



# A delivery for a pharmacy? Exceptional collection of Early Modern Age finds from the sea bed of the Tallinn Bay

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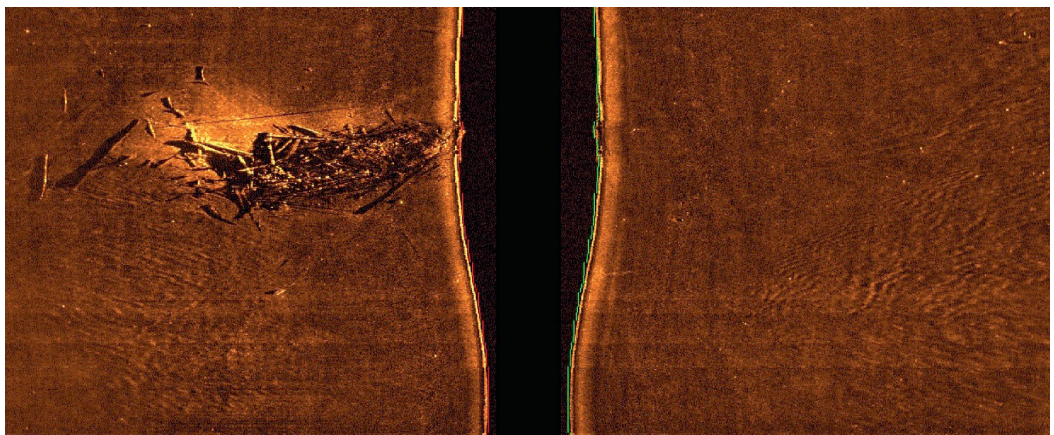
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## INTRODUCTION

In the early summer of 2015 the Estonian Maritime Museum was informed that the German mine hunter ‘Auerbach’ had found a wreck of a small sailing vessel in the bottom of the Tallinn Bay. This information was examined by the side scan sonar of the museum’s research vessel ‘Mare’, and a badly damaged wreck of a probable historical sailing ship was detected in the reported find spot (Fig. 1). As the wreck has not been identified yet, it was decided to designate her with a working title ‘Nargen 1’.

Shortly thereafter Tuukritööde OÜ, a company engaged in dive works surveyed the site with a remotely operated underwater vehicle (ROV). This helped to establish that between the remains of the ruined ship, a possible cargo of different kinds of pottery is scattered



**Fig. 1.** Side scan sonar screen shot depicting *Nargen 1*.  
**Jn 1.** *Nargen 1* vrakki kujutav külgvaatesonari kuvatõmmis.  
*Photo / Foto: Vello Mäss*

around (Fig. 2). The very good preservation of the artefacts raised a hope, that, if collecting a few objects from the wreck, it is possible to gain closer knowledge on the probable date and type of the ship. To achieve this objective, the National Heritage Board of Estonia issued a preliminary research permit to Vello Mäss. According to the research plan, approved by the National Heritage Board, it was agreed that only a minimum amount of artefacts should be collected from the wreck.

As the diving capabilities of the museum were not sufficient at that time, a group of military divers from the Estonian Navy offered their help. The first expedition was undertaken on 10–11 September. On the first day the wreck and the whole area around it was surveyed and mapped by the professional scanning robot Remus-100. A great amount of details<sup>1</sup> of the completely destroyed wreck were documented in the three separately laying mounds on the sea bottom. On the second day, the investigations continued with the aim to film the wreck and examine the site in the hope that it would help to determine the ship's type. Poor visibility deep under water and the lack of good sources of light influenced the filming quality. However, the diver-in-chief Mildon Ader was able to draw a freehand sketch of the wreck. Other two divers collected samples of pottery, the bottom of a wooden barrel, a wooden block sheave and a rim fragment of a copper kettle. Due to the regrettable miscommunication – the principal investigator failed to sufficiently clarify the importance to collect only a minimum amount of artefacts from the wreck – is the number of finds dislodged from their original location considerably larger than was initially agreed.

After the first expedition, the finds were cursorily evaluated by medieval and post medieval pottery specialist Erki Russow. His quick estimation was that, as a find complex it is certainly a remarkable collection of ceramic artefacts, which, based on a few items, might perhaps indicate a special order of a pharmacist (written communication between the authors of the present paper, 13.09.2015).

Inspired by this encouraging opinion, but also by the intention to specify some features of shipbuilding technology, the second expedition to the site was organised on 25 September. This time, another and even more puzzling set of finds was taken up (Fig. 3). After that, any future fieldwork on site was halted by the National Heritage Board due to the breach of the agreed research plan of the principal investigator. As of spring 2016, the wreck of 'Nargen 1' is still an unidentified vessel laying on the seabed of the Tallinn Bay, but the tentative analysis of the technological features of the ship (by Vello Mäss) and the assessment of collected artefacts (by Erki Russow) enable us to present provisional results of the investigations. More exhaustive analysis is planned in the future, with the aim to include also discussion on the history of local pharmacy.

