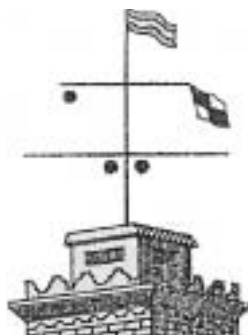


Communication at Sea Do You Read Me?

Boye Meyer-Friese
Altonaer Museum in Hamburg



There are nine Muses. There are many more museums. But there seems to be a connection between Muses and museums -at least looking at the words. As the old saying goes «a creative person has been kissed by a Muse». Whether or not museums are currently places where visitors or employees are still kissed by the Muses, is a question that is frequently posed. Sharp reasoning and a pointed pen will be used to come to possible answers here.

Thousands of institutions call themselves museum as a matter of course -and almost nobody serious calls this into question. There is, however, some uncertainty about the meaning of a current museum and what support this term can give the institution for its further existence. But because this has already been the subject of too much discussion (written and verbal), I do not intend to even mention it here.

Only one sentence from the clever sea of commentary to a museum's right to exist will be hooked and hauled in: «It is important for the future to examine history and the past». This directive seems to be a good navigational aid for the clarification of the question in which context the Muses and museums are connected. Clio, the Muse of History, will be a good pilot.

Clio will be our guide as we wander back to ancient Greece where the Muses resided as the goddesses of poetry, music and the sciences. Clio's sister Calliope was responsible for epic poetry. Melpomene for tragedy and Thalia for comedy. Terpsichore and Erato shared the task of love poetry. Polyhymnia and Terpsichore got dance and Euterpe assisted with instrumental music. Urania was accountable for astronomy. The oldest places of worship were areas in Thrace on the northern face of Olympus, later Helicon. Apollo became their leader in Delphi. The residence of the Muses (*musai*) was called *mouseion* in Greek and in Latin museum. The *mouseion* was a place of scholarly pursuits.

The Christian Middle Ages caused the Muses to sink into heathen obscurity. But the 'new' Christian religion adopted the disciplines of the antique sciences and they were referred to as the 'seven free arts' (*septem artes liberales*). They were Grammar, Rhetoric, Dialectic, Arith-

Communications with flags, through secret codes that had to be deciphered, has been widely used along history at sea and on land.

metic, Geometry, Astronomy and Music. Originally these 'arts' were cultivated by the 'free citizens'. Rededicating the Muses' disciplines to free arts was a clever move by the Church. But it didn't prevent the nine Classical ladies from reappearing on the stage of the Renaissance. Nor did it prevent the seven free arts from being enriched by the Muses' creative impulses.

At this point a reminder with emphasis: the fine arts have no Muses. Architecture, painting, sculpture and related arts were simply crafts. But it was just the products of these arts that led to the public and private collections around 1800. The public collections were called art museums despite the shortage of Muses. At approximately the same time the first public science museums were founded. They were specialized on individual disciplines such as history, folklore, ethnology, and natural history. Later in the 19th century technical and economic museums came along. The buildings which were erected specially to house these collections were, in keeping with the value of the treasures, of dignified and monumental design. Or especially important and representative buildings were converted into museums.

When one examines the gradual change from the antique *mouseion* to the modern museum, one notices serious differences:

–The old canon of the Muses' disciplines and the free arts was small. The disciplines determined and complemented each other. The ancient Muses and their apologists sat together under one roof, pursued scholarly activities together and held interdisciplinary discourse. Their most famous place was the *mouseion* in Alexandria.

–The modern disciplines connected to the Muses are limited to fine and reproducing art and design. The sciences have distanced themselves and are pursued at the universities.

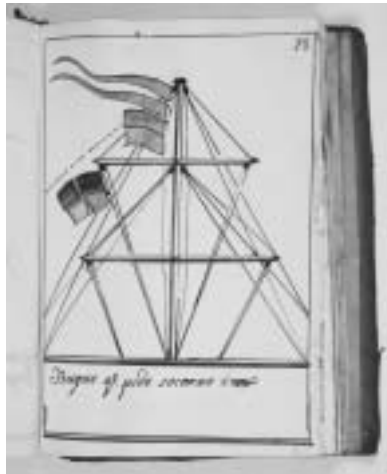
–As a rule a modern museum houses only one artistic or scientific discipline under its roof, represented by the specialized collection. And every specialized collection which is open to the public now calls itself a museum. There is seldom contact between the representatives of specialized collections. That means that the institutions hold an interdisciplinary discourse under the roof of congress buildings... if at all.

