From Research to Operation.

Material and Techniques of Preservation or: Have We Lost Our Instinctive Sense?

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The typical biography of a ship starts with planning and ends after years of duty at sea either, with a drama to tell, at the bottom of the ocean, on rocks and sands along coasts, or, without any publicity, in a scrap yard, in a mudbed or in a lonely dirty corner of a port basin. Few ships are kept and drawn back into life for new duties. They now hold pride of place of private owners or belong to museums' collections. Some of them are put to sea again.

The people around the vessel's former life, the shipbuilders and the seamen, cannot be brought back to life and cannot be collected.

The art of building ships is centuries old, has been changed and developed during history, has produced traditions and has broken them. Our imagination conjures a never ending row of boats and ships and their builders.

The art of sailing ships is as old and has gone through similar developments and traditions. It is easy to imagine the mass of seamen who sailed their ships worldwide across the oceans.

The art of commanding ships has been developed with the task set by the owners for ship and crew. The number of captains is countless, the names of the famous are still known, their deeds were passed on.

Shipbuilding, ships and seafaring are inseparable from the people in and on them.

People die, ships as well. But, some ships survive.

The most important and most dramatic development in shipbuilding and seafaring was made in the 19th century. But, the quickest changes have taken place in the last fifty years. Building materials and production techniques, propulsion-engines and equipment for ships today have nothing in common with the ships in the past, except that the ships float.

And navigation, in the old days a part of seamanship, has changed dramatically.

But, just as rapidly as developments were made, the knowledge about the last generation of materials, techniques and skills vanished.

Thanks to historians, archaeologists, museums and their skillful technicians, wrecked finds can be reconstructed, remains explained, materials identified and

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craftmen's skills revived. In short, what had vanished can be reproduced.

The products of these efforts are the vessels: square riggers, sailing yachts, steamers, motor vessels, boats driven by manpower, wind or engine which form the colorful backdrop for events like Operation Sail, port anniversaries or, for instance, for maritime congresses.

And, these products are the centre of interest during those events.

There are numerous examples of preserved ships which can be used to discuss materials, techniques and skills to save these objects. I have done this myself for many years. The vessel is still afloat and sailing.

If I were a museum ship fanatic, I would have offered a different title for my paper today, a discourse about a tiny, but most interesting, scientific problem: «The difference between riveting German or Swedish puddleiron used on small vessels; in special consideration of the size of rivets under the influence of boiler construction in England, between 1892 and 1899». Enthusiasts would be thrilled, although facing this audience, it means bringing coals to Newcastle.

Fortunately for you and me, some of my instincts for danger are working. So, I will cancel the discourse. This decision should not disappoint you as so much printed paper has been produced on the topic of «Preservation-materials and techniques» during the last twenty-five years. This proves, at least, that preservation is a very important movement, not only among scientists and museologists, including archeologists, but also, and especially, among layman-enthusiasts. Not to mention shipyard-owners, equipment-producers, magazine-publishers, skippers or tourist-managers, who make their living with old ships. It is a big business, isn't it?

It proves as well that necessarily a great deal of research on materials, techniques and methods is done and the preservation is finished or in progress, to keep this business running. Everyone who is not illiterate can read about it. And yes, you can watch and study those preserved vessels floating, if they are visiting your homeport, or if you join the events. Just read the annual programmes of countless maritime meetings all over the world. It is amazing how many «traditional vessels» are sailing salty waters these days.

Considering all this, we have to state, that the final result of all the energy expended with the single-minded purpose of preserving ships, is a nicely varnished piece, a thing, something to put your hands on, literally. Not less, but, whether we like it or not, also not more.

Given the importance of our maritime heritage, there is no doubt that it is our duty to pull old vessels out of the mud or to get ahold of them on their way to the scrapyard. And the piece will survive, thanks to our ethics, power and money– if we have those. And, we have to preserve the vessels and keep them well maintained, especially if we want to go to sea with them.

■ THE PRESERVATION OF OUR MARITIME HERITAGE

But, all the time I dealt with the preservation of vessels from the past, I was driven by the questions: Why do people limit preserving their maritime heritage in just repairing or restoring the ship itself? and: Why do the mainstays of the teamwork to run a ship at sea: the seamanship, the navigation, the commanding, play such a minor role in preserving our maritime heritage?

I found answers from different point of views.

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The first answer is simple, human and reasonable, but frivolous: people like precious and shiny things, all the more for instance, if they can transfer a dirty working boat into a state of art of a yacht. (Besides, I also observed a change of identity of owners and crew when they enter their vessel.)

