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# All in the Same Boat

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Guests
Tríona Sørensen (DK) and John Cooper (UK)
Introduction
**Experimental archaeology doesn't always happen on land** - sometimes it takes to the seas! In this month's episode of Finally Friday, our guest speakers discuss some of the ways that experimental archaeology can be used to explore the theme of maritime cultural heritage. **Dr Tríona Sørensen** is an experimental archaeologist currently working as a curator at the Viking Ship Museum in Roskilde. **Dr John Cooper** is a maritime archaeologist and ethnographer working at the university of Exeter.

Transcript
**Matilda:** Hello and welcome to #FinallyFriday. This chat session is run by EXARC, the society for archaeological open-air museums, experimental archaeology, ancient technology, and interpretation. My name is Matilda Siebrecht and today I am joined by two specialists from our EXARC community focusing on maritime technology. Dr. Tríona Sørensen is an experimental archaeologist currently working as a curator at the Viking ship Museum in Roskilde. As part of her work at the museum she is involved in the documentation and research surrounding several reconstruction projects in the museum's boatyard. She is particularly interested in the multidisciplinary aspects of experimental archaeology and developing the collaboration between craft experts and archaeologists throughout all stages of an experimental archaeology project. Dr. John Cooper is a

maritime archaeologist and ethnographer working at the University of Exeter. His current research focus is on boat building practices in East Africa, specifically looking at the development of maritime technology and practice of communities from late antiquity to the present day. His principal research interests include vernacular boat building technologies, maritime cultural landscapes, travel and navigation and maritime heritage, which he examines through archaeological, textual and ethnographic perspectives. So, welcome to both of you. I have a quick question to start you off, a very general one. Would you say that sort of maritime focused experimental archaeology is very different from research into more land-based technologies? Perhaps Tríona, you could start us off?

**Tríona:** Yeah, it's a good question. I think I'm going to give that typical politician's answer of yes and no. I think there are some things that are quite similar. It's one of the joys of experimental archaeology that the kind of rule set and methodologies that you have is so flexible and so adaptable that it can fit to a wide range of materials and technologies and in that way it's not so very different. If you're looking at the decay of a reconstructed house or the decay of a reconstructed ship, it's a lot of the same approaches that you would take. I suppose where things become quite different is when you start looking at the economic costs. And I think this is what often separates maritime experimental archaeology from more land-based technologies, in that the costs tend to be a little bit higher: that in principle anybody who has a back garden, access to some woodland and some tools can start testing and doing trials on their own time and in their own space. But as soon as you start doing anything waterborne, you've got a completely different kind of set of problems that you're dealing with, both from health and safety concerns, but also just the economic costs involved in building vessels tends to be that bit higher than the more land-based technologies.

**John:** I absolutely agree. It's a kind of a yes and no answer. On the one hand I think certainly in the region where I work there's a very, very big difference in that there really hasn't been that much real underwater archaeology done. If we're thinking about maritime archaeology as underwater archaeology, there hasn't been very much done, there haven't been very many eyes on the ground or under the water, if you like. And in addition to that, the very sort of taphonomic processes, which one finds in tropical waters are very, very different from, say, the Baltic and really a lot of material disappears very, very rapidly and very, very easily. There are, you know, the Teredo worm consumes the timber, coral grows over the ceramics and it's very easy for materials to be lost very, very quickly at least from easy discovery. I'm not saying they're not there, although some of them aren't because they've been consumed. So that's one way in which maritime archaeology in the regions where I work is very, very different from terrestrial. It's just harder to find the material. And it's largely because of that, I suppose, that really my approach is to do things from an ethnographic perspective and largely because that's where the data is. That's where material still can be found and they can give insights through several layers of interpretation of course, but they can give insights and perspectives on past technologies, enabling us to interpret in a way that experimental archaeologists do, we can kind of use ethnography in a similar way to kind of cast a light and interpretations on the, frankly, sparse material remains that we have from that part of the world. In terms of

cost, I completely agree with you, Tríona, that the cost of doing any kind of underwater archaeology is immense, both in the process of doing it, the costs of doing it, the time cost of the field work. And as you alluded to... just the enormous cost of any kind of conservation that goes on afterwards. So I kind of hope that by doing ethnography, I sidestep the lack of archaeological data in my region, and I kind of sidestep some of the costs involved as well cause ethnography can be done on a much more cheap basis, shall we say.

**Tríona:** No, that makes good sense. But I think that's one of the things that we've been looking at quite a lot at our museum in recent years is the whole question of where is that kind of - I don't know what you'd call it - the boundary between experimental archaeology and then intangible cultural heritage, and I guess ethnography coming onto that field as well. And that for us, I think that boundary is beginning to blur a lot more than it maybe would have done 10, 15 years ago. That we're also..., we look an awful lot to traditional boat builders, to traditional approaches and techniques. And I think it's a field where the two things are starting to kind of blend together a lot more, that it's not necessarily that absolutely rigid approach where you're just looking 100% at the archaeological evidence and working from that, that the craftspeople and also, I guess, the archaeologists and other academics who are involved are also starting to maybe be more aware of, or engage more with intangible cultural heritage, ethnography and other approaches too.

**John:** I don't no what you think about this, Tríona, but I think there was quite a time where the idea that you could turn towards ethnographic data as a means of helping you interpret the archaeological record became something that was seen as kind of suspect or dodgy or that people were in some way over-interpreting or over-applying and that there wasn't really any basis, legitimate basis, for making these comparisons because we couldn't get across the gap of the fact that the people who made the archaeological materials are no longer around and we couldn't just make this random assumption of making a bridge. But I think there is a level at which one can make intelligent interpretations, even if it's about, it could be a direct interpretation as you know, as in: how do we manage to get these tool marks on this piece of wood? Well, let's look and see what sort of ethnographic examples can inform us on that basis. But I think also just in terms of kind of maybe breaking down some of the really sort of rigid ideas that we sometimes come up with through archaeological perspectives, because when we bring real live human beings into the picture, they actually instruct us that the situation's a lot more kind of messy, a lot more blurred, that we don't really have type in the same way that we kind of expect when we look at the archaeological record. And just also I'm thinking in particular of the idea of sort of shell-first or shell-led construction versus frame-first and frame-led construction, this kind of classic binary, which stood astride maritime archaeology for decades now. And when you go into the sort of ethnographic context and you interview people you seem to get this idea that there's a lot more fluidity involved. And I'm thinking of a particular case in East Africa where we met some people, they were on building a boat. It would have been a kind of mixed process, but actually they didn't have any frames handy. They didn't have the wood, it hadn't been delivered. So they felt, okay, let's just crack on and keep building this boat. And we'll just put the planks up first and we will fit the frames in afterwards. And it was just extemporaneous and spontaneous

and so what all of this ethnography does for me, which is maybe not what sort of academics always want, is it just kind of messes up the situation, makes it a lot more blurry and fluid and in that way a bit more fun and a bit more human, I think.

