Sew Much To Do, Sew Little Time

exarc.net/podcast/sew-much-do-sew-little-time

Recording Date
2020-08-07
Guests
Alex Makin (UK) and Ronja Lau (DE)
Introduction
This episode of **The EXARC Show** includes a great discussion about textile archaeology from Early Medieval Britain and Iron Age Slovenia with guests Alex Makin and Ronja Lau. Tune in as host Matilda Siebrecht talks to our guests about some new ways that textiles are being studied, the limitations of the archaeological record, the diversity of the world in the past, and the many ways that experimental archaeology has contributed to our understanding of the archaeology of textiles.

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'm joined by two specialists from our EXARC community focussing on archaeological textiles. Alexandra Makin is a professional embroiderer and archaeologist who has a PhD from the University of Manchester. Her research focuses on the development of fabric and material production, and decision-making processes associated with embroidery production and its meaning within the Early Medieval period. As well as her research, Alex is also involved in public outreach, both in person as well as written articles and blogs.

Ronja Lau has recently completed her Masters at the Freie Universität in Berlin where she analysed the textile remains from Iron Age Hallstatt sites and is particularly interested in the origins of textile technologies. In addition to archaeological analysis, Ronja has completed several clothing

reproductions and incorporates experimental archaeology into her research focus. Like Alex, she is also interested in public outreach and in fact, the two speakers today are working together on a new blog which we will probably discuss at some point later in the episode.

So welcome to both of you, thank you very much for making it today. I have a quick question to start you off, quite an easy one: how did you first become involved in textile research?

Alex: So, I've been involved in textiles and embroidery and knitting and things like that ever since I can remember. My mum knitted and made clothes and things as did my grandma and all my cousins and all my aunts did as well. So, for me it's just something that you do and it's an innate part of me and one facet of my personality really. So it was, I suppose it was a natural progression for me, after I finished school to go to the Royal School of Needlework and study embroidery and then to eventually, after a very winding path, become a textile archaeologist. What about you Ronja?

Ronja: I had a some kind of a different way because I actually started, before I studied archaeology, with living history and re-enactment. And through this hobby I experienced that, you know, re-enactors want to do a lot themselves, so I started sewing and weaving and through this, when I started studying archaeology, it was very clear in which direction I wanted to go. So, I always try to, you know, connect everything I learned during my studies with textile archaeology. And this never really was that easy because there are very few opportunities learning something about textile archaeology at my university, because no one is educating the students about this topic, so that's sometimes very difficult.

Alex: Well I had that as well because when I did my archaeology undergraduate degree, that wasn't on the syllabus at all and it was only because I was really interested in embroidery and I was based up at Newcastle upon Tyne and I went down to Durham Cathedral, which is a 20 minute drive away, and I saw the Cuthbert embroideries, embroideries which were discovered in the tomb of Saint Cuthbert on display there, and I suddenly realised that, oh actually, maybe I could study this, maybe I could do something linked to embroidery and archaeology, combining two passions in my life really. And so I kind of fell into that aspect of it on the back of that visit really.

Ronja: Oh, that's really nice yeah. I don't know, I maybe have the issue that I think it's difficult, or it was difficult for me, to learn all this by myself, because I think it would be easier if someone in the university would've told me: well, in textile archaeology you do this and that, and this method and you don't do this and you have to learn that. So I really was struggling at first when I started learning prehistoric sewing techniques because well, I couldn't ask someone. I was very young when I started sewing. I mean, I have like a, when I started re-enactment I was 16, so you know, I didn't know anyone in the textile archaeology community and stuff and I had no opportunity to also really learn like a tailor or something, so it was really difficult but I think the experience I gained through all that crafting by myself, was actually quite nice because I made a lot of mistakes and you have to be really honest to say: well, I don't know everything and I will still don't know everything in ten years. So, there is a lot of possibilities to learn something new and this won't change in the next years so that's actually quite nice.

Alex: Yeah, I totally agree with you. I mean, I'm still learning and definitely about things linked to textile archaeology, because obviously up to now my focus has been mainly Early Medieval embroidery and I've been really focused on that, so I'm now having to, well not having to, I'm wanting to expand my horizons and learn about textile archaeology. So, I'm now networking and trying to meet people through conferences and things like that in order to see if they will help me learn and develop in things. And I found quite a lot of people have been really helpful and positive and they want to teach you and they want to pass on their skills and things like that which is

fantastic. But I notice your work involves a lot of analysis and using computer programs and things like that whereas I don't know anything about that sort of thing. That's something I've got to actually learn about in the future.

Ronja: Yes, this is actually, was quite a coincidence because after I finished my Bachelor thesis, which was not really based on textile analysis but more on experimental approaches. Because I was doing my Masters most of the time last year in Austria, I went to Vienna and it was a great opportunity because I was meeting Karina Grömer, and she taught me everything she knows. So this was my jackpot really because I was sucking in all the information she gave to me, and that's why I could do a very good Masters topic about the textiles from Slovenia which were mineralised in burials from the Hallstatt period. And because of the preservation status of the textiles and because of Karina's big knowledge, I also gained the knowledge of using the microscope and gaining all the information and data from what I saw. And this actually helped develop a more scientific way of analysing textiles for me, which I always wanted to achieve. So, this was my open door to work more in this way with textiles. So this is my goal: I want to work in a scientific way with the textiles and combine it, of course, with experimental archaeology and with, I don't know, scientific analysis is very important, and I want to show the people what you can achieve with those rusty little pieces of textile because they are not that pretty, you know. If you want to talk about beautiful textiles in archaeology you have to look at the salt mines or you have to look at the textiles from the ice or from everything that has better preservation conditions than just earth. But I think it's showing that the data you can achieve from all those nice textiles is also important for the research.

