Newcastle University

WEEK 5 CONFLICT, CONSOLIDATION AND RENAISSANCE:
Panel discussion on visualisation

RC: = Rob Collins

BG: = Bill Griffiths

IH: = Professor Ian Haynes

RC: Thank you for joining us this week for our discussion panel, talking about visualisations. I'm joined here today by our lead educator on the course, Professor Ian Haynes whom you'll be familiar with. We're also joined by Bill Griffiths, who works for Tyne and Wear archives and museums, he is the head of programmes. But through his history at Tyne and Wear, he's been significantly involved in all the activities. Arbeia Roman Fort in South Shields, and also let's not forget the Segedunum fort in Wallsend. It has excellent experience of visualisations and particularly reconstruction.

So we're going to start off our question with one raised by both Robert Morale and Margaret Washington, who ask; how can we be sure the visualizations are historically accurate? But corollary to this question actually, the second part is added by Elizabeth Fowler, who asks; once the visualisation is completed, is there any sort of review process that academics, scholars and other experts will get involved in to make sure that those details are accurate?

So we'll start this question with Ian, but also I'm sure Bill will have some experience and advice and expertise to add on this as well.

IH: Thank you. Well those are great questions actually. I think one of the points to note is that we often can't be absolutely sure that things were historically accurate, which raises a series of questions. First of all; we've already presented a series of different types of visualisation. So we've shown a case of where we have people in costume settings and there are questions about costume, questions about structural visualisations. Talking about visualising landscapes, so there are multiple different levels and there are also different methods that we can use. So in some cases, it's people literally recreating in the real world; objects, items of dress, structures. In some cases, visualisation is wholly achieved through digital mechanisms. And those different media have

different implications really for what you can do, what you can attempt. And also, how you can address their… Elizabeth Fowler's question in terms of how you can make evident and transparent the degrees of certainty, with which you can work.

So we set ourselves a fairly challenging test in this course, of visualising some scenes as they might have appeared in the fourth century. And one of the things that might strike us there is some types of evidence that they have daily activity in the fourth century are better at tested than they are for earlier periods and for different parts of the empire. But some of them are actually much less well represented, so you're getting different types of source material playing in, for different types of activity.

And that means that we need to be quite explicit amongst ourselves as to how we arrive at the visualisations we settle on. Now herein is a big opportunity with visualisation; we have this brought together experts, structures and small fines in artistic representation and the literary sources. To give what we think are the most convincing, affordable, most plausible visualisations that we can manage to achieve. But, with visualisations, there is often a sort of hierarchy, in terms of levels of conviction. We can, for example have a single small find that we know was used in a particular moment in time, and we can go from that to a museum quality reproduction relatively easily. Bigger accoutrements or assemblage of activities can present other problems.

Now, to address this problem, primarily it must be said through the increasing number of almost photo realistic digital visualisations that were emerging on the market. Something called the London Charter, almost ten years old now was arranged between colleagues who were working on the visualization. And what they said is; valuations can be so powerfully seductive, they can appear to be so compelling that people instantly believe all of them. That is was necessary to make quite explicit where the source of material was coming from for them and the degrees of conviction with which the visualizers were operating. So you go from, if you like, yes we're absolutely certain about this, we've excavated this from this spot, we can see it's from this time, we can actually restore it to its original appearance with 100% conviction. Through to, following on from that, we think that this was probably happening, following on to… given analogies at various other places, this is actually quite a likely thing that's happening, through to this might structurally fit or fit within the context through to advanced kite flying, in a way. Where you're left with a good guess based on a consensus experience. And, that's very useful.

So if we go to Elizabeth Fowler's question there as well, one of the great things is that this then becomes a resource. The notes that go into the creative process, the observations of different experts, the types of sources are then all itemised and this becomes, in essence, a piece of research. And a piece of research that has been generated by a team of experts, who are provoked to ask that question; how much can we really say afresh again and again, they try to scale new heights of visualisation. So, there is now that vehicle through the London Charter or making explicit what we know, what we think is happening

and also where we're frankly stood in the dark. And that flags up areas for work for the future.

RC: But surely that's an ideal? So what about when it comes into practice and practical aspects? Elizabeth Fowler also asks; is that too expensive to involve those experts?

