

Neolithic House & Home

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Introduction

We are joined by two archaeologists from the *Putting Life into Late Neolithic Houses* project discussing all the methods they're using to create a picture of the past, from full scale reconstruction to microwear analysis. **Annelou van Gijn** is Professor of Archaeological Material Culture and Artefact Studies at Leiden University and the Principal Investigator for *Putting Life into Late Neolithic Houses*. Annelou's research focusses on prehistoric technology, ancient craft, and materials studies like microwear analysis. She founded and runs the Laboratory for Material Culture Studies at Leiden University She also has extensive experience with reconstructing the past, and previously helped to design and construct a Neolithic house at Hosterworld. **Diederik Pomstra** has over 20 years of experience in experimental archaeology, ancient technology, and public outreach. His skills in experimental reconstruction, such as flintknapping and bone working, are invaluable to the *Putting Life into Late Neolithic Houses* project, for which he will be making many of the tools. Like Annelou, Diederik was also a big part of the Hosterworld house reconstruction.

Transcript

It's the first Friday of the month, which means that it's time for the next episode of #FinallyFriday. Bringing you insights and discussions from around the world focussing on experimental archaeology, ancient technology, archaeological open-air museums and interpretation.

Phoebe: Hello and welcome to FinallyFriday. My name is Phoebe Baker and today I am joined by two specialists from our EXARC community, focusing on Neolithic house reconstruction and daily life in the late Neolithic.

A new project financed by the Dutch research council, NWO, entitled 'Putting life into late Neolithic houses', coordinated by Leiden university, aims to reconstruct aspects of daily life during the Neolithic Vlaardingen period circa 3,400 to 2,500 BC. The project runs from 2021 to 2025, and uses experimental archaeology and materials analysis to help create detailed biographical narratives of objects involved in domestic and subsistence settings. The project has already made exciting progress, including the reconstruction of a dugout canoe and various other experiments like hide working.

Annelou van Gijn is a professor of archaeological material culture and artefacts studies at Leiden university and is the principal investigator for 'Putting life into late Neolithic houses'. Annelou's research focuses on prehistoric technology, ancient craft and material studies like microwear analysis. She founded and runs the Laboratory for Material Culture studies at Leiden university and she has extensive experience with reconstructing the past and previously helped to design and construct a Neolithic house at Horsterwold.

Diederik Pomstra has over 20 years of experience in experimental archaeology, ancient technology and public outreach. His skills in experimental reconstruction, such as flint knapping and bone working are invaluable to the 'Putting life into late Neolithic houses' project, for which he will be making many of the tools. Like Annelou, Diederik was also a big part of the Horsterwold house reconstruction. So welcome to both of you and thank you very much for joining me. This sounds like a really, really interesting project and I'm excited to hear more about it. So just to start, I've got a quick question. Why have you started a whole new project about the Vlaardingen period? Do you want to start, Annelou?

Annelou: Sure. Well, I've never been interested in gold and palaces, but rather in the simple domestic life of regular people. And I have always been very interested in wetlands. This is where I had my first excavation in the Northwest coast of the United States with Dale Croes, who is also known at EXARC. So that always stuck with me and the Vlaardingen culture, the sites of the Vlaardingen culture, are basically located in the Rhine Meuse delta, so in a wetlands context. And one of the sites of this period was the focus of my PhD thesis of the 1990s, so a long time ago. I've always continued to be interested in this material and always wanted to go back to it. So that's why I started these housing projects as well, like Horsterwold and now the Vlaardingen Broekpolder project.

Diederik: And I think the Vlaardingen culture is very exciting, isn't it, Annelou? Because we know actually not so much about it. I mean, we know the pottery, but many other things are kind of varied I think, isn't it?

Annelou: Yeah, there's a lot of variation in the lithic material, but also in the location at which these sites are situated and we also find material culture from further inland. So there is clearly some relationships between people living in these coastal wetland environments and the people further inland and one of the goals of the project is to get a little bit more grasp on that through, for example, the study of lithic resources, what kind of raw materials were they using? Also petrography, so the chemical composition of the clays that were used for their pottery. This way we try to situate a little bit this so-called Vlaardingen culture between the other archaeological cultures that we can differentiate.

