project *The Return of the Kurėnas*, an expedition was organized, *i.e.* a voyage on the *kurėnas* in the Curonian lagoon along the shore of the Curonian Spit and across the Lithuanian-Russian state border. The sailing trip was organized as an international expedition, in which representatives of the Lithuanian Sea Museum, the Russian and the Lithuanian national parks of the Curonian Spit, and Ventspils Museum (Latvia) took part. This action received financial support from the Lithuanian Ministry of Culture. Booklets were printed, a mobile exhibition was prepared, and a video film about fishing sailing boats was made. This ensured the dissemination of information during meetings with the people living in the Spit. The prevailing idea was the heritage of the Curonian lagoon region was a factor uniting the present-day population. It was symbolic that the problem of border crossing that could result in the failure of the expedition was resolved at the last minute. The educational expedition lasted for a week. We think that it is not the last event of this kind. In the future we intend to cooperate with the Russian National Park of the Curonian Spirit and Kaliningrad Museum of the World Ocean, and to organize an expedition on the *kurėnas* around the Curonian Lagoon. Interested persons from other regions could take part in the expedition, too.

Events of an educational nature using the new *kurėnas* were held in several settlements of the eastern shore of the Curonian lagoon in the summer of 2002. For the local people, children and tourists, a visit to the sailing boat and sailing trips to the lagoon is a live lesson of history, a contact with the traditions of the fishermen of this region. One can feel a lively interest in the local traditions in Kintai and Rusnė. Replicas of traditional sailing boats intended for ethno-tourism are being built there.

Within the framework of the development of the project *The Return of the Kurėnas,* we plan an event entitled, *Along the Raft Route*, from Kaunas to Rusnė in the summer of 2003. The *kurėnas* will sail along the River Nemunas from Kaunas to the mouth of the river, the Isle of Rusnė. From the middle of the 18th century, intensive navigation, rafting of timber and carriage of cargoes on ships to the ports of Königsberg and Klaipėda (Memel) was customary along the route. Representatives of Klaipėda University have been invited on the expedition and colleagues from Germany and Poland. In the future we intend to use this sailing boat for similar projects and events aimed at disseminating the cultural heritage of the fishermen of the Curonian lagoon region.

PART VII

COASTAL CULTURE – A RESOURCE TOWARDS SUSTAINABLE DEVELOPMENT AND GROWTH

Per-Olof Remmare

INTRODUCTION TO THE SEMINAR COASTAL CULTURE – A RESOURCE TOWARDS SUSTAINABLE DEVELOPMENT AND GROWTH

The planning for this Gdańsk Forum started at the very beginning of 2002 in the Working Group for Coastal Culture and Maritime Heritage. Proposals on topics to discuss were set up from the point of view of what the working group found important and interesting to discuss together with BSR countries. The main role for us was to choose subjects that somehow could concern all countries in the BSR.

The programme for this seminar "with a little bit of everything in it concerning coastal culture" is a result of those discussions. We found it important to present the NMR-report that was presented in 2000 as "an umbrella" for the future work that ought to be done together by the Baltic Sea states. It is important that we have a common goal to fight for together in the future. Mr Geir Tvedt from Norway will give us an introduction to this report and also a survey of other projects that are going on as a result of this report from the NMR.

Urban planning in the coastal zone is a topic that has not been discussed very much in the working group as perhaps it ought to have been. This is a central matter concering all the BSR – countries and also something that we know that the EU will put in priority through the ICZM-model and method for planning. (ICZM=Integrated Coastal Zone Mangement). Mr Marcin Gawlicki from Poland – which is also a member of the working group for Coastal Culture and Maritime Heritage – will give us an introduction to actual questions along the Polish coastal zone.

The question of lighthouses was the first topic that we identified in the working group that should be prioritised – so we started the work with the lighthouse exhibition as our first project. It has been very exciting to participate in this work and follow the project from the beginning to the end and the resulting exhibition that was officially opened yesterday here in Gdańsk. A big challenge for all of us is to find good and new uses for these historic monuments even when they are not needed any longer for shipping or trade. Mr Jo van der Eynden from Norway will give us some inputs for the future - with examples from all over the world.

Since many of us are members of the EU – and other countries will be members of the EU from next year – it is also important to show what the money from the EU can contribute to in the coastal zone. Cultural heritage is an incredibly important resource for local and regional development – especially in coastal areas. Therefore we have asked two representantives from County museums in Sweden – Mrs Gabriele Prenzlau-Enander from Stockholm and Mrs Agneta Olsson from Gothenburg to present a few well chosen projects that I hope – or more or less know – will give all of us a lot of ideas for the future. I think that afterwards we will have a number of ideas of how to activate inhabitants in different cultural projects in the coastal and archipelago area.

I welcome all of you to this seminar and hope that we will have some good and interesting hours together.

Marcin Gawlicki

ACTUAL PROBLEMS OF THE POLISH COASTAL LANDSCAPE, ARCHITECTURE AND CULTURAL HERITAGE PROTECTION

COASTAL LANDSCAPE

The coast of Poland has over 500 km in length. Its landscape is mainly formed by wide sandy beaches lying over the open sea and separated from the adjacent pine forests by dunes. The area is situated far from big urban centres and urbanized areas so in the summer time it is a major tourist attraction. The conservation of the landscape is mainly based on a total ban on new developments. Its effectiveness depends on the character of the ownership of these areas. The coast is controlled by the Maritime Authority whereas the forests are controlled by the National Forests, state institutions, which in their strategy of activity assume full protection of natural resources. The erosion of the coastline is a threat though, due to the fact that it is a natural process, it does not pose a major threat to the landscape. What had a significant impact on the shape of the Hel Peninsula coastline was the construction of a port in Władysławowo realized at the beginning of the 20th century, which disturbed the natural sand migration towards the beaches of the peninsula, which in turn led to the change of the coastline and threat to the fishermen's villages situated there. This is, however, the only example of this kind as far as the Polish coast is concerned. The development of large tourist centres, which are usually situated near towns, villages and fishing ports lying along the coastline, might influence the changes of the natural landscape.

Cliffs are an attractive element of the landscape of the Polish coast. They reach the height of up to 50-80 meters and are usually covered by woods. As a dominant feature of the landscape of a relatively short coastline, they constitute a remarkable tourist attraction. Also in this case the structure of the state agencies' ownership of the area is usually an effective tool to protect the area from intensive tourist developments. This was the case when e.g. the plans to build artificial coastal fortifications of the cliff at Orłowo, a district of Gdynia, constantly damaged by the waves, were dropped so that the natural beauty and uniqueness of the landscape could be preserved. However, there do occur threats like this as one could see in a summer resort of Jastrzębia Góra, set up at the beginning of the 20th century close to the sea cliff. The planning mistakes made while building the settlement, such as marking out plots of land too close to the cliff, selling them to private owners, building hotels and residences, as well as uncontrolled tourist developments, resulted in a significant dynamic overburdening of the cliff. After years of intensive exploitation; planting new installations; lack of suitable drainage and construction precautions; combined with natural erosion caused by the sea and waves; there has been brought about landslides. These have also taken the buildings situated at the tops of the cliffs with them. In recent years there have been several buildings on cliffs that have been threatened by landslides, with one actually damaged. The action of building new protective reinforcement, undertaken in order to prevent the ongoing erosion of the cliff has been successful because the erosion has been stopped. However, the natural landscape has been violated owing to the construction of huge walls of a few dozen metres in height.

The landscape of the sea bays looks quite different. There are no beaches there and the basic element of the scenery are fields, farmland and forests. The area is usually farmed and the low development of the tourist infrastructure contributes to the preservation of the natural scenery. Many years of farming the land and the negligence of the basic norms of environmental protection have resulted in the pollution of coastal waters, which in turn decreased the tourist attractiveness of this area. Paradoxically, the improvement of the condition of the environment in recent years has resulted in the increase of tourism in the region and interest in new developments, which in turn threaten the natural scenery.

ARCHITECTURE

In the close vicinity of the coast, there are fishermen's villages set up in the Middle Ages. The spatial arrangement of these villages is characterized by the irregularity of houses concentrated along narrow streets. In larger settlements such as, e.g. Hel, historical buildings concentrated along a straight country road, whose frontage was formed by the tops of the houses. The fishermen's houses were small; they had only a few rooms, brick elevation and tiled gable roofs. The earlier wooden buildings dating from the 18th and the beginning of the 19th century are rare and are normally under protection by including them in the heritage-listed buildings. The houses have small windows and a simple architectural detail. The farming part of the buildings was concentrated around the backyard which

served also as a place for storing fishing equipment, repairs and drying the nets and sometimes preparing or smoking fish.

The traditional spatial arrangement of the old fishermen's settlements is undergoing fast transformation. The low standard of the houses built at the end of the 19th century or the beginning of the 20th century do not cater for the needs of the contemporary inhabitants. Many old houses are abandoned. It happens that the extensions of houses with the view to improving living standard and obtaining additional room for tourists, ruins the traditional architecture altogether. The houses are raised, rebuilt; there are new materials used; the traditional historical architectural detail is disappearing. The new architecture sometimes continues the cultural tradition. However, there are examples of architecture being at variance with historical tradition, copying elements of unified modernist architecture or thoughtlessly imitating regional tradition from other regions of Poland, e.g. from the Tatra Mountains, a region lying in the South, several hundred kilometers away from the coast. A plague on the traditional scenery of the fishermen's villages are standardized and temporary buildings put up with the view to catering for the needs of seasonal tourist services.

An example of such developments realized in defiance of any spatial planning or the guidelines of the conservator of monuments and wildlife is the issue of a coastal village of Karwieńskie Błota. Dutch settlers set it up in the 17th century and making use of their land improvement skills they created a unique settlement in Europe. A spatial arrangement based on a three kilometre axis of a country road and equal perpendicular divisions of farmland with boundaries based on a system of drainage ditches that naturally provided the fields and farmland with proper irrigation. The historical buildings concentrated exclusively along the main road. Up to the year 1990, the regulations of the spatial planning protected the area. The changes in legal regulations introduced in the year 1990 made it possible to perform new divisions of property and sell small plots of land to people interested in summer holidays at the seaside. Accordingly, there were as many as 1500 new plots separated on the basis of plans prepared by geodesists. With time there appeared substandard buildings in spite of the fact that according to the spatial planning for the area, there should be fields and farmland with a status of a total ban on building of any kind. As a result, there appeared developments designed either by the farmers themselves or the geodesists hired by them that were completely at variance with the settlement continuity of the area and that were violating the natural countryside. Although the new owners have been trying for years to influence and press the state offices to have the legal acts changed or omitted, they have not managed to get the protection regulations referring to the region withdrawn. Nevertheless, the buildings constructed at variance with the existing legal regulations are an example of one of the biggest in Poland of building wilfulness.