## **OBSERVATIONS ON THE SITE OF THE WRECK**

The wreck of 'Nargen 1' is situated at the eastern side of the Island Naissaare, at the depth of 29 metres. Judging by the side scan sonar images, it is a wooden sailing ship with the dimensions of 18 metres in length and 6.5 metres in width. In the front part of the wreck, three regular frames can be seen that in all probability are the ship's bow frames. Planking and other distinguishing details are missing. The construction of the ship's stern area was not ascertained, but very likely the ship had a high rear end, because there were a lot of loose details laying apart, mainly worn out and rounded. Swimming along the ship's sides established

<sup>1</sup> No wooden samples for dating were collected, as this was not included in the agreed research plan.

that in some places the ship's side frames and outer planking were possible to see. The form of the side planking was carvel (smooth), not clinker (overlapping).

In the middle of the wreck there is some quantity of ballast stones and on top of them, a great amount of wooden ship details of different size and shape that are considerably worn out. From the middle of the ship about 3 metres backwards there are two 110 cm long and 60 cm wide wooden boxes with sides missing. The port side box is empty, the starboard side box contained different kind of pottery and a few other items. From these wooden boxes about 3–4 metres to the aft and towards the starboard side of the ship among the ballast stones, peculiar ceramic finds (Fig. 3) – globular vessels with 5 short and rounded bungholes<sup>2</sup> – were found. These items were laying loose between the stones, no remains of boxes were noticed; but it cannot be excluded that they originate from the previously mentioned empty wooden box. Not all items were lifted up, a considerable number of artefacts is still on the sea bed. The majority of loose objects is situated in an area slightly to the rear of the ship's middle within the radius of 3–5 metres.

### PROBABLE TYPE OF THE SHIP

As the wreck's physical state is rather bad and it is impossible to determine the ship's exact shape based on side scan sonar results and by visual examination solely, its type needs to be interpreted with the help of secondary sources, leaving clearly a lot of space for speculation. Based on the only one closely dated artefact – a German tankard produced in Siegburg in the 1570s (Fig. 4) – it seems plausible that the ship sank at some point during the late 16th century (see find analysis below). Knowing this timeframe as

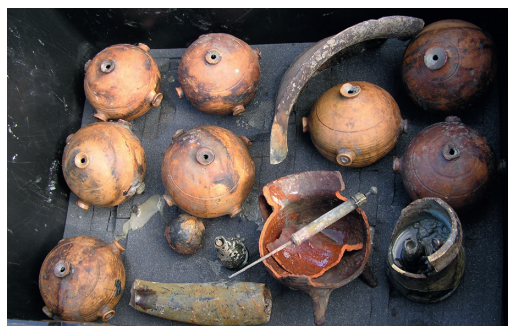
<sup>2</sup> The terminology of shapes and details of pottery used in the present paper follows the British manual for classification of medieval and early modern period ceramics (MPRG 1998) and might diverge from the accepted denominations used by other disciplines.



**Fig. 2.** Image from ROV video, showing artefacts on the sea bed.

**Jn 2.** Kaader allveerobotiga tehtud videost, kujutisel on näha merepõhjas leevavad esemed.

Photo / Foto: Kaido Peremees



**Fig. 3.** Finds from *Nargen 1*, collected on 25.09.2015.

**Jn 3.** 25. septembril 2015 vrakilt korjatud esemed.

Photo / Foto: Vello Mäes



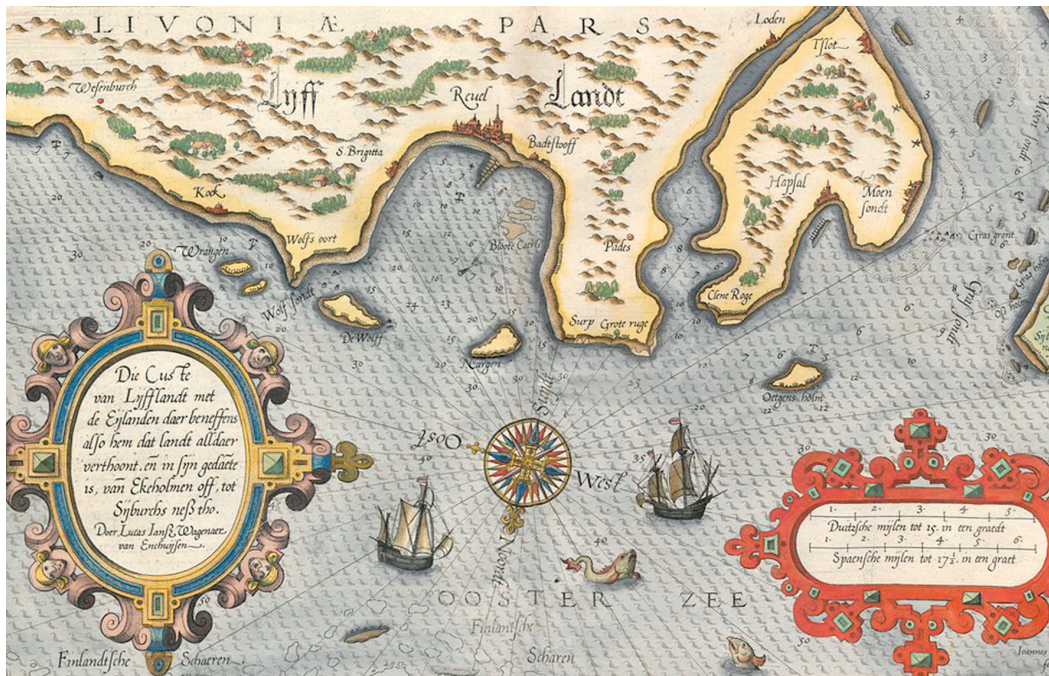
**Fig. 4.** Lower part of a Siegburg stoneware vessel, a so-called *Schnelle*, produced in Siegburg around 1580.