In other words, the Muses 'responsible' for the individual museums reside there alone, separated from their sisters. Now that they have been evicted from their common home, they have very little contact. Scholarly activities are no longer pursued together.

The collections of modern museums have become so extensive that the decision that was made in the 19th century for museums to specialize and go separate ways seems to be correct and reasonable from our current point of view. Given the exponential growth of knowledge in the last two hundred years, especially in the natural sciences, this decision seems even more reasonable.

For this reason it seems unthinkable today to restore the ideal situation of antique temples of the Muses with the collective knowledge and scholarly discourse of the apologists under one roof. And nobody seems to feel a loss or shortcoming. In fact most specialized museums today seem to have only one thing in common: namely that they deal with history (except, of course, that they are all struggling to survive). Only specialists are sought for the work at these museums. The specialists do not seem to be conscious of «false-labeling» or they dismiss it as a pious fraud.

The question that remains is whether the sole preoccupation with history is sufficient to place the collection of a specialized museum in an overall picture of a historical reality adequately and thus to make it understandable in its complexity.



This question can be asked of a maritime museum as well. Obviously it has been clear to museum staff for quite a long time how integrated this specialized area is with other areas and which role the history of shipping plays within international history. Maritime museums are not solely technical museums, they are transport museums, fisheries museums, aquariums and natural science museums as well. They tell the story of explorers and researchers, of immigrants and emigrants. They present the place, the region or the nation. Sometimes they even act comprehensively internationally. Because the collections of shipping museums consist, to a large extent, of paintings and graphic arts, the proximity to museums of fine art cannot be dismissed.

The list of overlapping interrelationships that could be knotted, networked or connected under the roof of a single maritime museum can be continued at will. Most of the shipping and fisheries museums fit into the mold too. Museu Marítim in Barcelona as well.

When we look thoughtfully from the steps of the antique *mouseion* in Alexandria across the water to Barcelona, we see that, at least under the roof of the Museu Marítim, many of the Muses are reunited. Not all of them can blossom as creatively and far as in ancient times because the world of shipping has tight limitations despite the 'freedom of the sea'.

The scholastic strictness of the 'free arts', some of which found their way as a matter of course into maritime museums, is often not to the Muses taste. They would have liked things to be more easy going -at least at times. But the Muses take comfort despite the restrictions. Their pride and self-confidence is based on the fact that for centuries many ships, sailing ships and steamers have been named after them. Their names were carried throughout the world with these ships. This alone would have been reason enough to seek asylum in a maritime

museum rather than anywhere else (even though naming a car Clio could be understood as an invitation).

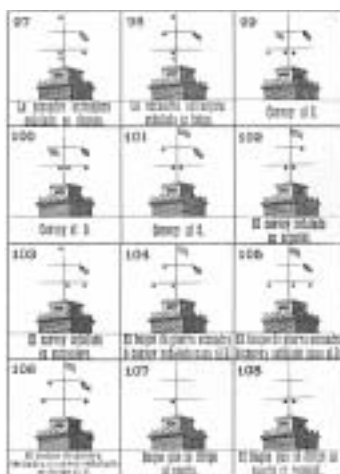
This would be a good time to make a sacrifice to Clio -and to the other Muses as well. We must be grateful that it is possible for visitors, staff and apologists to pursue scholarly occupations in and with a maritime museum, almost like in the old days. The free arts deserve adequate recognition as well.

We envisage Drassanes Reials where, on the occasion of the 75th anniversary, the Muses and 'free arts' laugh and dance lightheartedly. They celebrate the day by de-claiming texts about the sea by Homer, Coleridge and Conrad.