Diederik: What I also find is very interesting, it's kind of an in-between hunting-gathering and agriculture way of living. So they did some husbandry and they were growing some cereals, but they're also very dependent still on hunting and gathering. So you get that nice blending of different ways of life. That's also very fascinating.

Annelou: Yeah, that's certainly the case.

Phoebe: They sound like really interesting reasons to be starting a new project. I was wondering... the combination of experimental archaeology and microwear analysis and residue analysis sounds really interesting as part of the project. Could you talk a little bit more about the techniques that you plan to use and also why learning about object biographies can be helpful for this kind of project.

Annelou: Well, microwear analysis is a way to get some insights into hidden technologies, hidden because, especially organic materials are often not preserved in archaeological contexts. So we know very, very little about that component of past people's technological system, whereas we are more and more aware that the organic component, the textiles, the basketry, bone and antler, shells, all those kinds of materials that are hardly ever preserved, constituted one of the most important aspects of past people's life. And wood, let's not forget wood either. So many, many tools were made of these materials, many crafts involve these organic materials and through study of the traces of wear on flint, for example, we can link these usewear traces to past activities. We do that by doing a lot of experiments because those traces are not clear in and by themselves, they only tell their stories by a comparison to our experimental tools. So we harvest a field of einkorn, for example, with a flint sickle, and then we compare the traces we see on that with the ones we observed on archaeological sickles or on archaeological tools which we can then interpret as sickles if the wear traces are sufficiently similar. So that's why it's very closely linked, why we have to do a lot of experiments in order to be able to carry out microwear, usewear analysis. And that also applies to residue studies. Residue studies often involves more chemical analysis, which is also part of this project. There will be organic residue analysis done at York university by Oliver Craig and his students, to know a little bit more about the cuisine, trying to understand the recipes. Oliver is working closely with Lucy Kubiak who uses the scanning electron microscope to look at residues, so more macroscopic residues that she sees in the charred remains in pottery.

Phoebe: That sounds really interesting, thank you. You've talked about your experiments a little bit. For everything you make as part of the project, do you always use authentic tools and kind of how important is it to use authentic tools for a project like this?

Diederik: For usewear analysis of course you want to have authentic surfaces to work on. So mostly we work only with authentic tools, but not all tools are produced completely authentically. We're not being fundamentalists in any way. It's just what's necessary for the research you're doing. So for example, Annelou was talking about the residue analysis inside pots and so we made pots comparable to Vlaardingen culture pots. So not fired at too high temperatures and with the right kinds of temper and the right kind of clay. And then we use those pots to do the cooking experiments. So we have the walls absorbing ingredients of the meals that are being cooked in a way that will be comparable to the way it was in the past. And the same with the flint or stone axes. They've surfaces ground on sandstone, so that the traces that will develop by use will be comparable. So that's important and we are also very interested, of course, in the biography of the tool. How were the tools made? Where do the materials come from? How did the tools get blunt or break or discarded or that kind of thing. And of course, for that, you need to have authentic tools that you can work with, so it can actually have a biography that will be interesting to study. So it would be very important to have authentic tools, to a certain degree.

Annelou: I think so too. I think it's absolutely essential and when I first started doing microwear analysis, I often made my own little simple tools, which are not really as usable as when you make proper, real good tools, which is why I came across Diederik and we met because I needed a Stone Age craftsman to make hafts in the proper way, to make really good tools that we could use in a realistic way. Only when you use tools in a realistic way can you indeed understand also some of their biographies. How fast do they wear out, do they need sharpening? What are the anomalies when objects are being deposited, for example, in a very battered way? They may have destroyed some of these edges of, for example, flint, because of ritual reasons. We sometimes forget that usable tools, tools that are still perfectly in good shape can be intentionally deposited. So all these kinds of aspects of these objects, we can only understand them when we really use proper authentic tools and use them as much as possible - which is one reason why we have experienced craftspeople in this project - in a realistic way.

Diederik: When we were doing other experiments, we also found that there's a difference when, for example, students are doing the experiments, say cutting down a tree or peeling a skin or anything, and when someone who's more used to doing this, is doing it. So you get different traces, right Annelou?