BG: Well, I think for me, it really depends on the project and the manager budget behind it. But one very practical example is the reconstruction of the south west gateway at Arbeia roman fort. Hugely contentious in the 1980s when it was done, a lot of people very concerned it would fossilise a view and understanding of a view and understanding of a roman fort gateway. And exactly as the London Charter said again, that becomes the only way you can visualise the reconstruction. Now, with that one, we held a significant archaeological conference before exploring all different aspects of roman gateways in interpretation of the gateway. We were very, very clear about where the evidence came from. Effectively, go back to school. Show your workings out, which again the London Charter reflects on. So very much it was about demonstrating the workings out, that's all published in a British Archaeological Reports volume about the gateway.

        So you can do it at that kind of level and really, really, I think it's quite a benchmark for doing research around the subjects of roman gateways. But it does depend so much on the budget, it depends on what you're reconstructing, so the bath house at Segedunum is based on the bath house at Chester, t which we have substantially complete ground-pile. The conjecture is all in the roof space so it's bringing out that interpretation. But you didn't have the same level of conference required behind it because we understood the broad structure building quite well. So I think, the more there is a variety and uncertainty about interpretation, the more important it is to bring in as many different views as possible.

IH: And if I may, I think Bill has rightly stressed that excellent work at the gate at Arbeia. But, even before that we were seeing a lot of, very often, very popular reconstruction artists producing images and pen and ink, which also had a very powerful impact. So it doesn't necessarily have to be on that magnificent scale before it starts to influence the way people are thinking and picturing the past for themselves. Things like classic artists, like Ronald Embleton, Alan Sorrell, they influenced generations in their thinking and there was some great work behind there. But the recent development is this idea about colleagues working together and explaining how they're going through the process. And then that actually turns these from a challenge to face through to a publication to further research, it creates new research communities. And actually forces people to flush out the things that they hadn't really thought about, but they realised they need to address.

RC: To some extent that also actually leads quite nicely to some of Jason Hunt's observations and questions. Jason, I'm going to modify your questions slightly. But you start with the observation that visualisations, especially in physical reconstructions in the UK, are not quite as popular as they are in other

European countries. And you know, Germany, Sweden and Norway. Specifically, Jason wants to know how academia can promote visualisation. But also there's question, I think more broadly to both of you. That, how do your make sure that visualisation isn't just an excuse to play dress up? Or is that perceived by those who wield the purse strings and create policy, that it's not people playing dress up. How is it more than what's called cosplay?

BG: I mean, there are I think eleven open air archaeological museums in the UK, which is a relatively small number set against that European background. And some of them are really relatively small, I mean Arbeia and Segedunum both count as two of those eleven. I think though, in terms of thinking about the role of academia, it's going back to the point of showing the workings out and demonstrating the work that you're doing has a research base, it's not simply for show. So you need to demonstrate - say if it's a re-enactment group - the research behind the making of the kit. It's not simply a copy of a picture, there's actually research on the materials, looking at different archaeological artefacts and so on. And I think academia has a role to play in actually getting behind and validating some of that very practical work, a lot of the re-enactment are doing to make kit and actually partnering up more with re-enactors. And ensuring that the kit is as accurate as it can be in terms of materials, in terms of construction techniques, etc. But on conversing, I think a lot of re-enactors need to think about that wider research of the work they're doing, really so their costume is as accurate as possible. They need to engage more with the academic communities. So I think it's a two way street really.

IH: Mm, I totally agree. I mean, one of the marvelous things about being an archaeologist is it's not just a bunch of academics in ivory towers, there are so many people doing different types of archaeology out there. Who, form expert bodies of knowledge and what we want is to have is our collective expertise working, so that point about dialogue is really, really important. And the truth is, it is actually harder, sometimes, to address relatively harder questions. Like; if you had walked into a Romano British farmstead at dinner time, whenever that was, what would actually you have seen? Who might have been sitting where? How were the furnishings? What would have been arranged? What would have been on the table at the same time? Would the table have been in use, who would have been present? These are all sorts of questions that are of absolutely fundamental importance to people in England at the time. Which actually, far from straight forward for us to encounter. So it's actually, it's all linked to research, and therefore academia should be interested in it. And it's not a question that should be shunted to one side, or seen as a dressing up or play activity.