And they sing fishers' songs artfully. And everyone chatters away topsy-turvy. Even the otherwise so serious ladies, Arithmetic and Geometry, are enjoying themselves wonderfully with Urania -probably conversing about astronomy and navigation. Erato's bubbling, lyrical laughter comes from every corner drowning out Euterpe's instruments. It is a creative, wonderful communication between everyone.

Then there is an unplanned interruption. A tumult arises at the door. In the sudden silence the message is passed in whispers: «Grammar, Rhetoric and Dialectic are here. They demand admission!» There they are.

Elegant, erect and conservative figures. «We are assuming control of the communication here. It's about time!» they announce to the astonished listeners. Scientists, librarians, educators, restorers, visitors, school children, parents, directors, tourists and mayors look at each other bewitched. Hadn't they been communicating with each other enough? Hadn't they had enough conversations about shipping and seamen? «But we talk with each other!» comes a protesting voice from the crowd and one sees a head disappear. The three new arrivals glance at each other and then look over to Clio. «We don't mean your nice, little conversations about shipping. We are



At the end of the 19th century, the watch-man at Montjuïc devised a complex sign system which kept the city of Barcelona infor-

med of any event off coast and at port (see photo below and also on previous page).

talking about the communication at sea, its language and history! It has been missing here as everywhere else for a long time! We are taking over! Clio come here!» This has to be taken seriously.

■ MESSAGE BENEATH THE WAVES

Communication at sea plays a vital role in reaching the goals which shipping sets for itself. Communication accompanies and insures the functional processes on a ship and it is essential to the preservation of the ship and its crew in emergency situations.

Communication takes place between members of the crew on a ship, from ship to ship and from ship to land or the reverse. This communication serves to exchange information and as a rule runs along a chain of command. Communication at sea must overcome distance and pierce background noise. The means of communication can be either acoustical or optical. Communication at sea requires a unambiguous and unmistakable language.

The history of communication at sea has usually been understood as the history of its signals. It tells tales of the last wave when the ship has moved out of earshot, of roared commands, whistle signals and cannon shots. It knows of gestures, drum rolls, flags and lights and blue flare. It reports on successful communication even over many stations, interrupted communication when optical, acoustic or technical barriers could not be overcome, on the breakdown of communication and on cases when communication attempts were simply ignored. Information, commands and signals should guide reliably and

lead to good end. Occasionally they are used to trick and to lead to a bad end.

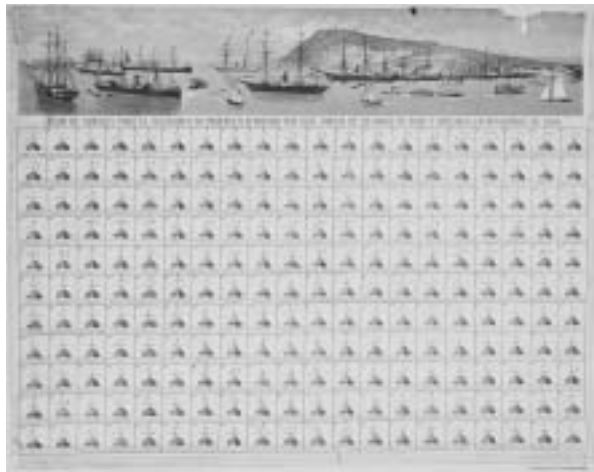
The most famous tale about the complex mechanisms of communication on board and with land can be found in a classic epic: Homer's XII song tells of the Sirens, of whom Circe had warned seafarers. Seafarers wanted to avoid the Sirens' alluring song and the certainty of death in case one followed it. But Odysseus desired to hear the Sirens song nevertheless. Thus the wily Odysseus had himself tied to the mast and ordered his crew to put beeswax in their ears so that they would not be able to hear anything. And thus they rowed past the Sirens

unimpaired and Odysseus resisted the temptations because he was tied.

This communication maneuver was of the highest quality. First Odysseus prevented the acoustic signals from being received. The seamen's ears were switched off. Then he put himself in the position where he could hear the false enticements (and he knew they were false because Circe had told him) but where he could not follow their instructions and

temptations. He had himself set to inactive. Closing off the ears of his comrades had the additional effect that they could not hear his orders to row to the Sirens immediately. He interrupted the chain of command. At the same time he eliminated the possibility of communication between the seamen, who if able to hear the Sirens, would probably have been moved to mutiny in order to follow the allurements ashore. With great foresight Odysseus neutralized all possible activities on board.

