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Unreviewed Mixed Matters Article:

Discussion: Working with Knives in Archaeological Open-Air Museums

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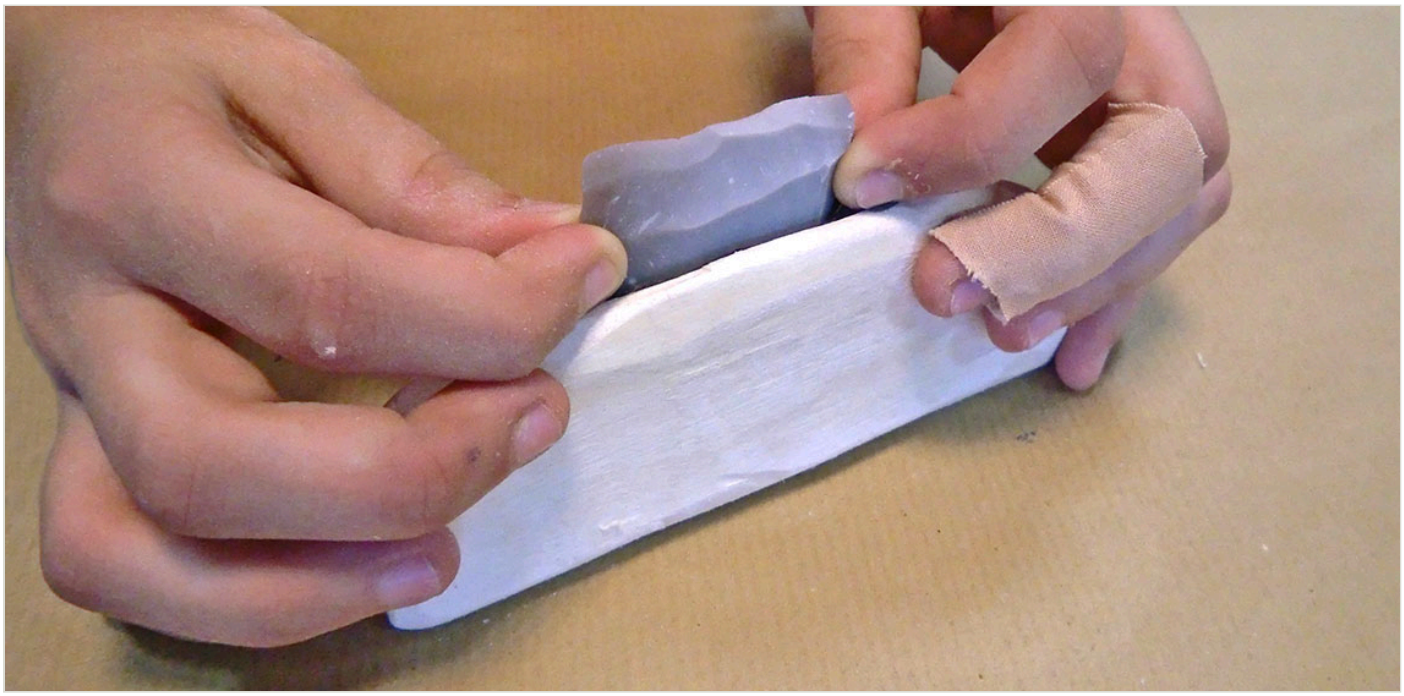
Author(s): Sally Pointer [1] ✉, Aidan O'Sullivan [2], Lasse van den Dikkenberg [3], Roeland Paardekooper [4], David Freeman [5], Renate Greiner [6], Pascale Barnes [7], Håkan Lindström [8], Katy Whitaker [9], Luke Winter [10], Antonis Vlavogilakis [11], Bill Schindler [12,13]

[1] Independent researcher, Evendine, Bodenham, Herefordshire, HR1 3LB, United Kingdom.
[2] UCD School of Archaeology, College of Social Sciences and Law, Newman Building, University College Dublin, Belfield, Dublin 4, Republic of Ireland.
[3] Leiden University - Faculty of Archaeology - Department of Archaeological Sciences - Material Culture Studies, Einsteinweg 2, 2333CC Leiden, The Netherlands.
[4] EXARC, Frambozenweg 161, 2312 KA Leiden, the Netherlands.
[5] Independent researcher, 76a Wolverton Road, Bournemouth, BH7 6HX, United Kingdom.
[6] Independent researcher, address withheld by the editors (GDPR), Germany.
[7] Independent researcher,, address withheld by the editors (GDPR) United Kingdom.
[8] Botkyrka Kommun, Sweden.
[9] Historic England, The Engine House, Fire Fly Avenue, Swindon, SN2 2EH, United Kingdom.
[10] Historic Concepts Ltd., United Kingdom.
[11] Department of Mediterranean Studies of the School of Humanities of the University of the Aegean, 10 Ariadnis Street, Kalamaki Neas Kydonias, 73100, Chania, Crete, Greece.
[12] Eastern Shore Food Lab, USA.
[13] The Modern Stone Age Kitchen, USA.



