

MIXING and MATCHING; The FONS at the 2010 National Eisteddfod.

First, rather than last, my sincere thanks for the support of Emma Lewis, Peter and Trish Hayward and Rhys Brooks. Without them, the FONS and the Ship Project would have had no presence at this year's National Eisteddfod. Thanks also to Barbara Bailey who, it turns out, is rather modest about her ability in the Welsh language. She was an immense help.

This year we were given shelter by the members of the Wales History Forum led by John Davies, who describes himself as "a research geologist and battlefield historian"; an interesting combination! Their convivial and slightly anarchic views of the world enlivened each day.

We made an impression too; Peter and Trish were described as "the life and soul of the tent" and Rhys's fluency in Welsh also impressed our new colleagues. Our actual space was rather small, but was alleviated by the "open plan" layout that allowed for plenty of movement to talk to visitors.

The other groups with us were the Ruperra Castle Trust, The Welsh Battlefields Society, the Hywel Dda Trust, the Owain Glyndwr Society, the Abbey Cwm Hir Trust and the Princess Gwenllian Society. So we found ourselves very much in a "mix and match" situation. It gave a valuable insight into the range of medieval historical activity in Wales beyond the Newport Ship project.

Visitors came into the WHF tent because they are

interested in History, so we got lots of attentive folk and searching questions. Our bi-lingual information sheets were snapped up and there was a modest demand for our new Ship Guide. Two of these disappeared without payment; perhaps because, lacking a price tag, some may have thought they were free!

As usual, the Eisteddfod produced a small crop of eccentrics to add colour to most days. Our shortage of Welsh speakers created no problems other than a very small number of visitors who refused to speak English because Welsh is the language of the Eisteddfod maes. Fair enough.

Eisteddfod sites are always a matter of luck and the Blaenau Gwent site was no different. It wasn't muddy after rain, which was a relief, but in dry weather we were occasionally hit by mini dust storms that whirled up without warning. Fortunately none of them lasted long! We had to man our stand from 10.00 – 5.00 p.m. each day, but the flow of people, questions, discussions and breaks to wander the maes made the time pass quite speedily.

The Wales History Forum have invited us to share their tent again in 2012 when the Eisteddfod is held in the Vale of Glamorgan. We accept their offer with many thanks!

Jeff Brooks

A Print For All Your Printing Needs

A PRINT
& DESIGN LTD.

- Full Colour Printing
- Letterheads / Compliment Slips
- Leaflets / Business Cards
- Invoices / Statements
- Booklets / Programmes
- Wedding Stationery
- CD & Video Covers
- Laminating / Photocopying & More!

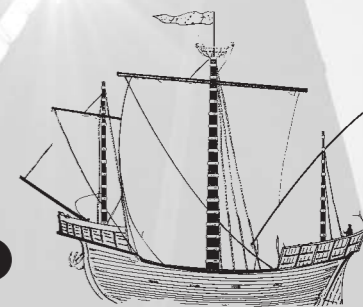
Contact Us Now On

01633 264815 www.a-print.com

Unit 23, Enterprise Way, Newport, South Wales NP20 2AQ



S.O.S.



the Newsletter of the
Friends of the Newport Ship

The Newport Ship Model nearly complete

No. 17 **£2.00**

Autumn 2010 **Free to Members**

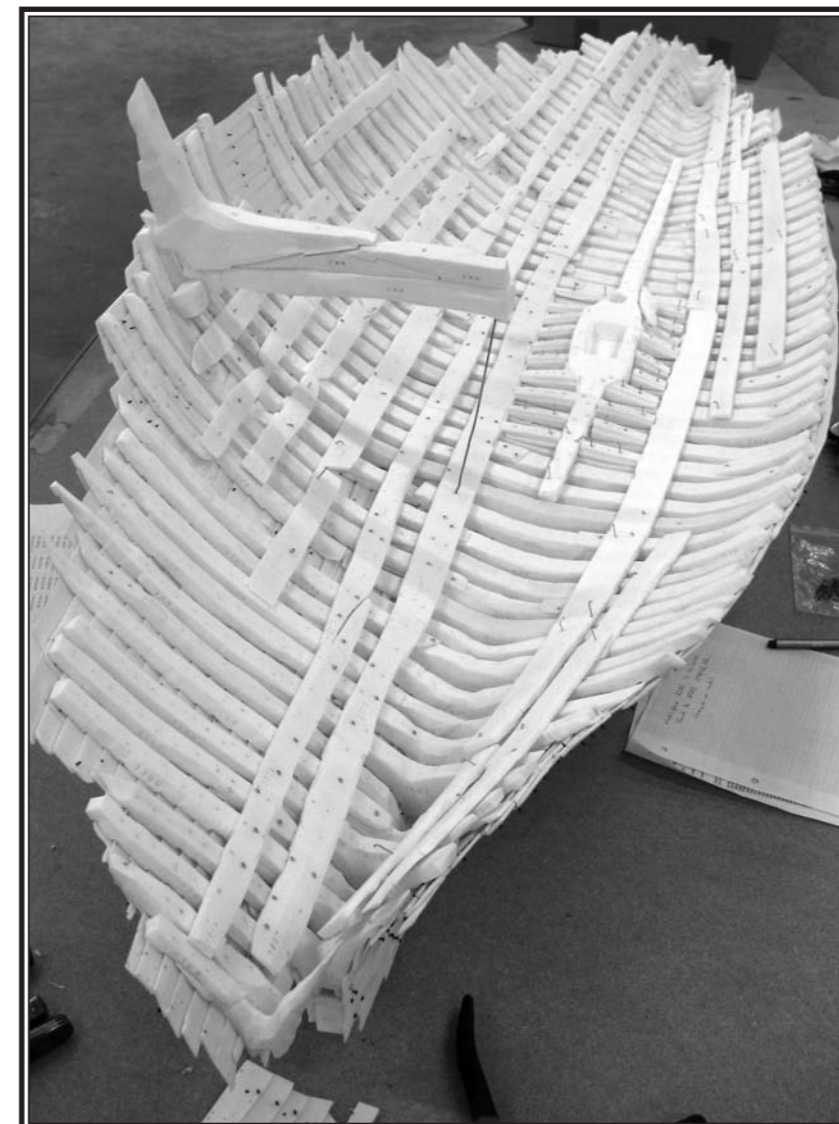
The Friends of the Newport Ship
C/o FWD Law, Clifton Chambers,
12 Clifton Road, St. Woolos
Newport, NP20 4EW
www.thenewportship.com
Telephone: 01633 215707

