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Joe Ben
Wheat:

If this were hafted on a shaft in such a manner that only the tip itself was fastened like this, this would produce a beautiful barbed hook for the taking of large fish or crocodiles, alligators or this sort of thing—something of fairly large, iguanas that might otherwise get off, so that an analysis of the wear pattern of the thing itself might indicate that it was hafted.

Bordes:

Something like the curvetron points in the Upper Paleo. in France. That could well be for big fishes.

Phil Smith:

Marie, you might take a look at some things.....and also Cargo oasis in Egypt so called Neolithic, very large inverted arch concave double flakes.... retouch^{ed}. Somewhat reminiscent of that of the notched although not precisely.

Wormington:

Then this brings us to the Elinga material from Ecadore. This is material sent by Mayer-Oaks and Bell as I am sure you are aware the points that are found with this have a shape like a Falls cave Point but are almost invariably fluted. Mayer-Oaks and Bell are reluctant for some reason to use the term blade and do not wish to call these blades. And it certainly seems to me that they are blades. I would like comments on this. They have also identified some of these objects as burins, and I think that they would be very interested in your comments as to whether they are burins, and are they blades?

Bordes:

There is no question that this is a blade. If that is not a blade, I don't know what a blade is.

Wormington:

That's my feeling too.

Bordes:

And you have a burin on this rigid blade, which is a preparation. And as for burins I can see at least two beautiful ones. Here is a nice burin on the concave truncation on this side. There is another burin on the convex truncation on the other side of the same tool. A double burin. This one except that it is in obsidian could belong in most of the Upper Paleo. culture in France. This one also is a nice burin concave truncation. And they are all over. No. One is double the other is single. That is also a burin on a fracture. That's also a type well known here. Let's see. That's just a blade. That is probably a burin spall, no question. I am not sure, but it can well be one, yes. Yes, that's one. That's one burin on the concave truncation. This one is not so good, but it could well be. Yes, it is one also, that's a burin of obsidian and of obsidian it is not so easy to make burins. And once again it is not easy to make burins in flint. No, that's just a blade, I think.

Tapien
Wormington:

Looks like Scams cave.

Bordes:

That probably is another one. Here is one broken. Broken but that was one. That's a blade. Let me see. If you put them back again at the same time I take them off, we can do that way for a very long time.

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That's a bit of blade too. No. No. That's a blade, yes. And that. That's a burin spall, I think. A big burin spall.

Madame Bordes
What's this?

Bordes: Could be one too.

Wormington: The dates are running about _____.

Irwin: There are a variety of dates.

Bordes: Yes.

Irwin: We prefer the date of 6000 B.C.

Bordes: And what ^{of the other dates?} ~~of use is this?~~ Younger?

Phil Smith
Phil Smith: And older, the obsidian dates are older. They are around 11,000.

Bordes: That could be a burin spall. That just an inverse truncation.

Phil Smith: Yes and Senor Frey *or Lespey*

Bordes: Please don't speak of this man.

Phil Smith: I speak of Senor Frey.

Bordes
Next we'll speak of

Bordes: Yes, I would say there are a lot of burins in there. Would you care to comment. Yes, you are specialist of the Upper Paleo after all.

Madame Bordes: I am speaking for Cambier. For this little tool he is thinking it is a prepared a little like the noilli burins because of this truncation and size.

Tapié
Bordes: Because of the flatness of the flake only, I think.

Madame Bordes: Yes.

Tapié
Bordes: And there is no notch. Oui.

Madame Bordes: Yes, but...

Cambier *Tapié* (Speak in French)

Bordes: There is a lot of burins.

Madame Bordes: Yes.

Bordes: This one, this burin spall is interesting because it shows a lot of

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of the obsidian, and the cores would have been utilized. I doubt very much whether a core would be found - where one was accomplishing this type of a very thick blade. The one that Dr. Bordes has may be the last of the core. So you would go to the end of the thick tabular flake in order to remove a burin spall to get this thickness. From a cylindrical or rectangular core, it wouldn't be possible to recognize anything that could be determined as a core, to get this type of flake. It must be a very thin flake to get this thickness if there is going to be a repetition of this sort of flake. So the thick tabular flake would have been utilized to produce these. So it would be hardly identifiable as a core when they had completed and utilized what material they had on hand. That would be my feeling of this type of a blade technique and it is certainly a blade technique that they did use.

Phil Smith: That would seem to explain it. Thank you.

