

Panel Discussion

Wednesday, September 26
14:00 – 16:00

Moderator: Thomas Terberger

Questions/comments from persons in audience:

Hai Ashkenazi
Horia Ciugudean
Daniel Föller
Raphael Greenberg
Svend Hansen
Teresa Koloma Beck
Rüdiger Krause
Ralf Lehmphul
Lennart Linde
Oliver Nakoinz
William O'Brien
Andy Reymann
Thomas Terberger
Biba Teržan
Nick Thorpe

Thomas Terberger: Hello to everybody and thanks for joining us for the final discussion. I think that we already had really exciting discussions going on, and for the next hour the idea is to come back to the starting questions of the conference, which you see in the slide on the wall at my back:

“Materialisation of Conflicts”

1. Materialised preparation for conflicts
2. Materialisations in the course of conflict
3. Materialised consequences of conflicts
4. Materialised symbolisation of conflicts

Certainly, the presentation of conflicts is the major topic. But before starting with the topic of presenting and rating the conflicts, I suggest that we return to the ideas of our colleague Oliver Nakoinz, who presented some results of ongo-

ing discussions at Kiel University by a group of colleagues discussing the aspects of conflict (see Nakoinz, Kneisel and Gorbahn in this volume, p. 2 Fig. 1). And now I would briefly like to come back to the slide and ask the question to the audience: Do we agree with Oliver's propositions of such a sequence? Do we think that it is a possible concept to use in research on conflict, perhaps also in the LOEWE-team? Then this would be a good starting point so that we have a better understanding of how to approach such a subject of conflict, especially by a group of interdisciplinary researchers. Does it for example fit to the ideas of sociology or the early medieval period? Can you agree to this theoretical concept? Anyone who would like to raise a discussion on this? How do you see this kind of model?

Daniel Föller: Thank you. I have a question for Oliver Nakoinz. I'm interested in the base for this concept, the theoretical base. Or if you don't have an external theoretical base and developed one on your own, then I would like to ask: Are there any efforts to relate it to existing theories on conflicts? I mean, conflict is not an under-theorised field.

Oliver Nakoinz: Thank you very much. Before we developed this escalation curve and the de-escalation curve, we invited some sociologists and other people and asked how they deal with conflict in their discipline. And some provided aspects of the escalation curve which are much more complicated than this one. So, we found that we cannot apply the complicated escalation curve in archaeology, because the different steps cannot be connected to archaeological observation. We decided not to use it so and to develop a new one which is connected to archaeological indications of conflict. In fact, we started these archaeological indicators of conflict and defined this escalation curve and de-escalation curve based on our observations. So, it's a kind of bottom-up approach, starting with what we know in archaeology.

Thomas Terberger: Are you satisfied?

Daniel Föller: Yes. OK.

Andy Reymann: Thank you very much again for speaking about the escalation curve. I have to admit that I like the curve, I like the potential it brings for looking at, as it is written down, 'conflict potential', that it is going onwards and onwards until something perhaps happens. But I have to ask – because you just said that we were looking at the possibility of how to connect it with archaeological material: If you look at these five points, or let's say only four points, it resembles some ethnological observations that we made during our work in our project with some case studies that are surrounding actual conflict potential, that never resulted in real actual violence, well not looking at 'mock battles' that were fought in front of it, but the only archaeological evidence from those cases that really could have appeared – well in those cases that I have in mind – were for example exchange of two sacks of tobacco. So the question I raise is when you are saying an escalation curve is connected to the possibility or has an archaeological evidence, where, do you have an example, could you draw a case study where this scene would fit?

Oliver Nakoinz: Perhaps you remember the final slides of my presentation, when I went through all those steps with a short example. And those are the case studies which we used for developing this curve. We looked at certain cases and discussed what does it mean in conflict. At this moment I am not able to describe a more developed case study, and you remember the project has not started yet. This is something we will do in the future; we will apply this concept to case studies and analyse archaeological observation, based on the different steps in escalation and de-escalation. Perhaps I will be able to present case studies in one or two years, but unfortunately not today.

Thomas Terberger: Any further comments?

Nick Thorpe: I guess my concern is really – I suppose – stemming from the perspective of someone who is quite optimistic about our abilities to recognise conflict in earlier periods in the Bronze Age. It seems to me that the nature of this model would apply better if one follows the sort of older distinction between conflict and warfare. That this seems to fit

better with notions of preparation for war, because it is really dealing with things on a larger scale. So in my presentation yesterday for the Early Bronze Age, I think that we are really talking about things like individual disagreements leading to feuds and that sort of level of conflict. I don't think that we are looking at any of the factors really that are involved here about fighting over natural resources or different religions or general cultural differences. So, I think that it seems to be a reasonable model but only for certain kinds of societies. But on the other hand, in terms of what has been discussed over the last couple of days, such as well-organised societies building large fortifications and so on, it seems to me to work pretty well for those, but not for those of us perhaps on the fringe of the Bronze Age world, where such developments only occur, come apart with further Bronze Age.

Daniel Föller: Basically, I have one objection and one question. The objection is that I have a little problem with the very utilitarian point of view here – only economic reasons for things like these or cultural differences or communication. All of this has a very rational air about it. I'm wondering about the more – let's say – the more anarchic aspect of conflict, the fuzzy, messy stuff, people being aggressive, people with a desire to destroy, be it because of a psychic problem, be it because of an ideology. I think that these dynamics are not really present in the model.

Nick Thorpe: That was the point of the other half, the right half of the brain, if I remember correctly.

Daniel Föller (laughs): Yes, and if it is only half of the brain, it is only half of the conflict, I think. And my question is: In this escalation curve and also in the other diagrams that you have shown to us, there are also parts which you cannot really see in the material, in the evidence that you have as archaeologists, as, for example, threats. How do you see 'threat' in the archaeological material? And I wanted to know how you are going to deal with this problem. Because if you cannot see this then I would like to ask: Why do you need for this a special archaeological model if you cannot work with it anyway?

Oliver Nakoinz: The first point is that we are missing part of the 'world' of this model. You are completely right. This is based on rational ideas.

But I have to admit that I have no idea how to analyse non-rational behaviour. If you have any idea how to do it, I would be pleased. What was the second point again, one key word?

Daniel Föller: Threats!

Oliver Nakoinz: Thank you very much. Of course, there are many things that we cannot see in the archaeological material. But your example of threat is something in which I believe we can see at least a part. We don't see the actual action of fear, but the weapons are interesting in themselves. They were produced for treating with violence or applying violence. So, I think this is something we can see – not on a micro-level of actual application, but on a rather general level.

William O'Brien: This discussion around triggers and responses, is very reasonable, but of course it must be scaled to the complexity of the societies concerned. It is hard to assume that there is just one sort of general society, which was susceptible to triggers and responses. There have been situations in which some communities were 'naturally bellicose'; that for them warfare and conflict wasn't something that escalated and de-escalated, but was rather central to the sustenance of their very existence, for their whole society, in the idea of warrior and chieftain society, the cult of the warrior. That this was a natural condition, rather than something exceptional in their societies.

