



Eesti Meremuuseumi XIV teaduskonverents

Suur Tõll 100 – muuseumlaev või laevmuuseum



Christian Ostersehlte (1959)

Lõpetanud Kieli Ülikooli ajaloo erialal (PhD). Töötanud muuseumides, arhiivides ja merendusettevõtetes arhivaarina.

Ehitajad: Vulcan-Werke laevatehas Stettinis 20. sajandi algul

Stettinis asunud Vulcani laevatehast peetakse üheks 19. sajandi lõpu ja 20. sajandi alguse Saksamaa üheks tehnoloogiliselt arenenuimaks laevatehaseks.

1851. aastal asutasid Hamburgi töösturid Franz Friedrich Dietrich Fruchtenicht ja Franz Wilhelm Brock ühtse laevatehase, inseneriettevõtte ja valukoja Bredowis (alates 1900. aastast Stettini äärelinnaosa). Algusest peale oli neil kavas ehitada teraskerega aurulaevu, sellega oli tehas üks esimesi omataolisi Saksamaal. Kuni 1870. aastateni moodustasid põhiosa laevatehase toodangust väikese ja keskmise suurusega alused: seal ehitati puksiire, parvlaevu ning kuni 60 meetri pikkusi kauba- ja reisilaevu; samuti hakati ehitama sõjalaevu Saksamaa jaoks.

Laevatehase esimene välisklient oli Hiina, kellele ehitati aastatel 1883 kuni 1887 viis soomuslaeva. See oli Saksa laevatööstuse suur läbimurre välisturul. Hiljem said Vulcani laevatehase klientideks veel Jaapan, Kreeka, Uruguay ja Venemaa.

20. sajandi algul hakkas laevatehas ehitama suuri ja keskmisi kauba- ja reisilaevu. Enamasti oli tegemist Saksa firmade tellimusega, kuid täideti ka välisriikide tellimusi.

Laevatehase koostöö Venemaaga algas sõjalaevade ehitamisest 19. sajandil, hiljem importis Venemaa tehases valmistatud tehnosüsteeme Venemaal ehitatavate sõjalaevade jaoks. Naabruses paiknevate laevatehastega konkureeriti ka jäämurdjate ehitamises, kuid seda tüüpi laevad ei olnud Vulcani prioriteetide hulgas kõrgel kohal. Siiski ehitati tehases mitu väiksemat jäämurdjat ning 1912. aastal sõlmiti leping jäämurdja „Tsar Mihhail Feodorovitch“ ehitamiseks Venemaale. Tõenäoliselt osales hankel suur hulk laevatehaseid, eriti Suurbritanniast ja Saksamaalt. Oluline sarnasus jäämurdjatega „Knjaz Požarskij“ ja „Kuzma Minin“ (1916–1917, Swan Hunter, Newcastle) toetab seda oletust. Tõenäoliselt oli viimane Vulcanis ehitatud jäämurdja „Jermaki“ väiksem versioon, mille mõõtmeid ja võimsust oli Läänemeres kasutamiseks vähendatud.



Christian Ostersehle (1959)

Graduate of the University of Kiel (PhD, studies of history, social ethnology and archaeology). He has worked as archivist in various museums, archives and maritime companies, and as the shipyard archivist of Lürssen Shipyard group at Bremen. He has also participated in different projects. His field of research includes German and international maritime history of the 19th and 20th centuries, inter alia, shipyard history and icebreakers (general, Bremen, Lübeck, Kiel Canal and US Coast Guard). Most notable publications: History of the German Sea Rescue Institution (PhD thesis, 1990); History of the HDW shipyard at Kiel (2004).

Vulcan-Werke at the beginning of 20th century

Before the First World War, this yard was technologically one of the leading companies of the German shipbuilding industry. The beginnings were modest. In 1851, two Hamburg businessmen founded a combined shipyard, engineering works and foundry (Früchtenicht & Brock) at Bredow, a suburb of Stettin. At first, small iron vessels like tugs and paddle steamers were constructed. Soon the capital stock of the founders were expired, so other investors moved in, reshaping the yard into a shareholding company named *Stettiner Vulcan* in 1856/57. Expansion of the capabilities and business followed. Tugboats, ferries, cargo and passenger ships up to a length of 60 meters dominated until 1870.

The German unification of 1871 triggering further economic growth, the Vulcan became one of the early suppliers for new buildings ranging from torpedo boats to capital ships for the Imperial German Navy was intensified. Since the 1880s, warships were also exported. Also merchant ship construction expanded, and finally, the Vulcan started business connections to the leading German shipping companies in Hamburg (HAPAG) and Bremen (North German Lloyd) in 1881 and 1885 respectively.

The special Russian contract to build the icebreaker CZAR MIKHAIL FEODOROVICH awarded in 1912 had a special background in a business connection to Russia starting as early as in 1852. At first, smaller vessels like paddle tugs, harbor ferries and passenger/cargo vessels were delivered to Russian customers. The Imperial Russian Navy joined in 1879 receiving two torpedo boats and the cruiser BOGATYR in 1902. Further warships based on Stettin designs were built in Russia.

Icebreakers were not such a specialty of the Stettin Vulcan production range and the competition on this very special field was hard. The first three icebreakers came from the Vulcan until 1889, followed by two similar ships exported to Holland in 1893. In 1895 a slightly larger icebreaker, the STADT REVAL, was exported to Tallinn.

It seems sure that the contract for the CZAR MIKHAIL FEODOROVICH, the last Vulcan-built icebreaker, must have been won following an international bidding. The design of this much larger and powerful ship had nothing to do with the harbor and

coastal icebreaker of standard German design having been built at Stettin until then. Most likely, the new building was a smaller version of the ERMAK downgraded for Baltic operations. All these design features were not developed by the shipyard, but surely were prescribed by the Russian customers. If another shipyard would have won the contract, an identical vessel would have been the output.



Mihkel Karu (1983)

Lõpetanud Eesti Kunstiakadeemia kunstiteaduse eriala 2005. Eesti Arhitektuurimuuseumi teadur-projektijuht 2005-2008. Ajakirjade ERAMU, KORTER, RUUM ja Project Baltia reporter ja korrespondent. Arhitektuuriaasta projektijuht 2008-2009. Tallinna Teletorni ja Lennusadama ekspositsioonide kuraator 2010-2012. Alates 2013 Eesti Meremuuseumi teadur.

Aastatel 1950-1952 Rauma-Raaha OY remondi käigus tehtud muudatused laeva interjööris

Ettekande teemaks on 1950–1952 Soomes, Rauma-Raaha OY laevatehase teostatud jäämurdja Volõnets kapitaalremonti puudutav projektdokumentatsioon Eesti Meremuuseumi kogudes. Senine töö antud materjaliga on käimasoleva renoveerimistöo vajadustest lähtuvalt keskendunud laeva peateki arhitektuursele muutumisele. Ettekanne proovib vastata järgmistele küsimustele: Milline oli laeval teostatud remonttööde maht? Kui suures ulatuses teostati ümberehitusi laeva põhitekil?

1950. aasta novembris sõlmiti Soome laevaehitusfirmaga Rauma-Raaha OY leping jäämurdja kapitaalremondi teostamiseks Soome Vabariigi ja NSV Liidu vaheliste nn sõjakahjutasude ehk reparatsioonide arvelt. Omanikele üleandmiseks oli laev valmis 1952. aasta talvel. Koos laevaga anti üle projektdokumentatsioon, millest valdav osa puudutab laeva tehnilist poolt – nii suurimaks muutuseks olnud katelde vahetust kui ka mitmete abisüsteemide uuendamist.