The techniques with which seamen attempted to strengthen their natural ability to speak and gesticulate



were many and varied. Improvements were made constantly because of necessity. Even a stentorian voice is inaudible in a hurricane at sea. The booming air is filled with an enormous sound. It is almost as if all of the stops had been pulled and all of the keys pressed all at the same time on a gigantic organ. In addition there is the roar of the breakers and the rolling seas. In this acoustical inferno even the thunderous crack of the sails and lines and the clang of chains disappear. But the high, piercing tone of a whistle can still be discerned. Speaking tubes were used to strengthen and direct the voice. Today we have megaphones. But the direct transmission of commands and information is completely interrupted when the length of the ship and/or of the masts exceeds the maximum acoustic range or when there are decks or walls in between. Here help came in the form of speaking tubes laid between decks and message carriers. Telephones and loud-speakers on deck and in the cabins are the modern variation.

All of these methods are limited in the usefulness. In the past it was not always possible for ships to pass each other within calling distance so that optical signals replaced direct speech. Signals in the masts, flags and combinations of flags could be recognized over great distances because the telescope was in use as an aid. This assumes that it was not a dark night or that the visibility was not impaired by heavy rain or other conditions. Especially in foggy conditions acoustic signals, cannon fire, special fog horns, bells or gongs, were used. These methods were used not only in the ship to ship communication but also to mark dangerous points on land.

The integral goal of the development in communication tools was to move away from a simple one signal-one meaning system, eg. one canon shot or one flag as a signal for attack, and to enable more complex communication. Various flags in the rig or on land and a system of

various combinations of flags led to a greater number of different messages that could be exchanged. In the middle of the 18th century the different national systems of flags and codes allowed circa one hundred different commands and messages. By the end of the century the number had increased to circa 1,000.

The signals and code systems were developed in the national navies and were either exclusively for military use or meant for naval ships sailing in convoys with merchant ships. The end of the European hostilities with the Vienna Congress in 1815 was, at the same time, the end of the convoys. Merchant shipping, which had been strongly restricted up to that point, increased enormously. The owners of merchant ships, which now sailed alone, increasingly wished to have news from and about their ships. Simply transferring the navy codes to civilian use was not particularly successful. The differences between naval codes with their primarily military content and the needs of merchant shipping were simply too great. Captain Marryat developed a code with a new flag system in 1817 that fulfilled the civilian requirements. The Marryat code was revised frequently and was in use internationally until the second half

of the 19th century. The last version was released in 1856. The Marryat code achieved wide acceptance although no national laws made its use mandatory. With the code it was finally possible for ships at sea which were out of shouting range to identify themselves. They exchanged information and could forward news. And they could signal an emergency.

Compared with the development of news transmission on land, seamen were still alone at sea. Along the coasts and across the land semaphore lines were installed like strings of pearls. With its mechanically moving arms the semaphores transported news with great speed... when visibility was good. Electricity made this even faster.



From 1850 the earth was covered with cables that connected the centers of power and trade through Morse code and from 1876 with direct spoken communication. By the end of the century the continents, separated by oceans, were connected by sea cables. But the ships at sea did not benefit from these advances. The news of a ship's departure arrived at its destination faster than the ship itself. But the ships could not hook themselves up to the cables. In any event it would have been absurd as well as technically impossible for each ship to tow a role of cable with a connection to land with it. Not to mention ship to ship connections. For this reason it is not at all surprising that despite revolutionary developments in technology on land, the work on improving signal codes was continued. A great advance was made in 1855 with the French Reynolds code. Although this new code was solely for military use, it received governmental recognition and acceptance from many other seafaring nations. In the same year, 1855, The British government gave the Board of Trade the task of developing a unified signal book which would be mandatory for British shipping. As a result the *Commercial Code of Signals for the Use of all Nations* was published in 1857. The French edition appeared in 1864 and the binding German edition in 1870. With the code that used 18 different flags in combination, over 78,000 signals became possible. That was an enormous improvement. But something even more important had occurred: for the first time steps were taken on a government level to devise a unified and binding system of communication for ships of all nationalities at sea. The Marryat code had been widely accepted but it had not been binding and there had been other, mostly English, language codes.

