PAULINE BRAYMEN: Now I'm ready. I'm going to use the tape recorder because it's too hard to take notes in the bouncing car here.

ANDY GOHEEN: Yes, it's probably so, all right. Well we --- like Chad was saying, we have a series of rangeland seedings which we're clearing right now. It's --- part of them are, oh most of --- the majority of them are not the burn. This burn is only, the fire we had we're doing right now. The rest of them are all predetermined, planned out by the range people. We're just to provide archaeological clearance. And all we do is go out into the field and try to give as adequate a coverage as necessary. Chad mentioned this morning a 100 percent, but you can't exactly say 100 percent coverage because, well that would be almost impossible to do, any survey. So we cover the area and try and fix transects of about 200 feet apart. Usually following the contour of the land drainages, the fences along the creeks, ridges. We do give an adequate coverage to find almost, probably almost all of the sites. All of the better sites, the larger ones. Might miss an occasional point, a very small site. But we kind of consider that par for the course. And --- well we've done --- how many acres have we done? Do you remember that?

CHAD BACON: Let's see there is --- we've inventoried about 6000 acres of alkali fields.

ANDY: Yeah.
CHAD: Two thousand acres at Riverside.
ANDY: Like about twenty.
CHAD: Yeah, plus those spray areas that we did earlier.
ANDY: Yeah.
CHAD: We're approaching probably twenty thousand acres by the end of the ... season.
ANDY: Well, we go out into the field, we line up lines, two hundred feet apart, along the cross. We come to a, you know what flake spread out, examine the areas as thoroughly as necessary. Usually there is a site recorded on the spot. The techniques that we described out there, drawing all the artifacts, plotting on sketch maps, photographing, everything that's there that has some importance. I guess it's all a value judgment. We're --- every-body out here so far has been a trained archaeologist, so it's final --- If you have any questions, just give a yell.
PAULINE: Yeah, well I --- one of the comments one of the girls made, she said the code word was flake. When someone yells flake, that means --- everyone, more intensive ---
ANDY: Well, yeah, far more intensive than two hundred feet apart. It's usually a --- you examine the immediate area real extensively, walk just right around in a circle for instance where the flake was. You walk quite often, if you find more than one flake, other people come over and help. Of course when you find a site, every-body gets involved. But often you'll find, for instance in this area out here, one flake and nothing else, or one or two flakes.
PAULINE: Now what do you ---
ANDY: It doesn't cost to the site. We have a definition of a site, which is ten flakes --- let's see what is it --- man I forget --- a hundred square meters, which is ten meters by ten meters. That's a fairly small area.
PAULINE: What's the definition of flake. I have a preconceived idea of what I would call
a flake. But ---

ANDY: Yeah, we've run into some problems with flakes. We come across some areas that have natural material on the ground, which wasn't culturally used. A flake is something that has been removed from another larger object, usually a core, or a --- sometimes when you're working a point down, you have a large free form, and you flake in a special way. A chip of obsidian or whatever the material is comes flying off, that's considered a flake. Usually you can tell by the --- what the material looks like if it is a flake or not. It's just a rough old piece of cortex. It doesn't show any signs of fracture or doesn't have a --- oh, smooth surface on it. It's hard to say if it's a flake or not. But once you see a flake, you know exactly what it is.

PAULINE: I know what you mean. It's hard to define. Yeah.

TOM NEUMAN: Flakes very often have bulbs and force and ---

ANDY: Right.

TOM: --- and there are flat planes that, standing out from it. If you examine them closely enough, at least on obsidian well you can see, you can reconstruct pretty well how it happened, how they got there. Tell with a very, very high degree of accuracy how --- why they're cultural products, or why they are not.

ANDY: Occasionally if you're lucky, you'll find flakes and a core associated, you can almost, or sometimes even reconstruct where the flake came off of the core. That's occasionally done.

PAULINE: And you remove nothing, and you do no digging?

ANDY: That's right. Unless there is a specific reason to do so. Like this pottery site that we told you about, there's ---

CHAD: Now that --- you ought to make a definite distinction there --- look out little fellow --
that we --- we, or I should say the Bureau of Land Management could not collect them from them --- the pottery site. We anticipated, and it is part of the Steens study, who is doing a collection and interpretation under it. And it is incorporated and part of it, and part of that. Then the crew that found it, which Andy is one, physically picked it up and dated it after Mel Aikens, who was the archaeologist for the Steens project came down and looked at it, in flakes, and advised them on how to go about collecting them. So it wasn't a Bureau collection.

PAULINE: That's being done by the University of Washington.

CHAD: No, the Steens project is done by the University of Washington, or Washington State University, and the University of Oregon. They're all three schools involved.

PAULINE: Did they mention U. of O. in that article in the Oregonian? I don't remember, I just read it rather quickly yesterday afternoon.

TOM: I think it was mostly with Mehringer.

PAULINE: Yeah, it seems like it was ---

CHAD: Yeah. Yeah, I think it was mainly ...

PAULINE: Tell me again about the pottery. I --- I know that we talked about it earlier, but ---

ANDY: You mean the physical characteristics?

PAULINE: Yes. What it ---

CHAD: We might want to go over the pottery and look at it.

PAULINE: Oh, okay, okay.

ANDY: We could show you that.

CHAD: We've got the flakes and sites now ---

PAULINE: Yeah.

CHAD: Okay --- now you might --- and improve upon that discussion I made this morning
about significance, and how the value rate is done.

ANDY: Do you remember Chad's discussion on the significance levels, one, two, three and four being the rating? And four being the destroyed sites, three the worst sites, and one the best. That's in a nutshell. But --- we, the site that we saw this morning, that potted site, that would be hard to call a four, but you'd call it a three. Because ---

TOM: Which one was that?

ANDY: The rock shelter.

TOM: Oh.

ANDY: Because you, there is some of the site remaining. The site that had been completely destroyed for instance, if a road had gone through that area it had just completely removed everything, that would be an S-4 site. Other S-4 sites would include the sites that had been completely picked up through some research that has been done. Completely excavated sites, or such that have been totally recorded, and then as a result lost. Occasionally there will be a site that's found, and never seen again after the initial recordation for some reason. The --- on the other hand, the S-1 sites are usually very, very large and extensive flakes. Lots of lithic material. Many, many tools. Usually diagnostic tools, that would be tools that would infer a specific type, and as a result you could possibly --- through looking at a chronology figure out a date, the --- very indicative of --- they quite often will show more than just a passing use. They'll have several different types of environmental use, indications like points for hunting, manos metates stone, ground stone for use of preparing seeds. You might even have habitation.

PAULINE: You, about habitation, oh --- what do --- what kinds of things ---

ANDY: Well, when you're looking for that, you look for house depressions, rock rings, it's kind of a hard thing to say without ever testing. It's difficult to say that somebody lived there for a long period of time without --- just by looking at the surface. Extremely difficult.
But on specific sites, you can tell they were used a lot more than others. You've obviously seen better sites than others. The ones in the middle, the S-2's and the S-3's would be sites quite often which were only used for just a little while, or just used for a specific instance, and then flaked over. Like we'll find chipping stations for instance where arrowheads were made or particular points were made. They've all been picked up. But you'll find the debris and maybe some broken ones along there. Those will be of the significance level. It's less than the S-1 sites, but more than the sites that have been destroyed. Because they do have some significance. You get a lot of information off of those sites, if you know what you're looking for. Of course you get the most information off of the S-1 sites, because there is a lot there.

TOM: I suppose that in many instances the S-1 sites are unique for one reason or another.

ANDY: Yeah.

TOM: They have a link, well like the pottery for example. If there were pottery there that would have been very likely an S-2 site.