The second answer is ruled by the law that every force follows the path of least resistance. Referring to our subject, this means: It is easier to maintain ships than knowledge; it is easier to maintain knowledge than skill; it is easier to maintain skill than feeling, sense.

The third answer is not so flippant, more serious and with a sad aspect: Yes, we have nearly lost our instinctive sense for the sea!

And why should we feel required to revive it ?

First: Because it is an integral part of our maritime heritage.

Second: Because it should also be an integral part of our modern safety at sea.

Of course, we run our historic ships with modern knowledge and methods, and, often secretly hidden, with modern equipment. Because of the current safety regulations at sea, it is a necessity to do so. We all agree strongly with that. Out of date stuff has no use. It seems needless to revive the historic seamanship equivalent to the old ship.

But, these present conditions cause a loss in our maritime heritage.

My wish is that seamanship, historic seamanship, should become a central interest for those who feel responsible for preserving every part of our maritime heritage.

Three thousand years of developed skills and sense for the sea, passed on from generation to generation of seamen, cannot be thrown into the garbage bin of history or buried in libraries and archives, just because we are in the lucky position of living in the times of hydraulic windlasses and GPS!

Very often, preserved ships are mainly the playground for freshly invented «traditional folklore». In fact, they are bestsellers! But, it is a shame to observe that this folklorism is impudently called tradition. It all looks very funny or romantic — something that seafaring never was.

At this point, I don't want to start discussion about the pious fraud with historical lies. Only one comment: It is not only our professional duty to be historically correct, it is also the respect we owe our seafaring ancestors, which has to lead us not to falsify history.

The handling and commanding of a ship, for instance, from the 19th century, which is afloat in a historic port and is going to sail, can honestly only be called historically correct, if the performance of the seamanship is, like the vessel, as close as possible to the historical facts and conditions of 19th century seamanship.

Through the silence, I can hear the protest: «Is this man crazy, how does he dare to suggest ignoring all achievments for our safety at sea, all our beloved electronical equipment, and put ourselves again into danger?»

Wait a moment, don't we all sing the songs of our past seafaring heroes? Why is that, if we don't value and accept, what they did? – There you are!

Be assured, I am a fan of safety at sea. I am notorious for sticking to modern safety regulations, when I am at sea. I am far away from being an old fashioned stubbornhead, who hates modern techniques.

But, let's be honest. Isn't it alarming how we move through the nature of the sea, ignorant of, and indifferent to, all the tiny signals, which, if observed, could be of great support in navigating our vessel? Our eyes cling to the displays of the instruments. The questioning, observant look to the outside is lost or has changed into an insensible glance. Yes, we all see the sky, the weather, the

Can we avoid the modern navigation instruments in traditional sailing?

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sea – but, only very few perceive what they see or are able to put any little piece of observation into the big picture.

To collect as many relevant observations as possible at sea, and turn them to a good account at the right time were the basics of seamanship (i.e. navigation) in the former days, not long ago. That is the reaso why English sailors had a well known mnemonic called *The Mariner's Creed*. They knew, that every vessel was guided over the oceans principally by «the three L.L.L. – Log, Lead and Look-out». Later, in the 19th century, a fourth L. for Latitude was added after calculating at sea had better conditions.

I would like to recite the text:

«L.L.L.L. The Mariner's Creed»
To be said daily, and acted on always

I understand L.L.L.L. to be the symbol or sign for
four things which I must never neglect;
and these things are:
Lead, Log, Latitude and Look-out,
Therefore, I say, use the Lead and the Log;
and mind the Latitude and the Look-out.
I believe in the Lead, as it warns me against dangers
which the eye cannot see.
I believe in the Log, as it checks my distance run.
I believe in ascertaining the Latitude, as it helps to
define my position.
I believe in the Look-out, as it warns me against
dangers to be seen.
The Lead warns me against dangers invisible,
The Log warns me against false distances,
The Latitude helps to define my position,
and the Look-out warns me against dangers visible.
And I earnestly resolve, and openly declare,
that as I hope to sail my ship in safety on the ocean,
as I wish to spare the lives of my fellow-creatures at sea,
and as I wish to go in safety all my days,
so will I steadfastly practise that which I believe.
And I hereby warn seamen, and tell them that if they neglect
any one of those things, either the
Lead, the Log, the Latitude, or the Look-out,
they or their fellows will some day surely perish.

■ THE OLD METHODS OF SEAMANSHIP

A part of the secret of navigating the oceans successfully for hundreds of years was the routine in obeying these simple rules during every watch. The routine is a particular demand of the creed in the subtitle: «To be said daily, and acted on always».