Annelou: Yeah, sometimes, although I think in these house reconstructions we did over the years, I'm often surprised how fast students and volunteers learn. They will never be the same as you and Leo Wolterbeek, who is our wood expert and knows how to make all these houses. But we had some really fantastic woodchoppers, also women, who could do it really fast and who did it really well, but we differentiate between the tools used by our expert users and the tools we give to students and volunteers to use. That way we can compare them a bit. And indeed certainly in the beginning, tools of novices are much more battered, they break the axes et cetera, et cetera. There's a lot more damage in general.

Phoebe: Thank you. So kind of connected to that actually is, I was gonna ask about how important do you think experience in experimental archaeology is for this kind of project and also connected to that I wondered if you could touch on the collaboration that you've got going on between both academic and non-academic participants in the project. It would be really interesting to hear about the people that you've got involved.

Diederik: That's a really cool part of this project because there's a large variety from scientists from different angles and also non-scientists, volunteers, there are skilled workers. It was really cool when we were first gathered together and discussed during the weekend when we were out. Well, what are we going to do with the project? How are we going to learn from each other? It just happened. There were discussions on certain subjects, canoe building, or any other thing. And while one person would come in and talk about what kind of trees were growing, probably growing where and when to harvest them and which tools would be the most useful. And so everyone was contributing from their own specialization, from their own field of experience. So we got discussions going and everyone was learning from each other. So that was really cool, that very rich team. The importance of skilled people... that's important too, because like Annelou was already saying, you want to do actualistic experiments, so we want to have those axes really, really used to cut down those trees, to get traces on them that are useful to study, and for them to be good, they have to be made well so they don't drop out of the handle all the time. And you want the axe to be made from the right stone and everything, but that also includes, like we were just discussing, some experience in using them. And like Annelou was saying students learn very fast and it was also very interesting to see that actually building those houses isn't really that extremely complicated. I mean, they're pretty straightforward things. So I think some of the students were..., we had them come back for several building projects and some of them were already getting ideas about how the construction

could be improved or more efficient ways of doing a certain job. So they were quickly grasping the basics and then thinking on making suggestions. So that was really cool to see. So yes, I think skill is necessary to do good experiments, but many, many things can also be quickly learned by people if they're just enthusiastic and our students were very enthusiastic. They loved all this outdoor building, fires, the making of things, actually have your hands on materials and tools that usually you only look at.

Annelou: Maybe I should pitch in and tell a little bit about how this project is constructed. There was a call from the Dutch Scientific Council for a collaboration between academics - so in our case it's Leiden university, but also we collaborate with York - so academics and archaeological companies, who nowadays have a very large role to play in Dutch archaeology and public partners like museums or in our case this open-air centre Masamuda. So you have all these different parties coming together and the idea is to make lasting partnerships between these three different sorts of parties in this particular type of project. And because one of the things that is more and more important is also public outreach, we have to involve the local community in our archaeology and not only sit in our laboratories and do our research, but doing things together. And I think that is why experimental archaeology is so wonderfully good because, making things together, with the volunteers of Masamuda, it is really, really bonding, but it also bonds people within the community because there are all sorts of different people participating with different backgrounds, from a housewife with children to a professor. And that makes it really, really nice. And it is working together on these houses and now we're constructing a dugout canoe, and it's nice to see how the volunteers of Masamuda, of this open-air centre, are so motivated to contribute to science because they maintain all the documentation. They don't just make the dugout, but they also make sure that the time is measured. They make casts of the tools, so that we can document the development of wear traces. We use a special kind of dental cast to document it. They're doing that really diligently, so that's really nice how you can actually do science together with the local community.

Phoebe: That sounds like a really nice aspect of the project, is kind of how many people you've got involved. Thank you both.

