

Epstein: Can I have an answer here as to why I should think that this is just an intermediate step to something else as opposed to the finished product. Is there a ground projection, or is it just purely the sort of thing that I know deep down inside that this is not finished.

~~Bordes~~ Bordes: No, that is not right. That is the state in which I leave something when I don't want to finish it now. That's all. That is the only reason I have, but it is at least ~~another~~ ^{one} reason. On the other hand, you say to me that's a finished thing. Perhaps you are reight, but give me your reasons.

Crabtree: May I help a little on this? I don't know if I can or not. But maybe, Gerry, instead of cutting sharp and fine lines between whether it shows pressure retouch or is a finished percussion tool, we should consider that, generally, a preform is roughly percussed to the shape the worker wanted the finished artifact to be. This work could be done at the quarry to save transporting a lot of material to the campsite or workshop for final finishing. The design of a preform also shows that it is adaptable for further thinning and completion. Sometimes you can see, perhaps, some functional use on the edge or indications of a little retouching. This can help to decide if it is a preform or an actual tool. Like Dr. Bordes said, with a few blows, one could straighten this out, therefore, it appears to be incomplete. They, possibly, were in a hurry to bring in their material in this form and later on to finish it. Maybe this will help determine if it was a preform, or just very crude, roughed out blanks. Some are a little more finely finished at the quarry, so there is a slight variation in preforms, unless there are indications that perhaps did show function. Could be they used their preform for some purpose to show these scars.

Epstein: Fine. Now what I am concerned about here is that some of us may rush back here and start calling all bifaces, that aren't strictly on this level - blanks ^{or preforms}. Suppose then, we talk of these as thin oval bifaces with this kind of flaking on it. This kind of thinning flaking. Long pointed bifaces with this kind of flaking on it, and specify the flaking quite specifically.

Crabtree: Before one does that, Gerry, it would be well to very carefully check the edges to see whether this could be a digging tool. There is no purpose for a pressure retouch on a preform and, certainly, we cannot call all pieces that don't have pressure retouch - preforms. There is quite a wide difference between the percussion technique for a preform and the percussion technique used to finish a tool. It may be finished as far as it will be finished by percussion and be a completed tool. Let's not use pressure retouching as a diagnostic trait to determine the difference between a preform and a tool. It may even have a functional retouch from rubbing one way or the other which would indicate the manner in which it was used. Close examination of a preform roughed out by percussion will show that it was left at a stage of fabrication to permit final, further thinning and left for final finishing by either pressure or percussion. Thin, oval bifaces usually are not designed for, and will not permit, further thinning - only edge retouch for sharpening. One really

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xixm needs an assemblage before final analysis may be made.
I'm not saying this well.

Irwin: One other aspect of this problem is - I mean you excavate these sites where people have been fabricating these objects, and you quite often find both halves of an unfinished object whereas a projectile point - notice here that we have all bases - well, that's because they lost the tip while hunting. They took the shaft back and made another one. But with these blanks, they were in the midst of the fabrication and this is true of this point which you notice is not edge ground because it was not finished. It was broken before they finished it. Almost invariably a point that is finished is edge ground - this seemed to be one of the Paleo-Indian characteristics. This point also, which is not finished, is not edge ground.

Irwin
Williams In the same line, it may be interesting to note that among the workshop materials that we do get from Hellgap, we do find these rude fine-grained stones, very much like that grooved piece that Don had, for grinding the edges of projectile points or for grinding the platforms for further work.

Byers: May I take a piece of this. This large piece that Gerry was talking about, particularly, as to whether this was finished or whether it isn't. There are enough ethnographic specimens that have been found with wrapping around them to make that a perfectly good semi-lunar cutting knife, which is widespread thru the New World with an edge no straighter than that, but very jagged because it had been chipped. And as far as this is concerned, we have a piece from Teotechutan that isn't finished as well as that, but it is already hafted - has a handle. *look up spelling*

Looks like something that no one would pick up.

Bordes: Yes, that can well be, you know. That can well be. But, on the other hand, you know, you always have lazy people who did with what they had until the end rather than to work. It's as simple as that.

Byers: This is simply American informality.

Bordes: = I really don't think so, you know. I don't think so. When you see the lots of pains it took these people when they really wanted to finish something. For instance - where is it? This and others and the bit of laurel leaf; this, this, and this, there is no question that it is finished. But this strikes me as something which is not quite finished - with, oh, about five minutes more of work and that's all.

Irwin: Well.

Bordes: You can cut with that. Of course you can cut with that. You can cut with almost anything. We can cut also with a crude flake without any retouching. You can haft also. Have you seen some of the things which ~~they~~ have been hafted by people in the Pacific - Australians and so on. Any flake. But, anywhere, it is a flake.

Irwin: Well, one thing you get in this, is if you can find all of the production stages - that is, if you can go from this blank,

so called, or from a bigger one you can go from something like this to something like this and to something that gets a little more finished like this - and to the final point. You'll notice the form is kept reasonably similar. With these things, I don't know.

Bordes: Well, you can -

Irwin: The thing is that these are - just to confuse the issue a little more - specific of one horizon which, unfortunately, does not include any of these. So, maybe they kept on sharpening these and chipping them until they became something like this. Maybe they started using this -

Bordes: No. I won't say that this is a preform for that. I will say that this could be a preform for that, which is a quite different ~~xxxxx~~ shape.

