Smithsonian Folklife Interview

Walt Thies Research Plant Pathologist, Pacific Northwest Research Station Corvallis, Oregon

April, 2004 Interviewer: Yasmeen Sands; Sherri Richardson-Dodge

Yasmeen Sands (YS): Good morning. Can you state your name?

Walt Thies (WT): Sure. I'm Walter Thies.

YS: And where do you work?

WT: I work for the U.S. Department of Agriculture Forest Service, at the Pacific Northwest research Station. I work at the lab in Corvallis.

[Discussion between interviewers]

YS: Today's date is April 22nd, 2004.

So I understand that you are a research plant pathologist. What exactly does a plant pathologist do?

WT: A plant pathologist works on diseases and abnormalities of plants, much a doctor would on abnormalities in people. A closer analogy might be working with infants, because you can't ask the tree where it hurts and what's wrong. You have to go by observations and do tests to determine the problem and offer solutions. In my case I work on root diseases, and root diseases of conifers. I work here in the West. I haven't really worked in the East very much. And I'm basically working on silvicultural approaches for managing and controlling root diseases.

YS: And how long have you been in your field?

WT: I started in graduate school in 1965. So basically I've been working in the field since then.

YS: And what exactly attracted you to the field of plant pathology? What was there about it that captured your professional interest?

WT: Well when I was in undergraduate school I had a course in entomology and a course in pathology, and I liked both of them. And I had the pathology course first, and it was time to apply for graduate school, and I applied for graduate school in a pathology context, and the next semester I had an entomology class, and I liked it even more. So if the classes had been reversed I would have probably been doing entomology instead of pathology. But I enjoyed both of them

YS: That's great. So you work with wood professionally. I also understand that you work with wood on the side. Can you tell us a little bit about your hobby and how you work with wood?

WT: Sure. I do all kinds of things with wood. I make wooden toys; I make wooden implements of one sort and another, and in recent years I've been mostly doing wood turnings, using a lathe and turning bowls or small objects out of wood. Sometimes big objects. I have some twenty-four inch diameter potato chip plates, for example, that get fairly large and fairly exciting when you start spinning something that large on a lathe.

YS: So what is it about woodworking that appeals to you?

WT: I just like the feel of wood and the way it looks. It's always exciting to take a piece of wood and try to imagine what might be inside, and you really never know until you get into it. And you can't tell how a piece is going to come out, although you might have some ideas. But I enjoy that, just that unknown aspect of looking at the piece of wood and then finding out what's really inside. And the many problems in trying to solve how to turn a particular piece. I frequently end up settling on making a particular thing, and I'll make three or four of them and then I'm ready to move on to another thing, because I've solved all the problems there. So I'm not, I don't consider myself having specialized in any particular kind of wood turning. I just do all sorts of things. Things that require vacuum chucking, goblets, bowls, tops, toys, it doesn't matter. I just enjoy the challenge of creating.

YS: Okay. When did you first start working with wood?

WT: I probably started playing with wood as a teenager. My dad didn't have much of a shop, and in those days all we could afford to do was go to the grocery store and get old orange crates and bust them up and make things out of that wood. But I think my wife and I, when I first got married my wife and I decided that we wanted to give away some wedding presents and we wanted to give away some Christmas presents, and we just absolutely didn't have any money whatsoever, and I could pick up pieces of wood here and there and I could make something out of it, so we decided, we just sort of adopted a policy of making gifts that we'd give away, and we still do that. Ninety-five percent of any gifts that we give for baby presents or baby showers or anniversary or Christmas presents are made out of wood here in the shop. Or my wife will make some things in the kitchen. But basically if we think enough of somebody to give them a present, we feel it's worth some of our time to put into making something for them.

YS: You mentioned one of the, I guess problems working with wood was trying to figure out [microphone noise makes several words inaudible]. What kind of wood do you work with, and why? Does each have different qualities that you like to use?

