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## Carol and Barry Beaman

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#### Homecoming 2010, The Ames Library

Meg Miner: My name is Meg Miner and I'm the Archivist here at Illinois Wesleyan and today is Saturday October 9<sup>th</sup> and it's a beautiful homecoming day and I'm here together with two graduates of our university who are going to introduce themselves and tell us a little bit about their time here, so please tell me your full names and your years and your majors and we'll get going.

Barry Beaman: Well I'm Barry Beaman, Barry B. Beaman, Class of 1965 and my major was Physics.

Carol Beaman: And I'm Carol Beaman, maiden name was Gray, Class of '65—'66, excuse me, and my major was Mathematics.

Miner: Okay, you wanna start just by telling us a favorite memory you have of your time here?

Barry Beaman: I guess working on the Behr Observatory, restoring it, and getting telescopes working in it, and that sort of thing was a high point for me.

Miner: So tell us a little bit about that please.

Barry Beaman: Okay, well—

Miner: This is a big anniversary for an observatory that came later but you were a part of work on the observatory—the original observatory on campus that was then restructured—just sort of to give people on the recording an idea of what we're—

Barry Beaman: Right, and I started the initial work on the 18-inch telescope that was first used in the Mark Evans Observatory as well. I came to Illinois Wesleyan because it had an observatory and apparently an astronomy program and when I got here, as a freshman, I wasn't really allowed anywhere near the observatory.

Miner: That's—

Barry Beaman: I think I got into it once and once I saw it I thought, "Why am I here?" because I found an observatory that had a cast-iron pier with chipped white paint all over it and on top of that was something that looked like a thrust bearing that rotated through 360 degrees with a cast-iron pipe tee sitting on top of that with a diagonal mirror stuffed in one end of it and coming out of the "L" was the eyepiece holder for a 6-inch refractor that had been attached to the other end of this tee. The refractor's top end, where the lens was mounted, was suspended on ropes from the shutter of the observatory.

Miner: Oh dear.

Barry Beaman: It was—it looked to me as a totally unworkable situation. I asked the—one of the lab assistants who was actually a fraternity brother, I was in Acacia Fraternity, Denny Carnine—I said, "How does this thing work?" and he says, "Not very well."

[All laugh]

Barry Beaman: But they were using it. Well, okay, the following year, Ray Wilson joined the faculty and became the physics professor and the observatory became a focal point for the two of us to try to do something with and so we took the 6-inch down, got it out of the way, we found a 4-inch brass French-made refractor, we found what we think—thought was the old mount for the 6-inch and we got it back on top of the pedestal, we got the 4-inch refractor installed on that, and we got some observations going.

Miner: So you found all of these in the building?

Barry Beaman: These were all—

Miner: Okay.

Barry Beaman: Still in the building—

Miner: Okay.

Barry Beaman: Available, yeah. So then the—we started working on the 6-inch, trying to figure out could we use the old tube? Well, six inches have been cut off of it and thrown away, so we were—that was gone. The idea of using the old tube was going to be rather—it was a conical tube of two cones going away from the central support—and that was going to be problematical trying to get some sheet metal work done on that, so we bought a, I think, a 7-inch diameter irrigation tube—

Miner: Hm.

Barry Beaman: And cut off the proper length and manufactured a tailpiece for the thing. In fact, I think the local Astronomy Club came to our aid on that. I think the tailpiece was machined by a gentleman named Bob Mayo who was a member of the Twin City Amateur Astronomers and had a lathe in his garage and I went out there with this block of aluminum that the Physics Department had purchased and he laid it out, whittled it out on the lathe, and we inserted it into the new tube, it fit, and mounted an eyepiece rack and pinion mount on the thing and got that working and then we made an adapter to allow us to hook the cell for the 6-inch mirror, the original cell, on the front end of this tube and we put the thing all together and after a couple year's work, got it into the observatory and by then David B. Williams had come in as a student and he and I were working—I think I was a junior and he was a freshman and we were trying to assemble a lens and—or we had taken the lens pretty much as it had come off of the 6-inch tube—

Miner: Hm.

Barry Beaman: Hadn't disturbed the cell or anything—put it on the telescope, set it up, pointed it at Sirius, the bright star in the sky from Earth, and saw this horrid image with all kinds of glare and circular rings and things like—just a horrid view.

Miner: Hm.

Barry Beaman: "What have we done? We spent all this money on this lens and it's no good."

[Carol Beaman laughs]

Barry Beaman: "What has happened here?" Well, Dave and I took the thing apart and we very carefully took the postage stamps that celebrated—separated the two elements—

Miner: Literally?

Carol Beaman: Mhmm.

Barry Beaman: Yeah, that's the way the old lens-makers did that.

Miner: Oh, I didn't know that, huh.

Barry Beaman: The Clarks did it. This wasn't a Clark lens, it was a French-made telescope also.

Miner: Was it a Brashear?

Barry Beaman: I don't think so, I don't think it was a Brashear.

Miner: Hm.

Barry Beaman: I'm not—I don't remember what it was, but anyway, we separated the elements, we cleaned them, and we tried putting them back together the way they were and the two lenses contacted as we set them together, so we knew they weren't—it wasn't a symbol property assembled properly. We flipped the lenses over, tried the lenses in a couple of combinations and finally in one combination we felt it kinda go, "Pfftt," like it was trying to suck together. We pulled it apart real quick, put the postage stamps in, set it down in there, put the thing together, took it out, put it on the tube, and pointed at a bright star and, "Wonderful!"

Miner: Wonderful.

[Barry Beaman laughs]

Miner: Oh my goodness, how satisfying.

Barry Beaman: So we knew we had a lens that worked, so the 6-inch was back in operation

again.

Miner: Wow.

Barry Beaman: We mounted the 4-inch on as a photographic guide and I don't know if we ever really made any pictures through the telescope or not but we got it going and so then this turned into a step-by-step progression and Professor Wilson just kind of let us work along on this thing.

Carol Beaman: Well the pictures were made through the 6-inch I know.

Barry Beaman: There were—that's right, we made a moon picture through it.

Carol Beaman: Yes.

[Carol Beaman and Miner laugh]

Barry Beaman: And Carol—we made the pictures during class—

Carol Beaman: Mhmm.

Barry Beaman: And then on Saturday following while we were on a date, we went over to the dark room in the Physics Department and—

Carol Beaman: Which we got a lot of flack for—

Miner: I was—

Carol Beaman: From students.

Miner: Not going to comment.

[Carol Beaman and Miner laugh]

Barry Beaman: Process the image and when I dropped her off at Pfeiffer Hall—and I'll let you tell the rest of this.

