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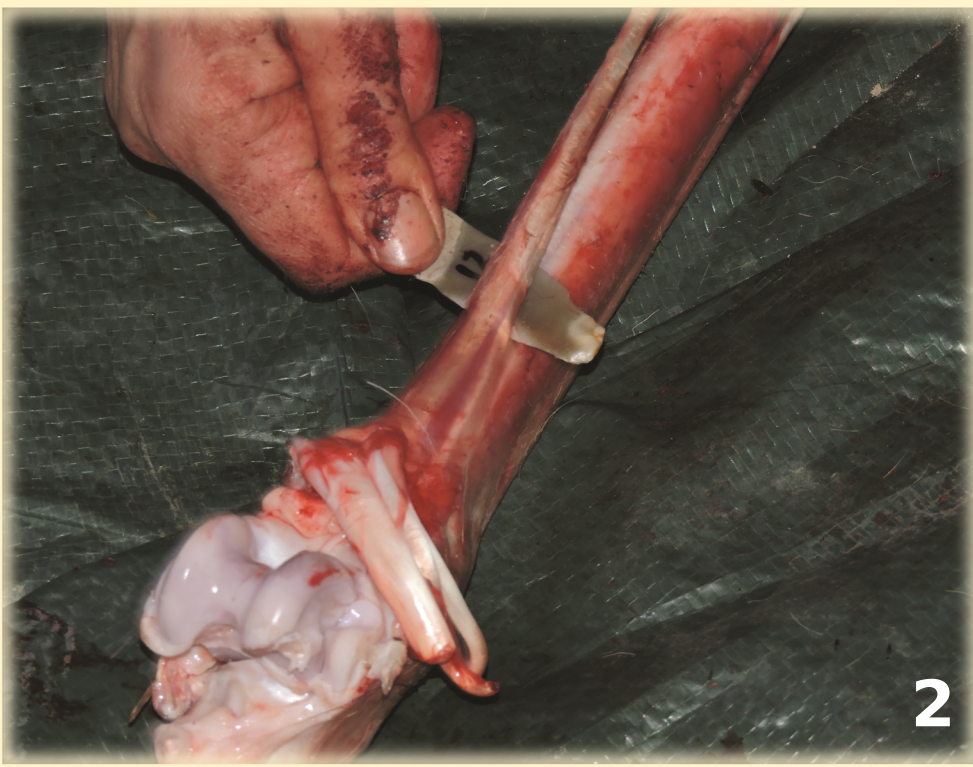
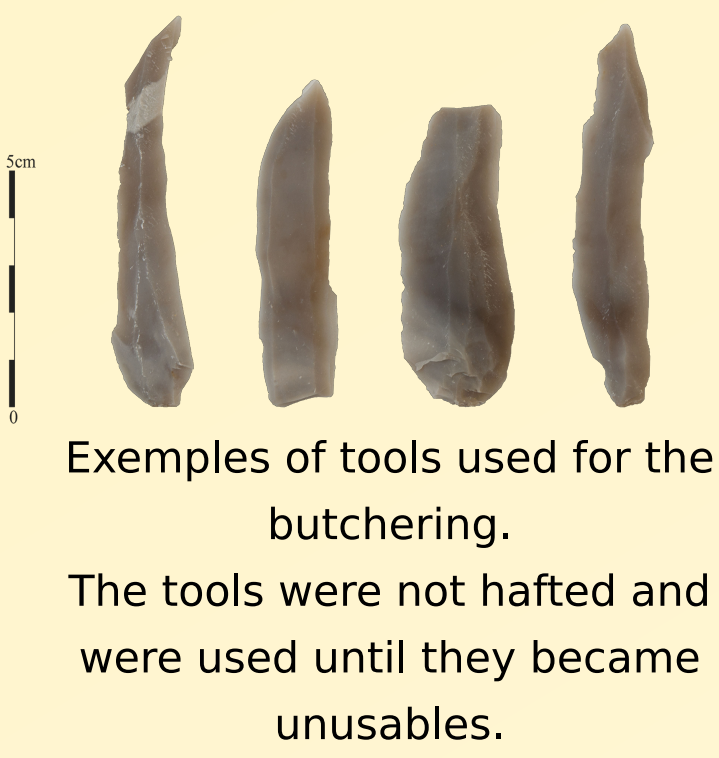