Inside this edition

- Ship Update by Toby Jones
- Ship Guide Book and review by Jeff Brooks
- A message from Emma Routley
- Barrels by Morwenna Perrott
- The Empty Shop Project by Jean Gray
- The Magor Pill Ship Model by Toby Jones
- Maritime Pitch and Tar by Morwenna Perrott
- The 2010 Eisteddfod by Jeff Brooks
- Fish and Ships by Trish and Peter Hayward
- Caerphilly Castle by Emma Lewis
- The Gold Noble by Jeff Brooks
- English Ships of the 14th and 15th Centuries by Ian Mortimer
(adapted by Haydn Davis)

Charity Number 1105449

The views given in this newsletter are those of the contributors and do not necessarily represent the views of the Friends as an organisation.



SHIP UPDATE

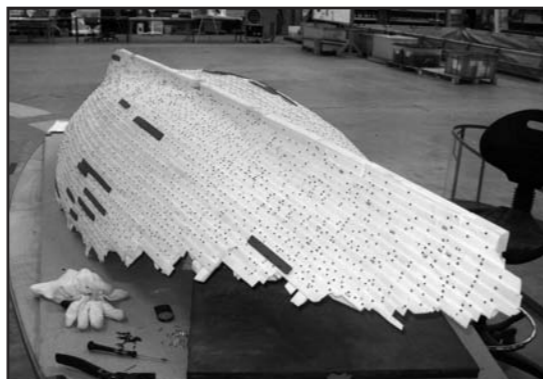
September 2010

The Newport Ship Project is wrapping up a busy summer. The project archaeologists have nearly completed the 1:10 scale model of the ship. Almost 800 laser sintered pieces have been fastened together to create the detailed research model. If you look closely, you might notice some dark pieces attached to the hull. These are models of tingles, or repair patches, that were fastened to the hull during the use-life of the vessel. Since we now have the ability to have pieces manufactured in different colours, we are using this development to help visually differentiate between structural parts of the ship. The deck elements have just been modelled in blue! To give you an idea of the size of the model, it now takes two people to move or lift it!

The laser scanner has seen heavy use over the summer, with the archaeologists scanning barrel staves and rigging elements. After editing, these scans are converted to 3D PDF files, which anyone can freely view online. Check the Newport City Council and FOS websites for example files soon. We have also been using the Faro Arm and Laser Scanner to document parts of the scale model, helping to extract lines and sections, all of which are critical as we attempt to reconstruct the original hull

form.

The ship team continues to give numerous talks, lectures and tours. Nigel Nayling, Neil Stevenson and I each recently presented papers at the Fish and Ships conference at the National Museum in Cardiff. Many groups, including local history societies and



service organisations continue to book in record numbers. If you are a member of any of these groups, feel free to suggest that they contact us. The more people to know about the importance of the Newport Ship the better!

We are anticipating a busy autumn and winter, as we continue to document the small finds, analyse the environmental samples, and prepare for the final publication!

Toby Jones

A message from Emma Routley

Hello everyone. My name is Emma Routley and I'm the new learning and access officer for the project. I've worked for the museums and heritage service for the last 4 years but am certainly enjoying the new challenges that this role brings.

The open days are still attracting hundreds of visitors and seeing the level of interest and enthusiasm from the community is a great part of the job. Plans are in place to make the open days even bigger and better for next year by focussing on aspects of medieval life including medicine, music and food and drink.

The school education programme has been streamlined and from January we will be offering a "Medieval Newport and Castle Life" workshop based at the museum and the ship detectives workshops are still going strong. Volunteer numbers are high and the project team have talks galore booked for well into next year so I'm sure that we will see you all soon.