Carol Beaman: Well, in those days there were hours—

Miner: Yes there were.

Carol Beaman: For the dormitories, for the women, and so when he dropped me off at the dormitory, at Pfeiffer, the prints were still wet, so I had to carry them in and immediately someone grabbed up the print and said, "They really do look at the sky!"

[Carol Beaman and Miner laugh]

Carol Beaman: "They really do process film in the dark room." [laughs]

Miner: You had photographic proof.

Carol Beaman: Right.

[Carol Beaman and Miner laugh]

Carol Beaman: So the pictures of the moon that we'd taken.

Miner: Oh, that's wonderful. So this sounds like it was a three-year process, is that correct? Did I count the years—

Barry Beaman: Oh it went on much longer than that.

Miner: So you—but you said the first year you weren't really—

Barry Beaman: It was the rest of my college career—

Miner: Okay.

Barry Beaman: Because the next step was to start building the 18-inch. You see, the Behr Observatory originally housed an 18-inch reflecting telescope and I can't remember the name of the astronomer that owned it originally in England.

Miner: Mmm.

Barry Beaman: Um...that name won't come to me right now, but this was one of the first silver-on-glass mirrors ever made.

Miner: Mhmm.

Barry Beaman: And mirrors—

Miner: And tell us why it's important. Can you tell us why that's important?

Barry Beaman: Yes, the—or mirrors up to that point had been made out of something called speculum metal, which is a combination of copper and silver and it was burnished to a high polish and then used and after three, four, five months of use it began to tarnish and it was no longer as reflective as it was and so you had to re-burnish the thing and that could change the figure of the mirror—

Miner: Mmm.

Barry Beaman: So that it made keeping a telescope operational a very arduous process and this is how the Herschel's telescopes operated and virtually all astronomers who used reflectors up until—I think this mirror has a date of 1871 or '75 or something like that scribed on the back—

Miner: Hmm.

Barry Beaman: With Calver's name written on it, and I want to call him John Calver but I'm not sure that's right. I don't— [his name was George Calver]

Miner: Hmm.

Barry Beaman: Remember that well. The—when the silver-on-glass process is started—I think Leon Foucault, the French astronomer, was the first to try this process and then Calver started making mirrors this way and Calver made many, many mirrors apparently in his career—[post-interview note: The silver on glass process was first used on telescope mirrors in 1856 by Carl August von Steinheil of Munich and Leon Foucault of France. Henry Draper of New York began making mirrors using silver on glass in the early 1860s so Calver was not first. He is credited along with George With for the rapid development of the silver on glass process in England in the 1860s and 70s.]

Miner: Hmm.

Barry Beaman: So this is just one among many but it is unique historically and it—was it the first? Was it the second, third, fourth, tenth? We don't know for sure but it was an early attempt at that and this was used by the astronomer whose name I can't think of— [post-interview note: The astronomer was Dr. A. A. Common of Ealing, London, England. Calver also did a 36" mirror for Common that may be the one in the Crossley Reflector that is still in use at Lick Observatory, San Jose, CA.]

### [Barry Beaman and Miner laugh]

Barry Beaman: Used this telescope for a number of years. It operated wonderfully for him. He built a 60-inch telescope using the same processes and mounted it on a mercury mount and the 60-inch was a very good light collector but it wasn't a real good telescope apparently as best I can recall. [post-interview note: The 60" telescope remained an experiment most of its life but the mirror survived and was still in use in 1955 according to Henry C. King, "The History of the Telescope" published in 1955 by Charles Griffin & Co., Ltd.(I actually used a Dover reprint of King's book]

Miner: Hmm.

Barry Beaman: It didn't function as well as he wanted it to and meanwhile, the 18-inch was sold to Yerkes Observatory, I believe, and E. E. Barnard (Post-interview note: Now I think it was S.W. Burnham because whoever used it pronounced it good for splitting double stars and Burnham was a double star observer.) used it and pronounced it a wonderful telescope and it was—

Miner: Hmm.

Barry Beaman: Transferred to Behr Observatory at Illinois Wesleyan in 1895 I believe—I think is the date. You had a date of 1894.

Miner: Yes.

Barry Beaman: Ray Wilson remembers '95 also, so—

Carol Beaman: The observatory was built in '94, I think. The—

Barry Beaman: The telescope arrived in '95. That might be.

Carol Beaman: Came in '95, I think, or maybe it's the other way around. I don't know...[laughs].

Miner: The account that was in—the only reason I use 1894 is that was the date of the publication—

Carol Beaman: Right.

Barry Beaman: Okay.

Miner: That the account was in.

Barry Beaman: Mhmm.

Miner: So that's all that I have to go on.

[Carol Beaman and Miner laugh]

Barry Beaman: So that would tend to mean that it had to have been here in '94, so—

Miner: Before, yeah.

Barry Beaman: My information came—I think the earliest yearbook I could find it in—

Miner: Mhmm.

Barry Beaman: When I researched it in—

Miner: Was '95?

Barry Beaman: In 1963 or '64 was '95.

Miner: Yeah, that's our first yearbook was 1895.

Carol Beaman: Mhmm.

Barry Beaman: Okay.

Miner: Yep.

Barry Beaman: So that's why we thought '95—

Miner: Yeah.

Barry Beaman: Was the year it arrived, okay. Well anyway, so how to mount this 18-inch mirror—we tested it with—did a Foucault test on the thing and decided it was maybe just a little bit in between a sphere and a parabola but it's an F-7 mirror with, I think it was—well, let's see, 18-inch F-7, it—we're a long way away from the mirror when we did the test.

Miner: Okay.

Barry Beaman: And so it was a difficult test to do and we decided it's probably acceptable to put this thing back into operation.

Miner: Hmm.

Barry Beaman: So we designed a tube which included half-inch-thick rings of aluminum—I think seven of those—and two one-inch-thick rings. The one-inch-thick rings were put—were mounted to the telescope mount and we purchased a large German-type equatorial mount from Cave Optical Company in California and that was shipped in here. I think the school paid \$750, I think that's what they paid but I'm not sure...[laughs].

Miner: Wow.

Carol Beaman: At that time that was expensive.

Miner: I know.

[Carol Beaman laughs]

Miner: I can imagine, yeah. It still is.

Carol Beaman: Mhmm.

Barry Beaman: We put it out into the observatory, we put the 6-inch on it and got that going in Behr Observatory, and then I started cutting out these aluminum rings and these came in as—I think they were 24-inch squares. I used a reciprocating saw, nowadays called a sawzall—

Miner: Mhmm.

