



Zhian Kamvar Oral History Interview, June 19, 2015

Title

“Documenting the Lives of Graduate Students”

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Location

Valley Library, Oregon State University.

Summary

In the interview, Kamvar discusses his upbringing in Cupertino, California, his early interest in science, and his decision to attend Truman State University in Kirksville, Missouri. In recalling Truman State, Kamvar notes his move toward biology as a discipline of focus and recalls his involvement in the school's student radio station. From there he reflects on the three years that he spent teaching English in Korea, following his graduation from Truman State.

The primary focus of the session is Kamvar's life as an OSU graduate student, his creation and hosting of a successful radio talk show, and his perspectives on graduate student life at Oregon State. In this, he describes his enrollment at OSU, his initial impressions of the campus and community, his rotation through two different laboratories, his establishment of a research agenda, and his experiences as a teaching assistant. He likewise shares his perspective on securing research funding and details his involvement with the Coalition of Graduate Employees, noting the specific issues that are important to the coalition and the graduate students that it represents. He also provides his thoughts on graduate student culture and social life, changes that he has observed at OSU, and the specifics of the laboratory where he conducts most of his work.

The final third of the interview is devoted to the history and mission of *Inspiration Dissemination*, the radio talk show program that Kamvar co-founded in 2012. Kamvar discusses the creation of the show and its forward evolution, commenting on the ways in which fellow graduate students are enlisted to appear as guests and the techniques that are used to facilitate discussion of research to a lay audience. He also reflects on the closing down of KBVR-FM at Snell Hall, the technical infrastructure now available to student radio at the Student Experience Center, memorable guests who have appeared on the show, and the show's receipt of a national award for innovation in 2014.

The session concludes with Kamvar's thoughts on the culture of student radio at Oregon State as well as details on a typical day in his life, his ambitions for the future, and his advice on surviving grad school.

Interviewee

Zhian Kamvar

Interviewer

Mike Dicianna

Website

<http://scarc.library.oregonstate.edu/oh150/kamvar/>

Transcript

Mike Dicianna: Today we have the pleasure of capturing the story of an OSU PhD candidate and KBVR radio host, Zhian Kamvar. And today is Friday, June 19th, 2015. We're in the Valley Library here on the OSU Campus. My name is Mike Dicianna, I'm an oral historian for the OSU Sesquicentennial Oral History Project.

Well one of the things that we do endeavor to do is try to catch the entire story of a person, one of our Beavers, and so let's start with a brief biographical sketch, like where and when were you born, where'd you grow up.

Zhian Kamvar: Okay. Well just one little note, I'm not actually a PhD candidate, I'm a PhD student, I have not yet passed my quals, but that's the distinguishing part. But I was born in Santa Clara, California in November 1984 and I grew up in Cupertino, California until I was eighteen years old, and then I moved to Missouri for college.

MD: And so how about family background, what'd your parents do, that type of thing?

ZK: Well my mother, she was originally from Los Angeles, grew up in Roseville, California, and she is a software engineer. And my father was from Iran and they actually met here. He was doing engineering here and she was doing botany and mathematics. But yeah, he was an engineer, but unfortunately right now he's back in Iran and there's a little bit of a family history; we have a history of schizophrenia in our family, so he's a bit ill and he's been living in Iran for the past about fifteen years.

MD: Oh, wow.

ZK: Yeah.

MD: Yeah, 'cause that was one of the things we always like to look at it is when, you know, when you're growing up in Cupertino, California. Now you grew up in the shadow of Apple, basically.

ZK: Yeah.

MD: What was your life like in California during those days.

ZK: Well I mean what was it like relative to anything, or?

MD: Anywhere else, yeah. Just, how was your childhood basically, yeah.

ZK: I would say I had a fairly happy childhood. I had no, nothing really too eventful. I mean, just, I went to school, I was a latch-key kid. I went to an after-school program until I was able to be picked up by my mother until I was in sixth grade, then I could actually ride my bike to and from school and actually get myself in the house. But otherwise, it was like a normal kid. I liked—elementary school was fun, I did well in math, and middle school I don't really remember too much of it.

MD: So when do you really first become interested in science? Have you always had that kind of a mindset?

ZK: I wouldn't say I've always had that mindset, but I think—so I was interested in math when I was in elementary school, but after the fifth grade I started to not really good get grades. But I guess it was seventh grade when I was interested in science. I had this one science teacher, Mr. Heumann, Chris Heumann, he was a really great seventh grade science teacher and his class was special because we were able to, we had a lot more freedom than in other classes. Like, I don't know, he would let us put our feet up on desks, he had the class iguana that we could take out and just kind of hang out with, and he would also show us Bill Nye videos. Those were really, we really liked them. But, I mean, I just remember he would take—there was a tiny cement pond behind his class and I remember he would just take a water sample from there and put it under the microscope and show us all the stuff that was in there, that was in that water. We could clearly see that it was full of pond scum and stuff like that.

But it was just really cool. And I remember one day that he showed us, he put on the slide this little green triangular thing and he said "alright, what's this?" and nobody said anything. I looked at it, I'm like "oh that's a leaf, that's a cross section

of a needle of the tree outside," and he said that was right. I was like "yes, that was perfect!" And so that, I think it was his class, just showing that science could be fun, that's when I got an interest in science. And I didn't know it at that time, that that's what I would be doing, I would be working in plant science. I just kept going through school. I knew I was interested in science, but I knew it was—if I had to pick a point when it started, it was then.

