Same Questions - Different Places

exarc.net/podcast/same-questions-different-places

Recording Date
2021-03-05
Guests
Shanti Papou (IN) and João Carlos Moreno de Sousa (BR)
Introduction
Experimental archaeology helps us to understand our human past, and it's a research approach which grows every year all over the world. But how are experimental archaeologists establishing themselves in countries where the approach hasn't been used so often? What kinds of questions are they asking and what difficulties do they need to overcome? This podcast features Shanti Pappu and João Carlos Moreno de Sousa, and they talk us through their work building up experimental archaeology programmes in India and Brazil.

Transcript
Matilda: Hello and welcome to #FinallyFriday. This chat session is run by EXARC, the society for archaeological open-air museums, experimental archaeology, ancient technology, and interpretation. My name is Matilda Siebrecht and today I am joined by two specialists from our EXARC community, focusing on international approaches to experimental archaeology.

Professor Shanti Papou is a specialist in prehistory and interfaces with paleo-environments, ethno-archaeology, and public archaeology, based in Chennai, India. She, along with Dr. Kumar Akhilesh, runs the Sharma Centre for Heritage Education, which conducts research in Indian archaeology and communicates the same through outreach in the form of experimental archaeology, including workshops and courses for university students, schoolchildren and local communities.

Dr. João (Juca) Carlos Moreno de Sousa is a specialist in lithic technology based in the Laboratory for Human Evolutionary Studies at the University of São Paulo, Brazil, focusing predominantly on using experimental archaeology to investigate technologies from Paleo-American and Paleo-Indian cultures. He is the founder of Arqueologia e Pré-História, which is a collection of online resources, aiming to communicate archaeological research and information, and especially to promote the local archaeology and Palaeontology of Brazil to non-specialists and academics alike. So welcome to both of you. So I have a quick question to start you off. How did you both become introduced to experimental archaeology? Shanti, perhaps you could start?

Shanti: So thank you very much for having me here. And I'm really excited to talk to everyone and to participate in this program. Well, it's quite an interesting story. When we first began our research way back in '99 and Akhilesh and I started excavating sites and investigating them, we realized right from the beginning that there were two things lacking in the Indian context. Most of our data in prehistory comes in the form of stone tools. We have very few fossils or anything else and making and using stone tools, as you know, in India is not any more living tradition. So we really felt that there was a need to know, and to learn how these tools were actually made. So way back, I attended a workshop in France organized by professors Texier and Pelegrin which was absolutely amazing, except that I was rotten at knapping. I just couldn't make tools. And then years later, Akhilesh went to the same workshop and he turned out to be absolutely brilliant. So from there, when he came back to India, he started experimenting with our local raw materials and then he never stopped. And it became a key aspect of our research to interpret the Palaeolithic sites that we are working on, to sort of understand the technologies at these sites and this project is still continuing. And the second thing which we realized that in India, because we have such wonderful monuments and other aspects of heritage, there was not really a great awareness about prehistory at all. So when we, in '99, we began a tiny little children's museum in a school here and then from then on, we have been growing and developing and we felt that experimental archaeology should be key in any public outreach workshop for children, teachers, or anyone. So we started teaching children, Akhilesh especially, how to knap flakes, use the flakes to scrape food or do something, get a feel of lithic technology. And then we moved on to pottery and making bricks and rock art modules and so make many lost wax, so many traditional crafts which are also part of our archaeological record. So, this is what we did. And then we moved on to teaching university students in courses. So from there we've been running these courses in our centre in Chennai and also traveling in India, across the country and to other countries, to Sri Lanka as well. So that's our story. So it's a combination of experimental archaeology for research to address research questions and for public outreach, sort of weaving it all in together into interfaces and networks which go together.

Matilda: Did you have a similar experience, João, in that you kind of went elsewhere... because I understand you were also a flint knapper, so that you went elsewhere to learn the sort of techniques or did you know about it before?

João: First of all, thank you for inviting me. It's an honour to be here and to be part of EXARC. My first experience actually was during my undergrad somewhere between 2009, 2010, I can't remember exactly. There was this optional course on experimental archaeology. It was not a usual course in that program, the professor didn't even have experience in the approach, was more like an excuse for her and the students to have first experience on knapping, cutting flakes and using pottery. It was great to have this first experience, even though it was not systematic at all, because many students start to look to the materials with new eyes after that. Through this, I got even more interested on lithics and I kept trying to make stone tools by self-teaching until I met Professor Bruce Bradley from the University of Exeter in 2016, and this was during my PhD. I participated as a student in the course on method and techniques of flint knapping that was carried out in Brazil by

him. And after that, I got a scholarship for making part of my PhD in the University of Exeter with him. And there's where I finally got really involved with experimental archaeology and learned how to really do cool stuff with lithics, complex stuff. And being on this track since then. And now I'm teaching a little bit of flint knapping to students here in Brazil, even being a professor in these courses of methods and techniques.