Hai Ashkenazi: I'm not sure about the threat or the right or left side of the brain or the unreasonable side. And I think that we can see it in the response, the response to threat or what happens after like destruction layers or the building of fortification, or things like that. So you see that it is not easy, but I think that we can see it.

Thomas Terberger: I think that that was a wonderful comment and let us now move step-by-step to the question of materialisation of conflict. Do we see the answer to threats and so on? But before we turn to this, I would like to briefly ask Raphael (Greenberg), who has presented us a very nice paper on the aspect of symbolism of artefacts or forcible use of the artefact of the macehead. After seeing so much evidence for conflicts in hillforts, do you think that prehistoric societies were much more involved in conflict and perhaps that even

maceheads were really used in conflict and were not only symbolic artefacts? Before getting a symbolic artefact, the artefact has to be part of society as a tool which has really been used. How do you see this looking at so much evidence for violence in prehistory in the European records? Do you see any new aspects?

Raphael Greenberg: No nothing like that – I knew everything ahead of time ... it was all clear. I just had to have my pre-conceptions confirmed! (laughter in background) I think that there is an interesting cycle at work. That is: We can't see interpersonal violence in very early periods. In Çatal Höyük there is evidence for that in Neolithic burials, and then there is the stabilization and it seems that people are able to de-escalate. For a long while they find ways of creating mechanisms in society that will prevent states of permanent conflict. For me it was quite difficult to follow the chronology, because many of you just use the terms without giving the date. It's like the old joke about just giving jokes a number without having to tell them. So I don't know when things happen in Europe. But looking from the Levant – and I am using the chronology of Mario Liverani here as a crutch – he's saying that at about 1600 BC warfare becomes professionalised and that you get professional warriors. And I think that this has been also a turning point here, and I think a lot of the things that you have been showing happen after 1600 BC. So I wonder if this is some kind of turning point in Old World approaches to warfare, a change from a sort of general patriarchal society which came into being with – let's say – urbanisation and large-scale agriculture, to the emergence of a new warrior status, that of full-time warriors as a social group – a group of professional soldiers. So, they actually had to stay in business all the time. I'm wondering if there is some sort of escalation in progress here? And then what that would say is that the earlier defensive structures, even earlier social structures, were designed in many cases – this isn't everywhere – but they are designed in many cases to maintain social equilibrium. And this might be a more powerful social tool than we usually give it credit for.

Thomas Terberger: So, you propose that from the perspective of the Levant a major shift took place around middle of the second millennium BC. We have seen several papers analysing the re-

cord of the hillforts and, among others, we could see in France a steep rise in the number of hillforts, especially somewhat later. So, the question is whether we see a turn towards a more professionalised military organisation and an increasing number of hillforts. Or do we see a shift already in the 15th century BC, maybe in the Carpathian Basin, where a site such as Sântana already existed in the 15th century BC, and this would be in favour of a major shift around that time. But in Central Europe it looks a bit different, and sites such as Bernsdorf seem to start somewhat later. What about this major turn in the middle of the second millennium BC? Would anybody like to comment on this? For the Carpathian Basin, where do we see the major break towards a more professionalised military organisation?

Svend Hansen: I would say if we look at the hillforts or the weapons, there is a major shift in Central Europe around 1700–1600 BC – let's say, Bronze Age A2–A3. This is – I would say – the spread of weapons all over Europe and the beginning of hillfort-building over a wider area. Maybe a bit earlier than what Liverani suggested, but in general it would fit in.

Thomas Terberger: But do you see at that time already a more professional way of warriors as a social unit or social group?

Svend Hansen: Definitely a development of professionalism, because to use the sword and the spear you have to train. You cannot simply take them and start fighting. You have to train your body, you have to learn all the movements, and so on. You need a person specialised in fighting. They are not soldiers in the traditional sense, but they are more used to being in fighting than the others.

Rüdiger Krause: Looking at the arms and development of arms, and Svend (Hansen) is working on the earlier period, as he has mentioned now, I got the impression that a second point of evolution was taking place within the Late Bronze Age, because the bow-and-arrow seems to get a much more important position in combat. We have this in many historical reports, like those about the battlefield in Kadesh with Ramses II, with lots of bowmen. We have a lot of other reports, and now in our project looking closer at the records, especially here in Central Europe, we find much more

bronze arrowheads in the context of Late Bronze Age fortifications, as we have shown and you will see in the museum this evening, and we will go there tomorrow on our excursion to the Sängersberg. We had the great luck that we did find such a situation there with lots of arrowheads along the fortification lines, a kind of stone wall, stone-and-wood construction. So, I have more and more the impression that there is a second phase, a next step of organised warriors and organised battles taking place in the Late Bronze Age in the Urn-field culture.

William O'Brien: It is difficult to compare Bronze Age state formations in the east Mediterranean with simple chieftains and warriors in northern Europe. But I would say with regard to the 15th century BC, there is no doubt that the visibility of warfare becomes much stronger. But there is a long period before that in which we have warrior culture; I think of the Bell Beaker warrior. A point is reached in the second millennium BC where a shift in social complexity leads to warrior culture is reinforced and much stronger. But there is long period preceding in the Copper Age and arguably even earlier, of incipient warrior culture.

Raphael Greenberg: I just want to clarify that warriors of course existed earlier, but as full-time professionals, all year round, they come into their own in connection with chariots and horse-breeding.

William O'Brien: I just wanted to say that it is questionable.

Svend Hansen: OK, I just wanted to continue about the Bell Beaker, especially the Bell Beaker culture already had the bow and arrow, prominent in the graves.

William O'Brien: Again, it may be comparing different societies and different developments, but I would say that for much of the Bronze Age in Central Europe we may not have professional soldiers in the modern sense; we don't have permanent armies, standing armies. The warrior culture is more embedded in society. These great warriors are warlord chieftains, major landowners, nobility caste, but not necessarily professionalised like we think of them today. That is the distinction that I would like to make.

Nick Thorpe: So, I just want to answer. Actually, when you are getting to the 15th century BC, you seem to have a major shift in terms of investment in warfare, in terms of the actual material resources, the amount of copper going into technological developments in weaponry, and the investment going into fortifications. So, there is naturally a shift in how society is allocating resources. It seems to have a bit of a tipping-point turn in the 15th century BC.

Thomas Terberger: I would like to briefly comment on the subject of 'full-time' professional soldiers. For the Tollense valley site we see that the individuals found have a very specific age – most of the males are between 20 and 30. Most of them show signs of long-distance walking. They are trained not only in the sense of fighting because they were strong, but also in sense of walking. Until now we do not have enough data for comparison yet, but they also seem to have a rather typical specific diet with a lot of millet.

For us the question is whether we can propose a more professional way of life for these people, for these – yes – warriors. And we should not forget about the site of Neckarsulm, where for the first time a burial ground was found, where warriors were buried more or less as a specific social group. So I would propose that around 1300 BC we see a turnover to a much more professionalised type of warriors. That doesn't mean that it was a permanent army, but there was a specific social group, which had a life related to fighting and being a warrior.