[0:05:46]

MD: Yeah. So your undergraduate work was at Truman State University, and that's in Kirksville, Missouri. How did you decide on that institution?

ZK: Well, so growing up in California I knew that I would have—Californians, I believe, get free tuition to the UC system. Free tuition, but not the fees. The fees still come along. And so thinking about when I was finishing high school, I knew I wanted to do biology. I knew that I wanted to do biology, just because that was the thing that I had loved throughout school. And I knew that I wanted to go to an affordable school and I wanted to go to a school that was smaller. I had actually gone to a private high school called Palo Alto Prep, and it was a high school that was more for, I guess, kids who didn't really do so well in their schools, and so it was kind of a restart school. It had about sixty students total. Not just in my class, but total. So in my graduating class there were thirteen of us. And they would—so I wanted to have a college experience that was one that was in a smaller college, so I could actually talk with my professors, as opposed to actually a place like this where you would have 1,500 students in an entire lecture.

And so thinking about those criteria; small school, affordable and had biology as a good major, I picked up the Princeton Review and I looked through it and Truman State University was one of the only colleges that actually had all three criteria, because you would have some schools that have biology as a major major but they were small, I think, like, University of Maryland was one of those that I was considering. But Truman was nice and also the application was free [laughs]. I applied to other schools but I got into Truman and they actually, they offered me a Presidential Scholarship, which I was able to keep for a total of one quarter. But it was—yeah, and I absolutely do not regret going there, because it was a very good school, because it was a liberal arts college that was extremely selective.

MD: Yeah. And it was intimate. What was the population, do you know? Of the students?

ZK: Six thousand.

MD: Oh, okay.

ZK: Yeah. So I would rarely ever—my largest class was seventy-five people total.

MD: Yeah, a far cry from a big state institution like this. Well how about your—so you studied biology, now did you do any research as an undergraduate, or?

ZK: I did.

MD: Did you specialize?

ZK: So at my university there were no, were no real specializations. You got your degree in biology and your specialization was kind of just whatever advanced biology course that you could, because we could do ecology, we could focus on genetics or physiology or something like that, but it wasn't on our degree. But I focused on genetics and I was able to do research in maize, corn, and I got that because I actually spoke with my professor of genetics after I had gotten a D in his class. So I wasn't doing very well my first year and I wasn't looking to do very well my second year of college, and my second year of college I think the first quarter—it was the winter quarter that I had taken genetics, and I wasn't doing very well, but at the end of the quarter I started to do a lot better. And I was doing so much better in the class, even though I got a D overall, you could see my progress was starting out low and then I eventually got, like it was exponential.

MD: J curve, yeah.

[0:10:39]

ZK: Yeah. And so I talked with my professor; from what I recall, I talked with him and I said "I'm really interested in this and I'm really interested in doing research, what would it be for me to actually be able to do research with you?" Well, he said, "take my advanced genetics course next year," and this was something called eukaryotic molecular genetics, focused mostly on humans, but it was an advanced genetics course, and he said "if you can pass it then I'll take you in, and also if you pass genetics again."

And I did, that was, and I passed that course. And then a year later I passed the genetics course and then that very next summer I started on doing research in his lab. And they were researching, they were interested in genes that were specifically expressed within the shoot apical meristem of maize. I know that's—

MD: Yeah, but keep going [laughs].

ZK: It's jargonny, but the shoot apical meristem is kind of like - it's where all of the tissue that you see in the plant, that's where it all grows from. So it's the stem cells of maize. And so they want to know what genes are there that are expressed in that tissue that's not expressed in the whole plant? And so that was actually my first foray into where I am now, bioinformatics. So I was able to get really good research by just talking with my professor and showing that I actually cared about the subject.

MD: So you had some, as I understand it, you also had some radio experience at Truman State, kind of like what you're doing here. What did you do there?

ZK: Well over at Truman State I just started out just playing music. We had a radio station that was, I think it was about ten years maybe, certainly not as old as KBVR is. But it was a good number of years old. And I had a couple of friends who worked there and I went down to go bug them one day. The station manager was sitting in the lounge and he saw me there and he said "hey, do you want to be on the radio?" and I said "yes" and the next question was "can you do Tuesdays from seven o'clock to ten o'clock?" And this was in the morning too, seven o'clock to ten o'clock in the morning. I said "yeah, sure I can," and he said "you're hired" [laughs].

MD: So you're in radio, yeah.

ZK: And I did that from my sophomore year until my senior year, and I had a music show. All of my shows were music shows but I had a music show from seven to ten on Tuesdays and eventually I had a music show from seven to ten on Sundays in which I played classical music and I would haul my records over to the radio station. I actually played classical music off of there. Mostly I would choose really long tracks so I could nap a little bit.

MD: Yeah, or get some studying done.

ZK: But then after that, I eventually became, I had a collaborative show called The Vinyl Show with one of my friends that was on Sunday nights, and I also collaborated with someone on a metal show. It was really fun because we got to do a back and forth and we got to do different voices and have different personalities on air. And during one summer, I believe in my junior year, I was able to be station manager, and so I got to make up the schedule and organize all the DJs, and that was a really fun part of my undergraduate, just being able to do radio and just having fun.

MD: Yeah, so that was kind of your recreation almost.