Bordes: There is no question that it is a blade technique. There is a preparation of the side of the core.

Crabtree: Yes.

Bordes: There is no question about it. But now perhaps they went on and on until the core was just finished and then made it into their burins.

Crabtree: Dr. Bordes, there seems to be no regularity of preparation on any of the ends of detaching these. Just by percussion taking these and follow these heavy ridges in order to guide this type and to get the thickness of flakes.

Bordes: It is not a very good blade technique I have, but it is a blade technique all right.

Wormington: This is Mayer-Oaks surface material. I was reluctant to transport any excavated material. The plane might go down or something.

Madame Bordes: (Speaks in French)

Wormington: There are points with the shape of the Fellscave. Could someone get one of the Fellscave cast? But also fluted. And there are, I believe, a variety of side scrapers and, I think, some end scrapers, but I have not seen the full assemblage.

~~Crabtree~~: (Speaking in French)

Bordes: Ya, fishes.

Wormington: Yes, but here these are Fellscave materials. These are unfluted in association with this we have the same shape, but fluted.

Bordes: This one is perhaps, I am not sure.

Wormington: Well, there is basal thinning on the Fellscave material but on the El Inga material, there is real fluting.

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Bordes: That's cast.

Crabtree: This one here. Marie said that the style of this was entirely wrong for comparison it was just to demonstrate how, from a stemmed projectile point, the thinning was done on either side, which shouldn't be confused with the El Inga material because the form is entirely wrong.

Wormington: That is a type of fluting.

Crabtree: Marie, well you would know better than I because I have never seen this material.

Wormington: Well, I guess that wraps it up.

Bordes: Who is presenting that? Okay let him speak and speak clearly.

Irwin: The collection that is in front of Bordes, Tixier, and Crabtree is all from the site of Hell Gap, earliest date on this site is 9000 B.C. The latest date on the horizon that is represented here is 7000 B.C. The ⁶⁵⁷⁰ ~~later~~ industries. I brought collections, not necessarily representative in term of statistical counts, this collection is largely aimed around the formation of projectile points. You get in this corner. These are blanks.

HAVE MIKE TROUBLE HERE

Irwin: This one has a loose connection.
Williams:

Bordes: What is this?

Irwin: Where's the hot spot. I don't know. Hold it at the top.
Williams:

Irwin: Now these tools and the collection in general is fairly representative of all we term Paleo-Indian, at least in the Plains area of the U.S. I think many of the types correspond with those found in Eastern U. S. which I am not very familiar, these end scrapers, which are statistically not too numerous, the side scrapers which are numerous. The technology. If I start on this end, you have these large cores and these cores resemble, in some small fashion, Levallois cores. But if you could consider them Levallois cores, they really aren't very classic. They removed large flakes which are also typologically levallois flakes. I brought one here. There is a little faceting on the butt here. Notice that this platform is ground, before the removal, this is an extremely characteristic aspect of the Paleo-Indian technology. This flake is levallois, but as I say, the technique, if you want to call it levallois, is sloppy. The blades in addition which occur are not as good as the blades from the Clovis horizon. They also are sloppy, there are some here. And they were probably removed from cores such as this one that I had there. There's another core here. They would, as Don says, simply follow down

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with the percussion stroke down a ridge and they would retouch these blades into side scrapers and retouched blades. Also they ~~would~~ like to produce large wide flakes which they could make into side scrapers and things. There are some tools on the end here which are rather interesting and characteristic of only one of the horizons. These, as I said, these horizons are mixed. This goes thru a number of so called recognized Paleo Indian groups even Scotts Bluff what used to be called Angostura, Agate Basin, Midland, Hell Gap, a complex called Alberta and the projectile points from these, some of them are down in this corner. Now more interesting than the projectile points somewhere are the beginning stages of these projectile points which you can see up in this corner here. These are blanks from Agate Basin points, that were broken in manufacture. Here this great long thing is a blank for an Eden point and it was an ambitious project. I think it belongs to Eden points, and the record is about 9 1/2 inches. This would have been 11 if he, well presuming he had gone down maybe only 10, if he had peeled it down a little bit. We found the flakes which have been removed from this and we have been fitting them back together, just an idea of the technology of it. One thing that is important and a great problem of the American is distinguishing between things which were cutting implements, ~~knives~~, knives. I brought two or three pieces which were probably knives in this corner, and things which are blanks or unfinished points, such as this piece right here. This was probably going to be an Agate Basin point. It's a bad piece of stone; there is a hole in it here. This isn't very good. So apparently they just didn't finish it. Here are two of the complete points which would have been made from this form here. Here are other things which are commonly called knives, which were probably preforms. Here is a preform for one of these points here. You can see. Apparently, he broke it before he did the final touch. Again this illustrates the progression of the technology. Up to this point it was almost all percussion. Some of the work from this point on was pressure. Now this point here is interesting from Don's point of view. This would have been an obliquely flaked point. They normally are. He was trying to turn his flakes here, and he kind of goofed. And he never got them quite around in the right angle. He got started on the wrong pattern and was never able to straighten out and also he broke it mid stream. Here is an Eden point. This has diamond shaped cross section. This also was broken in the manufacture. You can see the stage which is prior to the small edge retouch which characterizes most Eden points. Some of these things.