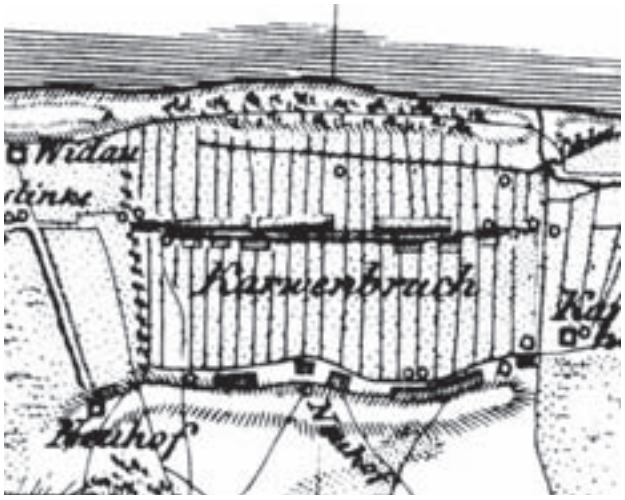
The Hel Peninsula, the natural landscape of the Polish coast.

The cliff at Orłowo, a landscape and wildlife reserve.

The reinforcement construction protecting the cliff at Jastrzębia Góra has completely ruined its natural landscape.

A fisherman's house at Jastarnia built in the second half of the 19th century.

Fishermen's houses in Puck built at the turn of the 19th and 20th centuries.



Karwieńskie Błota, a location plan of the village made at the end of 18th century; showing a country road and regular division of fields and irrigation canals.

Karwieńskie Błota, a contemporary plan showing hundreds of new property divisions.

The new sub-standard building on the land adjacent to the seashore in the region of Karwieńskie Błota.

An important element of the traditional spatial planning of the Polish coast are ports and fishing boats marinas. The marinas along the open sea are just the places were the boats are drawn up onto the beach. Owing to storms and changes of the coastline, the back-up facilities for these marinas are situated within the villages. From the side of the bay, there are situated small ports and fishing boat marinas with basic technical equipment. They provide mooring and servicing facilities. It is also here that repairs and major overhauls are carried out as well as reloading, preparing and smoking fish. The marinas, although they do not have any building of historical value, constitute one of the most valuable elements of the preserved traditional spatial development. Unfortunately, the marinas undergo ever bigger transformations; there appears urbanization, increased tourism, and accordingly they adapt to new functions. The old methods of fishing vanish and the traditions of everyday life and navigation become history. It happens more often that the living, tourist and fishing functions overlap. An ordinary building of no individual style features, gains significant non-material values and becomes a tourist attraction merely because of its location in the historical context.

It is an essential issue to properly inscribe the principles of conservation protection of those areas in the plans of spatial development. A valuable whole is composed of parts which taken out of their natural context, separately and individually, do not constitute a big cultural value. A chance to preserve the places in accordance with their natural and historical tradition is to place services and tourist developments outside the protected area, which sometimes does happen, allowing for using historical places according to tradition.

The bigger towns and ports of the Polish coast, which due to their size outstrip local tradition, are not the subject of this study.

A fishing port in Puck; memorials commemorating significant events from the maritime history visible on the quayside.

A fishing port at Kuźnica adjacent to the buildings of the village.

CULTURAL HERITAGE

An important element of the coastal cultural heritage are lighthouses and other remnains connected with sailing and navigation. Up to the end of the 20th century there were 17 large lighthouses preserved lying along the Polish coast. There are also other older lighthouses, either reconstructed or preserved only partially, which for a long time now have not fulfilled their traditional functions. Most of them, being under control of the Maritime Authority, are in good condition and could still fulfill their historical functions. Some of them, especially in summertime, fulfill tourist functions; they become museums and viewpoints. It also happens that the old lighthouses are taken over by various institutions or even individuals, who plan to transform them and adapt to individual or tourists' needs.

There are still many marinas and fishing boat stations with traditional arrangement, coastal equipment

The quay of the fishing port at Kuźnica, separately the elements do not present stylistic features but as a whole they are of significant cultural value.

A lighthouse at Jastarnia.

A fishing boat station at Orłowo.

and boat equipment. Old tools once used for fishing are gradually withdrawn from use. There are new fishing materials and techniques appearing whereas the objects connected with fishing traditions are at best placed in regional museums or ethnographical collections. It is a natural process which cannot be stopped. Other important elements of the coastal culture are the traces of non-material values, such as e.g. clothes, customs and rites, the tradition of building crosses and wayside shrines, cult places and memorials. Beside the preserved monuments and material traces of using the area, they are a significant completion of the landscape and architecture of the coast.

The industrialization and urbanization of the present day is gradually dislodging tradition and the process is irreversible. The attractiveness of the coastal area and the beaches brings about the development of tourism, which is not only a threat but also a chance for the protection of the cultural heritage of the coast. At present it is important that the tools of effective protection should be introduced. Among them are primarily the plans of spatial development preceded by studies on the cultural heritage of the region together with a clear definition of the legal and financial tools of the protection. It is absolutely necessary that the central government's policy towards the issue be decisive and that sustainable activities be undertaken on the level of self-governments. It is also important that social awareness as well as local programmes and education should be developed. International programmes and cooperation within the European Union are also of great significance since they create a chance for sustainable development and protection of the coastal landscape, architecture and cultural heritage.

Jo van der Eynden

NEW USES FOR OLD LIGHTHOUSES

INTRODUCTION

I have been given the difficult challenge of replacing my good friend and colleague, Mr. Danckert Monrad-Krohn, on presenting this paper on preservation and alternative use of lighthouses. I am sure that anyone here that may be only vaguely interested in this issue has probably heard of Mr. Monrad-Krohn and his enthusiastic work for the preservation of lighthouses in different international contexts. You may even have received a copy of his national preservation plan for the Norwegian lighthouses, presented by the Norwegian Directorate of Cultural Heritage in 1997.

I have had the pleasure of working professionally with Mr. Monrad-Krohn on this topic for the last 12 years, and even before that I had some experience of trying to preserve and make sensible use of a concrete lighthouse-station outside Kristiansand – my home-town on the south coast of Norway. Through the international engagement of the Norwegian Directorate of Cultural Heritage, I have had the privilege of working with different aspects of lighthouse preservation in Estonia and Tanzania. I have also been engaged in the valuable work done by the International Association of Lighthouse Authorities (IALA) through the committee for Preservation of Historic Lighthouses (PHL). Presently, my main engagement is working with the establishment of a national lighthouse museum in Norway.

In this presentation, I will try to put forward some of the main challenges we (or more correctly the lighthouses) are facing, as a consequence of the development in modern navigational technology. I will try to give some examples of how these challenges are met in Norway and other countries. Finally I will present some guidelines for the further work with the preservation and alternative use of lighthouses in general.

But first of all I must say something about what a lighthouse is, what they represent and symbolise and why they constitute such an important part of our maritime history.

THE IMPORTANCE OF LIGHTHOUSES

Sailors have always needed help to find their way across open waters and along distant shores. Local pilots with the knowledge of sailing routes, coastal fairways and safe harbours have served the mariners at all times. The introduction of navigation aids like the compass (14th century), the sextant (18th century) and the chronometer (18/19th century), along with the development of maritime cartography, are classical and crucial achievements in the history of navigation.

At the same time man-made aids to navigation like cairns, beacons, lighthouses and other seamarks have been erected onshore and offshore to guide ships and protect people and cargo.

Indeed, the lighthouse history of the world goes back at least 2 500 years. Today there are said to be about 60 000 lighthouses in operation worldwide, or about 400 000 maritime light signals, if every beacon and bulb is counted.

A lighthouse is of course: a house with a light, erected to function as an aid to maritime navigation. But it is common to distinguish between the smaller, automatic beacons and the more substantial structures of a lighthouse, built as manned stations where lighthouse keepers have resided with or without their families.

In a way, every single lighthouse in the world is part of the same navigational structure that surrounds the globe, connecting all coastal nations, both day and night. This global system of traffic lights represents an important part of our international maritime heritage, and even the architecture and the technology of lighthouses is to some extent international. But we can also find distinct local variations on the theme.

Lighthouse architecture is often spectacular, and many of the lighthouses are built on spectacular locations, making them an important part of the coastal and maritime landscape. In many communities, the lighthouse is the most important symbol of local identity.

For most people, a lighthouse is mainly seen as a tower with a light. And indeed it is easy to be impressed by the tall towers and the huge lenses. But at the same time it is important to keep in mind that a lighthouse station is a complex technical structure, with foghorns, radio beacons, power-units, workshops, landings, housing facilities, gardens and not least its social and cultural history. To understand and preserve historic lighthouses, it is not enough to keep the tower standing.

CHALLENGES

The development of modern aids to navigation such as the satellite positioning system (GPS) has to some extent changed the importance of lighthouses for the mariner. We have already seen that some navigation lights have been shut down due to changing demands, but still most of the lanterns are lit as a safeguard against possible breakdown of electronic equipment onboard.

Nevertheless the lighthouses no longer need daily tending to function. Automation and long distance monitoring has made man superfluous. Or has it?

The extreme locations and weather conditions at the stations, leads to rapid decay without the daily care of the keepers. This development therefore represents a great challenge for the preservation of historic lighthouses. And the challenge is global.

The question is what actions can be taken to make preservation possible? And who is willing to take responsibility?

PUBLIC INTEREST AND CONCERN

Obviously the lighthouse authorities must have a responsibility to take care of their own heritage. In most countries, the lighthouse administration is a state body, and as a rule lighthouses have been built by public means and are looked upon as public buildings. At the same time the main reason for de-staffing of lighthouses has been the need to cut costs.

Therefore it is not hard to understand that lighthouse authorities in many countries have advocated the sale of redundant properties. In some cases this of course can help to protect and preserve important historic buildings, but often it also means that the public access to the site will be limited.

I think it is important to stress the fact that lighthouses are seen as public buildings, and that lighthouse history belongs to the public. In this sense the major historic lighthouses should be kept in public ownership to ensure public access to their heritage.

And indeed there seems to be an overwhelming public interest in lighthouses and lighthouse history in many parts of the world. Many lighthouses have their own local organisation of friends, national lighthouse societies have been founded in many countries and recently we have seen the birth of the "World Lighthouse Society".

Books are published, newspaper articles and television programmes are numerous. A lighthouse-search on the Internet gives overwhelming results and many lighthouses have become important tourist attractions.

This new and broad public attention has put heavy pressure on the lighthouse authorities with strong demands for both preservation and public access. I think it is also fair to say that in many countries this attention has led the maritime authorities to acknowledge a greater responsibility for their own history and heritage. The fact that IALA (International Association of Lighthouse Authorities) has put the preservation of historic lighthouses on the international agenda further proves this point.

In some countries the heritage authorities have also focused on the importance of protecting lighthouses as historic monuments, and I am proud to say that the Norwegian Directorate of Cultural Heritage was one of the first to present a national preservation plan for lighthouses (1997). As a consequence of this, Norway has also taken part in a few international projects, but it seems that there is still much to gain from international cooperation in the field of conservation and protection of lighthouses.