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Taphonomic process versus usewears in the formation of macroscopic traces

An experimental assesment

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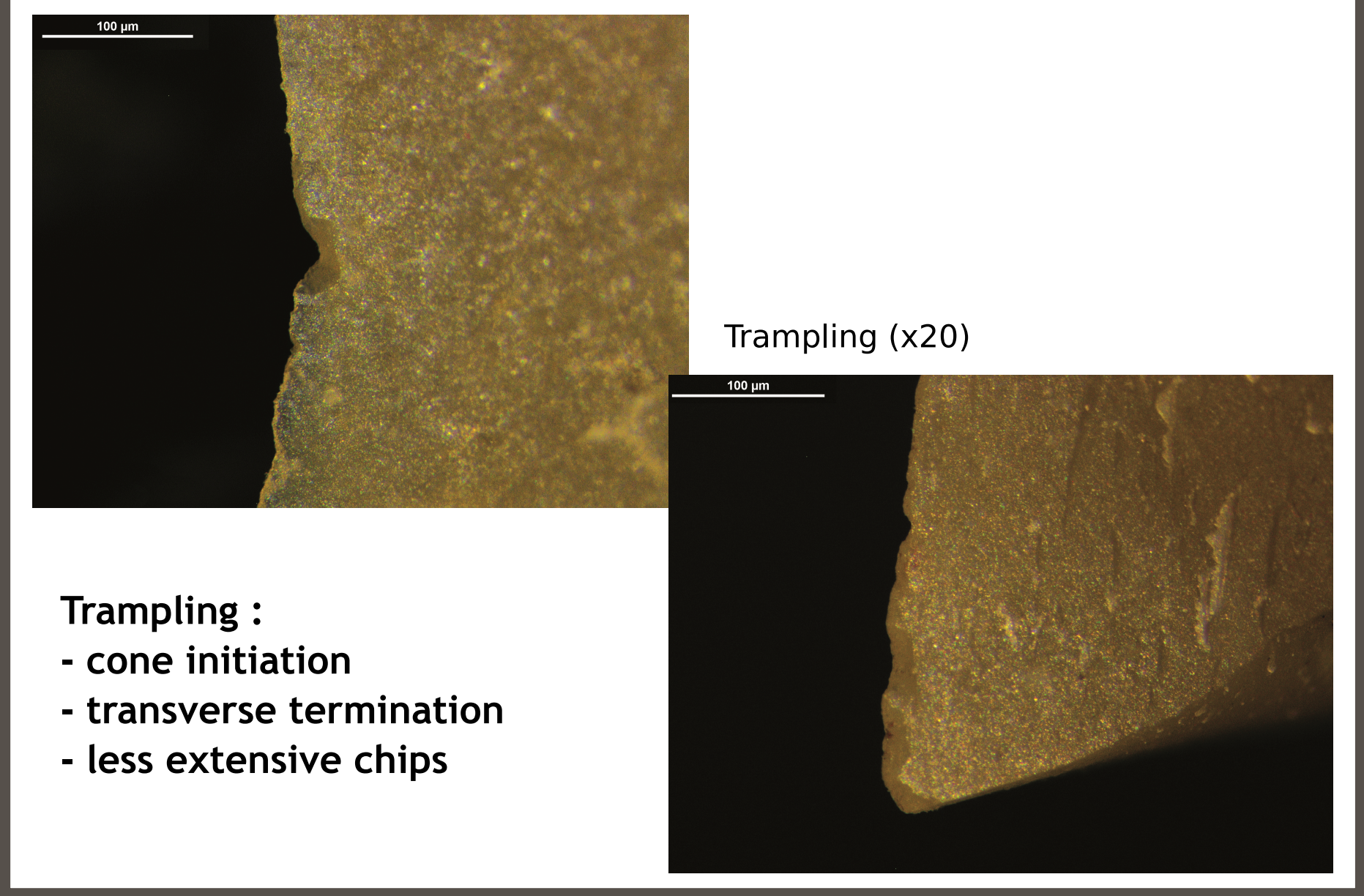