**Tríona:** I completely agree. And I think that's probably one of the most important aspects of it that it's very easy, especially when you're working, I think, in maritime experimental archaeology, it can become a very engineered process or something that kind of focuses on technical aspects and sometimes the human aspect can get a little lost, both in terms of the people who built these ships and boats, but also how they were used and what significance they may have had... the kind of the agency of the vessels themselves. And I think, again, that's the strength of ethnography and other disciplines, that when we incorporate them into experimental archaeology, we're getting a much more well-rounded picture instead of just focusing on the kind of very rigid scientific aspects, you know, what can be measured and weighed and so on, that it's very important to keep that element rolling within the process.

**John:** I think it also brings in a new element as well, in the sense that when I did my first ethnographic project, it was with Dr. Lucy Blue of the University of Southampton, who was my PhD supervisor. And we pitched up in Yemen, all excited about discovering a particular kind of log boat called the huri and that we wanted to sort of record examples of it in surveys, et cetera. And when we arrived in the first coastal town that we got to, there wasn't a single huri left and everybody was using fiberglass boats. And I remember at the time being really, really dismayed and almost outraged at the world. And then of course, as I went... and very much our focus was about identifying a type, recording a type, making this kind of lasting record of this vessel, if you like. And as we travelled from coastal town to coastal town and started meeting people and interviewing them, then gradually it dawned on me that there was really a lot more that had to be thought about than just the boats themselves. I remember being taken aside by one fisherman who said to me: ‘you know, this is terrible. The government don't help us. Our fishing cooperative doesn't work. We don't have the money to buy an engine’. And I remember at the time... feeling very, very conflicted about this and thinking, this is not why I'm here. I obviously didn't vocalize this. Why are you telling me these things? But it was as if somebody had got a hold of me and shaken me and said: you know, there is a human element to this, which is much more important than just the vessels themselves. I guess where I'm heading in this, is saying that when you do ethnography you're automatically pulled into senses of responsibility towards the individuals with whom you are working and how you represent them in a way that maybe when you're doing archaeological work, purely archaeological work and maybe experimental archaeological work, you maybe don't have those kinds of senses of obligations. And you're kind of pulled in other very, very interesting directions that maybe you didn't think about in the first place.

**Tríona:** I agree. And I think it's a very important thing, you know, as you say that it has changed your mindset and how you approach the material. And I think that we are also people who work with kind of pure experimental archaeology, if you want to call it that way, that we're also obligated to have the same kind of thoughts in our heads when we approach the material, that if we just take this very kind of technical, analytical approach, I

think that we'll end up with a poorer result in the end when we get there, because we have forgotten or maybe become too far removed from the human element of how these ships were built and sailed and used. So I think you're definitely on the right track in terms of that. It's very important to have that constantly in your head, no matter whether it's a Viking ship or a Stone Age dugout canoe, or what we're dealing with, that we have to try and balance all of those demands and connections.

**John:** So, can I ask you Tríona, where do you draw your source material if you're looking at kind of your Viking ships and you're trying to kind of enrich your understanding of them? What are your ethnographic reference points?

**Tríona:** Our situation is quite different in that we have these five ships from Skuldelev that are kind of our foundation. They're the ships that we have reconstructed the most and that we have worked the most with, but they are, you could say in a way, part of an unbroken line of clinker-built vessels that you have in Scandinavia. And as I mentioned earlier, I think that's where this awareness of intangible cultural heritage and that kind of unbroken craft tradition that you have and how Viking ships are really just one element of that. And that you have a tradition that came before and you have a tradition that came after, and throughout certain parts of Norway, for example, where you have boats that look incredibly similar. You look at them and you get this kind of resonance in terms of the way that they're built and of course they've been adapted and changed. They don't have side rudders anymore and the sail shape is different and some of the other techniques that are also different, but that you have this kind of clinker-built tradition that just is this kind of red thread that goes through the whole thing and links all of these vessels together. And so we would look an awful lot to the traditional boats that you have around Scandinavia, not just in Norway, but also Denmark and Sweden too. And I think also for us, it's very important to look at the craft tradition, not just the vessels themselves, but to also look at the people who are building them, because it's kind of a dilemma within experimental archaeology in a way that, you know, the ‘products’, if you want to call them that, that we can reconstruct and build, and these tools that we want to use to learn more about the past, they're absolutely dependent on having qualified craft specialists who can build them for us. And I think that's kind of... sometimes a bit of a balancing point that if you take the traditional boat building, for example, here in Scandinavia and in the rest of Western Europe, it's really under pressure in terms of surviving. The cost of wooden boats are astronomical, as everybody knows.  Most people these days would just go for a fiberglass boat. And so the number of people who are qualified and able to carry out this work is starting to go downhill. We have an absolute need to kind of ensure that that tradition can keep going, that that kind of craft worlds can survive because otherwise our work within experimental archaeology is going to become poorer. And so we're not only looking to ethnographic examples in terms of understanding form or sailing capability and so on, but also the kind of craft tradition involved in building. And a lot of the questions that we're kind of starting to look more deeply at now, it's things like the kind of inherent measuring systems that you have, but in different boat building traditions. It's something that we've been kind of kicking back and forth at the museum for a long time. How did the Vikings build their ships, what kind of measuring systems did they have? Did they have an overall measuring system? There were so many different systems present within the

different traditions. We have a boat builder from the Faroe islands working at the museum at the moment, and he's raised in one tradition, in Norway they have another, and you know, that all of these different kind of ethnographic approaches that they can really enrich our understanding of the archaeological material, that kind of back and forth, I guess, between the two traditions, if that makes any sense.