Andy Reymann: I just want to make a remark, because there was a lot of talk about becoming professionalised warriors, about 'warriors' and 'not warriors'. And in cultural anthropology, but also the human anthropology of conflict, especially in North and South American archaeology and human anthropology of conflict, there is now a distinction between 'warriors' and 'fighters', but there are different types of people going into combat. And it doesn't have to be a professionalised warrior; there are many other ways of how people can go into combat. And especially it can be shown that in societies the more important it is to be successful in war, and the more important the social role of the warrior is, the more important are the casualties and the damage to society can be, as seen in massacres, seen in a lot of war casualties in human lives, and especially seen in South

American state or pre-state societies, seeing that violence and everyday violence get more important and get more usual, and more important in warrior societies. So, everyone suffers and those things can be seen in the skeletal material, too. So, if we have something like this in our Bronze Age society, well perhaps we should look at all material at rest, and not only at weapons and fortifications.

Thomas Terberger: We had an example from Nick (Thorpe) of a number of such instances of violence, but this seems to be related to raid and not so much related to really organised conflict.

Nick Thorpe: Well, what I was suggesting was that there may be a relationship, in terms of something, which relates to the behaviour of people in Kabul, in the sense that what I am looking at or suggesting that we maybe ought to look at is a more kind of generalised climate of fear, and that at those sorts of times the potential of an enemy from within is seen as a kind of ultimate betrayal, and therefore those people – the enemies within – would be particularly likely to be violently treated and disposed of in a disrespectful manner, and so on. So, I think that for the early period we probably are talking about very small-scale feuding and so on and raiding, but I think that the idea of blaming people, finding scapegoats and so on is something that obviously we see in state societies as well.

And I just want to make one other remark, while I've got the microphone. I'm not sure whether we should necessarily conflate what we want to call a more professionalised sort of development of warriorhood in the second millennium BC with the ability to undertake attacks on fortified sites. I mean, in the British and Irish evidence, we see good evidence of that occurring in the early Neolithic, and we have much better evidence for sites being attacked by groups of bowmen, massacres of defenders, destruction of sites and so on from about 3500–3300 BC, than we have for anything until we get to maybe about 1200 BC. So, we have this extremely long gap in the evidence. And I'm not proposing that we therefore must say that there were some kind of professionalised warriors in the early Neolithic, but rather that I think that it was clearly possible to undertake those kinds of actions without the need to have professional warriors. So maybe we need to be careful in assuming that in order to attack fortifications, you must have professional warriors.

Daniel Föllner: I would like to say two things out of my perspective as a medievalist: The first one is about ‘state and non-state’ societies. I know that this is the ‘state-of-the-art’ in archaeology and a part of sociology. I must admit that as a historian I have a little problem with this, because when you say ‘state’, especially when we as Germans say *Staat*, we have something in our mind, which has nothing to do with the political organisation of pre-modern society – or of most pre-modern societies, exceptions being the Eastern Mediterranean or the Roman Empire and such. But when I am looking at post-Roman Europe, when I am looking at pre-Roman Europe, I’m not sure if we can really talk of stately societies, of soldiers and things like this. So, I know that this is the ‘state-of-the-art’, but maybe if we are continuing with this interdisciplinary project, we should think of terms which everybody can live with.

The second thing is that I have a proposal to the discussion about professionalisation. There is a work by a colleague of mine, David Jäger, which was published in 2017; the title is: *Plündern in Gallien* (Plundering in Gaul).¹ Jäger is dealing with the question of post-Roman society in Gaul. He developed the concept of a “warrior-mode” persons can get in, under certain circumstances. There are situations in which the warrior-mode is activated and situations in which it is not, and there we have this issue with part-time warriors. Maybe this is a concept that could be useful here. And considering this I would like to ask Prof. Terberger: At the Tollense valley, you are looking at the traces of professionalisation of those warriors. Are you also looking at traces of other obligations, for other professions they had, so that you can rule out or see if they are just part-time warriors, or is there a combi-occupation? I was particularly impressed by the Neolithic bowmen that Immo Heske has shown to us, in a society where not much hunting took place; yet, you have a person who is doing much shooting with the bow. I think that this is a hint in the direction, but perhaps there are other things you see in the anthropological remains, traces of other professions.

¹ D. Jäger, *Plündern in Gallien 451–592. Eine Studie zu der Relevanz einer Praktik für das Organisieren von Folgeleistungen*. Ergänzungsbände zum Reallexikon der Germanischen Altertumskunde 103 (Berlin/Boston 2017).

Thomas Terberger: Yes. Thank you for the question. It is not easy to analyse the skeletal remains that we find in Tollense valley on such very specific questions, because we are not dealing with complete individuals, but with scattered human bones. Normally you don’t know which right and left arm belonged together. My colleague Ute Brinker who is doing this research has taken a more general approach: She is looking, for example, at all right and left arm bones to identify patterns. Muscle attachments can tell somethings about stress, training, and profession. Certainly, it is possible that bones of a farmer who was working as hard as trained fighters can show stress markers. In the case of the Tollense valley most of these young males show similar patterns. I remember a meeting with Prof. Schulz, who is a palaeo-pathologist, and he said: “Oh, have a look at these bones! These individuals walked a lot.” So the individuals represented on this battle field site do not seem to be a typical part of society, but a selection. Unfortunately we have no other series of such skeletal remains to compare with. This remains as a hypothesis, which is difficult to prove in detail. OK? Any other comments to that?

Teresa Koloma Beck: I would like to take up two things that have been said throughout this discussion now and I wanted to add from a sociological point of view. On the one hand, I would like to strengthen that it is important when we look at these societies, and then it doesn’t matter whether if it is in the Middle Ages or Antiquity or in the Bronze Age, to be very careful not to infer from our experience to people who have lived in times that we are not familiar anymore. And this is not something trivial to do, because our thinking works in analogies. And it is just natural that we see a fork and think this is a fork and that people will have eaten with it. But sometimes it might have been something different. I think in this context, it is really important why context and words matter, as has been pointed before. Of course, the words we use in a certain context – they carry worlds, so to say. If you say ‘state’ in Western Europe, you think this implies stability, peace, taxes whatever. If you would have said ‘state’ in Eastern Europe in the 1980s, it would have carried ideas of oppression, maybe. And it is impossible to prevent this from happening, and the only alternative – this is what you have said before – is to look for concepts that are more neutral, speaking of order, or being more specific in the processes that we want to describe.

The second thing which I also would find very important is that if we want to understand conflict, we have to understand it in relation to social life in general. If we want to understand violence, we have to understand it in relation to what else is going on in society. And thinking from here we are always – how to say – prone to run into a trap, where being a scholar at a university in a western country for most of us violence is something anormal. There is a social normality and then there is violence. And we like to – how to say – make this analogy for all the contexts we look at. But in many contexts it might be different, and this is why it is so important when studying conflict, no matter what discipline, also to study what else is going on there. Because if we only look at conflict or only look at violence, we tend to infer too much from our own experiences.

Thomas Terberger: No doubt, this is correct. But most archaeologists try to contextualise of course their evidence for warfare and hillforts. But maybe we just take this opportunity, as we have seen before that it is a matter of discussion whether hillforts are a sign of increasing instability or they are – yes – a strategy to prevent instability and conflict. If we take a look at these concepts of materialisation of conflict, do we see that we just have to accept that it is difficult to decide whether we are dealing with the outcome of such instability or warfare, or whether it's to prevent conflict. I do remember this large wall, where we discussed if it was built to prevent conflict or as the consequence of a number of conflicts? What can we say about the records of hillforts in Central Europe?