Alex: No, I agree and when you were talking about, you know, you have these small rusty fragments or things that have survived because they've become pseudomorphs on other objects and things like that, and you see people walking around museums or exhibitions and they look at this little fragment and, to you and me and other people interested in this sort of thing, we can probably extrapolate ideas and things from that, but I see people looking at them and thinking 'ugh, that's a bit rubbish,' and you just feel like I just want to jump in and go 'no no no, It's really exciting!' But you never have any equipment and then you feel a bit of a nit when you do that, because people look at you as if you're completely mad.

Ronja: Yeah, but that's a good point because there is probably, I mean here in Germany - I can only speak about Berlin and Germany, there's quite a big problem about showing the society what is textile archaeology and what you can achieve with it. I mean, we have a lot of museums here in Berlin and I know all the museums. I was in them multiple times. But, I haven't seen one single piece of textile or, you know, a reconstruction maybe of a - I don't know - Bronze Age man or woman, or something about the Iron Age. There is just nothing.

Alex: Really? I'm really surprised at that.

Ronja: I was working at an exhibition about the Vikings which was a few years ago and there was so much, you know, possibilities to actually show a lot about textile archaeology, because the research is really well done in Denmark and Sweden and there was just, you know, one sentence and, I don't know, one reconstruction talking about 'oh yeah, that's how the Vikings looked, period.' And I was really sad.

Alex: Because people organizing these exhibitions seem to think that everyone's just interested in all the shiny metalwork and swords and things like that. They don't know themselves about textiles and how important they are at telling these wider, bigger stories about populations and how, if you don't have the right clothing or the right fabric to make sails and things, you're not going to leave the house or you're definitely not going to get on a ship and go and find Iceland and Greenland and

places like that. People are kind of dazzled by the shiny things, aren't they really? Then our textiles just get left to one side. As I'm saying that, I'm thinking, I don't think it's quite as bad as that over here.

Ronja: No I don't think so. I think it's better.

Alex: The British Museum have got some really nice displays of Early Medieval pieces. And, if you're doing research and things like that, you can apply and they will often agree to let you view and analyse pieces. And with the British Museum in particular, they've got a fantastic online database and catalogue where a lot of their textiles you can bring up, and they've got a number of photos and things like that of them. No 3D images like from your Masters, but really clear high-resolution images and things like that that you can use to study them and things.

Ronja: I wanted to catch on the 3D thing because it is actually, I think, quite new in the textile archaeology field using 3D models or something. Because I know that the problem is with the 3D modelling, you know textiles are mostly very flat and this is not very suitable for 3D reconstructions. That's why I was choosing to 3D model the textile tools should be considered together with the textiles, to gain a better overview of the local production or maybe also showing how individual the people were who were producing the yarn. The 3D modelling actually is very common now on fieldwork. Excavations are very often…got documented via 3D and I'm doing it also myself in excavations. But I thought the possibility is really nice to document this spindle whorls or maybe some loom weights because future maybe reconstructions or someone who wants to make a new archaeological experiment with the special spindle whorls and want to know how it looks, what were the sizes of the spindle whorls and you don't have to drive to Austria to look at the spindle whorls. So, I can just upload the 3D model online and you know, the person who wants to make a reconstruction of the spindle whorls, he or she can use it, whichever he or she wants. And that's a great possibility to just share all the information because I don't want to own the data. I don't want to own what I achieve because I'm just one scientist who is working for the society. That is the way I see it and I want to share the information. Maybe someone can achieve something which I never thought of. So, there are a lot of possibilities to work on it and this is why I wanted to introduce the 3D modelling to textile research or textile tool research.

Alex: I think what you're saying is very true and it's really heart-warming that people out there are willing to share their knowledge in things like that, and especially within a community like EXARC because there are so many talented makers in the group, who would be able to access the images that you are producing and then use experimental archaeology to see how these tools perform and to give this extra data and things like that. I mean, Eva Andersson Strand, she's been using things like Mocap computer technology and things to investigate the motion of spindle whorls and how people spin and how that results on the finished thread that they produce and things like that. And I can see the kind of things that you're doing linking in with her kind of work quite nicely actually, and I think it has quite exciting possibilities for the future for interdisciplinary research and bringing researchers, archaeologists and practitioners together on large projects that you never know where the results might lead really.