Matilda: So it sounds like for both of you at least, the whole concept of experimental archaeology was something that you introduced to your universities or your regions, would you say that's true?

Shanti: Not for me, not in India. People had been knapping before us as well. There are many people who were doing that, but in our own Institute, yes, we founded the Centre and we have brought experimental archaeology in as a major element here. So actually, it's quite interesting that the first experimental studies were done way back in the 1960s and even earlier, in the colonial period also people experimented in lithic knapping a bit. In India, there are many people who do knap, but in our case, we took it on as a major project for our own research, as well as for teaching, especially for children, for university graduates and others. So that's become now a major part of our Institute.

João: In Brazil, we did have some past works on experimental archaeology, including flint knapping. But it was like what we used to call ‘one time experimenters’, people would make something in flint knapping, but never worked on that ever again. So experimental archaeology is not yet an established part of archaeological research in Brazil. The laboratory that I work for now, the Laboratory for Human Evolutionary Studies is one of the few in Brazil and in South America in general that have been applying the experimental approach. And it is actually very recent since 2018. There was some of experimental research since the seventies here, but it's like, there are a few people that have done, but no researchers that are actually specialized in the subject. Currently we only have two other institutions in Brazil doing experiments more often, with people specializing on experimental archaeology, which is the Federal University of Minas Gerais, where they are starting to do some stuff on both lithics and pottery and the Federal University of Santa Maria in Southern Brazil, with people there working just in pottery. But in general, all these researchers, including most of us in our Laboratory, are still beginners. No Brazilian archaeologist has ever been in an experimental archaeological centre before. Even myself, I just did part of my PhD research on the subject. And now our idea in our Laboratory is to get more involved with researchers and institutions abroad that have been working with experimental archaeology and develop it as a research line in our institution.

Shanti: I think the story in India is quite similar in the sense that people have been experimenting, but very sporadic and not as a major activity as such. So that's, I think in many ways, similar to what he was talking about.

Matilda: And do you find, because you mentioned already, especially Shanti, there are still a lot of other more traditional crafting techniques that are still kind of a part of everyday life for a lot of communities, a lot of people. Is there much collaboration between, for example, kind of academic experimental archaeologists doing research into that topic and local craftspeople or regional craftspeople who have more experience in those techniques, maybe not knapping necessarily, but other technologies?

Shanti: Yes, absolutely. Whether you talk of pottery or bead making or bangle, craft, textiles, glass, shell craft, sculpture, lost wax method and so many other traditions, even making grinding stones, you know, traditional millers and other grinding stones. These are all living traditions. In fact, we have a grinding stone in our house. So there have been a lot of studies done by archaeologists,

both Indian and foreign. We've done some great work interacting with traditional craftspeople. So this fantastic legacy has been drawn in both in experimental archaeology and of course with experimental archaeology to investigate questions related to the past. As regards stone tool manufacture, this is very sporadic and it's only confined to experimental studies by trained flint knappers and archaeologists working together in India and abroad as well. So, that's the thing about India, we have this great living tradition, which is a huge potential to study for experimental archaeology.

Matilda: Is it similar in Brazil or...?

João: It's similar in the point of view of the lithics, there's nothing traditional for knapping or something like that. But if we talk about pottery there are many indigenous groups still making pottery and traditional people doing many types of pottery and there are academics that are learning with them. But if we talk outside of indigenous people, people who do craft things, no, there's no collaboration at all. And in Brazil, few craftspeople actually have any interest in archaeological subjects. Most of the craftspeople in Brazil are white men, followers of military ideals and survivor on the wildlife, like those shows on tv. There was at one time my girlfriend and I were both invited for a festival in bushcraft to talk about her work in experimental archaeology, but it was not a really good experience, especially for her, a woman in an openly sexist environment. So it's really, really hard to get this collaboration with these guys; many of these craftsmen carry out and disseminate very wrong ideas of what are native American traditional technologies. But there are a few ones that are really interested to learn and they have been in contact with us, in the last years. One of them is a biologist that is now considering a master degree with experimental archaeology. So that's, that's a good thing.

Matilda: Fantastic. So there's potential for the future.

Shanti: I just agree with what he says and I think there's huge scope. And in fact, we do have traditional craftspeople come into our Institute for it, especially related to pottery, to teach children or to have demonstrations. So there's a huge scope for the research and studies as well.

Matilda: I actually am curious because I mean, Shanti, you said you've been doing this since sort of 1999, I think you said. And Juca you said that it's been relatively recent for you guys, more since sort of 2018. What kind of advice would you both give to someone who, for example, might also be living in a country that is not so focused on experimental archaeology or who have different focuses for their archaeological research, but who wants to start their own kind of research or their own community project in this topic?