Barry Beaman: And [hacksaw] blades in them. I would sit on a stool with a metal frame in front of me with an aluminum square block clamped on it and hold the saw control in my left hand, put my right hand behind the back of the saw, and pull it toward me while it was cutting.

Miner: I'm almost sure that's not OSHA approved.

Carol Beaman: I'm positive it isn't.

[Carol Beaman and Miner laugh]

Barry Beaman: Probably not but—

Miner: It makes me cringe to think about it.

Barry Beaman: I wore—and this is not OSHA approved—I wore an asbestos glove—

Miner: Oh dear...[laughs].

Barry Beaman: We didn't know better in those days—and because the saw got so hot I couldn't stand holding it with a bare hand.

Miner: Oh my goodness.

Barry Beaman: And it took me four hours—actually, it took me four hours to cut the outside and four hours to cut the inside of the half-inch rings.

Miner: Hmm.

Barry Beaman: It took eight hours to go around the outside and eight hours to go around the inside on the one-inch rings.

Miner: Unbelievable.

Barry Beaman: So we spent a long time cutting that out. We stacked them all up and I drilled small—I drilled holes around these things for lightening purposes. They were one-inch holes. That was the largest drill that we had.

[Miner laughs]

Barry Beaman: We didn't have an inch and a half drill bit—

Miner: Oh no.

Barry Beaman: To drill the holes that the aluminum tubes, the magnalume airframe tubes, would go through to form the tube's—cylinder of the tube.

Miner: Hmm.

Barry Beaman: We couldn't get—I went down and priced a drill bit at the local industrial supply store and the drill bit, the half—inch and a half drill bit, you know, it's that big around, was about two and a half feet long, I think, and the price tag was like 300 bucks...

[Barry Beaman and Miner laugh]

Miner: Oh my.

Barry Beaman: And Ray Wilson just kind of cringed when I said that and so he went and talked to some folks at ISU in the Industrial Arts Department and it turned out that they had an inch and a half drill bit and they had a power feed drill press.

Miner: Heyyy.

Barry Beaman: So we took all of these that I drilled already. We used—had a radial arm, 36-inch swing radial arm drill in the machine shop for the Physics Department and so I could set—the table on the thing was about three feet square—so I could set those plates up on that table and go around with the radial arm drill all of the lightening holes, the one-inch holes—

Miner: Hmm.

Barry Beaman: That I couldn't, and I drilled the—took the inch and a half holes up to the one-inch size I could drill. We bolted the stack all together, took it up to ISU, and they put it on their power feed drill press and this thing, they turned it loose and it just went, "Zzzz..."

[Barry Beaman and Miner laugh]

Barry Beaman: Down through that stack of stuff and—

Miner: Like it's nothing.

Barry Beaman: Drilled the eight holes real quick for us.

Miner: [laughs]...Wow.

Barry Beaman: And brought it back to the machine shop at Wesleyan and contacted Bob Mayo who was a lathe operator at the G. M. & O. to G M & O car shops and he got his supervisor to agree that he could turn the rough-cut rings to size for us—

Miner: Hmm.

Barry Beaman: I.D. and O.D. Then we found out if we just brought them out to him as a stack of metal, he could've turned them—

[Carol Beaman laughs]

Barry Beaman: Without me doing all that sawing...[laughs]....but—

Miner: Oh my goodness.

Carol Beaman: But you wouldn't have had a lab assistant job there then...

[Carol Beaman and Miner laugh]

Barry Beaman: Well, oh yeah I definitely...[inaudible]...but the thing is we had all this metal left over that we cut out—

Miner: Uh-huh.

Barry Beaman: That was used for years for all kinds of projects in the Physics Department.

Miner: Good, so never wasted.

[Carol Beaman laughs]

Barry Beaman: And then after that step was done, we started assembling the thing and that was about the time that I went over to Peoria as a permanent substitute teacher. I finished—I graduated in '65, came back to Wesleyan for a semester to get a teaching certificate, and then got a job as a permanent sub in Peoria to finish out the school year with the idea that I was going to be hired full-time then. That didn't work out and after going out to sub for a second-grade class, I came back over here, went to the Air Force recruiter and joined the Air Force.

[Carol Beaman and Miner laugh]

Barry Beaman: It was Vietnam, you know, so didn't have a lot of choices.

Miner: Mhmm.

Barry Beaman: So that's—

Miner: That's an amazing account now but I have to know, before you came to Illinois Wesleyan, what had been your previous experience with metalworking and understanding lenses and any of this, I mean, were you self-taught in these things?

Barry Beaman: Yeah, pretty much so. I—

Miner: So you were a—

Barry Beaman: We had—there was a company called Edmund Scientific Company in those days and they put out all kinds of, I would call them, tracts, little pamphlet-type things on lenses and how to put lenses together and do things and how to build telescopes, and I had ground and polished a four and a quarter-inch mirror—

Miner: Hey.

Barry Beaman: Hadn't gotten it aluminized. After my freshman year here, I went home, took the thing up to somewhere and got it aluminized, and during the summer between my freshman and sophomore years, I completed that telescope.

Miner: Hmm.

Barry Beaman: Built it, and so, yeah, I—my father had been a garage mechanic—

Miner: Okay.

Barry Beaman: And then a service manager in garages and he was working as LP—he was working in the—yeah, it was the LP Gas Division by then of FS Services.

Miner: Okay.

Barry Beaman: He was the merchandise manager for them and so I had lots of exposure to building things all the way from sheds to houses to, you know, and so I had the manual experience. I built a lot of model airplanes and model boats and stuff like that as well and picked up on the astronomy when I was in middle school in Arthur, Illinois where we had dark skies—

[Miner laughs]

Barry Beaman: And we could see lots of stars and we decided—my friend and I went out to look at stars one night, decided we didn't know what they were and I went and dug a *Boys' Life* out of my closet that had a star chart in it—

Miner: Oh my goodness.

Barry Beaman: Grabbed a flashlight, went outside, blinded ourselves with the flashlight—

[Miner laughs]

Barry Beaman: But then we learned about putting red cellophane over them flashlights to maintain our dark adaption and started learning astronomy at that point.

Miner: That's great. Thank you for connecting that because I was thinking you came in with an amazing skill set.

Carol Beaman: There's a couple—

Barry Beaman: But I'd never operated a lathe—

Miner: Mhmm.

Barry Beaman: Or a machine tool—

Miner: Mhmm.

Barry Beaman: I learned that at Illinois Wesleyan.

Carol Beaman: Actually, how he learned it, there was a full machine shop—or not a full machine shop—

Barry Beaman: Yeah, it was.