The Gold Noble

An important point of occasional debate is the possible position of our ship's rudder. Was it a side rudder fixed over the ship's "steering board" (hence 'starboard') side or was it pivoted on the stern post as in later vessels?

The gold noble (right) is of interest to us. Designs varied but, to emphasise the importance of trade to Britain and also the fitful attempts of English kings to control the seas around us, nobles usually featured a ship. The noble above is thought to have been minted around 1412. It shows King Henry IV seated on his throne, wearing his crown, his shield raised and an upright broadsword in his right hand. He is in the middle of a ship and thus obscures the vessel's mast. The symbolism of the design may be intended to indicate Henry's power over the sea as well as the land and/or his support for Britain's trade with continental Europe.



Medieval engravers copied what they saw and their work is full of detail that is invaluable to us. On this tiny ship we can clearly see the lines of the overlapping clinker planking, the ends of the deck beams projecting from the side of the ship and the rigging rising behind the king to the invisible masthead. There is also an inscription along the bulwark at the top of the ship's side. The word "rex" (king) is visible possibly preceded by a Latin short form of "Henry".

The forecastle at the bow (right), with archers at the ready, is shown higher and larger than the sterncastle (left). This seems correct as it is repeated on drawings of such ships in medieval manuscripts. This high forecastle was used by archers to shoot down onto the decks of enemy ships. The shape of the hull appears to be very similar at both bow and stern (as our ship may turn out to be). The greatest point of interest lies at the stern (left) where a huge rudder is clearly shown complete with iron fastenings and a tiller; and this some thirty five years before our ship was built. If, as seems likely, our ship was built to a similar design, then this coin provides some evidence of steering with a

centre-line rudder. Maybe this was common practice by the early fifteenth century and would have been routinely fitted to our ship in the 1440's. Let's hope we are given the opportunity to find out before too long!

A POSTSCRIPT

A gold noble was one of the most valuable coins of its time, varying between 10/- (50p.) and 13/4d. (66p.) depending on its gold weight. Most people never saw one. In 1527 Cardinal Thomas Wolsey, returning to London from Essex, ordered one of his servants to give a young lad a rose noble (so called from the rose in its front design) in return for helping him onto his horse. The little lad had no idea what the coin was, so the servant explained. The boy went crazy, cried with delight, fell to his knees in thanks and according to another member of the cardinal's party, "danced around the inn yard in the most untoward fashion". Cardinal Wolsey was amazed until it was explained to him that the coin was probably worth more than the income of the boy's family for an entire year!

Jeff Brooks

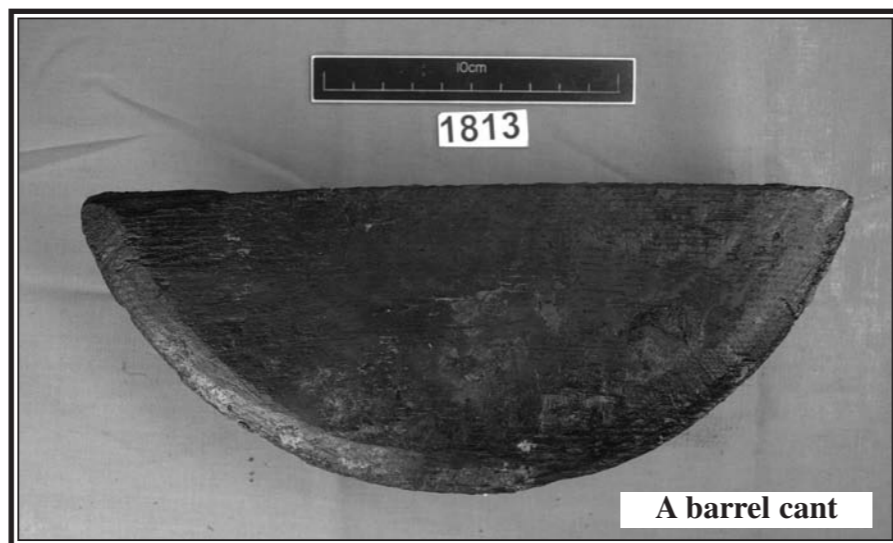
Marie Curie Fellowship – Maritime Pitch and Tar:

a multi-disciplinary study of sources, technology ad preservation.

In the coming months, the ship will be fortunate enough to be involved in an intra-European fellowship, which hopes to advance the understanding of the technology and use of pitch and tar in Medieval Europe. This interdisciplinary project will be carried out by a specialised researcher and combines chemistry, archaeology, maritime history and conservation to research the sources, technology and preservation of these materials. Samples of tar, pitch and caulking material will be taken from a number of Medieval Shipwrecks, including the Newport Ship, which has one of the largest sample collections of these materials. It is hoped that an improved understanding of the composition and characteristics of tar and pitch will enable greater care to be taken in preserving these materials in museum collections. **Morwenna Perrott**