[0:15:00]

ZK: Yeah, pretty much.

MD: You got your nose to the grindstone for studies and...

ZK: Yep.

MD: So you graduated what year then? 2008, or?

ZK: I graduated December 2007.

MD: Seven, okay. And so where did life take you from that point, before you came here to OSU?

ZK: Well December 2007, that was four and a half years into—that was four and a half years of college. I had a girlfriend at the time. We were interested in potentially going into the Peace Corps together after college, and she was going to graduate spring of 2008. So I figured "okay, well, I'll wait around for her." But when we looked into it after I graduated we're like "well, she can go into the Peace Corps, she has language experience and she's been outside the country." I realized I had not been outside the country and I had no—I didn't really know a foreign language. I took Russian for a year in college and I got a C and a D, respectively. But I had no useful language experience. So Peace Corps was not an option for me.

And so she said "well, how about Korea? How about we go to Korea and teach English?" because she knew that was an option. And I knew nothing about it. I knew people went to Japan and taught English, but I didn't know about Korea in general. I didn't know anything about it, really. I knew that there was a war there and they made spicy food. That was about it. And I thought, "well, that's actually a great idea because I know nothing about that." [laughs] So we decided to go to Korea. Then we broke up that February and we changed cities. She changed to Seoul, I was in the city that I originally signed up for, which was Daegu, South Korea. And in that summer I got on a plane and traveled to South Korea and the very next day that I arrived they put in a classroom, gave me a book and said "teach."

MD: And so you spent how long there?

ZK: Three years.

MD: Oh wow, okay.

ZK: Yeah. Yeah, three years in South Korea it was, and while there I was able to learn how to speak Korean and I actually found my future wife.

MD: So it was worth the trip.

ZK: Yeah, yeah.

MD: So you decided to pursue a graduate degree, which brings you to Oregon State University in 2011, I understand?

ZK: Yes.

MD: Okay, so what made you decide that you wanted to pursue further education?

ZK: Well, so I was in Korea and it was like, I enjoyed Korea, it was nice. I had a decent job, I was in the music scene, so I was playing shows and having fun. But I realized I was, for my leisure time, I was just reading. And I was reading literature but I would read a book of literature and one, like, science book on the side. And I realized that I really missed biology, I missed thinking about biological concepts and all that. And I realized that the next step, if I wanted to keep going on in biology, was to actually get a degree. And I thought I was going to get a master's, I thought I was going to go apply for a master's and figure out if I wanted to do a Ph.D. But the problem was, when I looked at positions, a lot of schools only offered Ph.Ds. But basically it was that feeling of needing to have some sort of biological thought in my mind, in my life. You know, because when you're teaching English all day, are basically a glorified tape recorder, it wears on you when you don't get to think as much in the field that you wish you were doing.

MD: And so did you apply to a number of schools or was OSU on your radar?

[0:19:53]

ZK: OSU was on my radar, but I applied to a number of schools. But because of my—mostly because of my grades, I wasn't really a, I wasn't accepted to all of them. OSU was the only school that looked at, I guess, weighed my grades and my experience equally, because I had a 2.89 GPA, so I couldn't get into any of the UC schools. I was applying to Purdue because someone was working in maize genetics over there, and he knew my old professors and we had talked and he said that he would advocate for me. But their graduate school wouldn't let anybody in without a 3.0. But I had two years of

research experience and I had pretty good letters of recommendation, I think. Never allowed to see them. But OSU was the only place that actually considered that, and I got in and it was—I think it was one of the seven schools that I applied to.

MD: So now when you came here to Corvallis, what were your initial impressions of the campus, the school, things like that?

ZK: Well, I knew that it was going to be—I knew that it was going to be grey, I knew that it was going to be rainy. When I came here to interview I already, I had a friend here who went to my university and he was studying chemistry over here. But when I came here to interview, I wasn't really so concerned about what, how the buildings looked or anything like that. I was more concerned about, would I get along with the people here? And I thought yeah, I could. I met a few people in the department, I talked with all the professors that I wanted to, and yeah everybody seemed very, there seemed to be a wide diversity or research that was going on in the Department of Botany. And I just felt that everyone was very welcoming. And when I came here to start school I did not realize how, I guess, how lonely things would feel with the greyness.

MD: Yeah, well for being a California person, we have a lot of people who have experienced that.

ZK: Yeah.

MD: So you got yourself established. Now, did you move right in with a design as far as what you wanted to research? Or did they plug you into an area?

ZK: So when I came here I did a rotation, and that's not normal in the Botany Department, but there were two professors that were interested in having me as a graduate student. One was Pankaj Jaiswal and the other was Nik Grunwald, my current advisor. And they were doing two completely different projects in two completely different fields. I started out with Pankaj Jaiswal, he worked on—he was working on systems biology of crop plants, so trying to figure out all the whole, I guess, the whole ballet of genes that's going on in why certain rice varieties would be salt tolerant, for example. And so a lot of it was computational work, lots of it was greenhouse work, and I was, you know, that was my first experience in research. But it was—I worked there from September to December, and I did some computational work, some greenhouse work.

But then I went over to Niklaus Grunwald's lab, and his lab was looking at population genetics of plant pathogens, specifically a plant pathogen called phytophthora, which in Greek it means "plant destroyer." And it's a fungus-like organism but it's not a fungus. But since I was working on population genetics as opposed to, like, system biology or just traditional genetics, it was a completely different world. I had maybe one section of population genetics in my genetics school, and that was about it. So I had to basically relearn everything when I went into the lab, and after three months I just really loved it and I just decided to stay in it.