The development that then ensued led to the International Signal Code. It was expanded to 26 flags, made

358,000 signals and was finished in 1897. This code was translated into many languages of seafaring countries.

At the same time the greatest technical step was made in communication. Marconi had been experimenting with wireless telegraphy since 1895. He acquired a patent for this technology in 1900. And already in 1901 it became possible to cross the North Atlantic wirelessly. Thus the range for communication at sea was extended well past calling and visible distance. Telegraphy did not replace the signal code because as yet not many ships were equipped with radio telegraph station. It became necessary to enlarge the signal code by one volume. The additional volume of the Radio Signal Code was agreed upon at the International Conference for Radio Communication in Washington, D.C. in 1927. The editorial work was finished in 1930. This new two volume work was prepared for seven editions. It appeared in English, German, French, Italian, Japanese, Spanish, and Norwegian. A Dutch edition was printed as well.

As soon as it was patented, radio telegraphy developed rapidly. In addition to the increasing wish to be able to contact ships from land, the rapid development was based on a distinctive feature of this technology: radio transmissions were, basically, public. Anyone who had a receiver could listen in. Some of the messages were encrypted because business secrets were transmitted as well. But the fact that everybody could listen provided a greater chance to get help in emergency situations. With an international radio telegraph agreement in 1908 the decision was made to reserve the frequency 500 KHz for emergency calls. It was planned to use the two signals, CQD and SOS, to begin emergency transmissions. CQD stood for Come Quickly Danger and SOS for Save Our Souls. The *Titanic* sent both signals in 1912 but nobody came because nobody was on radio watch at night!

Radio traffic increased so rapidly that in the 1930s a



radio silence every hour for the frequency 500 KHz was agreed upon. The same thing happened with the radio telephony in the 1940s. Here as well the communication had increased to such a degree that for the frequency 1650 KHz a radio silence was required from the full hour until the end of the third minute in order to be able to hear weak signals. At the beginning of the 1950s 2182 KHz became the general transmitting and emergency frequency with a radio silence four times an hour for three minutes each time. Here one can easily see how busy the communication from ship to ship and from land to ship was. Channel 16 (156.8 MHz) became the general transmitting and emergency frequency in the 1970s with the introduction of VHF as the radio telephony frequencies.

Nowadays worldwide communication is transmitted by satellite (MARISAT, MSC) and emergency traffic is handled by GMDSS, also worldwide. Cell phones are used as well. Only when there is an electric blackout are the signal flags and signal code pulled out of the drawer.

■ FLAGS, WHISTLES AND OTHER TOOLS

Every maritime museum has a more or less complete collection of the objects which played a role historically in the communication on board, from ship to ship and ship to land. These collections are often on display: whistles, drums, speaking tubes, flags, signal tables, signal codes, Morse keys, even complete radio rooms, and modern equipment. Some museums have semaphores and signal masts in their collections. In addition to the instruments which were used for one-sided communication namely those for detecting: the lead, the echo sounder, sonar, radar, radio direction finders, fish finders, etc. Each of these objects, which made communication and detecting possible over great distances, taken on its own is an excellent technical achievement -but it is only an aid. The principal thing, however, is the seamen's language. But there is no stage for this language and its development for international communication in the museums. It was a great achievement to have brought order into the Babel of communication at sea

-but this achievement seems to be unworthy of note in museums in which cultural communication is deemed so important. For this reason Grammar, Rhetoric and Dialectic demand entrance!