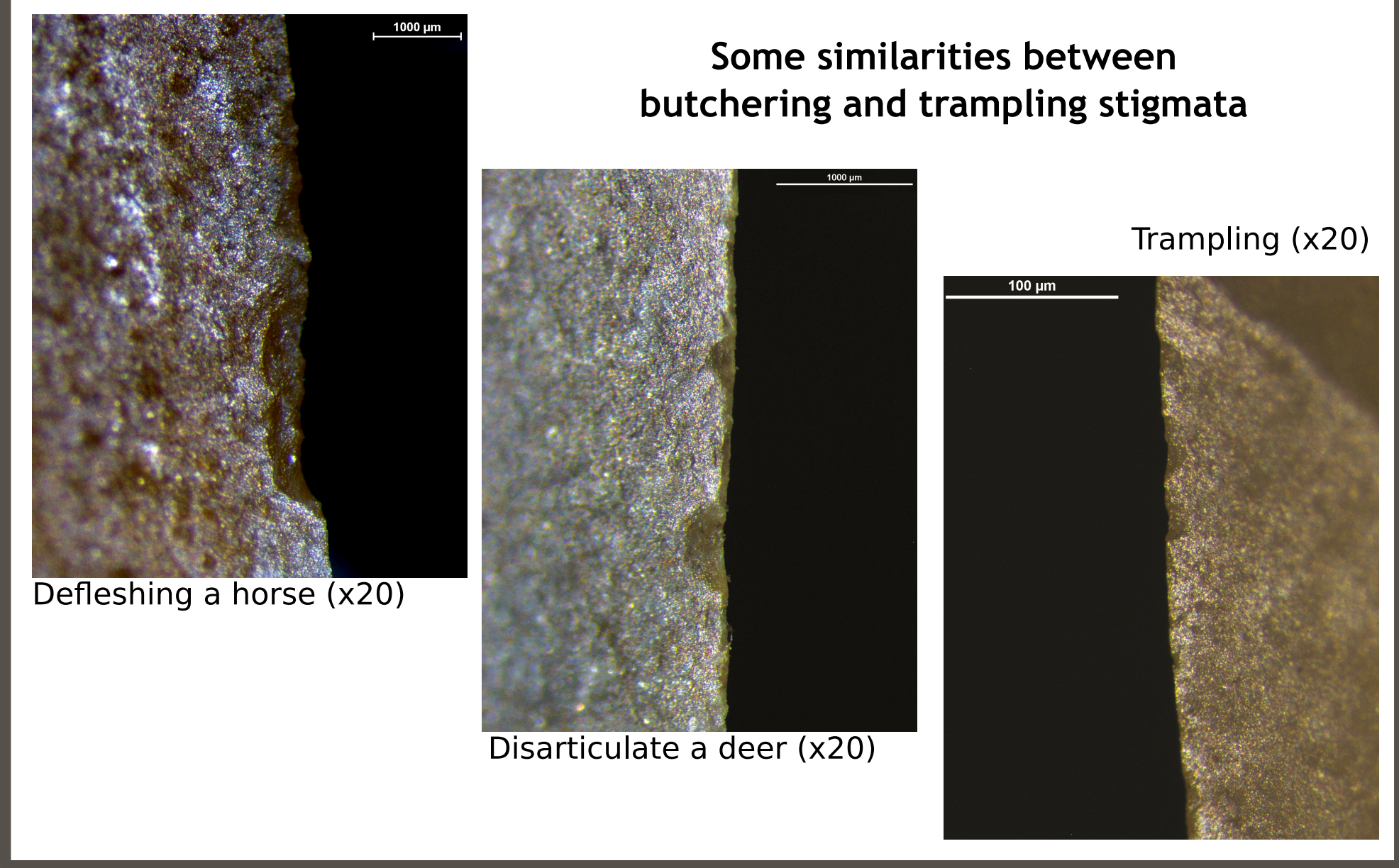
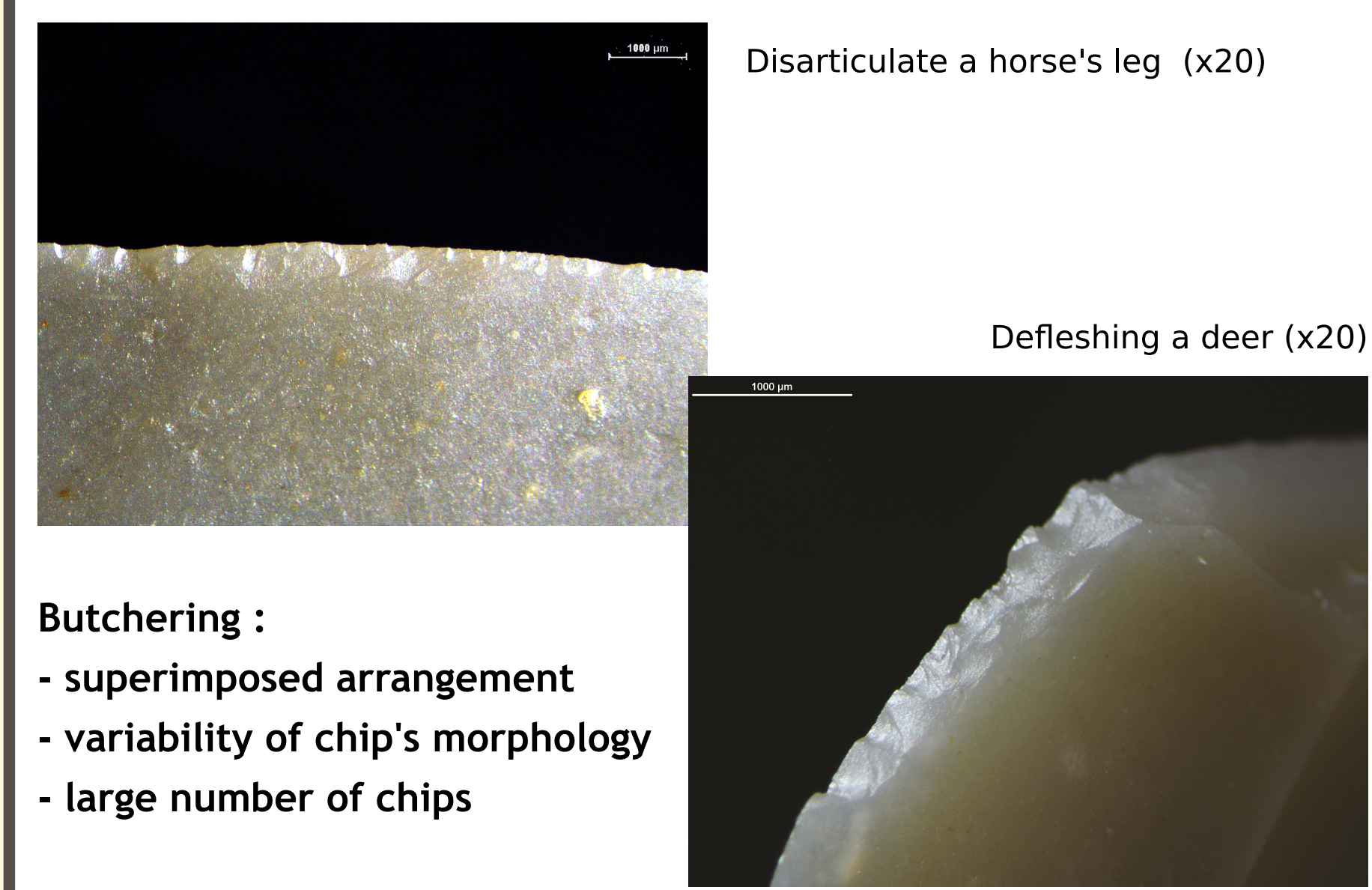
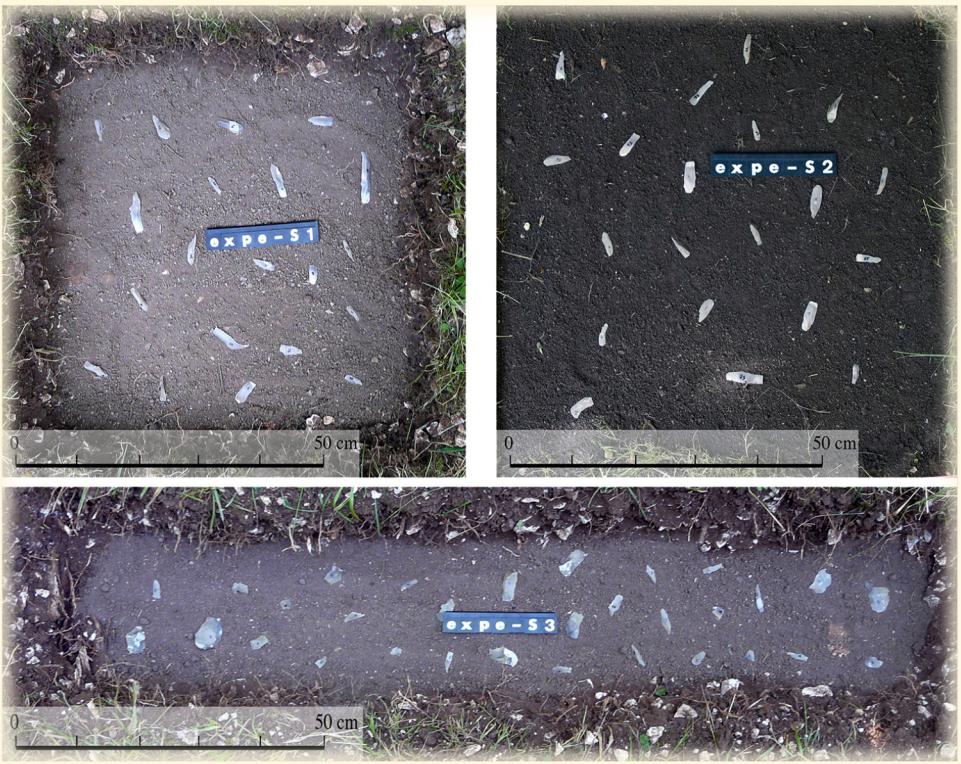
Material and method

