

## Examination Answer Books

12 Pages

### Instructions to Candidates

- Please give the information requested in the boxes below.
- Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
- The answers must be legibly written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
- Write your answers in ink.
- Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
- No part of this book is to be torn out; it must be handed in complete.
- If more books than one are used, fasten them together using the tags available from the invigilator(s).
- Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.

|   |                                  |                     |
|---|----------------------------------|---------------------|
| 1 | Student Number                   | 1702828             |
| 2 | Title of Examination Paper       |                     |
| 3 | Module Code                      | Nautical Archeology |
| 4 | Date and Time of Examination     | 10:15               |
| 5 | Examination Venue                |                     |
| 6 | Seat Number                      |                     |
| 7 | Number of Answer Books handed in |                     |

(Gweler yr ochr arall am y fersiwn Cymraeg)

Complete, fold and seal  
(see note 2 below)

SURNAME: Kemp

FORENAME(S): Joshua Connor

(See the other side for English version)

|   |                                      |  |
|---|--------------------------------------|--|
| 7 | Nifer y Llyfrau Atebion a gyflwynwyd |  |
| 6 | Rhif Sedd                            |  |
| 5 | Lleoliad yr Arholiad                 |  |
| 4 | Dyddiad ac Amser yr Arholiad         |  |
| 3 | Cod y Modwl                          |  |
| 2 | Teitl y Papur Arholiad               |  |
| 1 | Rhif Myfyrwr                         |  |

|  |                                                  |  |
|--|--------------------------------------------------|--|
|  | Rhestrwch rifau'r cwestiynau a ymgaisiwyd genych |  |
|  | At Dibenion y Swyddfa                            |  |

- Rhaid dychwelyd pob llyfr. Ni chaniateir mynd â llyfrau atebion, wedi eu defnyddio neu heb eu defnyddio, allan o'r lleoliad arholi o dan unrhyw amgylchiadau.
- Os defnyddir mwy nag un llyfr, rhwymwch'r hwy gyda'i gilydd gan ddefnyddio'r tagiau sydd ar gael oddi wrth y gwyllwr/gwyliwyr.
- Ni ddylid rhwgo unrhyw ran o'r llyfr hwn; rhaid ei gyflwyno yn gyfan.
- Dechreuwch bob ateb ar dudalen newydd. Gwnewch unrhyw fras nodiadau yn y llyfr atebion a thynnu llinell drwyddynt.
- Ni ddylid rhwgo unrhyw ran o'r llyfr hwn; rhaid ei gyflwyno yn gyfan.
- Ysgrifennwch eich atebion mewn inc.
- Rhaid i'r atebion fod mewn llawysgrifen ddarlennadwy. Gall yr Arholiwr naill ai anwybyddu sgrïpt annarllennadwy, neu drefnu iddi gael ei theipio a chael yr ymgaisydd i dalu.

- Rhowch yr holl wybodaeth y gofynnir amdani yn y blychau isod.
- Rhowch eich enw yn y lle a ddarparwyd ar y dde, plygwch ef a'i sellio i lawr (gan ddefnyddio'r label a ddarparwyd) i guddio'ch enw.

Cyfarwyddiadau i Ymgaiswyr

12 Tudalen

Llyfr Atebion Arholiadau

Llenwch, plygwch a selliwch  
(gweler nodyn 2 isod)

CYFENW:

ENW(AU) CYNTAF:

Sim

Diff

-clinker built

Dendro-provenance

-11th century

type of timber

-Nordic tradition

purpose and size

③ In this essay I will be discussing the Skuldelev ships. I will ~~discuss~~ discuss the similarities and differences between them.