**Jn 4.** Sieburgi kivikeraamika, *Schnelle*-tüüpi kann, mis valmistati 1580. a paiku.

(MM 14233.)

Photo / Foto: Andrus Anderson

well the general size of the ship and possible construction of the stern, it therefore seems possible to construe the wreck as remains of a *bojer*-type sailing ship. This type of vessel was according to the seafaring history sources a typical ship in the Baltic Sea area. These small coasters were often met in the harbours of Northern Germany as well as in the ports of Riga and Tallinn, not to mention that one *bojer* was a member of the municipal fleet of Tallinn around the mid-16th century (Kreem, forthcoming). Such sailing ship carried a big sprit sail in the fore mast and above that a smaller square topsail. Just ahead of the ship, under the bowsprit a small square sail – the *blinde* – was carried. Drawings of such small sailing vessels can be seen on the 16th century marine charts depicted by the Dutch cartographer L. J. Waghenauer (Fig. 5), but a similar small sailer had been scratched also on the plastered wall in the Muhu church on the island of Muhu centuries ago (Mäss 1996). It is to be hoped that future fieldwork on the wreck will confirm or refute the hypothesis whether the ‘Nargen 1’ was a *bojer* or not.



**Fig. 5.** Bojer-type ship (left) near Naissaare (Nargen) on the map of L. J. Waghenauer (1584).

**Jn 5.** Bojer-tüüpi laev (vasakul) Naissaare lähedal L. J. Waghenaueri (1584) kaardil.

## COLLECTED ARTEFACTS

The total amount of collected finds from the wreck is 52 and it includes both everyday commodities as well as things which certainly had special use either on board of the ship or on land. The contextual information gathered from the site so far might help to provide some support for the interpretation (see below), but a much more thorough documentation of the wreck is needed in the future. Only a basic description of possible functional groups will be presented here without detailed examination of physical properties of the artefacts as we intend to deliver a more in-depth analysis at a later time.

The key object for the dating of the wreck is a partially preserved German stoneware tankard, known in specialist literature as *Schnelle* and made in Siegburg, Rhineland (Fig. 4). The production of such kind of pottery was most common between the late 1550s until the end of the 1590s. Based on the decoration of Christian virtues on the side panels of the tankard, it is perhaps possible to narrow it down to the 1570s (close but not exact matches in Klinge 1972, cat. nos. 347, 355, dated respectively to 1570 and 1578). Thus a vague *terminus post quem* for the shipwreck is 1580, but it has to be considered that between the production of the tankard, the use of the artefact and the wreckage must be some temporal distance. Therefore we suggest slightly broader dating like the *late 16th century*.

In addition to the tankard, there are other vessels that belong to the everyday objects which were commonly used both in terrestrial and marine households. These include a group of five complete and one partially survived southern Baltic (?) glazed redware tripod pots with one vertical loop handle (Fig. 6), a redware lid and a half-preserved concave-sided bowl of southern Polish greyware (Russow 2006, 104–106). These items can be dated only very broadly to the second half of the 16th century, although also a slightly later dating cannot be excluded.<sup>3</sup> Both the remains of the copper kettle and a miniature (height: 6 cm) base metal skillet should belong to the same timeframe. The latter was found inside one of the tripod pots, similarly to two of the glass bottles and small cylindrical jars discussed below.



**Fig. 6.** Glazed redware tripod pots from Nargen 1.

**Jn 6.** *Laevavrakilt leitud glasuurkeraamilised graapenid.*

(MM 14227–14231, 14386.)

*Photo / Foto: Andrus Anderson*

<sup>3</sup> Vertical loop handles are more typical for the 16th century as the later tripod pots commonly had grips.