Barrels

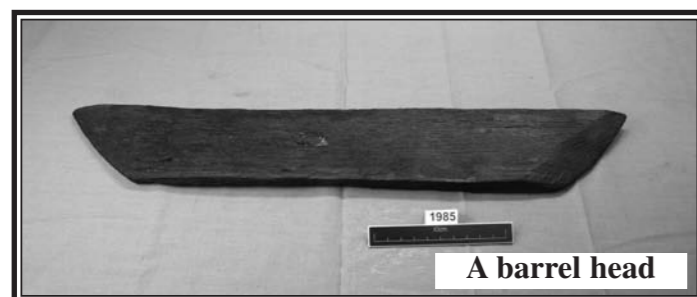
As part of the post-excavation research, some of the staff at the Ship have recently been recording the barrel components found during the excavation, and have made some interesting observations about their features. They have been drawing and laser scanning the main barrel elements, which include the long tapered staves, and the ends of the barrels which are known as heads. The rounded sections



A barrel cant



A barrel stave



A barrel head

of the heads have a special name; they are called cants and are usually semicircular (pictured).

The picture (top left) shows a typical barrel stave, characterised by a groove at either end (known as a croze) into which would have fitted the barrel heads to make a watertight seal. The ends of the staves are chamfered so that the smallest surface area possible of wood is touching the ground, to reduce the absorption of water. Unusually, some of the staves were found to only have one croze and chamfered end, suggesting that some of the barrels were open at one end. Could they have had a different function other than storage for food and drink?

In addition to this puzzling feature, there is one particular piece which gives us a hint as to what the

ship's crew might have done to entertain themselves. On one of the head pieces, are etched several lines, forming a grid, presumably to play draughts or a similar game.

The barrels also give us clues about the journey these containers, and indeed the ship, may have taken. Several examples of barrel fragments feature lines etched in particular patterns, which have been identified as merchants marks. These were used so a merchant could easily identify his cargo. Some of the merchant marks found in association with the ship have been published in previous newsletters, including a mark similar to that of a Bristol merchant named Robert Baron, who was known to have been exporting iron to Spain in the 1460's. In this case, however, it was found on a board under the ship (see SOS No 13).

Morwenna Perrott



**ARTHUR GAIT
& COMPANY**
CHARTERED ACCOUNTANTS



A Professional and Personal Service For All Types Of Business

Audit and Accountancy
Corporate and Personal Taxation
VAT Return Preparation
Payroll Calculation
Business Plans and Start-up
Computer Hardware and Software Advice

FREE INITIAL INTERVIEW

18, GOLD TOPS, NEWPORT, SOUTH WALES. NP20 5WJ.
Tel: 01633 262352 Fax: 01633 250478
Email: admin@arthurgait.co.uk Web Site: www.arthurgait.co.uk
Partners: David E Hayes FCA - C Janet Pritchard FCA

Newport Medieval Ship. A Guide

With major contributions from Ship team, and with the full support and assistance of Newport City Council, the Friends have published the first popular guide to the Newport Ship. The guide deals primarily with the discovery of the ship, a description of the ship as at present known, finds associated with the ship, the historical background, and with the programme to record and preserve the ship. We hope that this is just the first of many guides. We also hope that there will be more publications over the next few years on the campaign to save the ship, other activities associated with the ship, and the continuing research. The guide is in full colour, with 40 pages and nearly 50 illustrations.

Copies are available from the Friends for £4.99p each, either by post from our address, c/o FWD Law, given on the front cover of this newsletter (please add 70p postage and packing), or at open days and from a number of bookshops. Newport Medieval Ship. A Guide. ISBN 978-0-0519136-5-9

A Review. By Jeff Brooks

The much-anticipated creation and publication of a guide to the Newport Medieval Ship Project is a significant event for the FONS; but how "good" is the Guide?

Now, there's a loaded question!

All guides reflect the priorities of those who write and organise the material, so the contributors and the editor (Bob Trett in this case) are targets for those who just love to snipe without considering the broader picture.

The guide seems to have been deliberately sized to fit easily into a bag or large pocket. Its front cover, which initially struck me as looking a bit drab, is actually quite bold and makes the book easily recognisable at a range of several metres. That comes in handy when viewing a display case full of them in the rather subdued entrance hall of the National Museum in Cardiff.

Internally the guide is divided into one long section, dealing with the excavation and several shorter

sections covering specific parts of the Project. At first glance, there didn't seem to be much subdivision in the excavation section. But the wide spacing of the paragraphs makes it easy to find any particular point and also produces an attractive layout. It has also made it possible to include

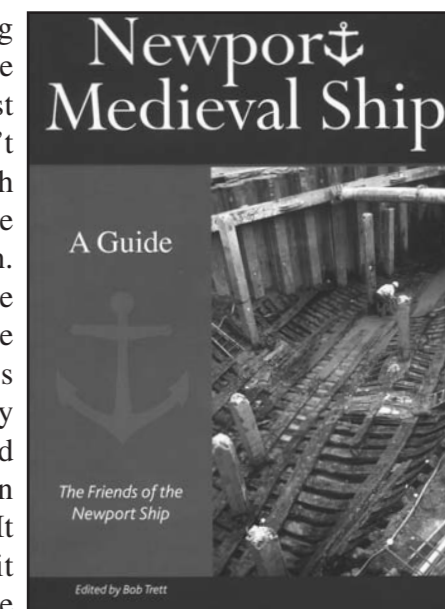
far more detail than I was expecting. For me one of the strong points of the Guide is its illustrations.