From 2015 to 2017, three experimentation have been done, concerning first a domestic activity: the butchery, and then the mechanical damage on blanks caused by human trampling.

The first and the second experimentation was about butchering on horses (four half carcass and forty feet) and then on one deer. Sixty-four unretouched tools where used for the horses and twenty one unretouched tools were used for the deer treatment. Butchering consisted in four steps: skinning (1), tendon removal (2), disarticulation (3) and defleshing (4).

The third experimentation was about human trampling (5) on the same kind of unretouched tools. It took place in the mesolithic site of Cuzoul de Gramat (Lot, France), in a coherent sedimentary context: the sediment have been took directly from this site. Fifty one unretouched blades and flakes were trampled for two to four weeks. There were buried at varying depths (between 0 and 15 cm - 5.9 inch). Concerning all of these experimentations, the majority of these blanks are close to the Mesolithic's tools of the southern-west of France by their technical's, petrographic's and morphometric's characteristic.

Each of these experimental blank have been individualized in plastic bag, washed by traceological protocol and registered in a database. The study presented here just proffer the result of the macroscopic observations (x10 to x50).

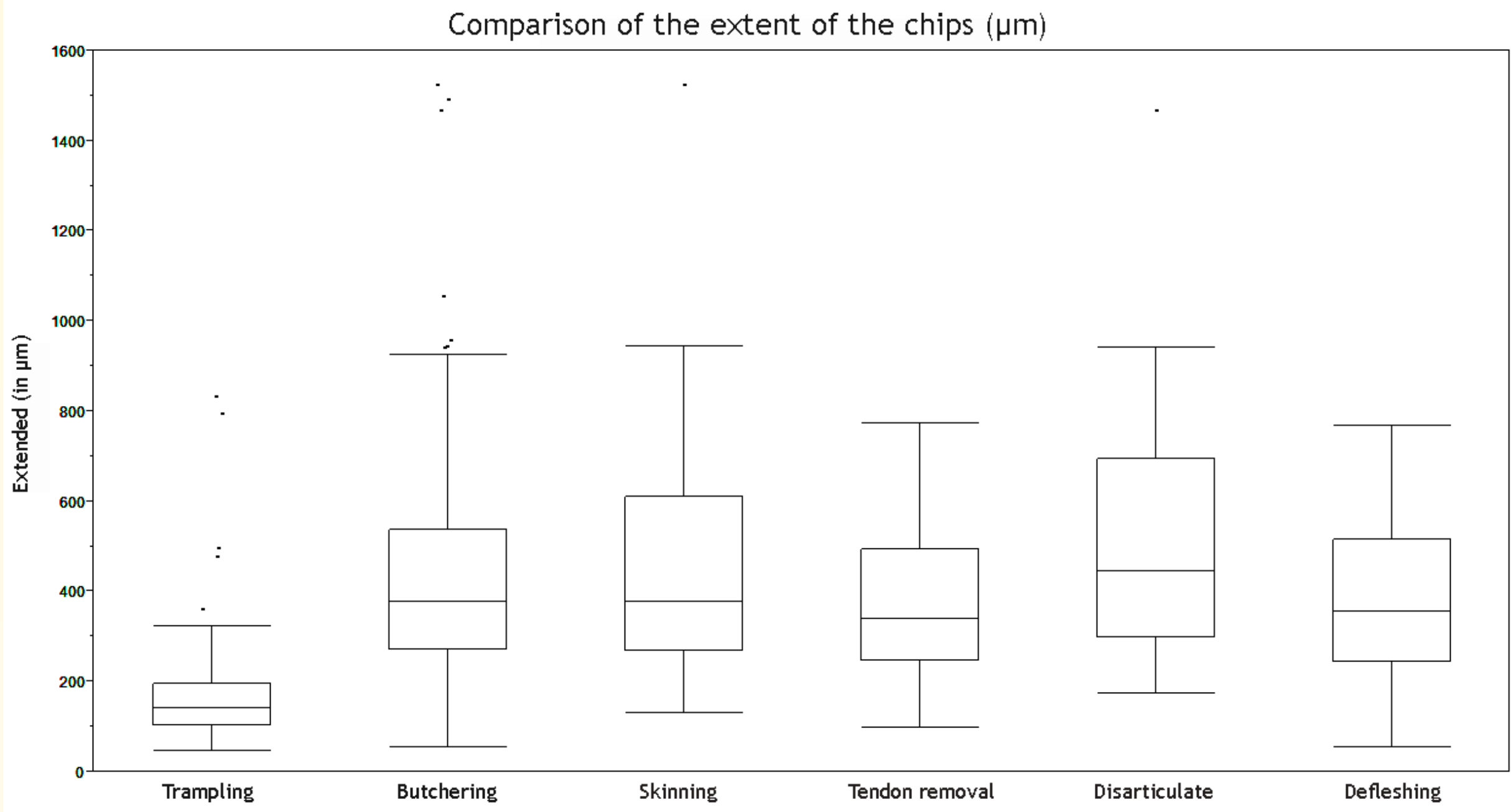


First results

Wear attributes observed on trampled blanks firstly seems to be similar to the butchering tool's attributes. Chips are often arranged discontinuously and isolated (41%), their morphologies are frequently like half-moon ("en demi-lune") or semi-circular, sometimes combined (44%), and they are generally few in number (42%) and shallow (66%).

But in detail, one can note nevertheless some significant differences from butchering usewears to trampling damages : the superimposed arrangement of the chips (23% of the butchering's tool's wears), their trapezoidal morphology (24% of the butchering's tool's wears), and their large number (more than fifteen chips for 29% of these tools used to butchering, even more for tools used to remove tendons and to deflesh) never been observed on trampling's blank.