Ronja: Yeah sure absolutely. You are totally right. I know if you want to, you know, work with the spindle whorls and what you said, recreating yarn, especially with those spindle whorls and combining it with the textile finds we already have, you know, we always have to, or I rely on experience of others because my spinning experience, for example, is not that good. I mean, I try to spin since five years but if I have an experiment in mind which depends on producing a lot of yarn in a time frame or in an experience frame from people, then I need to rely on others. And they don't, of course, need to be a scientist and this is actually a good citizens science project combining thoughts and experience from people all over the world. It doesn't matter to join us in future projects and

gaining more data to, you know, recreate a part of the textile production in prehistoric times because me myself, I can never achieve reconstructing a textile production from the Iron Age, so you need more people for it and these questions, yeah, it would be nice if they sometimes can be answered.

Alex: Yeah. But inevitably they tend to give us more questions don't they?

Ronja: Actually, yes, yeah. But I don't have a problem with it because, I mean, if I'm working on textiles or textile tools, I will never be finished with something. I mean, there will always be something you question and someone who will, you know, give you more input and give you more ideas about your research and that's why, I mean, I will probably always will deal with the textile fragments from Slovenia from my Master. So, I will hug them and love them and will always talk about them so that's absolutely no problem because, you know, you need to have a passion, I think, for textile archaeology to stick on it and to always talk about probably the same topics, and tell people why it is so awesome what you're doing. And that's sometimes very difficult, I think, convincing people.

Alex: I know I've bored people to death with going on about Early Medieval embroidery and things like that. But you're so right. You've got to love it and be passionate about it and although new finds do turn up, it's not a very regular thing and you can always, you know in the back of your mind, that you can always go back to things that you've studied before. And with new technology or through collaborative working, you might learn something new and something that you've never even considered before. And that's the great thing about collaborative working and talking to different people who have different skill sets and things. It's really exciting because you never know what they're going to say. I mean you might be sitting there and going 'oh, they're talking a load of rubbish,' and then all of a sudden it's that 'oh no, actually that was a brilliant idea!' and it sends you off in a completely new direction that you'd never have come to, you'd never have thought of yourself, just sat on your own at a desk.

Ronja: That's true. I'm really sad that this year we miss all the conferences because I was really looking forward to all the information I could share and maybe some more input from other scientists, or maybe we can see all again next year.

Alex: Yes, were you going to NESAT?

Ronja: Yeah, I was, I am. It was my big plan to target NESAT about my research. But I will next year so I'm still signed up for it.

Alex: That's good. I'm planning on going next year as well. That will be great. I don't know if we need to explain what NESAT is?

Ronja: Maybe we should, yeah.

Matilda: Give a bit of an intro, maybe yeah.

Alex: OK. NESAT (https://www.nesatxiv.org/) is a group that's been set up for a number of years now and it's called The North European Textile Symposium and it happens every three years. The idea was that, there were people studying textiles, across Europe, and now the world, who…it would be great to meet up and to discuss their work and spread knowledge and gain understanding in a collaborative form. But there wasn't really a forum to do that. So that's why NESAT was set up. And I've been meaning to try and get there for a number of years, but I always kept missing the deadlines. But a friend told me this time – she emailed me and said 'the deadline is coming up, get on with it Alex!'. So I did and I got in! And then it was cancelled!

Ronja: Yes, me too, I was in Vienna when the deadline came up and Karina was pushing me to sign up for it and I did. You know I was really glad that my topic was good enough for NESAT. Next year we will all talk about our topics together. I'm really looking forward.

Alex: Yeah, I think it's gonna be a good one. There seem to be quite a lot of interesting papers – I can't remember a lot of the titles of the top of my head but that will probably bore listeners actually if we went start to go into too much detail.

Matilda: To be honest I think the listeners for today will be really interested in it, but I might just cut in and that sounds a really good thing and we will be adding a link to the podcast page as well for anyone who's interested in that conference. I actually had a little question. Do you think talking about sort of conferences and people who are studying textiles, do you think there's any gaps in our knowledge of textiles either in the past or modern studies of textiles that need to be filled?

Alex: That's a big question.

Ronja: It is, I mean, there are gaps, of course, and at the moment you can not…we have so few textile fragments or textile finds that through different periods of times…there're always gaps. Because of the preservation problem of course, textiles are very fragile, and only very special conditions lead to organic preservation. And especially in the Middle-European part it's very difficult if you don't have a special bog or you have like a special burial mound where you have special bacteria which are preserving the textiles. It is very difficult and I think you can never achieve a full overview of one big prehistoric society with the data we have now.

Alex: No, I agree with you there. From an embroidery point of view as well, particularly from the period I've studied, we have a number of surviving embroideries but there's very little equipment or there's very little equipment that's been classified as being used for embroidery. So there's the two sides of it for the fact that we have little textile surviving but then you also get, in some instances, few pieces of equipment surviving, and so then you've got big questions around well…for me this embroidery looks fine, you've got embroidery stitches of a millimetre long and things like this. What were they using? They were using needles but needles made from different types of metal or bone, work better with certain fabrics and fibres than with others. This opens up really good opportunities for experimental archaeology and exploring different toolsets and things like that. And also, if a new find comes to light, that opens up new questions and it might enable you to fill some of the gaps, but then it might open up new gaps and things like that. We've not really defined what kind of gaps there are but there are so many…, yeah would be here forever really, I suppose, in a positive way.

Ronja: Alex, do you have some archaeological finds of needles from the Early Middle Ages?