Diederik: And that's also why we're so eager to work together with EXARC because you have such a large number of members and people connected to you. What we would really like is to involve also the knowledge of those people in our project. The plan is to... when we have the information, we give it to Kelvin Wilson, who's an archaeological illustrator, and he will make drawings. And these drawings they're going to be put out so people can actually comment on those. And those insights of people will hopefully give us new insights to study again and to develop new experiments on. For example, a while ago we were making a large Iron Age canoe, dugout canoe. And then I met someone who has his roots in Suriname. So when he was a child, he had actually seen dugouts being made in the woods, by his family and the people of his village. And so these people, or other craftspeople, or just people who've been reading or travelling or anything, they can give their insights on things that we're working on. Because when you're an archaeologist, you have your own field of specialization and you can get stuck. And what we are so interested in is getting the details of life in the past. And people can help us there.

Annelou: Just to add on to that, I think one innovative aspect of this project is the use of these visualizations by artist Kelvin Wilson. The first big visualization or painting what he made is about the dugout canoe. And we really use these visualizations, these reconstructions, which are often made, indeed, on the basis of archaeologists' data, which leads to often very much bird's-eye's views. We really want to focus on the tasks, people carrying out their craft activities. So we use these visualizations as active research tools and that I think is quite unique and it puts a bit of a strain on the artist, because it requires a lot of discussion. Basically all 18 team members have to

put in their ideas about it. Such and such a tree doesn't grow in such and such environment. The woodworker says, well, these trunks of oak are way too heavy to haul around, so the dugout must have been made on the spot where the tree was taken down. And so the archaeologists come in with ideas, well, we have some evidence for temporary encampments. They must have gone inland to get a tree like that and it can't have been growing on the edge of the water. It must've grown inside the forest to make such a beautiful straight stem without any side branches. So actually we fill in this reconstruction with more and more details, which are not only based on our archaeological finds or our archaeological microwear traces, but based on the discussion between all these different people, like Diederik already said as well. We all put in our skills, maybe a story of their grandfather, or their archaeological data. It's all these things together that lead to these plates, which we then will communicate via EXARC to elicit discussion, because we also will give the narrative about these plates, why we made these choices. The making of these plates... it's very active because Kelvin Wilson actually asked questions, which some of us never really ask, because he has to visualize it. And so it's really something that pushes the project further, these visualizations. That is something I personally really like about the project, the questions we all ask of each other and this teamwork between all these different kinds of members within our team. We also have by now several students partaking in the project. So we're also attracting interest from beyond our team because it's really, really exciting actually.

Diederik: I've been working in open-air museums, Archeon for example, and people always ask, visitors always ask: where did they sleep, or, were they really dressed like that? And what did they eat? What are you going to have for lunch? And that's so much fun to go actually into those kind of details that archaeologists often don't really touch upon. Not because they're not interested, but because information is lacking, it's too detailed. If Kelvin is making his drawings, his paintings, and he's really showing how people are holding things and what's lying around them, what kind of tools they're using. It's very specific. Annelou was saying, many archaeological illustrations are bird's-eye views and Kelvin's really going into detail. And that's what we want to fill out. We want to fill out the details and that's very interesting.

Annelou: It's also because we lack imagination... if we stick only to the very archaeological hard data, it's difficult to get into this kind of detail about what people are actually doing with their hands, how maybe they moved around the landscape, how their yards may have looked like. We really want to push a little bit the limits of our imagination, which are very limited. We have actually very little idea about what these people dressed like, how their interiors were. So we rely on a few known examples archaeologically, which makes that a lot of these interiors look the same. What we hope to do is to also push this a little bit further and on the basis of the skills and the knowledge in the team... and maybe also of the local knowledge of our volunteers. Vlaardingen was a very important port and fishing community, so that's important to tap into. It's kind of traditional knowledge in order to push the limits of our imagination.

Phoebe: That sounds really good. I'm really looking forward to seeing the pictures when they come out, I think it'll be amazing. And kind of like closely connected to that, I wondered if you could talk a little bit about what you think the advantages of knowing about daily life in the past are?

Diederik: Well, I think that depends on who you are. For example my children, they want those details. They're not too interested in how a certain prehistoric culture spread out over the land. They want to know: What are they eating? How are they cooking? Do they wage wars? How do they do those wars? All these details are the most interesting bits, because if you know the details about a person you can feel connected to the person and the other information can be too general to generate true interest and connectedness with those people. So I think, in education, it's really good to know the details.

