

Weathering Winter with Markus Klek

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Jess: Welcome to EXARC Showcase. My name is Jess Shaw and today I'm joined by Markus Klek to hear about his Ice Age Heritage Tour. Markus Klek is an independent researcher focusing on indigenous and prehistoric skin processing technologies, as well as related work in bone, antler and ivory tools. He has published three books on leather and leather-related technologies and has run a successful business centering on prehistoric leather working, Paläotechnik, since 1996. Markus has recreated a range of paleolithic and contemporary leather-based clothing and shoes. Thank you so much for joining!

Markus: Yeah, thanks for having me.

Jess: It's an absolute delight to have you back with EXARC. So you've previously crossed the Black Forest in the middle of winter in Stone Age equipment, using self-made clothing made of leather and fur as well as replicas of Ötzi's equivalent. You then did a Nordic Walkabout, which you've talked about on our YouTube channel, and you've now scaled up to do this extended solo trip above the Arctic Circle. Could you explain more about your Ice Age Heritage tour?

Markus: Yes, sure. First of all, I have to say I didn't make it to the Arctic Circle because I came down with the flu before leaving. So I had to postpone everything and I wasn't sure if I was going to be able to go north at all. So I had to change plans. I didn't make it all the way up north, I couldn't go to the Jokkmokk sami market as I had planned. It was kind of a shame, but still I had a very good time and I learned a lot on my trip, but it went differently than I had initially planned.

Jess: As journeys often do! 'The best laid plans of mice and men', as they say... so where did you end up going?

Markus: Well, I did end up going more or less in the same area that I was in last year, which is Jämtland, that's the province, it's in the middle of Sweden. That's where I started, that's where I intended to do it. I was out by myself for two days and two nights only, because then I realized that due to my physical condition, I couldn't continue. Plus, I had a really severe storm and very low temperatures. So I had to decide to turn back and for the rest of the time take day trips and stay in a safer place because it was just too dangerous for me to continue.

Jess: It sounds like a good call. And to be fair, people of the past would have done the same thing if they noticed a storm or their body wasn't up for it. They wouldn't push through.

Markus: Yes, because it doesn't help. I learned there that nature is just the way it is and if you want to stick to your plans, it can end up really badly. Because after I came back, I heard

of a young Youtuber who ventured in the same area in October, and he died in a snow storm.

Jess: Oh wow!

Markus: Yeah, he didn't make it. And this was October and I was there in February. So if you're not flexible, it can end really badly.

Jess: Absolutely! I think it's a great phrase an explorer said that was 'experience is mistakes survived'... and I think that is a very good philosophy when to call it and stop adventuring. I think it's brilliant that you still tested your kit and you still had these excursions. What inspired you to do this most recent trip?

Markus: I guess I realized after the first two winter trips, that this is something that I really like to do. I enjoyed this experience a lot. Of course, I'm only scratching the surface of what is possible and that's why I have decided to return to do another trip this year. I have a lot more things that I need to work on and a lot more equipment to test. So it can't be done in one or two trips. This is kind of an ongoing experiment.

Jess: Very cool. You mentioned you learned a lot. What were the kind of main things you learned from this most recent trip?

Markus: Well, first of all that nature is very unforgiving and that you need to be careful, you need to be well-equipped. That I was really lucky in the two other trips that I didn't run into this kind of serious weather with my equipment, which held out fine. I might have been able to push through, I would've been able to push through if I was physically fit. I even got frostbite in my face. This is something I realized when I came back a few days later and my skin started peeling off in the face. It goes really fast, you know, if you have minus 20 degrees, plus I had strong wind for the whole time straight and then you have the wind chill, then suddenly you are facing 40 degrees minus. It goes really fast. You can freeze body parts. I realized I have to work on this whole topic of hoods and fur ruffs, something to break the wind before reaching your face. This is what these hoods and the corresponding ruffs at front that are attached to it do. I will have to definitely work on this to improve my equipment. I also had some skis this time or snowboards, more or less. I checked out those and in comparison to the snowshoes - I brought new snowshoes, improved snowshoes - I'd rather stick with the snowshoes as they seem more versatile than the skis, but this is only a two-day experiment and that's all I can say about it from that trip. But we will see, I will definitely take them on other trips too and make a more detailed comparison of these two modes of traveling.

Jess: For the skis, did you have skins on the underside, you know like when you do ski-touring you have the skin so you can slide forward?

Markus: We don't know. The oldest parts of skis that we have are from the mesolithic and they come from North Western Russia. Only the tips of these supposed skis is preserved. But among many of the indigenous people of Siberia, there's these skis that are more like boards. They're like an in-between thing between snowshoes and skis. They're very wide,

they're flat, and they're covered at the bottom with skins. Like the modern skis for going uphill. And that's what I had too.

Jess: How do you attach to the skies, are you tied on?