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And I didn't know exactly what I would be doing. When I got into his lab he said "okay, well, we have this problem with clonal organisms. They don't behave like anything—they don't behave like other organisms. Normally, with other organisms, we have a lot of nice models to figure out what their behavior is like genetically, but with clonal organisms it's a little different. So I want you to try and run a few simulations and look at these metrics and see how they behave under different levels of clonal reproduction." And this involved coding in Python, which I had never done before, and it had kind of opened up a big can of worms. And that's kind of what stayed because a can of worms doesn't close.

MD: Yeah. And it was a challenge.

ZK: Yeah. Yeah, it was a challenge to see if I could learn something new on my feet and actually get something out of it.

MD: So have you done any field work at all or is this all within the lab?

ZK: This has all been within the lab. So for my work right now, a lot of our samples come from nurseries. And so I've gone out and collected samples, and this is mainly walking through the rows and looking for diseased leaves and

collecting those and eventually extracting the pathogen out of those leaves. But other than that, most of what my project is, what it has become, is to try and describe the population structure of a specific species of phytophthora within Oregon nurseries. So you have like Nursery A and Nursery B, and we find that they both have this species of phytophthora - phytophthora syringae, that's my species. So they both have syringae, but the question is, has Nursery A traded with Nursery B and have they potentially moved this species across? Or do they both have separate populations of the species that have never interacted with each other? And that's a question that's important for management strategies.

MD: Oh, yeah.

ZK: To see if things are moved around or if these species are potentially susceptible to—if they might be resistant to fungicides or anything like that.

MD: And how they're introduced and how they got there.

ZK: Mhmm. So that's kind of how my project evolved, because I started with simulations but then my professor kind of realized that, well, you can't do a PhD just on simulations. And so he realized that there were hundreds and hundreds of these isolates, phytophthora syringae, in the lab, and that there was a potential to actually do something like this.

MD: Oh, and so it kind of, that developed into what your dissertation is going to end up being?

ZK: Yes. Yeah, exactly. But the simulations didn't really stop. I haven't completed the simulations so far. But what we ran into was a road block and we figured out that the software that calculated the metrics we were looking for was painfully slow and wasn't as flexible as we needed, too. So he said "why don't you write it?" And that actually became my first paper. I developed a software package to analyze population genetics of clonal organisms. And we actually just got a notification today that we are in the, I guess we've been listed as one of the top ten papers in bioinformatics in that journal. The journal was PeerJ. But yeah, and that was because we've just gotten a lot of people using the software and it's been cited a lot. So that became a chapter in my dissertation.

MD: Right, yeah. Well that's impressive. Now have you done any teaching - teaching undergrads in your capacity, or is that—

[0:30:06]

ZK: Yeah, I have. I was at—my first winter here I taught, yeah it was winter quarter, winter of 2012, I TA'ed Bio 211. Because in Botany we're required to teach at least two quarters, and my first quarter Pankaj had funded me and my second quarter it wasn't clear, so the department decided to fund me at that point with a TAship. And that experience was, I don't know if had a typical experience with that. So teaching Bio 212, the 21X series, it's fairly straightforward. You are taking charge of a lab section. The entire class is taught by one of the biology professors, a couple of biology professors, and they just have the lab to emphasis the material that's going on. And there's a set coursework and so all you have to do is lead them through lab and write their lab quizzes and grade their—and I guess lead them through their progress in trying to write their first lab reports, their first formal lab reports.

It was a bit—that quarter was a bit difficult for me because I had moved three times in that quarter, so I was, I actually wasn't doing very well mentally in that time. Yeah, I had moved once in the beginning, once in the middle and then once in the very end. And that was also the first time it had snowed really heavily, we had floods after the snow and so a lot of the, you know, a lot of classes were interrupted because of that.

MD: Yes, I remember the finals were interrupted and everything.

ZK: Yeah. So it was, that was kind of a rough time in my life. And also my fiancée was in Korea, I was here all alone, my cat that I had from Missouri, he was living in California because I had moved into a house where the landlord said no pets. And so it's like I, you know, I just felt really alone at that time. But after the—I do want to teach more classes. I kind of wish I could, but my advisor likes to give a lot of work.

MD: Yeah, keep you going, keep you working.

ZK: Yeah, and he, I mean it's nice being able to have a research assistantship, because I can focus on my dissertation, and I enjoy doing the research, but I do know that I need to get more experience teaching.

MD: Well that's one thing I did want to touch on a little bit, is give us a sense of the pressures that a person faces when they're in the doctoral program. I mean funding and all this kind of thing, is it constantly chasing—

ZK: Well I'm in kind of a lucky spot because I do work for—my advisor is a courtesy professor. He works for the USDA. And so, while his funding is not guaranteed, he often has—there are not times that we really worry about it. I know that, from interviewing a lot of other graduate students, I know that funding is not in any way, shape or form guaranteed. And this is often, this is a point of a lot of stress for a lot of people, because their lab is on what's known as soft money where they have grants that expire in a few years. Or, like, they're on a lot of little tiny grants that make up their entire funding, and it's just sometimes they can't afford lab materials or they can't afford to travel to conferences, and I know that becomes an issue.