Annelou: I totally agree with Diederik. A lot of people don't really relate to whether the landscape is filled with the right species of trees. That's for us very important, for us academics, but for a child who sees a plate he or she is much more interested in how they were living, the little details. We do hope to get more into these details about life through all this scientific material analysis in combination with experiments. Because like, for example, if we see traces on our tools for which we have no parallel in our experimental reference collection, we have to further explore. We have to do more experiments to explore what that could be and how those traces could have been developed. Through doing all these experiments, we also found how relatively unimportant flint is. We find flint everywhere. It's ubiquitous in our archaeological sites and we're very focused on it. So you have lithic specialists who think that's the world, which is perfectly fine. But what we also try to do is to relate it to the rest of the technological system and we find that wooden tools are incredibly important. Also ad hoc tools, things you pick up in nature and you use directly. In our building experiments flakes actually have been very unimportant as tools and have contributed very little, whereas tools of organic materials have contributed a lot.

Diederik: I remember kind of concluding after we built the second Vlaardingen house that you could probably just go into the landscape with just an axe and then build a house, because that was the only really crucial tool. All the others you could, well, make in the field or improvise. So that was really interesting.

Phoebe: That is really interesting. I find the organic material in the archeological record so interesting and the realization, and that seems to not just be coming from your project, but from what I've been reading recently as well, the realization of how important these organic materials is, I think is just fantastic.

Diederik: When you see old photographs of, say, how life was a hundred years ago, in Africa or the incredible wealth of organic materials on the west coast of Canada, the Haida and so forth. That's when you really see, wow, it's huge. The woods, the basketry, all these things that no longer can be found by archaeologists because they have, of course, completely rotten away... that must have been a large percentage of their material culture. And probably a very important thing also in expressing individuality or plan-based stuff, all those kinds of things, social organization. That's also anthropological information, ethnographic information. So this is important for us when we think of how we're going to reconstruct a house. That for example a reed roof has to be at least 45 degrees or otherwise it will not be waterproof. But then there's also the ethnographical information on how things were made or used.

Phoebe: Your project also focuses more broadly on the landscape use and mobility, so with your dugout canoe experiment and I wondered why you think this is also important to understand as well as the more personal daily life aspects of the project.

Annelou: We know that the people of the Vlaardingen culture were not living in isolation out in the wetlands. We have material evidence that they were also having contacts with the people further inland, for example the big axes that was clearly from southern Belgium, flint... so they must have had their contacts and so they must have been in some way mobile. Understanding the landscape is really important because that's related to mobility. We had these wonderful two days in the Biesbosch, which is a wetlands environment in the Netherlands, and then you understand that going over land, going from A to B, is not so easy. It's the waterways that are the highways of the past. To understand more about how people could have had contacts with inland communities we have to understand the landscape and we also have to understand how that mobility took place. We are also looking at clay sources, the kinds of flint which tells us about this, but also experimentally,

this canoe that we are - I should say we, it's the volunteers of Masamuda who are making it. What does this mean, these different landscape uses? Are they different people using it or are they still relatively mobile? Are they using different sites for different activities?

Phoebe: That sounds great, I'm really looking forward to hearing the results of that. You've spoken about the illustrations. What other kinds of ways are you thinking that you will be communicating the results of the project, do you think?

Annelou: There are various ways in which we try to communicate. It's one of the things that is not so easy because, well, we had great plans about blogs and regular messages through Facebook, but most of us, most of the team is actually not very much oriented towards Facebook. We actually use our own website to communicate, but I'm not really sure how many people are looking at that. The other thing is through EXARC, EXARC is an essential partner in this project, exactly because EXARC is an excellent communication channel with lots of social media involved. And of course, on a smaller scale, we communicate with our local volunteers through WhatsApp groups. We have a WhatsApp group for the canoe and just recently we started a WhatsApp group with the volunteers for the repair of the Masamuda Vlaardingen house because that was severely damaged during the big storm that we had in February and basically the storm indented the roof and pushed the house over to some extent. So we were afraid that maybe we were going to lose it, but, actually a week and a half ago we managed to raise it up again. Maybe Diederik wants to say a little bit more about it. It was really fascinating how easy it was and Leo Wolterbeek, again, our wood man, he's convinced that this could have been done with a family, so with four people or so, could have raised this house back up, which we did with a lot more people. Diederik, maybe you can say a little bit more about this?