WT: I like to work with almost any wood. I prefer hardwoods rather than conifers, although there's a few conifers that you can make some things out of that are kind of nice. Yew wood is nice to work with. I've turned some very large pieces out of Douglas fir. One of the, the largest vase in fact that I've ever made was about sixteen inches tall and made out of Douglas fir. And it was a striking piece, but it's a real pain to work with, so I prefer to work with hardwoods,

because I can get a smoother surface and I don't get splinters coming off, and things don't usually flake away quite so easily. So... And then I don't have the pitch to deal with, [A few words unclear] dealing with hardwoods. And so I prefer hardwoods, and these lots of different hardwoods. I would prefer something with figure in it, or something that's got some color to it. But recently we've even started coloring some woods after we turn them. And that's something I haven't explored quite as much as I want to yet, but it's just a different technique. Like I say, I keep trying new things.

YS: And how do you come across the different types of wood that you use? Do you go out in the woods and get it? [Rest of sentence unclear]

WT: Lots of different ways. But I have a fetish about not purchasing wood. So generally speaking, if I'm out... And I have a chain saw, and I do a lot of chain saw work, so people will call me, friends, and say, well, I've got a tree I want to take down. If it's not too close to a house or outbuilding I'll go out and help them take it down. And if there's a piece of crotch wood or if it has a nice figure or if there's a burl on it or something like that, then I'll haul a couple pieces home and leave the rest of the wood there for them. In the early times when I was starting on this, back in the early '80s, mid '80s, each time somebody would give me some wood I'd end up turning a bowl or something and returning it to them, and the word kind of got around and the next thing I know people are dropping off wood in my driveway, and it wasn't unusual for me to come home and find a log laying in my driveway and three weeks later somebody would say, oh, did you get that piece of burl wood I dropped off for you? And I'd say, oh, you're the one who did that. I wouldn't have any idea where it came from. So, that's... I come by stuff just by way of people giving me wood. And usually... I try to get things locally rather than... I don't go away to get it. But when I go visiting we go back in Missouri, which is my home grounds, and I've brought back some osage orange and a few things like that from there. And it's not unusual to find a piece of wood or two tucked into a suitcase when we come back from a trip. [YS laughs] I pick it up wherever I can.

YS: That's great. You mentioned a lathe. What exactly is that, in just a couple of words? And what kind of equipment do you use.for [words unclear]? Just a quick summary.

WT: A lathe. It's basically a motor with a sharp end on it, and a flat bed, and another sharp end on the tail [sock?]. And you put a piece of wood between them and turn them. Or if you're going to do a flat piece you can use a face plate, and that goes on the motor, and you screw the piece of wood to that and hold it on with screws, and run a chisel up against it and make chips.

YS: you mentioned sometimes when you look at the wood it kind of inspires you to create things. Other than looking at the wood, are there some other inspirations [a few words inaudible] when you're working with the wood?

WT: Well I look at the grain, such as I can see on the outside. And you have to be a little careful, depending on the particular species of wood that you're working with. I know that certain things will shrink a lot and others will shrink a little. And I know that wood in certain moisture contents I have to be careful with. So lots of times ... I make out of the piece what I think I can make out of it, although usually I have an inspiration for making a certain thing and I go searching for the

chunk of wood that's laying outside in the pile of wood that we have around the house that you guys saw on the way in. And I'll want a light wood or I'll want a dark wood, or I'll want one that's figured, or I'll want a piece of crotch wood or something like that. And so those things are all out there and they've all been lying around long enough that they've lost a lot of their initial water. And so it's a matter of rough-turning something and then setting it back, letting it dry for a while, and then doing the finish turning on it. In the case of some of these small things like the mushrooms that you were looking at a little bit ago, I always turn those out of green wood, and they come from a piece of branch; and normally a piece of... Hand me one of those mushrooms.

Okay. This was a piece of holly that was sitting here in the shop last night. And so I cut these off and rough turned it. And then I decided that I didn't want to re-turn it, so I went ahead and sanded it while it was still green. So this was a live tree three weeks ago. And after parting it off I put it in the microwave for a bit until it got pretty warm, and then I take it out and let it sit for a while and then I'll put it back. And I'll do that several times. And what that does is it drives the water out, and it dries it so that it won't crack. Had I left it jus turned and not dried, by now there would be a big crack appearing down in here and there would be another crack up here in the cap someplace. So the microwaving in this case gives me an artificial drying time and allows me to complete the piece without its cracking. I might or might not put finish the wood. Usually I like to put a light coat of what's called a French polish, which is just linseed oil and shellac mixed together. And that seals the wood. The linseed oil tends to bring the color out. Hand me one of, no, no, that one. That one will do fine.