The Skuldelev ships were five ships that were deliberately scuttled near Roskilde in order to prevent any attack from the water by enemy ships. The town of Roskilde was historically the seat of power for ~~the~~ <sup>the</sup> eight kings and queens of Denmark and indeed thirty-eight of them are buried there. (Encyclopaedia Britannica 2010)

The first similarity between the ships is that they are all clinker built keel vessels. This means that they are built with the planking on the sides of the ships overlapping on the outside. This way of building ships was used throughout the viking age and deep into the medieval period suggesting that this way was a very successful way to build ships due to its longevity. (Encyclopaedia Britannica 1998)

The second similarity is that all the Skuldelev ships were built during the eleventh century. (Jørgensen-Pedersen, Skuldelev ships 1, 2002) this can be considered earlyish in the medieval period, but it is still interesting ~~that~~ that the Nordic ship builders were still building ships in this way suggesting that again this way of building ships was successful. As well as this the fact that they are all built in the eleventh century means that perhaps they were all constructed

| Question No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Examiner Only  | Question No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Examiner Only  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p>Similarly as the time in which they were built was close together.</p> <p>The third similarity is that they were all constructed in the Nordic ship building tradition. This means that they were all clinker built but also that they are easily recognisable as 'viking' or Nordic ships. They were all built in a way which made them slender and the sides of the boat rode close to the waves (Eidar Heide 2014). The warships or longships were slender <del>and</del> and long in order to move quickly through the water whereas the cargo ships were wider to carry more cargo and slower. Skuldelev one and three were these slower but wider cargo ships and two and five were the faster warships. Skuldelev six was a fishing boat, but no matter what their purpose was, they all are similar in that they <del>are</del> are all instantly recognisable as of the Nordic ship building tradition. (Viking Ship Museum website)</p> <p>The first difference between these ships is <del>that</del> the dendro-provenance of them. This means the location from where the timber used to construct the ships came from and presumably also where the ships were constructed. Skuldelev one and six are from western Norway, two is from Dublin in Ireland and three and five are from Denmark. This is important as it shows that the Nordic tradition was far-reaching into the British Isles but also that it highlights differences between the ships as the timber from one place could be better than the timber from another. As well as this it could be made from different types of timber. (Viking Ship Museum website)</p> <p>This leads in to the second difference between the ships which is the type of timber used to construct them. They were all constructed using different types of timber. Skuldelev one was constructed from pine, oak and</p> |                | <p>lime, Skuldelev two and three were constructed from oak. Skuldelev five was constructed from pine, oak, ash and alder and six was from pine, birch and oak. The common timber used was oak probably due to its sturdiness but all these ships were constructed from different types of timber which is a big difference because the timber from one region could be better than the timber from another. As well as this different areas would have different types of trees growing that perhaps were not available at these other areas. (Viking Ship Museum website) It could also be due to refits and repairs.</p> <p>The last difference between the Skuldelev ships was the purpose and the size of them. They all were constructed to <del>fill</del> fulfill different purposes which also meant that they were of different sizes. Skuldelev one was an ocean-going trader which was built to travel long distances across open sea. It was wide <del>in</del> in order to carry more cargo but it was slow and manned by a small crew. Skuldelev two was a large warship, built for long distance raids across the seas and was built for a crew of <del>68-70</del> sixty-five to seventy men. Skuldelev <del>three</del> three was a coastal trader meant for <del>the</del> short distance coastal trips and was smaller than Skuldelev one. It was presumably meant to take its owner to market. Skuldelev five was a warship but smaller than two. It was crewed by around thirty men and built for short distance raiding parties. Lastly, six was a fishing vessel operating in fjords but was refitted with more timber to become a transport vessel. (Viking Ship Museum) As you can see all these ships were built to achieve different purposes which meant they were all different shapes and sizes. <del>there</del></p> <p>To conclude, the Skuldelev ships have many similarities and differences. They are all built in the same way and from the same time but they were built in</p> |                |
| Arholwr yn unig                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Rhify Cwestiwn | Arholwr yn unig                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Rhify Cwestiwn |

different places and with different types of timber. As well as this they all served a different purpose and were of different sizes but they all were distinctly recognisable as being from the Nordic ship building tradition and they all looked Norse.

| ④ Keels      | Cogs - Frisians - popular | Hulks                                                      |
|--------------|---------------------------|------------------------------------------------------------|
| - Definition | - Definition              | - Definition - specific characteristics for shape and size |
| - Skuldelev  | - Bremen-concrete find    | - Only documentary evidence written iconographic           |
| - Newport    | - Velby Ruten             | - New Shoreham - London charters                           |
| - Grace Dieu | - Ipswich                 |                                                            |

This essay will discuss the major types of ships and boats that were in use during the medieval period in Northern Europe and will provide examples for each.