Shanti: Yeah, actually there's a huge potential. It's a great thing to do because we firmly believe that you, at least for prehistory, you cannot understand lithics just from theory or just by measuring or analyzing the tools, you have to experiment. You have to knap. You have to have structured programs to understand this. So I guess it's essential whether it's lithics or pottery or whatever you're talking about, as regards the past. So I think in countries like India, it should be a part of the mainstream syllabus in a very practical way, not merely only theory but it should be a proper course introduced into most universities to work with as a beginning. And if any new groups want to come up, that would be fantastic. And I think we've had very good experiences and I think it is a must, it is the future to do this. And without that, you are stuck at some level.

João: Yeah, I totally agree on having an experience of producing yourself the replicas of the artefacts from the context that you're studying because by replicating them you have a new point of view on everything that you're observing in the archaeological materials. When you look at

something, just look for example to an arrowhead made on stone. You see the negatives of the flint knapping and everything, but you will just understand that completely if you try to make one yourself. For people that live in countries like ours, where we don't have these institutions that are focusing yet on experimental archaeology, like Brazil, please contact researchers that are working in the subject to have some orientation. I'm sure it's true that you can ask for supervision and to spend some time abroad learning. That's exactly what I did and other close colleagues in Brazil are doing now. Of course, self-teaching is always an option. Anyone considering working with experimental archaeology will do have to do some self-teaching at some point since we cannot always depend on someone to teach us everything in practice, when you're practicing.

Matilda: Yes, I think that's a good point, learning from other people, but also not being afraid to try things yourself, I suppose.

Shanti: Absolutely. You have to work with the materials you have in hand and at a certain point it's a lot of self-learning also. Akhilesh has been experimenting with different raw materials and different questions in his mind and what he said was absolutely right for us as well in India.

Matilda: I'm curious as well, because I mean, obviously at the moment with the whole international pandemic going on, there is less travel. And you both mentioned that both of you have kind of travelled to learn the different techniques more specifically, and also then enhance these techniques at home. But you also do both focus very much on your local prehistory of course, because of where you're based. And do you think that archaeology now is often considered a very international discipline? For example, for me, I am Scottish based in the Netherlands and studying material from the Canadian Arctic. It's quite easy to go sort of all over the place and to focus on a region that's not necessarily your local one or where you're based. But do you think that sort of focusing more on local prehistory, do you think this is something which should be prioritized? Or why do you think that local focus is such an important part of archaeology, but also experimental archaeology?

João: I think, yeah, we should prioritize local focus. It is a shame that when we talk about prehistory most of what the public has access to is about European prehistory. I don't know about India, but that's the case in Brazil. Most documentaries, podcasts, books, any other types of media do not talk about other places. The good news is that this is starting to change. Until recently, even didactic books on prehistory and human evolution, when we get to homo sapiens, they're only things written on the European Upper Palaeolithic, although modern humans were in every continent by 40,000 years ago. When I was in my undergrad I only learned about the prehistory of Brazil and the Americas and Europe. I have never heard about the prehistory of India for example, until I was finishing my Masters, when a foreign professor offered a course in prehistory of the Asian continent, and I really doubt that students from other continents learn about the archaeological cultures of Brazil, even though there are many publications on the theme, in English. Even the Brazilian public does not know much of the native history of Brazil, because most of the content they see immediately is related to pre-Columbian civilizations, Egypt, Rome, Greece, Vikings, et cetera. So how can we say that local focus is important if we do not even consider disseminating this knowledge?

Matilda: Shanti, do you have anything to add?

Shanti: Yeah, actually in India, the first Palaeolithic stone artefact was discovered in the area where Akhilesh and I are currently working, way back in 1863, so not very long after the major discoveries in Europe. So we have a really long tradition of local studies of the archaeology of India. In India, as you know, such a huge area, huge region, different geomorphologies, different environments and

fantastic prehistory. And in fact, the sites we are working at go back from 1 million to around 1.5-1.7 million years. So it's a marvellous heritage in our own backyard. And it's been really well-studied for the past century, by numerous universities and scholars in India and abroad and everywhere. So when we began our research, there was never any question about going anywhere else, but just going out to our own backyard. And go deeper into questions, which people have touched on all these years. So much using whatever new scientific techniques are available, new theoretical approaches to go deep into very local problems that have a global significance. So that has been a tradition in Indian archaeology. It's always been about the sub-continent. So I think we definitely love to compare our lithics and our material with neighbouring countries and with Africa and Europe and elsewhere and we are working with collaborators to do that, but the research focus has always been very local and I think that's something very important because as you correctly said the prehistory of India is possibly not very well-known anywhere in many places of the world. So this is what we are trying to bring it to global notice in many ways. So by going deeper into problems and obviously with collaboration of scientists in India and abroad and a focus on what we have with us here right now, that's always been our focus. And of course, as he said, to communicate this knowledge, because as I mentioned earlier, we have our focus always on big monuments. So abroad you'd have heard of the Taj, but you would not have heard about the thousands, literally thousands of prehistoric sites we have all over the country. So that's the second aim to make the knowledge of our local prehistory available and accessible to not only the academic world, but also to the local stakeholders and to children, teachers, and local populations to know that they have such a wonderful heritage right next to them. So that's been our aim, always.