This is a piece of mahogany from the east side of Oregon. It's a native wood. And I like it because it's just a real fine grain and it polishes up nice. But I put our French polish on this because then when people handle it you don't get fingerprints on it. Little kids like to sometimes chew on these things and all, so shellac is a good safe sealer to put on for that sort of thing.

YS: Can you show us a couple samples of your work, and can you tell us a little bit about the wood that you use in the process?

WT: Sure. This is a piece of yew wood, and what's unusual about this bowl is that I turned three legs on the bottom of it. So it kind of sits up. It has a different appearance when it sits on a table. This bowl is made from a piece of oak burl, white oak burl, and it's spaulted, so these are all lines that were formed by fungi that were living in the wood. Of course with drying that dies, but the color stays, and the line stays. I like the appearance of something like that. This is what's called a natural edge bowl. It's turned with the natural edge of the outside of the piece of woos still on it. This is a piece of maple burl from big leaf maple that we have here in the coast range, and there's all the eyes of the burl you see both on the inside and on the out. And that's an interesting piece because you end up holding it from this side with a vacuum at one point to finish the bottom of the bowl off.

This is a different kind of piece. This is a piece of walnut, and it's been made into a platter that's about an inch thick. It's seventeen inches in diameter, and in this case there were cracks because of this knot that's in there, and I put some ground-up turquoise in the cracks, and then polished it up. So I don't know if you can catch the appearance of this. Anyway I think of that as an attractive piece that I'm going to be sharing with someone.

YS: How long do some of these take you to make? [Rest of question too far from microphone to be heard.]

WT: Well, a little top like this can be done in probably five minutes or less. This top is somewhat similar, and maybe three minutes to do something like that. A bowl, it's hard to say because I'll take the wood and I'll rough-turn it, and it's wet at that point; it still has to be dried. Can we turn the camera off for a second?

[RECORDER TURNED OFF, THEN TURNED BACK ON]

WT: This is a bowl that's turned out of elm. It's going to be very difficult to see this on the camera, but there are chevrons to be seen in the bottom of this, which comes from the peculiar [word unclear] of the cells that elm has, and the pattern that those cells make in the wood. So in the annual rings you can see little chevrons.

YS: [Question too faint to hear]

WT: Like the stripes on a sergeant's sleeve would be a chevron. Chevron gasoline has this symbol. So that's the way this looks, only lots of them all lined up.

We were talking about the rough-turning wood. This is a bowl I rough-turned a year or so ago, and it's sat up in our attic and has dried, and you can see it acquired kind of an oval shape to it. And so how much a piece of wood is going to shrink and how oval it's going to get helps you decide what you're going to make out of it. In this case In this case I left, the sides over here are probably three-quarters of an inch thick, and this part is maybe a half-inch thick, and I know that when I put this back on a lathe and turn it again I can still get a piece that looks very much like that, but it'll be considerably thinner. But this a piece of ash; it's Oregon white ash, it was grown locally. And when I helped the fellow take the tree down I kept a couple pieces of wood from the crotch, and these two streaks in here are part of what was the crotch of a large branch on the tree. I'm looking forward to finishing that. It will polish up nice.

YS: this is probably a pretty hard question. Do you have any favorite pieces, or are there a couple pieces that stand out, that you have here.