Diederik: Well, these are those things that Eric Callahan called 'findings', they are the things that you weren't really looking for during your research, but they just popped up. How you keep a house kind of alive, how you prolong the usability of a house that you build. I think those are really interesting things. So we've built two Vlaardingen culture houses based on the same house plan and both of them after five or six years, nearly all the posts were rotted through, doesn't matter what kind of wood we were using, they were all rotten through. So that's also the reason why this house Annelou just mentioned was pushed over by the storm. But then you start thinking, well, I really need this house so how I'm going to fix it? So one of the things we found at the first house was that it's very easy to replace posts, so you can just dig one post up, put another one in. You can do that for a long time. So that makes the house live a lot longer. And this, when it was pushed over by the storm, that was really funny because the walls were standing at a rather acute angle you think this house is completely finished, but Leo decided to put three or four ropes on the gable, where the posts were, and put some people there to pull and on the inside we had four sticks under the horizontal beam that's running over the wall and we just, together, we just pushed it up and it was so easily done. It didn't take a lot of strength. We were doing it with, I think, 12 people or so. That was very easy, just with levers and ropes being pulling and pushing. And then the house went up again and now it's standing straight again, and we just replaced some posts and it will be fine for a while. So that gives a completely different view of how long a prehistoric house could be in use. And that's what I really, really like about these kinds of actualistic experiments. You're doing something and you really need what you've been making. And so you wanted to use it longer and then you're going to explore, what can I do to make it work? And that's when you find these things.

Annelou: Yeah, it was funny because at first you think, oh my goodness, we are losing the house, which is the focus of this big project. Then you think, ah, actually it's kind of a little present from a scientific point of view. Because this way we could explore a part of house biographies, which is our interest. It was a part that you could never mimic, I mean, this is chance! It was really illuminating

also because it was done, after preparation, in three minutes, the house standing upright again. It was only one morning of preparation. In the afternoon we raised it up. We also learned a lot about the structure and what would have prevented this to happen, apart from regularly replacing those rotten posts. So we added some extra elements. We also saw a fault in our thinking about the wall plates, these horizontal plates. They could have been placed in another way which would have prevented this maybe. So, it's really interesting, this was a funny little present we got from nature, a big, huge storm that added a lot to our insights about construction and about the biography of these houses.

Diederik: Yeah, and then you go into those details that we mentioned, the ones that we're after. So like those wall plates Annelou was saying, so, well, in the next drawing, Kelvin can draw a different kind of structure for the wall plate. And when people ask the question of why is there a connection up there? You can explain this, it will be logical because... And the same thing happened when we were doing a cooking experiment to create pots for a reference collection. We were cooking outside because of the corona restrictions in the winter time with quite a wind blowing and we're cooking in these pots, and then those flakes started popping off the walls of the pots which was really, really strange. But then we thought, of course, it's because of the great temperature stress that you get from the cold wind blowing through the fire and cooling down the pots way too quickly. So you get these typical flakes popping off that you're getting when you're also firing pots and there's a problem with the heat. The same thing happened here and then, oh of course, and then you know, or at least it gives a clue that probably people weren't cooking outside on winter days because it breaks your pots. So these are really funny things. And these too you can put them in the drawings, in the artist's work and talk about them to people. So in the wintertime, don't sit outside with your pottery!

Phoebe: What unique and interesting insights to get from the storm and then from the coronavirus. That's a super cool aspect of the project!

Diederik: Again, you get these things when you do actualistic experiments. You would never have gotten these results when you do 3D reconstructions or laboratory settings. You have to go out there and get into the elements and get into the landscape, and then you can get details and, of course, it may not actually have happened. It may not be exactly true, but it gives information, it gives details. For the audience, for the public, when you tell them about people in the late Neolithic, these were the kinds of things that could have been there, could have happened to them, problems that they could have solved in this or that way. That's what makes a story.