Matilda: That's really interesting, that there's such a difference between your two experiences.

So in India, it's mainly focused on Indian heritage and India prehistory, but then in Brazil, it's a lot on Europe as well as Brazil. Do you find though, because Juca, you're teaching a lot more about Brazilian prehistory, for example, do you find that students or members of the public are then more interested if they hear about Brazilian rather than European? Is it a sort of similar? How's the reaction to that?

João: Most of the time when people come to study archaeology, to make an undergrad in archaeology for example, they come because they're really interested in these monumental things from the pre-Colombian, Egypt, Rome et cetera. But when they finally join the course and start seeing what we have in Brazil, they discover a whole new world on what actually is Brazilian archaeology..., because most of the public doesn't know about what we have in Brazil. It's only known by the academic people. But when all these students learn about it they get so fascinated on what we have here. I'm not the best person to ask for it, but if you asked me, I would say that Brazilian prehistory is really fantastic. So it's something that we fall in love for.

Matilda: I guess as well for people, if it's something local, then it's always a lot more interesting anyway, because you can relate a lot more to it and it's something more familiar, perhaps, even if it's new to learn. You mentioned, Shanti, collaborating with other groups in different countries. How easy has it been for you to connect with sort of experimental archaeology groups in different parts of the world?

Shanti: Actually after that training in France, I mean, I told you I was not good at all, but Akhilesh sort of had a knack for it. So definitely we have a lot of collaborations with archaeologists and other scientists, with people in different parts of the world. But so far, apart from EXARC, we've not had really a tie-up as regards our own lithic knapping program. Although we have a lot of discussions with individual experts and sort of sharing ideas with a lot of people who are individually knapping, but not groups as such, though we'd love to tie up more. And in fact, I think it's great that EXARC is

bringing us all together under some sort of umbrella. So that's fantastic. I'll be really keen to collaborate and to build new projects and explore new avenues within this field. So that's where we are right now. So that's it, I think there's huge scope and we're really excited about it and some more papers and hopefully our book will be out regarding our own research. So let's see how it goes.

Matilda: And following quickly up on that. Do you find that there's other places in India that are sort of starting up, trying to emulate the work you're doing? How much collaboration is there within India as well in this kind of thing?

Shanti: Firstly, we are not a big centre. We are quite small. There are a lot of other people also knapping and who have knapped before us. So we learn from them and we learn from their experiences also, and in our courses, which we have taken to different universities across India, so we have two types of courses: one is in-house, which we run in our Institute and the other is very short duration traveling courses, maybe a few days or a week or something like that, at different universities. So there we've had excellent interactions with different people and trained a number of batches of students, who are now doing experimental knapping themselves and are getting very good at it. So that's very satisfying for us that what Akhilesh has been teaching, because he's the main knapper in this whole project. Those students are now coming up and running their own projects for their own research. So this is really nice and I think we've had a lot of cooperation and help and we do discuss and interact with people who are interested in knapping and microwear in India as well. So on the whole, it's been very positive so far.

Matilda: And hopefully also a nice future, if it seems that the knowledge is spreading out gradually throughout everyone.

Shanti: Yes, I think so. And we did two in Sri Lanka as well, those students are also doing knapping themselves now and are running their own projects, I hope.

Matilda: Great. And Juca...so you also, obviously you went to Exeter and you spent a lot of time there learning about knapping, but in terms of other parts of the world, non-European countries or other places in Europe, but also other South American countries, but also within Brazil, what are the difficulties or the eases, shall we say, of collaborations in that respect?

João: So when I started my PhD in 2015 it was really difficult to connect because I didn't know anyone with experience in the subject apart from Professor Bradley. It was only in 2017, when I was doing my studies in Exeter, that I finally met more people and got involved and got to know many other institutions where people were working with experimental archaeology. I found out about EXARC for example. And so I have become a member of this great group, hoping to see more Brazilians there soon as well. And also Gabriela, my girlfriend, was working with experimental archaeology but focused on bone tools. She is now also having contacts with other institutions that I wasn't aware that were doing other types of experimental archaeology, for example, in Paris and Ushuaia in the extreme South of Argentina where people are doing very, very great works on this subject. And we found out how easy it is to connect with these people, especially on experimental archaeology, because they also are aware that there's few people in the world doing this, especially non-European people doing experimental archaeology. So they also want to be connected with us. And every time we make contact with these guys, we basically have an automatic invitation to go there as soon as possible to collaborate with projects so this has been very, very, very nice, very cool.