Teresa Koloma Beck: What I wanted to say that it might be that the conflict is the stability. So associating conflict with instability is already inferring very much from our present experience to the present in other times and other places. Conflict can be a very stable system. Think of the marriage, for example. And the same happens also in intergroup life. I don't know how you can find this out in archaeology, whether signs of a conflict or signs for instability, or whether this is a stable system of conflict. But maybe just being open to the idea might change certain things.

Thomas Terberger: I mean, just coming to the Thirty Years' War – there has been a whole generation that did not experience anything other than conflict, you know. So, this is certainly the case.

Daniel Föller: I could just add to what Teresa Koloma Beck has said, that in the Middle Ages for instance and post-Roman Europe, the societies which I am looking at, we have violence as a vital factor in the system. We have societies where there are, for example, no stately actors who are able to enforce laws. So, you have to enforce the laws yourself. But this has to be done following a set of strict rules. Within these rules, violence was an option; it was one of three options to solve the conflict, to enact violence in a certain way. And this stabilised the system, because the violence prevented violence from escalating into open anarchistic warfare. So there was 'good' and there was 'bad' violence. And you could enact 'good' violence, against the same person again who you could enact 'bad' violence. It depends on the situation, it depends on the justification you have, and it depends on the means that you use. So, these are social systems in which violence is definitely an element of stability.

Oliver Nakoinz: We just destroyed most of our equations. And I want to go one point further. I want to ask, in contrast to what I asked yesterday: Does violence always mean conflict? Or is violence thinkable without conflict? At this time I don't have an answer; you have to provide me with an answer. Is it possible?

Teresa Koloma Beck: Yes, I would say it is possible. There is something like habitualised violence. If you think of domestic violence, this is not a case that is interesting to you as archaeologists. But in domestic violence if you think of a husband who slaps his wife or a father who slaps his kids. Usually this is incorporated habitual structure, a certain situation that triggers a corporal response. And you could analytically frame this as a conflict, but I would say that this is a misconception. In contemporary times think of companies moving into territories inhabited by whatever local population to extract resources. They exercise violence just to pursue their economic interests. Of course, then you could construct a conflict with the interests of the people in the place.

But as a sociologist I would always go with our old father of sociology Georg Simmel, who said conflict is a communicated contradiction. So, sociologically I find it is useful to think of conflict as processes of communication: There is communication without speech, shooting – and shooting

back can also be a form of communication. But actually, it's about observing what others do and responding to it. And in this sense then a company moving into a place and – how to say – expelling the population to extract natural resources, this might be a conflict in a Marxian sense, but in a sociological sense it is not a conflict; there is something else that is going on here: a process of expulsion, power, whatever. So, I would absolutely say that it is violence without conflict.

Lennart Linde: I want to step back, because I got the microphone before you brought your question on violence. To the question what a hillfort actually shows us: hillforts being built in the anticipation of a conflict. They show us a threat-level. They are like – if you wish to say – a 'built answer' to a possible threat. And if you look at the hillforts and they are not frozen over time, over the time span of the resistance; they will be renewed, renovated. There will be new fortification features added to them, like a newer ditch, a deeper ditch. We've seen this in various hillforts in the papers presented to us. So, there we see a rising threat-level. And that is the same as we see in Afghanistan in the paper presented by (Teresa Koloma) Beck. They build a wall, and then on top of the wall another wall, and another wall, and then comes the barbed wire. So, we see how the threat-level rises, and it materialises in the architecture, in the structure of a place. And I think that is a very important part. So, hillforts are not the answer to a conflict, and they were never built when conflict was already raging, when there is warfare going on. They were built before that. And they are also part of an 'action and reaction' scheme: People develop new weapons, new techniques to use these weapons, new techniques to ambush a hillfort. And so, I as the holder of the hillfort have to react to this and come up with a new technique of defence. So, it seems like a ping-pong game somehow, at least to my understanding, for probably over a couple of hundred year or decades, where we have this action-reaction scheme. Rüdiger Krause mentioned the arrowheads, the method used with arrowheads. This is a special technique to try to enter a hillfort by using long-distance weapons in greater amounts than in the previous years or years before. At least we can see this in the archaeological record.

Hai Ashkenazi: I want to say something about violence. I think we hear, we speak about conflict and violence and organised conflict and violence, so domestic violence is something else. And I think that when we start to see hillforts in Europe, it means that something happens with organised violence. If we go back a hundred years or five hundred years, we don't find them. So, something happens in between, that people started – there started to be threats – and so people started to build hillforts and started to make weapons, or to engineer or think about weapons. This is what we are interested in, this is what I am interested, in how people started fighting, actually.

William O'Brien: Because of the nature of our source information we archaeologists tend to emphasise the physical side of hillforts as fortifications and their defensive capabilities. But then many of the hillforts that we encounter are hopeless in defensive terms because of their huge perimeters. So, a lot of the importance of the hillfort was actually offensive capability, in that it had a major deterrent effect, because it represented an active force of warriors that could respond in an offensive way, so as mustering locations and all of that. The visual symbolism of the hillfort on the landscape is much more important than its ability to actually protect anything, because many hillfort wars took place outside of the hillfort anyway. Now, of course, when I say this I realise that not all hillforts are the same, but as a general point as purely defensive structures many hillforts have obvious limitations.

Thomas Terberger: Yes, I would just briefly mention the example of the early medieval period, that only about one-third of the hillforts or protected cities were really involved within such a conflict, and siege was much more important. Perhaps we can come back to this point later.

Andy Reymann: I would like to answer (Teresa) Koloma Beck and (Hai) Ashkenazi: No, domestic abuse and domestic violence has something to do with warriors and with warrior societies. Because, for example, there are studies on the families of American soldiers and it can be shown that in those families after a war, after being in combat, the domestic abuse is 4–5 times higher than in

normal society, a model which has been applied to ethnological analyses and anthropological analyses, too; which shows us that if we look at fortifications, if we look at weapons in prehistoric times, we should really look at all sources that we have. Because if we have, as Lennart (Linde) said, fortifications as something being built in the expectation of conflict, in the foreground of conflict, if people have erected fortifications, if people have established a society in which warfare and the usage of weapons is normal, and if we have suddenly ethnicities in which no fortifications are established, in which no warriorhood is visible, well, what happened? Did warfare suddenly disappear, was warfare conducted in another way, or do we have other sources that show conflicts, the conflict about resources, the conflict about land, conflict between religions or ideology. What could have happened? Why do the sources change?

Daniel Föllner: I would like to contradict Lennart Linde in one aspect. I think that if you have armed groups of considerable size, then it is perfectly possible that fortifications are built during a conflict. If you have a raid lasting for several months, it's not that you are marching everyday and plundering everyday, and marching everyday and plundering everyday. It's sitting around in your camp, blackmailing people, showing up somewhere, burning something, going back to your camp, waiting, getting some supplies, and all that stuff. We have seen this in the historiographic records which I have examined. You see that during a conflict or at the beginning of a conflict fortifications can be built. In 769 AD Charlemagne went to Aquitaine, he gathered his army, he got into position over the River Dordogne and then built a castle, and then he waited and then he negotiated and then he waited. And then his enemies were given to him by all the people who had feared him, and then the war was over. But he had built a fortress during that war.