Carol Beaman: Pretty full machine shop in the Physics Department.

Barry Beaman: We had a huge Cincinnati mill and we had a 13-inch South Bend lathe, so—

Miner: I'm sorry to say I don't know if that sort of thing happens still in the Physics Department.

Does it?

Carol Beaman: I don't know either...[laughs].

Barry Beaman: I'm sure it does.

Miner: Okay.

Barry Beaman: I'm sure it does.

Carol Beaman: But he learned to operate those things with manual in hand—

Miner: Mhmm, mhmm.

Carol Beaman: [laughs]..."Oh, it says to do this,"—

Miner: [laughs]...Press that bill.

Carol Beaman: Or I was reading it and saying, "Now this next step is..." [laughs]

Barry Beaman: Well—

Miner: So you were already acquainted?

Carol Beaman: We—I arrived the year after he did—

Miner: Okay.

Carol Beaman: And we actually became acquainted the following year—well, the end of it, my

freshman year, and—

Miner: In sixty-...?

Barry Beaman: I think it was your sophomore year before we met.

Carol Beaman: '63.

Miner: '63, okay.

Carol Beaman: Well—

Barry Beaman: I remember seeing you in the—

Carol Beaman: You started picking people up for church—

Barry Beaman: Oh, yeah.

Carol Beaman: At—so that's—we actually—I was a Physics major when I first arrived.

Miner: Okay.

Carol Beaman: I didn't remain a Physics major.

[Carol Beaman and Miner laugh]

Carol Beaman: He was the lab assistant in my class but I didn't take any physics classes 'til my sophomore year.

Miner: Okay.

Carol Beaman: And then I decided I would just stick with just the math, not...[laughs]...not the physics.

Barry Beaman: Yeah, the way Wesleyan set up the curriculum in those days—we took math and chemistry in our freshman year.

Miner: Mhmm.

Barry Beaman: And then we got the general survey core course of physics in our sophomore and then we went into the specialized courses junior and senior years.

Miner: Okay.

Carol Beaman: But I decided at that point that wasn't for me...[laughs]...and we also at that time had, in the freshman year, you had required classes, which I don't think are the same required classes now—a social studies survey course and then junior—sophomore year humanities survey course.

Miner: Okay.

Carol Beaman: But, yeah, so a lot of that time I was acquainted with Barry and we spent our evenings...

[Carol Beaman and Miner laughs]

Carol Beaman: Over at the lab with him working on projects and me reading...[laughs]...

Miner: Oh that's great.

Carol Beaman: So—but—

Barry Beaman: Well, in fact, when Ray Wilson and I first got together he said, "Well, you know, we need some work—we need some lab equipment and in order to do this, we're going to have to have—make some parts on the lathe. You know how to operate one?" "No..."

[Barry Beaman and Miner laugh]

Barry Beaman: We did get a Physics major in a few years later who did know how to—he—his parents had run a machine shop—

Miner: Hmm.

Barry Beaman: And—

Carol Beaman: Is that Bill?

Barry Beaman: He'd been around the machines all his life and—Hmm?

Carol Beaman: Is that Bill?

Barry Beaman: I don't remember his name now but he didn't really work out as a Physics major, he was more of an engineer-type—

Miner: Hmm.

Barry Beaman: I think. But Ray handed me the manual for the South Bend lathe and he said, "Here it is, read up and find out how it's done."

[Barry Beaman and Miner laugh]

Barry Beaman: And so I started whittling on little pieces of metal and learning how to turn things—

Carol Beaman: He's still doing that...[laughs].

Miner: Well we never stop learning.

Carol Beaman: Yes...[laughs].

Miner: Well, Carol, you mentioned switching majors and—

Carol Beaman: Yes.

Miner: And we've touched a little bit on, you know, how an institution can help you explore those things and it's something that we still talk to students about today—is this idea of change—

Carol Beaman: Mhmm.

Miner: Throughout life and certainly change throughout school years. Do you want to share with us what it was like to change a major in the—mid-stream?

Carol Beaman: Well, it wasn't really changing a major, it was modifying it because I came in as a double-major, Physics and Math.

Miner: Okay, oh, okay.

Carol Beaman: And I soon saw that the physics was not—I liked the lab part of the physics—

Miner: Mhmm.

Carol Beaman: I didn't like the theoretical part of it, I guess.

Miner: Okay.

Carol Beaman: So—and yet that's the part that I probably needed more than anything...

[Carol Beaman and Miner laugh]

Carol Beaman: So then I just—I majored in Math and in—a minor in Accounting.

Miner: Okay. And—

Carol Beaman: So-

Miner: Did you teach as well after?

Carol Beaman: I taught.

Miner: Okay.

Carol Beaman: Yeah, I taught for twenty-one years in—

Miner: Okay.

Carol Beaman: In Rockford and most of the time I—

Miner: At which level?

Carol Beaman: High school.

Miner: High school?

Carol Beaman: Yeah, most of the time high school.

Miner: And Barry your teaching was in...?

Barry Beaman: It was a permanent sub in Peoria and then I joined the Air Force—

Miner: Mhmm.

Barry Beaman: And they made me into—

Carol Beaman: And never went back.

Barry Beaman: An electronic systems officer.

Miner: Oh, so you didn't teach anymore?

Barry Beaman: No, I didn't teach anymore.

Miner: Okay.

Barry Beaman: I—we talked about me going back to teaching when I got out of the Air Force and instead I sent out a hundred and—well, I got out of the Air Force at a bad time...[laughs]...it turned out we were in recession here.

Miner: Mmm, when was that?

Barry Beaman: 1973.

Miner: Okay.

Barry Beaman: And I sent out 130 resumes. I got six responses, all of which said, [Barry and Carol Beaman in unison] "Overqualified." [Both laugh]

Miner: Oh dear.

Barry Beaman: By then the Air Force had sent me for a master's degree in logistics management.

Miner: Okay.

Barry Beaman: I went to interview at several places in Rockford with—where Carol was from, where her family lived and still lives—and the—two companies were interested in me—Sundstrand and Woodward Governor Company—and I was pushed very hard to go to Woodward because a lot of people really liked it and—

Miner: Mhmm.

Barry Beaman: Thought it was a great place to work and Sundstrand had a history of high turnover.

Miner: Hmm.

Barry Beaman: And so in looking at that and interviewing for a couple of different jobs with Sundstrand, I didn't get good vibes and I ended up going to Woodward and spent twenty-seven years there as a quality engineer and a software quality engineer.

Miner: Okay.

Barry Beaman: And retired in 2000, went into contracting and worked at several companies around Rockford, and now I'm fully retired.