Markus: Yes, I tied them because I did the gluing. It always says that they've been glued in Siberia, but I'm not sure what kind of glue that is because it has to be water resistant, I suppose, because the hide glue and this stuff, it's water soluble. So this wouldn't work very well. After getting back, I found out that they used fish glue. If you research fish glue, it's basically the same as hide glue. It's also not water resistant or not waterproof. So I suppose it only works at really low temperatures. If it gets wet, they probably would peel off. But I tied them on with rawhide straps.

Jess: What would you say your primary inspirations are for your kit? Do you take them from various different examples?

Markus: Well, in general, it's of course hard to replicate late paleolithic material culture because there's so little finds, especially all these organic materials. Nothing has survived the ages except for some bone and antler. I take most of the inspiration from ethnographic accounts, which means Arctic and Subarctic peoples of North America and Siberia. It has to match the possibilities of the time, in terms of choice of materials. That's kind of challenging, of course.

Jess: Because you tan all your own hides and things, don't you? That's quite a time-consuming thing, I imagine. And you don't have access to all the same types of animals.

Markus: That's another reason why I went to Sweden. I bought a whole bunch of raw dried reindeer skins from the sami. I have also made now equipment from reindeer skin, whereas before it was mostly from red deer fur. We will see how that goes. It always depends where you put yourself on the time scale. This is also for me rather challenging because I'm incorporating certain items from the late Magdalenian and also going all the way to the end of the Pleistocene, the Ahrensburg and Hamburg cultures. And of course there the environment is very different, the flora and fauna are also very different. I'm kind of trying to spread myself out over 3000 years of history and that of course gives you a lot of variability. I could use red deer. Red deer is totally fine for certain times and areas, but I definitely want to work more with reindeer skins also.

Jess: Yeah, it'll be really interesting to hear your findings when you compare the two. You've chosen an impressive challenge to cover such a big timespan. What draws you to the paleolithic?

Markus: I've always been interested in hunter-gatherer societies. I find this a very interesting mode of living. I also like the winter a whole lot. I'm kind of a 'north nerd'. They have this expression in German, the north nerd. It's the people that really like to go north because they like the winter and the cold. And this in combination with the hunter-gatherers, you automatically more or less end in the paleolithic.

Jess: It's a great combination and an interesting time period to study. Because of, as you say, the lack of preservation there's a lot of room for imagination.

Markus: Yes, you can be really creative. Of course, I try to stick to the archaeological evidence that we have. But yeah, it leaves a lot of room for... somebody called it 'intelligent guesswork'.

Jess: Yeah, I feel like a lot of archaeology can be that, especially with the kind of prehistory. At Butser we have just recently built a building based on a neolithic find. Obviously we only have the footprint of the building, so everything above ground is based on knowledge that, you know, we know they had woodworking techniques and things, but it could have looked completely different. It's educated guesswork, as you say. You've done several trips. What did you change from your previous trips and test out in your most recent one?

Markus: Well, I had a new sled, that wasn't really a biggie because it was a little wider and a little shorter. Just for being able to pack my gear differently. And then I had these snowboards. That was a new and challenging item because after my last trip, of course, everybody asked, why don't you take skis? From the modern perspective, there's nobody out there going on longer winter tours with snowshoes. It's all been done with skis and especially in Scandinavia the ski is very prominent. If you go to North America, the snowshoe is a much more well-known mode of travel. So I figured, okay, I have to do this ski thing, check that out. So I did. Another thing I also did this time is test more fastening systems for luggage and gear on my backpack and also on the sled. Because I realize this takes a lot of knowledge to properly pack your equipment, especially if you're working in the winter. You don't wanna be using a lot of knots because knots are complicated in the sense of that you have to take off your gloves to tie them and untie them. So I figured there had to be something else, like any sort of toggle system that is easier to open and close with gloves on. But there's not much to be found in the archeological inventories. There's of course these rondelles, these round items with a hole in the center made usually from bone or ivory, like a find in Gönnersdorf. Germany has a lot of these rondelles made of slate. There has been a lot of research and experimentation what they've been used for. I replicated a few of these items to use as toggles and fastening devices.

Jess: How did they work, were they better?

Markus: They did work, but not as well as I imagined. The main problem is that these things... they can tangle up. So if you have everything untied and you want to pull on your strings or on your leather thong and the system is all not laid out really nicely, then these round disks get tangled. The ropes get tangled around these toggles. But I guess if I use them more long term, I could figure out a way to make them work much better. So this was a start, only the beginning of working with these kind of fastening systems. And I'm not giving up on the rondelles. I will definitely work with them a little more and see how they manage for this kind of fastening equipment. You can test something or do it at home, you know, that's one thing. These things work very differently than when you're out in nature and out in the real world. Then suddenly some things might not work as well.