Matilda: That sounds great. I'm very happy to hear that so many people are getting more involved in experimental archaeology in these different places. Moving to a slightly different topic... so both of you are also very much involved with, as you said, sort of public outreach and sort of demonstrations and that kind of thing. When you give examples of the different experimental archaeology projects, so either when you're demonstrating or when you're giving the courses, what would you say is the most popular kind of technology type or demonstration or example for the public? So for the locals who are watching?

Shanti: That's a great question. Actually, it depends on the age. So when we run these programs for small children, that is from six years onwards, school children, then they are very excited just to see a simple flake being knocked off and..., when Akhilesh knocks off the flake, and then he uses it on leather or wood or something else they get very excited. And when you come to a slightly older age group, it's obviously the hand axe. So it's the bi-facial knapping, which everyone is fascinated with, the symmetry, which takes shape in front of you as he knaps and transforms a piece of rock into a beautiful symmetrical hand axe. That's what people really love watching. And obviously it depends on the time, if there's not much time, we demonstrate bi-facial flaking in stages. And if there is time, then he makes a little hand axe for someone. And another thing which people really like to get their hands on is making blades. So when Akhilesh prepares a core and then individually helps people to knock off a blade. So that is something which is really popular with college groups. In our longer courses and workshops, we take them right from knocking off flakes through bi-facial Levallois blades, microliths and polished stone tools, that is for university graduates. And I think everywhere there’s a sort of fascination for hand-axes and blades in our experience, generally the hand axe. Otherwise, it depends on how you teach them and how you excite interest in the whole thing. This is what our experience shows. So we modify the demonstration or the interaction with people depending on the type of crowd available and the age group of course. It's really fascinating. We love to do that!

Matilda: Do you also find, I'm just curious that there's a difference between, you mentioned the age groups, but is there also a difference between men versus women?

Shanti: In terms of knapping skills maybe yes, to some extent in some of the groups, but in terms of interest, no, it's universal. I mean the simple act of detaching a flake and using it to cut a piece of leather or wood or something, generates equal fascination, whatever the age group for a novice, for someone who doesn't know anything about this. And once they are aware a little more of prehistory, it’s the hand axes and the symmetry which is achieved through flaking, which is really always popular. I think it's a mix of aesthetics and technology, for the general public.

Matilda: The general public. Yeah, exactly. Do you have a similar experience or do you find it's different with your crowds, Juca?

João: Making stone tools for a group of people is always the most liked thing. It’s mind-blowing when we show them that we can break rocks with our hands and we can shape them the way we want and how we can predict the shape of every flake that gets out. What I'd like to do is getting a piece of chalk and drawing the form of the flake that I want to get off. And when I strike it and the flake comes off exactly in the shape. The chalk is there. People just get “Oh my God…, how he did that!?”

Matilda: I wish I could do that!

João: It is funny that during my lectures, people are regularly paying attention to what I say and show. But when I say ‘let's make a demonstration’, dozens of cell phones pop up all around me. Seems like this is the only thing they came for, sometimes. And of course they always love to have the opportunity to try making flakes themselves and using them as knives and arrowhead.

Shanti: Yes I think we have the same experience here.

Matilda: A universal trait. Everyone just loves stone tools. Well, on which not I have one final question before we open this up to our listeners. So you've already sort of briefly mentioned a couple of ideas, but what are your kind of general plans for the future and how more specifically can the EXARC community who are listening today help to make a difference? Do you think, in regards to the points that we've discussed today, perhaps Juca you could go first?

João: My plan for now is to finish my Postdoc research, to hopefully get a professor position in university, and keep researching South American prehistory, even if I get a job somewhere else. Because again, I'm in love with Brazilian prehistory and it's important to know everywhere. Keep disseminating archaeology to the general public, as I'm doing now with the ‘Arqueologia e Pré-História’, a network of science communication, is also in the plans and to make efforts to develop experimental archaeology in Brazil. EXARC is already helping me with some of these aspects, not just by being here in the show today but by making experimenters more closer to each other, allowing us to learn and teach and make great discussions and plans for the future.

Matilda: Okay. Glad we could help. Shanti?