ALTERNATIVE USE

Not all lighthouses could or should be preserved as historic monuments. Before even starting a discussion on preservation by alternative use on a national level, a complete survey should be made. This seems to me to be the only way of defining which lighthouses should be protected and which should not.

In most cases, the protection of a lighthouse will also involve some kind of alternative use. Although it is important to emphasise that this does not apply to all lighthouses worthy of preservation.

The expression "alternative use" already implies that this is not the use the construction was built for. In most cases a new use will require some alterations for practical convenience, economic or safety reasons. Obviously one of the main questions will be to establish what can be done without harming the lighthouse as a cultural monument. What can it tolerate without losing its value?

In my mind new use of historic lighthouses should aim to fulfil these major considerations:

- The use should fit into the lighthouse (as is) and not require major alterations to the construction or lead to the removal of equipment vital to the understanding of its original function
- The use should take into consideration an obligation for public education and enjoyment
- The use should generate means for maintenance and protection of the station
- The use should be integrated in the local community where this is a reasonable option
- The use should be established on a long term basis to secure sustainability

I have mentioned that lighthouses belong to a common global technological structure. At the same time, no two lighthouses are alike. The possibilities and limitations have to be analysed carefully, based on the site, accessibility and local stakeholders.

In Britain, Trinity House has developed their own planning tools for the protection and management of their lighthouse estates. By letting every station undergo a systematic survey, plans are made for

Lindesnes, Norway. Photo Thor Ivar Hansen.

conservation, alternative use, possible co-operation with other (local) stakeholders as well as a business plan. The overall aim is to open up the lighthouses for public education and enjoyment, often in the form of Visitor Centres or Holiday Cottages.

Inspired by the successful results in Britain, a project has now been launched in Norway involving the Coastal Directorate and five County Councils on the south-west coast (SAVOS). The aim of the project is to pick out at least one protected lighthouse in every county, where the regional authorities take responsibility for the protection and alternative use of the station.

More in the line of small-scale eco-tourism is the Norwegian project called KYSTLEDEN (coastal fairway). Its inspiration comes from the time of oars and sail, when guesthouses where still available for travellers in small boats along the coast. The idea is to make it possible for tourists to rent traditional boats for rowing and sailing and to spend the night at lighthouses and other redundant buildings. The project is run by idealistic organisations as the Norwegian Tourist Organisation (hikers) and KYSTEN (coastal heritage). At some of the lighthouses there is a hosting family who are allowed to stay there for free to keep the facilities open for the public.

Recently the Norwegian Lighthouse authorities themselves have also introduced a plan for the alternative use of some lighthouse stations, namely as holiday homes for employees, representation and bases for their new mobile maintenance teams.

And then there is the Norwegian Lighthouse Museum. It will be organised as a national network between 4 institutions along the coast (south, south-west, mid-west and north). These institutions will have an obligation, and hopefully some money, to support local lighthouse protection projects within their geographical area.

The core of this network will be at Lindesnes, Norway's oldest lighthouse station, established in 1655 by privilege of the Danish king. This lighthouse is situated at the southernmost tip of the Norwegian mainland, and long before the lighthouse was erected, it was the most important landfall for all ships sailing from the North Sea, through Skagerrak to the Baltic.

This maritime trade route has been one of the most important in northern Europe (as other speakers have pointed out) and it has had a great impact on the development of coastal culture on the south coast of Norway. Therefore it was only proper that the County Council of Vest-Agder chose Lindesnes Lighthouse as their "Millennium Site" in 2000. This lucky choice means that there will be both governmental and regional funding for the further development of Lindesnes as a museum and tourist attraction.

Already about 70 000 people come to Lindesnes every year. The project has an income of about 200 000 Euros. It is therefore a relatively safe place to make a museum. Our main challenge is to serve all the visitors in such a way that they are both enlightened and pleased, and without ruining the unique impression of the landscape and the authentic lighthouse station. It has therefore been decided that the new museum facilities will be dug into the rock underneath the lighthouse itself.

CONCLUSIONS

As I have mentioned, the International Association of Lighthouse Authorities (IALA) hosted a workshop on "Preservation of lighthouses by alternative use" in Norway, 2000. 56 participants from 20 different countries attended this workshop, representing national members of IALA, Heritage Authorities, Lighthouse Societies, the Tourism Industry and environmental bodies.

The outcome of the workshop was put down in eight conclusive points, which I still feel sums up the main points to make on the topic of "new use of old lighthouses":

1. Historic lighthouses are public assets and should be preserved.
2. Historic lighthouse stations should be kept in public ownership to secure public access to the cultural heritage.
3. Lighthouse stations should remain intact as a single entity.
4. Alternative use should emphasise the lighthouse as an object of maritime cultural heritage for educational benefit and public enjoyment.
5. Strategic plans should be produced nationally for the long-term management of historic lighthouse stations, under international guidelines.
6. Alternative use should provide sufficient financial support for preservation.
7. Partnerships should be encouraged with heritage authorities, conservation bodies and other stakeholders.
8. Any commercial development should be sensitive to the local character and landscape.

Gabriele Prenzlau-Enander

KING VALDEMAR'S SAILING ROUTE – THE OLDEST SAILING ROUTE IN THE BALTIC SEA REGION

THE DANISH ITINERARY

The medieval book "King Valdemar's jordabok" can be found in the Danish National Library in Copenhagen. It consists of various texts from the Middle Ages. One text mentions the names of more than one hundred places along the Baltic coastline of Sweden, Finland and Estonia. This two and a half page text in Latin, written on parchment with carefully designed letters, is called the Danish Itinerary. It contains the information that led to the discovery of the oldest sailing route in the Baltic Sea, today known as "King Valdemar's sailing route".

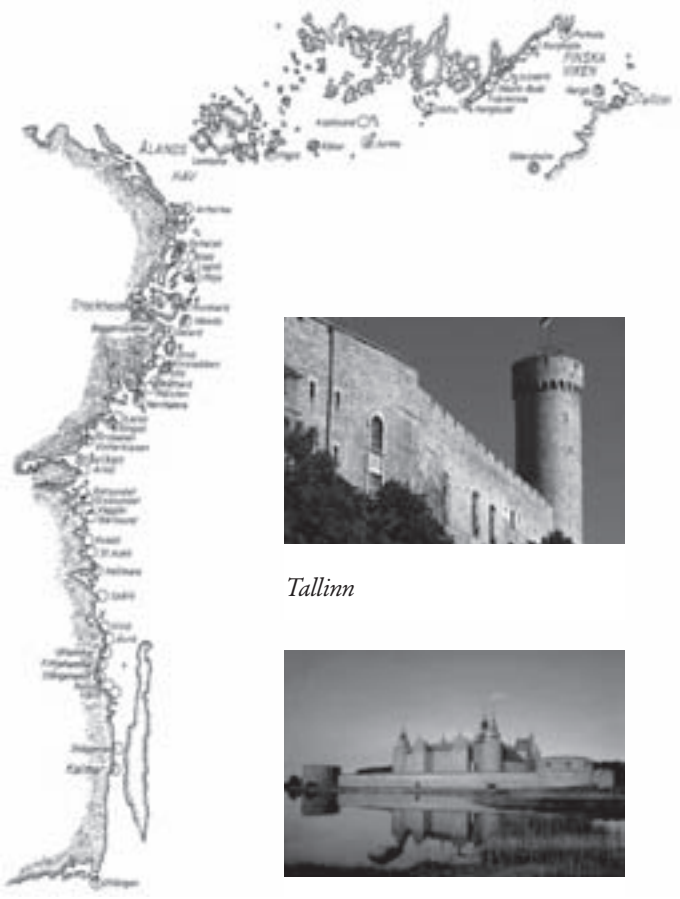
The *Itinerary* could be called a "reading map" since it is basically a list of names from the south coast of Sweden to Tallinn in Estonia. The earliest graphic maps in Scandinavia were not drawn until the 17th century. Itinerary is Latin and means nautical description. This *Itinerary*, covering the route from Utlängan in the south of Sweden to Tallinn in Estonia, is called the Danish Itinerary.

The characteristic design of the *Itinerary* shows that it was most likely written around the year 1300. However, according to the contents, it was probably copied from a text dating back to the beginning of 13th century when King Valdemar II ruled. Valdemar II contributed to the establishment of Denmark as a great power during his reign (probably 1202-1241). His Danish empire was made up of Denmark, the Swedish counties Skåne, Blekinge, Halland as well as the northern part of present Germany and Poland. The Volmer battle that took place in Tallinn in 1219 resulted in the conquest of Estonia, and Estonia remained Danish for more than a hundred years. Valdemar II got the surname "Sejr"– the Winner – due to his grand conquests.

KING VALDEMAR II OF DENMARK

King Valdemar II began ruling during the transition from heathen beliefs to Christianity. Denmark had already officially adopted Christianity and willingly assisted in promoting Christianity to the unfaithful neighbouring people. The Christian Church encouraged all crusades against heathen people. He therefore established an unusually large naval fleet. The previously mentioned conquest of Estonia in the Volmer

The Itinerary *of King Valdemar II of Denmark.*



Tallinn

Kalmar

battle was a way for King Valdemar II to receive the blessing of the Church and also to secure the important trade routes eastward. The Medieval Chronicle implies that the heavenly powers practically helped King Valdemar II to victory. It says that he received a sign called the "Dannebrogen" which led him to victory. Later this sign also became the red and white design of the Danish flag.

WHY WAS THE *ITINERARY* WRITTEN?

It is difficult to say why this *Itinerary* was written and how it was used. However, the structure of the text and the brief nautical descriptions suggests that it is a typical product of a monastery. The descriptions in Latin were intended to be read by educated people and not by sailors. The sailors in medieval times probably trusted the local population's advice more than the nautical descriptions in a document. These descriptions are most likely composed from many different sources as they sometimes overlap and change character. For example, distance is sometimes stated as a "week sea", whereas in other parts only the names of the places are stated. The route through Åland, Åboland and Finland is more comprehensively described than other parts.