Jess: Yeah, especially when you're cold and you're fumbling around with around with your gloves on. How did your new sledge work out? Was that an improvement?

Markus: The initial idea was to actually not have to carry a backpack, because I had also planned to take a water bottle - something that I wanted to change from the last trip - a water bottle, which I wear under my clothing so it does not freeze. And for this you don't want to have the straps of the backpack pressing against your body because otherwise you can't fit a bottle. I could not fit all my equipment on the sled because it's kind of bulky. It's not really heavy, but it's bulky because of all the furs. This is also something that needs to be worked on in the future.

Jess: On your last trip, you mentioned you ate snow to hydrate but obviously that takes energy to warm it up to your body temperature and isn't always hydrating. So the water bottle, did you end up carrying that with you or did you have to leave that behind?

Markus: I did carry it, but I couldn't make very good use of it. This is something that I will have to work on next time. If you look in the ethnographic records, it looks like people generally did not carry water. There is some indication of this type of system where they would have little bottles under their clothing to keep water warm. But in general, it looks like they did not bother to carry water. For example, with the Inuit, the first thing that you will be offered when you come to their lodges is a drink. So it's almost like in the desert. Even though you're walking on water you don't really have access to it. Indigenous people did not seem to carry water. So it might be something that is just our conception that you need to have water on the go. I will play with it a little more, but we don't know, maybe people didn't carry water along and just waited until they made camp and were able to melt snow.

Jess: I think I've read somewhere as well that previously people had diets that were a bit more hydrating. I don't know if that is the same up in the North, obviously, but a very good point that we have a modern obsession with staying hydrated.

Markus: Yes, definitely. I use a bladder, but as these bladders have a tendency to puncture really quickly, I incorporated it into a leather bag. So I have a leather bag and inside the leather bag is the actual water bottle, the waterproof container. This way I make sure that I don't puncture the bladder by accident because that would turn it unusable.

Jess: Did you also eat accurate food to the period, to the time, while you were hiking?

Markus: Yes, I tried to do that. It's definitely a very meat and fat heavy diet. Everything I carry is dried, so I have dried jerk meat. I have this type of really fatty sausages. Last time I also carried dried fish, also dried berries, like blueberries for example. And also I did take some hazelnuts, which is of course not very period-accurate. But I felt I needed this. If I can't get any bread, you know, I can't have any grains, at least I need those nuts. But I could probably do just fine without them.

Jess: Very cool. And did you forage anything, is there anything to forage in the surrounding area?

Markus: I did not really focus on foraging a whole lot. For me this would be a different topic. I know that there are some things even in winter that you could eat like certain lichens and

barks and this stuff. But this would all be not very nourishing, it's just a little extra survival food, let's say. But you definitely need the meat and the fat in this kind of environment.

Jess: Absolutely. In a previous Youtube video you mentioned that people were usually walking around barefoot but putting on shoes for special occasions but in colder climates you would wear shoes. How were your shoes this time round? Did you make any changes to them from the last time?

Markus: The shoes did not require any changes. They worked really well. I will make new types of shoes, not because the old ones didn't work, but to experiment with other materials and add-ons and everything. Of course, in this kind of environment, you cannot walk barefoot. I've done trips in the Alps, Stone Age trips in late fall, going over rocks and all kinds of things and it's totally fine. It's better to walk barefoot than to have wet shoes, that's my feeling. Wet shoes is definitely not very nice to have on your feet. But in an environment like this in Sweden in the winter or the Paleolithic setup, when you have freezing temperatures, it's not feasible to be walking barefoot.

Jess: Previously you mentioned you were too warm actually with your clothing, because you warmed up from walking. Did you change your clothing at all? Did you go for the Ötzi leggings and loin cloth combo?

Markus: No, I didn't do that. If you look at the indigenous peoples of the Arctic and the Subarctic, they have really long boots and then short trousers, but then they wear a fur coat that goes down to the knees. So there is other options than the typical trousers, but especially this time, with the very strong wind and the very low temperatures, I could actually feel the wind blowing through the buckskin of my pants. This has never happened to me before. I use buckskin a lot and in all sorts of weathers I did not get cold, it was fine. I was still very, very warm, even in these very low temperatures. But imagine wearing a loincloth, you would freeze just everything off that's exposed to the climate.

Jess: That is completely reasonable. What are the majority of your clothes made out of, you mentioned buckskin? Is it all deer skin for now, but reindeer in the future?

Markus: I think it will always be a combination. I also use fox hide and some coyote in lieu of wolf. I would like to get wolverine for the fur ruff, which is the best, because it doesn't freeze over...which is very hard to get. But the period I'm displaying, of course, reindeer is the most prominent for clothing in general. But I might also be using some red deer and also rabbit skins. Because in a lot of the faunal records, there's a lot of finds of rabbit bones. So people hunted these animals and we know from indigenous people that they made blankets and also coats out of twisted rabbit skin. They don't use the whole skin, but cut it into strips and then weave it into clothing or blankets. It's a very interesting technique.