Bordes: That's quite normal. There it has been heated.

Irwin: The scrapers are interesting because you have these generally rather short scrapers. They are also characteristic of everything from Lindenmeier down. You have the kind with a corner on it which is not quite one of these little spurs but it ranges from something with no spurs, to something with distinct spurs which is probably functional. I am not quite sure about this particular one. There is one over here with a little flaking where they apparently did some of the work on the plain

a little spur. Often inside the little spur, although not in this one, you will have

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face. And quite frequently you get a little notch lower down in the scraper. This tool here is also characteristic of Paleo-Indian. Apparently both East and West, Coe had one of these things. Quite frequently you only get the single notch in here you get a double notch which makes it like a strangle blade and frequently this is broken giving the people a mistake for a drill. In fact, it really isn't. These little things here are so called graving tips. I think that if Byers has any of the Bulbrook stuff here, he will find that the distance between these two little points is rather similar. I don't know precisely why it is true, also of Lindenmeier measuring the distance between these points. They seem to always run about the same length or the same width. I don't know why. Here is another so called knife. You can see that it is nicely finished, it is not a blank for a point or anything. Here is a rather large end scraper. Large end scrapers are fairly rare in Paleo-Indian, although apparently not in the East, at least in the West they are fairly rare. Over here are the retouched blades, and these things, which I think I showed earlier, I don't know what they really are, they are finished tools, they're not blanks. They're not material that they bring back from the quarry. Some show use and edge retouch. I guess that is a good summary, unless you have further questions. I can, if anyone wants to know, point out the exact type of each one of these points later on that might be of interest. Oh, notice this burin on this projectile point. I think that there are two possibilities, one is impact, and quite frequently you get a impact fracture, I have not made an experiment, largely because I have never had enough points to do this, although I've used some Archaic things to drive into the wall to see what kind of fracture you get, but this one I think was actually pounded on the top, and this burin was caused by this pounding for as you see this was quite a bit of pressure on the edge. May-be this is something similar to the plex escaler that Doug Byers has. But it's not yet. I think that pretty well summarizes the general collection. There are a couple of cores; these cores are typical. Some of the cores appear in larger quantities. One problem with Paleo-Indian sites and this includes the Lindenmeier site, is that most of the work was done at the quarry which is often some distance from the site. We do not get very large cores in the quarry. You can see. In the site itself, the quarries which we have been trying to investigate, which are a little hard to investigate are quite numerous, and, I think, this is true of Lindenmeier. So we don't know really what most of the larger cores look like. You want to say something.

Bordes:

Oh, well, I can try to say something. ~~Bordes speaking~~. Well, that's a beautiful array of material, you have here. With a lot of different kinds of points. I won't try to remember all the names. I can't. That is out of my horizon. But things which are interesting. This is a scraper of some kind and these big things. About that you ~~would~~ ^{want to} know what they are. Well they can be tools by themselves. Kind of knives or Laurel Leaf and some call them a Laurel Leaf. But you know really, how you say this is just unfinished stuff. Even if it was, it could have been used like that, I would not say that this was the first stage

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of that. And that the definitive point should have been about this width and this length. So it could well be that this is derived from that. That being the first stage. Then this one was a large one which is broken but also probably once finished would have been much smaller.

Cynthia Irwin Williams: This material of ours from Hell Gap we do get occasional pieces of this kind which have been finely retouched at the edge. To presumably make a cutting edge which is why Henry ~~Williams~~ thought they might be knives.

Irwin: Well, if you look at the edge here, there is quite a bit of retouch.

Bordes: That is not retouch. No, no, no. ^{What do you mean?} That is just some kind of rough ^{ing} of the edge before striking new blows. That is not clearly some special retouch.