[0:35:11]

So there are a few things that graduates, especially in science, can do in order to get funding, which is, before they come here, if they apply for the graduate research fellowship program from NSF, that will fund pretty much all the way through your graduate program. And then there are a few others. And then there are some funding opportunities once people are a PhD candidate. You can, there's another NSF one that people can apply for, and I know that there's a NIFA one, which is for agricultural students, but generally it really depends on what field you're in, also.

MD: Yeah.

ZK: And if you can do services, if you can do services for a company, then that would be a way to get—if you can do services for something that, that would be a way to gather funding. So we interviewed a graduate student from Computer Science the other week and she's actually working for a place on campus to, I guess, kind of develop an artificial intelligence for fire safety training.

MD: And then she's being funded basically through that.

ZK: Yeah.

MD: Well I notice that you also, you are really involved with the Coalition of Graduate Employees—

ZK: That's true.

MD: And so what are some of the issues that are in front of that organization, and where do you fit into it?

ZK: Well, so some of the issues that the CGE faces is, I guess, treating—the sense that graduate employees are employees, because there is some sense among some administrators on campus that graduate students are not actually employees, even though we do services for the university. I mean, when I came here, my position, an RA position, was not considered an employee. We were considered students, we were considered—I don't know what you would call it, but we weren't employees, even though we were doing research for the university. And the mindset behind that was that if you're doing research towards your thesis, then that's not really servicing the—that's serving you, even though it is bringing in funding for the university, bringing recognition for the university.

And so it's always an issue trying to get us recognized as employees. There's always the issue of health care, what do you do with—or if a graduate student has a family that they need to take care of, how do you insure that they have, their dependents have health care and they have enough money to live on? Or they have access to child care while they're working, and also the—you know, it's all, graduate students work a lot.

MD: Yeah, it's slave labor for the college, yeah.

ZK: But it's—so it's making sure that we have a contract that does say we have a specified number of hours that we can do work outside of our thesis. For those of us who are, like me, at a .49 FTE, we are scheduled to work twenty hours per

week as the work that's assigned to us, and then the rest is supposed to be studying and thesis. And however many that actually ends up, it really depends. Mainly it's like we, I mean the union is here to basically protect graduate students, not from—I guess from anybody who would try to take advantage of them. That's not to say that everybody does. In fact, I would say the vast majority don't, but there are some times when you have situations where you see graduate students being worked forty hours a week or teaching their own classes when they're only supposed to be working ten hours a week.

[0:40:23]

MD: And so they needed a voice.

ZK: Exactly, exactly. And the union here, we have a very good relationship with the university right now that we just, last year we had a contract where we were able to get, let's see, eighty-five percent of our insurance taken care of. We were able to get cost of living adjustments for our salaries. And in our health care, I know there is a lot of—we have a really good health care plan for all members of the graduate students. And so we're at a good place with the university right now, I believe.

MD: Now is this an issue that's pretty much nationwide with other institutions and their grad students, or are we kind of unique?

ZK: Define what you mean by that.

MD: As far as what you guys are working for through the Coalition. I mean, is this something that, say, Montana State would have the same kind of issues?

ZK: Oh, yes I would say so, I would say that—

MD: So it's pretty much a universal thing, yeah.

ZK: Yeah, I would say all across the country, if you have a graduate student who's working as a TA or an RA, there's a question of how much are they being worked, how much are they getting paid for, and is that correct? And I know a lot of universities, for example in the South, don't really have—they don't have unionized grad employees, so you have graduate employees getting paid like nine hundred dollars a year. And you have graduate students who don't get health care through their university. I mean, I know that we are very lucky for that. Because sometimes on policies, the university likes to treat us as students or they like to treat us as employees, and it's, you know...

MD: Whatever works best, yeah.

ZK: But I, we do have a very good relationship with the university, and we are much better off now than ten years ago.

MD: Yeah. Well one of the things—well clear it up for me exactly how this being a doctoral candidate versus a PhD student works here in, well especially in Biology.

ZK: Well it depends on department to department. But a doctoral candidate versus a student is really, that's based on when you pass your quals. If you've passed your qualifying exams, then you are a candidate. And the salient difference between that is, if you've passed your quals, they cannot kick you out [laughs]. That means that they have officially recognized that you are going to be getting a PhD.

MD: Yeah.

ZK: They can't say "well this is not good enough, and here's—you can apply for a master's."

MD: Yeah. Well one of the things that - there's kind of a culture of the undergraduate students on campus - is there a grad student culture on campus? I mean, are there hangouts? Is it a tight group of people like undergrads, or are you guys mostly on your own?

ZK: Well, we're kind of, I would say—

MD: Probably within the departments, anyway.

ZK: I would say it's kind of a mix. Some departments, like Botany, we're really tight-knit, we're really close together, a lot of us. You know, some of us, we don't see each other but some of us we're really tight-knit. I believe that CEOAS, College of Earth, Oceanic and Atmospheric Sciences, they're all very tight-knit. And then the rest you have, I know that sometimes you have people aggregating within the departments, sometimes you don't, sometimes you get people that are aggregating specifically within the union. And so a lot of the—that's one other benefit of the union is that we actually get to meet people outside of our department, because we're not; I guess the places I find grads hanging out are generally, like, you'll find grads maybe forming an intramural softball team or something like that. Or you'll see them hanging out at Bombs Away Café, or just some places like that.