Laeva peatekil aset leidnud muudatusi puudutavate jooniste hulk on väike, eriti mis puudutab arhitektuurseid muudatusi. Neist üks põnevamaid on peateki ruumijaotuse plaan enne remonttöid, kuhu on skitseeritud tulevane ruumijaotus –muudatuste maht on piisav oletamaks, et peateki renoveerimine tähendas tegelikkuses täismahus ümberehitust. Põhiteki eluruumidele anti kapitaalremondiga väljanägemine, mis peegeldab 1950. aastate Soome arhitektuurile omast modernistlikku lihtsust. Sisearhitektuuri muutused on kõige silmatorkavamad ohvitseride salongi/messi ehk kõige säravama ja uhkema kujundusega ruumi puhul, kuid muutustest ei jäänud puutumata ka ülejäänud ruumid laeva põhitekil.



Mihkel Karu (1983)

Graduate of the Estonian Academy of Arts (the science of art, 2005). Researcher and project manager at the Museum of Estonian Architecture (2005–2008). Reporter and correspondent for the Eramu, Korter, Ruum and Project Baltia magazines. Project manager for the Year of Architecture (2008–2009). Curator of exhibitions at the Tallinn TV Tower and the Seaplane Harbour (2010–2012). Researcher at the Estonian Maritime Museum since 2013.

Changes that were made in the interior in Rauma-Raahe OY shipyard in 1951-1952

The presentation looks at the extensive renovation of the icebreaker Volynets at the docks of the Finnish shipyard Rauma-Raahe LLC in 1950-1952 and at the set of blueprints related to it at the collections of the Estonian Maritime Museum. So far the research work with this set has concentrated on architectural changes on the main deck because of the on-going renovation works on the ship. The presentation looks to answer the following two questions – what was the extent of the renovation works and what kind of works were done on the main deck?

The contract with the Rauma-Raahe LLC was signed in November 1950. It was agreed, that it would be part of the war reparations from Finland to Soviet Russia. The ship was ready to be delivered in December 1952. The set of blueprints under review was handed over with the ship. Majority of these schematics concern the technical side of the icebreaker, as the biggest changes were the replacement of the kettles and several auxiliary systems.

The amount of blueprints concerning the changes on the main deck is considerably lower, especially those related to architectural changes. One of the most interesting is the blueprint of the main deck before the renovation works, where the architect has sketched the intended changes of the room plan. The amount of changes is considerable and it can be assumed that the repairs were indeed a thorough rebuilding. The rooms on the main deck were given the appearance that corresponds to the modernistic simplicity of Finnish design of the 1950s. The renovation works affected almost all rooms but the changes in the interior architecture are most conspicuous in the officers' mess that used to have the most luxurious interior.



Teele Saar (1983)

Lõpetanud Tallinna Ülikooli ajaloo erialal MA (2008). Hiiumaa Muuseumi teadur-koguhoidja 2006-2011. Eesti Meremuuseumi teadur 2011-2012. Eesti Meremuuseumi teadusosakonna juht alates 2013.

Laevad Tartu rahu lepingus

Eesti riikluse üks alusdokumente on 2. veebruaril 1920. aastal sõlmitud Tartu rahuleping. Rahulepinguga seonduvaid teemasid on Eesti ajalookirjutuses eri aegadel ikka ja jälle tõstatatud. Viimase paarikümne aasta jooksul on peamisteks uurimisobjektideks kujunenud Tartu rahuga kehtestatud piiride küsimused lepingus, teised teemad on pälvinud väiksemat tähelepanu.

Peale niinimetatud suurte teemade, nagu Eesti Vabariigi tunnustamine ja riigipiiride kindlaks määramine, hõlmab rahuleping mitut teist aspekti riikidevahelises majandus- ja poliitilises suhtluses. Majandusküsimused osutusid läbirääkimistel üheks olulisimaks punktiks, sest oli ju Eesti varasem Vene impeeriumi osa ja tsaaririigi siia jäänud vara omandiprobleem vajas lahendamist.

Ettekande eesmärk on anda laiem taust aurik-jäämurdja „Suur Tõll” saamisloole ja teisalt avada seni vähe uuritud laevade üleandmise küsimust Tartu rahulepingus.



Teele Saar (1983)

Graduate of Tallinn University (history, MA, 2008). Researcher and collection holder at the Museum of Hiiumaa (2006–2011). Researcher at the Estonian Maritime Museum (2011–2012). Head of the Research Department of the Estonian Maritime Museum since 2013.

Vessels in Tartu peace treaty

Tartu Peace Treaty (2 February 1920) is one of the most important documents for Estonia. In Estonia the Peace Treaty has always been spoken and written about (except during the Soviet period). In the last 20 to 25 years the most discussed topic has been borders, a bit less attention has been given to economic and other questions. Economic issues were one of the important topics in negotiation process because Estonia had formerly (before 1918) been part of Russian Empire and therefore held a lot of Russian property.

The presentation will answer the following questions: which economic agreements were made in the Peace Treaty? What was agreed upon concerning the ownership of ships? Why did the delivery of the ships cause problems in early 1920s? How were these vessels used in Estonia between the two world wars?



Liisi Rannast-Kask (1982)

Lõpetanud Tallinna Ülikooli ajaloo- ja ühiskonnaõpetaja erialal, MA (2006). Juhendaja Mare Oja, Allikaülesanded 20. sajandi Eesti ajaloost ja ajao erialal MA (2008), juhendaja Helena Irma Susanna Sepp, "Enamliselt kaldalt" Nõukogude Venemaa eluolu ja suhted Eesti Vabariigiga Päevalehe ja Postimehe põhjal 1920-1929. Aastast 2009 Tallinna Ülikooli doktorant. Töötanud ajalooõpetajana. Alates 2013 Eesti Meremuuseumi teadur-koguhoidja.

Päevaleht, Postimees ja Vaba Maa „Väinämöisestä” ajavahemikus 1. jaanuarist 1920 kuni 31. märtsini 1923

Ettekandes võetakse vaatluse alla jäälõhkuja „Väinämöise“ kuuluvuse küsimuste kajastamine kolmes päevalehes: „Postimees“, „Vaba Maa“ ja „Päevaleht. Kõrvutades artikleid kronoloogiliselt Eesti ja Soome diplomaatilises suhtluses toimunuga, on võimalik teha järeldusi, kui kiiresti ja missuguseid andmeid jõudis 1920–1923. aastal jäälõhkuja „Väinämöise“ üleandmise protsessist avalikkuseni. Samuti uuritakse, kuidas erinesid parteitu Päevalehe, Tööerakonna häälekandja Vaba Maa ja Rahvaerakonna häälekandja Postimehe artiklid suhtumise poolest nii Soome Vabariiki kui ka Eesti valitsusesse „Väinämöise“ küsimusega toimetulekul.

Ajalehed Päevaleht, Postimees ja Vaba Maa olid sündmustest hästi informeeritud ja infot avaldati palju. „Väinämöineni” kriisi kestel toonitati ajalehes Postimees sõbralike suhete vajalikkust Soomega. Avaldati kahetsust suhete jähinemise üle ning selle üle, et Eesti ega Soome valitsus ei olnud astunud vajalikke samme heade suhete säilitamiseks ja arendamiseks. Rahvaerakonna häälekandjas tehti etteheiteid Eesti valitsusele siis, kui tema esindajad enam peaminister ega välisminister pole. Samuti oli „Vaba Maa“ oli tagasihoidlik välismeediast info tõlkimisel ja süüdistuste avaldamisel. Peale laeva tagasisaamist ilmunud pikem artikkel endise välisministri Ants Piibu sulest võttis aga probleemi juba lahkunud valitsuse seisukohalt kokku ja avaldas lootust, et kibedus naabrite vahel on kadunud. Eesti valitsuse, aga ka Soome ja Venemaa suhtes kriitilist infot avaldati Päevalehes, rõhutades, et neil kui avalikkuse häälekandjal on selleks igati õigus. Eesti valitsust süüdistati Päevalehes salatsemises ja info mitte avaldamises, ka loiduses laeva tagasi nõudmisel.