This is an extract from a lengthy and lively Facebook discussion in the Archaeological Open Air Museums group, started on the 5th of February 2016 by Roeland Paardekooper, at that time in the Archäologisches Freilichtmuseum Oerlinghausen.The full discussion can be found at https://www.facebook.com/groups/aoams/...

Roeland Paardekooper (February 5)

In our museum, we often have a school program where children get a sharp knife to cut a wooden handle for a tool. Usually one of the children will get hurt, cutting his or her own fingers.

The program is 20 years old now and we see children have more problems with this than back in the past - this is the first time they actually hold a knife! Some people say we should cancel the program as it has become too dangerous for the kids, others say "how else do you learn to use a knife?".

What are your experiences?

Roeland Paardekooper

Sally Pointer (February 5)

I don't currently do a session with knives, but I do a (much later period) session where children work in pairs to use cheese graters to shred soap to rebatch into washballs. Like you with the knives most have never used anything like it before, but we advise the schools in advance about the session, and explain carefully to the children at the start that if they rush and slip, the graze will hurt, but that it is unlikely to be more than a scratch. We don't have many mishaps, but the children accept them when they happen as 'just one of those things'. I

think the key is explaining in advance what can go wrong and having them prepared just in case...

Sally Pointer

Aidan O'Sullivan (February 5)

I think the principle of health and safety - as the Ancient Technology Centre have argued - should be not what should we not do, but how do we find safe ways to do the things we want to. So, can we spend an hour teaching children how to hold a knife, how to cut away et cetera. For children who have rarely handled a knife, the learning outcome is not so much how to make a wooden handle, but how to handle a knife - perhaps focus on that and not the handle?

Aidan O'Sullivan

Lasse van den Dikkenberg (February 5)

What is the age group? On our summer camps for kids aged between 8 and 12 we do also let them work with knives and flint. A solution could be to take more time explaining how to use them (I suppose you already take time for this). Also inform them that you very often have kids who cut their fingers. I think that would help to scare them into being more careful. I would not stop with using knifes in the program but you could consider having a minimum age (or raise it if you already have one).

Lasse van den Dikkenberg

Roeland Paardekooper (February 5)

We offer it from 11 years and up, so age should not be an issue. We have more wounded kids than 5 - 10 years ago but I think there are also many more lessons learned now about how to handle a knife than in the past. I think being able to handle a knife is vital and the more we protect our youth from dangers, the less they can handle dangers when these actually occur. Sorry for the German link, but this is what they produce in the program: http://www.afm-oerlinghausen.de/unser-angebot/schulen/ab-11-jahre/48-steinbearbeitung-und-messerbau

Roeland Paardekooper

Aidan O'Sullivan (February 5)

Again, I would come back to what is hoped for what we call “learning outcomes“ in universities? It is perfectly acceptable to have your learning outcome to be "how do you hold

a knife?" and if you need to have them carving aubergines, balsa wood, so be it. They will have learned how to hold a knife.

Aidan O'Sullivan

Sally Pointer (February 5)

Calculated risk and consequence is a valuable learning tool in itself, but it is definitely important to make sure that they and their adults are warned in advance that it may happen and so are prepared with suitable minor first aid supplies to deal with small cuts.

Sally Pointer

David Freeman (February 5)

At Butser Ancient Farm we have activities that involve the use of flint carving tools. Instructions, that include the risks, are given at the start of the activity. Teachers/leaders accept the risk, and it is rare for any child to nick themselves. We ensure that the correct procedures are taken for First Aid.

David Freeman

Renate Greiner (February 5)

I think it also depends on how well the kids in question handle authority and respect. Not only for knives but also for teachers et cetera. I think the suggestion to really discuss this beforehand with teachers and/or accompanying adults is of the essence. Demonstrate what can go wrong i.e. make a cut on some leather maybe (or your pork roast dinner) to show what the blade can do, then teach them how to avoid this. Have the teachers identify kids with concentration deficits and/or anger management issues, just to be on the safe side.

Renate Greiner

Pascale Barnes (February 5)

This is a fantastic learning experience for these children, and I agree with everyone that this is a valuable skill to have at an early age. As has already been mentioned, it's always a case of looking at your outcome and working out how to get there safely - occasionally this means making some adjustments (heights of with surfaces, and so on). We are also reliant on good adult supervision. There is no doubt in my mind that you should continue, but I would ask the following sorts of questions: what is your adult to child ratio for this activity?, how long does it

take to complete this task?, is there an opportunity to practice knife handling on a different shaped piece of wood first?, is the wood clamped in a vice or held in their other hand?

Pascale Barnes

Roeland Paardekooper (February 5)

Pascale, thanks for joining. The adult to child ratio is 1:6. They have 90 minutes. They do not practice knife handling before (thanks for the advice) and the wood is held in their other hand.