Nowhere are you left guessing what an object may look like; with very few exceptions there's a photo of the item close to its description.

Are there any weak points? Just a few details; some textual, some illustrative but none that cannot be corrected in later editions. And there *will* be later editions to cover our evolving knowledge and understanding of Newport's Medieval Ship.

I've come across only positive reactions to the book so far and our thanks should go to all the contributors and, of course, to our editor!

The Guide to the Newport Ship is well worth buying, not only to support the FONS funds, but because it gives a detailed insight into one of the most important marine archaeology projects in the world – which is ours!



Fish and Ships

No, that's not a typing error in the title. This is the whimsical name given to a conference held at the National Museum in Cardiff on 10-12 September. It was organised by a group called the Severn Estuary Levels Research Committee, which coordinates research into the history of the Severn Estuary. On this occasion, half the conference was devoted to fishing and half to shipping – hence the title. What's more, 4 of the 7 shipping talks focused on the Newport Ship, so there was plenty of direct relevance to FONS.

The Friday evening got off to a good start with an excellent talk by Professor Ralph Griffiths from Swansea on the commercial and political environment in which the Newport Ship would have been operating. The trade to and from Gascony and Portugal was particularly important for Bristol, and whilst there were huge potential profits for ship owners, there were also huge risks from 'privateering' – little more than a euphemism for piracy. Ships were seized and changed hands so frequently that Professor Griffiths suggested there was little point in talking about the 'owner' of a ship. The Earl of Warwick was one of the worst culprits, seizing 12 ships in one year alone. He had previously had a royal warrant authorising him to seize foreign ships, but he continued doing so after that had lapsed, building up a sizeable fleet of vessels. However, until he defeated William Herbert and gained control of Newport, he had no access to the Bristol trade, so Newport may have been quite important to him. He didn't need control of Bristol itself because large ships regularly moored in the Severn off Newport or Chepstow and transhipped their cargo into smaller vessels, partly to avoid the difficulties of sailing up the River Avon to the port of Bristol but partly because it considerably reduced the taxes that had to be paid.

This talk was followed by a buffet which was supposed to be based on foods for which evidence had been found on the Newport Ship or the Mary Rose. It was an interesting idea, but the caterers certainly didn't use 15th or 16th century recipes, and we are still struggling to work out which of those two ships was carrying kiwi fruit!

Saturday's talks included one by Toby Jones, the Curator of the Newport Ship, on the recording and modelling of the ship and one by Neil Stevenson, the

ship's former Learning and Access Officer, on public engagement with the ship. They were both good talks, but as most FONS members will be familiar with these issues from previous Newsletters we won't discuss them here. Dr Joe Flatman from University College, London, opened our eyes to the depictions of ships in illustrated manuscripts, carvings and the like. Have you ever noticed how many town seals show a ship? Or the number of ships in stained glass windows? Ship building, repair and breaking were also subjects favoured by the medieval artist. They didn't always get perspectives and proportions right, but evidence suggests that in other respects their depictions were fairly accurate. There were other talks on shipping in medieval society, a day in the life of a master gunner aboard the Mary Rose and the recovery of a large collection of boats from Oslo. As we haven't got the space to cover them all, we'll just say something about the last talk because it had some interesting contrasts with the position in the UK.

There was a major development of Oslo covering a large area of what had previously been shallow water close to the old town. As they started excavating the area to lay concrete foundations, they found remains of not one but 15 boats from the early 17th century. Now under Norwegian law, the developer is required to pay for any archaeological work that proves necessary, but that doesn't mean the archaeologists can spend all the time in the world carefully recording and recovering any finds. They had to work to the developer's timetable for the building work, with a major civil engineering project going on around them all the time and constraining their access to the finds. The sheer number of boats to be recovered meant they had to defer much of the recording that would normally have taken place in situ because there simply wasn't time. They also had to work right through the Norwegian winter, which was not only unpleasant for the archaeologists but created potential problems with freezing of waterlogged timbers. They did in the end recover all the boats in time, but that isn't the end of their problems. The developer paid for the cost of the excavation, but as far as he is concerned, his responsibility is now finished and there are no funds even to pay for the recording work that would normally have been done pre-excavation. Other companies won't provide financial support because they would see it as paying for something that is another company's responsibility (ie the

The Magor Pill Ship

The Newport Ship Centre is now exhibiting a full-size model of the Magor Pill medieval ship. The model was made based on the excavated remains of a 13th century clinker built coastal trading vessel discovered on the Gwent levels of the Severn Estuary.