„Väinämöise” küsimuse lahendamisel tegutsesid nii Eesti kui ka Soome pragmaatiliselt. Laeva üleandmise lõppjärgus avaldati Postimehes, Päevalehes ja Vabas Maas pahameelt idanaabri suhtes. Peale laeva Helsingis üleandmist muutus lehtede toon täielikult Soome-sõbralikuks ja toonitati ka suhete paranemist Venemaaga. Seega ei muutnud „Väinämöise” küsimus Eesti välispoliitilist suunda. Jäälõhkuja Tallinnasse saabumist tervitati kui tähtsa prominendi kohalejõudmist. Lühiteated ja pikemaid artikleid „Väinämöise“ ajaloost, soomlaste kätte sattumisest, tehnilistest andmetest ja laeva väärtusest ilmusid lehtedes igapäevaselt. Infotulv vähenes peale laeva kohale jõudmist, ent teated sellest, millal Eestile kuuluv uhke jäämurdja remonti läheb ning millal proovisõite teeb, ületasid uudisekännise ka edaspidi.



Liisi Rannast-Kask (1982)

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Reflection of icebreaker *Väinämöinen* in daily newspapers *Päevaleht*, *Postimees* and *Vaba Maa* during the period of 1 January 1920 till 31 March 1923

This presentation examines how the three daily newspapers *Postimees*, *Päevaleht* and *Vaba Maa* reflected the dispute between Estonia, Finland and Soviet Russia over the ownership of icebreaker *Väinämöinen* (later *Suur Tõll*) during the period of 1 January 1920 till 31 March 1923. The information published in papers can be used to interpret and analyse the Estonians' attitude and knowledge. What one has to bear in mind, though, while these observations are being made is the fact that the sources are subjective and the compiler himself is not free of stereotypes and his own imagery.

It is also observed, what kind of information concerning the ownership of *Väinämöinen* was distributed to the Estonian public through the newspapers and when. Upon comparison of the newspaper articles to the chronological events that took place in the diplomatic relationship between Estonia and Finland it is possible to draw some conclusions as to how fast and what kind of data concerning the handing over of icebreaker *Väinämöinen* reached the public between 1920 and 1923.

Newspapers *Päevaleht*, *Postimees* and *Vaba Maa* were well informed about the events and surprisingly much information was published concerning the process of handing over the icebreaker *Väinämöinen*. One has to agree with what was said in *Postimees* that at times the whole problem seems to be even too much brought into the open.

During the *Väinämöinen* crisis (if we should call it this way) the importance of establishing a friendly relationship with Finland was stressed a lot in *Postimees*. Regret was expressed over the fact that the relationship had died down and that neither Estonian nor Finnish government had taken necessary steps to maintain and improve it. The People's Party's newspaper *Postimees* started reproaching the Estonian government when their representatives were no longer in the positions of Prime Minister and foreign minister. Accusing the Estonian government for transferring Oskar Kallas from Finland to England seems like an overstatement.

Päevaleht published critical material about Estonian government and also about Finland and Russia, stating that as the voice of public they have every right to do so. *Päevaleht*, unlike *Postimees*, accused the Estonian government of being furtive and of hiding information, also of not showing initiative in claiming back the icebreaker.

Vaba Maa remained discreet in translating material from foreign media and in publishing any accusations during the crisis. In an article written after regaining the

ship by former foreign minister Ants Piip, the whole incident was summarised from the point of view of the government already departed, expressing hope that the bitterness between neighbors has passed.

Estonia's and Finland's actions while solving the *Väinämöinen* problem were pragmatic rather than idealistic. After the ship was handed over in Helsinki the tone of the newspapers changed completely, becoming very friendly towards Finland, and better relationship with Russia was also mentioned. Thus the *Väinämöinen* problem did not really alter the direction of Estonia's foreign policy.

When the icebreaker arrived in Tallinn it was greeted as a special guest. Short notices and longer articles about the history of *Väinämöinen*, how the Finns got hold of it, about its technical data and its value were published in the newspapers every day. Information flow decreased after the ship had arrived but whenever the majestic Estonian-owned icebreaker was taken to repairs or when it organised amusement rides, it was always in the news.



Arto Oll (1985)

Lõpetanud Tallinna Ülikooli ajaloo erialal MA (2010). Aastast 2010 sealsamas doktorant. Alates 2013 Eesti Meremuuseumi teadur.

Juhtiv koosseis ja Eesti Mereväe ohvitserid „Suurel Tõllul“ teenistuses

Eesti Vabariigi merenduse organisatsioon kujunes välja Eesti Vabadussõjas, merejõudude koosseisust. Mereväelased teenisid peale reservi minemist edasi Mereasjanduse Peavalitsuse laevadel, kaasaarvatud „Suurel Tõllul“.

Ettekanne käsitleb kokkuvõtlikult endiste mereväeohvitseride teenistust jäämurdjal „Suur Tõll“. Kuuest mereväe ohvitserist on antud elulooline ülevaade ning kirjeldatud nende teenistust mereväes, kui ka tsiviillaevastikus. Tuuakse välja põhjendused, miks määrati mereväelased just juhtivkoosseisu Eesti Vabariigi kõige hinnalisemal alusel. Ülevaade on antud „Suure Tõllu“ juhtivkoosseisust ning jäämurdja, kui spetsiifilise laevatüübi meeskonna komplekteerimise omapäradest.



Arto Oll (1985)

Graduate of Tallinn University (history, MA, 2010). PhD student there since 2010. Researcher at the Estonian Maritime Museum since 2013.

Leading personnel and former naval officers in service onboard the icebreaker *Suur Tõll*

The year 2014 marks the event of icebreaker *Suur Tõll* celebrating its 100th birthday. During this time the ship has been present in many historical events that occurred in the Baltic Sea region.

This presentation concentrates on the period when *Suur Tõll* was in active service under the Estonian flag from 1922 to 1940. The main goal is to show similarities between the personnel of Estonian Navy and of Estonian Maritime Administration (who owned *Suur Tõll*; formed in 1920). The latter was formed of naval structure and most of the civilian seamen first served under admiral Johan Pitka, the commander-in-chief of Estonian Naval Forces. Also the main reasons why these officers and seamen were appointed onboard the icebreaker will be described.

The author has also found six retired naval officers who served on the icebreaker: senior lieutenants Aleksander Talts, Edmund Hüppler and Artur Reisberg; navy lieutenants Nils Berg and Hermann Tõnissoo and executive officer Georg Orav. After retirement from the navy many officers went to work for the Maritime Administration. Talts, Tõnissoo and Orav served as the leading personnel. Talts was the first mechanical engineer for *Suur Tõll* from 1922 to 1924. Hermann Tõnissoo was a famous Estonian captain, naval officer and ship model maker. He was the captain of *Suur Tõll* from 1940 to 1941 and took part in the evacuation of Tallinn by Soviet troops in the summer of 1941. Georg Orav, like Talts, served among the first Estonian crew on *Suur Tõll* from 1922 to 1923 as first mate.

Senior lieutenant Hüppler served onboard the icebreaker briefly as first mate in 1923. He took part in naval battles in the Baltic Sea and was a respected captain. Nils Berg and Artur Reisberg were both experienced captains. Berg served onboard the icebreaker as first and second mate. Reisberg also served briefly as second mate and during the war he was the commander on the destroyer *Lennuk*.