Irwin: So we don't know. We would have to find one hafted, I think, to tell. But with something like this, there is no question, Gerry, that that isn't a tool.

Bordes: Yes, I think so. Except, do you really think that putting this as a long bifacial tool, with such and such type of scars and so on, will give you more information than to say no, he didn't finish the point.

Epstein: No. Yes, I do.

Bordes: I don't. I don't.

Epstein: No. ^{on} What I am very much concerned about here is that - here Dr. ~~Mr.~~ Crabtree - we'll have you elevated to Doctor status before the meeting is over.

Crabtree: Drop that point.

Epstein: Crabtree has certainly shown that we can get ^a/tremendous amount of information out of this material by studying it extremely carefully. Much more carefully than we have ever ~~done~~ ^{done} before.

Bordes: That's another thing.

Epstein: All right, but I think there should be one case here to distinguish between a judgement and a fact. And when we call this a blank, and when you call any of these things blanks, you are making a kind of judgement which I think is very dangerous. And I would like, here at least, to say you scare the daylights out of me.

Bordes: Well, I want to say something about archaeologists passing judgement. After all, this passing of judgement is not archaeologists - it is catalogue. And I have seen too many dumb, bloody articles which are just catalogues. So many points of such lengths and such matter and so on and so forth that go on and on and, in the end, you know what - nothing.

Irwin
Williams You call them laundry lists.

Jelinek: I would like to say something.

Bordes Yes, go on. Shh'

Jelinek: Hello' What I would like to say is that I think part of this problem concerns the fact that you have done considerably more analysis with stone material over here; your typeology is worked out more clearly over here, and, in America, we are just beginning this kind of analysis. And I think that Epstein's emphasis on a more descriptive terminology reflects the fact that we need more description in looking at this ~~material~~ material and keeping track of it ~~at~~ at this particular stage of analysis in America, and later on, we are going to be able to work out a terminology that would help.

Bordes: I understand this quite well. I wouldn't say that what Epstein's saying is wrong, you know. But I would say that first when you speak of this tool in your first report, or in ~~your~~ your general report, you say one and finish it in point. And then when you get into the technology of the making of the points at one particular site, you can go to any measurements and consideration of which facet if you like. That's something else. But I don't say we have something to win if each time you have to mention this point - you have to say, in your report, a bifacial tool much more longer and this wide with such and such type of flaking, you know. That would be a convention.

Jelinek: I think that, initially, if you are describing an Eden site, that you need the measurements and statistics on each of these things and, once several of these sites can be analyzed, then we can go ahead and say, after that, well, we know now from our previous analysis, that this thing is more probably an unfinished Eden point.

Bordes: Ya, ya, ya.

Jelinek. The more material we get, we can do it.

Bordes: All right. You are right up to a point. And you are certainly right up to a point. But, on the other point, I am very much afraid that this will lead to some kind of work I have seen done this Summer in a certain shelter not very far from here with about 20 measurements to show that this was longer than it was wide. That's very dangerous up to a point, you know.

Jelinek: We don't have that much time.

Irwin: The point is that-that is longer than it is wide; of course.

✓ Irwin
Williams I wonder if either one of you would like to comment on the possibilities of some of these points being made on flakes rather than by reducing a core technique or by reducing very large thick flakes. There are some that we find of which this Agate Basin is not a terribly good example - unfinished ones which do show fragments of striking platforms.

Irwin: I don't know about that one.

Bordes: I'm not quite sure.

Irwin-
Williams

This is not a particularly good one.

Bordes:

It could be. It could be.

Irwin:

Yes, you do get this certainly with Lindenmeier. We don't have enough to tell. In general, this end of the Paleo-Indian horizon was done from core, but, with Lindenmeier - and if Bordes sees the Lindenmeier collection and Don sees it - you will see that quite frequently you have the Folsom points made on a large flake - somewhat larger than that, actually, and there will be the bulbs of percussion - quite often ground, like this. And then, in addition, they put a little more grinding on it apparently for that support. The one example that Marie brought doesn't show that because it is a little bit later on in the thing. And, of course, then often they would break it. The Lindenmeier collection has a number of these. That's one of the differences in Folsom and this stuff.

Crabtree:

This one is certainly suggestive of that sort of thing.

Tixier:

I think here we can see little bits of biface.

Bordes:

Ya, I think so. I think so, yes.

Crabtree:

Here is the natural face ^{of the proximal end of the flake} That is good observation, Cynthia, that that is the flake and this could be from a flake and with a very flat ^{platform and} is quite unusual with this facet ~~on these~~ of the original portion of ~~that~~ ^{the natural surface.}

Irwin-
Williams

This one, I might add, an unfinished point in mint condition without the grinding on the face.

Irwin:

No grinding?

Irwin-
Williams

And it was found along with a couple of other unfinished points in a workshop area.

Bordes:

I will tell - that in the Solutrean anyway, many of the laurel leaves are made on big flakes because it is rather wasteful to begin on the core to make a laurel leaf and you have a lot of more work, but sometime when you find - how do you call it - slabs of material, then it is all right. You can go from a core like this one for instance, directly from a core technique, but to really make such a fine thing - taking a big lump of thing like that - it is a waste of time and work. And it is less easy.

Tixier:

It's more easy on a flake.

Bordes:

Right, it's more easy on a flake
This one could also be.

Tixier:

Could be. Looks like made on a big flake. A symmetrical cross-section.

Bordes:=-

I wonder. I wonder if this is not a little part of the original face.