ANDY: If the points hadn't been there, yes.

TOM: Yeah. And consequently it's a unique situation; it hadn't been collected over --- which again is ---

ANDY: Yeah, that's a very unusual find. We'll see another one of those sites today though. We hit one last night that had never been collected, it seems to be. We found oh, about forty points that's in an area fifty feet by fifty feet. A lot of them are complete points, not just the bases.

TOM: The S-1 sites too are very often --- show a variety of activities there. They will be what archaeologists sometimes call a base camp or something of this sort. Maybe we'll get the S-1 sites that have not ... projected points but will have manos and metates. In
other words, that there will be evidence of activity by pretty much a complete social group.
PAULINE: Okay now, can you find --- what do you mean by manos and metates?
TOM: Okay, a mano is Spanish for hand, and it's simply the stones that are generally held in the hand.
PAULINE: Like a pestle?
TOM: Well the pestle is ---
PAULINE: Or a scraper?
TOM: Huh? No, pestle is different. A pestle is round on the base. You'll find that one end of it is pretty well pounded and round. Those are used in such things as copper ... and the like. A mano is used on a big flat ... stone and you would put some grain on it or some seeds on it and it's ground up. It's mainly for flour and it requires an entirely different cooking technique, say than does meat and the like. So consequently you'll find a mano, why you're talking essentially about a different type of collecting. You're talking about a different type of activity and you're talking about an activity that is predominantly ... activity. And there are sites which are recorded ... graphically. So old collecting sites and root camps and the like where you may not have really any evidence of that sort of thing, except the Indians say, yeah, we used to go up there. And you look around, and sure enough you will find maybe a few flakes, and something like that. But a root camp, for instance, doesn't necessarily leave much, if any direct evidence. They might even grind the stuff that was there. And --- or some of the local Paiutes claim that they broke up many of the metates and the like, or hid them. Some of them claim they put them in streambeds. I don't know what the case is. But it's true you don't find very many sites where there are large numbers of metates lying around. But what I'm saying is, you can't always tell how important the site is by just the stuff on the surface. The stuff that's visible, all of this. And in the, with the round ridge. The first one we stopped at across the
ford, that would be an S-2 site, or S-3 site, something like that, I suppose. Except we happen to know that it has considerable depth, which I know, but a lot of others don't. You know, it's close enough and they're probably not going to take a chance and dig.

PAULINE: No.

TOM: But I would hate to see that site destroyed. And I, in a sense am glad that the surface stuff is pretty well gone now.

ANDY: Well that eliminates a lot of the pot hunting that has been going on.

TOM: Yeah. And the fewer people you get on the site, the better off you are, generally speaking. And I think that, you know, a site being collected over and over again is sort of a dangerous precedent, or dangerous circumstance. Because more likely, people are to think that there is something more there, than you would like for them to think. But many S-1 sites have depth. You know, I think maybe it's not wise to say that.

PAULINE: Well, I don't know ---

ANDY: I don't know what ---

PAULINE: What --- okay, for instance your material is documented and all, and someone comes in under the Freedom of Public Information Act ---

TOM: No.

PAULINE: --- can this material be made public?

TOM: No, they can't get it under the Freedom of Information Act. I've forgotten --- Chad probably knows ---

CHAD: It's administratively confidential, because of the problem that we have with collecting.

TOM: And site files are simply closed, and theoretically locked. And all of this --- and you do not reveal this information under ordinary circumstances. It's made available to legitimate research groups and the universities. It's made available to people who want
to, or need to have access to it. But I, for example, do not generally, am not interested in getting that information unless I'm actually going to use it.

PAULINE: Uh huh.

TOM: So, I don't ask about various files, records, etc. And if anyone comes in and asks about them, you can be very suspicious about their motives. Many instances, because I think that they'll have a, you know, a legitimate research interest. They don't, well --- Incidentally there were a number of rock rings right up in here. It's on the other side, by a fence there. There are some substantial ones up there. This is a ---

ANDY: Excuse me ---

TOM: This is paramecium, we have here. What we call paramecium. There are some major sites around it, the canal and so on adjacent. But you could know pretty well of a --- there's some geese for you, of what's going on I think. And someone's legitimate concern with certain types of archaeological materials from the way they asked about gathering materials. You know what sorts of information they ask for. If anyone said, "Well let me see your files," you would be immediately suspicious.

PAULINE: Yeah.

TOM: If they asked about certain types of materials, you could begin to get an idea I suspect, about what their legitimate concerns were.

PAULINE: Well, the credentials that they might have too.

CHAD: Well even the bonafide archaeologist has to have a permit to do collection and sampling the cultural resources on public land. Tom, as far as the Anthropology Department at Portland State, cannot, want to come down here with a group of students and sample or do any work other than casual work that doesn't disturb the cultural resource, without a permit. And that applies to everybody, and every professional archaeologist that wants to do work with cultural resources on public land.
TOM: The permit system is a good plan I think. I had some real reservations about it early in the game. But I think it's a good one, for the simple reason that it is essentially a license to do legitimate work.

ANDY: It's a way to keep control of people as well.

TOM: Yeah.

ANDY: To try to weed out those people that are not really legitimate projects, and you encourage those that are.

TOM: And it's a hassle to get a permit sometimes. There are universities that have them, an open permits, but I think that this unfortunately is sometimes, been abused. Not necessarily so much in Oregon, but around the northwest. And I suspect that the permits are pretty much on an individual basis, are a good thing. And it actually is good, because it causes, makes the legitimate archaeologist sit down and essentially design in simple language the project he is going to do. Explains how long he is going to be working at it, and he has to say something about his means of analysis. And then he finally has to say what's going to happen to the artifacts he collects. And it's at this point that, you know, the legitimate work is separated from that which is a little bit questionable. And there are a lot of people that have been refused permits for the very simple reason that they, somebody didn't think they were necessarily qualified and so on, to do whatever it was they had taken.

PAULINE: In other words if you went in and applied for a permit to do archaeological work in the Steens Mountain area, that would not suffice, even though you would ---

TOM: No.

PAULINE: And just a, just a wild goose chase, or a needle in the haystack type of ---

TOM: You have to ordinarily, actually permits are issued I guess on several levels. And you can go out and get a preliminary reconnaissance on things like that. But you have to
essentially leave the stuff in place, and so on. If you do anything that requires collecting and so on, you're pretty well obliged to design a research project to explain how you're going to do all of this, and what you're going to do with the materials, and the like. I personally don't like collecting any more than I have to. And I think that were I doing the refuge project again, I would not collect, but --- or at least would not collect under ordinary circumstances. That's how things have changed since the early 1970's. In about '75, '76, '77 on. People simply stopped collecting, for a variety of reasons. I think for very good reasons. But I collected samples or took perfect points on sites and the like, not because I was particularly interested in having them, but at least in part because I didn't want the sites to attract collect-ors, and so forth. We do have a fairly large collection of artifacts; relatively complete artifacts, at Portland State. But we don't have --- well, there are a lot of things we don't have, and I think we shouldn't. We don't have, we didn't collect any site to depth for instance. Although I suspect --- well, some of the materials that we collected from the refuge --- you can go back and you can start asking a series of questions and so on. I guess get the answers, questions about elevation, altitude, and all sorts of things.

CHAD: ... (Asking directions)

PAULINE: Yeah, she's there.

TOM: Yep.

CHAD: Okay I suckered her into taking a left turn signal.