Andres Tarand (1940)

Lõpetanud Tartu Ülikooli klimatoloogia erialal (1963). Aastatel 1965-1968 ja 1970-1990 töötas Eesti Teaduste Akadeemia Tallinna Botaanikaaias inseneri ja teadurina (1988-1990 direktor). 1968-1970 oli 14. Nõukogude Antarktika ekspeditsiooni nooremteadur. Viibinud uurimisreisidel Antarktises (1969) ja Taimõril (1971). Avaldanud uurimusi Eesti kliima ajaloo, Tallinna linnaökoloogia ja Eesti mesokliima alalt.

Tallinna lahe jääolud sajandite vältel

Ettekandes antakse ülevaade olulisematest allikatest Läänemere jäätumise kohta alustades C.I.H. Speerschneideri 1915. aastal ilmunud artikliga, mis on koostatud jääoludest Taani väinades. Tallinna lahe jääminekute aegrida on koostatud otseste jäävaatluste ja kaudsete andmete (laevade liikumine, tolliraamatud, kirjavahetus) alusel talve keskmiste õhutemperatuuride rekonstrueerimiseks alates aastast 1339.

Võttes arvesse asjaolu, et regressiooni abil saab rekonstrueerida vaid kliimat iseloomustavaid pikemate perioodide (meil 33-34 aastat) keskmisi õhutemperatuure ning seda, et varasemate sajandite (14. kuni 18. sajand) õhutemperatuur on tuletatud valdavalt kaudsete andmete põhjal, vaadeldakse käesolevas jääolusid ainult alates 18-st sajandist, kus tegemist on otseste jäävaatlustega. Tallinna lahe jäätumise vaatlused muutuvad süstemaatiliseks alles 1903-st aastast. Kahest eelnevast sajandist on õnnestunud andmeid leida 48% aastate kohta.



Andres Tarand (1940)

Graduate of the University of Tartu (climatology, 1963). Engineer and researcher at the Tallinn Botanical Garden of the Estonian Academy of Sciences (1965–1968 and 1970–1988; 1988–1990 as the Director). Junior researcher for the 14th Soviet Antarctic Expedition (1968–1970). Participant in research expeditions to the Antarctic (1969) and Taymyr (1971). Papers on the history of Estonia's climate, Tallinn urban ecology and Estonia's mesoclimate.

Ice conditions through centuries in the Baltic Sea

The presentation gives an overview of the main sources mentioning the freezing of the Baltic Sea, beginning with an article by C.I.H. Speerschneider about ice conditions in the Danish straits published in 1915. The time line of ice runs in the Bay of Tallinn has been put together based on direct ice observations and indirect data (vessel traffic, toll logbooks, correspondence) in order to reconstruct the average winter temperatures since the year 1339. Only the ice conditions starting with the 18th century will be observed because our used method (regression analysis) only allows us to reconstruct the average temperatures of longer periods (33 to 34 years), and also because the temperatures of earlier centuries (14th to 18th century) have been derived from indirect data. Data presented here is based on only direct ice observations.

On average, from the beginning of 18th century until today, this means ice run of about 38 days earlier than usual, the latter being 7 April with the standard deviation of ± 35 days, and this applies to the whole of the time series (from 1339 to 2013).

Regular ice observation in Tallinn Bay started in 1903. 48% of years have been covered in the available data for two previous centuries.



Reet Naber (1952)

Lõpetanud Tartu Ülikooli ajaloo-etnograafi eriala (1975). Töötanud ajalooõpetajana. Aastatel 1977-1993 Eesti Meremuuseumi teaduri ja teadusdirektorina. Teede- ja Sideministeeriumi merenduse peaspetsialistina. Alates 1998 Eesti Mereväe konsultant merendusajaloo ja mereväetraditsioonide alal.

Jäämurdmisteenistusest ja jäämurdjast „Suur Tõll“ aastail 1920-1940

Tallinna sadama talvise laevaliikluse korraldamine on olnud üks olulisemaid riikliku mereadministratsiooni ülesandeid.

Just Tallinna (ja ka Paldiski) sadama tunduvalt pikem jäävaba navigatsioonihooaeg on mõjutanud nii kaubanduslikku kui ka poliitilisi suhteid naabermaadega.

Aastail 1920-1940 tegeles jäämurdetööde korraldamisega Eesti vetes mereadministratsioon: 1920-1929 Mereasjade Peavalitsus, 1929-1938 Veeteede Valitsus, 1938-1940 Veeteede Talitus. Praktiliselt tegelesid selle töö korraldamisega tuletornide osakonna töötajad.

Pärast Vabadussõja lõppu oli Eesti Vabariigil kasutada vaid üks suurem jäämurdja, 1250 hj masinate võimsusega „Tasuja“ ning mõned väiksemad puksiir-jäälõhkujad. 1920.a. Tartu rahulepingu tingimuste kohaselt oli Eestil õigus saada endine Vene Mereministeeriumi jäälõhkuja „Tsar Mihhail Fjodorovitš“. 1920. aastal oli see laev Soome valitsuse käes ja kandis nime „Väinämöinen“. Diplomaatilised läbirääkimised laeva omandiõiguse üle Vene NFSV ja Soome valitsustega lõppesid 1922.aasta novembris jäälõhkuja üleandmisega Eestile.

1923.a. jaanuaris sai laev nimeks „Suur Tõll“ ja järgnevatel talvedel oli Tallinna sadam praktiliselt kogu aeg laevaliikluseks avatud. Vaheajad tekkisid ainult aastail, mil külmusid kinni Taani väinad ja Kieli kanal.

Pärast eriti karmi 1926. aasta talve ja kindlustusnõuete karmistumist Saksamaal kutsuti 1927.a. augustis Tallinnas kokku rahvusvaheline konverents, kus arutati jääolude kohta andmete kogumist ning nende edastamist. Sellel kohtumisel leppisid Eesti, Saksamaa, Läti, NSV Liidu, Soome ja Rootsi esindajad kokku ühtse süsteemi sisseseadmiseks jääteadete kogumise, töötlemise ja edastamise osas. Vastavalt konverentsil allkirjastatud protokollile tehti Eestis mitmeid muudatusi jääoludest ülevaate saamiseks ning jäälõhkujate töö efektiivsemaks muutmiseks. Mereasjanduse peavalitsuse Tuletornide osakonnas sai talvel lisaülesande jääkaartide ja –teadete koostamiseks Soome lahe olude üks paremaid tundjaid Vladimir Karus-Gasabov.

Jäämurdja „Suur Tõll“ edukas töö ning hästi korraldatud jääteadete edastamise süsteem tõstsid tunduvalt Tallinna sadama autoriteeti praktiliselt aastaringi laevaliikluseks avatud Läänemere idapoolseima sadamana. „Suur Tõllu“ teenistus Eesti lipu all ja kogu Eesti oma jäämurdeteenistuse töö lõppes 1940.aastal.



Reet Naber (1952)

Graduate of the University of Tartu (history and ethnography, 1975). She has worked as a teacher of history. Researcher and Scientific Director of the Estonian Maritime Museum (1977–1993). Chief specialist on maritime affairs at the Estonian Ministry of Transport and Communications. Adviser of the Estonian Navy on matters of maritime history and navy traditions.

The winter conditions and icebreaking in Estonia in 1923-1940

Regulating the port of Tallinn's vessel traffic over the winter period has been one of the main tasks for national maritime administration.

Considerably long ice-free navigation season in the ports of Tallinn and Paldiski has had a positive influence on both commercial and political relations with neighboring countries.

During the years 1920 to 1940 icebreaking tasks in Estonian waters were organised by the maritime administration: from 1920 to 1929 the Direction of Marine Affairs, from 1929 to 1938 Bureau of Waterways and from 1938 to 1940 Waterways Department. The practical arrangement of this work was done by the employees of lighthouses' department.