Alex: Yes, we have a lot of finds from known and presumed female graves. Some of them are children's graves as well. Mainly you would say from the Viking period. Some of them are beautiful, you get lovely containers, made from bone or metal, and inside there are needles, some of which have been threaded through a little bit of fabric, just to keep them safe and things like that. There are scissors, or shears which have always been given symbolic functions. They're normally found attached to the chatelaine and the girdle, but the sides of the blades are the same as the size of blades from modern day embroidery scissors things like that, so personally I'd like to do some experimental work linked to those finds. We've got no embroidery frames though. Which isn't surprising because they would've been made of wood.

Ronja: Yeah, I think the textile tool problem is also really big because I was working in my Bachelor thesis about the rigid heddle. The rigid heddle is also a tool made out of wood or of bone and it's way more prominent in the Roman period. But I was investigating it in Northern Europe and it is very hard to lay a finger on the rigid heddle because I think most of the wooden finds which were

excavated quite early, weren't even identified as a textile tool, because they are very simple looking. There's probably just a stick left on it and maybe a little hole and that's it. It is always difficult to collect those finds and this is another gap. Maybe you have the textile but you don't have the tool or the loom or something and you have to make up your mind what was used, and have to experiment a lot with it. So you maybe achieve different techniques and different methods for the same result at the end. There's always two truths how to create a textile.

Alex: Yes, and that's one of the things why I like an interdisciplinary approach as well because sometimes you might find in written sources or in art sources and things a little snippet of something, and all of a sudden it pings in your mind and you think 'oh, actually that could be a whatever' and then you can go back and look at things, objects that have been excavated that have been classed as "miscellaneous" or "unknown" and they link in with these written or visual descriptions. And then you can move on to having recreations made and experimenting and things like that. So working with archaeological textiles is really interdisciplinary thing and I…and that's one of the things I love about it.

Ronja: Yes, definitely, definitely.

Matilda: If I could just tag in on that, you were sort of mentioning, a kind of interdisciplinarity almost, sort of diversity, shall we say, within the kind of genre, I just wanted to come in, because we try to make sure that we're on line with current topics in the world right now and I think that something like textile research is a really good example because it is such an international thing I mean, all over the world, usually there was some kind of clothing, or textile or something going on in that respect. How do you think that textile research can highlight sort of past and also present diversity in this respect? Do you think it can?

Alex: I think it can. Perhaps not in specific ways, but I mean if you're taking, again, my area of study, the early medieval period was particularly in what is now England, people were very outward-looking and they were interacting with other territories, other cultures across Europe and through into Byzantium and taking their ideas, sharing their own knowledge with them, bringing materials, precious materials like silks and things like that into early medieval England, and using those to make embroideries and then these embroideries were then going back out into the wider world. So by doing that they, people were interacting with Viking Age traders, and we know that the Frisians were coming over, and they were at the court of Alfred, and so in that sense, it is a very diverse area of study, because you're not just focussing on England, you're actually looking at the western world and through into China as well in some cases. What would you say, Ronja, about the period you're studying?

Ronja: Yes definitely. I was trying to look around Slovenia, because Slovenia in the early Iron Age was part of the bigger eastern Hallstatt region and there is evidence for some kind of trade, specially from the eastern part but also from the western Hallstatt area and I wanted to look if we can see it in the textiles. Because the specific thing about the eastern Hallstatt textiles are, they are produced mainly by single yarn, and the western Hallstatt textiles were mostly produced with a plied yarn. There are some – very few – evidence in the eastern Hallstatt region, especially also in the Slovenian burials, where we have also plied yarn textiles. And combining this with the other objects inside the graves, like some metal objects or some weapons, you can see clearly a contact between different regions and that the plied yarn and textiles are probably traded or were presents, doesn't matter from the western Hallstatt area. I tried to look at other countries like Italy and Greece, everything that is surrounding Slovenia, but there's of course always the problem that not in every country there is a textile archaeologist who is looking at the textiles, so there are some blank countries at the moment. I wanted to look at the Czech Republic, or at Slovakia or some countries around it, but

there is … – if…maybe there is material - but there's no one who is dealing with it. So there are some problems, because modern borders are not the same as 3,000 years ago, so you have always to look at other countries around.

Matilda: Thank you for that, no, I think that's an interesting point as well. You mentioned, Ronja, that you were in a big German university and you found it difficult to find someone to help you with the textile research. So someone who is in a country where maybe it's not quite such an international university, or it is a smaller scale university, would find it even more difficult perhaps to get into textile research or for it to be even a topic.

Ronja: Yes, of course, absolutely. I think last year I was in Poland for a conference and they're doing a lot of interesting stuff, with also medieval textile finds, they have quite a lot, but it's sometimes difficult for the universities to step outside and share the information. Maybe just because it's a problem of money, maybe they can not afford attending a conference and then you have to somehow get the information in another way. That's very difficult if you don't have the possibility from your university to share your information.

Matilda: So thank you both of you very much for that very interesting discussion. As a final question before we open this up to the live session: What are your plans for the future? I know that for example you're working on a blog together, we mentioned that before. Feel free to talk about that a little if you want, but also any other plan you have. And, obviously, this is a show run by EXARC. How can the EXARC community, how can we help to make a difference in regards to the points that you have discussed today.