Shanti: Yes, I think we have actually three main aims for the immediate future. I can't say what's going to happen later, but the first is to develop our own experimental program in terms of research and network, with more people who, if they're interested, can join us in this and to structure more systematic modules, to address questions related to prehistory and develop our microwear centre as well. So that's, as far as research is concerned, so that involves a lot of networking and in that EXARC also plays a very important role. And the second is regarding children and outreach through our interpretation centres. So we have already been developing these modules in different, not only lithics, but also other aspects of experimental archaeology and we have now plans to expand that and that's going on right now. And the third is regarding our teaching program. So every module which we design, when we've had these short term courses, we try to improve on that and add something new every time. So that’s our aim..., to improve these further and to continue, once this pandemic is over of course, until then online and then later on offline again. We developed better courses, in terms of experimental lithic knapping, and prehistory. So these three aims are there and that's what we have been working at and I hope we can do it. And EXARC of course forms a very important part in this, in all aspects, actually, not only the research, but also the public outreach. We're quite excited about speaking about our work in this conference, and I'm hoping we can get feedback and new ideas and collaborations.

Matilda: Okay. So we will now be having a live question and answer session with those of you who have been listening in to the discussion so far. So we already have quite a few questions. Our first one is from Roeland who asks: How is experimental archaeology seen by fellow academics in your country? Is it too hands-on or do colleagues also value it for its scientific merit or do they only see it as a good way to teach, but not as a research tool in itself. Shanti, if you want to begin?

Shanti: Well, I think in India it has been mostly for the research component. So I think, many colleagues, right, as I said, from a very early age have valued it for the scientific merits, rather than teaching, that's why I feel it should be incorporated into the university as a structured way of teaching, not merely for research, but also to teach the next generation. This is not being done to the extent it should.

Matilda: Do you have anything to add, Juca?

João: Here in Brazil experimental archaeology is really seen as something very, very good for research. However, is what I mentioned before, the problem is that we don't have much places where people are actually researching with experimental archaeology, because we don't have this as an education of experimental archaeologists here in Brazil. So we're still beginning in the subject and we're still learning with our colleagues from foreign countries. So better teach other archaeologists here. So yeah, experimental archaeology is seen as a very, very good thing to research, also as teaching, but because we're still beginning, we don't have much of this yet.

Matilda: We have a question from Kboat, who asks about how can experimental archaeology be used to help, for example farmers, sort of agriculture or buildings or something that is part of everyday society, but is not necessarily related to archaeology. How do you think that experimental archaeology can be used in those kinds of technological traditions?

Shanti: I guess that's a really important question, because at some level there is a disconnect, between scientists doing research or experimenting and the traditional farmers or craftspersons, or people involved in traditional crafts, in India too. So while we like to do our research and then move on, sometimes it doesn't really help the person we are working with. So I guess if experimental archaeology is more systematized and there is an interaction built with the person... or the community being studied, that will help both. There's a long way to go for that, I guess, in India, at least.

Matilda: Is it similar in Brazil?

João: Oh, yes. I guess most for ethnoarchaeology there is an interest of...I'm seeing currently some archaeologists, especially that work with pottery, that they're learning how people today are still doing some traditional pottery. And they're trying to replicate this and also the opposite, like the traditional people learning with experimental archaeologists that are doing pottery, how to make some things... and this is actually helping them as well to make their toolkits more diverse, since these traditional people also live from doing these things and selling today.

Matilda: So we have another question from Roeland here: We have the large experimental archaeology conference coming up, of course, at the end of this month. How do you think this effort, so the conference that's coming up, can help to link experimental archaeology colleagues in your part of the world and also in other parts of the world? So how would you say kind of larger academic conferences like this can follow up on the start that we're trying to make? Shanti, if you want to start?

Shanti: I think this is a wonderful conference and we're really looking forward to having our video there. I think it's a beginning in which we can network more systematically. So far it's been rather informal and individual collaborations, but this sort of brings us all together in one platform, everyone with similar interests interacting in Discord or during the course of the conference. So I guess it's going to be a fantastic start and we should follow this up by, in some ways, so that the networks built do not sort of disappear after the conference is over, everyone goes their own way

and this shouldn't happen. So I think that's something we really need to think about, maybe smaller workshops or smaller spin-off network groups and meetings between people with mutual interest is one way, as far as I can think right now, just off my head.

Matilda: Yeah, these are some good suggestions. Any suggestions from your side, Juca?

João: I guess Shanti just told you most of the things that I will tell you as well. I guess these events are really, really, really awesome in the sense of bringing people together to learn more about experimental archaeology everywhere in the world. And I guess that people who are still not working with experimental archaeology, when they look to all this diversity of things that we can make through this approach, they will get more interested in this and will look forward to start to apply themselves to this approach of experimental archaeology and learning with colleagues as well.

Matilda: Okay, one more, Roeland has another question. How important is open access - in terms of sort of related to our experimental archaeology - open access to research in your part of the world, and how do you think we can overcome language boundaries in this matter as well? I remember, Juca, you mentioned that a lot of the stuff that is in Brazil is actually published in English. Is there also a lot of stuff published in Portuguese/Brazilian Portuguese as well? Do you think that's an issue that needs to be overcome and how could we do that?