After the end of War of Independence the Republic of Estonia only had one large-scale icebreaker: 1,250 hp *Tasuja* and some smaller tow-icebreakers. According to the terms laid down in Tartu Peace Treaty in 1920 Estonia had the right to reclaim icebreaker *Tsar Mihhail Feodorovitsch* that had belonged to the Russian Admiralty Board. 1920. In the year 1920 the ship was owned by Finnish government and its name was then *Väinämöinen*. Diplomatic negotiations between Russian Federation and Finnish government over the ownership of the icebreaker concluded in November 1922 when the ship was handed over to Estonia.

In January 1923 the ship was renamed *Suur Tõll* and during following winters the port of Tallinn was more or less always open to vessel traffic. Pauses only occurred when the Danish straits and Kiel Canal froze up.

After an extremely harsh winter in 1926 when also the insurance claims in Germany were toughened, an international conference was held in August 1927 in Tallinn, the topic being data collection and distribution about ice conditions. At this meeting Estonian, German, Latvian, Soviet Union's, Finnish and Swedish representatives agreed upon creation of a uniform system of collecting, processing and communicating ice reports. According to the protocol signed at the conference a few changes were carried out in Estonia which were related to getting an overview of ice conditions and making the work of the icebreakers more effective. An extra task of creating ice maps and ice reports over the winter season was attributed to Vladimir Karus-Gasabov from the lighthouses' department of the Direction of Marine Affairs who was one of the greatest experts in the field of the Gulf of Finland's situation.

Good work of icebreaker *Suur Tõll* and a well-functioning system of communicating ice reports advanced the port of Tallinn's status: it was now known as the easternmost port of the Baltic Sea which was open to vessel traffic nearly all year round. *Suur Tõll's*

service under the Estonian flag as well as the whole work of Estonian own icebreaking service ended in 1940.



Jerzy Litwin (1944)

Lõpetanud 1965. aastal Õpetajate Seminari matemaatika-füüsika ja 1972. aastal Gdanski Tehnikaülikooli laevaehituse eriala. Alates 1972. a töötab Poola Meremuuseumis Gdanskis. Alates 2001. aastast sama muuseumi direktor.

1990. aastal kaitses Varssavi Ülikoolis doktoriväitekirja Poola traditsioonilisest paadiehitusest. Osalenud paljudel konverentsidel ja avaldanud erikeeltes artikleid laevaehituse, allveearheoloogia ja merendusliku museoloogia teemadel.

Muuseumlaevad ja laev-muuseumid Poola Meremuuseumis Gdanskis, kas laevmuuseum saab olla muuseumilaev - museoloogi ja laevaehitaja tähelepanekuid

Ettekandes võetakse vaatluse alla terminite muuseumlaev ja laevmuuseum erinevus ning tutvustatakse Poola Meremuuseumi poolt säilitatavaid ajaloolisi laevu.

Esimene muuseumlaev on 1909. aastal Hamburgis ehitatud kolmemastiline õppepurjekas „Dar Pomorza“. Pärast 1982. aastal teenistusest väljaarvamist sai purjekast muuseumlaev. Alus on museaalina arvel ning seega kaitstud samade seadustega, mis reguleerivad ajalooliste esemete säilitamist muuseumikogudes.

Teiseks ajalooliseks laevaks Poola Meremuuseumis on 1949. aastal Poolas ehitatud aurulaev „Soldek“. Tegemist on esimese Poolas pärast II Maailmasõda valminud kaubalaevaga, mida kasutati söe transportimisel ning mis pärast mahakandmist anti üle Meremuuseumile.

Laeva kasutamine muuseumina on keerulisem väiksemate aluste puhul. Üldjuhul on sellisel laeval vähe ruumi muuseumiküllastajate ohutuks võõrustamiseks ning alus ei pruugi ka väljast vaadates olla küllastajate jaoks atraktiivne. Seoses ekspositsiooni võrdlemisi ebakindla tulevikuga pole väiksemaid aluseid muuseumi põhikogusse arvele võetud, ehkki neid eksponeeritakse. Väiksed kalalaevad kujutavad endast head näidet suurte seeriatena kalurikolhooside jaoks ehitatud metallkeregaga aluste kohta.



Jerzy Litwin (1944)

In 1965 graduated Teacher`s Training College (course of mathematics and physics). In 1972 graduated from the Shipbuilding Department of The Technical University of Gdańsk (M.Sc.). Employed by the Polish Maritime Museum in Gdańsk in 1972, since 2001 general director of Polish Maritime Museum. Traditional boat-building in Poland was the subject of my Ph.D. thesis, that were defended in Warsaw University in 1990. He had took part in various conferences and published articles in different languages on shipbuilding`s history, underwater archaeology and maritime museology.

Museum ships and a ship museum in the structure of the National Maritime Museum

A provocative title of the conference – “A Museum Ship or a Ship Museum” – encourages us to consider the meaning of these expressions in a practical, everyday understanding. Therefore, I assume that a “museum ship” is a historic object preserved in the condition as similar to its condition from the operational period as possible. In the future, perhaps, due to the lack of resources to preserve this authentic condition, a “museum ship” will, after necessary dismantling, change into a “ship museum” where a selection of the ships’ structural elements, pieces of equipment, a description of the ship’s purpose and the history of its activity, etc. will be exhibited.

The collections of the National Maritime Museum in Gdańsk include two large museum ships and two small fishing ships preserved from being scrapped when the fishing fleet was reduced. Moreover, our Museum has collected multiple vessels and yachts, which are shown in our exhibition rooms and in an outdoor heritage park.

The first “museum ship” is a historic three-mast training ship “Dar Pomorza”, built in 1909 by Blohm und Voss shipyard in Hamburg. It was decommissioned in 1982 and transferred to our Museum’s collection. The ship was included in the inventory collection and was given a status of a museum exhibit. As such, it is protected by the state regulation concerning historic items in museum records.

The second historic vessel in the possession of the NMM, a steamship “Sołdek” was launched in 1949 and was the first seagoing vessel built in a Polish shipyard. After the end of its operation period, the ship was donated to the Museum by the Polish Steamship Company. The vessel was completely exploited and as a coal-ore carrier, it seemed not very attractive to an ordinary visitor. According to the recommendations of the Polish Register of Shipping, a project for adaptation of the cargo space for exhibition purposes was prepared.

The problem of good use of a ship for museum purposes, i.e., treating it as a museum, is difficult when it comes to small historic vessels. Usually, there is too little space to let visitors inside and keep them safe, and they are not always attractive for viewers from the outside. With these factors in mind, the NMM did not enter the two steel fishing ships secured several years ago to the inventory collection but to the administrative record. This was caused by their uncertain future, because the Museum’s management allowed various forms of their future exhibition. Fishing boats, especially smaller ones, can be undoubtedly attractive to visitors, but they have to be modified to

serve this purpose. Our fishing ships, suitably cut out, will be exhibited as an example production for Polish Baltic fishery. Their value is the fact that they represent one of the first and the last mass produced steel fishing cutter and the last built for collective fishery.



Urmas Dresden (1958)

Lõpetanud Tartu Ülikooli ajaloo erialal (1985). Eesti Meremuuseumi teadur 1979-1998. Alates 1998 Eesti Meremuuseumi direktor.

Jäämurdjatest muuseumilaevad maailmas

Klassikaline jäämurdja muuseumilaevana on maailmas üsna kaasaegne nähtus, sest 1970. aastate lõpp ja 1980. esimene pool on aeg kui Jaapanis, Rootsis ja Kanadas meremuuseumite kai ääres esimesed jäämurdjad küllastajatele avati. Neid ei saanudki olla väga palju, sest riike, kus sarnaste laevade teeneid vajati oli ja on maailmas ligikaudu tosin.