Lennart Linde: Let me quickly answer you on that. Maybe the term 'conflict' is not right here; it's probably 'open war'. Because still if you are lingering somewhere else, it is a threat to me. It is a threat to me until the point when you march on my village and you are at my gate and you open warfare. So, you're right: I could build a fort during conflict, but not during open war. Maybe this is the distinction here.

Thomas Terberger: Yes, just to briefly comment on the aspect: Do we see hillforts being built in anticipating conflict? I can only see that in northern Germany we do not have clear evidence of strong hillforts before the Late Bronze Age. It looks like that the first hillforts, such as the site of Hünenburg bei Watenstedt, were built a few generations after this battle in Tollense valley took place. So, it might be the experience of more organised raids, that led societies to the conclusion to be better prepared for that. And this is especially seen in the period of the 13th century BC.

Rüdiger Krause: Yes, this is what Svend Hansen pointed out earlier today: We always have to consider the preceding history that can be fifty years, one hundred years, or two hundred years, and this is something that has been going on which is difficult for us to detect. Of course, we look at the landscape, at other records like hoards, graves, settlements; we look at agricultural production through archaeobotany. And this is where we can see, for example, whether the hoarding and depositing of metal artefacts is rising or decreasing, whether the state of field systems or agriculture is good or poor. So, we have several approaches when we look at such things like violence or conflict, or if we have a hillfort in the landscape with burnt walls, for example. Of course, we are looking at all the other factors around that, as long as we have access to the records.

Svend Hansen: Yes, I think that it's probably quite often the situation that a group is coming in to control resources, for example – as you said, a company is going to take over the water – like at many places in the world. This is for me a classical conflict about resources, and I think that many hillforts were built to control the resources; either they had a colonial background or the indigenous people wanted to defend it. But this is about salt, copper and other mineral resources that were always attractive. I think that we should not forget that a certain number of hillforts had the function to protect resources.

Horia Ciugudean: I would like to suggest another approach towards, let's say, the identification of warriors and wars in the Bronze Age of Europe, an approach which probably is more successful in the Levant or anyway in the Mediterranean area, but still it might be quite interesting to be used in

Europe too, for Central and Southeast Europe and also other places. I want to say that the ‘warrior’ doesn’t mean only the weapons. If you think of a warrior, you also think of trophies. It was something that was associated for a long time with the wars, with the professional warriors. Again, it is probably much easier to deal with this problem of trophies in the Near East and Mediterranean area. But still it is a chance to identify exotic goods far away from their provenience and also possible to try to separate them from trade or paying networks. Because I’m thinking of a different time, of the Vikings, and what might be found in their settlements and graves, and I think there are indications there of how exotic goods were collected, part of them as payment, part of them as trophies. So, this is a suggestion for the future.

Thomas Terberger: Thank you for the contribution. I mean we have had a number of examples of depositions of highly important artefacts. Do you think that they could be part of the booty or something like that which was deposited, or do you think more in terms of exotic goods ending up in burials? Do you think that such hoards, things that were deposited in caves, have to be understood in the context of war booty? Is this what you have in mind?

Horia Ciugudean: Mostly yes, but sometimes we also have to think about the competition from some – let’s say – apparently ritual depositions that also contained some – we may say – strange faraway objects, which cannot always be seen as the result of trade.

Raphael Greenberg: I want to say a few things about threats and maybe I will expand this expression a bit, because for every hillfort that you can associate with a specific threat or resource, I can find you a fortified site that doesn’t answer these demands, so that there isn’t any visible reason for building a wall around a site, except for the decision by the people in that place that they want to surround themselves with a wall or a fortification. But I think that we have to expand the idea of why they would want to do that. It is not always the obvious things that we are thinking of. And also, they did not always have the resources to build a fortification when they needed one. So, in the second half of the second millennium BC in the Levant not a single fortification was built, even

though it was a time of great violence and warfare and huge armies marching back and forth. And the imperial powers simply would not permit the local people to build fortifications, and they allowed them to slit each other’s throats pretty much at will, without fortifications.

But there are other kinds of threats that we did not mention and maybe we should think about: the non-human threats, environmental threats, or changes – I don’t know if we should call them threats: changes in the countryside, changes in the landscape, climate change, all kinds of non-human factors that create some sort of instability or uncertainty and that might be countered with a fortification, even if that doesn’t always work. Yes, some people pray, and some people might decide to do something else (background remark). Well, yes, this can be a collective ritual, to build a fortification.

Thomas Terberger (background): Once again an example of the left and right in the ring?

Raphael Greenberg: Probably yes. So, I just wanted to throw that into the ring.

Thomas Terberger: I would then just like – if you agree – that we perhaps briefly discuss the role, the evidence of really complete signs of conflict, coming back to the example of Sântana, coming back to the other side, we have seen for example repeated evidence of burning down. What about the frequency of real conflicts or even attacks toward such hillforts? Do we move a step forward by new excavations or more detailed analyses? You mentioned the example from your excavation that you had ‘a lucky punch’ in one example, where you could really see that such arrowheads really prove an attack. And you mentioned, on the opposite side, that such burning down seemed to be more of a symbolic behaviour and not so much the consequence of a raid. What about your evidence on such hillforts: real attacks or were they more of a symbolic kind to prevent such attacks of warfare? Do we see really a new level of such examples of real attacks, or is it more like we have heard from the early medieval period, that only a minor part of the conflict or even warfare did really end up in the attack on specific objects? Or in your opinion is it the normal way that you find such traces? Or is it for you the opposite way, that it is only the rare case that you really see the traces of attacks and such conflict on your hillfort?

Daniel Föller: Well, it may be the case that a lot of hillfort warfare took place far away from the hillforts, and that the destruction of a hillfort, punitive destruction, was the end game in a long series of events that led up to that. So, we have to be aware that sometimes warfare doesn't necessarily manifest at the hillfort location itself. The hillfort location is the power centre in the landscape, (background remark: the last step) the last step.

Rüdiger Krause: And again, it was interesting to hear from you, Daniel Föller, the record from early history, early medieval times, that around one-third of the hillforts were destroyed and the other two-thirds weren't destroyed ... right?

Daniel Föller: It was not one-third that was destroyed, it was one-third that was taken. And taken with all the ambiguities that I have talked about, negotiations and all that stuff. Only one-third. We can see violence in roughly one-third, only.

Rüdiger Krause: And if we look at our Late Bronze Age hillforts now with the burnt walls – Benjamin Richter is working on this special topic in his PhD –, and if you look at the sites where we do have weapons, arrowheads and other traces of arms, there could be – approximately, not the same – but there is one part of these Late Bronze Age hillforts here in Central Europe, where we have traces of violence, where we can see traces of violence, even if it is ritual burning, and we do not know, we are not sure what the burning of the walls really means at the end. We are very curious to hear about them and read what his (B. Richter's) solution will be. But most of the hillforts we know from excavations and prospection do not show traces of – at least what we see nowadays – conflict or destruction. So perhaps there is again a very interesting similarity.