Alex: Well, with regards to the blog, I've set this blog up – it's entitled "Early medieval (mostly) textiles" (https://alexandramakin.com/2020/07/01/early-medieval-mostly-textiles/) and the first post went out on the 1st of July and Ronja's post is out on the 1st of August. The idea behind it is to spread the "amazingness", if that's a word, of particularly early medieval textiles and their decoration and how they were made and how people used them and study them today. Although the blog is entitled "Early medieval…" because there's so many exciting finds and fascinating analyses being done on them from outside the early medieval time frame, people are going to be uploading posts linked to those textiles as well. The main aim is for it to be inclusive, so the whole world, and it doesn't matter what your background is, whether you're a maker or a researcher, whether you do it as a hobby, or whether you do it as a job. The information is out there for people to learn more and to become interested in them. And hopefully there will be a post a month, and it's free! That's important that it's accessible to people. So from my point of view to do with the blog, I'm always interested in what textile makers or people who make tools are doing, and EXARC members who are involved in that sort of thing are more than welcome to contact me, if they want to put a post on the blog about it. But Ronja is actually writing about her MA work. There's going to be some amazing images and things and some of her 3D work is going to be linked to it and things like that as well.

Matilda: I was just about to ask. Are we going to see 3D images, I'm intrigued.

Alex: Yes, yes, you will.

Ronja: Yeah, I'm giving my best.

Alex: And I have a husband who works in IT, so he can make it all work.

Ronja: Oh wonderful, yeah, that's awesome… We can make it work, I'm looking forward to it… The textile blog with Alex is just one opportunity for me to reach out to the people. Since last year I'm really into "science slam" (https://www.scienceslam.de/). In Germany we have quite a big community who are organising science slams all over Germany. Different people from different areas

can tell people what they're doing in a 10-minute frame, and I think this is a great opportunity to reach people who are not always scientists and who don't really know what archaeology or textile archaeology is, and I'm always linking this to the situation that clothing or dress is really important for us today and was also 3,000 years ago. This always catches people to talk with me about this and why it is so good what I am doing. This is something, well, I really have fun, and I want to do this you know, again, when everything is open because you need a stage and you need people to see you. I hopefully can work more with textiles in a PhD project, I hope this will somehow work out for me. But in the meantime I'm doing some more 3D-reconstructions. I'm doing my weaving and sewing and I'm doing my reconstructions for my Iron Age dress to show it to people and maybe I can…we have in Berlin an open-air museum and there's always a good opportunity to talk to the visitors and to show some techniques about weaving and spinning, and maybe connect with other re-enactors or people doing living history. Yes, doing things together, mostly.

Matilda: So, I hope you enjoyed that discussion. We will now be having a live Q&A session, with all of you who've been listening in. We have our first question from Nalanna: So in relation to the gaps that there are in textile archaeology, which we were talking about earlier, what can other disciplines do, do you think, to build on the picture which has already partially arisen from finds and from analysis? So how can disciplines help textile archaeology?

Ronja: We talked about interdisciplinarity, and this should be always a goal to work together with different parts of archaeology. If we're talking about for instance fibre analysis, and what we can gain information from it, we should always also ask zoological analysis about maybe sheep or horse and other animals, or even biological traces for fabrics which are made by plants and…we should always have a bigger overview to other archaeological disciplines.

Matilda: Would you have anything to add to that Alex?

Alex: So from my point of view, because I do a lot of work linked to the art side or things, I'm always interested in what those studying early medieval art think about, say, the layout of images and things, I mean the Bayeux tapestries is a really interesting one in that sense, because we obviously look at things from a modern, western perspective. But actually during the Early Medieval Period they weren't looking at things in that way, so I'm always interested in what art historians are thinking, but also what professional embroiderers would think. So I think you've got the scientific side of things, and you've also got the art and the humanities side that can bring together lots of interdisciplinary approaches. They can give you really exciting answers or avenues in which to explore your medium.

Matilda: OK great, thanks for that. So we have another question more specifically for Alex, but Ronja, I'm sure you'll have something to say on this. You said that a lot of your questions for embroidery relates to the absence of many of the tools. Are there any techniques which you've seen from the past that you think might have been produced with tools which aren't used today? Is there a gap between what you see they've accomplished on the textiles and what our modern tools would enable you to do?

Alex: No.

Matilda: Quick answer!

Alex: So that was a really quick answer, I'm thinking this through. No, I think most of the things that I've seen on the surviving embroideries can be produced with the tools that are available today. Obviously this is focussed on only medieval embroidery produced in what's now the British Isles and

Ireland. It may be different when you look at embroidery from other countries, but that's an area that I need to explore in more detail. So I wouldn't want to say yes or no to the wider picture, really.

Matilda: Fair enough, still interesting I think and also interesting for future research definitely, it sounds like. Another question for Alex from Dorothee: was embroidery something that many people did in medieval times, or was it more of a high-class thing?