Originally commissioned by the National Museum of Wales and built by Edwin Gifford and Griffon Hovercraft workers, the model measures nearly 10 metres in length and over 3.4 metres in width. The model has served as effective display during open days. It makes



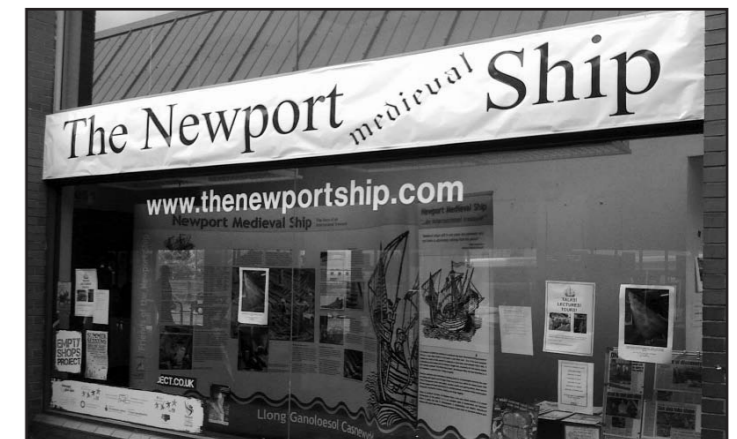
explaining the clinker building method straightforward and offers an interesting size comparison, as the Newport Ship would be many times larger than the Magor Pill vessel.

Toby Jones

Empty Shop Project

Under the Newport Empty Shop Project we had access to a shop for two weeks in July 2010. Committee members, project staff and family members helped to set up an excellent exhibition, and window display. I hope you agree on seeing the pictures.

We attracted great interest from passersby and, as we were adjacent to the bus terminus, there were a great many. The numbers coming into the shop varied from 3 to 43 on a daily basis, all showing tremendous enthusiasm. Many reminisced about 2002, when the ship was found, and all our actions to win over the Council and Save Our Ship. Information leaflets in thousands were distributed. What a fantastic way to raise our profile once again. From the shop we were in sight of the very location on the river bank,



where the excavation took place.

Paintings commissioned by Charles Ferris were on display in the window and attracted an unbelievable amount of interest. There were some requests to buy them, and disappointment when the answer was 'not for sale'. Also during this time the new Guide came off the printing press, which was a good chance to publicise it.

It was a great experience for all who participated, helped by the continued interest shown by most of the public.

The Friends wish to thank Newport Council for such an opportunity.

Jean Gray

Visit Caerphilly Castle by Emma Lewis

Caerphilly Castle is one of the closest to the Newport Ship, and is reportedly the second largest in Britain. It has a tower leaning more than the one in Pisa (yes, really), the only working, full scale siege engines in Northern Europe and has recently had a LOT of money spent on it to re-open the Great East Gatehouse, which is very, very impressive.

Over the Easter weekend the castle played host to quite an event, with Bowmen of the Rose and the Company of Chivalry providing two days of re-enactment of the siege of the castle by Llewelyn Bren (Llewelyn ap Gruffudd) (Hurrah!) from Payn de Turberville (boo!) who is holding the castle for King Edward II of England, against the Welsh.

One arrives through the outer gatehouse of the castle and into the bustling medieval village, with fires blazing, food cooking, dyed wool being worked and youngsters sparring with swords all around, and the fabulous medieval tents all around. Hourly firing of the siege engines emphasise the might of this particular castle, and how hard it would have been to take. Siege engines were made in one location, flat-packed and moved from one siege to the next, wherever they were needed. Nowadays if we want to get in, we just wave our Cadw cards or pay at the gate. Llewelyn challenges Turberville at the bridge (formerly a drawbridge) over the inner moat, having taken the outer ward, but Turberville holds the heart of the castle despite Llewelyn's medieval Weapons of Mass Destruction (his feared archers) and the fearsome medieval gun (a bit temperamental in the 1300s, but well behaved now). Ultimately, Turberville holds the castle and Llewelyn escapes to Brecon with the Welsh contingent's women! In reality he was captured, earned the respect of his captors by pleading that they kill him but release his men, and was executed.

Not so family-friendly as an event, one might think, but the cheers of the crowd at anything gory dispel this idea, and when one of the English jeers at the Welsh and is shot in the leg with an arrow (a blunted one), the crowd roars its approval. In the inner ward the Bowmen of the Rose are treating us to a day-long archery demonstration, shooting at apples and cabbages and the disembodied head of the Constable of the castle, who was captured by the Welsh... needless to say, despite the

archers actually shooting arrows through the thin sticks holding up the apples and cabbages, the only thing the children (and most of the adults) wanted to see were arrows thudding into the poor Constable's head. Thankfully, Mike Jones (also our Membership Secretary) and Mark Henderson were able to oblige time after time. There was also ample opportunity to handle the bows, arrows and swords, learn about medieval archery (compulsory on Sundays and Holy days for most men in the 1300s) and watch the archers shoot 12 arrows per minute into the target, as their medieval compatriots would have done.

The newly opened Great East Gatehouse offers fabulous views across the castle, town and surrounding area and show off the construction of the castle and moats, and its enviable location. The rooms are impressive and the hall and its fireplace quite splendid, even without the tapestries on the walls, the furniture or the feasts of the 1300s. A visit (or re-visit) to the castle and its newly opened areas is highly recommended, with sensible shoes for the energetic who may wish to climb to the roof and enjoy the view.

Emma Lewis



developers). Further, because the developer is supposed to look after the archaeology, there is no central source of funds and no culture for the creation of support groups like FONS. So, whilst the 'developer pays' principle sounds very attractive in theory, it doesn't work quite so well in practice.