[0:45:31]

MD: Yeah. It's not like a culture.

ZK: No.

MD: And it's also within the—

ZK: But you can recognize graduate students on campus; they're the tired-looking ones.

MD: Yeah [laughter]. One of the things that Chris was real interested in, and I'm kind of curious about too, now do you have a perspective on all this rapid change and growth that you've seen, even within the past couple of years that you've been here on campus? Now how does the fundraising for all the research that President Ray has put together, how does this affect you? And do you see this changing graduate studies?

ZK: I don't know. I don't know that I can say very much about that, actually. You're talking about growth as in financial growth for the university.

MD: Yeah, well that plus the physical growth around here - you know, you can't swing a dead cat without hitting a new building on this campus.

ZK: Well I've mostly just noticed the population growth at the university. But since a lot of my funding comes from the USDA, I'm not—unfortunately it's not on my radar. And I know it should be; I guess I'm not a very good graduate student in that respect. I can only speak to the population growth, that it seems to me that Corvallis is not big enough. A university of this size that just keeps growing, it doesn't seem good to me. But obviously it helps. You know, this kind of growth would, if it goes towards grants or scholarships or research, then obviously yes, it's good, because you have more research dollars that are able to bring in more graduate students that contribute more to the university. But beyond that...

MD: Yeah. Now where are you located on campus?

ZK: 35th and Orchard where - I'm on the USDA area, Horticultural Crops Research Laboratory.

MD: Oh, okay. And so top of the line, high-tech, you're basically in a super lab, or?

ZK: No, I wouldn't say so. In the—we do have a lot of top line equipment over in the Agricultural Life Science building where they have the core labs, where we have a lot of great facilities, great equipment and great people working there, like we have just very new sequencing technologies. And we have access to that over at the USDA. But over at the USDA, no, not everything's new in there, it's all up to like very high-tech—I mean we're not super low tech, we're not trying to light our Bunsen burners with flint, like with two flint rocks, but no.

MD: Now one of the things that I really want - to kind of shift gears here - that I'm just fascinated with, is you hosting Inspiration Dissemination, a show that's broadcast on KBVR here on campus. Tell us a little bit about the roots of the show; how did this all get started?

ZK: Well, so I don't know if you're familiar with my former co-host Joey Hulbert, my co-creator of the show, he was a—it all started when I came here in 2011 and I met him. He was working as a lab tech in a forest pathology lab on campus, and it was Everett Hansen's lab, he's recently retired. And he was working as a lab tech in this lab, and we were friends with one of the graduate students who was working in the lab, and he realized that he wanted to go to graduate school. He wanted to get a master's degree because he had his bachelor's degree; kind of like me, he didn't really do well on grades but he was really passionate about science.

[0:50:19]

And so he wanted to get into grad school, but he realized a lot of the grant applications were asking for, "what is the impact of your research?" Or "how will you do outreach?" Things like that. And he was thinking about it and he thought, "well, you know, I have friends and I know they work on this. I don't know much more than that. I don't know much more than, like, Chris works on stick bugs or Lee works on grasses, things like that." You know, you want to get to know more about what they do. And he was also thinking, "that can actually help me be able to write my applications to grad school, find out what other graduate students are doing. I can figure out what I want to do, like how to phrase stuff."

And so he was doing a radio show at the time and I had heard it and I said "I like your music, I wish I could do radio again." I hadn't done it in three years. And so we went on the radio show and then he had the idea to just have one of our friends on and just interview them over the phone on the radio about what they're doing. And we did it one time, it was fine, then we sat down with another friend, brought him actually in the studio and interviewed him and it was a great time. And then we realized we could actually do this every week - we can bring someone on, talk with them for fifteen minutes and it would just be a great little segment for our show. And it just kind of grew and grew from there.

I think the—and a lot of the growth we have to attribute to Joey. He has a lot of energy and a lot of passion for the show. There were times when I was kind of tired out, I was just like, "I can't do this anymore," it just—but he would just keep on it and he would have a lot of energy for it. And he had the idea to get a website together so that we could display people, like he had the idea to start recording the shows and he had the idea to get undergraduates to help post-produce the shows, that we would collaborate with the Communications Department, give them practicum credit in order to do that. Not to say that wasn't a lot of work, it was a lot of work. But it's really because of him that we have this foundation, and we've gotten a lot better in the past few years at interviewing people and figuring out, like, okay, well how do you lead someone through? And then how do you actually avoid stops-deaders? And things like that.

MD: Yeah, how you drag it out of them. Now, do the guests come to you or do you actually filter out trying to find people that you want to talk to on each edition?

ZK: Generally we broadcast, and—well I mean we broadcast a message that we want people, so it's various ways that we get people. Sometimes, if one of our friends has not been on the show, we'll bug them enough that they come on, sometimes. Other times we'll send out an email on the union grad list. We'll send out an email to all the different departments; all the people who send out emails for the departments, they'll send a broad email to their various departments. And then other times we just meet people, like if there's a large social gathering such as a barbeque or the beer festival, it's not uncommon for Joey to go out to the beer festival with a clipboard [laughs].

MD: He's like "you need to be on my radio show," yeah.

ZK: Yeah, and I mean just the other day I actually just recruited someone via Twitter, like I just had our account just say "hey, we"—she posted a blog post about life in graduate school and we said "hey, we really need you on the show." And so we got her scheduled. And, you know, it's mostly just through a lot of coercion [laughs].