Continuity seems to be the word for former seamen and for present day heritage keepers.

Although there is no doubt that the old methods of seamanship are part of the maritime history, there may be doubts about reintroducing them, particularly about whether practicing them on museum ships is of any service, or perhaps even absolutely useless and dangerous.

I shall not argue with my own experience with the four letters L.L.L.L. on long distance journeys on yachts without an engine nor electronic equipment.

And, I shall not argue with the expertise of fellow-sailors who successfully experimented with old methods of seamanship under real conditions. They sailed from the Canary Islands to the Caribbean Sea some years ago. They went without compass, used only stars and a steady look-out. It took three years of preparation to research and revive the old skills. It worked well. Of course, to avoid high risks and danger to life they had a «secret navigator» aboard who was well equipped with navigation instruments to help them especially with the final landfall. They did not need him. It is a hint to us museum people, and an irony in itself, that these sailors did their research in libraries and archives of museums all over the world. I know we might be called enthusiasts with a strange hobby, although it is three thousand years old.

I shall argue for the reintroduction of old seamanship, at least to preserve the maritime heritage, with the opinion of professionals, together with those seamen who have the deepest and worst experience with the sea, the rescuers.

Three years ago, a group of eight German lifeboat-skippers, most of them old and close to retirement, received a request by their association's board (Deutsche

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Gesellschaft zur Rettung Schiffbrüchiger). They were asked to write about their vast experience in seamanship gotten during their many years of duty at sea. The task was to write a book which had not been written before, and which was meant as a lecture-book for their successors and younger lifeboat skippers. The board thought that the young men, who were only trained on vessels with modern equipment, were lacking in that part of seamanship which has to deal very intimately with raging nature.

Every party participating in this project knew that it was five minutes to twelve. But, better late than never, they had to pass on their their knowledge together with their developed senses.

To make the story short, they came down to describe the basics of their seamanship.

The book was published last year.

An interesting fact is that the eight authors didn't call the reintroduction of the old methods of seamanship «preservation of tradition», they called it a «necessity».

If our most professional professionals, the rescuers, look into the future with approved old fashioned seamanship, we professional into-the-past-lookers must be most capable of doing the same. The necessity is the best argument for us museum people to practice the four L.L.L.L. on our traditional vessels, because it is the easiest way to preserve the maritime heritage.

Perhaps I am preaching to the converted – but I doubt that the crews of museum ships are asked to use their eyes, ears, noses, feelings, all the human senses including the sixth with priority, instead of working only with mechanical and electronical aides. Maybe, they sometimes put on an act between breakfast and teatime to entertain the passengers, but not always all day as the creed demands.

■ THE OLD KNOWLEDGES

I am afraid that the knowledge about what a good old lookout has to observe and report is nearly gone. The waves, the swell patterns and their reflections, cross seas, breakers, surf and their changes, and the colours of the water are supportive to find a relative position close to your landfall. Birds tell you how far away the land is and, in the morning and evening, on what course to find it. Single clouds or colour changes in misty air give directions to islands or land behind the horizon. Not to mention smell. Steady winds, particularly trade winds give a lead for steering as well as the azimuth of the stars which can be used as a compass. The zenith point of stars give information about the latitude, by their declination. These are just some examples.

The method of navigation, observing the sky by day and night and the surface of the sea, was developed up to a high performance level by the seafaring people in the Pacific, but similar methods were used by Oriental and Western cultures as well. Remember the folks around the Mediterranean rim, the Vikings and the explorers.

Dead reckoning is still the fundamental calculation of position finding. Every manual on modern navigation aide calls this to special attention in their first sentences.

Most of these former seamanship skills were based on empirical knowledge. The seamen knew that it worked, but they didn't know why. For instance, the science of the weather at sea and, thus, the development of the weather forecast at sea really began no earlier than mid 19th century.

Today, all these observations can be made with a lot more scientific knowledge and a better understanding. Nevertheless, the observations have to be made. Neces-

sary factors are: a look-out with continual steadiness, a fully coordinated team at the log and a standfast man with the lead, although it takes a long training period to be a good one.

I know that technique freaks will smile mildly about my wishes, but I know as well that the performance of four-L.L.L.L. seamanship, so called «steam seamanship», is highly recommended and most welcome in a case of emergency after a black out has swept away modern technical functions. That is the moment we need our inheritance.

I think that I don't have to finish this paper with a conclusion, but I would like to recite an accompanying last sentence. Gustav Mahler, the famous composer and director, once said:

«Tradition is maintaining the fire,
not worshiping the ashes»