PAULINE: Well, in other words the collections have been done, and actually if you have a sample of one point done in this manner, that's enough to show ---

TOM: For certain types of sites, it's enough to tell you something about what was there and when. And it's also, if it's the only thing on the surface, it's enough to discourage people from going back and collecting it again. And I think that's probably the only legitimate reason for, you know, handling things in that fashion.
CHAD: I think this gets back to the point that collection without analysis of what you collect is really useless. You're not doing much more than potting, and that's why we don't collect anything, and analyze it. If we want to analyze something, we'll collect it. Or if we, like Tom says, we want to protect the integrity of the site from amateur collectors, or potters, then we'll go ahead and pick up the surface stuff, and eliminate the attractiveness.

ANDY: Well usually the BLM won't do that. They'll try to encourage some research group to do so.

CHAD: We would have done the pottery site, had we not got together with Mel Aikens. It was too valuable to lose.

PAULINE: Yeah.

ANDY: On that one.

CHAD: And it would be quite difficult for somebody to find right now, and think there was anything of value in there.

TOM: How recently did you guys collect that? Just a week ago or so?

ANDY: Well, we put in some collection squares a week ago. But all we've picked up are a few fragments. But we collected the points and the pottery early July.

CHAD: What happened to the buffalo gal from Denver?

TOM: Buffalo gal from Denver.

CHAD: That was going to do some ...

PAULINE: That's all right.

ANDY: Well we got another one on the --- that one cost money, right?

CHAD: I don't know.

ANDY: Well that one was the one that according to John Scott cost some cash. But at the space ... base conference we ran into another person that possibly could do the same
thing free. That's out of a, I think it's a Museum of Natural History in Nevada. Some gal there has a technique ... as a matter of fact I guess they talked to the director and he said bring them down.

PAULINE: I was really fascinated with the idea of this ... analysis, and typing in the --- trying to decide what was an education, and along with the artifacts, you know that ---

CHAD: ... artifacts ... ...

(Conversations)

TOM: There are two or three ideas about how climate varies through time. And that fairly recently there were individuals in Arizona and elsewhere that insisted there were relatively minor climatic changes in the Great Basin. Now I think everyone is pretty well agreed that there were very substantial climatic changes in the Great Basin. And the question is whether or not these were according to a sort of overall system with an altithermal and all of this. Or whether or not the so-called altithermal is more or less randomly incurred thing, and so on.

PAULINE: Okay explain that terminology. I don't know ---

TOM: Okay. The al---

PAULINE: How do you spell it?

TOM: All right.

PAULINE: So I can look at it.

TOM: The --- I can draw you a little diagram here.

PAULINE: Okay, here. It has to do with altitude, and the temperature.

TOM: Well, okay, this is --- Now the antive scheme has the so-called neothermal divided into antithermal, altithermal, medithermal. During the Pliocene it was fairly cool and the like, the --- relatively cool at least. The mountains, there were a lot of major glaciations, there were continental glaciers and so on. The antithermal is --- okay, let's say ten to
twelve thousand years ago, the antithermal is a continuation of this, but you're losing a lot of Pliocene fauna and so on. And it's my contention that if those animals essentially all died off, within two, three, four thousand years, something fairly substantial happened. And whether or not it was climate, or whether or not it was food, all of these things, or whether or not it was survival of certain animals --- the young particularly. ... an open question. The real issue is whether or not there was an altithermal, beginning seven, eight thousand or so years ago. And I'm of the opinion that in many areas of the Great Basin, there was indeed what we can identify as an altithermal. And this is the --- altithermal is a hot dry period. And it is of this time that the major lake basins dried up and so on. I think that it indeed marks a sort of, it's a landmark in Great Basin pre-history, or Great Basin climatology. Although Mehringer disagrees to an extent, and Aikens I think disagrees to an extent. My personal view is that we have essentially an altithermal, that you can identify a lot of places. The medithermal that we are in now is somewhat cooler and somewhat moister apparently than the altithermal, all of this. But Mehringer is inclined to look on the altithermal as a --- well as a phenomenon that occurred, but at different times and for different reasons. And I'm inclined sort of, to look on the, approach of --- I look at the other side of the coin, the bottom side of the coin as it were, and think that the altithermal if it occurs in enough places, it's real, all of this. So there is still some arguments going on about why the Great Basin is as it is now, you know. Oh, here's the -

PAULINE: The Diamond ---

TOM: Oh yeah, there's --- But, that I suppose will be sorted out in a while. And if you sit down and talk to Pete Mehringer, he has some, really an excellent idea, and excellent views, and it makes good sense. And then you sit down and talk to somebody else, and they present essentially an alternate view and the alternate view sounds just as
reasonable as Mehringer's. I suspect that we're swinging in a cycle from questioning the existence of the altithermal to questioning whether or not it was a phenomenon of the antive sense. And then in a couple of years things I think will go, not necessarily swing back, but as more and more evidence accumulates, people begin to put it together and make sense of it and so on. So, well --- you undoubtedly heard a lot more about the altithermal from Mehringer.

PAULINE: No, that's very interesting, and I --- the reason I asked, I wanted to see it, is that it is easier to understand ---

TOM: Okay, but that's the antive scheme, Ernst antives. And antives, working with very, very spotty and sketchy information, put that together quite a few years ago through the '40's and '50's. And it may or may not be exactly what people are going to believe for the next few years. But I think at least in terms of the broad framework it has a lot to recommend it.

PAULINE: Well the analysis that is going on, and will continue to go on will really actually prove or disprove it.

TOM: Yeah.

ANDY: Well at least it will give you more information on ---

PAULINE: To base it, yeah.

ANDY: It probably won't prove or disprove.

PAULINE: Yeah.

ANDY: But there will never be a ...

CHAD: It's not an exact science, and ---

PAULINE: Well, there is, there is as you say, carbon dating even leaves room for ---

TOM: Oh, sure.

PAULINE: --- considerable error.
TOM: But, this is a matter, at least in part of interpreting whether or not the altithermal was a phenomenon. It varies with altitude, latitude, rain, shadow, and all sorts of things. Or whether or not the altithermal is sort of a figment of someone's imagination. It was sort of a convenient historical landmark. I don't think anyone really knows yet.

PAULINE: --- and was in the Oregonian, and it indicated that some of the things that they have found indicated that the earlier people were not as nomadic as they might have --- Or as they have been thought to be, that maybe stayed in one place more.

TOM: Yeah. Ah ---

PAULINE: In talking to Marion Louie about the Indian villages, she indicates that --- well, she said as a child and a young woman she was all over this county. And that they had their gathering places where they lived. There were certain areas where they spent the winter, and everybody would come together. And then in the summer they broke up into family groups to go out for good gathering purposes. And that struck me that even though you didn't spend the whole year in one place, that you had areas that were home bases. That this really isn't nomad kind of life, is it? Would that, I mean that ---

TOM: There is some essentially contradictory data, and people got most early ethnographic data from the males, because they were the ones that you could talk to, and did talk to, and the like. The males indeed were relatively nomadic and so on, and they naturally placed a considerable emphasis on their own activities.

PAULINE: Right.

TOM: And they weren't particularly familiar, I think, with the activities of women. Realistically, I think in relatively recent times that the activities of the women certainly provided as great, or greater a bulk of food, perhaps not as concentrated movement as the ... etc. And if you get something like the --- oh, what is the book by Downs that deals with the group at Tahoe, the ---
ANDY: I know which one you're talking about ---

TOM: All right, I'll think of it in a minute. But this indicates a lot of things, that if you begin to put them together, and put them together, you get a --- initially at least a picture of nomadism. And the early sort of descriptions called them nomadic. And they were called digger and snake Indians, which is sort of a collective term for almost all of the groups in the Great Basin. But when we began to get pretty fair sorts of descriptions like Peter Skene Ogden, he came and he found essentially a winter encampment around Harney Lake. Or excuse me, Malheur Lake. And there is a passage, he said, you can walk scarcely fifty yards without finding an Indian mud or something like this. So I think there is sort of a balance between the two that you have to strike. And also there has been since the late 1800's, the Bannock-Paiute War, and all of this. There has been a very, very substantial change in the nature of collecting and hunting, and all of this. The Paiutes have systematically been expelled from many of the traditional hunting and collecting grounds. The big camas fields along Highway 20 there, just before you get to Buchanan heading ---

PAULINE: Well, they haven't dug for camas for many, many, many, many, many years.