**John:** A lot of what you said there actually resonates quite a lot with regions of the Red Sea as well. I was thinking of the Red Sea in terms of Yemen as a particular example, but in the Western Indian Ocean more generally. Exactly what you're talking about in terms of kind of rising costs of timber have had a really, really massive effect and it's largely why for the most part in Arabia generally you just don't see wooden boats anymore. I'm slightly exaggerating and there's one big exception and that is in the Gulf where actually there's quite a lot of money around. And that money is often spent on kind of pleasure vessels, so for tours around the bay and this kind of thing, which kind of draw quite heavily on notions of the dhow and the boat building traditions that exist there. But when I mentioned the Red Sea, I was thinking particularly of towns on the Red Sea coast of Yemen. And if you read some archaeological and ethnographic works that have been done on that region from the early 1990s, they say there's a really, really healthy and really, really buoyant boat building tradition going on here and they foresee it going on forever. This is a very, very healthy, very robust industry and there's no sign of any weakness or anything like that. Well, I went with my colleagues on the Mares Project, about in 2009, and it was like we were walking into some kind of ghost town film set. We walked into this area of boat-building where there were boats that essentially constituted just the keel on the blocks, there's the stemposts and sternposts and a few framing timbers. Others that were virtually complete, apart from trimming off the tops of the framing timbers and a few bits of plank here and there. And what had happened was..., well, a few things had happened. One was that wood had just become so expensive that people just ran out of money and couldn't finish a vessel, even if it was 95% complete. And also big geopolitical events like the Iraqi invasion of Kuwait... One of the results of that was that lots of Yemenis who worked in the Gulf were sent home because of political disputes between the various countries. And they came home with a bit of capital and they set up fiberglass industries and these fiberglass industries turned their attention to boat building, and suddenly like wildfire, fiberglass boats were appearing all over the country. So these traditions, that this idea that we've got these kinds of traditions that are there and surviving, as you've just mentioned in parts of Scandinavia, Tríona, yes, we see that and we see that the fragility of those and examples of them just being absolutely wiped out. Most recently, I've been working in East Africa, in Tanzania, in particular, and there, there are wooden boats everywhere and it's using sails and it's really, really exhilarating. And again, there people say, you know what, there's no problem here, people are going to be building wooden boats for forever. And I thought, yeah, I've heard this before, you know, and then something comes along and we lose it all. We lose it all very quickly.

**Tríona:** And also just the materials issue, that's also becoming a problem for us here. You know, we've been in the kind of luxury position in Denmark for a long time that we've had access to fantastic top quality oak, largely due to..., there was a battle in 1807 where the

Danes lost to the British fleet and had to surrender their entire fleet to the British Navy. And the King responded to this in panic by mass forestation in Denmark, so that he could rebuild his fleet of warships at some point in the future. Of course in the interim metal ships took over, which meant that by the 1950s, we had this incredible volume of top quality shipbuilding material, essentially, which also then gave rise to the Danish design movement and what we're starting to see now in terms of the trees that are left, that most of them have gone beyond the kind of 200 year tipping point. In terms of oak from that point, it starts to be invaded of one form of rot or another, or you get some kind of damage and it's becoming a challenge to try and find the material in a suitable enough quality and also, I guess, kind of ironically enough, you're up against the sustainability movement. There's quite a strong movement here in Denmark that, whatever forest we have left with those kinds of old stands of very mature oak trees, that they should essentially be left alone and that they shouldn't be felled and they shouldn't be used for ship building or for anything else. So it's becoming quite the challenge to actually access the materials that we need. And it's an interesting dilemma for the future. How do you fit experimental archaeology into that kind of debate in terms of environment and sustainability, but at the same time craft traditions that need to be upheld. I'm not quite sure how it's all gonna play out.

**John:** Well, yes, it is very interesting because a lot of the communities that I work with are incredibly poor. They use what resources they have in an incredibly versatile and inventive kind of way. They're very, very resourceful, but on the one hand they are facing the kind of restrictions that you kind of alluded to in terms of..., suddenly there are new forestry protection laws out there, which means that it's becoming very, very difficult in order to... you can't just wander into the forest and cut down the tree that you fancy. There are lots of kinds of new protections there. As we learned, when we worked on our ngalawa project I noticed in Tanzania, which was the building of a double outrigger logboat. What happened there was when my colleagues at the University of Dar Es Salaam, led by Dr Elgidius Ichumbaki, when they were trying to source the tree, once they got the permission to cut down the tree, then it was monitored everywhere they went by kind of checkpoints and they had to show papers. So there's all this kind of modern state overlayering there, which makes things just a little bit more difficult for us as academics. But as people who are trying to build a boat in order to secure their livelihoods, it becomes more difficult. On the other hand, economies are changing. Opportunities are changing. So somebody who is a boat builder, maybe their kids don't necessarily want to do the same thing. And we know this because we talk to lots of kids of boat builders and they say: ‘Oh no, we're not interested in that stuff. We want to go to Dar Es Salaam or we want to go to the nearest big city and we want to work there’. The whole kind of infrastructure of the modern state and the modern economy comes into play. And actually what are we going to do? Are we going to go up to people at gunpoint and tell them, you've got to continue with this boat building tradition, because it's important to us academics? At some point we have to accept that change happens and change is coming and the dilemma is how do we as archaeologists, whether from an ethnographic or an experimental or whatever perspective, how exactly do we deal with this change and what is it that we actually want to preserve and how do we secure that preservation in the long run?

**Tríona:** In response to the whole issue of keeping a craft alive, not keeping a craft alive, as you say, you can't force people into a tradition because we're going to need to use them as academics. And it's a discussion that we have on a regular basis, at least once a week, at the boatyard, this kind of..., where is it all going? And what's the future in it? And I think also the boat builders that we have at the moment that there's this kind of pervading feeling: are they the last generation of kind of professional boat builders in the sense that they can still make a living from it? And are we kind of slowly transitioning over to a phase where they're going to end up being kind of museum craft specialists, that within the context of either research or museums or heritage conservation there'll be a job for wooden boat builders, but if it as an industry can survive the next two or three generations is a really big kind of question mark. And I think that for me is a really interesting issue in terms of: what do we do and as academics and archaeologists and ethnographers, what is our kind of obligation here? And I think it's one of the biggest challenges that we face, in how do you document craftwork? Like for me, that's probably one of the biggest and most interesting questions that I have in my daily work, because what is it that you're documenting? Are you documenting in photograph and film? Is it with words? You know, how do you get the essence of something that is essentially intangible and try and preserve it in a way so that it can be either understood or replicated in the future? It's a bit of a minefield. John, do you have any thoughts on that in terms of your work in Africa?