But there's another point here, if you go to Arbeia, which I urge you to do if you haven't done, if you go to Segedunum, which I urge you to do if you haven't done, those sites are magnificently set out. But, if you encountered them for the first time without those visualisations, well the chances are, in one or two cases you might come away finding it very difficult to read the sites. I might be very happy wandering over a number of restored foundation walls, ankle high. But it's fair to say that the vast majority of the public want something more. And I think, that once they actually engage with these

visualisations, they're engaging very actively with a product of research and empire research. But that then helps equip their eyes to go back and look at the material, and that's something that's in everybody's interest. It's in academia's interest and it's in the heritage sector's interests. So these things aren't essential, and sites that are not engaging with them actually suffer, and they suffer in a number of ways. They suffer in the experience they give to visitors, and sometimes, they suffer from a communication point too.

BG: Very interesting, slightly (unclear 00:13:03) story but when I started Arbeia, school groups would ask us why the walls were so small because the walls were only two feet, three feet high at best. They don't ask us anymore since we built the gateway, they can actually get a sense of the proper scale. And before I came to Arbeia, I was teaching a little archaeology back in the day and we put up visualisations of roman gateways, drawings by some great artists like, Peter Connolly and people like that and everyone would just accept them. Whenever I've taken a group around the gateway, the reconstruction, I always get challenged on different parts of it. There's something about doing it in that 3D scale that really, really gets peoples brains fired up. Because they start questioning; do we really believe this? Could this possibly be right? Can it really be that high? You don't question a drawing, you just accept the drawing for what it is, is my experience. So I think those sort of full scale reconstructions have a real role to play in engaging people in that first steps in that academic thought process of; how do we really know this is right?

RC: **Thank you. Sticking within that [s.l vein 00:14:05] of the actual reconstructions; Richard Arkass asks; how do you come to the decision to reconstruct the buildings, particularly in South Shields and the actual footprint of those archaeological remains. Should those remains be left open and available for future generations to explore rather than covering them or making them inaccessible via reconstruction?**

BG: That's a really important question and it's something you should never think about lightly. I mean I would say it's a case by case basis depending, we've done both at different times. To explain the gateway, for example, at Arbeia and the other reconstructions, they're on the actual fort prints of the original buildings on which they are based. The gateway, the foundations of the original gateway are preserved beneath the concrete graft and the reconstruction is on top of that.

        If we wanted to, we could take away the reconstruction gateway and show the original remains. They're still preserved however, they're not very visually exciting and we've got another couple of gateways on the site that you can go and look at which are actually better preserved. And the challenge for Arbeia, is if we didn't put the gateway on the side of the gateway, we'd have to put it on some other piece of archaeology, and I think that's really, really misleading. So on that occasion I would say that the interpretation of the site and that desire to engage people with the history of the site is best served by having that reconstruction on top of the remains, not because there are other gateways you can look at. In the case of the courtyard building and the barrack block, the archaeology has been completed through the process of

excavation. So there are no… you'll be putting back either the stones in the same order or the reconstruction. So either way, it's not really the original.

However, at Segedunum, we've reconstructed a section of Hadrian's Wall. We had the foundations of Hadrian's Wall, we've laid those out. We cleared what little archaeology there was at the south of it and put the reconstruction on that site so people can compare what we think the wall looked like with what we actually know. And I think that's a very valid technique as well. So I think it does depend. I don't think there's always one answer. What you should always do is ensure any archaeology is fully recorded, and that really I think is the key. Not just as good practice, but also in terms of that research element of your reconstruction of ensuring it is as accurate as it can be, based on the evidence that you have.

RC: Thank you. I'm going to move us to a slightly different question now. Gordon Henderson asks if evidence indicates the site evolved and changed several times, what process do you go through to choose the period which will be visualised? This is an excellent question, because as you know, if you've studied the course or have done previously, you know archaeology has a complex series of layers. And when you have a very complex site with multiple phases of occupation. It's knowing which layer you really need to focus on for consolidation, for display, for interpretation. So we'll start with Bill in terms of the practical. Also, there's [s.l mayor 00:17:10] here intellectually and academically in this (unclear 00:17:12) too.

BG: I mean obviously this is about the physical laying out of the site. And you know, the site is a (unclear 00:17:17). There are all these different layers, different periods. And you know, some of them are not even just Roman. So do you take the site back to one period and display that site physically? I say physically, because you can always display all the different phases in the guidebook or on a computer, we've done reconstruction search we've done at Segedunum, but what do you do with physical remains? And again it's horses for courses, I think you need to look at which remains visually tell their own story as much as it is possible. And you probably have to try and achieve a balance across the different periods without confusing the story of the site too much. Now that sounds like I'm trying to step away from discussing the detail. If you've got a fort, you've got your boundary walls, that's relatively straight forward. But then as buildings shift through time, you cannot always display all of them. But in the end, you really do have to think about what will have the most meaning. Or as Ian was saying earlier, there's that point about the reconstructions bringing the sites Arbeia and Segedunum to life.