WT: But I don't have them here, that's the problem. If I did it and really liked it I gave it away. So. This platter, I consider this a fairly nice piece. There's a lot of work that goes into getting something like that to final form. When you asked the question about time... I don't really start on one of these things and work it all the way through. So I don't remember how much time I spent a year and a half ago rough-turning this piece. It'll take probably an hour and a half or two hours to finish this now that it's turned to the point. And getting it to that point before, I don't know. It might have taken an hour and a half to do before. It started off as a fairly massive piece of wood, and so there's a lot to be removed and you have to take it away carefully. If you try to [hug?] the wood away too fast you'll get cracks in there. Some of these pieces, like this piece, when I rough-turned it, it probably only took twenty minutes to rough-turn. It's not as massive as that; it wasn't as complicated. And this piece probably took only fifteen or twenty minutes to rough-turn. But then that's leaving a wall that's three quarters of an inch thick or so, and it's not very pretty at that point. There's no finishing that's involved. You just take a chisel and take away the wood that you don't want.

YS: [Question too faint to hear]

WT: Well, I worked with the Scouts when my kids were in scouting, and I worked with neighborhood kids that drop in with my kids, and they have an interest, and we check with their parents and make sure that everything's okay for them to try it; and if possible I'll get a parent here so that we can make sure that they're happy with the safety of the issue; and I'll spend some time with them, showing them how to do it. Sometimes they try it for a little bit and they don't like it and that's the end of it. And other times they want to come back and make things several times. This past winter I worked with some of the youth from our church, some of the high school youth from our church.

Today the school districts have by and large cut out their shop programs, and so the kids aren't exposed to woodworking. They never have an opportunity to try to turn something and decide whether that is something they would like to do again or not. When I was in school we had shop classes and we were exposed to some of these things. You had a chance to sample lots of different things. You could take a class in sewing or you could take a class in homemaking, which frequently ended up being cooking of some sort. Or you could take a class in shop and make some wooden things. So we were exposed to those kinds of things, and now that's not true. The school districts just don't have the funding to keep all those programs going. And there's very few schools in Oregon, very small percentage anyway in Oregon, that still have shop classes. So these kids aren't exposed to woodworking and that sort of thing. And so the youth director at our church decided that last year and this next year she was going to set up opportunities for the kids to go and try watercolors, for example. There's some people that are doing watercolors, and they're going to work with the kids to show them how to do it and let them have a chance to try it. There's a couple people working on pottery, and I was working with wood. And there's other skills and activities that they're giving kids a chance... All of them aren't going to do it. It's purely voluntary. And so the ones that say yes, I want to, and sign up for it and their parents are okay with it, they can come over here. And we're always sure that there's at least two adults and sometimes three present so that we're sure that if I'm helping somebody in one place, somebody isn't doing something foolish with a tool and maybe getting hurt. So the safety issue's a concern, and I've purchased a whole bunch of hearing protectors and eye protectors, and we make sure that the kids wear those things at all times when they're in the shop. 'Cause there is some noise associated with it, although I don't think it's excessive, but nevertheless we want to make sure that they're okay and look out for that.

YS: [Question too faint to be heard]

WT: Well, people do other things than just do arithmetic and writing all their lives. They do some things for recreation, and this is just another recreational activity. But it's not quite as easily learned out of books as would be math or reading or history or other things that people might study. So by having some hands-on time and spending time with somebody showing them how to do this, you're able to pass on this activity which they might not otherwise pick up.

YS: Have you demonstrated your craft at fairs and public events and [word unclear] also?

WT: Yes.

YS: Can you talk a little bit about that?

WT: A couple of the woodworking clubs I've been involved with... We have a wood turning club in Salem, there's actually now three now in Portland. I started off traveling from Corvallis up to Portland, ninety miles one way, once a month, to go to a turning club in Portland, and I was with those guys for about fifteen years, and then we started a club down in Salem, there were enough people down in this area, and now we have another club that's started down in Eugene, and there's one over on the coast, and one's getting started up further south, I'm not sure exactly where they'll end up meeting yet. But people are just gathering because they have a common interest in wood turning, and so the group in Salem and the group in Portland both have set up booths at the invitation of the fair organizers at the state fair and at our local county fair. And they'll set up a square of tables and we'll set up some of these mini-lathes, and stand there and turn small objects, and answer people's questions about wood turning. And we frequently have a handout, a flyer laying there that gives the names and addresses of some of the local clubs so that they can make contact with them if they wish. There's no selling a lot at these kinds of things, and that's good, because then you're just purely passing along information. So we stand there and demonstrate, and then as people come and ask questions about the tools or how you do something, or how you'll handle a certain problem that comes up, we can talk about it.