**John:** Yeah, well, exactly what you said there about how do we do this; it's really interesting because  the first field work I did was in about 2007 in Yemen. And we also did more in Yemen and Djibouti, Eritrea, parts of Saudi Arabia, et cetera in a couple of years after that. And our approach was..., digital photography was established then, but our kind of culture of digital photography..., it wasn't the same then that it is now, because all I need to do is take a look at how many photographs I take nowadays on fieldwork, digitally, compared to how many I took with digital photography 10 or 15 years ago. Then I took hundreds and now I take thousands and that's one big difference, which has all kinds of ramifications, but I think there's also... another big area of how we actually record the material culture. So in the past..., so 15 years ago we would have to make really big strategic decisions based on how much fieldwork time we had. How much time can we afford to spend in this one place recording a boat because recording a boat would be about setting up offsets, baselines and offsets and actually sitting there with pencils and graph paper and drawing the whole damn thing. And it would even for a relatively small boat, it would take a day or two days, or perhaps, based on the complexity and how interesting we found the boat, three days, which is a really, really long time. I know photogrammetry has been around for quite a long time, but in terms of the practice and the doing it and its accessibility in terms of cost and knowledge it's really only been available to me, John Cooper, for about five years. And what that has done has really transformed how we approach what we do. There's an awful lot of post-processing time once you get home, but in the field you can record a boat in impressive detail in half an hour, maybe an hour of fieldwork time and that's all it takes. And what that means is that instead of making all these decisions about the ideal type of vessel or the piece of material culture that you want to record because it's the best example, you can then start saying: Oh, well, let's do three or four. Let's start looking at ideas of variety and difference

within a type. And so it actually sort of transforms entirely how we think about boats and boat types and what constitutes a type and what constitutes a tradition, because you start realizing when you look at several boats in detail that you can see the hand, or you can imagine the hand of different builders taking slightly different approaches. And all of that informs exactly the questions and the conclusions and the interpretations that we arrive at when we're doing our ethnography. It also means that we're in a position to make at least a record, in a sense a dead, dry academic record of vessels that in the past would simply just have disappeared without note. And then you mentioned video. My colleagues at the university of Dar Es Salaam recorded the construction of ngalawa, the dugout that I mentioned earlier. And they've made a 40 minute documentary film in Swahili which we hope to get English subtitles out there as well, and that's something. And then when you put that together with the internet...not only have you made a film that you can show in the lecture theatre and travel around..., it will be there on the internet for everybody to see all of the time. The kind of ramifications of these technologies for how we achieve preservation and some notion of it continuing beyond its economic usefulness, I think is all just up for grabs at the moment.

**Tríona:** I completely agree in that I think film is absolutely..., it is such an accessible medium and it just gives a chance to, I guess, get that human element involved again. I think when we work with film at the museum that what people most often comment on is that they're just struck by the scale involved and the ease with which boat builders work with axes and these kinds of tools that look very unwieldy, but the kind of finesse that they have when they work with them. And it's just something that is so difficult to capture in any other medium. You can try and be as poetic and lyrical as you want, but it's just never going to capture the same essence of it as seeing that real person and their hand, taking the tools and what they can do with it. As you say, you end up with this absolute backlog of digital material, but I think that's something we need to keep doing. And I think that for the future, you know, [god love] the poor people who come after us in 25, 30 years and have to wade through these enormous digital archives… But I'd rather document everything and sort of document too much and then have it there for the future, because when you work with these long-term projects and you're looking back on stuff that was recorded 30 years ago, there's always those holes that are so irritating that you wish you could go back and fill out and I think when we have these incredible media at our hands in terms of digital documentation, and then also the dissemination on the internet that we should just go all in and do what we can to get things recorded before it's too late.

**John:** I really sort of respond to what you said about the sort of admiration of the skills, because when, especially when you look at this in a kind of an African or an Asian context and you look at the kind of history of what kind of ethnographic work or general study has been done on boats over the 20th century, you really do get this kind of unpleasant, colonial interpretation. Lots of talk about primitiveness or even they're just not worth looking at and not interesting. And there are many, many examples of all of these things that I could cite to you from various texts from the 20th century. And the kind of recording that used to happen in the past, if it happened at all, was that people would make a record of the boat, which is what we were doing 10 or 15 years ago as well. And then what you have in your publications or in your output or in your communication, the

kind of abiding record is an image of a boat and not the image of the maker who created it. Whereas now with the kind of opportunities that we have with technologies it's really, really possible to put the builder back into the kind of centre of the picture as the person who creates the vessel and to be able to follow their processes. And as I think you alluded to, a picture says a thousand words, a video probably says a million and just to be able to watch a builder stand at the end of their vessel, unfinished, bend down and just look along the curve, or to be sort of handling a tool with immense skill, really does have a tremendously transformative impact on how we view the people who are the creators of these boats. You can see their resourcefulness, you can see their thought processes and you can really admire people who just seem to be able to operate in three dimensions. And usually in ethnographic contexts, without plans. Often this is mentioned as an indication of some kind of primitiveness in the past, but actually you think: you created that vessel without any plans at all, it's just all in your head, all of these cognitive processes result in this incredible vessel. Wow! So it becomes a ‘hats off’ rather than: Oh, look at this primitive vessel.

**Tríona:** When you see the way that we see tools are used, I think that for me is a really exciting thing that you can […] as an archaeologist. And when you look at say an axe, that you look at it and you're looking at metallurgical composition, typology, dating, all of that. And then for me, after several years at the boatyard, when I look at it now I can see the hands that are working it and I can see the potential within that artefact. And I think that that's probably one of the most important aspects of bringing the maker back into the process, that it just gives a completely different agency to the archaeological material that we look at when we're doing our research. And it's just such an important aspect I think.