[0:55:15]

MD: Yeah, well I do the same thing for this project here for the library. And graduate research, a lot of times, is really kind of technical, and you're talking science-ese and jargon. How do you get to have the person translate the jargon for the general lay audience that's out there in Beaverland? Do you kind of prep them a little bit on that?

ZK: It really depends. For some people, it kind of comes naturally; they're able to translate their research, but we do coach them. So what we do is our show is very—it's a bit formulaic. So we always start out and get their general

information and then ask them "okay, so what do you do here?" and basically we tell them to give their elevator speech. Your elevator speech; you meet someone in an elevator and you just try to convince them that what you're doing is cool, and so that means you have no idea what their background is and they have no idea what your background is and they have no idea, they probably don't know anything about your field. So you have to do it in as understandable terms as possible. So we will have them, sometimes we'll have them practice that over and over, to try and get it right, because the first time you do it you think, "okay, well I'm doing this, I'm doing this—"

MD: "I've got to add this into it," yeah.

ZK: "Oh, but then there's this part of my research, and then there's this complete caveat of—" often it goes like that. But eventually, I've learned in—there was a course I took called "Making Your Science Matter" by, it was Karen McLeod from COMPASS, she leads that course. And one of the most important things to think about when you're communicating your science is to give them the why - why you're doing something - first. Often as scientists, we start with "okay, well here's kind of, here's my introduction, here's my methods, here's my results, here's the bottom line." But you start with the bottom line and then you get to how you got there. I mean, that's how we kind of coach them. And we help them along - I maybe suggest phrases, I maybe try and shorten their sentences, suggest better phrasings of what they can say. But often the graduate students are fairly good at actually communicating their research well.

MD: Now you began broadcasting and you were broadcasting out of the old Snell Hall. That was an arcane, old facility. And now we're moving into the new Student Experience Center, but what was it like broadcasting out of Snell?

ZK: There was history there. I mean, it didn't really feel very much different than when I broadcast out of Truman. So in Truman I actually - I've moved stations, I've moved radio stations twice. In Truman we got a new station, but before we got the new station we were in a basement. We had a board that had wood panels, we recorded our—there was a cassette tape that was recording our voices. Every time the microphone went on, the cassette tape rolled. That's just the way it was. So I knew what it was like to be in an old station, I knew what it was like.

You know, Snell was not really much different. It was unbearably hot in the summer time and it was decent in the winter, it didn't really get that cold. But things broke occasionally. There were times when you moved the chair wrong and you hit the board and then things went silent. But it was nice being in that student - just having just these decrepit walls around you. It was kind of home.

MD: Yeah, yeah.

ZK: And then moving to the new studio it's like, you know, it's a completely different experience. It's like going into a spaceship.

[1:00:01]

MD: Yeah, Taj Mahal now. And so you were part of the big farewell celebration that they held at the old studio, were you part of that whole...

ZK: I wasn't officially part of it, no. I didn't, I was asked if I wanted to have a slot in their twenty-four hour marathon, but I figured, I have shut down one station before. And I know there were over a hundred DJs, like how—I was number two on the seniority list at KBVR, I still am, I believe, so that meant that I was up second to choose my slots. That's like, how can I take a slot away from an undergrad who's probably never, who's never had this opportunity, who will never have this opportunity again? I've done it before, I've been in a station when they're shutting down, I've taken my souvenirs and I've gone, it's time for someone else to do it. And so I stopped by as they were doing some of the ending stuff, but...

MD: So say goodbye and move into the new...

ZK: New Student Experience Center.

MD: Beautiful Student Experience Center, which has been open now just basically a couple months, really.

ZK: Pretty much a quarter, yeah.

MD: Yeah. Now you guys moved in first towards the end of the move-in, didn't you? They would set up offices first and then move the technical stuff over?

ZK: Yeah, I think we moved in at the end of April. Yeah, April 26th I believe, was our first show back, and we actually had to move a lot of people that we had scheduled in April - we said "sorry, we have to move you to May, is that okay?"

MD: Yeah, because of the physical moving. So has there been really any memorable moments over these three years, things that stand out?

ZK: You mean with the radio in general?

MD: Yeah, with the radio.

ZK: Well, I mean, so there are a lot of memorable moments, although one of the most memorable was we had a student, she was researching whales, her name was Michelle Founier. We actually have her show on Archive.org, and I believe it might—it's in the hands of Chris Petersen, so will eventually be in the archives here.

MD: Yeah.

ZK: But there was one point in the show where she was researching vessel noise, the effects of vessel noise on whale calls, or whale behavior, and so she was talking about whale noises and Joey had the idea to ask her "can you make a whale sound?" And she had some—she had done some theater work years before and so she was really good, she was on her feet and she's like "okay, well they sound like" [makes whale sound] and it was just a really fun moment on the radio. I wasn't expecting that, she wasn't expected that, neither of us were expecting that.

MD: Oh, cool. So you guys received an award in 2014 from the Intercollegiate Broadcasting System for the Most Innovative Radio Program.

ZK: That's correct.

MD: Tell us about that experience.