YS: [Question too faint to be heard]

WT: Well I was first introduced to wood turning at an event up in Portland. They have a woodworkers' show up there every year at the Coliseum, well it used to be at the Coliseum. It's changed venues a couple times. And there was a fellow who was doing some turning, and I was sort of interested in turning; I'd done a little bit of that in high school, but really hadn't gotten too terribly involved. And one of my kids was with me, and they thought it looked like it would be neat, and I thought it was neat, and so we said what the heck, and I found a used lathe and bought it and brought it home. And my youngest son one time when I was out in the field for about a week, my wife tells me he came down to the shop and spent eight or ten hours every day, working at the lathe until he mastered the tools. No instruction, just doing it on his own. And so that's sort of played with it. I learned what I could, and when I found out there was a club in Portland I started going up to that club. That club didn't actually form until about '86 or so, and our club in Salem started about '97 or thereabouts. '96.

YS: Are there any connections between the work that you do as a forest pathologist and wood turning? [Rest of question too faint to hear.]

WT: Well I'm not sure if you can really know what part plays against what. But my minor in graduate school was in mycology and so I had an interest in the interactions of the fungi in forming zone lines such as we have on this piece, or zone lines such as you have formed here, or

formed at interfaces between two different fungi as they're trying to occupy the same piece of wood and they set up their defenses along those lines frequently, trying to [rule?] one another out and claim the piece of wood for themselves. So I had an interest in the fungi and the patterns that they make in wood, so there's a connection there to the extent that I generally look for pieces of wood that others might see as damaged or defective in one way or another, and I like to turn pieces out of that because I think they add interest to the wood.

YS: [Question too faint to hear; apparently asking if he has anything more to add]

WT: Nothing I can think of.

[Recorder turned off, then turned on again in mid-sentence; WT displaying his lathe.]

WT: ...Show you what a lathe was. This is a lathe. This is called a mini-lathe because it's fairly small. I have another lathe on the other side of the partition there that weighs about eight hundred and fifty pounds. But this one weighs about fifty pounds, and if you were going to put on a demonstration such as I do at the state fair or I do at woodworking shows, I would use something like this, because it's small, it's light, it doesn't make very much noise. It throws chips but it doesn't really throw pieces of wood if something happens to come out. So it's a safe thing to use when you've got an audience that's standing right there. For turning the mushrooms I start out with a piece of branchwood like this, and you just put it between the centers, crank it up, and then it spins. And you use a chisel resting on the tool rest to carve things away. And this is a piece of birch, and here's the mushroom that came out of a piece of wood like this that I turned last night. A reason for doing mushrooms like this at a demonstration is that I can turn out one of these mushrooms in ten or fifteen minutes. I can sand it; I don't have any finish on this, but it can be done and you can give it to somebody who's standing there watching if you wish and it's a fifteen minute task. Little tops like this are another good thing to do. This only takes three to five minutes to turn. This is a single piece; it comes from a piece of maple. In preparation for a demo one can buy or make rounds of maple and have them cut to length, and normally you'd start out with a piece that's maybe five inches long and you'd turn two tops out of it. This is a three to five minute task. This decoration on top is done with another tool that vibrates as you hold it up against it. Again that adds thirty seconds to the construction time, and then we have some special magic markers that are for staining wood, and that can be used to put some color to it. This is neat for demonstrations where you're dealing with the public because there's always some kid standing there watching and you can hand that to him after you're done. But you make enough of these that if you did it at the Festival, for example, and you're running it for ten days and maybe eight to ten hours a day, you could turn out a thousand of these easily. So there'll be a need to plan for materials to be delivered to site and stuff like that.

YS: But that wouldn't be hard.

WT: Oh no, no, no. It's easy. These things are easily acquired. And with the Forest Service's connection with the wood products industry I'm sure that most of it could be donated. [Laughter]

END OF INTERVIEW