**John:** And I think in many ways that hopefully is a kind of contemporary resonance, a legacy, which is in a sense, perhaps politically and socially, far more important than anything else really.

**Matilda:** On that note, I might interrupt here. What are your plans for the future in your particular projects and more specifically, how do you think the EXARC community, who are listening in today, can help to make a difference in regards to all the very, very good points that you discussed today?

**Tríona:** For us at the museum at the moment, I mean, this year we're heading into the final year of the Skuldelev 3 project, where we're hoping to finish building the ship and then aiming for a launch date next summer. And after that, it's a little up in the air at the moment as to what the next building project is going to be, but it looks more than likely that it will be our second reconstruction of the Skuldelev 5 ship find. So we're continuing in the Viking ship vein, you could say, but kind of parallel to that we also have a lot of interesting things going on in terms of the test sailing of our ships. The Sea Stallion, which is the kind of long war ship - that some of you might remember sailed from Denmark to Ireland and back again around 14 years ago - it's getting on in years and it's starting to show a lot of wear and tear on its hull. And so we actually last year took the decision that we would shorten the mast slightly and make the rig a little bit smaller and then corona came. So all of the great work we're going to do in terms of trying to figure out what difference this has made to the ship’s sailing capability, that all kind of got put on

hold for a year there in 2020. So this year looking forward to getting the ship back in the water, then following up on that research to see what kind of new insights does it give us into the ship and how it sailed. And in terms of what the EXARC community can do, one of the most important issues for me, and it's probably kind of become apparent during this talk here, is how important it is to take this multidisciplinary approach and to engage with craft specialists. And I think that's probably one of the most important things that EXARC can do, that if you're interested in any craft, be it maritime technology, be it whatever, that you seek out the people out there who are skilled and well-versed in these traditions and that you collaborate with them, you document, you learn from them and incorporate it into your own work. And I know most people do already take this kind of multidisciplinary approach. But I think as a discipline, we can always be better to ensure that we get in touch with the right people and make sure that those skill sets survive so that we can use them in the future.

**Matilda:** John, do you have any things to add from your part?

**John:** Well, I have to say coronavirus hasn't been very good for fieldwork and ethnography. Fortunately we were just coming to the end of a large project in East Africa, in Tanzania, just as this was sort of all breaking out. So this has been for me a period of consolidation and a period of writing. And there is plenty of writing in the pipeline. And in terms of what happens next, I'm really at the stage of a bit of blue sky thinking, I think, is where I am at the moment. But certainly I would very much like to continue with the work that I've sort of embarked on in East Africa, which in the last few years has been an entirely new region for me and one which is so obviously rich, fascinating and understudied. In terms of what EXARCers can do... really take an interest, take an interest in the humble stuff or the stuff that seems humble, banal and everyday, because it won't be humble, banal and everyday forever. If people are thinking about taking an ethnographic turn, then really what I would urge is people: be humble, listen, don't think you know the answers before you go in because you don't. And you'll get a lot more out of it by actually being silent, sitting and observing the tremendous skills that people have and you'll just get so much more out of it by hearing people's interpretations of what they do and why they do it and not necessarily judge it on the basis of your own background and your own learning and your own positionality. And just enjoy the process of working with tremendously skilled people.

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**Matilda:** We will now be having a live question and answer session with those who have been listening in to the discussion so far. I see we already have a couple of questions, from Roeland, this one's for you, Tríona. If you say there is a tradition of clinker-built boats across the centuries, how do you deal with people wanting the magic of being ‘authentic Viking’ and not necessarily interested in before or after the Vikings.

**Tríona:** I think we're quite lucky in that regard that Viking as a term, it helps to draw people to a museum. I think we're still very much riding that wave of kind of pop culture that Vikings have been a part of for a long time. And the funny thing that happens though, is that once people get to the museum that maybe the word Viking that has brought them down there, but that once they start exploring what we have and coming around the

boatyard and watching the craftwork that's going on, that they become interested in the experimental archaeology in and of itself. I think for most people who were standing watching the craftspeople at work and experimental archaeological work going on, that, whether they're building a Viking ship or it could just as easily be an older or a later vessel that belongs to the same tradition. I think it's the craftwork and the skill that people are really drawn to and find exciting. And that people who probably would never have thought that they wanted to buy a ticket to come and see a boat building museum, that once they get into a Viking ship museum and then start to explore all the things that exist around these five shipwrecks that we have, that they kind of almost, despite themselves or in spite of themselves become interested in the work that's going on around it too. I'm not sure how you would ever market it in an attractive way. And again, I think that's probably why Viking is a good thing to have in the title for any museum at the moment, particularly in Scandinavia.

**Matilda:** We have another question here from Roeland. Should UNESCO, for example, or any other international organization, spend more energy on safeguarding traditional boat building skills? Are there any international recognitions of this already, that helps the survival of these techniques that you know of?

**John:** Yeah, I can bring up one example, which is the dhow building traditions, or specifically they call it the Lenj building traditions of Bandar-e Kong in Iran, which has been inscribed to the register of UNESCO's global intangible heritage. So that does exist. But I'm not aware of any others in the regions where I work, the western Indian Ocean, the Islamic world or anything like that. The problem we always get back to is about how you actually..., it's really difficult to legislate for preservation in the sense that we're looking at industries, essentially industries, economic activities that people participate in, either as the builders of the boats or as the users of the boats and which allow these, industries, these practices, these craft traditions to continue, you know, to kind of decree from outside that this is a heritage tradition, it should be preserved. Well, that's a great aspiration, but what actually happens on the ground, if people don't have the economic motives, the incentives and the support, then they just won't continue. They'll do something else.