[Barry and Carol Beaman laugh]

Miner: Congratulations, that's great.

Carol Beaman: We know he's fully retired because he retired his certifications.

Miner: Ahhh, okay.

Barry Beaman: I was a—

Carol Beaman: So—

Miner: A distinction then.

Barry Beaman: An American Society for Quality certified quality engineer and certified software

quality engineer.

Miner: Oh my goodness.

Barry Beaman: So-

Carol Beaman: Not something people normally think of as coming out of a physics

background—

Miner: Right.

Carol Beaman: But it fit very well.

Barry Beaman: Yes.

Carol Beaman: It put everything together actually, so—

Miner: Scanning all of your knowledge.

Barry Beaman: Well, one of the things that happened out of that is that while I was serving as a software quality engineer, the standard for aviation software—Woodward made fuel controls for jet aircraft and now they make fuel systems for jet aircraft and other prime movers like Caterpillar for example and things of that nature—the standard for airborne software was coming under scrutiny as being inadequate. It was a document that was put out by Radio Technical Commission for Aviation. They considered their name archaic, so they changed it. They're now Resources and Technical Concepts for Aviation.

Miner: Mhmm.

Barry Beaman: They kept the acronym RTCA, which all of their documents are known by throughout the aviation business and so their document, their standard for airborne software, was RTCA DO-178A. The A-version was now considered inadequate in 1987. Woodward was asked if they would provide representatives to a committee to revise that document and I got tapped on the shoulder to do that with a couple of other people and for the next three years I served on that working committee on the quality assurance subcommittee to that, Subgroup 5 it was called, traveling to Washington about two times a year and going to other parts of the country, Canada a

couple of times, other times of the year—it was a very expensive process. There were about eighty people on that committee—

Miner: Hm.

Barry Beaman: From all over the world. The French, British, Canadians, Germany had a representative—

Miner: Oh my.

Barry Beaman: Italy, I think, had a representative. I don't recall that there were any representatives from Asian countries but the document we ended up producing was actually rushed into production because Boeing wanted it finished up. Boeing was a major user in the—in that activity and they wanted it for the 777 Airliner—

Miner: Hm.

Barry Beaman: And so in 1991, we wrapped up the process and I remember the last plenary meeting of that group—all eighty of us sat in that room and one person would read aloud and we read through the entire document—

Miner: Hm.

Barry Beaman: Which is around ninety pages long—

Miner: My goodness.

[Carol Beaman laughs]

Barry Beaman: To make sure it read and flowed and we produced a document. We assigned a writing committee at the—in the last six months of the thing who specifically reviewed the entire document and smoothed out the English. The leader was Danny Hawks from the CAA, Civil Aviation Authority, of England and under his guidance with the best writers we had in the committee, they produced a document that is readable, understandable, and we expected DO-178B to last perhaps five years at the most. We expected to be back in there reworking the document very quickly. It's still in effect—

Miner: That's amazing.

[Carol Beaman laughs]

Barry Beaman: today, published in 1992.

Miner: What a testimony to good effort.

Barry Beaman: Mhmm, they are working on the C-version now. They just started a year ago,

so—

Carol Beaman: Now Barry was a townie. He didn't mention that.

Miner: Oh-

Carol Beaman: He lived—

Miner: Okay, he mentioned living in Arthur but—

Barry Beaman: Well-

Carol Beaman: Yeah, when—

Barry Beaman: Actually, I was living in Edwardsville when I came here.

Miner: Ohh, okay.

Barry Beaman: But my father worked for FS Services and they established their headquarters here in Bloomington the year I was a freshman.

Miner: Okay.

Barry Beaman: So I joined Acacia Fraternity and lived in the Acacia house my freshman year because we had overcrowding in those days and they allowed the—normally didn't allow the freshman to live in the—

Miner: Right.

Barry Beaman: Fraternity houses—

Miner: Yeah.

Barry Beaman: But because they were so crowded that year, I—and that was in the time of the open-air dorms. I don't know if we still have the open-air dorms or not but—

Miner: I don't think so.

Barry Beaman: We weren't allowed to sleep in our fraternity rooms.

Miner: Hmm.

Barry Beaman: We had this big dorm up on the top floor of 915 North Main and when it got down to five below zero at night, you could see everybody's breath while we were... [laughs]...

Miner: Oh my goodness.

Barry Beaman: Sleeping... [laughs].

Miner: Yikes.

Barry Beaman: And I remember one morning we woke up and someone screaming—what was it?—"There's an owl in here!"

[Barry Beaman and Miner laugh]

Miner: Oh no. Well, I guess better than a bat—

Carol Beaman: Yeah true.

Miner: Maybe.

Barry Beaman: Well no, it was a bat come to think of it.

Miner: It was? Oh my goodness.

Barry Beaman: "There's a bat in here," you know?

Carol Beaman: Mhmm.

Barry Beaman: But maybe it was an owl, who knows but—

Carol Beaman: We didn't have those kinds of things. Pfeiffer was more refined.

Miner: Well good—

[Carol Beaman laughs]

Miner: Glad to hear at least that.

Barry Beaman: Goody for you.

Carol Beaman: We like teased him—he went away to college and his parents moved here afterward and joined him.

[Miner laughs]

Barry Beaman: So I moved home with my parents because it was cheaper, you know, it saved money.

Miner: That's great.

Carol Beaman: And then you didn't mention where you found the 18-inch telescope either. I don't know whether you—I think you probably have records of that but the 18-inch mirror was in the basement—

Barry Beaman: Yeah.

Carol Beaman: At what is now Stevenson—

Barry Beaman: Mhmm.

Carol Beaman: Right?

Barry Beaman: In the old science building.

Carol Beaman: And when they built the new science building...

Barry Beaman: We moved everything out.

Carol Beaman: Moved everything out but—and they found it.

Miner: Mm.

Carol Beaman: But it had been—the rest of the telescope had been destroyed and I think you have records of that—when they moved Behr Observatory to make room for Holmes.

Miner: Mhmm.

Carol Beaman: So I lived on campus, so my recollections of the college are a little different than his are—

Miner: Mhmm.

Carol Beaman: In that sense. Social life kind of revolved around Pfeiffer Hall and activities there, some of which are probably best left as no one knows about.

[Carol Beaman and Miner laugh]

Miner: That's okay, you know—

Barry Beaman: You mean the saran wrap trick?

Carol Beaman: Saran wrap...

[Barry Beaman laughs]

Miner: Well, see, now you're gunna...

Carol Beaman: Yes, well no, that's—

Miner: Tantalize us with clues.

Carol Beaman: Over a commode.