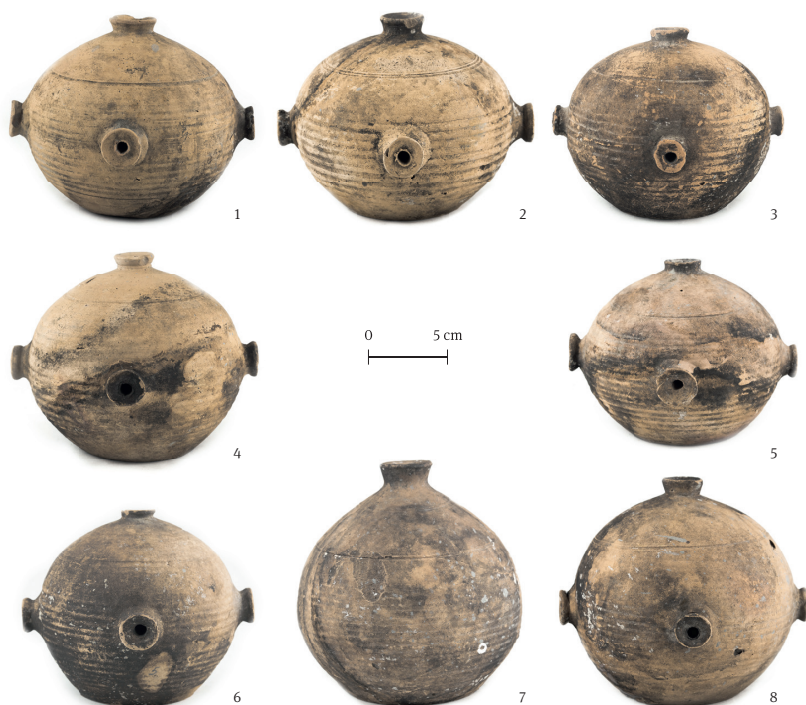


**Fig. 7.** Selection of pharmaceutical artefacts from Nargen: 1–2 – albarelli, 3 – fragment of a (laboratory?) glass vessel, 4 – syringe, 5 – pear-shape bottle, 6–9 – ointment jars, 10 – vase-shaped vessel, 11 – standing costrel, 12 – albarelo.  
**Jn 7.** Salviaumad ning muud meditsiinile viitavad esemed vrakilt: 1–2 – albarellod, 3 – klaasanuma katke (labori-  
 varustus?), 4 – prits, 5 – pirnikujuline pudel, 6–9 – salvitopsid, 10 – vaasikujuline nõu, 11 – pudel, 12 – albarelo.  
 (MM 14225, 14224, 14391, 14392, 14388, 14206, 14209, 14212, 14223, 14226, 14234, 14385.)

Photo / Foto: Andrus Anderson

Another clearly isolated set of artefacts is an assemblage of pottery and glass which certainly had different purpose than the above-mentioned cook- and tableware. Here the largest share consisted of small cylindrical jars, altogether 18 specimens (all glazed redware). To the same functional category belong two concave-sided jars and a vase-shaped vessel (all green glazed whiteware), but also a larger concave-sided jar (majolica) and a standing costrel (redware) as well as four more or less well preserved glass bottles (see the selection of finds on Fig. 7). Last, but not least – an intact syringe (Fig. 7: 4) should be also listed here, followed by a fragment of a glass tube (Fig. 7: 3) the original shape of which is hard to interpret, and a wooden knob, believed to be a handle of a probe or a specialist needle (see Castle 2005, 208–212). All these items (altogether 30) can be associated with medical activities, and are common finds in the archaeological collections of investigated Early Modern Age pharmacies as well as other sites connected to healing practices such as hospitals (Bergqvist 2013; Huwer 2011).

The third, visually very homogenous group of artefacts falls yet into another functional category. It includes seven globular utensils with five bungholes (one on top, four on sides) and one globular item with only one bunghole on top (Fig. 8). All of these are fully preserved (except some minor wear around bungholes) and belong technologically to the group



**Fig. 8.** Globular vessels with five bungholes (except no. 7) from Nargen 1.

**Jn 8.** Laevavrakilt leitud viie tuubusega savinõud (v.a. nr 7).

(MM 14378-14384, 14377.)

Photo / Foto: Andrus Anderson

of Early Modern Period redware – a type of ware produced widely around Northern Europe. Since the authors of the present paper have not seen this kind of artefacts previously and the query within the group of pottery specialists around the Baltic Sea region and even further did not provide a single and straightforward answer to our question, it is presently open, to what functional category these items should fall. We will present two competing interpretations in the next section of the paper.

Finally, items that do not belong to any particular functional group described above include a cast iron cannon ball, bottom of a wooden barrel and wooden block sheave.

## INTERPRETING THE FINDS

A few days' work on 'Nargen 1' has given us artefactual evidence that does not allow straightforward interpretation of the assemblage – handling finds without the contextual information provided so far might result in quite different results than we are offering now. Our interpretation is still work in progress and it is to be hoped that publishing this set of finds will help to surface new data so much needed for unlocking the meaning of this intriguing collection.