On the Saturday afternoon the conference attendees visited the Ship Centre. Most of our visitors are really interested in what we can show them, but not surprisingly, this group was exceptionally interested and they were a pleasure to take round. They finished with a walking tour of 'medieval Newport' before going to Harry Ramsden's in Cardiff Bay for a fish and chips – sorry, fish and chips – meal.

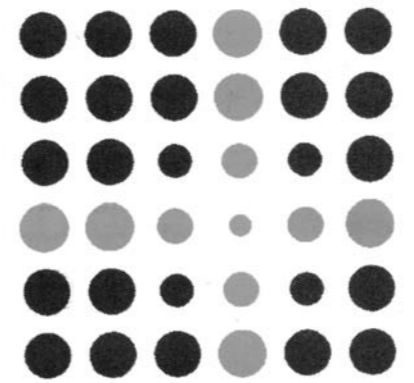
Sunday was largely on fish. OK, not directly relevant to the Newport Ship, but very interesting nonetheless. There are remains of hundreds of fish traps in the Severn Estuary alone. They typically consist of a V-shaped funnel made by driving two rows of stakes into the inter-tidal mud and then weaving wattle around them. The neck contains fish traps, or perhaps a small holding area from which the fish can be recovered. Whilst the trap constructions need regular renewal, some of the sites have been in use since medieval times and were often owned by the monasteries or wealthy landowners. On the English side of the Severn, English Heritage have funded a project to log all the archaeological remains on the Severn mud flats, and like the Oslo ships, because of the huge number of remains the archaeologists doing the work are having to resort to a number of short cuts.

Analysis of fish bone deposits doesn't sound like a scintillating subject, but in fact it demonstrated a shift in British fish-eating habits from predominantly river fish to predominantly sea fish. This was probably triggered by the increase in the number of 'fish days' imposed by the medieval church. That in turn created problems of distributing fresh fish to major cities and to inland areas, but if there's money to be made, someone will find a way of doing it and that is what happened. In addition, of course, a lot of the fish catch was preserved by drying or salting, but that didn't enhance its edibility. Dried fish in particular could be as tough as leather. However, medieval cooks were up to the job, and food historian Peter Brears took us through the ways they served and prepared fish.

The morning finished with a talk by Nigel Nayling of Lampeter University on his 20 years experience working on archaeological finds from the Severn Estuary and the challenges he saw for the future. Nigel, of course, has been heavily involved in the Newport Ship and is now overseeing publication of the full archaeological report. The conference finished with a guided tour of the fishing-related exhibits at St Fagans.

With 13 speakers over the 2½ days, it has not been possible even to name them all in this short article, let alone do justice to what they said, but it was a really interesting weekend. Whilst most of the speakers were professional archaeologists, amateurs like us were welcome and we didn't find the talks were over our heads in the slightest. It's a pity more members of FONS weren't there.

Trish and Peter Hayward



fwdlaw *People who care about people*

Clifton Chambers, 12 Clifton Road, St. Woolos, Newport NP20 4EW
telephone: 01633 660440

fwdlawassociates
your local legal service

- conveyancing
- will writing
- executor services
- mediation
- business legal services
- employment advice
- personal injury services

English Ships of the 14th and 15th Centuries.

An edited excerpt from 'The Time Traveller's Guide to Medieval England'
by Dr. Ian Mortimer PhD. FRHS.

In the year 1300, the majority of people found the idea of being out of sight of land psychologically disturbing; the sailors themselves did not like it, preferring to follow the coasts. A voyage around Portugal to the Mediterranean always ran the risk of sudden storms which might sweep a ship right out into the Atlantic!

Compasses were still not in general use but by 1400 astrolabes were common and the addition of more accurate solar and lunar tables enabled mariners to sail across the open sea with greater confidence. No longer had doubtful reliance to be placed on a captain's personal knowledge of the moon, tides and currents.

The development of maritime trade around the British Isles showed very slow progress in the 14th century although it speeded up from the middle decades onwards. In those early days, a hundred years before the Newport Ship was sailing, only two main types of ships sailed in English waters: cogs and hulks (not to be confused with the worn out, derelict prison ships of later centuries). Both were clinker-built but differed in the way that the overlapping, fore-and-aft strakes were placed. Those of the hulks curved up from the water at the stem and stern giving a spacious, curvaceous, buoyant look. Those of the cog were fixed straight and horizontal to stem and stern posts.

Both had a single, large, square sail hanging from a yardarm on a central mast. The two types of vessel also differed in their steering gear, cogs having a straight stern post, normally had a central, stern rudder. Hulks, on the other hand, having nothing vertical and rigid on which to fix a rudder, continued to be steered by very long, side oars.

As the century progressed, Genoese ships from the Mediterranean began to appear in British waters. These were larger vessels known as caracks, mainly single-masted with a square sail hanging from a yardarm across the beam, but some, larger again, with two masts and lateen sails (triangular in shape and carried in line with the ship). They were also carvel- built with fore-and-aft strakes butted to each other instead of overlapping.