Jess: Do you know why they would have woven it? Do you have any theories? Is it because it might trap more air and be warmer or just quicker than sewing them all together?

Markus: Well, these arctic hares and the rabbits, they have very thin skin and also they're not really durable. So the hair comes off fairly easily and as the skin is so thin, some indigenous groups they also just case skin the animals. So they don't make a cut in the

center, but they pull the whole skin off and put it on their feet as socks, as ready-made socks, untanned. And they wear it as long as the hair stays on. Once they're worn out they're being thrown away. So there's actually no need to tan these skins. Also when they make the ropes for the weaving, they get twisted so you have a rope of fur. The fur is on both sides, so you don't have the skin exposed. This is like a really fluffy material that means if you wear it, you have fur on the skin and also fur on the outside. This you would not have if you tan it and then make clothing out of it, you only have fur on one side and leather on the other side.

Jess: Brilliant. I hadn't realized that you could peel them off and use them as socks. What was your most interesting or favorite result from your trip so far?

Markus: Well, I would in general just say it has really nothing to do with my equipment. More with the respect for the environment because I ran into this really intense snow storm that lasted for two days. That was for me a new experience and I'm happy I made it through there, even if I got frostbite in my face. So this was definitely the most outstanding experience this time. But also my snowshoes, I'm happy with the new snowshoes. They worked a lot better than the old ones. But definitely the experience with the weather was the most prominent this time.

Jess: It sounds like you really tested your gear to the limits.

Markus: Yes, and also my psyche and my body, definitely... For these kinds of experiments it is important to know your limits. We talked about this before, but at home it's all about the gear. And you make plans and you construct things and you read literature and you do all this preparation. And then you go out there, you start and you might just have to quit because nature has a different plan. So this was a good point for me that I definitely need to think about more when I plan these sort of trips or when I'm out there. I experienced this also in my first trip in the Black Forest where I got struck by severe fog. I had to make it to a certain location at a certain time because I was giving a lecture there. So I had to use Google to get there! I couldn't see anything, had to use Google. But I realized, of course, indigenous people or back in the Stone Age, they would just have camped out until they could see something. But often, we don't have this sort of time, so we need to work things out in a different way. Use technology or not be stupid enough to try to push things to the limit where it can become dangerous.

Jess: Very true. So what's next? Do you have some more things planned or are you still developing things?

Markus: Well, regarding this Ice Age, heritage, paleolithic reenactment winter things, I will definitely continue this, because this is something that is in the back of my mind for the whole year until it's winter again. I'm working on equipment, I'm making plans. So I will definitely, most definitely go back up there again next winter. But I'm thinking about having a base camp somewhere, like a Stone Age, paleolithic sort of base camp. And from there be able to do trips, so that I have more time and also I can have a better chance of judging the weather, for example, because they also have these warm spells by now. So if it rains, if it starts melting I don't want to be out there because I just don't like to get wet. So the plan is to be back up there next winter again.

Jess: Oh, fantastic. And would you..., do you ever do these trips with other people or are they solo...?

Markus: Well, I would and I know now that there is, let's say, a dozen of people that are seriously interested to be doing these kind of trips. But of course a lot of them don't have the proper equipment. That is something to be maybe worked on together in some sort of class or workshop setup. But yes, I would be willing to have people join me because it's fun to be alone, because you can do what you want. But it's also not a very realistic setup, especially in the winter solo trips are kind of dangerous. Definitely it's easier to travel in a group. You can share equipment and it's also safer. So if anybody's out there... who has this equipment ready or more or less ready, feel free to contact me. But this is something to figure out when I talk to other people to see what their approach is on this, or the purpose why they want to do these sorts of Stone Age winter trips.

Jess: I'm looking forward to your next adventures, they're really cool.

Markus: We'll see what's next. I will take a tent, definitely. This is another thing that's of course very interesting, is some sort of structure, portable structure, some type of leather tent. There's evidence for this also, that people use these tipi type of tents...

Jess: Thank you so much for the interesting discussion. As a final question, you've kind of covered it but before we wrap up: is there anything that the EXARC community can help with to make a difference with your research?

Markus: Yeah, definitely. Anybody who feels interested in this kind of work and these kinds of experiments feel free to contact me with questions or also with answers, with insights, possible cooperations. Anything is fine with me, I'm very open to that.

Jess: Fantastic. Well, thank you so much, Markus, for joining us today and sharing your experience and expertise. I know that I certainly learned a lot - I now know that I need to get some new socks - and I'm sure our listeners did too, so thank you. And thank you to everyone else for listening to this episode of the EXARC Showcase by EXARC.

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