Irwin Williams: We do get, however, some rather large relatively well finished point.

Bordes: I won't say they are not bigger or laurel leaf shape, but knives that is quite possible, but they speak of this one. This one strikes me as stage in percussion of smaller things like that. And then the blades, oh well, they are blades, not very good, and they were always struck from this kind of flat blade core which is more like the Levallois blade core than the Upper Paleo blade core but can give you perfectly good blades sometimes. And then your flakes here, some are Levallois like, not very good levallois, but they are. Oh, this one was burnt. That's a typical fracture of heating. *That's quite typical*

Paleolithic

~~Bordes: That's quite typical.~~

Tipier Heat treating.

Bordes: They tried to heat it and burnt it - its happened. Yes, that's a nice side scraper. That's a nice flake from making and mixing like that. No question. Typical with this

Irwin: Ground edge.

Bordes: Oh, no, not so much ground this lip.

Irwin: Yes, it is prepared but also notice that this platform has been exposed.

Bordes: Oh, I am not sure. It can be smashed just like that. With some blows with something .This

~~Bordes:~~ That you could find in the Sudan. I don't think there is anything very special about it. Lot of side scrapers. Nice ones, beautiful ones. Yea, this also. That's a kind of bifacial side scraper, perhaps. That also nice.

Irwin: That's rare.

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Bordes: No, no, no.

Irwin: There is one maybe.

Bordes: No. No. Not here it doesn't matter.

Irwin: It's rare anyway.

Bordes: Could be. Side scraper on a blade, a retouch blade, as you like it. Not this one, but you have seen it. Ya, this is an end scraper on the notching. It's a kind of composite scraper with convex and concave. Always small multiple bores like in the Lower Magdalenian. This one has a spine. →

~~Bordes:~~ That's one of these crazy things.

Irwin: Dr. Bordes, look at this, called the cutting edge, this causes a lot of confusion. This has the same shape and generally classified both as knives. This is probably an unfinished point, and this a cutting tool.

Bordes: Ya, ya, but you want to be optimistic and I wanted to make a point, you know.

Irwin: Sometimes we are stupid.

Bordes: Americans are all too optimistic. This one, you know, is a funny thing. It looks very much like a sub-kena bifacial scraper, small ones which are leaf shaped with this big flat flake on one side. Of course, here there is some pressure retouch, that you would not find in a kena scraper, but from this side it could very well come either from some kena culture, or some culture in Germany or from early Mousterian in *Carso de Grinnelle*

Wormington: Some are Hungarian material.

Bordes: Hungarian - not quite. Not quite. It's more you know, like the Solutrean or most of those thing - symmetrical. But this is quite symmetrical, one side is just thin so you can hold it but there is no try to make it regular shape. That is only one edge which interested them. That's beautiful a end scraper with, not a knife it is not cutting on the other edge, but it's rather obliquely retouch. What else. Oh, yes, You see it seems that the Americans are already infected with mass production. They have a lot of blanks and blanks and blinkety blanks. That's a thing which does not occur in France as in the Solutrean, they either finished a tool or they ~~work~~ ^{shape} it and throw it away. But very very seldom we find blanks. That is half-finished tools.

Irwin: These are mostly broken, let me point out.

Bordes: This one is broken yes.

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Irwin: We simply found both pieces.

Bordes: ^{Yes they are}
~~That~~ broken piece *S. man*

Irwin: You can see for instance on this one they got to the stage where they hit this imperfection.

Bordes: No, but what ^{in the earth} I mean is that I have read in American publications that very often you find a cache of blanks ~~so that, too many of them have never been found in France.~~ *That, to my knowledge, has never been found in France.*

Irving: I think it probably reflect a difference in social situation of the tribe.

Bordes: Could well be.

Irving: A concentration of wealth.

Bordes: You know there are two interesting differences. There is this blank business and there is your quarries different from camping site. In France, I don't know, I never have seen something that would qualify as a quarry site, distant from an occupation site. And that's one of the big difference, I think, between the European and the American Paleo-*lithic*.

Irwin: They quite often are quite distinct. At the quarry site locally, for instance, you can turn over several hundred thousand flakes and never find a finished tool. If it is a finished tool it often is a very late finished tool from Tapee period Indians.