Contrary to that, "cone" initiation that we observed for a few number of tools used for the butchering (17%, even more for tools used to deflesh) is becoming the only one we seen on trampling-related chips. Transverse termination never been observed on our butchering experimental tools, while they are nearly common on trampling-related chips (27%). Finally, we observed that chips due to trampling are really less developed in extension than these due to butchery (6).



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* These experimentations are a part of a PhD thesis engaged in Toulouse Jean-Jaurès University, "Economie et mobilités durant le Mésolithique et le Néolithique ancien à travers le spectre fonctionnel de l'outillage lithique domestique : approche micro-régionale des Causses du Quercy et de leurs marges" dir. N. Valdeyron and S. Philibert

Conclusion

The aim of this first methodological perspective was to know if it was possible to identify some discriminating criteria to distinguish accidental removal from usewear traces. Indeed, when the analyst have to observe an archeological collection mostly composed by unretouched tools, it is necessary for him to be able to make a first assessment about this collection, and then to isolate a solid sample of tools.

We tried to extract some macroscopic criteria in this perspective, but it is clear that it will be necessary to specify these data by multiplying the experimental variables (type of sediment used, frequency of passage, depth of deep underground deposition, addition of other elements in the soil, ...), in connection with a specific archaeological context. To conclude, it would be a way to better identify some activities, like butchering, difficult to distinguish because they may have been a part of an expedient production and economy of these prehistoric societies.

Thanks :

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