Horia Ciugudean: I shall try to introduce another hillfort: Teleac, because Sântana was the 'queen'. But today let us talk about Teleac, especially in connection with this burning of the walls. It is difficult to interpret truly the destruction of the defensive system. If you speak about a house with a complete inventory including gold, not to speak of bronze ones, without any traces of individuals killed, of anything inside that would mean that there was a conflict, and people ran without taking much of their goods, only their life. From this

point of view not only the rampart area, but the way the houses were abandoned and destroyed is for sure highly significant. So, in the case of Teleac, at least in one phase of the defensive system, there was clearly an attack, and part of the population at least ran outside. How far it is hard to know.

Thomas Terberger: So, we have also indirect evidence that such a site was taken over?

Horia Ciugudean: Yes, just the site.

Ralf Lehmphul: If I think about Cornești-Iarcuri, we have similar situations: We have burnt ramparts and we have burnt houses and interestingly we also have two phases in the ramparts. So that means one rampart phase was repaired. And after this we have the fire, and finally the settlement structures inside were also destroyed and not repaired. So that means, in comparison to the time resolution for the phases of the settlement in Cornești-Iarcuri, something happens over the *long durée*. So, I think, it looks to me more like a conflict. And if I think of a more perhaps historical analogy: *Ceterum censeo Carthaginem esse delendam*: Carthage must be destroyed. Then also we have different wars during a long time period, and in the end finally Carthage was completely destroyed.

Thomas Terberger: Well, I was really a little bit surprised regarding the new evidence in Sântana, how little we know about conflicts that were taking place and even the types of weapons. We are not familiar with the whole range of weapons which were used at that time. We try to better understand what happened with these clay stones – I mean it's a contradiction (in itself): clay projectiles. To me this demonstrates that our knowledge is still rather limited. Even if we know the bronze weapons, we have to learn more about the role of bow and arrow, and we are still discussing when horse-riding was introduced in combat. So, there is range of new aspects on that topic, which still needs some further discussion and elaboration. You would like to comment first ...

Daniel Föller: Yes, I would like to comment again out of the perspective of the historian on this. We are tending – and especially in archaeology it is very strong trend that I do see – we are tending to see the *longue durée* above all, which for sure

is what you can tell something about. But you can see, and we as modern people are used to it, that our societies are rapidly evolving and our view of traditional societies is opposed to that. Everything seems very slow, it is very traditional; well, we call that traditional society. But what I am seeing, well, in post-Roman Europe, a bunch of traditional societies, if you want to say so, it's highly dynamic. Yes, of course, there are some factors that are highly stable, where we have a *longue durée*, maybe for thousands of years, on the one hand. On the other hand, there is a huge dynamic, especially also in questions of war. Look, for example, at the *lorica segmentata* of the Romans. We don't have many *loricae* – I don't know, how many, but only a few, I think – not many specimens of this segmented armour, which must have been produced in tens of thousands at least, in a kind of weapon factories in Rome. But they were not used for very long, just for quite a short period of two hundred years or so. Military technique is a highly innovative field in every society, and you have fashions. Maybe you won't find a *hapax* anywhere, like the clay projectiles found there, because they tried something and it didn't work so well, and so they never did it again. Or they did it only for thirty years in a certain phase. Look at the *sarissa* of the Macedonian phalanx. It was a very very special formation used for a very very special form of combat for about – I don't know – 150 years. This is also pre-modern warfare. You have this highly dynamic system. I'm afraid that you archaeologists have to live with the fact that maybe you can just see something only once, to say “yep, they did it at that time and in that region, but maybe nowhere else”.

Thomas Terberger: Yes, we should be more cautious not to generalise too fast such evidence.

Andy Reymann: I just want to add to Daniel Föllner and to say that yes you are completely correct. From the point of view of an ethnologist telling you that the Iroquois way of warfare changed within not even thirty years from a completely full-body plate armour made of wood, not penetrable by arrowheads but completely useless against ammunition, to going into warfare completely naked and only carrying an iron tomahawk or an early musket. So in less than thirty years a complete way of living for several hundred settlements changed. And that is something in

ethnology that can happen a lot of times. Warfare can adapt to new situations not even in one generation. And, well, to add – clay ammunition for sling shots can be very effective and can be deadly. Unburnt clay sling shots can be deadly up to forty metres. So why not use it, if you have one tonne of this ammunition.

(Background voices): So, this should have been a very effective method of warfare.

Svend Hansen: I think that it is a misunderstanding – the concept of *longue durée* is not connected with traditional society. It is just a differentiation of different things in old history. But this is an important point to understand that the tools of warfare in the Bronze Age in Europe are quite innovative. The sword – as you noted in your contribution to the swords in Central Europe – had its own development, and was not dependent upon the Mediterranean developments. The spearheads show a wide range of different forms, definitely connected with different forms of fighting with them. In the late 14th century BC we have the helmets and the corselets and all these things, which show again a new scale of specialisation in warfare. If we go into detail, I think we could identify the crucial moments when new techniques, new improvements in weapons and so on took place ...yes... become visible. But on the other hand, if something becomes visible very quickly, then I think it is in the weapons technique.

Thomas Terberger: Can anybody contribute to the question of horses? I saw in the reconstruction of Sântana a little horse, somebody riding a horse.

Nick Thorpe: Traditionally judged we have a horse's lower leg from the ditch, but should give us some evidence whether the horse was ridden or not.

Horia Ciugudean: Short information about again the fortification of Teleac – we don't have yet the final results of the archaeozoological studies. But the lady in charge has already observed a very high percentage of horse bones in the sample she counted, which again might be something significant or – anyway, it's hard to say if they were horses for cavalry or they were just for working. However, a high percentage of horse bones might be interesting to notice.

Thomas Terberger: Thank you for this contribution. She might find any clear evidence of riding. The horses show typical traces of diseases. So, we need well preserved material to analyse such questions.

Nick Thorpe: On the question of horses: Certainly, a number of people have looked at things like bit-wear on horses' teeth and suggested that there could well be a relationship between that and track-training. If we go back to the idea of the warrior, we need to think of the warrior horse, for which of course there is the idea of the horse as a trained animal that can actually take part in warfare. And that involves long periods of training and the ability to control the horse through the use of the bit, mainly in the Bronze Age.

If I may add one other thing, and go back slightly to the question of trophies: We also need to be thinking about body-part trophies, which have a long history in warfare, right up to a well-known practice in the Vietnam War, for one thing, the idea of bringing back parts of the enemy as trophies. So, there are plenty of examples from the Iron Age, things like skulls with holes drilled through them and polishing through frequent wear. And of course we have Classical texts, which talk about Celts on their horses – speaking of horses again – riding along with peoples' heads attached to them. And of course we also have artistic evidence of this as well, in a number of examples both in metal handles and decorated pottery showing people with horses with heads attached to the side of them.