The first type of boat that was in use during this period was the ~~keel~~ keel. Gillian Hutchinson states that the keel type of ship was denoted as being built from the keel up. (Gillian Hutchinson, medieval ships and shipping 1994). This means that the ship builders would start by taking a long and straight piece of timber which is called the keel and attach the stem and stern posts to either end. From this planking would be placed ~~from~~ between them and it would have been constructed in the clinker way. This would form the basis of the hull. Inside the ~~sheet~~ shell, transverse framing would be placed at regular intervals along the boat, which were reinforced with horizontal cross beams. (Gillian Hutchinson, medieval ships and shipping 1994) This is essentially what the keel type of boat is.

The first example of this type of boat are the Skuldelev ships. These were an early example of a keel vessel as they were built in the eleventh century. They were found near Roskilde in Denmark where they were scuttled to prevent attack. They were all clinker built. (BBC Viking dig reports)

The second example of a keel boat is the Newport Ship. The Friends of Newport medieval ship website states that it is a fifteenth century merchant vessel. Indeed it was built in 1449 near San Sebastian and is a ~~large~~ larger example than the skuldelev ships at over 30 metres in length and 27 metres in width. The fact ~~they~~ that keels were still being constructed in the fifteenth century is impressive and suggests that were effective and successful. (Friends of Newport ship website)

~~the~~  
The third example of a keel boat is the Grace Dieu. This boat was built for Henry V and was launched in 1418. It is one of the largest boats from the medieval period at ~~6~~ sixty-six metres in length. It is very impressive and is testament to the keels success that they were able to be built ~~and~~<sup>at</sup> a small size such as the skuldelev ships but also at ~~at~~<sup>at</sup> very large size like the Grace Dieu (National Archives website)

The next type of boat used in the medieval period is the cog. Hutchinson states that the cog's place of origins is with the Frisians in the ninth century (Gillian Hutchinson, medieval ships and shipping 1994). The fact that it has been around for a long time suggests it was effective and successful. Cogs can be differentiated from keels by ~~the~~ their high sides, flat bottoms and they typically only had one mast. (Gillian Hutchinson, medieval ships and shipping 1994) Cogs are arguably the most popular type of ship in the medieval period due to ~~the~~ having numerous reportings in written documentation than any other type of boat. (Gillian Hutchinson, medieval ships and shipping 1994)

An example of a cog is the Bremen cog. It was very well preserved and dates to 1380. Ole Crumlin-Pedersen

states that the Bremen cog is a impressive example of the general idea of what a cog is. (Ole Crumlin-Pedersen, to be or not to be a cog, 2000) The Bremen cog was one masted and clinker built and allowed archeologists to attach evidence to a concrete find (Ole Crumlin-Pedersen, to be or not to be a cog, 2000) Before this they did not have any archeological evidence of cogs, only written documentation and iconographic evidence.

Other finds include ~~the~~ the cog found near Velsby as well as one in Ruten in the Netherlands. There were also numerous examples found on town seals such as the Ipswich town seal.

The next type of ship from the medieval period is the hulk. Gillian Hutchinson states that the term hulk means hollow or cavity. (Gillian Hutchinson, medieval ships and shipping 1994) Archeologists apply the term hulk to specific characteristics and not just the shape and size of the boat. Hulks can be identified ~~by~~ by the planking going into the castles or collars instead of the stem and stern posts. As well as this they have a crescent or banana shape. They are also reverse clinker, meaning their planks overlap on the inside.

There is no actual archeological evidence for hulks, only written documentation and iconographic evidence. They can be found in London charters as well as in town seals such as the New Shoreham town seal of 1295. As well as this they can be found in chronicles such as the chronicle of John of Worcester.

The fact that there is not archeological evidence for hulks is intriguing due to all the written documentation

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and the drawings of them. Perhaps the scribes  
that drew the pictures had never really studied  
ships and took some artistic license when  
they drew them.

To conclude, the three major ships in use during the  
medieval period were keels, cogs and hulks. There is no  
concrete finds for hulks and the other two  
types are more numerous. It is impressive that  
keels and cogs are used ~~for~~ throughout the medieval  
period which suggests they were successful.

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