TOM: If you talk to Marion Louie, I think she would like to, but they ---

PAULINE: Yes. But they say that there is two reasons --- I --- Marion didn't tell me this but her granddaughter did.

TOM: Yeah.

PAULINE: There are two reasons, that they are privately owned ---

TOM: Yeah.

PAULINE: --- and you hate to go, you know, even if we went and asked for permission of the owners of the --- the pollution problems. Really do we want to eat these roots that you pick out of the barrow pits, etc. Well she was talking about the arrowroot around the ---
TOM: Yeah.

PAULINE: --- the arrowroot.

TOM: Yeah.

PAULINE: In specifically, you know. That because of the pollution in the barrow pits and the sloughs ... They really weren't all that thrilled with the idea of digging them anyway.

TOM: Ah ---

PAULINE: But they do root --- dig of course the biscuit root, and the bitter root.

TOM: But camas, particularly I think that they would like to get.

CHAD: Where at now?

ANDY: ... What Tom was saying, might be able to make that kind of a judgment for a contact times, but without a lot of data you can't exactly make the same inferences about very, very early times in pre-history. It might have been completely different. The environment might have been such that they were able to do things differently. So it's a matter of being able to make something of the data that you get. And be able to say one way or the other.

TOM: You get back to ... claims and so on, as to what's been suggested. We don't know for sure exactly why they don't dig camas now. I'm not at all sure that it has to do necessarily with pollution and the like. I've heard it alluded to, that they don't dig camas mainly because the ranchers, whether it's an excuse or not, simply say they don't want holes all over their pastures, and so on. Now maybe this is so, and maybe it is not. But for whatever reason it is, they do not dig camas much at the present time. And I don't think they ever will. They've lost the camas grounds, which are ---

PAULINE: Well this is like, in talking with Minerva, and the camas, they have a strong feeling about the fact that the land it doesn't, isn't theirs anymore.

TOM: Yeah.
PAULINE: And they wouldn't --- don't want to intrude.
TOM: Yeah.
PAULINE: But even if, even if they got the courage up enough to ask ---

SIDE B
PAULINE: --- project you're involved in.
TOM: Okay, what it involves essentially is the, are a series of experiments to see how much actual damage is done to archaeological sites by range land drills. And the rangeland drills, as you know, were to be used to seed approximately thirty thousand acres in this area in the next three years. And more acres in Vale and Lakeview, and so on. So I think it is a fairly important thing that we get to, you know, look at it and see what's there, and the like. So what essentially I did was to design a series of experiments. Each of these experiments set up artificial sites.
PAULINE: Uh huh.
TOM: They use about a hundred washers and fifty flakes. And of these hundred washers and fifty flakes, will get us approximately --- they're laid out in random --- not in random patterns, but in a systematic patterns so as to imitate random ... And when you drill over, the preliminary experiments we did last year suggests that the drills themselves did very, very little damage. But it's the tractors that tow them that did the greatest amount of damage. And wherever a tractor hits a site, and hits flakes, etc. there is considerable damage which is, and can be done. So what I've done this summer is to design a series of essentially similar experiments which test different ground conditions, different slope conditions, and so on. What we do know now is that the soils seem to have something to do with it. And very rocky soils don't take good penetration by the drills. They do take --- they do do a considerable amount of
damage to the artifacts.

PAULINE: Then this is the reason that the shallow soil, rocky soil would --- the tractor tire would have ---

TOM: Yeah.

PAULINE: --- it would give more resistance; there would be more breakage.

TOM: Right.

PAULINE: By washers, do you mean ---

TOM: Metal washers.

PAULINE: Regular metal washers?

TOM: Now about ---

PAULINE: And flakes are actual obsidian flakes ---

TOM: They are flakes, which we took off of various sites, principally, for a variety of reasons. Obsidian leaves itself most readily to breakage and shatterings. So we picked obsidian or something real close to it. And the sites already destroyed, and there are thousands and thousands of obsidian flakes. So I just collected sacks of them. Went out and did it. And I've set up three at least, at --- down in alkali field, and I'm going to set up about three more tomorrow in our --- by Riverside. But, you know, it's fairly obvious and so on, and so I think an obvious experiment, but nobody has ever tried it before.

PAULINE: Well, it's like all things that need to be proven.

TOM: Yeah.

PAULINE: Tests will prove the fact one way or the other.

TOM: Yeah. But last year essentially what we got was a series of minor, minor displacements, and some considerable breakage. And the tractors seem to have done the most of the breakage, and the rangeland drills, the displacement. And the question essentially is what the sites, and so on, does it appear what we are dealing with on, you
know, regular basis, and so on. And I suppose what we would like to do at least, is to be able to predict where and under what circumstances the sites can or cannot stand a certain amount of drilling over, and so on. Now where the soils are very fragile, the erosion is a continuing process, probably the best thing we can do is drill, as it tends to stabilize the soil, and the plants come up. In other circumstances, we're not sure. The --- all of the areas we know have been burned over before, and so I think this is not really a factor. All of the areas have been otherwise impacted by cattle. So I think that we're dealing pretty much directly, and straightforward, and straightforward fashion, with the matter of damage by tractors in range land drills. It's, I don't know, its kind of fun to do. I've set up a control station, and we've, we're going to look at several others.

PAULINE: Sounds interesting. It fits right in with this other, the inventory, and dealing with the lands that protect the areas.

TOM: Yeah.

PAULINE: Yeah.

TOM: I'm --- huh?

PAULINE: How long have you been working in the Harney County area? You said, you indicated some years.

TOM: Right. I worked for BLM last summer at this. And I got started on this at the end of last summer, and set up a test plot and we ran a drill over it, and so on. This summer, unfortunately, they're not doing any drilling, it's quite late. So I'm getting up the experiments as late as possible. And I'll give Chad a map to check on, to let him know where they are so the tractor crews don't go out and pick up all this stuff. That would be disastrous. But ---

PAULINE: Oh, look at these washers that we found here!

TOM: Yeah. But --- you know I put a little white dot on the top of each of the flakes, and
so on. It works very nicely. But I--- you must have some --- I'm so close to it, I can't quite see it, really.

PAULINE: Well, it's quite simple.

TOM: Straightforward.

PAULINE: Not too complicated.

TOM: No.

PAULINE: Have to be too scientific to understand it.

TOM: Okay.

PAULINE: Yeah, it seems like a valid thing to be doing, in light of the fact that this much effort is being made to inventory the area, and mark these sites and protect them ---

TOM: Yeah.

PAULINE: --- from pothunters, and etc., etc.

TOM: Yeah. I'm not quite sure how this is going to be managed in other ways, but I don't think that it necessarily means that any area will be withdrawn from an inventory procedure.

PAULINE: Uh huh.

TOM: But, I hope not.

PAULINE: Well it might make a difference of whether they had, seed it ---

TOM: Oh, yeah.

PAULINE: --- hand sowed or whether they went ahead and tractor seeded it.

TOM: Oh, sure.