Before presenting our current thoughts on these finds, a short recollection on the find situation is appropriate. This might help to put the interpretation in a more credible perspective than handling the artefacts without the find spot. Yet again it is important to accentuate that this, very preliminary fieldwork offers only very basic contextual information for us. However, two aspects should be emphasised. Firstly, most of the finds are from the decayed wooden box and smaller items (metal skillet, glass bottles, some of the cylindrical jars) were inside the larger ones. The syringe was found not far (a few metres) from the mentioned box. Secondly, the loose items (globular vessels with five bungholes, a fragment of a tripod pot, a glass tube, two glass bottles, a partial greyware bowl and a larger concave-sided maiolica jar) were found from a distance of 3–4 metres of the empty wooden box, yet nothing contradicts the concept that they might come from the mentioned box.<sup>4</sup> In this case, there might be not one but two wooden boxes containing mixed goods or personal belongings. The latter suggestion – that the finds are not part of the cargo but personal items – seems to us more plausible. Otherwise, a more uniform structure of the find complex might be expected.

A closer look at the finds shows that a large amount of the collected artefacts fall into the category of medical equipment – cylindrical jars (also known as ointment jars), concave-sided jars (also known as albarelli), but also a standing costrel and glass bottles are standard elements of Late Medieval and Early Modern pharmacy (Huwert 2011). Thus it is tempting to interpret this set of finds as a possible possession of a pharmacist heading to or from Tallinn.<sup>5</sup> On the other hand, regarding the contextual information (medical equipment packed together with everyday utensils?) it seems also possible that we are faced here with a collection of items from the ship's mobile medicine chest. This is also substantiated with the fact that the related finds do not form a uniform set of items, but are rather items of different shape and size. Another cogent evidence is the syringe, a standard equipment for healing venereal diseases and disinfecting the deeper wounds (for similar items on ships,

<sup>4</sup> Cross-checked with diver-in-chief Mildon Ader in 8 May 2016.

<sup>5</sup> As mentioned above, we will handle this topic in the future elsewhere, only noting here that there is abundant information regarding the medicine and pharmacy in the 16th-century Tallinn (for example Gustavson 1969; 1972, but also elsewhere) which needs in-depth analysis before any links between the present collection and Tallinn can be made.



see syringes found on 'Mary Rose', sunk in 1545, Castle 2005, 205–206). However, we would rather discard this idea on the basis of the material – in an unstable environment such as the marine context is, it seems that more durable materials (wood, stoneware, brass, tin, etc.) are more 'natural' on ships than earthenware and glass, of what the present collection is comprised. This assumption might have support when evaluating similar find contexts elsewhere, and, as a slightly earlier case of barber-surgeon of 'Mary Rose' shows, artefacts made of wood, metal and stoneware prevailed among those of earthenware and glass (Castle 2005). All in all, after weighing potential pros and cons, it appears more probabilistic that this collection of pharmaceutical artefacts was the property of a physician/pharmacist either heading to or leaving from Tallinn.

There is another reason to believe that the collection of items belonged to terrestrial pharmacist rather than to the toolbox of the ship's *medicus* resp. barber-surgeon. This might be substantiated with the uniform group of globular vessels (Fig. 8). Although so far there are no exact parallels known to us neither in the archaeological collections nor from images from the 16th-century literature on medicine and healing practices (e.g. from the books of Hieronymus Brunswick, Paracelsus, Andreas Libavius, and many others), it is possible that these artefacts might belong to the inventory of a pharmacist's laboratory.

This hypothesis relies on the idea that during the 16th century, active experimentation on chemical and pharmaceutical processes was quite common all around Europe. Within these investigations towards natural sciences, a lot of laboratories were erected and different kinds of equipment tested (for one of the best examples of archaeological evidence from a late 16th-century laboratory, see von Osten 1998; Soukup & Meyer 1997). This kind of work, quite often connected with the persons practicing or being interested in medicine and pharmacy, needed special fittings. Therefore, one of the perspectives to find out the function of these globular vessels is to go deeper into the history of chemiatry (e.g. preparative chemistry in the service of medicine) which is far beyond the scope of the present paper. Here we can only offer a brief consideration with the aim to present better verified results in the future.

In the 16th century, quite a few different processes were used to produce potions – distillation, extraction, sublimation, transmutation and others (Soukup & Meyer 1997, 189–211). When considering these processes and trying to fit 'Nargen 1' ceramics shown on Fig. 8 into the framework of 16th-century chemiatry, the many ways of handling mercury and antimony are perhaps the keys to unlock the function of these artefacts, but their use for other substances (such as producing vinegar) is also possible. Mercury and its derivatives were widely used in medicine in the Early Modern Age, among other things for the treatment of venereal diseases. Antimony compounds on the other hand were used as laxatives (*ibid.*, 189–199). To make desired compositions the elements needed to be distilled (in some cases also sublimated), and for that, the standard laboratory equipment included helms, alembics or retorts above and cucurbits or larger specialised pots below (Soukup & Meyer 1997, 148–188; Anderson 2000, 14). But in case of skewed distillation – *destillatio per inclinationem* – also a connecting item between retort and cucurbit was sometimes exploited (Soukup & Meyer 1997, fig. 38 (from a 16th-century manual), used for distilling mercury). Albeit the artefacts from 'Nargen 1' do not resemble the mentioned item, we still might possibly use this information to interpret these globular vessels with five bungholes as interconnecting artefacts in the process of distillation.