Miner: Uh-huh.

Carol Beaman: Clear nail polish over soap.

Miner: Ahhh.

Carol Beaman: Newspapers—

Miner: So pranks—

Carol Beaman: I never would've done any of those.

Miner: On your housemates, your floor mates.

Carol Beaman: Usually if someone became pinned or engaged or something of that nature.

Barry Beaman: Their housemother became engaged.

[Carol Beaman laughs]

Barry Beaman: They stuffed her room with rolled up newspaper—

Miner: Oh my goodness.

Barry Beaman: Wadded up newspaper.

Miner: The whole room?

Barry Beaman: The whole room.

Carol Beaman: Yes.

Miner: Wowww.

Carol Beaman: We saved for weeks.

[Carol Beaman and Miner laugh]

Carol Beaman: So-

Miner: All in good fun.

Carol Beaman: Yeah, yeah, but...most people stayed on campus on weekends at that time. When

our children came here later I found out a lot of people went home—

Miner: Mm.

Carol Beaman: Because we'd come down on weekends and there'd be nobody around.

Miner: Mm.

Carol Beaman: And of course we—

Barry Beaman: We remember the campus being very much alive on weekend nights—

Carol Beaman: Yeah.

Miner: Mhmm.

Barry Beaman: With cars going here and there, people walking outside, Memorial Center just

alive with people—

Miner: Mhmm.

Barry Beaman: There were dances frequently and—

Carol Beaman: Well, there still are.

Barry Beaman: The Dugout was always full.

Miner: Hm.

Carol Beaman: Or whatever it's called now, I don't know.

[Carol Beaman and Miner laugh]

Carol Beaman: But the nice part about living in Pfeiffer was you didn't have to go outside to eat.

You could—

Miner: That's true.

Carol Beaman: Cut between—

Miner: The breezeway, yeah.

Carol Beaman: And the breezeway, that was nice. And I worked the telephone at Pfeiffer. I guess that probably is one of the most specific changes on campus.

Miner: Which one?

Carol Beaman: The telephone bit. There was one telephone—two telephones on each floor I think but they all went through the main switchboard.

Miner: Ahhh.

Carol Beaman: And if you got a phone call, your room was buzzed, one for one person and two for the other person and you went to one of the phones and answered it because it was all the same line coming in.

Miner: Party line.

Carol Beaman: Yes.

Miner: Uh-huh.

Carol Beaman: Uh-huh, and so that kind of is a lot different now that everybody has their own cell phone...[laughs].

Miner: Right, that is quite a difference.

Carol Beaman: Yeah.

Miner: Yeah.

Carol Beaman: And well even when our kids were here twenty years ago and fifteen years ago, the—you had a phone system but at least it was in your room.

Miner: Mhmm.

Carol Beaman: And now everybody has their own—I'm sure everybody—

Miner: Right.

Carol Beaman: I'm sure there are no phones in any of those dorms in that sense—

Miner: Right.

Carol Beaman: Or switchboard—in that sense.

Miner: Yeah, yeah, I'm sure you're right.

Carol Beaman: And the mail was put up in through slots.

Miner: Uh-huh.

Carol Beaman: The mailman just delivered it in a bag and you—and whoever was working the

desk put up the mail.

Miner: Mhmm.

Carol Beaman: That's not allowed anymore I'm sure.

Miner: Right, yeah.

Carol Beaman: In fact I know it's not allowed anymore.

Miner: Hm.

Carol Beaman: So it was—there were a lot of things different—

Miner: Sure.

Carol Beaman: Than there are now.

Miner: Yeah.

Carol Beaman: So-

Miner: That's great.

Carol Beaman: And the women's hours, we'd come in and out.

Miner: Uh-huh—

Barry Beaman: The other side of this equation was in the—at the Acacia house we had a telephone on the main floor in the entryway and we had a booth upstairs in the room areas and it had an extension off of that phone, you just had one number.

Miner: Hm.

Carol Beaman: Mhmm.

Barry Beaman: And when you wanted to call somebody to try to get a date, call into one of the dorms, you'd go get on the phone—

Carol Beaman: And continually dial.

Barry Beaman: And you'd start dialing.

[Carol Beaman laughs]

Barry Beaman: And you'd dial and you'd dial and you'd dial.

[Carol Beaman and Miner laugh]

Barry Beaman: And maybe tenth, fifteenth, twentieth, thirtieth time when, you know, you'd get an answer—

Miner: So call-waiting meant you waiting.

Carol Beaman: Yeah.

Barry Beaman: It actually answered with a busy signal, you know.

Carol Beaman: Yes, yes.

Barry Beaman: So...

Carol Beaman: Yeah, it was—that is literally true. If someone was trying to call the dorm—were trying to call the dorm—one of the dorms that—with one telephone or—yeah, there was only one line at that time.

Barry Beaman: Only one line.

Miner: Hm.

Carol Beaman: You just had to keep dialing—

Miner: Hm.

Carol Beaman: And the same was true if your parents tried to call you—

Miner: Mhmm.

Carol Beaman: You know, and just—and the phones were shut off at a certain time.

Miner: Mhmm.

Barry Beaman: Half an hour—

Carol Beaman: Half—

Barry Beaman: After girl's hours—

Miner: Yeah.

Barry Beaman: The phone was shut off.

Carol Beaman: So-

Miner: That's that.

[Carol Beaman and Miner laugh]

Miner: Oh my goodness—

Carol Beaman: So—

Miner: Well that's a great, that's—

Carol Beaman: What a different way to look at it than today, you know?

Miner: Yeah, yeah.

Carol Beaman: So...

Miner: That's a great—great memory. Well are there other things about your time on campus we should know about or are you feeling like you've covered the things you want us to hear?

Carol Beaman: Well, we actually spanned over the period of time when there was the big debate over the faculty members signing a document called the "white paper". Have you run across the "white paper"?

Miner: I have never heard of this. Tell me what it is.

Carol Beaman: They had to sign a paper saying that they were Christians.

Miner: Ohhhh.

Carol Beaman: And it was a great...

Miner: When was this? What year was this?

Carol Beaman: Well, it would've been...

Barry Beaman: I don't know.

Carol Beaman: When was Kennedy assassinated—'62?

Barry Beaman: '62...

Miner: Sixty—

Carol Beaman: '64?

Miner: One.

Carol Beaman: '61—no because I was—I came in '62.

Barry Beaman: I think it was—

Carol Beaman: I was living downstairs on the main floor.

Barry Beaman: Kennedy got elected in '62, didn't he?

Carol Beaman: Yeah.

Barry Beaman: He took office in '63.