**Matilda:** Do you have anything to add, Tríona?

**Tríona:** Just to maybe add that there is actually an application which has been sent in already to try and get the clinker-built traditions inscribed on the list of intangible cultural heritage. And I think there's a lot of hope here in Scandinavia that it will bring more recognition and hopefully do something positive for the preservation of the craft. But as you say, John, it's very difficult to legislate for that kind of preservation. We can't force people to order wooden boats and to want to have them built and to invest their money in it. But I think what we're kind of hoping here, perhaps a little naively I guess, time will tell, is that when you get that kind of recognition for the craft that perhaps you have slightly more kind of stature when it comes to funding within your own area, the area in which you live in. For us, it would be the Nordics, Scandinavian boat building tradition, that it might be easier for us to acquire funding for more projects that might be more focused on preserving the kind of practical crafts. And as we talked about previously, John, about

going out and recording the vessels that are left, I think Norway is quite far ahead of us in that regard, in terms of documenting what traditional boats they do have, and that once you get, or if you get, if we're lucky, inscribed onto the list, that it kind of opens up a few avenues for at least in terms of safeguarding, whether you can kind of promote, expand and ensure that the kind of active used development of a craft tradition, I guess time will tell.

**Matilda:** So you would sort of maybe say, because Roeland's other comment here is about funds that are available, for example, for arts and crafts, but going more to the arts, shall we say than to the crafts, in terms of how we're able to explain to funding bodies about the relevance of these crafts. So I guess the main thing would be to just make it more publicly known, make the public aware and make the funding bodies aware of exactly how important these crafts are. Is this something that you see? I know, for example, like you said, Tríona, in Scandinavia especially, I suppose, the Viking tradition is a very strong heritage thing, and I guess, easier maybe to highlight the importance of that, but John, in the places that you're working is it sort of seen also by the local community as a strong heritage tradition? You mentioned in the discussion that when you first arrived, it was all the more modern boat designs, for example, is it still something that is held to be important by the local community as well?

**John:** I think broadly, yes, I would say about the region where I work in, let's say the broader western Indian Ocean, including the Gulf and the Red Sea. This covers a vast area, which includes some of the richest countries in the world and some of the poorest countries in the world and the presence of money is no indicator, of course, of whether people feel a sense of identity. But if we just focus in on, say, the Gulf states for a moment, on the one hand they do have the money to fund big projects and on the other hand, they also have a kind of post-independence narrative or kind of national narrative and also a kind of personal and communal narrative, which is about their heritage, as ocean-going, as pearl fishers et cetera, and we have this word, which is not actually an Arabic word, it’s barely a word that's used in the region, although that's an entirely different conversation, ‘dhow’, which corresponds or resonates in the region in a way that Viking resonates in Scandinavia as Tríona has pointed out. It's this word ‘dhow’ as representative of a tradition now. Where countries go with that varies, depending on their capacities and their abilities to do anything about it. So, the one really interesting country in this respect is Oman. Oman has funded a large number by now, right since the 1970s, of experimental reconstruction projects. And two in particular I'd like to mention, were the Sohar in the 1970s and the Jewel of Muscat about 10 years ago where the Omani government actually funded the reconstruction of sewn ocean going vessels. Sewn, and I literally mean sewn. All of the timbers of the vessel are joined together by stitching using coconut coir rather than by nails, creating a kind of modern narrative of connection between Oman, in this case, it kind of resonates with the kind of textual narratives that we have, for example, from the ninth and 10th centuries, showing Arab and Persian seafarers, travelling to the East and leveraging all of that identity, the notion of the dhow, the notion of this ancient connection with China in order to create modern narratives, which of course have political and economic and diplomatic ramifications to them. But which also celebrate something which people are genuinely proud of, you know, so that

though I'm looking at a country like Oman, which has the money, that could certainly be, you could say the same in other countries, such as Kuwait and the UAE where they've built maritime museums, et cetera. But then you have countries such as Yemen and east Africa, where they just haven't had the wherewithal to actually translate that pride that they had in a great tradition into kind of abiding heritage practices, or if you like, kind of touristic practices, which might help this tradition continue on a different economic footing.

**Matilda:** We've just talked about, for example, the funding bodies and the larger stakeholders in these projects and how they can help, but how involved are, for example, other members of the local community in your two projects? What is their reaction to the work that you're doing? So those that may not perhaps have the power to make these big funding decisions, but who are nevertheless in close proximity to the projects or live nearby or work nearby, in that respect?

**Tríona:** Well, we have an incredibly active kind of volunteer [...] at the museum and each of the reconstructed ships that we have, and some of the other traditional boat types, they have volunteer boat guilds who are affiliated. They essentially are the ones who maintain the ships and boats, who do most of the kind of basic work. Any kind of detailed technical work is done by the boat builders, but otherwise they take care of them and they are really kind of the main, I guess, non-professional body of people who we have working with us. The local community are kind of, they're interested in the museum in that it's very much a part of the identity in Roskilde. If you look at any kind of marketing of Roskilde, there's pretty much always going to be a Viking ship somewhere on the poster or somewhere in the graphic work and so in that way I think it's very much something people connect with the place, but whether or not that kind of manifests into an interest or kind of an active involvement with the museum... I think it has more to do with the identity and maybe the cachet that the title has and also kind of the access that they have to the museum. We have the odd situation that we are kind of a half open-air museum, half typical indoors museum I suppose you could say. But we have a public right-of-way going directly through the centre of our open-air part and so the locals are very much attached to that, you know, it's a lovely, nice kind of scenic walk to take down along the harbour, look out over the fjord and it means that they can kind of constantly see what we're working on, they can always look into the boatyard, they can kind of follow the progress. And so while it's really difficult to quantify or have any definite kind of sense for what importance this adds for them, or does it have any importance for them at all, you do get the sense that there are kind of people who... this is really one of their regular haunts, you know, whether it's just walking the dog every morning or taking a bike ride after work, that people are very much involved in the kind of area where the museum is and the museum as a kind of harbour area, I suppose. Whether that translates into their active involvement, I mean, we do have quite a few of the local people who are involved in the boat guild. And they would be the ones who are literally hardcore volunteers, who are at the museum almost every day, in one capacity or another, keeping an eye on the boats, checking to make sure pumps are running and that boats aren't getting filled up with water and whatever it may be. And that's really invaluable for us that they do actually take an awful lot of the kind of general maintenance burden that would otherwise fall back on

the employees that we have at the museum. And I think that our boat collection couldn't be nearly as big as it is if we didn't have that kind of volunteer effort who help us to maintain it. So, they're quite important to us, absolutely.