Alex: During the early medieval period the evidence is that most women did embroidery. Not everyone would have done it as a profession. And obviously, if the early medieval period spans approximately AD 450 to – I go up to 1100 – so it's a really long timespan. So at the beginning of that period you get probably young girls sitting with the elders in their local village or within their family learning to embroider, and then by the end of the period I suggested that there are more workshop-type settings and things like that, as running alongside what you could call "independent concerns". And then you have high-class…the women from elite circles and royal circles were embroidering. They were doing it more as, I suppose you could say, possibly a vocation, it was seen as a worthy occupation. They weren't embroidering as an income, as a job, really. Moving in to the later period, I can't really answer that, I would suggest that most people were continuing to embroider, but then of course you get the guilds coming in and it becoming more professionalized and men were taking over as a result of things like that, so women would continue to have embroidered, but from a professional point of view men were also beginning to become involved as well.

Matilda: It's interesting, it's almost like a…I'm just thinking of something like chefs, working with food as well. At some point everyone thinks, oh you know making food is just for women, but then actually, professionally, the male chef is sort of an interesting disparity in those things. Ronja?I will ask you a question now. Caroline is wondering what 3D capture method you use.

Ronja: I did it with a structure from Motion, which is basically taking pictures of an object from a lot of different angles. And those pictures are later getting into a program, there are multiple ones, you can use some open source software or you can buy some stuff. I'm using most of the time Agisoft PhotoScan, which is a very easy to use and is also quite nice when you don't make that nice pictures, and it will put out a 3D model which is very convenient and also can be used for other projects. Later on you can save it as a pdf-model, you can save it in a hundred other files, and you can also – we thought about actually printing out a spindle whorl later, because it connects quite well with a 3D printer, and Structure from Motion is quite cheap because you only need a camera and nothing else. For other 3D techniques you can buy also scanners, but they cost a lot of money and, you know, I'm just a poor student so I have a camera and I take the pictures and I get quite convenient 3D models out of it.

Matilda: OK perfect, so it's a photogrammetry method

Ronja: Yes, it's basically photogrammetry, yes.

Matilda: From Maeve we have another question: Are the STL files for the 3D models of those tools, will they be available online?

Ronja: Yes, there is one spindle whorl online on the website Sketchfab . Sketchfab is quite a nice website where people or institutes can upload their 3D-models. Also I think the British Museum has quite a lot of 3D-models uploaded there. It's for free, you can check it online, I have an account there. It's named Ronja Lau of course. And there's this spindle whorl online which I was making for my master thesis and you can spin it around, you can look at it from every side you would like and, in addition, the spindle whorl is also found at the blog post Alex and I launched at the first of August on her website. So you can read it there.

Matilda: We have another question from (Mary) Valante. So might ask to Alex first and then to you Ronja. Do the speakers, so both of you, think that textiles might have been ignored by broader research/exhibits in museums because it is considered as a "craftwork" or women's work, as opposed to artisanal/men's work? Obviously, there's a high degree of skill involved of course, but do you think that people see it in a different light to other crafting technologies? So maybe Alex first?

Alex: I think people do generally see it more as craftwork, and that goes back to this whole business of the Renaissance. When a hierarchy of arts/craft work was, say, put in place but became popular, that's come down to us today. But I think with the idea of broader research or exhibitions, I think that can also link in with what's popular and in both research context, particularly if you're looking for funding and things like that, and with exhibits obviously if it's been in a museum context, people need to draw in the public, in order to make these things work and so they're also looking at things that are going to do that. So I think it's a combination of a lot of different factors that have contributed to that. I hope that answers your question.

Matilda: No, I definitely think so! So Ronja would you agree, do you think that it's seen in a different light to other crafting techniques or technologies?

Ronja: I, yeah, maybe yes, but maybe it is also like a more older tradition, because I can imagine that in Germany the research tradition about archaeology in basic was not focused on things like that. It was about jewellery and about the bling-bling stuff, and I know that we have a collection at our university with a lot of nice textile-related archaeological finds and we know that – I don't know - a hundred years ago they scraped the textiles off and threw them away on the metal objects. So it was not that important and the focus on those small things was quite a few years out of the mind of archaeologists and maybe it's just slowly getting back and because of the very few textiles we have, I think a lot of people find it very difficult to even say something about a textile or textile archaeology in an exhibition. The craft work maybe is getting better even also with re-creating other crafts, as woodworking or metalworking and maybe textiles can jump on the train and make it more interesting too for an exhibition to talk about that. So yeah, maybe those both sides.

Matilda: Thank you to you both. We have another question here from Hanneke, very specific one, I like this question. It's about medieval lady's underwear and sanitary products. Do either of you have any information or tips about literature on this topic? Is it something that is well-known or well-researched? What materials could have been used? Are there any finds, maybe specifically of 12-14th century that you know of? Perhaps Alex first?

Alex: I don't know the date but I know that they did find possible sanitary products in a cave in Israel. Now I'm not sure if that's been published or not but I think Hero Granger-Taylor has done some research on that. And then if you look up Orit …, I can't remember her last name now, she's a textile archaeologist in Israel, she's the textile archaeologist in Israel. If you look her up on Academia or something like that. She may have written about that. There was a thing to do with Austria, where they thought they found some bras but apparently they're not bras anymore…specifically to the 12-14th century I can't help you, sorry…

Matilda: No worries, it still sounds very fascinating anyway. It's again, what you were saying before about the fact, what Ronja was mentioning in terms of like "oh you know, you just focus on the bling-bling", I guess most things probably just focus on the pretty dresses, and how nice it looks rather than: did they have sanitary products back then? Do you know of any examples, Ronja, or have you come across any literature on this topic?