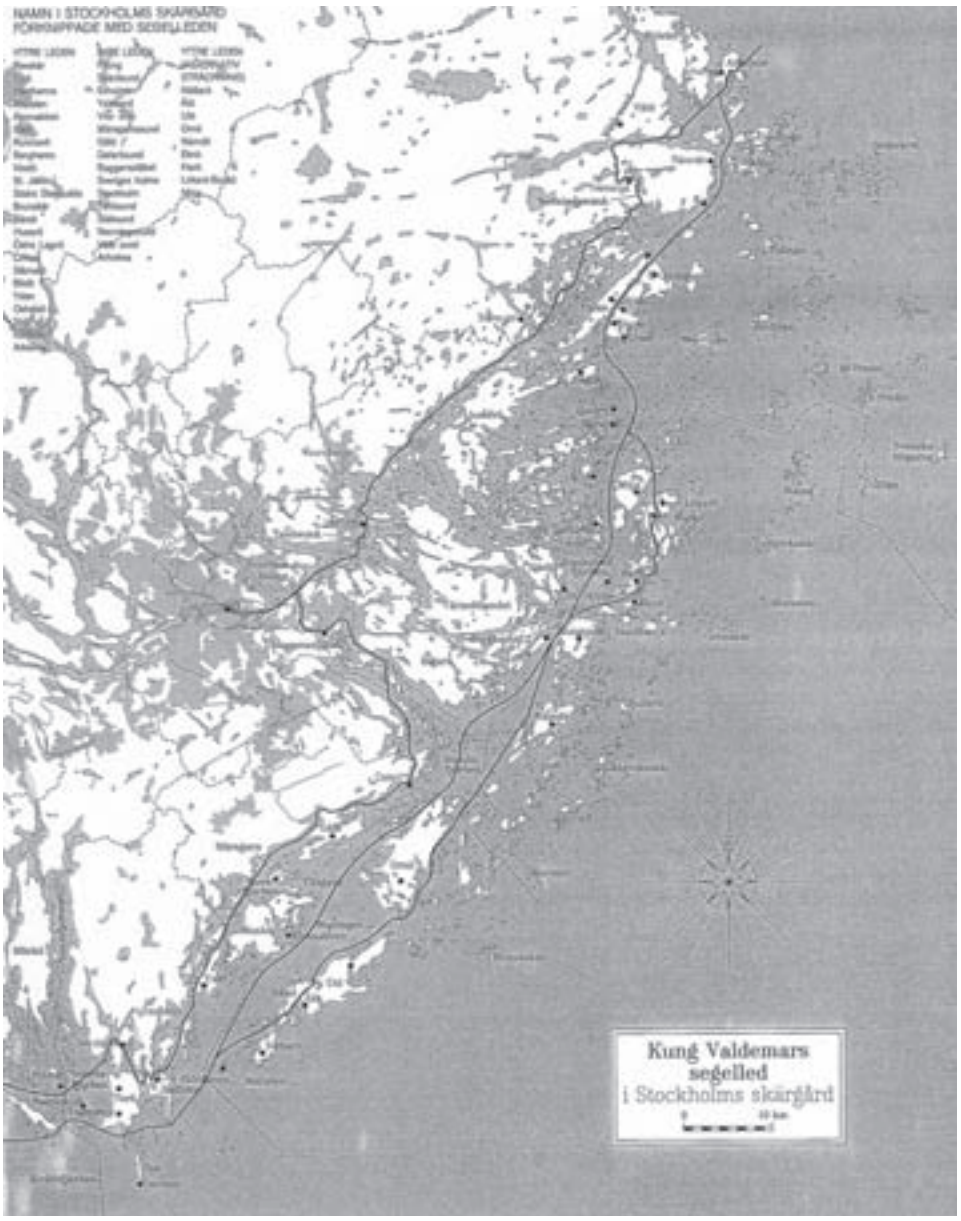
Recent research has focused on trying to find any similarities between the places that are mentioned in the *Itinerary*. Could they have been places with sheltered harbours, or places where help with navigation could be received? Maybe they were places for reloading goods? Some researchers propose that the places mentioned only represent seamarks that were passed along the sailing route.

Another relevant question is who actually used the sailing route? Was it Danish merchant ships, war ships or courier ships? Maybe the sailing descriptions are a documentation or composition of a well known sailing route that was of importance for the people in power or the Church.

The distance between Utlängan and Tallinn is about 525 nautical miles, and most likely it took around three weeks to sail the complete route. Perhaps it was even quicker during spring and summer when the nights where light enough for traditional navigation. Without modern navigation equipment it is very dangerous, if not impossible, to sail the route during the dark months of the year.

100 NAMES ALONG THE COAST FROM THE 13TH CENTURY

The nautical descriptions start at Utlängan (*Utlengi* in Latin) in the southern county of Blekinge in Sweden. During the Middle Ages, the border between Denmark and Sweden went through Blekinge. The last place mentioned is Tallinn (Räulburg in Latin) in Estonia. The text is a brief description of the sailing route between the named places. The distance is sometimes measured in "week seas" (this will be explained further down).



Here follows a short translation of the beginning of the text:

> *"From Utlängan to Kalmar 10 week seas.*
> *From there to Skäggenäs 2 week seas.*
> *From there to Vållö 4. If you want to follow*
> *the coast you can go from Vållö to Runnö,*
> *which is 1 week seas from Vållö. From there to…"*

The names of 79 places along the Swedish coast, all the way up to Arholma, are listed in a similar manner. From Arholma, which is in the northern part of Stockholm's archipelago, there follows 18 names of places in Åland and Finland. The route then turns south across the Gulf of Finland, lists four places in Estonia and finishes in Tallinn. The last listed place, Tallinn, is the current capital of Estonia, and Tallinn means "The Danish castle" in Estonian. King Valdemar II of Denmark built a Danish castle for defence on the highest hill.

Only three towns are mentioned in the text: Kalmar, Stockholm and Tallinn. The remaining names are mainly islands, straits, bays or mainland. The majority of the places have been identified and can be pointed out on a map. Many places still have the same name today. It is fascinating to imagine that all these named places were familiar to the coastal population as early as during the Middle Ages. These medieval names are often the oldest historical evidence of an island's name. The coastal districts were probably of greater importance then than they are today.

The *Itinerary* mentions alternate routes through the Stockholm archipelago; one inner route and one outer route. The inner route closely follows the mainland and passes close to Stockholm. The outer route leads onto more open water and passes islands all the way to

"Aluett", a full size replica of a trading ship from the 13th century, copied from archaeological remains found at Kalmar.

In the summer of 1996 "Aluett" sailed from Utlängan to Tallin.

Island Vinterklasen

Island Landsort

Arholma. Additional information can be found next to certain names. For example, next to Arholma it is written: "the route from Utlängan to Arholma leads more to the north than to the east", and further more: "one can, in a steady westerly breeze, sail straight from Arholma to Hangö".

MEASURING DISTANCES IN "WEEK SEAS"

Recent research has attempted to identify how many metres a "week sea" represented by measuring the distance between mentioned places. However, the results vary. Today we would never accept a varying length measurement, but our view of distance has changed considerably since the Middle Ages.

The word "week sea" is an old Nordic word and is believed to be derived from the expression "vika sig", which means "to rest" in English. According to that thought a "week sea" ought to be the distance a team of rowers could cover before they had to rest or change rowing teams. Researchers have calculated that the average length of a "week sea" is 4.2 nautical miles which is approximately 8 kilometres (1 nautical mile = 1.852 metres).

The measuring of nautical distances in "week sea" was accepted in the Baltic Sea and inland waters during the Middle Ages. The term "week sea" was not only used by the Nordic people; the Hansa ships have also been found using the term.

THE MEANING OF THE NAMES

Many of the names that researchers have analysed consist of simple natural terms that describe the distinctive character of each island. For example, Runmarö in the Stockholm Archipelago is called "*Rudmi*", which means the red island. Väggön "*Waeggi*", south of the Stockholm Archipelago, has been given the name "The wall island" due to the noticeable steep slope on the island. The island which we today call Husarö (house island), in the outer parts of Stockholm Archipelago, was mentioned as "*Husarn*", most likely due to the fact that there were houses on the island. "*Stendor sund*" (stonedoor straight) is a very shallow and stony straight, which today we call Stendörren. There are also names that are difficult to analyse and places that cannot be identified. For example, we still do not know why the island Vinterklasen, "*Winterclasae*" in the *Itinerary*, was called just that.

KING VALDEMAR'S SAILING ROUTE – THE PROJECT

The aim of the project is to make the coastal cultural heritage more visible, the heritage that fishermen, farmers and seamen from near and far have left in the coastal regions of the Baltic. Through demonstrating the values of the cultural heritage in our coastal districts, the project hopes to be able to support the local communities.

Along the route there are many different types of monuments to be found, including lighthouses, medieval labyrinths and other buildings or seamarks used for navigation.

The visible cultural monuments in the coastal areas are very different from the monuments found inland. The coastal monuments are very closely connected to shipping, fishing and barren nature. Here you will find writing several hundred years old, carved on the rocks by sailors waiting for better weather.

You will find medieval labyrinths, you will find various kinds of navigation marks, and you will find lighthouses and old defence foundations, to name just a few.

The project "King Valdemar's Sailing Route" was initiated by the Swedish National Heritage Board in 1992. From that time, every county, from Blekinge in the south to Stockholm in the north, has produced information materials such as maps and brochures as well as large information boards that are positioned close to sailing harbours and places of cultural interest. The information boards have texts and pictures illustrating the specific cultural history of the island or headland, as well as general information regarding the complete King Valdemar's sailing route.

The cross-border contacts between Åland, Finland and Estonia developed and generated co-operation in other projects as well.

THE ACTIVE YEARS, 1994-1999

The official openings for the project were held in each of the participating counties in June 1994. The media coverage was notable and each of the different counties had individual opening activities. Nynäshamn, just south of Stockholm, organised a medieval day with medieval markets, dances and even a "parade"of reconstructed medieval boats in the harbour. In Kalmar, ships were sailing north to visit the harbours listed in the *Itinerary*.

The Maritime Museum in Karlskrona had a life-size copy of a trading ship from the 13th century built. The design was copied from archaeological remains from Kalmar. The ship was called Aluett and is 11 metres long and weighs 15 tons with ballast; the type is the predecessor of the Cog. The boat sailed from Utlängan to Tallinn in the summer of 1996. The journey took two months as she was very heavy and difficult to row.

In the summer of 1996, a cultural historical group sailing along the Itinerary route was organised for pleasure boats. It started in Oxelösund and finished in Hangö in Finland. Each morning the crews were invited to a guided walk to see the local cultural and historic places of interest. A small exhibit about the route was also shown in Stockholm, Mariehamn, Åbo and St. Petersburg.

Co-operation between the museums in Åland and Finland in 1996 led to the production of a folder with a tar coated string. The folder illustrates the sailing route through the archipelagoes of Stockholm, Åland and Åboland. This brochure inspired the southern counties Blekinge, Kalmar and Östergotland to jointly produce a similar product in 1997.

The project "King Valdemar's Sailing Route" has attracted much attention in radio shows, other mass media and boat shows. The project has led to the repainting of valuable rock carvings and inspired further research. For example, recent archaeological excavations on Landsort discovered that the island probably has been inhabited since 500 AD.

Approximately 75 information boards have been put up along the Baltic coast. They contain information about cultural monuments like churches, chapels, windmills, cottages, villages, old house foundations, stone labyrinths, rock carvings, ancient graves and old mines, to name just a few. The specific location of the boards was often chosen in close co-operation with the respective local government, local associations or property owner who would be responsible for the continuous maintenance of the site.