**Matilda:** What's your experience with that, John?

**John:** It really couldn't be any more different I don't think from what Tríona is describing in her experience, in the sense that I'm thinking about where I've been working most recently with the town of Bagamoya in Tanzania, where there are dozens and dozens of wooden boats, everywhere still being used and people are sailing in them. It's trying to get something which actually is everyday, which is one of these ways in which it is very, very different from Denmark, it's very, very everyday boats. And actually trying to persuade people that these are special in a way which is not just special in the sense of, okay, well, we need these to work. And I think one of the important things that we try to do, really, is take some kind of representative stance, in order to persuade the wider society of the town of Bagamoya, the school kids of Bagamoya, but also ultimately getting that voice up to decision makers who are making decisions about, you know, everything from fisheries to forestry policy, to coastal development, all of these things that are going to impact on the people who build and use the boats, that actually these are important and they're valuable, culturally and heritage-wise and that, not just in terms of the boat as objects, but all of the intangible heritage that goes with them, all of that knowledge about place and landscape and fishing grounds and all of that knowledge about weather and winds and everything all adds up to something which gives the people that we're interacting with, who are often at the very, very margins of society, that they have a kind of a value. And it has happened that people have come back to us and said, well, that's making a difference to us in the sense, you know, people are starting to think, well, sometimes it's just because it's a bunch of foreigners and academics have turned up, well, if they're interested, then maybe there's something to be interested in. We've run temporary pop-up exhibitions both in Bagamoya in an empty heritage building, an unused heritage building, where we've run a pop-up exhibition for a few days and had school students, et cetera, come to visit, and also then try to formalize that same exhibition within the University of Dar es Salaam as well and bring in people from government. So they're getting to view this heritage as something which is not just kind of the wallpaper and background of what goes on at their coast, but actually something maybe they should be thinking about as a heritage asset, if you like.

**Matilda:** Related to the point that you just mentioned, John, as you say you sort of work with financially poorest communities as well, so that the collaborations that you have as well with the boat builders is more of a..., I suppose, a job or paid commission relationship compared to Tríona, where you collaborate mainly with unpaid volunteers who then have the time and the sort of interest to invest in this ship re-construction. How do you think these differences affect the actual research that's being done? Do you think that it has a big effect on that or it's sort of similar in both respects?

**Tríona:** It's a bit of a mixed bag because you could say that in terms of the actual research, it's always the museum who controls what the research agenda is. And if you take the Sea Stallion project as an example, that was a project that was fully defined and

controlled and kind of executed by a group from the museum. But of course the ship couldn't have sailed across the sea if there hadn't been 60 volunteers on board who were sailing it. So it's kind of a two-tier process, I suppose you could say. That you have, you know, all the kind of research goals and what specific questions are being looked at, they're all defined by the professionals. And then, to put it really crudely, the volunteers are kind of the muscle power who can get the work done. And when we're sailing, because we just literally aren't enough staff at the museum, if you wanted to send the Sea Stallion away across the sea, you'd absolutely have to have volunteers sailing with you. And the same is true for the rest of the ships that we have at the museum too. And I think it's quite an interesting dynamic, you know, how can you involve volunteers in that way and where the balance should be, you know, how much responsibility can you put on the shoulders of your volunteers, in terms of say documenting and gathering data from sailing and so on that, on the one hand, it can be difficult for the academic to let go, that you have this desire to kind of control and, I suppose, make sure that things are being done to a certain standard. But on the other hand, these are people who are in many cases, exceptionally skilled. A lot of our volunteers have been sailing these ships and maintaining them for 30 years or more. And are arguably more experienced and have more knowledge about it than many maritime archaeologists may have or people who work with kind of ship finds and so on. We have a really rich resource that we can draw on in that way. And I think that's a really important thing for us to keep in mind as a museum that you absolutely don't want to exploit people, to take their knowledge for granted or to kind of, let them committing to projects where they're not really getting anything out of it. But I think for us the payoff has always been that when they do the work, when they help us with gathering data or maintaining these ships that the payoff for them is that they then get to sail and for most of them, if not all of them, you know, that's why they're there. They're there because of the love of being on the water, the love of the craft work of maintaining and taking care of these ships, but also the community, the sense of community that grows up around it. And I think that's probably also something that's quite different, John, in terms of the work that you do, that for us and the majority of our volunteers, this is something that's a hobby. You know, it's not something that is related to their work. I think for most people, it's probably a lovely escape from the office job that they probably have Monday to Friday. And so the dynamic is quite different. The kind of attitude that people bring to the table when they come, you know, you have an absolute willingness, I did it myself as a volunteer in the Sea Stallion project, to give up your summer holidays and your weekends and whatever it is to be involved in these projects. So we're really quite privileged in that regard. John: It really couldn't be any more different again, in this sense that we are working with people who are working absolutely flat out to keep their families afloat economically and so we have to be incredibly conscious of the time that we're taking from people, people want, mostly, and in my experience generally, across the many countries that I've worked in, they want to be helpful, they want to give you their time. They want to talk to you. They want to engage in conversation, especially once they realize that you kind of know at least something, and you're not just being a kind of a pointless pest if you like. But on the other hand, you're aware that you're taking people's time and you're taking their time away from maybe being on the water, from maybe being active in boat building or whatever it is that their

particular skill is. So we have to be really cautious and if we really want to engage people for any serious amount of time, so for example, when with colleagues at the University Dar es Salaam, we commissioned the building of an ngawala log boat, which are these wonderful log boats with the double outriggers and the settee sails, et cetera, really, really tremendous vessels, we had to engage somebody and we had to pay them. We had to pay for the entire project. And that's how it works because it's not that people don't want to give up their time as volunteers, that's just not a luxury that they have. And on the one hand, on a big project, I see that it requires payment. And if it's just a case of interviewing and observing then you're there more as a kind of a supplicant really, and you have to be very, very cognizant of people's needs, take what they are generous enough to give you in terms of time and kind of be happy with that really.

**Matilda:** Yeah, it's so interesting how, even within one subject, maritime archaeology, you can have such different experiences, different approaches, depending on these things. So John, your work, as far as I'm aware, sort of focuses more, shall we say, on the evolution of boat building technologies in terms of kind of changes in designs and form, whereas Tríona, your work at the museum seems mainly to be focused on replicating kind of particular designs based on those ships that were found in the bay. What do you both think are the sort of advantages or disadvantages of these two approaches?