PAULINE: Just --- like the decision of maybe just not bothering to seed, because it might come back on its own, given time. Yeah. Or a borderline case that would be ---

TOM: Yeah. But it, no it's really very simple and very straightforward, and very direct. And as nearly as I can tell nobody has ever done it before.
PAULINE: No, I don't ---

TOM: (Laughter)

PAULINE: It would be a case of, you know, someone who's done some farming can say, well sure, any idiot would know that, but then---

TOM: Yeah.

PAULINE: --- unless you had ---

TOM: Yeah, you don't know how much ---

PAULINE: You don't know how much, there would be no control over --- Then you'll be going back to school?

TOM: Uh huh.

PAULINE: At Portland State?

TOM: I'm going to be leaving in a couple three days.

PAULINE: Uh huh.

TOM: I'm going to try to get out, maybe Friday, or Saturday, something. Saturday morning at the latest.

PAULINE: You indicated that you collected in this area some years ago.

TOM: Oh, I started out and I worked for the refuge, for '72, '73, and '74. Actually I had a contract with them. And then we did a series of reports, fairly brief ones in '72, more extensive one in '73, and quite a substantial one in '74. And then I taught at the Fields School for several years, Fields Station, whatever the current name of it is. And I just like Harney County is all. And I got started here, I proposed the refuge survey to Mazzoni, which was '72, which was the first year it was here. Or I guess '71 was the first year he was here. And he went for it, and so on. He liked it, and he funded it.

PAULINE: That included documenting places like where the petroglyphs are.

TOM: Yeah. Let me show you.
ANDY: We seem to have probably at least seven or eight.

JOHN SCOTT: That was the interesting thing in talking to Robert Butler, at the meetings; he is a famous Idaho archaeologist. He mentioned that, he wasn't, well I don't know whether I want that in the newspaper, but he wasn't real interested in, we were kind of surprised because the impression we got from him was that they are lucky if they find sherds that will make three pots. We've got probably eight.

ANDY: They also find sherds of this size all the time.

JOHN: Yeah. And we've got a collection. One reason we wanted to talk to him about it was mainly because we felt he would want to know.

PAULINE: Uh huh.

JOHN: And he didn't seem to want to know. But we found another man from Nevada named Don Tooey (sp.?) that was very interested.

PAULINE: Uh huh.

JOHN: He runs the --- he's the archaeologist from Nevada State Museum. He's real interested, so --- real helpful too, really. He gave us some references on how to analyze pottery, how to describe pottery, the mechanics of making pottery.

PAULINE: Well the University of Nevada is really into the cultural thing too, in a big way.

ANDY: Yeah, they are. Well he is the most helpful person we have run into yet, other than Mel Aikens.

JOHN: Yeah, Mel Aikens for sure was very helpful. He got us some introductions.

ANDY: And Mel Aikens is going to sort of guide us this fall. He's our advisor on this project.

PAULINE: Uh huh.

ANDY: Through the arm-twisting of that gentleman over there.

JOHN: Maybe we should give you some idea of how old the site is. I don't know if Don
mentioned anything about that.

PAULINE: No.

JOHN: I would be willing to stick my neck out to say it's not probably any older than five hundred years.

ANDY: If that.

JOHN: Well, it's not any older than five hundred years.

ANDY: Yeah.

JOHN: Because if you figure that the newly expansion got up here by five hundred --- fifteen hundred A.D. at the earliest.

ANDY: There is some --- some stuff that is --- that is in Idaho at thirteen hundred.

JOHN: Yeah.

ANDY: So if it's in Idaho, why couldn't it have been over here?

JOHN: Yeah.

ANDY: But it is not very old.

PAULINE: Uh huh.

JOHN: And it could be as recent as 1910.

ANDY: I would say not.

JOHN: Well, there is a site that Layton worked on that --- in 1910 that had an arrowhead made out of a glass bottle associated with pottery.

ANDY: Yeah, but we have no --- we have no historic artifacts that associated with it.

JOHN: But that's what I mean, yeah. This cow could be as late as 1910, or 1890, or 1800.

ANDY: It's a fairly late site, up to the historic period.

PAULINE: Uh huh.

ANDY: Is what we're working under. A historic period out here in Harney County can be
almost anything.

JOHN: But if it is cow, it has to be what, one of the first cattle in our area, 1870's.

ANDY: 1870's.

PAULINE: Well, but yeah, I think --- I don't think you can go back any further than 1865, under the wildest stretch of the imagination.

ANDY: What about cattle drives?

CHAD: If you could get as many cattle ---

PAULINE: Even with cattle drives, I don't ---

CHAD: Tooth fragments, they're going to miss one hell of a bunch of cows.

JOHN: Yeah, the tooth, frag--- there are teeth fragments all over this site. The site is located in a series of sand dunes, and there are teeth fragments everywhere. The sites, well I only know it in meters, and it's ---

ANDY: Well that's all right, let her figure it out.

JOHN: 375 meters north to south, and 400 meters east to west, roughly. It's a rather large site.

PAULINE: Uh huh.

CHAD: I don't remember the dimensions, I always get mixed up.

JOHN: I can't convert it.

PAULINE: That's all right.

ANDY: That's all right, we're supposed to know our meters by now, anyway.

PAULINE: Well those of us that don't probably will never learn. But we'll muddle through, somehow.

JOHN: Just figure yards, yards are ---

ANDY: Yards are ---

PAULINE: My son doesn't think his mother is very bright. That's beside the point. Ah ---
ANDY: That's standard for a son.

PAULINE: Yeah, I think it's pretty typical. Well I really, from anything that I have read or heard, or been told I --- like even cattle drives, why would they drive cattle through Harney County. There would have been no reason to drive --- it was nowhere, it was the end of the world.

ANDY: Well, we have heard some reference to --- there were a whole bunch of bison bones and skulls excavated out of what --- Malheur Lake.

PAULINE: When the lakebed went dry, and they farmed that in the '30's, they found buffalo skulls, yes. And Marion ---

ANDY: Do you happen to know a reference for that?

PAULINE: Well, my uncle was one of them that found ---

JOHN: Well, that's a good reference.

PAULINE: Is that good enough?

JOHN: That's excellent.

CHAD: Mazzoni has something down at the refuge. Did you talk to him about it?

PAULINE: Well, it's documented, it's documented, it's documented.

CHAD: He told me a definite number, a 138 I think.

ANDY: Well then he's found it since then. I asked him, and he said he would look for it.

JOHN: Also Peter Skene Ogden when he came through in '27, '28 mentioned them in his journal that there were several carcasses laying around the lake.

PAULINE: Uh huh. And Marion Louie out here at the Indian Reservation tells me, now she's, she was born in 1900, and as a little girl she liked to sit in the back of the room by the fire and listen to the old men talk. And she tells the story that she heard them tell of when the buffalo got a disease. They got sick and they started to leave the area. I mean to migrate out of the area. And the hunters went out and tried to turn them and bring them
back. And according to her, they chased them for a long, long ways. Maybe several hundred miles, or even further. Followed them, and tried to turn the herd, and turn it back. Now there is obviously a lot of folklore involved in that story. And whether they just all died and this was the story that they told, you know, to explain it, I don't know. But she's -- the people that are just older than she, that are a generation older had personal experience with the buffalo.

ANDY: So that's, so that's a good thing for us to know.

PAULINE: And unless I'm misinterpreting, you know, the story that she told me. And she loves to talk. And if you went out and, you know, asked her to tell you about the buffalo, she loves to tell stories. She has a story she'll tell you whether you ask her or not about the witch doctor and his son that got killed by a rattlesnake bite. He'd sent his son out to get bird eggs, and he got, reached in and the rattlesnake bit him, and then he found him days later hanging there dead. He got mad at his people, blamed it on them, and put a powerful curse on them, and they all got sick and died. Oh, it's always an involved story, she will tell you that one too. But, I may be misinterpreting what, you know, I've got the story on tape.