It's a real struggle otherwise. Because in some parts, you've almost got two bodies on top of each other. One part of one building is more interesting. One part of another building is more interesting. Where do you tip the balance in terms of laying it out? And I think it really has to go back down to the ability of the remains to speak for themselves to an extent, with limited interpretation.

IH: I think there is a counterpart to this very interesting question, which is also you find in archaeology fieldwork. And throughout the history of archaeology you've had people who have thought, I want to get to such and such a layer. And this has actually bedevilled us in multiple cases and excavation. Rob is a specialist who has worked a lot on late roman sites, but will bear witness to the number of people who have been seeking to get down to a golden age, for whatever agenda is perceived perhaps at the moment. Hadrian's Wall for example, was designed and things got… in early perhaps antiquarian works, other later things were lost.

I think Bill has offered us an extremely convincing explanation of how you go about solving this problem when you're presenting sites, and I think one of the marvellous ways is that that has actually come out in [s.l to our 00:19:30] properties is that actually, if you visit them, you're not just presented with a sense of what might have been or what everything looked like in the reign of Hadrian, you can actually go into… as we have done on the visualisation, a fourth century house, for example. And I think that gives people a sense of time depth, which I think is very important.

But the other part of this, is of course bringing in the digital technologies. And there are a lot of 4D dimensions, the fourth dimension of course being time, that have been used very effectively. In week six of the online course for example, we feature a pioneering 4D visualization which was generated for Segedunum. So you can, in those situations, actually have the benefit of seeing a site evolving, digitally. Which allows us to avoid the challenge of building it physically in three dimensions and having to plum for one phase or another. So I think the digital liberates us in certain ways as well.

RC: Well that's interesting you say that, because Yahou, and my apologies if I mispronounce the name, asks; if you perceive 3D visualisations, digital 3D visualizations getting to the stage where you can walk through the experience. You know, moving through the bath house digitally rather than having to visit Segedunum itself, which obviously still should be done. In other rooms.

BG: Yeah. I think now what we are seeing actually… I mean first of all I would say you already have the technology to do that and it's happening in a number of places. There are a range of different wearable devices that people are using, there are a range of devices that may be smartphone enabled as well. So you've got GPS, you've got the coordinates as you move through the space. Your view of the site is actually transformed by looking at a visualisation, and you can move around that. We're seeing new forms of head encasing devices, different forms of glasses almost, that will allow this sort of thing to happen as well. So there's all sorts of wearable devices that we're now looking at that can move around.

We've also got an intersection here between all of the research, heritage presentation needs and gamification. So games technologies, games platforms, and those are moving forward at a great pace. And the exciting thing about this is that these are hand in hand now, often. And that gamification should not be construed as dumbing down. Gamification is something that actually

allows some of the most rapidly moving technologies to actually engage with some really rapidly moving ideas in archaeology and archaeological visualization to make it a dynamic experience. The opportunities are enormous now with that, so we're seeing that happening.

And, this also brings us back to something that we're all working on here which will be asking for your help with actually, next week. Because, one of the links that we will be offering is to our experiencing Hadrian's Wall, which allows you to navigate around a visualised section of Hadrian's Wall, based on the Newcastle area. Which also uses a certain number of tricks that we've introduced which we hope will add to it's educational value. So you can actually switch between, or toggle between, different potential visualisations of the same feature or a way of actually evaluating perhaps. Which one might consider plausible. And move between information panels, and actually a landscape view that you can navigate through. So what we'd like to do is very strongly encourage you, please, to actually have a look at this when it comes on next week and give us feedback, which we will then in turn feed into the next stage developmental model. So if you've got the time and the inclination, this is a great way for you to help very directly, as we move forward through these new technologies.

RC: Well thank you very much, Bill. Thank you very much, Ian.

IH: Thank you.

RC: I think we'll leave it there. So it's a nice short video, it doesn't take too long out of your day. Thank you everyone who has submitted questions. We used the like option to try and filter out the most population questions as it were, and also select those questions which were most not repeated. Some of you had questions that were very specific to our fourth century visualisation, and we'll address those on the platform more directly where we can. But, thank you again for your participation and we look forward to seeing you back on the [s.l Mook 00:24:07].

IH: Thank you.

BG: Thank you.