Esimesed aurujäämurdjad olid oma töö teinud, vanametalliks lõigatud või lihtsalt kuskile sadamanurka unustatud ning veel polnud tekkinud ka piisavat hulka empaatiat nende teraset tööhobuste säilitamiseks.

Muuseumilaeva hoidmine, renoveerimine on kallis ja tunduvalt lihtsam on veenda otsustajaid säilitama sõjalaevu, mis kannavad endas suure annuse riiklikku väärikust ja uhkust või siis purjelaevu, kus on nii seda, kui ka veetlevat romantikat.

Just selles viimases on üsnagi suur osa, et suure tõenäosusega esimeseks muuseumijäämurdjaks sai alles 1979. aastal "Soya", mis leidis oma koha Tokyo Mereteaduste Muuseumi (*Museum of Maritime Science*) kai ääres. Tänapäevaks on neid laevu üle maailma alles 19 ja seda alates kuivdokus eksponeerituna, kai ääres seisvate ning ka sõitvate muuseumialusteni.

Esindatud on jõuseadmed aurumasinast tuumareaktorini ning ehitusaastad varieeruvad 1890. - 1960. aastateni ning seega on tegemist mitte just väga eakate muuseumilaevadega.

Jäämurdjate muutumisel või saamisel jõulisest tarbelaevast muuseumilaevaks on alati olnud oluline roll antud laeva tähendusel ja lool, sest loomult tugeva konstruktsiooniga korpuse pärast elaksid need laevad veel aastakümneid. Legend ja teened on need faktorid, mis viivad jäämurdjad muuseumilaevade suhteliselt privilegieeritud maailma.



Urmás Dresen (1958)

Graduate of the University of Tartu (history, 1985). Researcher at the Estonian Maritime Museum (1979–1998). Director of the Estonian Maritime Museum since 1998.

Ice-breaking museum ships in the world

The classical icebreaker as a museum ship is a rather modern phenomenon, since the end of the 1970s and the first half of the 1980s were the era when the first icebreakers were opened for visitors at the quays of maritime museums in Japan, Sweden and Canada. There could not be considerably many of them because the countries needing such vessels for service numbered, and still number, about a dozen.

The first ice-breaking steamers had served their useful life, been cut up for scrap metal or simply forgotten somewhere in a port, and sufficient empathy to preserve those work horses of steel was yet to arise.

The preservation and renovation of a museum ship is expensive. It is much easier to convince the decision-makers to preserve warships, which carry a strong dose of national dignity and pride, or sailing boats, which offer the same as well as some charming romance.

It was largely because of the latter that most probably the first-ever museum icebreaker, the *Soya*, found a place at the quay of Tokyo Museum of Maritime Science in 1979. By today, there are 19 such ships in the world, including the dry-docked, the moored and the sailing museum vessels.

Their propulsion devices range from the steam engine to the nuclear reactor, and the years of construction extend from the 1890s through to the 1960s, which means that those museum ships are not of a very old age.

In the conversion from a powerful service vessel into a museum ship, the meaning and story of the icebreaker have always had an important role to play, since the sturdy hull construction would enable those ships to live for decades more. The legend and the services are those factors that bring icebreakers into the relatively privileged world of museum ships.



Tiit Einberg (1966)

Lõpetanud Tartu Ülikooli ajaloo erialal (1989). Eesti Meremuuseumi teadur 1989-1998, majandusjuhataja 1998-2003, Lennusadama sadama kuraator alates 2003.

Jäämurdja „Suur Tõll“ muuseumlaevana 1989-2014

Ettekandes antakse ülevaade jäämurdja „Suur Tõll“ 25-aastasest eluperioodist muuseumlaevana ning probleemidest, mis kaasnevad ajaloolise laeva säilitamisega; samuti arutletakse terminite „muuseumlaev“ ja „laev-muuseum“ tähenduste üle.

Jäämurdja kui muuseumlaeva lugu algab 1980. aastail, mil Balti Laevastiku abilaevastikust maha kantud vana jäämurdja vastu hakkas huvi tundma Eesti Meremuuseum ning saavutas lõpuks jäämurdja üleandmise muuseumile 1988. aastal, säilitamiseks teda ajaloo- ja tehnikamälestisena. Lisaks laeva säilitamise küsimustele kerkis taasiseseisvunud Eestis üles ajaloolise jäämurdja kandmine laevaregistrisse. Laev õnnestus „legaliseerida“ 1991. aastal, mil Veeteede Amet andis Suurele Tõllule välja ajutise liputunnistuse ning laeva omandiõiguse tunnistuse. Alates 2000. aastast on laeva tüübiks ametlikult jäämurdja-muuseumlaev ning „Suur Tõll“ on laevaregistris registreeritud siiaamaani ainsa muuseumlaevana.

Ajal, mil „Suur Tõll“ muuseumlaevaks sai, puudusid Eesti Meremuuseumil teadmised ja kogemused ajaloolise laeva säilitamiseks. Siiski on võimalik kasutada kolleegide kogemusi naabermaadest, kus samuti on säilinud mitu ajaloolist jäämurdjat.

Esimesed kavad jäämurdja restaureerimiseks pärinevad aastast 1989; uus, võrdlemisi sarnane kontseptsioon sõnastati 1992. Laeva taastamiskava kohaselt pidi laev säilitatama kui unikaalne, kaks maailmasõda üle elanud aurujõuseadmetega jäämurdja, mille pardal saab läbi viia konverentse ja kultuuriüritusi. Olulisena võib mainida ka nõuet säilitada laeva töökorras ujuvvahendina.

25 aasta jooksul laeval tehtud tööd kannavad paratamatult pigem remondi kui restaureerimise iseloomu. Ehkki kunagi püstitatud restaureerimiskontseptsiooni pole järgitud täht-tähelt, pole mindud suurtele kompromissidele laeva säilimiseks hädavajalike tööde osas. Nii on laevale tehtud juba kaks dokiremonti. Peamisteks probleemideks on siiaamaani küttesüsteemi ja puidust tekiplangutuse puudumine. Suured tööd on laeval ära tehtud nõ „aktsioonide korras“, laeva ajaloo seisukohalt oluliste sündmuste tähistamiseks.

Oma 25-aastase staažiga Meremuuseumis on „Suur Tõll“ olnud kauem muuseumlaev kui Eesti lipu all töötav jäämurdja.



Tiit Einberg (1966)

Graduate of the University of Tartu (history, MA, 1989). Researcher at the Estonian Maritime Museum (1989–1998); Facilities Manager of the same museum (1998–2003); Port Curator of the Seaplane Harbour since 2003.

Suur Tõll as a museum ship from 1989 to 2014

Icebreaker *Suur Tõll* (built in 1914) that celebrates its hundredth anniversary in 2014 has been a museum ship for over 25 years which is more than it managed to serve under the Estonian flag (from 1922 to 1940) as an icebreaker. Icebreaker *Tarmo* (built in 1963) which was purchased by the Estonian Maritime Administration in 1993 has been serving under the Estonian flag as an icebreaker for longer than *Suur Tõll* ever managed to do so, but the latter has earned the title of Estonia's longest-standing museum ship.

The term *museum ship* refers to a ship which is preserved in a museum, or as a museum, for its structural or historic importance as an object of maritime heritage. Less known is the term *memorial ship* which refers to a ship that accommodates an exhibition dedicated to the ship's history, crew and historic events that the ship took part in. Such use of the term was prevailing during the years 1970 to 1980 when Estonian Maritime Museum started to show interest in *Suur Tõll*'s (*Volõnets* at the time) fate and future. In the Maritime Museum's request to preserve *Volõnets* (who was being written off the service of Soviet Union Navy's supporting fleet) as a museum ship, its importance as an engineering monument was emphasised upon. This kind of technology-orientated attitude was rather uncommon in Soviet Union but in the context of *Suur Tõll* all the more fruitful.