**Tríona:** There's definitely strengths and weaknesses in both. From a purely practical point of view that with any craft work, you always kind of say here, there's an old adage that it takes 10,000 hours to become proficient at any kind of craft. And I guess that the more you build something within the one craft tradition, the more fluent you are in that tradition and the more skill you bring to the process. So when you're working with, as we predominantly do, Viking ships, that for the boat builders who've been there, say the last 20, 25 years, they've probably, in terms of their lifespan, perhaps built more Viking ships than a Viking ship builder would have a thousand years ago. So, you know, it does have advantages in terms of the kind of skill, skill sets that you can develop. But on the other hand, I suppose, from a kind of, maybe personal satisfaction point of view, that perhaps they can also get slightly monotonous for craftspeople who are working with the same kind of thing. If you take, you know, a long ship like Sea Stallion, this 30 metre long war ship, that very many of the components when they were being built if you look... imagine the frames that run across the ship, that's an awful lot of them along the length of the ship. And it almost becomes kind of production line work, that you're just doing the same thing over and over. Or if you need to, you know, fasten seven thousand rivets and so on. It can be quite monotonous, some of the processes that are going on. And I'm an archaeologist now so I'm only speaking from my own kind of things that I can perceive, but I can imagine that after a while you might kind of think, oh god, it'd be nice to build something else for a change, or, to have different materials to work with, for example, is another important things in wood work that different materials need to be worked in different ways, or to work with different tool sets and so on. So I think there's kind of pluses and minuses I could say to being kind of rigidly - or not rigidly - but very much within the one tradition. I'm not sure John, if you have a different experience?

**John:** Well, I'm really, really, very much interested in technology. I'm interested in people, how people use resources. I'm interested in how people kind of optimize in order to achieve… I really, really shy away from this word evolution…

**Matilda:** I was reluctant to use it, I was trying to think of another word: development, shall we say maybe...

**John:** Yes, very much development. But unfortunately evolution has this kind of connotation of kind of primitiveness, unadvancedness. We have to be really, really careful about this use of language. So it's because once you've decided that a thing is more evolved and less evolved and then you start making analogies between the users of that technology being the users of less evolved technology, then the inference is that they are in some way also less evolved et cetera, you know? So we get tied up in this kind of social Darwinism, whether we kind of want to or not really. People make the choices that they make in terms of their learned background, in terms of the resources that are available to them and then how they apply them, solving the immediate kind of problem that they have, means building a log boat in order to go fishing around the coral reefs, then that is a more advanced solution than building an aircraft carrier to go fishing around the coral reefs, because it's all about 'horses for courses' and making the right choices for your own personal situation.

**Matilda:** I do have one final question and then we'll wrap things up, sort of related to something that, Tríona, you had mentioned previously because obviously, you both use shipbuilders as in people who are experienced in the craft, in your research, and Tríona, I remember that you mentioned at some point before that originally, so sort of back in the 1980s, the reconstruction projects specifically avoided using professional shipbuilders in order to avoid that kind of modern bias. But obviously now both of you, I mean, you just mentioned Tríona that your volunteers do actually now have 30 years of experience in Viking ship building specifically, so perhaps could not be considered modern, but still: how do you think that in general reconstruction projects - cause I know that in a lot of maritime experimental archaeology, when you have these reconstruction projects, people do indeed use professional shipbuilders maybe from those communities that are more specialized in traditional technologies, but nevertheless, they are obviously modern ship builders. How can you sort of mitigate any effect that this might have on the results of the research that you're doing?

**Tríona:** I think that's where you just have to fall back on the multidisciplinary nature of experimental archaeology and really hold really good and tight onto that kind of cross-disciplinary approach that you have, that it's up to the archaeologist or historian or whoever it is who's setting the kind of archaeological or historical agenda to make sure that, you know, modern ways of thinking or modern approaches to tool use or material use and so on, that they're kind of mitigated and shoved to one side, to put it politely. And I think that's really a hugely important thing because if the alternative to that is that if you don't work with professional craftspeople, that it's just us archaeologists or historians or whoever it is ourselves picking up the tools and attempting to reconstruct something, I think we're just heading down the wrong road if that's the way that it's going to go, because craftspeople in the past were incredibly skilled as our craftspeople of today. And

if we want to get any kind of well-functioning reconstruction that we can draw any kind of conclusions about life in the past from, then we need to be working to the same kind of high standards that people would have been a thousand years ago or several hundred years ago, whatever it may be. And so in that way, I think it's that collaboration, that kind of dialogue that you have back and forth between the craftsperson and the archaeologist, I think, that's how you ensure that people toe the line, I suppose, if you want to put it that way.

**Matilda:** Would you have anything to add to that, John?

**John:** Again, I suppose that I'm in a kind of diametrically opposite position really, in the sense that what I have are the skilled craftspeople and they are my key source of information. And in this sense it's a luxurious position really. We don't have to guess in the same way about what the processes are. We ask people and they can deliver their verdict. Of course, what's really interesting is that once you've interviewed about five, six, seven, boat builders about the construction of the same boat they don't always agree. And sometimes they're very, very dismissive of each other. And I suppose that's familiar all the world round really in terms of craftspeople and how they feel about their craft and their skills.

**Matilda:** So different in all places! I think I should probably start wrapping up. Thank you very much to both of you, to Tríona and to John for joining us today and sharing your very different experiences and your expertise in this thing. I definitely learned a lot about the different ways that maritime archaeology can be undertaken and I'm sure that our listeners did too. So thank you very much to both of you. And thank you to everyone else today for listening to this episode of #FinallyFriday by EXARC. If you'd like to become more involved with EXARC, you can become a member, or also just a volunteer, like I am as well. We've heard about how valuable volunteers can be today and we definitely need more of them. So please do join. Alternatively, if you're feeling like helping us with funding opportunities, you can indeed make a small PayPal donation through the website to help support EXARC in its future endeavors, but also just follow us here. We're quite active on the Discord channel in various different kinds of chats. So please do stay in touch and see you next month for another episode of #FinallyFriday!