ANDY: Doesn't mind tape recorders?

PAULINE: Oh, she loves to tell, she loves to have an audience.

ANDY: What's her name again?

PAULINE: Marion Louie.

ANDY: How do you spell the Louie?

PAULINE: It's L O U I E. Her husband was a son of Chief Louie. Captain Louie they called him. He was the chief of the tribe.

ANDY: Now, that kind of information to us is very valuable.

PAULINE: Well, if you have, you know, any problems, I don't think you will. She has
always been very willing to talk to anybody. But ever since the TV channel came in, and did the program, and promised them all kinds of editorial control, and the right to see the movie first before it was shown to the public, you know. And then just went ahead --- Yeah, you're familiar with that story. Anyway, I don't know what, you know, if that has changed attitudes that much or not. Because I haven't tried to go back, and do any work out there since that happened. But that did happen, and not too long ago, and it was very upsetting to those people. But, so if you run into any problem, I have that story on tape. All I'll have to do is find it.

ANDY: As Scott was saying about this, about this stuff, equally important in this site, are the lithics. Is, one of the main reasons is because of the technology that they show.

PAULINE: Well that one piece you showed me with the, you know, it's perfect. It's absolutely perfect scraper.

ANDY: Yeah, a fundamental scraper. That --- this particular scraper shows the, you can see these parallel ridges which show that it was made off of a blade which --- this is a blade. And this is a prepared core that they would knock them off. They just bash, and then prepare a core. Off the flake would come. You can see how it run down the edge. This is a --- this one's wasted, it's used, you can't make much more without smashing your fingers. And we know that from smashing our fingers.

PAULINE: Uh huh.

ANDY: All three of us like to play with obsidian.

PAULINE: Uh huh.

ANDY: And what they would do is according to another archaeologist that we have helping us on the lithics. First name, John Fagan, he is the Corp of Engineers archaeologist in Portland. They would break off both ends of the blade. And then they would make the artifact out of it. Do we have the ---
JOHN: Well this ones ---

ANDY: Well, that one is a toy.

JOHN: ... All right, it was here.

ANDY: Here's a blade section, and they're starting to work on it. And here's another ---

JOHN: This may not be a blade; this may just be a flake. But it shows how they were working on it. They first started flaking downward like this, and then turn it over and flake this way.

PAULINE: Uh huh.

JOHN: And it's worked on both sides. They probably broke it, and then discarded it.

PAULINE: Started over, yeah.

JOHN: John has been doing this stuff for us and he says you break an awful lot of stuff.

PAULINE: Uh huh.

JOHN: But he also says that it would only take a few minutes ---

CHAD: Which is what this one ---

JOHN: It would only take about five minutes to make some of those arrowheads.

PAULINE: Uh huh.

JOHN: With someone that was real familiar with the technology. It's another thing we hope to do this fall is to learn how they did this. Try and use our inept fingers to try and reproduce what they ---

PAULINE: Yeah, there are two people here in town that turn them out just like clockwork.

JOHN: Yeah. John is another one of those people. He can really; he studied under a person in Idaho by the name of Don Crabtree who is an expert, quote unquote, in the northwest.

PAULINE: Uh huh.

JOHN: He's one of the few people I've ever ---
ANDY: Joe Petzoldt can really make them too, I hear.

JOHN: Run across, run across it to make clovis, projectile points. Just beautiful. So beautiful you can't tell them from the original. But it's the, lithics show this whole sequence of manufacture from the initial blade, and every step in between, all the way to the really finished artifact. And there are some beautiful arrowheads that, you should look them over.

ANDY: Actually further from the core --- just another bolder of obsidian.

JOHN: Yeah, from the nodule, all the way down to the finished product. We have basically three types of arrowheads on this site. We have a couple of others, but there would be various reasons for the reason why we have them. We have some older types, and it's known that the Indians used to pick up arrowheads off the surface of the ... and reuse them. Why make one when you can just pick one up. But we have three basic types. We have a desert side notch, cottonwood triangular, and the rose spring. And we have, those three make up at least 95 percent of the arrowheads that we have collected.

ANDY: That's rose spring corner notch if you're writing that down.

PAULINE: Quarter notch?

ANDY: Corner notch.

PAULINE: Corner notch.

JOHN: Corner notch. Yeah. That's an interesting piece you might want to look at.

ANDY: That's an abrader. An abrader for ...

PAULINE: That really looks rough. Well, if it was an abrader, it would have to be, wouldn't it?

ANDY: We think that was used for sharpening antler tines, which is a common tool to use for making arrowheads.

JOHN: Or maybe possibly for awls.
ANDY: To make ---
JOHN: Like basketry, or matting, or that kind of thing.
PAULINE: Uh huh.
ANDY: Or sewing together clothing.
JOHN: Yeah. Last time we were out there Chad; we found another one of those. All of those points overlap in time, they go back to about 1300 AD prehistoric. That's rough time period there ---
PAULINE: Well, I know what I wanted to ask this morning, I forgot. What does BP after the time period ---
JOHN: Before present.
PAULINE: Before present. Okay.
JOHN: They changed it from BC to BP.
PAULINE: Oh.
JOHN: It's two thousand years difference. So something six thousand BC would actually be eight thousand BP. Because it's two thousand years before, when Christ was here, to now.
CHAD: But you did say it was, this one was right at roughly three thousand years?
JOHN: Or it could.
CHAD: Yeah.
JOHN: We don't think ---
CHAD: This type of technology ---
JOHN: This type of technology does. We don't think this particular site does.
ANDY: Could run anywhere in that time period.
JOHN: Yeah.
CHAD: From there to here.
JOHN: We're talking about rose springs to the historic.

ANDY: Right.

PAULINE: When did they change that, Chad?

CHAD: Don't tell on me.

JOHN: It's just as confusing for us, because I have professors that just slip from one to the other.

PAULINE: And then you never know what.

JOHN: Why can't you just stick to one of them ---

ANDY: I like it when they go 1300 BP to 1400 AD.

PAULINE: You're going ---

JOHN: Let's see, no --- I just wrote it down like they said, and then change it back.

ANDY: And then calculate it later.

JOHN: Those teachers will do that a lot. There are also books like that a lot, that are not consistent. But the trend is toward BP. You know, it's just more straightforward. Once everybody gets used to it.

PAULINE: Uh huh.

JOHN: But BP is usually calculated from 1950. Because that's when they started radio carbon dating things.

ANDY: Yeah, I was thinking the other night ---

PAULINE: Now I'm totally confused.

JOHN: Do you know what radio carbon dating was?

CHAD: BP plus thirty. (Laughter)

PAULINE: Yeah.

JOHN: Do you know what radio carbon dating is?

PAULINE: Yeah, I got ---
JOHN: Well, that's when they started doing it in 1950's. So they calculate it, standardize the numbers, they calculate them all back from 1950 back.

PAULINE: Back. Uh huh. Well, that's good to know. I didn't know that, you know, I did not know that.

JOHN: Well they will have to change it someday though. Get too far ahead of fifty, and you'll have to ---

PAULINE: That's what I was going to say that --- present is 1980 that's ---

CHAD: Plus thirty.

PAULINE: Yeah.

JOHN: I was just thinking that it is possible that there might be enough charcoal, charred material inside that vessel, that date. There isn't? How many grams do you need?

ANDY: Ten.

JOHN: You don't think we can scrape off ten grams?

ANDY: Nope, no way. Ten grams is about a baby jar full. ...

PAULINE: That's a lot. Have to kind ---

ANDY: Those little Gerber jars. You'd have to stuff one of those full to get enough dark carbon.