João: Here I think most of what is produced by Brazilian archaeologists is still published in Portuguese and not in English. It is just from maybe the last 15 years, I guess, most researchers started to get concerned to publish more things in English. So people around the world get more aware of what's happening here, or else we're just talking to ourselves. And the Portuguese stuff they're leaving for more science communication sort of stuff, because they want… the science community to get aware of what's happening in Brazilian archaeology, but they still don't want to exclude the popular Brazilian public from knowing what we are doing as well. So that's what's happening here. And most of the publications we have here, the journals we have in Brazil for archaeology, they are actually... I cannot remember any one that you have to pay for, everything is open access around here.

Matilda: That's great. How is the situation in India, Shanti?

Shanti: Well, most of the articles are in English, you know, there's a long tradition of English in India, so I guess that's not really a problem. Though we do have great papers also in regional languages, which unfortunately don't get the reach they deserve. And apart from this open access, there are some Indian journals which do have open access, some are paid. And if you want to publish abroad, well, I guess there's a mix of open access and paid journals you're all aware of.

Matilda: Okay. So hopefully we'll improve for everyone really, I guess, in the future. Or we should just all follow Brazil's example. That sounds great there!

Shanti: Really needed because we can't afford to get access to journals or articles unless they're open access. So that's a huge problem for most of us here, getting access to information.

Matilda: We have a question from Caroline: What has been the biggest success in your experience of establishing experimental archaeology in your region? And also what didn't work as well as expected? Shanti, perhaps you want to go first?

Shanti: I think whatever we have done, we've had our share of success and failures. So we learn from that. Good success, I think, which I would say, is in addition to understanding our own prehistoric assemblages from the sites we're excavating. When I started excavations, I was really stumped at many of the artefacts we came across or couldn't understand much, but the moment Akhilesh started knapping everything sort of becomes clear. So I think that was a sort of a 'hello, what a wonderful moment' in our research. And the second success, I think, is reaching out, to take prehistory out of books and articles and actually bring it to people so that they can touch and feel and experiment themselves and, you know, bridge the gap between academia and the past. So sort of breaking barriers, I guess. So that's been great. What didn't work well: fundraising.

Matilda: Again a universal problem, I think!

Shanti: We've been successful of course, to be able to run all this, but many applications just fell through. And when we wanted some funding for some projects, they didn't come through, but I guess that's part of the job. So I wouldn't consider that as negative if it's part of the whole game.

Matilda: Is that - just moving on from that - is there any funding available for sort of a good research questions in India, from an Indian perspective?

Shanti: Not many agencies. There are some which you can apply for, for specific studies. And I'm happy to say Akhilesh has got some of those grants to do his work, I mean, which we are going to publish now, it's a major work from say, for example, the Homi Bhabha Fellowships Council. And there are some others as well, but not many. We have to rely on other grants or raise our own funds. It's a huge issue. Not only for us, for everybody.

Matilda: Yeah, I guess that's really exacting. Someone had mentioned this in the questions channel as well as sort of cooperation projects, almost, between different continents in terms of funding could be something else to look into as well, from our perspective. Juca, same question. So biggest success in establishing experimental archaeology and what didn't work as well.

João: Yes. So, because we're still beginning with experimental archaeology in Brazil it's really hard to say what was the biggest success to establish, because we were still trying to establish experimental archaeology here. But I will say that there were some researchers, including us here, that have already tried to make experiments, to test scientific hypotheses on the hunter-gatherer and the ceramist technologies. And they all were successful in responding what they're looking for. But we can also say that we have been successful to using the experiments with a didactic approach, to teach, people just love too much to see when we do this kind of stuff. So if I'm sitting there making a biface or Levallois or a Fishtail projectile point, people just get way more interested when we show this to them. So this, I would say these are successes. Failings, I guess is, when we just try to make big stuff with experimental archaeology in like projects. But because it is not still a recognized approach, it's really hard to convince evaluators of projects to see the importance of doing experiments, I think this is the most difficult thing right now.

Matilda: Based on that in terms of teaching, obviously, having the materials to work with is quite important. Is it hard to get your hands on the materials that you need, sort of the right quality, the equipment, also sort of teaching and research facilities? How accessible are those sorts of things where you're based? Shanti, perhaps you start?

Shanti: Well, luckily where we are, we are not very far from sources of raw materials, especially quartzites or quartzitic sandstones, sandstones that we actually conduct our research program on. So that's not a not a problem and we can really get other material from various sources in India, exactly what we need, the quality with which to work with, that's not the issue. The issue probably is

regarding research facilities. So we need to generate funds to be able to hold a lot of these workshops, especially for students, or actually sometimes even charge them. So that is an issue. We don't like charging people, but sometimes we have to, to be able to provide the right quality of research facility or raw material or whatever it is for them. But overall I think so far, the only major problem for us is to get access to very, very high power microscopes for our functional studies, functionality and microwear studies, which is being solved through appropriate collaborative ties. I think that is a way in which we have managed to get what we need. So I guess that's not a big issue right now.