Ronja: Yeah, I have something in mind but I have absolutely no idea where I saw that. I'm really sorry.

Matilda: No no, that's fine. We can… for those of you who are listening the links will all be available. Hanneke, to answer your question, there is something there.

Alex: Katrin Kania has just messaged to say that it's Orit Shamir who's in Israel.

Matilda: Yes, there we go, and Langberg does have bras but only one fragment turned out to be a cup. I also have another question for you: so obviously Alex, you are a professionally trained embroiderer, Ronja, you taught yourself a lot about how to sew. You already mentioned a little bit the sort of troubles in terms of you had to find someone to teach you and all that aspect, but do you think that people should already have a working knowledge of techniques to do with sewing in order to start textile archaeology or is it something that you can pick out? Perhaps Ronja, if you want to go first?

Ronja: Och, yes, no it's ok. It maybe helps to get started in textile archaeology if you have basic knowledge about how textiles are made. But if you are really into it, and you'd say "oh I wanted to start with textile archaeology but I don't know anything about it" but you're very eager and passionate about it, I mean you can learn it, that's nothing too…you know it's not rocket science You can learn how to sew and you can learn how to weave. It maybe takes others some while but it's not mandatory to work with textile archaeology and the finds.

Matilda: Would you agree Alex?

Alex: Yes I do agree. At Glasgow University, for example, as part of I think it's the MA Course, they do introductory modules for people who are interested in that sort of thing and a lot of those people don't have a background in textiles, but that module builds up the knowledge and helps you understand. So yes, having some background does help and I think it also helps to steer you in the direction that you would like to go. But at a university that – if you were going down the university route – a university that has modules and things like that, should be able to help you develop the knowledge and the skills that you need. I don't know if there are any apprenticeships or anything like that in textile archaeology? There aren't any in the UK as far as I'm aware. That would be really good, actually, if there were.

Matilda: Specifically in textile archaeology you mean, rather than necessarily textile technology - like rather than embroidery or…

Alex: Yeah, I'm talking about textile archaeology in particular in that instance. Because then you get really good hands-on, wouldn't you, working with people on a day-to-day basis. My training at the Royal School was classed as an apprenticeship and it's a brilliant way to learn. So I was just wondering if there was anything like that anywhere in the world.

Matilda: Yeah, I'm not sure. And as Yasmine has just posted in the group as well: I find that so many makers and crafts people and textile enthusiasts are very happy to share their knowledge with people. Dorothee mentions Backedal's Folk High School in Sweden , which teaches courses on ancient textile techniques apparently and there's a summer school at the CTR which is great. And the TRC in Leiden apparently also offers a very in-depth introduction course. So for those of you who are interested and haven't quite got around to learning the skills yet then this then is your chance. It's a nice sharing community it seems. We have a question from Roeland: do you recognise apprentice's work in archaeological material? Perhaps first for Alex?

Alex: I haven't up till now but obviously for my period you've got the issue of how much survives, but for the Bayeux tapestry for instance you can tell different people, the different hands, working on it. I haven't looked at it in the aspect of whether it was an apprentice or not. That's quite an interesting thing. I'm going to have to go back to it and have a look.

Matilda: Ronja, do you have any examples of potential trainees or apprenticeships?

Ronja: I think it's pretty hard to lay a finger on. It did not occur in my work but I have read about some weaving mistakes, or you know yarn that is spun too much or things like this, but maybe it was just the person who had a really hard day and was not focussing very well…and made a mistake, or, it was someone who was learning this new technique and was making a mistake in that way. So if there's not a written source or something with a picture on it, I think it's not…

Matilda: True, it's based a lot on assumptions, I imagine…

Ronja: Yes, yes, it's not a hundred percent said that this mistake was made by a learning person.

Matilda: I have a slightly more fun question for you: what is your favourite, or your most interesting result that you've had in your work so far?

Alex: I've got loads. I suppose for my PhD it would be about a tiny fragment from Kempston, which is in Bedfordshire, there is a fragment of embroidery was found in a, [the court?] work boxes, they're [not?] work boxes, they're small round bronze boxes - that was found in what's supposedly a female inhumation burial, and I was able to rewrite the design and therefore a possible history for it. That was really cool. And then at the moment, I'm working on an analysis of a piece from Winchester that could be really exciting, but I can't go into too much detail about, and then I've got my Cuthbert recreation project where I'm using equipment and threads and materials that are as close to the originals as possible, so things like hand-woven brown fabric and silk that's been naturally dyed and things like that. And it's really exciting because I'm learning a lot about the working method and the thinking processes that would have been employed during the creation of the maniple that was discovered in the tomb of St Cuthbert's in Durham Cathedral. As you do see I get very excited about these things very easily…

Matilda: I can tell you're excited! No, it's good, it's great! No, it does sound very interesting though, it sounds like a great project, indeed.