PAULINE: You'd have to have burned up a whole roast, in order to ---

JOHN: We have lots of plans for analysis. We hopefully will get some obsidian sourcing through Lee Sappington up at the University of Idaho. They'll take some of our obsidian and through an X-ray diffraction.

CHAD: No, X-ray fluorescence.

JOHN: Fluorescence. Excuse me ---

CHAD: That's all right. They call XRF now.
JOHN: Yeah, I always screw those up. They're going to, you can tell --- you know more about it than I do.

JOHN: You can tell the trace element minerals in it.

ANDY: It's different.

JOHN: Yeah, each obsidian they call it fingerprinting obsidian. Each obsidian has its own scan of trace elements. And really small quantities like parts per million, or parts per trillion.

PAULINE: This isn't the kind of thing where they put it under a certain light and it shows different colors, that's something ---

JOHN: That's X-ray fraction. Or prism effect or --- Well what this is, they irradiate it. And then they count the irradiations from the obsidian and from these different counts, they can figure out how many parts per million of each different rare elements in there. And each obsidian is supposed to have specific scan of these rare minerals. And that way when you find an obsidian on a site, an arrowhead, you can find out where it came from, an if you know where that source of obsidian comes from, then you can say well this is where these arrowheads had to have been --- the material to make these had to have been quarried.

PAULINE: Because it matches up with the ---

JOHN: With the source material. And then you can say, well maybe the Indians traded for them down there, or maybe they actually went down and got the obsidian and brought it back. Or whatever. Or picked it off the site that someone else had gone down and got it and brought it back.

PAULINE: But this doesn't have anything to do with dating? Just to identify source.

JOHN: No, no a particular source. Yeah, right.

ANDY: It will help, it will help figure out, well it's in other sites, and it has helped figure out
trade routes. There has been Glass Butte obsidian traded all the way up to Canada. And through this sort of process they have figured that out.

JOHN: Well as another good example of trade routes, figuring out they got, they found an artifact in a Hopewell mound in Illinois that came from West Yellowstone, in Idaho. The obsidian came from West Yellowstone. So that's, you know, that's a good 1500, 2000 miles.

ANDY: A long ways.

JOHN: For obsidian to travel.

PAULINE: Yeah, I can get, I hope, some of the --- I'm taking notes. Yeah, I'm taking notes, but if I have it there, I can go back and get some of these little finer points that I might forget.

CHAD: I'll go explain this bonafide ---

PAULINE: Well the thing of it that happens is that you will give me much more material than I could possibly use or want to use. Because really I don't want to use anything that might possibly give anyone any kind of a clue that they could say, "Ah ha," you know. Pink stone, well I know where that might be, you know. Or I found something similar to that near there. And I wouldn't ---

JOHN: Or you're not able to tell from just looking at it.

PAULINE: No, no I know that. But I, you know, I really will keep it rather vague. And ---

JOHN: Sure. I would appreciate that.

PAULINE: That they're --- There is no point ---

JOHN: As I said to you this morning, I've only seen two sites that I'm pretty sure have not been collected.

PAULINE: Uh huh. There is no way for instance that I would say that it was the sand dune area, because ---
JOHN: Actually it would be nice if you said it was the sand dune area, I mean everybody and their dog would be out by Malheur Lake trying to find it.

PAULINE: Find it, yeah.

JOHN: They won't find it there.

PAULINE: Yeah.

JOHN: This isn't a place where you would normally expect to see sand dunes.

PAULINE: Well that's ---

ANDY: Yeah, well we'll get you ---

JOHN: That's why it's kind of neat, you know.

PAULINE: Yeah, yeah.

JOHN: It's in a real remote area.

PAULINE: But it's ---

CHAD: Pretty dam tough right now for everybody to pick up this site from what's left on the surface.

JOHN: Sure would.

PAULINE: That's good.

JOHN: Well Jan Peterson went out there, the fish and wildlife archaeologist. I told her how to get there, you know, all that stuff. And she said she went out there with one of her crewmembers and they couldn't find anything. You guys did a good job collecting that site, because there is nothing left to collect.

ANDY: I don't think they were in the right place.

MAN: I never found any evidence that ---

ANDY: We've been out there quite a few times, and ---

MAN: Maybe they didn't make it.

ANDY: Each time we go out there we see more stuff.
JOHN: They could have found there, because it's ---

ANDY: It gets uncovered by the natural wind action. Or this last time we were out there, there were all these little pockets that were dug into it. That had to have been coyotes, or something of that nature.

PAULINE: Uh huh.

ANDY: They turned up a whole bunch of soil.

PAULINE: Well every time the wind blows or it rains, or --- it freezes and thaws.

ANDY: It's, sand dunes are very fragile to begin with, though. Another thing that, when Chad was talking about his management policy of not disturbing an S-1 site, that's one reason why every time, we ... we appreciated it because it catches ...

... (Background conversation)

PAULINE: I think they found out down on the coast they have been planting grass on sand dunes, destroyed sand dunes instead of saved them. Down at Florence, instead of stabilizing them.

ANDY: Stabilizes them.

PAULINE: Yeah, stabilizes them.

ANDY: Well that's what they were trying to do is stabilize --- That's what they were trying to do in Florence, stabilize them so they wouldn't go over the highway.

PAULINE: Uh huh. Well, they did that.

ANDY: Yep. Well it took them about twenty-five years.

CHAD: One thing that really I think we'd all like to see is, what's down under the surface there. The anthills where they'd haul stuff in and bring it up, little grains of stuff ... The ants are hauling up the bits and pieces of obsidian.

ANDY: That's one of the things that Don Tulley said would be very important to do in the future. Is to do a test excavation there.
PAULINE: Uh huh.

ANDY: Well it is mine to recover more sherds, because he is very interested in sherd form, I mean in the form of a pot. That's his --- after talking to him that seemed to me to be his main focus right now. Didn't it?

CHAD: Uh huh.

ANDY: Trying to figure out what shapes they used.

JOHN: Also this site is, as far as I'm concerned, would qualify for the national register of historic places. But in order to get it to qualify, we have to decide, we have to make sure by doing a little bit of digging to decide how many different ages there were when it was occupied. Because we are pretty sure there was only one. But you can't tell that without digging down in the soil a little ways.

PAULINE: Uh huh.

JOHN: And in order to get it on the register, which we think we should do, I think if we didn't it would be a real injustice. In order to do that, we have to dig a little. And also it would be nice to uncover some carbon material and date it.

PAULINE: Uh huh.

JOHN: And also maybe get some bone frag--- large bone fragments so that we can see if there's any sort of --- what type of animal was actually killed there. Because we aren't sure. And it's possible we could come up with some sort of jaw fragments, or skull fragments that could indicate whether it was cow or bison. Those three things generally would be, three problems we would be looking at if we were doing a test. And also if there is any depth, you know, any great depth.

PAULINE: Uh huh.

JOHN: So --- But even though we did, I want to make --- emphasize, even though we did collect this site, I'm really sure there is a lot more there. It's just underneath sagebrush,
you know, in these little sagebrush islands where the soil is built up, you know, six to eight inches above the blowouts, where we found all of this stuff.

ANDY: Another thing that's important, is when we say that we collected the site, we didn't just walk out here and pick up everything we saw. We took a transit out there, and we mapped in with a transit the precise --- as precise a location as we could for each artifact and each piece of pottery that we have. We have a precise location for.

JOHN: That might be something that ---

ANDY: So we can go out there with our map and our notes, we could put everything back.