This method of construction, where the strakes were laid flat against each other and nailed or pegged on to the frame of the hull, used much less oak or beech and was lighter or cheaper. Thus the ship was faster and more manoeuvrable. Similar principals were used to construct large galleys (up to 130 feet long) which used both sail power and banks of oars.

Northern European ship builders were sceptical at first and stuck with their clinker construction until the second decade of the 15th century. But the lessons in Mediterranean shipwrighting techniques encouraged them to rethink and experiment further, altering existing forms to make larger and faster clinker-built vessels. The result of the English shipwrights' rethinking was largely to be seen in the changing sizes of ships. Hulks were built larger for long voyages. Very large ships could not be steered by a side rudder because any such rudder long enough to do the job was unwieldy. So central rudders suspended from the sternpost were developed for hulks. Cogs also became bigger, reaching nearly 130 feet in the case of a few royal warships.

Some ships added a small topsail on the mainmast and shipwrights began to produce better cabins, making the stern castle on the cog in particular into a raised deck with a cabin beneath. The forecastle shrank as the bow became more streamlined and the larger cogs were given more pronounced keels allowing them to use their stern rudders more effectively.

In medieval times Boston was an important seaport and its approaches in The Wash were constantly found full of ships of all kinds leaving and arriving as they plied their busy trade with Flanders. In the 1370s for instance, the harbour would be filled with cogs of all shapes and sizes, some with masts set far forward and others well back. A sample of those drawn up out of the water for caulking would show that some had pronounced keels for the open seas whilst those of shallow draught were versatile for rivers and inshore transport. There would likely be one or two moored hulks waiting to trade with Denmark or Sweden, and possibly the odd Genoese carack.

A typical merchant's cog might be used for shipping wine around the coast. Measuring 80 feet long by about 27 feet in the beam, it would have had a keel and some flush laid strakes in the carvel style, although being

principally clinker-built. Held together by nails, iron bolts and tree nails (wooden pegs), it had a narrow bow and elegant lines with a spacious 'castle' or raised deck at the stern. There was no forecastle. Nor was there a deck as such, only a low planked area where the wine barrels were, open to the sky when in port, but canvas-covered at sea. The only cabin space was under the raised deck at the stern. Four anchors and a rowing boat were stored somewhere in the waist of the vessel.

This was not the sort of ship in which to make long voyages – there was insufficient space for more than a handful of passengers let alone shelter. But if any wine merchants chose to select their wines at source, they were reasonably assured of arriving safely in destinations like Bordeaux, Portugal or Spain.

The big square sails were not unwieldy and although they worked best when the wind blew in the right direction, they did not prevent the ship from sailing into the wind. In such circumstances, the bottom corner of the sail would be lashed to a forward point in the ship which could then be tacked into the wind. This put great sideways stress on the rigging so 'shrouds' were necessary to secure the mainmast laterally as well as strong 'stays' for longitudinal support.

These ships were well up to their tasks. Cogs were the mainstay of England's international trade. It was a hard life, taking a cog along the unpredictable sea lanes down to Bordeaux or Spain, and even harder crossing to the Baltic and Scandinavia.

Food did not keep well, no one washed or shaved and it was next to impossible to keep anything dry when waves could easily break over the low freeboards. Naturally the cabin stank and, inevitably, longish voyages caused tempers to fray and fights to break out! It was then possible that the old, draconian sea laws of Richard I were applied. The penalty for murder was to tie the guilty party to the corpse of the victim and fling him into the sea!

There were many other hazards. If a ship became becalmed or driven well off course, its voyage could become so extended that food and drinking water ran out.

Sailing at night was particularly perilous and there were very few lighthouses. St. Catherine's Lighthouse on the Isle of Wight, built in 1328, was one of only a handful.

Attacks by pirates were common. Scots, French and Flemish pirates swarmed in the Irish Sea and in the Bristol and English Channels. Barbary pirates waited off the French coast to catch ships returning from the Mediterranean.

Violent storms played havoc with the ships' structures. They tended anyway to last only 20 years or so, because the caulking would wear out, tree nails and strakes would rot and iron nails would rust away.

A voyage across the Channel should have taken little less than a day but there were instances in adverse circumstances of it taking 3, 4 or even more days.

A longer journey, say from Boston (Lincs) to Gdansk in Poland (a popular trade route in those days), needed more than a small cog. A two-masted hulk, more than 100 feet long was more suitable and better equipped to carry large cargoes including horses and their stables.

Conditions during the three week voyage were very primitive apart from the severely cramped accommodation, poor food and constant drenchings from spray and wayward waves.

On waking up in the morning, bowels would begin to move and queues would form at the bow head where there were two seats, one projecting out on each side of the prow. Spending too long in a seat was not a good idea with a long queue waiting. If the call of nature came in the middle of the night, the position became even more precarious. In pitch darkness with the deck lurching underfoot it was necessary to climb over sleeping bodies on the way to the head. Moreover, finding one's way back to one's original place was very difficult indeed! If anyone fell off his perch on one of those seats into the sea, it would have been the last mistake he ever made! Literally it could be said that 'he was dying for the loo!'

Adapted by Haydn Davis.