Alex: Yeah, it's a bit slow at the moment because of all of the things impinging on it and covid-19 and all that malarkey…I will get back to it…I will.

Matilda: Sounds great, well, hopefully people can check in with your progress as well…at different points. I imagine that there will probably be blog posts about it on the web or somewhere?

Alex: Yes, there are blog posts and I post onInstagram about it as well, yeah.

Matilda: So if anyone is interested in following that… So Ronja, same question.

Ronja: Yes, I made up my mind and I think I was talking about this plied yarn occasion in Slovenia. Maybe this sounds for others a little bit lame but the Slovenian textiles I was working on were basically fitting the image of the Eastern Hallstatt textile production picture, and I was very confident and excited to see this one product which was made of plied yarn and was obviously not local, but came from another area which was probably the Western Hallstatt region and finding this in these three small cemeteries in Slovenia was quite a… check it off my list, I found it. There's the evidence… and I was really excited about that. This is a very small piece, it was just a 1.5 cm small piece of textile…but you know…finding it…

Matilda: I think for this group, people listening today will not find that lame at all!

Ronja: Probably not! I always imagine talking to people who are not into textile archaeology and explaining everything you know, from the beginning, and ja. I have to remind myself, true, the

people here are all very interested in textile archaeology. This was my greatest find but I have multiple occasions where I just see that the work I do is also reaching people, and all the moments I have with other people are also a very good bonus, and having good experiences and meeting people all the time, and this is also very… pleasing me in my work.

Matilda: Yeah, I can imagine, a fun part of it. We have I think the last question here from Maeve – I'm not sure about the technical specifics of this question…but hopefully one of you can answer it: Did you see any patterns with S or Z spin preference when you compared the Western to the Eastern yarns?

Ronja: The S and Z spun yarns, they occur in the Eastern region quite often, and are, let me see, I have it here written down somewhere…the spinning patterns in Slovenia show that both spinning techniques were used. So we have Z and S spun yarns, and Z was probably used more often, and I don't have the exact graph in mind what's it with the Western part, but as they mostly used plied yarn I think it was S and Z/Z spun, but I'm not sure at the moment. I haven't written that down so… but as the yarns in the Eastern part were spun mostly in Z and S and were used also in one textile to produce like a special pattern with it. That was quite often…

Matilda: For those of us that don't know, what is S or Z spin yarn?

Ronja: If you're spinning yarn you have two possibilities to spin the spindle whorl, either in one direction or in the other. You can see that in the yarn, in which direction you have spun it. And we say S and Z because if you look at the yarn it has a diagonal pattern, either in one direction or in the other and because it looks like an S we say S and because it looks like a Z we say Z. Yes, that's it basically.

Matilda: I'll ask one last question for myself before: how do you feel – both of you obviously do a lot of experimental archaeology - how do you think that experimental archaeology broadens or aids the interpretive process of textile research rather than sort of just looking at it as a 2D thing I suppose?

Ronja: Experimental archaeology and experimenting with tools and techniques is very important, because you can look at a textile and think, mmm, maybe it was made in this way, but you are probably not a hundred percent sure, and you should always try to prove your thesis. In other sciences, this is the basic way, you have a hypothesis and you're testing it by an experiment and then afterwards you say, ok it's true or false, and I think with textile archaeology you couldn't always do the same, and it adds good points for your interpretation or maybe changes your mind over something, over a find or a technique and it's just evolving and yourself, you as a scientist, you are evolving during the experiment and afterwards, your work is maybe richer about your knowledge than before.

Matilda: Mmm yeah, it's a good point. Anything to add, Alex?

Alex: Yes, I agree with what Ronja's just said. Also for me I'm quite interested in a theory called sensory archaeology where archaeologists look, use the senses to explore people's possible interactions with different environments and objects etc. So for the experimental side of things, it gives you that, I could say personal insight, although that's quite difficult because for me the person is long dead, but it gives you a deeper insight into how that person might have been feeling, how their joints might have ached for instance after spending so long bent over an embroidery frame. If you're having a bad day, you can imagine what they were thinking. So there's a wider theoretical side that can also be inputted and interpreted through experimental archaeology as well as exploring "would that bronze needle work with such fine embroidery or was it used for heavy embroidery" etc etc. So I think there are wider applications that experimental archaeological can be used for. But it may… can also answer the bigger questions about how people were thinking and feeling, about how work

environments were set up, and that sort of thing as well.

Matilda: I'm afraid we have run out of time. So thank you very much Alex and to Ronja for joining us today, and sharing your experience, your expertise in this area – I definitely learned a lot, I now know all about S and Z patterns – so I'm sure that our listeners did too. So thank you very much both of you for coming and joining us today.

Alex: Thank you for asking.

Ronja: Yes, thank you.

Matilda: And thank you everyone else who's here for listening to this episode of #FinallyFriday by EXARC. So if you'd like to become more involved with EXARC why not become a member? Alternatively, you can make a small Paypal donation through the website to help EXARC in its future endeavours and don't forget to keep an eye on the website for future updates in regards to the conference and to episodes of #FinallyFriday. So see you next month for an episode of #FinallyFriday, bye!