JOHN: That's something that you might want --- I'd appreciate if you could get a chance to maybe somehow put that into an article. Because the biggest complaint we get from --- well there is two complaints that we get from people that collect amateurly. Is that we don't --- all archaeology is professional pot hunting, which is just going out and picking up stuff we like, like they do. Except we have a degree, or a job so we can justify it. And second of all, that other complaint is another thing we will probably end up doing, is they always say that we take the stuff and never bring it back. You take it away from Harney County, but it never comes back. It ends up in a drawer in Eugene or Corvallis, or wherever. And we're interested in bringing some of it back and putting it in a museum.

PAULINE: Uh huh.

ANDY: Yeah, that's another one of our hopes, it's a goal that we have. Develop a display for Harney County Museum.

JOHN: Because we feel as though the people around here have enough interest obviously in archaeology and artifacts that we should show what we found, and describe what we found, and give them a good idea of what's going on.

CHAD: Okay, I want to make the distinction right here.
JOHN: That's our hope.

CHAD: We're talking about two different functions, that BLM and they are working as agents for the antiquities permit. And Mel Aikens over at the University of Oregon. Now this is part of the Steens Mountain project. And it's probably --- will be formally turned over to Mel.

PAULINE: Uh huh.

CHAD: When they go to Oregon State, but it isn't, it's not these --- their personal project, its part of the big project.

PAULINE: Uh huh.

CHAD: And they have been working with Mel, and Mel took on this part because they agreed to work it up and get it done. And when they're talking about we, it's not the BLM ---

PAULINE: It's the Steens Mountain project.

CHAD: It's their association with that group, and the analysis on it.

PAULINE: How do you spell Mel Aikens name?

CHAD: A I K E N S.

PAULINE: Well, I did that one right.

JOHN: It's C. Mel Aikens.

ANDY: It's capital C. period.

JOHN: What does that stand for?

ANDY: Clyde. It's not common knowledge.

PAULINE: He wouldn't like to see it in the Oregonian, in other words.

JOHN: No.

CHAD: I didn't even realize he had a C. on it.

JOHN: Oh yes, C. Melvin Aikens. The next time you see him, you can call him Clyde and
he won't know who you are talking to. (Laughter)

ANDY:  Don't tell him I told you either.

PAULINE:  That Steens Mountain project now that --- that Oregonian article kind of mislead me to believe that it was just the two Washington Universities.

JOHN:  No, it's a joint project between the University of Oregon, Washington State, and the University of Washington.

CHAD:  Well one of you said it was slanted towards Pete Mehringer's work.

PAULINE:  Uh huh.

CHAD:  And Pete Mehringer is from Washington State.

PAULINE:  Uh huh.

CHAD:  And then Don Grayson, who had done the faunal out there, is from the University of Washington, and the third member is Mel Aikens, who did the cultural resources.

PAULINE:  He is the ---

CHAD:  The archaeology work.

PAULINE:  He's the cultural ---

CHAD:  And bouncing through the, or I guess talking to the people, and cultural resources, and those outside, and National Science Foundation Research Committee, who decides on grants. They just don't come any finer than that.

PAULINE:  Uh huh.

CHAD:  That group of three. They're all leaders in their field, and well respected by ---

ANDY:  They are --- that's extremely true.

JOHN:  Yeah, I notice at the meetings all three are really well known. Well obviously Mel Aikens would be because he is a Great Basin ---

ANDY:  Before people at the Great Basin, explaining to all the archaeologists there, what was going on in the Great Basin. One of those four was Mel Aikens.
PAULINE: Uh huh.

ANDY: And that's with --- you know, there were several hundred archaeologists there.
So he is extremely well known and well respected.

PAULINE: You found this pottery, just last week?

ANDY: No, months ago.

PAULINE: Oh.

ANDY: Seems ages ago.

JOHN: May 13th.

ANDY: June.

JOHN: Sure it wasn't May? I found it before I did my thesis defense. Because I told my advisor about it when I was up there.

ANDY: We found it in the course of our regular survey.

PAULINE: Uh huh.

ANDY: Just walked across it in our two hundred foot transects.

JOHN: 6-23-80, that ---

CHAD: Okay, 6-23, that should have been a Sunday.

PAULINE: And you said when you first went through it, you didn't see the pottery.

ANDY: No, that's true.

PAULINE: You were looking for pottery, and you didn't see it.

CHAD: Well, that was a Monday.

JOHN: Well, you see something like this lying, you know, in the dirt, and there's lots of flat rocks along with it. It's, well like I said to you earlier, if your eyes aren't trained to see it, they just don't. I sure look for it now.

PAULINE: Uh huh.

in June. (Laughter)

CHAD: Instead of May.

PAULINE: It's a long summer.

JOHN: I guess, it has. It went by real fast.

ANDY: No kidding, it seems like it was just yesterday.

PAULINE: Chad, what's the technical title of this whole idea of doing this inventory before you do anything? There's a national law, or something that has a, about five or six letters, you mentioned earlier, would this come under?

JOHN: Let's see, a National Historic Preservation Act.

PAULINE: CFR, maybe that was it.

JOHN: CFR 800.

ANDY: No, it's Code of Federal Regulations.

CHAD: I didn't use that, if she's quoting me. I guess cultural resource management by the Bureau is a relatively new item. And Oregon has really been active in it in the last five years, that we've had district field archaeologists. And are really being responsible for the management of cultural resources. And as part of our management charge, we have responsibilities to consider cultural resources along with all of our other resources. And to protect those cultural resources. And this is why we're into the project right now. And before we destroy something, like we talked about this pottery site, that if we had drilled through it, chances are --- it would have never been discovered. I --- it was a, quite unique as it was, but I doubt anybody other than a trained archaeologist would have picked it up. The area where it was found, the color of the ground and the native stones and everything just blended in so well that I think Andy, when he found the spot and did his first ...

JOHN: ... these things.
PAULINE: Uh huh. Does ---

CHAD: ... of thumbnails, and then once you get to looking for it

---

JOHN: All over the place!

CHAD: Now it was smooth and slight angles and so forth, and you could pick it up. But it was --- and it wasn't that good a surface site. It was quite dispersed. Although there was a lot of material there. It was scattered over a large area. And these are the things that we don't want to do in some of our project work, is to destroy a piece of history that can't be reconstructed anyway. And then we discussed the significant ratings that we use, and how we evaluate it, and how that site will be treated. Now I referred to SHIPO, and that's the State Historic Preservation Office. And on cultural resources that we, we impact, we are required to consult with SHIPO on it. And in order for us to treat those sites that, that we treated, or planned to treat, the twos and the threes. The recording and field notes and drawings of pictures that you saw the crews making today are --- make a permanent record of what's at that site. And serve as adequate mitigation for those things. The S-1 sites, we have not treated those, any of those sites. We have avoided all those, the ones that are the best. Now should at some time in the future we want to treat one of those sites, then we'll have to go through a salvage operation and salvage the cultural resource data off of those, providing it's not a site that's of national register.

PAULINE: Uh huh.

CHAD: Significance that Scott mentioned, if it happens to be, then that site won't --- pretty well from that point on that site is dedicated a 100 percent to cultural resource management ---

PAULINE: Uh huh.

CHAD: --- and protection.
PAULINE: Do you think that will come about as part of this study?

CHAD: I don't really know. There are very, very few sites of significance in Oregon. So far, as far as the Bureau is concerned, and the stuff we've got, we've got some identified in Vale that are national register significant. We've got some that are in Lakeview. Now I'm not sure that the advisory council and the keeper of the register agrees with them. But SHIPO agrees that they are. And the archaeologists that are working in the district think they are. And most archaeologists think they are.

PAULINE: Uh huh. The process that you go through, I know from--- seeing what Carolyn Talbot went through on the Sod House ---

(END OF TAPE)