Another topic is how to fit the museum ship within the framework of shipping register (questions of ownership, flag rights and supervision by classification society). *Suur Tõll* was brought to Tallinn on 12 October 1988. The option of registering *Suur Tõll* as a museum ship was at first mentioned but then the Estonian Ship Register was founded and Estonian Maritime Administration was appointed as registrar. *Suur Tõll* was "legalised" on 23 December 1991 when the Maritime Administration issued to the museum a temporary certificate of ownership (No 001/1) and a temporary flag certificate (No 001/2) which annulled the previous flag certificate issued on 25 January 1941. As of 22 May 2000 the icebreaker/museum ship (this is the official name of the ship type) is listed in the register subsection "Cruise ships and pleasure crafts in the ship register" under registration number 1V00D02. This number is also used as flag certificate number. Up to this day *Suur Tõll* is the only registered museum ship in Estonian ship registers.

At the time when *Suur Tõll* became a museum ship the Estonian Maritime Museum lacked practical skills for and experience in managing a historical ship. In the nearby area similar crafts belonging to the same era have been preserved, which allows us to find similarities between them and also look at the different solutions and outcomes in ship restoration.

The first basic conception for *Suur Tõll*'s restoration originates in the year 1989, the next in 1992. They are rather similar in nature, the difference being mainly in the scope of detail.

According to the conception the ship was going to be exhibited as an icebreaker with historically and technologically unique steam power apparatus and as a craft that had made it through two world wars. The aim was also to preserve the ship according to internationally renowned standards and to create conditions for organising conferences, lectures, movie screenings and other cultural events. An important condition while restoring the ship was to maintain the possibility of using it as an icebreaker, therefore all the vital technical systems, power equipment and other mechanisms had to be preserved.

It is safe to say that although not all the various works intended throughout the different stages of restoration have been completed, not too many compromises have been made as to the inevitable conditions for preserving the ship. The main shortcomings are the absence of heating system and of wooden planking of the deck. What might be causing problems in the future is the fading in knowledge, skills and practical experience when it comes to handling the steam power devices.

The problems at restoring historic ships are similar all around and connected mainly to the lack of financial resources. Although a lot has been done to *Suur Tõll*, it has rather been reparation than restoration. Hanging too strongly on to conceptual framework has been avoided as well.

Many of the visible and perceptible movements in the ship's restoration process have been driven by historic events connected to the ship itself or related to it.



Sharon Babaian (1957)

Lõpetanud Manitoba Ülikooli ajaloo erialal MA (1984) ja Kingstoni Queen University avaliku halduse magistrantuuri (1987). Töötanud 1988-2011 Kanada Teadus ja Tehnoloogiamuuseumis teadurina. Kirjutanud erinevaid artikleid sealhulgas navigatsiooni tehnoloogiast. Alates 2011 töötab sealsamas maa ja mere osakonna kuraatorina, vastutades nii raudteede, maanteede kui meretranspordi kollektsiooni eest.

Sõltumatuse demonstratsioon: Kanada Little Sea 1967. aasta maailmanäitusel

Mudelid on tegelike objektide vähendatud kujutised ning seetõttu oma olemuselt sümbolid. Kuid nad võivad sümboliseerida väga erinevaid asju. Kõige üldisemalt kujutavad transpordiameti mudelid laevu ja majakat, mille koopiad nad on. Neil on tähtis roll aitamaks meil mõista ja tõlgendada tehnikat, mis oleks meile muidu kättesaamatu, kuna need objektid ise on mõistagi liiga suured, et neid saaks süstemaatiliselt muuseumidesse koguda. See on kindlasti põhjus, miks meie muuseum omandas need mudelid üle 40 aasta tagasi.

Kui oluline nende esemete tehnoloogiline sümbolism ka poleks, on see ainult esimene tähenduskiht, mida nendest välja lugeda. Vaadates neid laiemas ajaloolises kontekstis, hakkame nägema keerukamat, värvikamat lugu ühe riigi valitsusest, kes tundis oma saavutuste üle uhkust ning soovis neid saavutusi kasutada rahvusvahelisele üldsusele oma kohalolust märku andmiseks. Loo üks takk oli see, et transpordiamet soovis kanadalastele näidata, millega nad tegelesid ja miks see oluline oli, ning tõestada, et Kanada oli rahvusvahelise mereriikide kogukonna aktiivne ja arvestatav liige. Föderaalvalitsuse jaoks oli Little Sea väljapanek osa suuremast näitusest, Expo 67st, millega tähistati Kanada muutumist koloniaalsest loodusvarapõhisest majandusallikast iseseisvaks ja tehnoloogiliselt arenenud riigiks.

Kuid Kanada staatus iseseisva riigina ei olnud kindel. Olles riik, millel oli tagasihoidlik majandus ja määratu maa-ala ja mis asus kahe väga võimsa ning juhtumisi ka vaenutseva naabri vahel, ei olnud Kanadal alati võimalik iseenda huvide nimel otse tegutseda. Seistes Arktikas silmitsi Ameerika Ühendriikide poolsete väljakutsetega, said kanadalased endale lubada vaid väikseid sümboolseid vihjeid. Selles kontekstis võib transpordiameti väljapanekut mõtestada kui näidet selle kohta, kuidas üks valitsus leidis teised vahendid väljendamaks oma otsusekindlust Arktika saarestiku omamiseks ja asustamiseks ning Kanada koha kindlustamisele maailmas iseseisva riigina.

Nende mudelite vaatamine sellisest ulatuslikust ajaloolisest perspektiivist ei aita meil mitte ainult seda Kanada ajaloo pöördelist aega paremini mõista. See pakub välja ka uue viisi, kuidas neid esemeid esitleda ja tõlgendada. Transpordiameti mudelid annavad võimaluse, kuidas viia külastajad kaasa avastusretkele tehnoloogia paljude keerukate ja sageli vasturääkivate tähenduste maailma. Nende abil saame näidata, et viis, kuidas meie poliitilise, sotsiaalse ja kultuurilise ajaloo aspektid on nendes esemetesse sisse põimitud ja nende mõtestamine ei räägi meile palju ainuüksi tehnoloogiast, vaid ka sellest, kes me rahvusena oleme.



Sharon Babaian (1957)

Graduate of the University of Manitoba (history, MA, 1984) and Queen's University at Kingston (public administration, MA studies, 1987). Historian and researcher at the Canada Science and Technology Museum (1988–2011), her publications concerning, inter alia, navigation technology. Since 2011 she has been working at the same museum as the Curator of Land and Marine Transportation, being responsible for the collections on railways, roads and maritime transport.

Demonstrating Sovereignty: Transport Canada's 'Little Sea' at Expo 67

Models are miniature representations of actual objects and so, by their very nature, are symbols. But they can symbolize many different things. At the most basic level, the DOT models represent the ships and the light tower of which they are copies. As stand-ins for those objects, they have an important role in helping us to understand and interpret technologies that might otherwise be inaccessible and are certainly too large for museums to collect in any systematic way. This is almost certainly the reason that our museum acquired the models more than forty years ago.

As critical as the technological symbolism of these objects is, however, it is only the first layer of meaning that we can draw from them. By looking at them in a broader historical context we can see a more complex, nuanced story of a national government proud of its accomplishments and anxious to use them to signal its presence in the international community. One aspect of that story is the Department of Transport's desire to show Canadians what they did and why it mattered and to demonstrate that Canada was an active member of the international maritime community. For the federal government, the "Little Sea" demonstration was part of a larger exhibition—Expo 67—that marked Canada's transformation from a colonial resource economy to an independent, technologically advanced nation.