Bordes: Yea, but that is not the case with us. Well that is about all I have to say for now. Probably when Crabtree will have pointed out which to him is obvious perhaps I will say well I really agree, I agree, *I agree*

Crabtree: No, but this is a wide array of different manufacturing techniques. I know it starts in with the core with several different techniques in blade detachments and there are three different platform preparations here. Notice the very small platform at the top. This is not as large as a grain of wheat yet to remove a flake of this size shows a great deal of control in preparation to remove this much material. This shows another side of the edge. There are the quartz flakes. These two of the quartz show that polish on the edge, Dr. Bordes, on this one here and apparently on this, but ^{three} of these show this the others looks like they are crushing the flat platform and these are getting away from the crushing. We have side struck flakes on the cores. We have the trimming flakes, as Dr. Bordes indicated. There is one that is a little unique to have turned the flake up on one edge and have utilized the ridge in order to give it this conformity, and these are not too uncommon. This is a flake leaving a wide distal end because they don't want the narrow portion in the center. But it makes a very ideal scraper, at the edge where this has been slightly retouched. Their thinning techniques are

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very superb; their control of thinning where they took advantage of the step and the hinge fracture. This one shows a nice step fracture terminating it in the center by using the core tool method to do this remarkable thinning to bring the flakes in from the side to meet in the center. Starting to get a very thin blade like the solutrean sort of thing and coming in on this side to meet in the center. This one is an example like the one I was trying to find this morning, but we couldn't find it - with beautiful solutrean shoulder point techniques. This is a very typical technique used by Solutrean, however, their flaking was a little more direct without as much of the angle but the spacing seems to be same as the one Dr. Tixier showed me this morning. I'll go a little fast so that we can utilize our time well. They seem to be collateral flakes like Cynthia, Henry, and I were discussing of this type of spacing, using a complete flake rather than following ridges and yet keeping wonderful control on the edge. This one had apparently been retouched as a knife, particularly on the one side, all from one side to give it a cutting plane like this and then redulled again so we have lost a lot of the character of the edge, and it looks like a reutilized biface, or knife, or something like that. Evidence of heat treatment in this particular one. These are quite characteristic of the Lindenmeier site. The quartzites and the variety of materials show quite a range in diversification of utilization of materials, the flaking characteristics are very much the same. With the quartzite the flake characteristics are hardly identifiable because of the texture of the quartzite the flakes lose many of their characteristic features, while they are fairly obvious in flint. You'll notice the sharp deep indentations all the way thru in most of the examples. This is because of the way they have set their tools - to get a deep enough flake so that they can pop in off and the flakes will feather out. Almost no hinge fractures in any of these particular pieces. This one is a superb example of this type of flaking, but by the nature of the material, there is almost no detail shown. It looks almost like it was ground and polished Turn it edge wise on the light and you still have this same character but a longer narrower flake. But they still don't appear to be a parallel flake type. They have very little slant. They are directed inward, towards the center. This specimen I didn't see earlier - the one Henry said was broken in making. In spite of being broken the control of the quartzite is very wonderful. This quartzite shows a little different preparation. This side shows basal polishing of this edge, but the well defined bulbs of this shows the last row of flakes that were detached. These flakes have a slight slant to prevent breaking the tip of the point. The flakes slanted toward the base. Point characteristics are not too obvious on this side, removal of flakes was backwards and inwards away from the tip on this particular point. The rest, I guess these are some of the Alberta style. These two at the top have little diagnostic value other than this one which was apparently shot whether they missed somebody and hit a rock, I don't know, but it is evidently a projectile point. I'll turn it over to somebody else, I think. That's all I can say on the flint working other than it is beautiful array of many different types represented in this collection.