The project is being referred to in different home pages on the Internet. And it is frequently mentioned in new literature about the archipelago. So after 10 years, the Valdemar sailing route has become established and quite well known.

Seventy-five information boards have been set up along the Baltic coast. These contain information about the cultural monuments found along the route.

The launch of the project involved various activities including a medieval market (seen here), medieval dancing and a parade of medieval boats.

Brochures illustrating the sailing route were produced. These were tied together with a tar coated string.

A NEW TOURIST ROUTE?

The project "King Valdemar's Sailing Route" has been inactive since 2000. The information boards are being maintained but the exhibition is in storage. The local population knows about the sailing route, but the question is whether it can be made into a tourist route. It would be beneficial to the local population if it was implemented on a small-scale. Tourists could visit the islands by foot or bike and be introduced to the local produce. There have been proposals for tourist's cruisers that would travel along the King Valdemar route, but the disadvantage is that they would only visit the larger harbours. On the other hand, even a bus tour would sometimes be too large for the small and often delicate islands. My view is that visits by families or small groups would be ideal for the local communities as they could benefit from offering guided tours, food and accommodation.

One way to attract visitors to the islands would be to open a dedicated home page on the internet. The site would have maps over the whole route as well as more detailed regional maps. The visitors would be able to select areas of interest and access specific information about nature, culture, accommodation and food in several languages and illustrated with pictures. The implementation of this project would require a project manager as well as funding for the development of the multimedia home page.

Agneta Olsson

CULTURAL HERITAGE AND BOHUSLÄNS MUSEUM IN THE SWEDISH COASTAL ZONE – A RESOURCE FOR LOCAL DEVELOPMENT AND ACTIVITIES

THE BOHUSLÄNS MUSEUM AS A PIONEER IN ECONOMIC DEVELOPMENT AND EU-PROJECTS

Strengths: we have a house full of knowledge, a wide range of different competences, we know something about such things as continuity, know-how and advice, we can communicate, we like to share our knowledge, and we have a strong sense for quality.

Weaknesses: we represent a small area of society, we are unused to taking an active part in the social planning and debate and we are not rich.

Opportunities: we are experienced project managers and networkers, there is a strong demand for our knowledge and in external EU-projects we can move around freely and meet people in their own arenas.

Threats: big projects takes power from the core activities, big projects demand lots of management, administration of EU-projects is not complicated but definitely heavy.

EU INITIATIVES AND STRUCTURAL FUNDING MEETS THE LOCAL MUSEUM

LEADER +

The initiative supports new and innovative development strategies for rural development. Our LEADER+, Carpe Mare is supposed to be a experimental field for finding new ways to sustainable development and growth. This should be obtained by forming partnerships in local action groups: voluntary associations, public sector and industry. This LAG-group assesses all projects from a variety of specifications:

- Local interest
- Bottom-up perspective
- Innovation
- Transferability
- Networking
- Equality, integration and milieu

In this partnership the museum's strengths are demanded and others compensate for our weaknesses and we become a "nursery" for cultural heritage-ideas and projects and complement other LEADER+, Carpe Mare projects.

LEADER+ leads to:
Objective 2 Islands projects. This structural funding supports among other things

- Culture and environment: here we have at least eight examples of projects that involve cultural heritage funding.
- Local mobilisation: we have three examples of local mobilisation projects.
- Development of knowledge and research: and we have two projects that involve education on site in matters of cultural heritage.

The Smugglers House on the island of Kvalsund.

Pater Noster, a lighthouse restoration project.

ONE EXAMPLE

The Smugglers villa on the island of Kalvsund
It all began ten years ago…

A fine old house with a unique history was in bad shape

- A symbol for the northern archipelago of Gothenburg
- A rare specimen of architecture on this part of the west coast
- A very special history.

We combined our cultural heritage skills and the LEADER-method and began networking:

- The museum 20´
- The county administration, cultural heritage section 525´
- The island municipality of Öckerö 105´
- The owners 250´
- The islanders of Kalvsund
- Region Västra Götaland, the regional development 50´
- EU, Objective 2, islands 450´

with the following goals:

- Restore the villa
- Start a small Smugglers museum and a café
- Keep and use this house as a cultural meeting place and a visiting goal for cultural tourism
- List the house as a protected building for cultural heritage.

And finally, let us say a little prayer for Pater Noster…
In June this year we are applying for LEADER+, Carpe Mare-funding in order to achieve a "fundraising operative cooperation-group". If we succeed maybe we can save this extraordinary lighthouse and say a little prayer for lighthouses around all our coasts!

PART VIII

SUMMARY OF ONGOING INTERNATIONAL PROGRAMMES OF COOPERATION AMONG BALTIC SEA STATES

MOSS: COMMON EUROPEAN UNDERWATER CULTURAL HERITAGE – CHALLENGES FOR CULTURAL RESOURCE MANAGEMENT

"What is MoSS? – An Introduction"

Sallamaria Tikkanen
MoSS Project Leader, Curator
Maritime Museum of Finland

MoSS (Monitoring, Safeguarding and Visualizing North-European Shipwreck Sites) is a three year shipwreck research project funded by the European Community Culture 2000 Programme. The project opens an underwater window to four significant European shipwrecks in the Netherlands, Germany, Sweden and Finland. It is organised by six European countries: the UK, Netherlands, Germany, Denmark, Sweden and Finland.

MoSS aims to monitor, safeguard and visualise shipwreck sites. By monitoring the condition of wrecks the project will develop and improve methods used for monitoring the physical and environmental conditions of the shipwrecks. Safeguarding includes outlining and developing models to protect the sites so that the needs of different public groups are taken into account. Visualising will include showing the underwater MoSS wrecks using different visual mediums; photographs, graphics, videos, 3D models, animation and full size replicas.

In addition to these three main themes, the project also includes fieldwork at the wreck sites, desk research, a multi-lingual internet site, publications – both popular and scientific – posters, leaflets, reports, papers, meetings and seminars. Information will be disseminated not only to experts in the field, but also to the general public. An aim is to awaken European peoples' interest in our common underwater cultural heritage and engage the general public's participation in the protection of this heritage.

The project's four shipwrecks are all of European significance and are located in the Netherlands, Germany, Sweden and Finland. They date from the 13th century to the 19th century and are good examples of maritime history relating to the many local and international dimensions of European culture. The wrecks are situated in different types of underwater environments: inland sea, brackish waters in both the south and north of the Baltic and fresh water. These environments provide diverse information for both the physical and environmental variables of the wreck sites.

The coordinator of the MoSS project is the Maritime Museum of Finland. The co-organizers are the Mary Rose Archaeological Services Ltd. (UK), the Netherlands Institute for Ship- and Underwater Archaeology (The Netherlands), the Centre for Maritime Archaeology (Denmark), the Archaeological State Museum of Mecklenburg-Vorpommern (Germany), and Södertörns högskola, University college (Sweden).

Further details: www.mossproject.com

THE BUCH PROGRAMME AND THE RUTILUS PROJECT

Per Lejoneke and Björn Varenius
The Swedish Maritime Museum

The Rutilus project is the first part of a five-year programme called BUCH – Baltic Underwater Culture Heritage. It aims to reduce the destruction of underwater heritage caused by man in the Baltic Sea and the programme includes all of the Baltic shoreline countries for networking and developing strategies.

Rutilus is a two-year project to determine the present threats to cultural heritage in the Baltic Sea: fisheries, water pollution, exploitation, shipping, sports diving and looting. The programme will then present strategies for dealing with these threats. It will look at preservation, legislation, ambitions, common interests and be related to cultural tourism and schools. The aim is to reduce the threats, increase public benefits and sustainable usage.

The project is concerned primarily with wrecks, and prehistoric underwater settlements. In the last few decades, insufficient knowledge and interest in underwater cultural heritage from both the authorities and the public has increased the destruction of these environments to such an extent that it is now a cause for great concern. The main threats are environmental pollution, fisheries, sports divers and exploitation. The ongoing destruction has no national boundaries; therefore it demands a common active engagement from all nations in the coastal area of the Baltic Sea.

Today work on underwater cultural heritage in the Baltic Sea varies from state to state and the majority of work is carried out as a national affair. The work is

done with extremely limited resources, often by a small group as the responsible authority, concerned with only a specific subject.

The solution is to increase the experienced value of preserved cultural heritage, by changing attitudes and raising the awareness of both the public and the authorities. By presenting underwater cultural heritage in a broader social perspective and defining a wider group of interested parties, the experienced value of underwater cultural heritage can be increased. An increased value results in an increase in support from the public and local authorities to protect and preserve this valuable cultural heritage.

The project will generate a common framework for use and preservation. The result will then be tested against other interested marine parties with international connections. Thereafter every national representative will carry out the same procedure at a national level. The project in this application concerns the first two years of the overall project and its purpose is to:

- Check the conditions for a developed cultural heritage cooperation.
- Establish the purpose and aim of the project with important interested parties at both national and international levels.
- Define and establish a common platform for responsible authorities around the Baltic Sea and develop a common quality concept for a lasting use and preservation of marine cultural heritage environments.
- Develop a tool for education.

The foundations for the next step will be the knowledge acquired of each country's conditions for co-operation, a functioning platform and an established network of important interested parties. This implies the establishment of a number of test environments for use and preservation around the Baltic Sea. The final results from these will be the basis for a common public quality concept for a lasting use and preservation of maritime cultural heritage in the Baltic Sea.

ARS BALTICA

Lidia Makowska
The Baltic Sea Culture Centre Gdańsk

ARS BALTICA is one of the oldest pioneering Baltic networks. It was first established in 1988 as a forum to stimulate and encourage cultural cooperation, dialogue and exchange between the countries around the Baltic Sea. It gives priority to art, culture and cultural history. Its goal is to implement common projects, which in terms of structure and concept are more than the traditional form of bilateral cultural exchange. The organisation also helps these projects to join existing networks of individuals and organisations.

Projects and themes assigned the Ars Baltica logo include the following: literature, theatre, modern dance, visual arts, cultural heritage, music. The arrangement of international Dance, Theatre, Short Film, Music and Young Composer Festivals have all resulted from the networks, along with theatre workshops. Long term projects include artists in residence, a contemporary Arts magazine, Network Baltic – a network between artists and curators. By being awarded the logo projects receive a guarantee of prestige and legitimacy as multi-cultural, littoral projects. In 2000 cultural heritage was included through the Baltic Sea Region Identity Workshop. This was a series of seminars for students dealing with Baltic Sea Identity.