Miner: Yeah, '63.

Barry Beaman: And—

Carol Beaman: So '63—well it was—it was—

Barry Beaman: It would've been '64, I think.

Carol Beaman: At the time of the Kennedy assassination anyway, and the faculty members were all up in arms. They didn't want—especially in some areas—didn't want to sign the document.

Miner: What was the reasoning behind this? Do you recall?

Carol Beaman: Basically it was a—

Barry Beaman: Connection to the Methodist Church.

Carol Beaman: Methodist college and—

Miner: Okay.

Carol Beaman: They wanted to make sure that everybody was—

Miner: I was just curious if there was a conversation leading up to this—

Carol Beaman: A person of faith.

Miner: Or did it just—

Carol Beaman: I'm not sure on that part.

Miner: Yeah, okay, okay.

Carol Beaman: But at any rate, the faculty was all up in arms and I actually remember when people say they remember when Kennedy was shot—

Miner: Mhmm.

Carol Beaman: I remember I had come home from my classes and had a little break at lunch time before going back for my one o'clock and I had gone into my room—my room was on the main floor at Pfeiffer, not too far from the lounge—and somebody comes rushing into my room and says, "The President's been shot!" In my mind was—

Miner: Oh.

Carol Beaman: "I didn't know the faculty was that upset about...[laughs]...

Miner: Oh my goodness.

Carol Beaman: The "white paper"...[laughs]...you know, that was my immediate reaction, you know?

Miner: Yeah.

Carol Beaman: Because—

Miner: The most contentious.

Carol Beaman: And talk about the bubble, that's what—

Miner: Right.

Carol Beaman: That was the most important argument going on on campus at the time, you know, and so when someone said that—well then of course, obviously, that wasn't what they were talking about—

Miner: Right.

Carol Beaman: But—

Miner: Huh.

Carol Beaman: So, yes, I remember when that was...[laughs].

Miner: That is interesting.

Carol Beaman: So-

Miner: Do you know what ever happened about that?

Carol Beaman: I'm guessing that nothing ever happened with it that—that it eventually died.

Miner: Mm.

Carol Beaman: They may have had to sign it at that point in time and there may have been people who lost there jobs at that time—

Miner: Hm.

Carol Beaman: I don't know.

Miner: Interesting.

Carol Beaman: But I really don't know what the final outcome was, you know, it was just you would hear grumbling from faculty—

Miner: Mhmm.

Carol Beaman: Members about it.

Miner: Hm.

Carol Beaman: That sort of thing, so—

Miner: Fascinating.

[Carol Beaman laughs]

Miner: I had not heard that story before. Well thank you.

Carol Beaman: So it was referred to as the "white paper".

Miner: Okay, very good.

Carol Beaman: So...

Barry Beaman: I do recall when Harlow Shapley came to visit—I think it was during my sophomore year here—gave a talk at Memorial Center and spent some time—he got into apparently some heated discussions with the theology faculty who wanted to talk with him.

Miner: And can you tell us who Harlow...

Barry Beaman: Harlow Shapley was the Director of the Harvard College Observatory—

Miner: Okay.

Barry Beaman: Had been an early user of the 60-inch reflector at Mount Wilson and I believe he may have done some work with 100-inch although I think he had moved on before—to Harvard—before the 100-inch went into operation.

Miner: Hm.

Barry Beaman: But extremely well-known in measuring the size of our galaxy using data collected by Henrietta—was it Leavitt Swan or Swan Leavitt?

Carol Beaman: Mhmm.

Barry Beaman: I believe it's Swan Leavitt. [It is Henrietta Swan-Leavitt.]

Carol Beaman: Leavitt Swan—Swan Leavitt.

Barry Beaman: To determine the size of the galaxy and worked with the Cepheid variable star measuring stick—

Miner: Hm.

Barry Beaman: That was developed in the early 1920s. And he came to visit IWU around 1964. He was an old man then in his probably—I'm guessing even in his early eighties. I don't really know how long he lived...[laughs]. [1885-1972]

Miner: Mmm.

Barry Beaman: I didn't—

Miner: Mhmm.

Barry Beaman: Haven't researched that, but I remember he drove himself in. He had an old lantern slide projector that he used to project four by five lantern slides of celestial objects as part of his—

Miner: Hm.

Barry Beaman: Talk about astronomy. I was assigned as his escort—

Miner: Hm.

Barry Beaman: on campus and basically he was a grumpy old man.

[All laugh]

Barry Beaman: And so it was an interesting experience for me and—

Miner: Sounds like it.

Barry Beaman: I wasn't allowed to be in the discussions with the theology department.

Miner: Hm.

Barry Beaman: I think he also talked with the psychologists as well.

Miner: Hm.

Barry Beaman: And came away with some irritations and he was grousing about the discussion with the theologians when I was escorting him back across campus and he made a comment that..."Don't ask me where God is. God is everywhere. God is in that rock and God is in that street over there—"

Miner: Mhmm.

Barry Beaman: "And everything around us and that's just the way it is and that's what I believe in."

[Carol Beaman laughs]

Miner: Well there you have it.

Barry Beaman: So—

Carol Beaman: See, he had more exciting things as far as people and that sort of thing. We didn't have people come into the Math Department.

[Carol Beaman and Miner laugh]

Barry Beaman: And then there was our relationship with the Wantlands.

Carol Beaman: Oh yes.

Miner: The what?

Barry Beaman: The Wantlands.

Carol Beaman: With—with—

Miner: Oh yes.

Barry Beaman: Dr. Wantland.

Miner: Uh-huh, sure.

Barry Beaman: When I came to—what was it?—It was spring celebration of something, I can't remember what it's called now that Wesleyan ran as a recruitment program—

Miner: Mhmm.

Barry Beaman: And I came up here as a senior in high school and went to the—over to the science building and Dr. Wantland was giving us an orientation to the Science Department and what sort of things they did and he was an older gentleman—

Miner: Hm.

Barry Beaman: But he wanted to point out that he was still able to do whatever he wanted and he showed us by jumping flatfooted from the floor up on top of the lab bench...yeah.

Miner: And he was okay?

Barry Beaman: He was okay.

Carol Beaman: Oh yeah! This was—

Miner: I was waiting for the—

Barry Beaman: He does that—did that routinely.

Carol Beaman: This was the demonstration he did.

Miner: Oh okay.

Barry Beaman: That was a routine demonstration—

Carol Beaman: That was—

Barry Beaman: That he would do.

Carol Beaman: Of course he also played a lot of tennis.

Miner: And why do you think people wouldn't think he could do that?

Barry Beaman: Because he was gray-haired and in his—probably in his late forties or early

fifties.