**Fig. 9.** Glass jar with three necks from the collections of the University of Tartu Museum.

**Jn 9.** Kolme tuubusega klaasnõu TÜ ajaloomuuseumi kogudest.

(ÜAM 785:4 Aj. M 52.)

Photo / Foto: Andres Tennus

There are also other allusions supporting this interpretation. When taking a look at the 18th-century laboratory equipment, we can recognise some glass vessels which have certain resemblances with the finds from 'Nargen 1'. Namely, from the second half of the 18th century, the chemists used bottles with up to four necks, of which the best-known in chemistry are Woulfe bottles, but apparently also globular bottles with 3 to 4 necks were common (Ilomets 2011). These were used especially in washing gases and saturating liquids with gases or vacuum distillation. A few examples with uncertain date are preserved in the collections of the University of Tartu Museum (Fig. 9). Even though the vacuum distillation by itself is a later innovation (pers. comm. Tullio Ilomets) and gases were incorporated to the chemical theory only in the second half of the 18th century (Leveré 2000, 105), it is certain that

the distillation of mercury in the above-mentioned skewed distillation was performed in hermetically sealed environment, and with equipment similar to that shown above. A closer look at the 'Nargen 1' finds, shows that the bungholes were designed with the intention to encase the openings hermetically, perhaps with *lutum sapientae* e.g. with a clayey mixture used in Medieval and Early Modern Period laboratories to obturate connected equipment (Soukup & Meyer 1997, 129–130). Based on this kind of extrapolated evidence, we suggest that the 'Nargen 1' collection of exceptional pottery belongs to the inventory of a laboratory focusing on chemiatry. This is so far only a hypothesis without any firm confirmation neither from contemporary specialist literature nor from material evidence connected to medical activities of the Early Modern Period.<sup>6</sup>

An alternative explanation should be introduced as well. In the early phase of the research, we were searching different options how to identify the items that were so far never seen in Estonian archaeological collections. Several suggestions were offered, of which the most common was the idea that these globular vessels might be incendiary weapons used for close-range combat between ships. Indeed, there are quite a few depictions of ceramic 'fire pots and balls' from the Early Modern Period, and some of these have been also identified among the archaeological finds, notably from underwater sites (summarised in Martin 1994), but also from terrestrial sites (Gaimster & Kahn 2013). However, we would like to neglect this hypothesis for several reasons. Aside from the contextual information presented above, also several other arguments seem to contradict the idea of ceramic bombs or grenades. First of all, most of the relevant archaeological finds are connected either

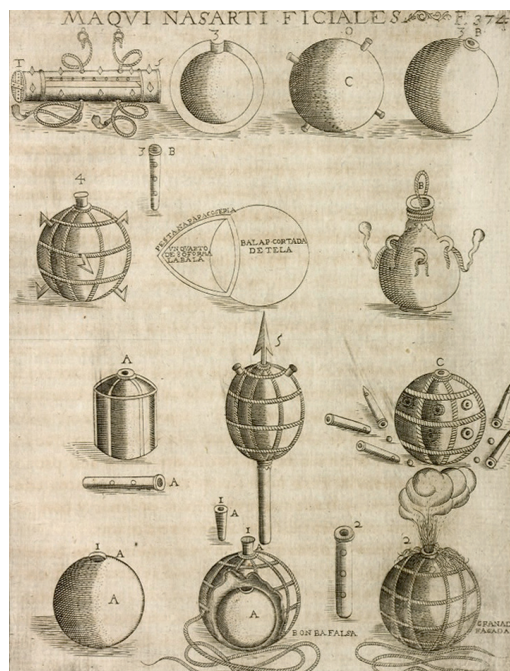
<sup>6</sup> Our interpretation has not been confirmed by Robert G. W. Anderson, a prominent expert on early chemical apparatus (written communication between E. Russow and R. G. W. Anderson, summer 2016). Also a further attempt to get archaeological evidence elsewhere via the newsletter of the Society of Historical Archaeology (Russow 2016), the leading institution on the archaeological research of Early Modern and Modern Age material culture, was unsuccessful.

with larger warships or indicate in another way to organised warfare (Martin 1994; Gaimster & Kahn 2013), which in the case of ‘Nargen 1’ is not rationalized, even though the type and the function of the shipwreck is yet to be confirmed. Another important argument is the shape and size of the artefacts. Both speak against their use as incendiary weapons, as it is not practical to use five bungholes for a highly flammable or explosive content, and even if used with slings as proposed in the contemporary literature, a more dynamic design of the artefacts might be expected. So far, the study of contemporary (e.g. late 16th and early 17th century) sources dedicated to close combat incendiary items has not produced satisfied parallels. Indeed, the assortment of weapons interpreted as grenades has a remarkably wide spectrum (see for example Ufano 1613, 510, here as Fig. 10) but nothing closely similar to artefacts collected from ‘Nargen 1’ has been depicted. Based on the present state of knowledge, we would like to see this interpretation of the finds less credible than the hypothesis we presented above.