William O'Brien: Just a comment on horses: Not every part of Europe of course is obviously the same, and in Ireland for example the horse is relatively scarce in the Bronze Age and probably not a significant animal for warfare at all, though perhaps more so in the Iron Age. But perhaps for the Bronze Age far more important animals are cattle, with many hillforts in Ireland probably more connected with the protection of herds of animals, because so much warfare in the Bronze Age was probably not that formal or large-scale, but was rather in the form of a raid. So, I think of hillforts as stockades for short-term protection of animals, obviously without water sources not for the longer term, but for shorter-term protection, as very significant. Perhaps in a very dim way we can see some of epic sagas of Ireland coming through, with the stories of the *Táin* and cattle-raiding.

Svend Hansen: From the perspective of the Carpathian Basin we have huge evidence for horse-riding since the 17th–16th century BC with all kinds of cheekpieces, which are decorated with spirals and so on. It's a very significant phenomenon, and so this is for sure something that is not only local, but as similar pieces from Mycenaean Greece show, it is a wide-ranging phenomenon. If it played a role in warfare is another thing, but riding is for sure.

Daniel Föller: One short remark about warfare and one short remark about animals as such. And the horse, I would say when there is riding and when there is warfare, then the horse is most likely to be used in warfare. Maybe not as a combatant, because that is a very complicated thing, but for other purposes: A rider is very important for the purpose of communicating, a rider is very important because he is fast; and also, if you have many horses you can transport many combatants, even if the horses do not take part in combat. They can transport fighters to the place where they are needed. This is what I see in the sieges of the Carolingian era: They used horses in sieges. Why? Because it is very easy to see if someone tries to get out of a besieged city or fortress, and you can bring in your fighters very quickly to prevent them from getting out.

The second remark is that one thing we do not really have in mind is the use of animal energy, and not cattle as booty or cattle as food. But I don't know if this is the case in the Bronze Age. Did they use cattle for ploughing, or cattle for dragging wood? Because then this is a military factor. If you have a lot of oxen to build your fortress, this will be done much much faster, or to repair the fortress.

Thomas Terberger: Yes, this is an important topic and something to look at in more detail. Then I would like to suggest that we move one step forward. We had a longer discussion on the materialisation of the conflict, in the course of conflict. Maybe we come to the final chapter where we discuss the consequences and the symbolisation of conflict. You already raised the aspect of such depositions, specific treatment of war booty and so on. I remember the remarks by Helle Vandkilde that warriors going to war make it necessary that there is a kind of transformation before a violent conflict starts, because specific rules are not of any relevance during that phase anymore. After

that violent conflict participants have to somehow get back into society by rituals to become normal members of society again.

And we have seen there is evidence for such ritual behaviour in the context of hoards, there is no doubt. But is it a frequent aspect? Do we see the whole story or only part of it? We all know that we are very dependent upon the question whether hoards were deposited or not. Do you see any evidence, for example, in Ireland for such hoards or depositions during periods of increasing violence? Any comments on that, on the materialisation and symbolisation of conflict?

William O'Brien: To respond with an obvious comment: It is well-documented that in historical periods in times of trouble people buried their valuables. And there are circumstances then that don't allow the valuables to be recovered. We should not expect this to be any different in prehistory. So again, that does not explain all the deposits. And this is one of the problems – that there are multiple explanations for individual circumstances of deposition. And we have to allow for many such explanations. What we also have to allow for is the historical context for the deposition as opposed to thinking in religious terms all the time.

Svend Hansen: I think that this is a wide field, and we cannot solve the problem here. But there are – especially in Britain –, a lot of hoards that can be interpreted as war booty, exclusively weapons: swords and spearheads, which are destroyed intentionally. They belong especially to the 10th century BCE. On the continent we do not have as many similar finds, but in Britain I think we can identify a special group of war booty sacrifices, like what we know from the early Iron Age in Denmark, for example.

Thomas Terberger: Such examples demonstrate that the tradition of war booty started much earlier than the traditional well-known Iron Age depositions, such as in Alken Enge or Thorsberg or Nydam. We see this tradition also in Hjortspring. Can we see the *Fliegenhöhle* as a good example of the way of deposition of war booty? You suggested that it has something to do probably with war booty. Is this agreed? Or do we have to take into consideration that different explanations could be used for the interpretation of this? Do we agree

that during the Únětice culture there are already examples of the deposition of war booty?

William O'Brien: Of course, when we use the term 'booty', we have to make an important distinction between 'security deposits' and 'booty'. And that is an important distinction. Security deposits are more likely to be buried in the ground as opposed to booty. These are perhaps subtle distinctions, but they are important ones.

Raphael Greenberg: Of course, I don't have anything to contribute about these kinds of deposits, because they actually characterise the regions surrounding the Near East and not so much the Near East itself. I also want to just cite David Wengow's differentiation between what he calls 'sacrificial' society and 'archival' society. Archival societies, of which Mesopotamia is the arch-typical example, you will have large temple organisations collecting everything and just bringing it into the urban centre. But in sacrificial societies you will have a lot of conspicuous consumption, a lot of ritual around bringing things, after battles, at burials, at important junctions, in important places, along rivers, at interfaces and places like that. These are just very deep divisions between different approaches to what you do with the wealth. You don't collect the wealth – you consume it in a conspicuous way. To one looking from the outside, this looks very clear.

Daniel Föllner: I do have a question for the archaeologists in the room: How does archaeology differentiate 'booty', which is one kind of redistribution of goods, maybe over long distances, from 'trade', which is another form of redistribution of objects over long distance routes. Are there material factors from which you can see that this is booty and this is not?

Thomas Terberger: Does anybody want to comment on that? I can say only YES! An important factor is the way of deposition and the find context, the topographic context, also the type of goods that are deposited. And there are a number of examples from younger periods which are accepted without discussion. From my point of view the site of Alken Enge, which has been excavated in the last 15 years, is a good example, because on the one hand there is a place where war booty seems to have been deposited, and not at a far distance

you find human remains which were treated in a very strange way deposited along the lake shore. This is dated to in the first century AD, and you can see that a special treatment, probably of the victims took place. For example, they found sticks with a number of bones put together into the lake. We can probably see that the victims were treated in a humiliating way. Would anybody else like to further comment on this aspect? We can see rather clearly, to separate between trade and war-booty deposition, there might be cases where you can dispute this.

Daniel Föller: Maybe I should put my question more precisely: It is not the act of deposition, which I'm looking at; I'm looking at the distribution of goods. If you have objects that are clearly not produced in the vicinity of where you find them, then it is the question, how do you see if it is trade or another kind of redistribution of goods. Because I know from the early medieval period that plundering, conspicuous giving, conspicuous consumption, and all that stuff are very important ways of redistributing goods, maybe even more important than trade. There are even colleagues who do some quantitative calculations, and they say, well, if you see any redistribution of goods, it is really an economic factor. When we see an object that does not belong here, for us it's always trade, because we live in a society in which trade is extremely important. But if you have a society in which trade is not that important, or when they are travelling somewhere else and acquire objects, most of the time it is booty. I know it's sexy to talk about prehistoric trade; we as medievalists do so all the time, because it gives our period a modern air about it. But maybe trade, especially for luxury objects, was not the main way of redistribution?

Thomas Terberger: That is an interesting aspect! Perhaps Bronze Age people were more peaceful? NO, certainly NOT!