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- Wormington: What about this one?
- Crabtree: It appears to be a percussion preform made from a tabular piece of stone instead of it being made from a single blade. It's done by the core method from a tabular form of material and it is most certainly a preform, or it hasn't been refined. But the spacing and the regularity of the flakes indicates it is a preform. Note the spacing of these very wide inward flakes, and instead of using the ridge, each one is a separate flake and there is no utilizing of the ridge for a parallel flake. It might be interesting to note that the parallel flaking technique would have flakes with straight sides. These have rounded sides or, what would you say, a convexity.
- Cynthia Irwin Williams: I wonder if you would like to comment just from a purely technological point of view, how do you think for the first thing, those blades would have been produced? By what techniques?
- Bordes: That is ^{not very} ~~rather~~ easy to do. As Crabtree pointed out there seems to have been several different techniques, but you know the experiments I have just made these days show me that it is very difficult sometime to make a distinction between one technique and the other. For instance, this I would say would be rather with a wood billet than something else.
- ~~Irwin:~~ ^{Tapié} Before this congress.
- Bordes: But this morning I took off a beautiful blade with a punch technique. And I got exactly that.
- ~~Irwin:~~ ^{Tapié} ~~It~~ could ^{it} be punch technique.
- Bordes: Could be. One thing is definite; it is not stone struck.
- Phil Smith: Right.
- Bordes: That is a different thing. That is not stone struck.
- Irwin: We comment on that as we find no hammerstones.
- ~~Bordes:~~ ^{Tapié} Never on an anvil.
- ~~Bordes:~~ ^{no}
- Irwin: Anvils might be.
- Bordes: I will tell you something, even in the culture in France where we know a lot of stone struck stuff, very seldom we found the stone hammers.
- Erwin: Yea, well I think we would have to examine the flakes plus the hammerstones.
- Bordes: Very probably when the hammerstone broke or was just too worn out, they just throw it away like Mousterian or let us say Folsom, ~~etc.~~
- Irwin: I might add, speaking of primitive psychology from the gentleman who was trying this large Eden point here, broke it, we found the flakes which fitted on it and he didn't throw it very far, so it indicated that he didn't feel in too bad a temper about having it break.

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- Bordes: How much far away was it?
- Irwin: Oh, about 6 feet.
- Bordes: Six feet, that's always something you know. It could be related to the stone. It did not just fall. To Hell ~~with~~ with it. *To Hell Gap with it.*
- Crabtree: Cynthia, I have been trying to replicate the character of Hell Gap but I'm missing it. I'm getting closer but it is still not characteristic of Hell Gap. We were going to make a preform for fluting purposes but the difference is the wide flakes on this sort of artifact. It is a little narrower, but I am producing these deep bulbs in spacing this so that you leave the little triangular portions at the top by spacing the flakes wider. The little triangular portions were later removed but sometimes they weren't. Then they would alternate the flakes by removing the heavy side on the opposite side of the previous flake scar, but unless you have a model it is hard to remember the exact detail of the edge character.
- Bordes: How did you do it, Don?
- Crabtree: Just with pressure, but I give it a thick bite with the tool so it pops fast so the flake will carry on through and feather out.
- Bordes: *Just pressure. Ya. Did it work right?*
~~That was all right.~~
- Crabtree: I have tried to change techniques. I have been working on bending flakes so I ruined everything for awhile by bending all flakes when I didn't want them to bend. It's very difficult to change from one technique to the other.
- Bordes: It's ^{already} difficult to make one technique. Well, about this burin, you know. I don't think it is a natural break. I think that possibly it was broken and they tried or did a kind of burin blow there. Was it to make a burin or was it just because they wanted to take a small lamelle or some thing like that, I don't know. Technically, it can be called a burin. If it is only one in the whole culture - well.
- Irwin: There are no burins except they are a minor tenth of 1 percent of burins on breaks which are probably accidental.
- Bordes: Ah, you never can tell.
- Epstein: To move it along here I think you, the result of at least this conversation you think that all bifaces can be broken down into 2 ^{two} categories, and you are destroying Am. archaeology. They are either blanks, or they are finished products. I'm very much concerned as to how you can make this judgement so surely.
- Irwin: If you are making a biface, it's either a blank or a finished product, eventually or somewhere in between.
- Epstein: I wonder. I'm very much concerned about why, I think, as Dr. Bordes would

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say, this is probably a blank. In other words, there seems to be something going on over here as to certain kind of judgement as I understand it right now it seems to me that if it doesn't have pressure fine pressure flaking it is a blank.

Irwin: No.

Epstein: I ask for clarification on this.

Bordes: The thing is, the thing for which I think this seems unfinished is that first it looks unfinished. Nothing would be easier to get a straight edge, here very easy. No trouble, it takes about two minutes and then on the other hand, you know if there was only this, but you have things like this one which is much more... Well, that is about all I get when I am making a Laurel Leaf and somebody disturbs me before I am finished and I put it somewhere to pick it up when I have time. That's about the shape it was and the size, and the weight is down, the amount of finishing of the edge and so on. Well, perhaps after all these blanks were finish as tools; I don't know, but when we call things scrapers after all we don't know if they were doing any scraping. They were perhaps cutting, who can tell. Till some time machine is invented, we must try to study the thing by classifying them as well as we can and giving them names.

Epstein: We have to give them functional names Dr. Bordes.

Bordes: Oh, well functional *MA-NO*.