## CONCLUSIONS

In the late summer of 2015, the remains of a ship with a working title ‘Nargen 1’ were briefly studied at the eastern side of the Island of Naissaare in the Tallinn Bay. The underwater inspection of the site revealed that the wreck might belong to the *bojer*-type sailing vessel (but not yet confirmed with certainty) which were common sailing ships in the Baltic Sea region during the 16th century. The ship is in a relatively bad condition and has disintegrated into three parts. To date the ship, a collection of finds was taken up during the first expedition, and another collection a few weeks later to enhance the knowledge gained so far. Altogether 52 artefacts dated to the late 16th century are associated with the wreck, half of these from a wooden box and the other half were scattered around the deck, but most likely belonged to an empty wooden box found nearby.

The analysis of the artefacts revealed that it is an extremely interesting set of finds, certainly exceptional in Estonian archaeological collections but highly likely, even in a broader context. This is reasoned with several arguments. Firstly, it is certainly unusual to find such a high portion of items referring to pharmaceutical activities. Even more striking is a very distinctive part of this collection – a group of globular vessels with five bungholes, so far unseen both in archaeological collections and in contemporary literature. Using the contextual information and evaluating similar finds from elsewhere it seems that these artefacts were used in pharmaceutical laboratory. If so, this is the first archaeological evidence of Early Modern



**Fig. 10.** A selection of incendiary weapons from an early 17th-century manual on artillery used on ships (Ufano 1613, 510).

**Jn 10.** Valik 17. sajandi alguses laevadel kasutatud granaadilaadsetest relvadest (Ufano 1613, 510).

Age pharmaceutical laboratory in the northern Baltic region and these items are perhaps reflecting early, and so far not very well known development of laboratory equipment used for preparative chemistry in the service of medicine. However, only much more extended interdisciplinary analysis of the artefacts as well the archaeological investigation of the wreck site can provide us enough data to confirm if this, a very preliminary tentative hypothesis of this remarkable find complex, has any credibility.

## ACKNOWLEDGEMENTS

The authors would like to thank everybody who contributed to the discussion and identification of the finds, especially Robert G. W. Anderson (Cambridge), David Gaimster (Glasgow), Georg Haggrén (Helsinki), Andreas Heege (Zug), Tullio Ilomets (Tartu), Simone Kahlow (Bremerhaven), Mechelle Kerns (Annapolis), Natascha Mehler (Wien, Bremerhaven), Gunnar Möller (Stralsund). The authors are completely responsible for the given interpretations and the possible errors within the reasoning – we welcome a fruitful debate to get a new perspective on this highly intriguing group of finds.

This article was written with the support of research projects of the Estonian Ministry of Education and Research (IUT18-8) and Estonian Science Foundation ETF9405.

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## SAADETIS APTEEKRILE?

### ERANDLIK KOGUM VARAUUSAEGSEID LEIDE TALLINNA LAHE PÕHJAST

Vello Mäss ja Erki Russow

2015. aasta varasuvel sai Eesti Meremuuseum teate, et Naissaare lähedal asub purjelaeva vrakk. Infot kontrolliti muuseumi uurimislaeva külgvaatesonariga ning tehti kindlaks, et saare lähedal, 29 meetri sügavusel asuvad ajaloolise laeva jäänused. Kuna laeva päritolu ei tuvastatud, pandi vrakile töönimeks “Nargen 1”. Seejärel uuriti objekti allveerobotiga, millega silmati laeva pardal suuremat savinõude kogumit (jn 1–2).

Laevavraki dateerimiseks ja võimaliku päritolu tuvastamiseks taotles Meremuuseumi teadur Vello Mäss Muinsuskaitseametilt uuringuloa, mille järgi plaaniti vrakk kaardistada ning pinnale tuua mõned esemed. Esimene ekspeditsioon toimus 10.–11. septembril 2015: kolme Eesti Mereväe tuukri tööd juhendas uurimislaeva pardalt V. Mäss. Halva veealuse nähtavuse ning korraldiku valguse puudumisel ei õnnestunud teha häid fotosid, kuid vrakk kaardistati vabakäelise joonisega ning ehituslikke detaile täpsustati kohtvaatlusega. Lisaks korjati vrakilt esemeleide, kuid kooskõlastatud arvust rohkem. Kuna kogutud leiud osutusid erandlikeks, aga ka soovist täpsustada laevakonstruktsioone, korraldati 25. septembril teine ekspeditsioon, mille käigus tõsteti üles grupp unikaalseid leide (jn 3). 1. oktoobril 2015 tühistas Muinsuskaitseamet väljastatud uuringuloa. Sellega peatusid välitööd, kuid laevatuubi täpsustamine ning leidude tõlgendamine jätkub.