Matilda: That's good, lucky in that respect I suppose. Juca, do you have anything to add?

João: Yes, it's not really hard for the people who are already working with experimental archaeology to get the materials they need. So most of these people already have equipment to making the tools, or the raw materials. For me, for example, I live in the central San Paulo state. And because the last years I got very interested in starting to do experiments and stuff, I have done a good survey of raw material sources, so I know where to get, but the really hard thing is when we go to other institutions to make demonstrations, or to give classes and we need these raw materials to show it to people. And because in these institutions where you don't have experimental archaeologists, they actually don't know what kind of raw material you need to work with. So you go to that institution to give a class on the thing and they show you the rocks they have to make the demonstration and when you look at that, you just see that you cannot do anything with that. It's just like really, really those rocks that you can’t do anything with that. So the hard thing is that I have to travel, carrying a lot of stones, literally, with a bag full of rocks to give these courses and to make these demonstrations. So this is one of the hard things. And the other one is that in the last years, I don't know if people are aware of what's happening in Brazil politically right now, is that science is having basically no money anymore. Now the current government, it's an anti-science government. So for us now, it's been really hard to get equipment like the one Shanti mentioned, like microscopes, if you want to work with traceology, usewear analysis, which is a part of experimental archaeology, we simply cannot do that here. So when we need to do this kind of analysis, we really need to ask for colleagues from Europe or the United States to help us and co-author the research we want to do with that.

Matilda: I actually had a similar question, but Caroline has also asked a similar one: When you think back to sort of the goals, when you both started out with the sort of departments or the organizations that you've both founded, would you change anything? If you could start over, would you have done anything different? So what advice would you have for others who are looking to start their own experimental archaeology groups in countries where it is sort of underrepresented? Maybe Shanti, if you want to start?

Shanti: Yeah, of course it's a great question. And certainly there are many things I would have liked to change. I would have liked to be more systematic in the way in which we began organizing our courses and program, but I guess that's part of the learning experience, it was being done for perhaps the first time on such a large scale and we made a lot of mistakes, but we also learned from that, so we were able to systematize it pretty fast. So at the end of every workshop, even for children, even if you are having a workshop for six year-olds at the end of it, our team sits together and then we discuss and we take feedback right away. And then we immediately work on areas where we feel there was a problem. So after every workshop this goes on, over the last so many years, so that's helped us really smoothen out rough edges in various programs and adapt to different groups, whether it's age group or coming in rural or urban areas or different types of people. So we now have it more or less smoothened, but we still constantly have a feedback and a meeting at the end of every workshop, every experimental course we run and try to rectify what we

feel are glitches. And as regards experimentation in archaeology for research purposes, yes, of course I would have liked to have more funding, say, in the beginning when we started up, so that more publications could have come out. But I think right now we are on the right track and it's been great. So it's a mix of both and for others who want to start their own groups, yes, it's a learning curve, whatever advice anyone gives you, you have to, I guess, learn a lot through making your own mistakes. That's the way it goes.

Matilda: Juca, what would you say, if you think back to when you started out with the department of experimental archaeology, what would you do differently and what advice would you have?

João: I don't know if I would do something differently because we are still, like I said many times, we're still starting this. So I think the only thing I would do differently - knowing what I know now - is to approach more people that work with experimental archaeology and get more tips on what to do... how to start all of this. So my tip to other colleagues from here, from Brazil and South America, is that if you want to start with experimental archaeology and you want to bring this to your institution and start a group of experimental archaeology, a research line on this, is just start now to look for colleagues around the world that are working in the subject and how are they working. To participate in events like the EAC that's happening soon. So simply just connect with these people and then try to reach out to someone to be your advisor on the experimental archaeology area, to teach you how to do stuff, because without it is really, really hard to make things... Everything in science you cannot do just by yourself. You really need the support of colleagues. You really need to have a professor and at some point you have to be the professor for someone.

Matilda: So asking for help, but also asking for feedback is just sort of really essential when starting anything new, I suppose, in these cases. Okay. Well, if there are no more questions, thank you very much to both of you for joining us today and sharing your experience and expertise. I definitely learned a lot about places that I hadn't really learned a lot about before, and I'm sure that our listeners did too. So thank you very much to both of you.

Shanti: Thank you. It was wonderful.

João: Thank you for the invitation. It's an honor to participate on anything that EXARC produces. I'm really big fan of EXARC!

Matilda: And thank you to everyone else today for listening to this episode of #FinallyFriday by EXARC. If you would like to become more involved with EXARC, you've heard about how wonderful it is, today, then why not become a member? Alternatively, you can also make a small PayPal donation through the website to help support EXARC in its endeavors and our members and our community.