Further details http://www.ars-baltica.net

COOPERATION OF THE SEVEN BIG ISLANDS IN THE BALTIC SEA REGION

Marcus Lindholm
Åland Board of Antiquities

An Interreg IIIb project. The leading partners are the three islands of Åland, Gotland and Bornholm. "Islands in History" the medieval islands in the Baltic Sea. By increasing the networks between the seven participating islands, the vision is to encourage greater understanding of the islands during the Middle Ages. The aim is to increase activities on the islands for tourists and visitors, and to educate the staff of participating institutions. The activities will include medieval markets, performances and pilgrimages.

UNION OF THE BALTIC CITIES

Marlena Chybowska
Commission on Culture
City of Szczecin, Poland

The Union of Baltic Cities is a voluntary organisation established in 1991 and comprises of 103 member cities from the ten countries that border the Baltic Sea. The purpose of the Union is to foster the exchange of information and ideas between member cities at both economic and social levels through mutual projects. The organisation is funded by membership fees, and projects are funded by individuals who source their own funding from local municipalities and the European union.

The Commission on Culture, located in Szczecin, was established in 1993 and is one of ten commissions. UBC Commission on Culture aims to enrich the cultural life of the citizens living in the area of the Baltic Sea. It fosters contacts and develops joint cultural projects. Cultural collaboration is a perfect tool for sharing knowledge of the history and cultural backgrounds of the different Baltic countries and for creating mutual understanding. The promotion of contemporary art and artists, as well as of the historical and cultural traditions in ten different Baltic countries helps to breakdown the barriers that exist between nations, cities and ordinary people.

The commission also provides and disseminates information on cultural activity in the Region. It works from an action plan prepared every two years by the steering committee with representatives from the following: Szczecin, Poland; Visby, Sweden; Espoo, Finland; Bergen, Norway and Tartu, Estonia. The commission itself produces international working sessions that focus on different cultural topics and help to establish international networks among individuals and cultural organisations.

In its early years, the commission coordinated the UBC Art and Culture Festival. This is an annual event devoted to folk art, music and handicrafts and contemporary visual arts. The international working sessions have led to the production of the UBC Catalogue of Cultural Institutions that provides a listing of galleries, theatres, museums, and culture houses and associations in UBC cities. These sessions have also looked at the proposed development of a UBC Library Network and a Choir Music Forum accompanying the International Choir Festival and art and cultural education in Baltic countries. In 2003 the session is aimed at helping museums, galleries and artist-run spaces to share information about innovative forms of social communication.

Other ongoing projects include:

MARE ARTICUM – the Baltic contemporary visual arts magazine and the Baltic Biennial of Contemporary Art. The purpose of the magazine, established in 1996, is to initiate joint discussion and establish a promotional tool for the under-developed artistic movement in the Baltic. MARE ARTICUM is a forum for artistic exchange in the Baltic region and coordinates the Baltic Biennial of Contemporary Art. In 2001 the biennial entitled "The Fatal Attraction of Civilisation" explored the effects of commercialism and consumerism on society.

In 2003 the biennial entitled "Extra Strong – Super Light" will be held in Szczecin. It will look at the ways political changes have reshaped social relationships and intimate interaction between couples and families in the post – Soviet era.

In 2004 the commission is undertaking a project to coincide with the inclusion of a number of Baltic countries into the European Union. "A Strand of Baltic Pearls" will be a history of cities in the Region and detail its rich and diverse cultural heritage in a series of essays on the roles played by key cities throughout history. The target of this project is to examine the history and heritage of the Baltic Sea through the prism of the cities that ring it; the pearls and peoples which demonstrate its charms, its beauty and unique maritime cultural heritage.

Further details: www.ubc.net

THE ASSOCIATION OF CASTLES AND MUSEUMS AROUND THE BALTIC SEA

Bengt Kylsberg
Curator – Skokloster Castle, Sweden

In 1967 the Swedish state began the restoration of Skokloster, a 17th century castle containing many Baltic objects. The builder of the castle sailed in the Baltic and his father originated from Estonia.

The idea for the Association of Castles and Museums around the Baltic Sea originated at Malbork Castle, Poland in 1990. The aim was to establish a network for teaching and learning amongst colleagues from similar castles and museum collections. On the 21st July 1991 the Association was founded at Malbork Castle. It incorporated nine countries around the Baltic Sea, excluding Norway and ten regions including Kaliningrad. Each country has chosen different castles or museums to participate and has created a network for the discussion of mutual affairs. The general assembly meets annually and a member is chosen from each country to be a representative on the Board, which is held at alternate locations. In 1994 the Association published the first tourist book in the region, "Castles Around the Baltic Sea". A second book, concerning the mutual art history of the region and the main objects presented in different museums, is currently under production.

The Association also concentrates on restoration, ethics, paintings, marketing and sponsorship. It has been very fruitful to have connections and networks established between the member countries. Membership is based on fees. The book received backing from a Danish sponsor and posters are sold to raise funds. A website facilitates the spread of the organisation through the different countries. There are currently 48 museums and castles belonging to the Association and the website links to all of their home pages.

Further details: www.baltic-castles.org

INDUSTRIAL HERITAGE PLATFORM

Marianne Lehtimäki
National Board of Antiquities, Finland

The National Board of Antiquities in Finland initiated the project, which is financed by the Nordic Council of Ministers. The Secretariat is located at the National Board of Antiquities.

Nordic-Baltic Industrial Heritage Platform 2000-2002 has been a three-year cooperation project with a focus on training, networking and research. The participating countries were Denmark, Estonia, Finland, Latvia, Lithuania, Norway and Sweden. The overall objective of the project was to enhance the knowledge, safeguarding, care and appropriate use of industrial heritage. This was carried out by:

- organizing international multidisciplinary training courses and seminars where methodological tools were discussed and developed for safekeeping of the industrial heritage
- initiating networks and exchange of professional expertise in the Baltic-Nordic axis
- promoting the visibility of and the work for industrial heritage in the participating countries, especially in the Baltic countries
- disseminating information about industrial heritage through books and publications

The project was a direct continuation of the Nordic-Baltic conference Industrial Heritage in the Nordic and Baltic Countries – A Seminar on Cooperation in Strategies, Research and Training held in Helsinki on 1-3 October 1999.

As yet there has been no clear decision as to how this work should continue and there is a meeting in November in Denmark.

Additional Information
The Internet pages summarising and presenting the experiences of the project will stay alive as part of the website of the National Board of Antiquities in Finland with the address:
www.nba.fi/MONUMENT/IHP.
www.ihp.lt also continues its life as a Lithuanian version.

NBA as the responsible co-ordinator of the project will produce a publication where the experiences in training and networking, that have seen light in the Nordic-Baltic co-operation during the three project years, will be gathered. The writers will be teachers, lecturers and participants of the IHP courses and seminars. The book will be published in 2004.

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SUSTAINABLE HISTORIC TOWNS – URBAN HERITAGE AS AN ASSET OF DEVELOPMENT

Marianne Lehtimäki
National Board of Antiquities, Finland

The working group "Sustainable Historic Towns" initiated the project **Sustainable Historic Towns – Urban Heritage as an Asset of Development,** which was approved as a BSR Interreg IIIB project 2003-05. In terms of the Interreg II B-programme, the priorities and measures of the project are enhancing good management of cultural and natural heritage and of natural resources. The main objectives are development and promotion of natural and cultural heritage as an asset for regional development, fostering an increased public awareness of limited resources and development of spatial planning methods as tools for sustainable use of limited resources.

The project strengthens national, regional and local efforts to identify and enhance urban heritage as a local resource and an asset of identity. By researching environment and data, developing inventories and analyses, the work can be further developed to a common strategy, balanced management and good practice for sustainable development in historic towns.

The project consists of three working-packages. The working-package **Strategic Guidelines** focuses on uniting urban heritage conservation with development plans and regional policies. Activities involve all the members of the working group Sustainable Historic Towns. The co-operation, implementation and dissemination of the results are transnational. The project network participates in the **BSR 1st Heritage Forum, Gdańsk 2003**, promoting cultural heritage co-operation. Further project networks will co-arrange the **2nd Heritage Forum 2005** for dissemination of the results of the project.

The working package **Professional Tools** creates a platform for authorities, researchers and professionals to exchange and compare management and conceptual experiences. It collects and analyses good methods for integrated conservation and urban sustainable development also including regional and local conservation policies in BSR. Further it promotes EIA and SEA-methods and stimulates resource thinking of the management of urban heritage. The working package organises together with WP1 **an Expert Seminar in April 2004 in Druskininkai, Lithuania,** in order to discuss these issues.

The working package **Improvement of Management Tools** deals with integrating the urban heritage policies with the planning and management of urban spatial development as part of regional and local capacity building. WP3 includes 8 pilot towns (2 in EU countries, 2 in Norway and 4 in PHARE countries) in different types of municipalities in BSR. They represent different management problems, and will test innovative tools of management, cross-sector co-operation and local involvement.

The local outcomes are, besides local operative plans and instructions well anchored to regional activities and assets, improved competence, capacity and better integrated resources for sustainable heritage management and development. The activities will create cross-level networks, several reports and exhibitions and one Information Centre for Repairs and Maintenance. National outcomes are advanced tools for sustainable urban planning and urban heritage management. Transnational outcomes are, beside meetings and seminars; guidelines on good methods for urban conservation policies and a joint proposal for research programmes.

The project budget is 1 027000 EUROS, where financing from Interreg III B-programme covers half, and main national funding comes from Norway, Finland and Sweden. These countries also have national activities in pilot towns. Denmark and Germany will take part in the international networking, as well as the members of the working group Sustainable Historic Towns in Estonia, Latvia, Lithuania and Poland. These countries, except Estonia who uses national funding, will apply for the PHARE financing for their national activities. The indicated sum for the PHARE-projects is 542000 EUROS.

INTERNATIONAL PROJECT MILESTONES:

2003

- The 1st Heritage Forum in Gdańsk 3.-5. 4., incl. international "kick-off" seminar of the project
- Project website opened in autumn
- Preparation of PHARE-projects
- Pilot town meeting in Forssa 28.-29. 9.

2004

- Spring: expert Seminar in Lithuania 22.-25. 4.
- Launching of PHARE-projects
- Pilot town meetings in Mosjöen in spring and in Ystad in autumn

2005

- Pilot town meeting in Röros in spring
- 2nd Heritage Forum, including dissemination of the results
- Conclusive Seminar in Latvia
- Final summary report "Guidelines on good methods for urban conservation"

For further information contact:
The National Board of Antiquities, Finland
www. nba.fi/INTERNAT/project/ SuHiTo_eng.htm
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Project part-financed by the European Union within the BSR INTERREG III B Programme (European Regional Development Fund)

Władysław Stępniak

THE ARCHIVAL HERITAGE OF BALTIC SEA STATES AND THE "MEMORY OF THE WORLD" PROGRAMME

The Polish Committee of the UNESCO Programme "Memory of the World" is in a particular way related to this important international initiative, taken up in 1992, when in the southern part of the European continent the collapse of Yugoslavia was accompanied by events posing a threat to the cultural heritage of nations inhabiting that country. Historical experiences of Poland made the authors of the Programme organize the first meeting of the World Advisory Committee in our country, accompanied by a regional seminar grouping the representatives of the States of Central-Eastern and Southern Europe. The above took place on 12-14 September 1993 in Pułtusk, near Warsaw.