Tehtud väliuuringute valguses saab öelda, et laevavrakk on 18 meetrit pikk ja 6,5 meetrit lai. Laeva esiosas tuvastati kolm arvatavat laevakaart, ahtrikonstruktsioon oli väga lagunenu, kuid ilmselt oli “Nargen 1” kõrge tagaosaga. Laev oli sileplangutusega. Laeva keskosas kaardistati ballastikive ning neil lasunud arvukaid, eri suuruse ja kujuga väga kulunud laevadetaile. Lisaks asus samas kaks 110 × 60 cm suurust puitkasti, millest üks oli tühi, kuid teine sisaldas keraamikat, sh laeva võimalikku vanust määrata aidanud Sieburgi kivikeraamilist peekrit (jn 4). Neist kastidest 3–4 meetrit ahtri poole jäid lahtiselt lebanud kerajad ning viie avausega seninägemata keraamilised anumad ja mõned tarbeesemed. Ei saa välistada, et need pärinesid tühjast kastist.

Kuna vrakk on üsna halvasti seisukorras, siis ainult füüsiliste tunnuste alusel pole võimalik laeva tüüpi kindlaks teha. Tuginedes tehtud tähelepanekutele ning võrreldes neid laeva võimaliku kasutuse ajal Läänemerele sõitnud alustega, näib, et “Nargen 1” kuulus siin piirkonnas 16. sajandil sagedasti seilanud *bojer*-tüüpi laevade hulka (jn 5). Seda saab aga kinnitada või ümber lükata vaid tulevaste uurimistöödega.

Kõrgendatud tähelepanu väärrib laevavrakilt korjatud esemete kogum; kokku toodi üles 52 leidu. Üldistatult saab need otstarbe järgi jagada kolme rühma: tarbeesemed (eelkõige köögikeraamika, jn 6), meditsiiniga seotud asjad (salvitopsisid ja -purgid, kannud, klaaspudelid ja prits, jn 7) ning lähemalt teadmata funktsiooniga kerakujulised esemed (jn 8). Juhuleidudena kuuluvad kollektiooni veel üks malmist kahurikuul, tünnikaas ja pokkiratas ehk siiv.

Mis teeb selle leiukogu eriliseks ja erandlikuks Eesti, aga ka laiemas, Läänemere regiooni arheoloogilises aineses? Põhjusi on kaks. Esiteks ei ole tavapärane leida arheoloogiliste uuringutega sedavõrd suurt kogust meditsiiniesemeid (kokku 30 eset), mis ilmselt viitab kas laevapteegile või mõne maismaa-apteegi tellimusele. Samas kõneleb viimase tõlgenduse vastu leidude mitmekesisus – tegemist ei ole standardkomplektiga, vaid esemete valik on väga kirju. Seetõttu võib määravaks osutada eespool mainitud kolmanda leiugrupi tõlgendus. Nimelt võib ühe tööhüpeteesi järgi pidada neid kerakujulisi viie tuubusega (avausega) esemeid tänapäeva keemias tuntud vahepuudeliteks, mida mh kasutatatakse destilleerimisel ja sublimeerimisel. Vaadeldes lähemalt 16. sajandi meditsiiniajalugu ning farmaatsia arengut, saab oletada, et neid esemeid kasutati näiteks elavhõbeda või antimoni destilleerimiseks: mõlemat ainet tarvitati aktiivselt ravimisel. Ehkki 16. sajandi meditsiinkirjanduses

ei ole selliseid nõusid teadaolevalt kirjeldatud ning seni puuduvad ka vastavad arheoloogilised paralleelid, sobiks selline tõlgendus meie arvates paremini kui alternatiivina välja toodud võimalus, et nõud olid kasutusel tulepottide ehk algeliste granaatidena. Kuigi kaasaegses militaarkirjanduses on keraamilistele heitepottidele viidatud (vt nt jn 10) ning 16.–17. sajandi laevavrakkidelt on teada ka vastavaid arheoloogilisi leide, ei ole siiski võimalik neid ühemõtteliselt pommidena tõlgendada. Nõud on selleks liiga suured ning ühe ava asemel viie auguga pomm teeb sellise eseme kasutamise ebapraktiliseks.

Seega näitab uurimistööde praegune seis, et 16. sajandi lõpus uppus Naissaare lähedal purjelaev, mille pardal olnud esemed võisid kuuluda kas Tallinnasse suundunud või sealt lahkunud apteekrile *resp.* meditsiinikeemiast huvitunud isikule. Loodetavasti annavad edasised uuringud objektile ning olemasoleva leiukollektsiooni tulevane analüüs sellele põnevale temale praegusest veenvamalt põhjendatud tõlgenduse.