The communication of seamen on ships differs considerably from the communication on land. It is oriented to the functional activities for the operation of the ship and takes into consideration given conditions at sea which cannot be influenced. A language with independent terminology and a clear, distinct diction and idiom developed out of these constraints. Characteristics of this language are: the interplay of two-way repetitions and confirmations, as well as the running commentary about one's own actions as positive or negative feedback. These forms arose from the insight that it was necessary to avoid misunderstandings at all costs. Linguistic misunderstandings can be the beginning of life-threatening situations at sea. This is shown repeatedly by the reports of the Maritime Board of Inquiry after accidents or disasters at sea. The characteristics of the seamen's language are found in equal measure in the languages of every seafaring nation. This is inevitable because everyone is subject to the same conditions. It was because of these similarities that mixed crews of seamen with different nationalities were in a position to understand what was demanded of them. They learned instructions in a foreign language quickly because the terms and commands were always repeated in the same form. Many of the orders were neutral with respect to the language, shorter and more insistent because they were given by signal with instruments. The common craft was the basis that helped crews with different linguistic backgrounds to understand one another.

Despite the terse conciseness of the instructions and information, seamen's spoken language has an astonishingly large vocabulary. It also developed its own syntax and semantics. In the secluded world of a ship at sea, an independent form developed separate from the standard language and the language used in literature. Some would like to dismiss this independent form as an insider-language. Unlike other insider-languages on land, however, seamen's language did not and does not

serve the purpose of establishing social boundaries. That would not have been useful at sea in any case. (Although there were, of course, social structures on board which differentiated crew from officers.) The development of this language followed from the requirements of the ships, their functions and the goals these ships pursued. There was no audience from land anyway.

Besides being precise, seamen's language is very visual -many of the terms are indeed pictorial. The language is obsessed with details which can be described or named distinctly. For this reason it can be expected, given the capacity of this language, that the communication functions perfectly between all sailors all over the world. It seems that Grammar, responsible for the rules of a language, Dialectic, for the art of conversation, and Rhetoric, for effective style of speech, have done an excellent work.

Problems crop up where the gulf the communication has to cross, for example ship to ship, is too great to allow for spoken communication, regardless of the quality of the phonetics. Seamen's language, this complex, carefully developed, repeatedly examined method of communication, becomes ineffectual abruptly. For this reason distance-crossing signals had been invented; acoustic and visual methods were conceived to overcome the communicative isolation of a ship at sea.

But using these signals caused another source of difficulties. It lay in the fact that everyone who wanted to be able to use and/or understand the signals had to be involved in the process of agreeing upon the meaning beforehand. Those who participated in the agreement process were in a position to use the restricted code of visual and acoustic signals when necessary though they had to disregard the excellent and extensive medium of their spoken language. For those who did not participate, the signals remained meaningless and they found themselves outside the communication loop.

If one considers the efforts that have been made over the centuries to harness sophisticated acoustic and visual methods to overcome the communicative isolation of a ship at sea, it is easy to understand the desperation that

ensured when these methods failed -especially in an emergency situation.

Tracing the growth of linguistic content in the developing signal systems over history, there are some noteworthy characteristics. Originally optical and acoustic signals were developed for use by the military -on land and at sea. It started with one signal with one meaning: attack. Military tactics changed and became more complex over time, causing the signal codes to be revised and extended.

The efforts that were made to go from a restricted code to larger volume of communication with signals were enormous. The increase in the number of signals from the middle of the 18th century (100) to the middle of the 19th century (Marryat Code 9,000) was a great success. The introduction of the Commercial Code (over 78,000 signals) and its transformation into the International Signal Code (over 358,000 signals) was the last leap into internationalism on the basis of the English language.

It is astonishing that the 1930 Edition of the International Signal Code, the historical development of its contents and source materials pertaining to seamen's spoken language have not become some of the most important objects in the department of 'Language and Communication at Sea' in every maritime museum. Perhaps one reason is that language is invisible and cannot be held. Perhaps the reason is that the sciences that are responsible for language did not find a place in modern museums as they had in ancient *mouseion*. And thus this brilliant intellectual achievement which was an important contribution to international understanding remained unnoticed and without adequate appreciation.

The question remains how the seamen's language and their communication at sea could have been displayed in former museums or in museums today. Bound as it is now between the covers of a book and buried in the library, this language serves scientists but not the public.