Oliver Nakoinz: From my point of view we are just not able to differentiate those different kinds of exchange on a pure archaeological basis. And this is the reason why it makes sense to generalise, to speak of exchange and not of trade; it is something different. But perhaps, Thomas, you have another idea? I'm open for all ideas, how we can differentiate. Can anybody help on this stuff?

Raphael Greenberg: These are issues that are discussed extensively in regard to Late Bronze Age exchange in the Mediterranean. The border between gift-giving, trade and tribute – these are alternate ways to describe things travelling from one place to another – the borderline between these are cultural and in the way the texts express themselves. The Egyptian kings never traded anything, to them everything was tribute; the kings always received tribute because the entire world owed it to them: They were keeping the world intact due to their very existence. So, everyone was thanking the Egyptians. I assume when the Egyptian trader or the person sent to collect the tribute got a little bit farther away from his blustering pharaoh, then he had to begin some sort of negotiation for whatever it was he wanted to bring back as tribute. So, when he was in the distant port, it was trade; when he returned to the base, it became tribute. And you know, there is hardly any point to open up an entire discussion about this: Obviously, gifts and everything related to gifts and foreign exchange that create mutual commitments and mutual debts are the most important economic factor, I assume, in Late Bronze Age societies in Europe. Just something that I can imagine is the case.

William O'Brien: It is possible on occasion to archaeologically distinguish booty. We have many instances about Europe where you have collections of material that are completely foreign to the culture in which they are found and treated in such a way so as not to indicate any acquisition of trade goods: So, they are broken and fragmented. A good example for me in Ireland would be hoards of Roman hacksilver, which must be connected to booty or some situation like that. So, I think that the composition of the hoards can give us some indications. A problem is that most booty does not enter archaeological records, but is subject to redistribution. The burial of booty in the ground would be under a specific set of circumstances that are very unusual. I think security deposits, on the other hand, it is a different situation. So I think we need to make that distinction again.

Andy Reymann: Perhaps just a small short comment once again. We have been talking about trade and depositions and those sources. We should not forget that there are many societies in

which things are not deposited, only deposited in burials. Especially we know of many warrior societies in which the grave goods of a warrior are only the things they (warriors) earned in fighting – the ‘war booty’. So perhaps that is also another problem, because we can’t always distinguish: Are the things in the grave personal grave goods? Are they things collected throughout a successful warrior life, throughout a successful warrior life of socially related persons?

Thomas Terberger: From my side we have perhaps the opportunity at the Tollense valley site to have a look at what was going on before and perhaps also after the battle, because we also have bronze finds and even depositions, which seem to be closely related to this event. Maybe the finds were deposited later, within a couple of days or so. It is too early to inform you about this in more detail. But we have the feeling that we can contribute more and more to what happened after the battle. We all know that looting is an important factor. It is too early, because we are just in the course of analysis of the finds, but it is interesting that we find a considerable number of objects that are related, for example, to metalworking. We do not completely understand how they fit in the context there.

Svend Hansen: What I would like to say is – coming back to the *Fliegenhöhle* – I think that it is very convincing to understand it as a booty sacrifice, and here I think we could use the number of finds to get an idea of the people involved in such conflict. If we could say: OK this was 10% of the whole booty, then we could say how many spearheads you had – 400?

Biba Teržan (in background): Spearheads are about 300.

Thomas Terberger: How many helmets are in this, more than 10 if I remember correctly?

Svend Hansen. So, that means a large number of more than 3000 fighters would be involved and this would fit also with your observations in Tollense.

Biba Teržan: Just as a short comment, in the *Fliegenhöhle* were found about 800 pieces or more, between 800 and 900 pieces. About 55% are weapons, and of these 55% weapons are about 300 spearheads and about 30 or better more than 20

helmets. I don’t know exactly how many swords – but more than 20 pieces. Very few are fragments of *Beinschienen* (greaves) and so on, and almost all are damaged. In spite of, the relation in number between helmets, swords and spearheads could be just approximate ($\geq 20: \geq 20: \text{ca. } 300$), it could point to organised formations of warriors (in troops). In addition, if we take into account these finds are remains of intentionally damaged and selected weapons and other items from several battles or battlefields, it could be hypothetical said, they are sacrificed parts of war-booties. How much of each it was sacrificed, either 10% or more/less, remains – of course – an open question

William O’Brien: The fascinating thing about Tollense is that it provides us with this insight into the dynamics of a short-lived confrontation. And obviously one of the great problems we as archaeologists suffer in understanding battlefields is the cleaning-up of the battlefield subsequently, the removal of the weapons as spolia. But, in relation to Tollense, is this not the case that, of course, the reason why so many of the weapons survived in the evidence is because they entered the riverine environment and retrieval wasn’t possible.

I find the comment interesting that you made about the metalworking artefacts. Could it be that they enter the record in that they were on the person of the people being killed. This comes back to the point that many of the Tollense people were fighters, not warriors; they were led by warriors, but they were drawn from a mass of farming population. But maybe some of them were craftsmen who carried with them some metalworking artefacts.

Thomas Terberger: If I am allowed to comment directly on this. This is exactly the question: How can we differentiate between objects which were probably related to specific persons involved in the fighting and objects that have to be separated from this. Because our resolution in time will not be as a fine as we would like to see. Regarding the looting, we are quite sure now, comparing the two sites: We have our main site – there are more or less very few bronzes related to the human remains, and these are only 1 m below ground level, so access was probably easy, while on the other hand we have human bones found deep in the river valley, 2.5 m minimum below the modern ground surface. And there you can see how the human bones were related, with a gold spiral ring,

with two tin rings. It looks like that here access to the bodies was not possible anymore and that looting did not take place. And this makes it highly likely that when possible looting took place. And related to this question, we perhaps have the possibility to see the dynamic process. We start to understand this, but unfortunately we do not understand it completely. This is more something for discussion after in the coffee break.

Daniel Föllner: I would say that if we have gear or some objects involved with metalworking and stuff like that, this does not necessarily rule out that there are specialists who accompany an army. I know from Carolingian times, for example, that there were priests who were strictly prohibited to fight. They accompanied the armies because on the eve of battle, it was very important to confess your sins, so if you should die in battle, you would go to heaven, not to hell. It was a special service that a Christian army had a need of. And so they took people with them who were strictly non-combatant. And I think in a situation like this, even if you have a warrior society, even if you have an army of warriors, it is quite logical that there were some persons who were doing necessary service. And metalwork before a battle and

after a battle is not very surprising, I think, because the weapons will be damaged.

Thomas Terberger: Thank you very much for this comment. Maybe you can help me with the references, for the priests. Any further comments on this? We have to look at the clock – it's four o'clock. It's five minutes late, but we started five minutes later. So, I don't know whether you would like to continue or whether we would like a final comment.

Rüdiger Krause: Final comment, yes, my final comment is that I would like to give thanks to the organisers and the staff in the background and at the same time for this highly interesting programme and this – yes – variety of colleagues who contributed to the discussion and to the subject of the conference in general and to the programme. I had a lot of benefit from all of this. I think it is very fruitful to meet within this interdisciplinary group and to learn more about “Gewalträume”, the cautiousness in bringing too much from our own experience after 70 years of peace in Europe. This is something important to remember.

So, any further comments? – This is not the case, then thanks to all.