Annelou: This brings me to something in another project that I was involved in about Celtic pottery. We basically wanted the pots that we had been using to be broken into sherds for trampling experiments to see what kind of taphonomical processes were relevant. And we could have done that in the lab. But instead with the team of that project - it's a project called BEFIM, led by Philipp Stockhammer from München - we decided to have our last get-together in the Vlaardingen house and see what would happen if we broke the pots in a realistic way. So we would stumble or fall off a stool or trip the moment we put the pots on the fire. And the interesting thing was that, something none of us had ever thought about, was that the breakage, the fragmentation patterns and the size or the shape of the breakages was recognized by the pottery expert as being quite frequently present also in the archaeological assemblage. Hey, they look a bit like what I've seen archaeologically, what is happening here? And that's what's so nice about experiments. It opens your eyes and suddenly you connect what the relevance is of what you've seen archaeologically. This experiment was actually playing. We were not really aiming to do anything really serious. We just wanted the sherds and yet we came up with an insight that was quite remarkable.

Phoebe: Yeah, wow, that sounds so cool!

Diederik: That's also why it would be so good to have the response from EXARC members because you have members who have done things, seen things, some of them are craftspeople. So when we put those illustrations out there, it would be really, really, really nice to have their responses on things, saying for example, ah, we've got a house which was pushed over by a storm, we fixed it like this. These kinds of things...

Phoebe: That actually brings me really nicely to my final question: what are your plans for the future and how can we, the EXARC community, help to make a difference in regards to everything you've talked about today?

Annelou: Well, we have a lot of plans for the coming three to four years, which is until when the project lasts. We want to do a lot more experiments with various crafts, especially with textiles and basketry we haven't really done anything yet with. That's also important for the volunteers because they are receiving school children, a lot of school children from the area in Masamuda and it's the volunteers that show these children around. So one aspect of this project is also to give them the skills and the knowledge to do this in an ever more detailed way. These workshops on all these different crafts are going to be important for the next few years, they will hopefully also give us a lot of insights, scientifically, about the kinds of tools used, about the length and difficulty of processes, the kind of gestures, how fast people are learning things. Those are all kinds of questions we would like to address. At the same time, there's also a lot of scientific work going on in the laboratories, the microwear analysis, by Lasse van den Dikkenberg, a PhD in our project, but also all the residue studies, the microwear analysis of bone and antler... We are focusing on four different Vlaardingen sites. One is Vlaardingen itself, the type site of this archaeological culture. Hekelingen, is another one. Den Haag Steynhof is the third and we hope to study a strange site up in the north, Zandwerven, which is called Vlaardingen culture, but which is basically situated very closely to a couple of sites that are attributed to another archaeological culture, the Corded Ware culture. So those are the four foci and there will be a lot of archaeological research on these sites. It will be on two fronts, the experimental one but also the public outreach side and the scientific laboratory work. All of that will hopefully come together in a book, but we will also organize a conference in collaboration with EXARC to discuss Neolithic life. Hopefully also with other open-air centres elsewhere in Europe to test out our ideas and hypotheses, so there's a lot to do. We have a lot of things we promised to the Dutch Science Council, but what is so nice about this project and this team is that everybody is incredibly enthusiastic and is very, very dedicated to it. The only problem is that many of us do this very much part-time and for most of us it's one of the many things we're doing. That's a pity because it's not the enthusiasm, it's not the dedication, it's not the friendships between us all, but sometimes the lack of time and other obligations that are coming a little bit in the way. So basically this project should be much, much bigger, should have been getting at least three times as much money to really do everything we want to do because we can't do everything we want to do. Unfortunately.

Phoebe: Diederik, did you have anything you wanted to say before I wrap up?

Diederik: Even though, of course, it could have been bigger and it could maybe have been better if we had more money to do this, I think it's a fascinating project. For me, it's a unique project for the setup that it is. So, I think it's really nice to be part of.

Phoebe: Yeah, I'm really looking forward to seeing where the project goes in the future. So, thank you both very much, Annelou and Diederik, for joining us today and for sharing your experience and expertise. I know that I have certainly learned a lot and I'm sure that our listeners did too. And thank

you to everyone else for listening in to this episode of #FinallyFriday by EXARC. If you would 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 support EXARC in its endeavours.

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