Miner: Well, gosh, isn't that—

Carol Beaman: That was really old then.

Miner: Ancient.

Carol Beaman: Yeah.

[Miner laughs]

Barry Beaman: And...and then he talked about how he—his name was Wayne W. Wantland and

so he used the initials "W3".

Miner: Very good.

Barry Beaman: Well my name is Barry B. Beaman and because of him I've used "B3" ever since.

Miner: Oh that's—

Carol Beaman: Yep.

Miner: Wonderful.

[Carol Beaman laughs]

Barry Beaman: And that was something he gave to me and—

Miner: What a great legacy.

Carol Beaman: And of course his wife—his second wife—

Barry Beaman: He was an Acacian also.

Carol Beaman: Yeah.

Barry Beaman: That was everything.

Carol Beaman: He—his first wife had died and he remarried and the lady he remarried became

the Head of the Math Department here.

Miner: Ahh—

Carol Beaman: So it was—

Miner: Many connections.

Carol Beaman: Dr. Mrs. Wantland and Dr. Mr. Wantland...

[Carol Beaman and Miner laugh]

Carol Beaman: As far as we were concerned.

Miner: That's great.

Carol Beaman: And we're still in touch with Evelyn. We still correspond with her.

Barry Beaman: She sends us—

Miner: Oh you do?

Barry Beaman: Christmas cards.

Carol Beaman: Yeah, she's in a—

Barry Beaman: Retirement home.

Carol Beaman: Retirement home in Champaign—

Miner: Oh okay.

Carol Beaman: Champaign-Urbana, one of those.

Miner: Uh-huh.

Carol Beaman: But yeah, we've—and Alan, our youngest son, his middle name is Wayne and when we were trying to come up with a middle name that went with Alan we remembered that Dr. Wantland used to jump up on...[laughs]...on the lab bench and that was a sign of strength, so—

Miner: Yes.

Carol Beaman: That's why he got the middle name Wayne. He's named after Dr. Wantland.

Miner: What a lovely honor.

Carol Beaman: So-

Miner: Oh that's wonderful.

Carol Beaman: And even when he first came down to school, Mrs. Dr. Wantland was still living on campus and he would stop by the red house over there and talk to her.

Miner: That's great.

Carol Beaman: So—and Kelly did that too—

Barry Beaman: Mhmm.

Carol Beaman: When he came down, so we've had two sons go through here.

Miner: Oh my goodness.

Carol Beaman: And both in art. Our oldest is in music. He's down here this weekend—

Miner: Mhmm.

Carol Beaman: For the jazz—

Miner: Big reunion.

Carol Beaman: Reunion.

Miner: Mhmm.

Carol Beaman: And then our youngest was in theater tech—

Miner: Mhmm.

Carol Beaman: And he's not here this weekend. He's at the lake taking a pier out...[laughs].

Miner: Put him—

Carol Beaman: So-

Miner: Put him to work.

Carol Beaman: Yes.

Miner: Yeah.

Carol Beaman: Yes, we're all supposed to be there but...[laughs].

Miner: But you snuck away.

Barry Beaman: We're playing hooky.

Carol Beaman: Yeah.

[Miner laughs]

Carol Beaman: We're playing hooky this weekend.

Miner: Oh my goodness.

Carol Beaman: But we've maintained ties to the university for a long time.

Miner: Sounds like it.

Carol Beaman: When—neither one of us had Dr. Hess as a—

Barry Beaman: As a professor.

Carol Beaman: Professor—

Miner: Mhmm.

Carol Beaman: But we knew him when he came into the Chemistry Department.

Miner: Mhmm.

Carol Beaman: And so we became good friends with him and when he became Acting-President, we were—I was over enrolling Alan—his senior year in high school—

Miner: Mhmm.

Carol Beaman: I was over, brought him down to talk to the administration and stuff and get him enrolled and everything and we were talking to Jim Ruoti and just standing there and Wendell came by and Jim says, "Can you tell me what—why I have a Physics major and a Math major with a Music major graduating this year and a Theater major coming in next year?" and Wendell, without missing a beat, said, "Recessive genes."

[Carol Beaman and Miner laugh]

Carol Beaman: Of course he was the chemistry teacher...[laughs]...so...

Miner: Oh, that's great. The answer to most of life's—

[Carol Beaman laughs]

Miner: Complex questions.

Carol Beaman: Right.

Miner: Right? That's wonderful.

Carol Beaman: So—but we've—and Lou Detweiler came in after we had long left the campus.

Barry Beaman: Mhmm.

Carol Beaman: But we've become good friends with him, so...

Miner: Oh, that's wonderful.

Barry Beaman: And we knew Gary Kessler also. He was a wonderful teacher here from what I

gather. I never had him as a teacher.

Miner: I'm sorry. I'm not familiar with that name. Which department?

Barry Beaman: Gary—Physics.

Carol Beaman: He was—he was—

Miner: Physics? Okay.

Carol Beaman: In the Physics Department too. He came in—

Barry Beaman: When Ray Wilson went off—

Carol Beaman: Ray Wilson went for—

Barry Beaman: To get his PhD—

Miner: Okay.

Barry Beaman: At the University of Arizona.

Miner: Mhmm.

Barry Beaman: Oh yeah and then we went to Arizona and we—while I was in the military transferring from Keesler Air Base in Mississippi to Vandenberg Air Force Base in California we passed through Tucson and Ray Wilson was there working on his PhD and he arranged a tour for us of the Optical Sciences Center such as it was in those days and also set us up with a tour guide

at Kitt Peak.

Miner: Oh my goodness. That's exciting.

Barry Beaman: And he set us up there too.

Miner: Hm.

Carol Beaman: So we've maintained ties for a long time here and—

Miner: It sounds like it. Well, it's so exciting to hear your stories—

[Carol Beaman laughs]

Miner: And I'm really thrilled that you came in to talk to us today.

Carol Beaman: Well he has more interesting in terms of the history...[laughs].

Miner: Well, I think it's been fabulous really for both of your perspectives, hearing both of them, having you together to do this interview too. It was fun.

Carol Beaman: Good. Thank you.

Miner: Well I hope you enjoy the rest of your weekend.

Carol Beaman: Ahhh, we're hoping to.

Barry Beaman: I hope we're going to.

Miner: Alright.

Barry Beaman: We're looking forward to the observatory reception this afternoon.

Miner: Excellent. Well have fun.

[Post-interview note: We enjoyed the interview and we did, thoroughly, enjoy the rest of the week end. Many thanks to you, Meg, and to IWU! B<sup>3</sup>]