Both the place and the time of that meeting were conducive to promoting the expected goal of the Programme. That goal was defined as the need to draw the attention of international organizations, governments and societies to the necessity to cover documents of historical value for humanity, characterized by delicate nature and fragility of physical media of content transmission with particular care. These media or carriers, as of the mid 19th century started to reveal the features of significantly low durability, raising a highly justified concern that the contents recorded thereon might share the fate of orally transmitted tradition, existing exclusively thanks to people's memory. Acid paper, negatives and positives, films, and recently, digital recordings on magnetic carriers do not grant any guarantee that the information fixed on them will be preserved for a longer time than the lifetime of one or two generations. Under these conditions, the intensification of dangerous phenomena in international relations, leading to wars and related acts of vandalism, needed organized counteracting.

The authors of the "Memory of the World" Programme, deeply aware of all those considerations, organized the Programme inauguration in the country the cultural heritage of which had been ruthlessly devastated during the partition period and world wars, in particular the last one. Opening the proceedings of the World Advisory Committee, Frederico Mayor, the UNESCO Director General of that time, and the intellectual father of the Programme, quoted the example of the history of Polish Central State Archives, the holdings of which had been deliberately destroyed by over 90% by the German occupants during the Second World War. He considered that fact as the warning for all times for the whole of mankind!

The UNESCO Programme aroused significant interest in Poland. In 1996, the Polish National Committee "Memory of the World" was set up. Taking up activities compliant with the Programme objectives, the Committee devoted much care to Polish applications to the world list of documentary heritage. Several dozen institutions of memory were invited, these proposed 400 objects, out of which the national list of candidates to the entry into the world list was created. Outstanding scholars, often requested by the Committee for opinion on proposals made, participated in all those activities. They resulted in the creation of a list comprising 24 objects (resources, collections, and single documents), out of which candidates are successively proposed to the entry into the world list. In 1999, three Polish proposals were entered into that list: Nicolas Copernicus' manuscript: "De revolutionibus orbium coelestium" dated 1520, Frederic Chopin's works and the Warsaw Ghetto Archives (so called Ringelblum Archives). Subsequent Polish applications: the Warsaw Confederation Act of 1573 and postulates of workers on strike in 1980 in Gdańsk and the archives of the Solidarity Movement ("Solidarność") are to be considered at the next session of the World Advisory Committee.[1]

The scope of activities of the Committee also included problems of regional and national "Memory of the World" lists. Selection criteria were discussed, simultaneously undertaking co-operation on an international arena. One of the examples are annual Conferences of Archives of the States of Central and Eastern Europe which have been organized by the Head Office of State Archives since 1992. The "Memory of the World" Programme was dealt with at the Conference in 2000, and materials related to that subject were published.[2]

[1] The were adopted by the Committee on September 30, 2003.

[2] see: Marek Konopka, Programme "Memory of the World" – duty and responsibility, in : Archives of former international organizations of the States of Central and Eastern Europe, Warsaw 2001, pp. 165-169.

Institutions and persons participating in the work of the Committee often get involved in activities focused on the enhancement of storage conditions and the state of preservation of Polish archival heritage. Academic research and didactic centres and conservator's workshops operating at archives, libraries and museums fulfill their tasks well. We may observe a continuous improvement of physical storage conditions of the holdings. Storage space increases, including that at very modern buildings, such as a new building of the Warsaw University Library or Silesian Library in Katowice. State Archives also significantly increased the area of their storage space. However, one must admit that the scale of existing needs and problems is still enormous. On one hand, works on the holdings which suffered during the Second World War are still carried out, while, simultaneously, past problems aggrevate and new ones emerge. Within the frames of this presentation I wish to point out two of them.

The first one is the issue related to low durability of paper produced from the second half of the 19th century onwards. A long term government programme for the years 2000-2008: "Acid paper. Mass-scale rescue of endangered Polish library and archive holdings" was adopted in Poland. It is being implemented on the basis of the decision of the Council of Ministers dated 17 November 1999. The adoption of the programme was preceded by the signature, in June 1999, of the implementation agreement between several ministries: of culture, science, education and economy. The Ministry of Culture is responsible for the programme implementation, and the National Library is the programme co-ordinator. The programme includes carrying out of complex activities and defines the environment requisite to hinder the destruction of library and archive holdings, in reference to experiences of other States.

Problems related to electronic information carriers should be mentioned as the other basic problem of our times, also in the worldwide scale. Activities taken up in that respect refer to international experiences. The participation in the EU Programme "Delos. Network of Excellence on Digital Libraries" was also of great significance for Polish archives and libraries. Both the participation of our colleagues in conferences organized in Poland and abroad, as well as prepared sets of translations of most important works in that area, published all over the world, greatly contributed to gaining better knowledge on problems related to the digitalisation of archive and library holdings.

Various threats constitute a factor determining the need to enter into wider international co-operation. Another fact conducive to that co-operation are the consequences of the information revolution imposing the need to standardize activities of institutions of memory with regard to the description of their records. A rapidly growing scope of needs of users of information being at the disposal of our institutions is an equally relevant factor. It seems that under such conditions, archives and libraries of our region should join integration efforts, which have been carried out for several years now under the patronage of the Baltic States Council established in 1992.

The Monitoring Group on Cultural Heritage, which operates very actively, may be an example of such activities for us. Two possibilities of action open in front of archives of our region and each of them seems to be of relevant importance. They may join the activities of the Coordination Group, simultaneously taking up co-operation within the "Memory of the World" Programme. The Polish side is interested in it, asserting at the same time that the level of its co-operation with the States of the region is not satisfactory. We co-operate with the archives of Russia, Sweden, Lithuania, Latvia, Estonia and Germany. We have contacts with the archives of Finland. All the above activities are within the frames of bilateral agreements and on the platform of activities of the International Council on Archives. Those activities, apart from the subject of the Common Archival Heritage of the States and Nations of Central and Eastern Europe in 1997, within the above mentioned series of conferences[3], did not include any specific problems of the Baltic Sea Region. That remains in conflict both with our interests and possibilities of co-operation. We are of the opinion, that the commencement of work on a guide to the holdings that may be considered as common documentary heritage of the States of the Region, deserves particularly careful consideration.

The problem of common documentary heritage has been dealt with in Europe for several years now. This new cultural and civilization phenomenon emerged on such an extensive scale in Europe during the period of the intensification of integration processes based on economic relations and mutual technological interdependence, accompanied by searching for the sources of European identity. This extremely interesting phenomenon must prompt an archivist or a historian to a number of thoughts, including, first of all, the realization of numerous links and correlations between European states and nations. Numerous problems[4]

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[3] see: The Common Archival Heritage of States and Nations of Central and Eastern Europe, Warsaw 1998; E. Rosowska, The Project of an international edition of the directory to archives of Central and Eastern Europe..., in: Accessibility of Archival Materials in Compliance with the Law and General Practicies of the States of Central and Eastern Europe, Warsaw 2000. (The web site of "The Common Archival Heritage of States and Nations of Eastern and Central Europe" Programme has been made available – archiwa. gov.pl/cah/index.html).

[4] A. Gieysztor, Uwagi o sukcesji historycznej w Europie Środkowo-Wschodniej i Wschodniej, in: Z dziejów polityki i dyplomacji Polskiej. Studia poświęcone pamięci Edwarda hr. Raczyńskiego Prezydenta Rzeczypospolitej Polskiej na wychodźstwie, [Comments to historical succession in Central and Eastern Europe, in: From the history of Polish politics and diplomacy. Studies commemorating Count Edward Raczyński, President of the Republic of Poland in exile], Warsaw 1994, pp. 13-17.

result from that state of affairs, which should not pass unnoticed by an archivist – a custodian of the archival heritage of his own state, which appears to be at the same time the heritage of one or more neighbouring states.

Such a significant extension of the scope of perception of problems related to common cultural heritage occurred under the influence of activities aimed at the signicant increase of the number of the EU Member States. Under these new political conditions, common cultural heritage became to be treated in the categories of the ideology of uniting Europe. It found its reflection in the decision of the II Summit of the Heads of States and Governments of the Council of Europe, held on 10-11 October 1997, on the organization of a "Europe. A Common Heritage" Campaign. It was then assumed that the planned twelve month campaign to be organized in the period from September 1999 until September 2000 was to be the evidence of the existence of a united Europe, in particular thanks to its common cultural heritage, enriched with the veriety of national cultures.[5]

These are all activities that create favourable conditions for taking up varied forms of actions, including those of a regional scope within the frames of the "Memory of the World" Programme. The preparation of a regional list for the Baltic Sea Region might be connected with the organization of international conferences, devoted to issues of the preservation, scientific elaboration and availability of documentary heritage as well as the preparation of the above mentioned guide.

The possibility to establish close cooperation between Archives of The Baltic Sea Region is accepted by the Polish side. Contributing to the promotion of knowledge on conditions of the preservation and protection of holdings, as well as their scientific and practical importance, we would, at least to a certain extent, meet the expectations of the citizens of our States.

They would probably welcome any news on the regional "Memory of the World" list or common allocation to the world register. Its determination would require common position towards the problem of selection criteria to be considered in the selection process of elements of the documentary heritage of interest. The starting point could be the criteria proposed by UNESCO, subject to periodic modifications.

The currently binding Guidelines include explicit stipulations concerning the nature and the scope of recommended actions, which to a higher extent are based on modern technologies and call for taking up necessary legislative actions.[6]

Keeping the division in the world, regional and national lists confirms the assumption that it is possible to enter into each of the lists objects of world importance only, provided, however, that the same object may be found in more than one list. The same qualification criteria constitute the grounds for the selection of objects to be entered into the lists, but, as regards regional and national lists, some exceptions are allowed depending on the local specificity.

It could be of interest to present the results of the initial review conducted in the holdings of the Polish State Archives with the intention of proposing candidates to the regional "Memory of the World" list. I would like to begin with information regarding that review with the holdings of the Central Archives of Historical Records in Warsaw, which points out 14th-16th century documents pertaining to struggles between Poland and the Teutonic Order and the presence of the Order at the Baltic Sea. The parties participating in all the processes, wars, negotiations and peace treaties occurring at that time were not only the neighbours of Poland but also both powers of universal importance for Europe, i.e. the Papal State and the Empire. The origin of Prussia, the State which had significant influence not only on the history of Europe but the entire world as well until the date of its liquidation in 1946, was connected with these problems. These events are evidence of the fact that access to the Baltic Sea was treated as one of essential conditions of participation in the economic life of the world of those days. In view of the above, the following documents are of particular importance: documents of the 1st and the 2nd Toruń Peace Treaty of 1411 and 1466, the Cracow Treaty (Oath of Alliance sworn by the Grand Master of the Teutonic Order) of 1525, as well as earlier records of Polish-Teutonic trials carried out in front of the delegates of the Emperor and the Papal Nuncio in 1415.