Roeland Paardekooper

Pascale Barnes (February 5)

We work with a ratio of about 1:5, but they tend to be younger children. However, the knife work is to prepare food and is done against the chopping boards, so holding the wood is a different consideration. I forgot to ask if there is a recurring type of injury, such as cutting the tip of the forefinger, or several different types of injuries. If you were able to try a lower ratio of children to adults, that might help and holding the wood differently would be other thing to try as well as a bit of practice.

Pascale Barnes

Håkan Lindström (February 6)

I share the same experience, children today are less used to different types of tools. We still keep on putting knives, axes and sledgehammers in their hands. They tend to the fire, they cook and bake bread by the fire: they survive, with about every 10th to 15th child self-hurt. It is obvious that there has been a change in kids' ability to concentrate, take instructions and actually just move their body. But still, better to teach them while they are young and can't cause any big damage. It is not like they lack the ability, they just don't have any (good) idea how to do it. So it is our job to give them the right idea and the means and and understanding of how it works.

Håkan Lindström

Katy Whitaker (February 6)

By coincidence we discussed risk assessment at last night's Young Archaeologists' Club planning meeting for a bit of revision and review, to make sure we are happy with how we do it and what we are aiming for. "As safe as necessary", reducing risk "as far as reasonably

practical"; it is all about managing an activity and, as Pascale says, getting there safely. It is important to manage expectations too by providing enough information to parents/teachers to let them make informed decisions about children's participation.

Katy Whitaker

Luke Winter (February 7)

I agree with much of what has been said. The world is changing and the motor skills we had acquired by the age of 6 or 7 in the past seem to now be acquired beyond 10 - if at all. This poses a difficult dilemma... Do we continue putting knives into children's hands as part of an educational process? In my view, it is essential that we do - but how to do it safely?

I think my approach is to look firstly at the potential benefits of undertaking a potentially risky task (I think we are all clear on those) - secondly, what the actual risk is in balance with the benefits. In other words, is the self-esteem, independence and skill acquisition worth a cut on the finger? The crucial part (in educational terms) is how to alleviate that risk of injury as far as reasonably possible. As Pascale has said maybe that requires a scaling down of tools, non slip surfaces, clamps et cetera - but just as important as this is our need as practitioners to have understood and recognised the full range of movement or actions required to safely complete the task and crucially, how to convey that to the child. We regularly use gory humour to demonstrate the incorrect movements to confirm our safe method of work and it seems to work.

It might be necessary to reduce adult to child ratios to ensure good levels of safety for certain activities - or even 1:1 for very tricky tasks - but with those basics in a well supervised setting the child can explore and develop their novice skills to a competent level.

Luke Winter

Antonis Vlavogilakis (February 9)

(...)

2- (...) In my opinion, one adult can show something to 2-4 children at the same time. I think that a 1:1 adult to child ratio is too much, unless you are dealing with a group of children that are uncooperative/unruly/unresponsive to teacher control. If the teachers bringing the children to the museum/activity have not prepared them (for example explained what the museum is and what will happen, et cetera) it is more difficult to have a controlled environment. By "control" I mean doing the activity safely, not chaining the participants. Preparation for the students can also be partly done by you, perhaps in an introductory presentation or even handing them a leaflet at their school a few days before they arrive.

Preparing the children for the activity by explaining that they need to be careful because they might cut or scratch themselves is necessary. Informing the parents of what the activity includes is also necessary. So is being prepared that some parents might withdraw their children if they are overprotective.

3- The amount of movements hands and fingers can make is limited. Different activities complement each other because they feed the same skills. Using a variety of different tools increases manual dexterity as well as the sensitivity of touch. Shading with a pencil and sharpening a small knife on a stone are activities based on the same hand movements. Dragging a pencil parallel to a ruler follows the same mechanical principles as dragging a knife parallel to a ruler. Peeling fruit is similar to carving a soft soap. Perhaps in that logic, you could devise a preparatory activity with other, non-cutting tools? Something that will familiarise them with the mechanics, teach them to be more attentive when they do something, and then move on to knives?

Perhaps the answer is not in cancelling the program, but in changing the activity itself? Having an activity that requires or teaches the same skills, but not this specific one? I have never had to teach cutting-type activities to classes of children so I am afraid I cannot propose a specific activity. Where I have taught we were never allowed to give cutting tools (sometimes including scissors) to anyone under 13. In public schools here the child-safe versions of scissors appear much earlier, but there are no blades of any sort.

We asked Professor **Bill Schindler**, the current chair of EXARC for his opinion:
Although I do not work in an open-air museum, I do regularly teach a number of workshops and courses both in and outside of a university setting. In almost all cases students and workshop participants regularly use knives (both modern and historic metal knives and prehistoric stone knives) and are sometimes even required to carry their own. Knives are tools, just like a pen or a hammer. They should be approached with respect, but not fear. I believe proper knife handling and knife safety should be taught at an early age, but unfortunately many of my students come to me never having used a knife. In these cases hands-on, project-based teaching and learning opportunities are the perfect time to educate students and participants how to properly handle knives.

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Corresponding Author

Sally Pointer
Independent researcher
Evendine, Bodenham
Herefordshire, HR1 3LB
United Kingdom
E-mail Contact