But perhaps it is helpful to take a quick look at the most recent history of communication at sea. Since the 19th century one of the prerequisites for becoming an officer has been assured ability to deal with the signal

code and its methods. Signaling was an inherent part of the training at all navigation schools in all countries. After the introduction of radio telephony at sea, strict rules were enacted for procedures and the volume of language in national and international radio traffic. This applied to emergency situations especially. Naturally radio telephony was a part of the training and led to a special certificate: the General Ship Radiotelephone Operator's Certificate.

One could almost think that communication paradise had opened up for the seafarers. They could use spoken language even though they had to use rules and often a foreign language -but they had learned both. Relief and joy all around? Possibly.

But what actually happened was something quite different. The technical advances had opened completely new possibilities for communication with many different conversational partners at the same time. That increased the ship's safety. But at the same time the flood of information increased so extremely that officers of the watch and the captain reached the limits of their receptiveness. They had difficulties in differentiating between what was important and what was not. They became stressed and made errors in their decisions which often enough ended in catastrophe. Everywhere it was recognized that good conning meant being able to handle communication without difficulty. This was especially important in narrow waters, with thick shipping traffic under unfavorable weather conditions and visibility.

Imagine the following scenario: it is night and there is thick fog. The waterway is narrow, full of curves and there is a strong tidal current. One's ship is very large and has deep draught. And now everything starts to happen at once. The pilot of another, faster ship announces a passing maneuver. Radar support ashore reports precarious approach to edge of the channel. The foghorn of an approaching ship shreds the concentration. The telephone on the bridge shrills and the engine room reports a problem with the temperature in a bearing. In the middle of all of this the shaky voice of a hobby skipper reports a collision with an unknown object on Channel 16. And there is the voice of the officer at the radar with

regular reports of new and known objects and their movements. The helmsman's cell phone rings because he forgot to turn it off before he came on duty. And last but not least the chief steward appears on the bridge with a worried expression and says «Captain, sir. Your wife has just called. Please call her back immediately. She says it is urgent!».

A good captain does not fly off the handle. On land during his training he practiced in a simulator how to make the correct decisions competently when under stress. Practice sessions on simulators are repeated at intervals during an officer's professional life. There are many such simulators nowadays. Some of the older ones have been sorted out and are now in museums.

The technology of virtual simulations could open up the possibility of running processes in a museum. This includes the history of communication. Simulators allow one to go back in history. This can take place in real-time, slow motion or in time-lapse. As in a play the many or the most important steps of a development could be put on stage act for act. The best thing is that the script for the play "Communication at Sea" has already been written. They are in signal instructions, signal codes, procedure rules and dictionaries of seamen's language which can be found in the libraries of every maritime museum. And the other props (whistles, flags, speaking tubes, etc.) are found in the collections.

Naturally one cannot expect that such a play would be on a level with Shakespeare or Lope de Vega. But a completely foreign world, which had never had an audience before, could be put on stage. Moreover one need have no fear that such a play could be in any way immoral. The seamen's language is always matter-of-fact, polite and friendly especially when it is transmitted over radio telephony. (By the way: the claim that seamen's language is full of the most creative and awful curses is a d** lie invented on land to damage the seamen's image. Swearing on board was strictly forbidden and the punishments severe!)

New acts for the play will have to be written again and again. One of the most interesting acts may be the one which stages the communication on board the big ferries

and cruise ships. Crew and passengers from all over the world are congregated here. Up to thirty different languages can be counted on one ship. Before the beginning of each voyage a decision is made whether English remains the main language for communication or whether perhaps Spanish is the better choice. A new restricted code is used in the area of safety here, one that is borrowed from fine arts: the pictogram.

And, and, and...there is still much to do!

I see the Muses and the Free Arts smiling happily in the VIP box at our new play.

■ ACKNOWLEDGEMENTS

Even an article as short as this one cannot be written without help. I would like to thank Dr. Klaus Lennartz from Hamburg University for a long and helpful conversation about the Muses. Rainer Jurschek from the Museum for Communication in Hamburg was very generous with his time and knowledge about history of marine radio service. Special thanks to my wife for the critical review of this text and for the translation into English.