Archive materials pertaining to Polish-Swedish relations and rivalry in the 17th-18th centuries, in particular the Olive Treaty of 1660, are of analogous scope and significance. In 1648, the Peace Treaty of Westphalia was signed, which organized the life of the western part of Europe after the Thirty Years War for over 100 years. Protestant Sweden was one of the actors in that war (on the Catholic side), which – receiving Bremen and Szczecin – did not quite exactly follow the framework of the Westphalian system. Thus, the Peace Treaty of Olive concluded after 20 years should not be considered as the end of the Polish-Swedish war but the extension of the system of peace guarantees of various states to the Baltic region. That explains why peace negotiations were so long and difficult, and why so many states joined the Treaty or became its guarantors (including France). In view of the above, one may claim that both the negotiations in 1648 and in 1660 were the place of birth of contemporary diplomacy and such concepts as the "balance of power", "international deal", "European concert", and ultimately also "Europe".

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[5] Council of Europe. Guide to the "Europe: A Common Heritage" Campaign, Strasbourg, 14 December 1998, Document CC-PAT (98)87 revise 2.

[6] Memory of the World. General Guidelines to Safeguard Documentary Heritage. Revised Edition 2002. Prepated for UNESCO by Ray Sdmondson.

While considering the possibility of creating a regional list of the Baltic Sea Region, one should not neglect the holdings of the State Archives in Szczecin, which preserve records of the Duchy of Pomerania, comprising numerous materials to its contacts with the whole of Europe. These archive materials are of great cognitive value to the history of Pomerania and Baltic countries, but some of them are also interesting and valuable in respect of their iconographic value, in particular those of mediaeval origin.

The following documents are considered to be of particularly great value:

1. Parchment document of 1293, in which Boguslav IV, the prince of Pomerania, confirms the Szczecin Foundation Charter dated 1243.
2. The Survival Arrangement of 1493 between Boguslav X and Cycero, the margrave of Brandenburg, under which after the childless death of Boguslav X, Pomerania was to be included into Brandenburg. (This document is significant as it could have been of decisive importance for the transfer of Pomerania to Brandenburg).
3. A letter by Martin Luther and Jan Bugenhagen to Barnim IX, the prince of Szczecin, regarding the organization of the Protestant Church in Pomerania, dated 6 April 1537 in Wittenberg.
4. 16th century horoscopes of princes of Pomerania – Jan Frideric and Boguslav XIII cast by Andreas Runge in the years 1566-1567.

As regards the interwar period and the period of occupation, we may consider important documents pertaining to foreign workers staying in Western Pomerania. It should be stressed that a list comprising over 50 thousand positions was worked out and published by the Archives of Szczecin in a printed form and in an electronic version. Referring to Polish postwar archive materials, we should focus our attention on the records of the Szczecin Provincial Office, at least due to the fact that it documents various aspects related to the change of state affiliation of Western Pomerania and great postwar migration movements in the years 1945-1948 – displacement of Germans and Polish settlements.

Our colleagues from the State Archives in Gdańsk also declare their readiness to co-operate, and in their opinion the following documents, inter alia, deserve to be entered into the regional list:

1. The Hansa Reform Treaty signed at the Lübeck Assembly on 13 September 1557. This document was approved by the representatives of 63 Hanseatic cities. It constitutes the reminder and the confirmation of earlier obligations and rights of Hansa members.
2. A letter of the Cracow City Council to the Gdańsk City Council regarding the Hanseatic Assembly on 25 April 1476 in Lübeck. In its letter, the Cracow City Council requests the Gdańsk City Council so that Gdańsk deputies could represent Cracow at the assembly of Hanseatic cities in Lübeck on Ascension Day and settle the disputes of Hanseatic traders with England, Brugia, Cologne and France on behalf of the Cracow Council.
3. "Waterrecht van Damme" – the oldest Gdańsk manuscript of the Water Law of Damme dated 1407. A maritime law code setting standards to rights and obligations related to sea navigation and the wharfage law (1407-1482).
4. The Code of Lübeck Rights for Elbląg dated c. 1260 The oldest, illuminated preserved code of Lübeck Rights for Elbląg "Das Original des Lübischen Rechts... ("Codex A". Title and comments by J. J. Convent, 1810).
5. Napoleon, the emperor of France, approved the Elbląg Convention dated 6 December 1807 on the determination of borders of the Free City of Danzig (Gdańsk), on 5 February 1808 in Paris.
6. The Agreement between Germany, Poland and the Free City of Danzig (Gdańsk) on the free transit between Eastern Prussia and the remaining part of Germany, Paris, 21 April 1921. A regulatory agreement to stipulations included in the Treaty of Versailles regulating the flow of goods and the passenger traffic between Eastern Prussia and the remaining part of Germany.

In the course of activities being carried out we may also count on co-operation with the State Archives in Toruń, which aim at drawing our interest to the "Archives of Prussian Lands" preserved in the holdings of the Archives. This includes archive materials from the 13th-18th centuries pertaining both to the history of so called Crown Prussia as well as to economic and political contacts with cities of the Baltic Sea basin. Complete documentation of the Prussian Assication concerning anti-Teutonic Order opposition and the inclusion of these lands to Poland deserves particular attention.

The State Archives in Olsztyn also draw our attention to records of the Albrecht University in Königsberg (Królewiec) (Alberus Universität zu Königsberg) from the years 1554-1933, the university at which, among others, Immanuel Kant was the lecturer, materials of the Conservator's Office of Monuments of History and Art of the Eastern Prussia Province from the years 1650-1944. These are the Collections, the contents of which, are not only of interest to the Poles, Germans and Russians.

The proposal of the Archives of New Records in Warsaw concerning the inclusion into the Programme of records regarding the Baltic policy (Baltic Entente) and problems pertaining to the Free City of Danzig would also need consideration.

The above presented information is of initial character only, and we are ready to review and supplement it in compliance with arrangements which could possibly be adopted within the frames of co-operation of archives and libraries of the States of the Baltic Region.

Further details http://www.unesco.org

A SUMMARY OF CONCLUDING REMARKS AND FUTURE POSSIBILITIES FOR THE BALTIC SEA REGION

The four working groups: Underwater Cultural Heritage; Maritime Heritage and Coastal Culture; Sustainable Historic Towns; Building Preservation and Maintenance in Practice: have achieved a great deal and still have many issues to address within their fields. In addition the Forum has brought everyone together giving the opportunity for discussion and further ideas for future cooperation.

Common Sea – Diverse Culture – Common Heritage
Although the cultures along the shores of the Baltic Sea are clearly defined there are three major language groups as well as nine different nations (including Norway). These areas have experienced widely different histories in ancient, medieval and modern times, but there are also important periods of shared heritage. The Hanseatic League is an example where many of these areas were brought together under a common interest. There were also other periods in history where there were attempts to impose a common administration or common identity on this area. These attempts have left their marks on the material culture from the past. The castles built by Erik of Pomerania for example are found all over the Baltic. In this sense there may be a common cultural inheritance that we share as residents of the Baltic region, although we may not agree that we share the same culture.

Common sea – common problems
In a positive sense we have been presented with so many good solutions at the Forum. The problems tend to be the same and in many ways the solutions are the same. This is one of the strengths of Baltic cooperation. At the beginning the expression common culture and the richness of common culture was suggested as a starting point. Perhaps next we need to look at the inherent differences, maybe something for a 2nd Forum?

Floating Cultural Heritage
Here there are common problems. Norway is a good example of how to deal with this issue and perhaps something similar could be set up in the Baltic. This would mean that not every country has to specialise in both wooden and steel ships thereby creating a Baltic solution to these problems.

Military Cultural Heritage
Problems are being encountered as fortifications become obsolete and surplus to requirements *eg* problems concerning a naval base in Sweden are in the process of being addressed. These sites are part of the cultural heritage of the Baltic.

In the Nordic and Scandinavian countries there is already a network of experts responsible for the conservation of fortifications, their restoration and maintenance. A bilateral project between Russia and Finland is in the process of formulating ideas for future projects, to include perhaps a cultural tourist route and networks.

Replica, copy, regionality
It is important to be aware of these definitions when discussing common cultural heritage *eg* Warsaw is a member of the World Heritage List although the city has been largely reconstructed.

Strategic physical planning
Moving towards sustainable development is important for all the Baltic Sea Region countries in the future. It should form the overriding principle for future work, and other conservation and maintenance projects. It is important to create a working group for this topic in the future.

Public interest
This needs to be awaken, perhaps in the form of an exhibition on Baltic archaeology or the *Mare Balticum*. Engage the public's interest to obtain ministerial interest and support. Earlier plans for an exhibition travelling around the Baltic by ship had to be postponed for financial reasons. However it would be relatively straightforward to bring it together again. The main re-quirement is a sponsor. It would be feasible to prepare such an exhibition for the Second Cultural Heritage Forum.

Highlighting shipwrecks
In the international waters of the Baltic. Technical diving is increasingly becoming more common place and increasing potential dangers to wrecks. A video taken by Swedes shows an almost intact wreck which still has paint on the figurehead, the rigging and much more. This needs protection. Perhaps it could be considered by the BUCH project?

Manor houses, Parks and Gardens
There are few things that engage the public's interest more than these topics. Another subject for consideration may be churches in rural areas.

Educational cooperation
In particular cultural heritage concerning young people through for *eg* student exchanges, and the exchange of research within cultural heritage also needs to be considered.

Closing Remarks
The number of future suggestions and ideas certainly points to a need for a Second Forum. Perhaps the Monitoring Group, instead of being an overseeing body, could become a type of clearing house for combining and coordinating actions between different ideas and activities.

With regard to identity, common culture, common sea, authenticity, ethics *etc*; whether we work with boats, underwater archaeology, or buildings; it all has to do with remembering the past. How we introduce it, how we explain it and how we pass it on for future generations. The Minister's original statement recognised every individual's right to have access to their heritage and history. In fact this is what we have been discussing. Not only how we work with this as professionals but how we can be more inclusive of people in general at a grass roots level. From the Minister's point of view the public's awareness of cultural heritage is essential for the development of democracy. If we do not know what history has given us, we will not be able to fight for a democratic society in the future. This is a responsibility that we have to take on.

There are different ways of looking at our heritage and our common or diverse identity. Of course there is a common culture in this part of Europe, but it also depends from where you are looking at it. So whilst diverse cultures do exist within the Baltic Sea region, there is at the same time, a common heritage.

An important purpose for this First Forum meeting is that there is a possible area here that is big enough to be a diverse cultural area, but importantly is also small enough to grasp and develop as part of a widening Europe.

summary by Kate Newland

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