Canada's status as an independent nation, though, was not secure. As a small economy with a large landmass situated between two very powerful neighbours who also happened to be enemies, Canada could not always act directly to assert its claims. When faced with American challenges in the Arctic, small, symbolic gestures were often all that Canadian officials would risk. In this context, the DOT demonstration can be read as an example of the government finding other means by which to express their determination to own and occupy the Arctic Archipelago and to establish Canada's place in the world as a sovereign nation.

Viewing these models from this broad historical perspective not only helps us to understand more clearly a pivotal time in Canadian history. It also suggests a new way to display and interpret these objects. The DOT models provide a means by which to engage visitors in an exploration of the many complex and sometimes contradictory meanings of technology. With them, we could show that how important aspects of our political, social and cultural history are embedded in these objects and how reading them tells us a great deal not just about technology, but about who we are as a nation.

Andres Eero (1959)



Lõpetanud Kadrina Keskkooli (1977) ja Tallinna I kutsekeskkooli (1981). Eesti Meremuuseumi vanemtehnik 1989-2005, fotokogu varahoidja alates 2005.

Jäämurdjaga „Suur Tõll“ seonduv Eesti Meremuuseumi kogudes

Eesti Meremuuseum loodi 1935. aastal. Merenduslikke huvipakkuvaid eksponaate hakati korjama tulevase muuseumi tarbeks aga juba 1920. aastate lõpul. Muuseumil olid ruumid Tallinnas kesklinna sadamas Baikovi sillal vanas laohoones. Esimeseks direktoriks oli aastatel 1935-1940 Madis Mei, kes oli ka üks muuseumi asutajatest.

1988. aastast on muuseumi laevade hulgas aurik-jäämurdjaga „Suur Tõll“, mille ehitamisest Saksamaal Stettinis Vulcan-Werke laevatehases möödub 2014. aastal sada aastat. „Suur Tõll“ on üks suurematest ja võimsamatest maailmas veel säilinud aurik-jäämurdjatest. Oma pika elu perioodi jooksul on ta murdnud merel jääd mitmete riikide lipu all Eestis, Soomes ja Venemaal. Meile teadaolevalt oli 1940. aastaks muuseumi kogudesse kogutud merenduslike materjalide hulgas viis jäämurdjaga „Suur Tõll“ seonduvat museaali. Üks nendest oli 1935. aastal Eesti Veeteede Valitsuse poolt muuseumile kingitud kapten Hermann Tõnissoo valmistatud „Suure Tõllu“ mudel. See väga täpselt tehtud mudel on ka praegu ehteks meremuuseumi laevamudelite kollektsioonile ning võetud ka üheks eeskujuks „Suure Tõllu“ väliskuju ennistamisel. Dokumentide kogus säilitatakse Vulcan-Werke laevatehase jooniseid „Suurest Tõllust“, mitmete laeva meeskonnaliikmete dokumente ja käsikirjalisi materjale. Kõige suurema osa „Suure Tõlluga“ seotud materjalidest hõlmavad fotod. Nendest on kindlasti väärtuslikumad need, mis on pildistatud 1913. – 1914. aastal Stettinis Vulcan-Werke laevatehases.

Eesti Meremuuseum on oma eksisteerimise perioodil 1935-1940 ning taasavamise järel 1961. aastast tänapäevani kogunud „Suurest Tõllust“ oma kogudesse ligikaudu 780 fotot, dokumenti ja eset. Enamus neid materjale on saadud inimeste käest annetustena ja muuseumi oma töötajate kogumistegevusest. Viimane „Suure Tõlluga“ seotud annetus tehti muuseumile 2014. aasta algul. Kõik perioodid laeva ajaloo ei ole muuseumi kogudes siiski esindatud ühtlaselt. Täiendamist vajaksid laeva Soomes ja Venemaal viibimise aastad. Ajaloolistest perioodidest on „Suure Tõllu“ kohta museaale enim aastatest 1923 – 1940, see on aeg mil tema kodusadamaks oli Tallinn ja aastad alates 1988 aastast, kui laev oli Venemaalt Tallinnasse tagasi toodud ning Eesti Meremuuseumile üle antud.

Olemasolevat kogu on kasutatud muuseumi näitustel, raamatute ja artiklite kirjutamiseks ning nende illustreerimiseks. „Suure Tõllu“ on kasutatud ka mitme mängufilmide võtetel.

Kui võrrelda teiste laevade materjalidega muuseumi kogus, siis ei ole „Suure Tõllu“ kohta kogutud materjali hulk Eesti Meremuuseumi kogudes väike. Museaalide hulga poolest ületab seda ainult allveelaeva „Lembit“ kohta kogutu. Seoses lähiajal plaanis olevate töödega „Suurel Tõllul“ endiseaegse ilme (uued päästepaadid ja paaditaavetid,

ahtrisalongi interjööri renoveerimine) veelgi täpsemaks taastamiseks on muuseumi kogudesse oodata tänapäevase materjali näol lisa.



Andres Eero (1959)

Graduate of Kadrina Secondary School of Tallinn (1981). Senior technician at the Estonian Maritime Museum (1989–2005); holder of the photo collection since 2005.

Icebreaker Suur Tõll in Estonian Maritime Museum collections

Estonian Maritime Museum was established in 1935. Interesting marine-related showpieces were already being collected as early as in the end of the 1920s. The museum's premises were located in an old storehouse that stood on Baikov bridge in the harbour in Tallinn city center. The first director from 1935 to 1940 was Madis Mei who was also one of the founders of the museum.

1988. Steamer-icebreaker *Suur Tõll* belongs to the museum's collection since 1988, celebrating in 2014 hundred years from its construction in Vulcan-Werke shipyard in Stetten, Germany. *Suur Tõll* is one of the biggest and most powerful steamer-icebreakers still existing in the world. During its long life it has been breaking sea-ice in Estonia, Finland and Russia under various countries' flag. As far as we know there were about five showpieces related to icebreaker *Suur Tõll* among the museum's marine collections by 1940. One of them was the model of *Suur Tõll*, built by the ship's captain Hermann Tõnissoo and given to the museum by Estonian Maritime Administration in 1935. This intricate model is still to this day the jewel of the museum's ship models' collection and it has been used as an example at restoring *Suur Tõll*'s appearance. The document collection holds *Suur Tõll*'s drafts from Vulcan-Werke shipyard, also some of the crew's paperwork and handwritten material. Photos constitute the largest proportion of the material related to *Suur Tõll*. The most valuable of these are the ones taken in Vulcan-Werke shipyard in Stetten in 1913 to 1914.

In Estonian Maritime Museum's collections there's about 780 photos, documents and items related to *Suur Tõll*, collected during the museum's years of activity, first from 1935 to 1940 and then, after reopening in 1961 until today. Most of these materials have been received as donations and through the museum's staff's collection activities. . The latest of the donations related to *Suur Tõll* was made in the beginning of 2014. Different periods in the ship's history are not covered to the same extent in the museum's collections. More detail would be needed for the years the ship spent in Finland and Russia. Most of the exhibits related to *Suur Tõll* originate in the years 1923 to 1940 when the ship's home port was in Tallinn, and starting with the year 1988 when the vessel had been taken back to Tallinn from Russia and handed over to the Maritime Museum.

The existing collection has been used at the museum's exhibitions and for writing and illustrating books and articles. *Suur Tõll* has also been used in several film shoots.

Compared to the material about other ships in the museum's collection, the material about *Suur Tõll* is not small-scale. When it comes to the number of exhibits, only the material about submarine Lembit exceeds it. Some more of the contemporary material is expected to be added to the museum's collections as works are foreseen in the near

future on *Suur Tõll* to create even more authentic look of the old ship (new rescue boats and davits, renovation of the interior of the aft lounge).