ZK: So we had—so there were a few things that were culminating for that. So we had been, we had undergraduates that were post-producing our episodes for about a couple of semesters, about a year maybe, I can't remember how long exactly at that point. But we were always in our same spot. We'd been doing this for a couple of years and the university was interested in doing a story on us, I believe for Powered by Orange or some blog like that. And they were going to have someone come in and film an interview. And we also got the word from our station manager and also the advisor for the station that the IBS awards were coming up and they thought we would be a really good shoo-in for the category of Most Innovative Program. And we said, "yeah, yeah we can do that," and the station manager at the time offered to actually create our little five minute sound clip for that show.

[1:05:11]

And we had planned out that show; like, that show we had a very charismatic guest, his name was John Yeo and he was working on diseases of blueberries, so blueberry root rot. And he was trying to figure out, I guess, organic ways of controlling that, just by either putting more mulch on or using gypsum or something like that, or drying out the soil a little bit. But, so his show, we really made sure that we were on-point for his show, we made sure that everything was perfect, because we were being filmed that time. And it came out to thirty minutes exactly. The station manager, Jodie Davaz, I believe that she has an interview here too—

MD: Yes.

ZK: She did a really nice edit of it, sent it off to IBS, and then we found out we were in the running and then we won. That's like—we were really surprised when we logged on and I looked at the scores and I'm like "wow, really?"

MD: And so where was the awards? Did you go?

ZK: I didn't—well, I mean, because the award ceremony was in New York. The IBS, I believe, is always in New York. But so, it's like, we were actually offered a small amount of money to go to New York to cover expenses, but that would have covered maybe halfway, and we were both really busy. So for Joey and I, it wasn't really worth it.

MD: So this a nationwide organization then?

ZK: Yes, yeah.

MD: Wow, okay. That's impressive. That's very impressive. Now what kind of feedback? Do you have a following, do you have groupies, what kind of feedback? I know that I've seen it on Facebook, I liked your page on Facebook, and do you have good feedback from the audience out there? Do you take calls, or just—

ZK: We don't take calls.

MD: Not in that format, yeah.

ZK: No, no, because we're doing this live. So right now, it's always been just the two of us that have been finding the guests, interviewing the guests, and just doing that all live on air. And I know that a lot of live shows, if they have call-ins, they always have someone on the line to screen the callers, so we can't really do that format. We tried at one point to get people to ask questions via Twitter or maybe via GChat or something like that, but we found that we got too distracted whenever we were doing that, because one of us was looking at the computer screen trying to figure out, "is someone asking a question?" and also trying to follow the conversation at the same time. That's a definite skill that you have to build up.

MD: Yeah, it's better to have staff do that for you. Now is there a kind of a culture at the KBVR? I know that there's, as far as a group, being part of the radio culture within KBVR - I mean, KOAC goes back to the mid-, early 1920s, so there's a long, long history of production here at OSU. Do you guys feel the sense of that history? And sense that this is part of why we've actually held up radio broadcasting over the eighty or so years?

ZK: It's kind of staggering to think about how long KBVR has been on the air. As far as a sense of community, I know that we have—like, I would be surprised if you find any radio station that doesn't have a sense of community. I mean we all—like the fact that one of us can say "hey, I can't make a show," and someone will immediately jump on it and say, "I'm going to take that." People really love working for the radio, they just really—I mean it's a really great medium to work for. And because of that common love for radio, we all like hanging out with each other. That being said, I haven't really hung out with very many radio people, but I do see them often, like I recognize them on campus. And there are often, at the radio, often there will be DJ nights over at Bombs Away where some of the DJs who are actual DJs perform some sets.

[1:10:27]

MD: So now you're, at this point, this is the radio station - the radio is just one part of your life, and then your research. What's a typical day in your life?

ZK: A typical day?

MD: Pretty crazy, or?

ZK: It all depends on if I'm at the lab or if I have to code. So let's see...just wake up, bike to work and I get in and I generally start, I either start writing or debugging some sort of code. If I have to go into lab, then I go into lab that morning and I try and get as much lab work done as possible before the afternoon. Well no, that's not true, that really depends. There's also papers to read that are flooding in and, like, panic emails; "oh this doesn't work, how do I fix it?" Because I'm part developer, consultant and lab person.

MD: Yeah, so a pretty full life.

ZK: Yeah, yeah.

MD: So at this point you're moving into the stage of actually putting together a dissertation.

ZK: Should be.

MD: Should be, yeah. Well is there a time consideration or are you given—

ZK: There is time consideration. This is the end of my fourth year so I should be—if I were being a good graduate student, I should be done within two years [laughs]. But that really depends. I am kind of an experiment myself. I would consider it that - I am the first PhD student that my boss has ever had. So I get to figure out, what are the steps I need to take in this lab to be able to finish? Where can I say, "I'm going to draw the line here and I'm going to be in study mode from now on"? Or "I'm just going to be in maintenance mode and study mode for my project, I'm not going to take anything new." How do I call that? That's been the main challenge recently, but I'm looking to finish up within the next two years.

MD: And then where is life going to take you?

ZK: That's a good question. I've gone through—I mean as any normal graduate student, there are times when you have ups and downs in your graduate career, and in the ups you think "yeah, I can do this, finish up and I can get a good post-doc and then I can get a lot of good papers out and then I can go and I can apply for an assistant professorship and go through the whole gauntlet of academia and trying to climb up that ladder." Then at the low points you're thinking, "how did I get here?" Like, "why did they hire me into this when they obviously know that I can't do this?" [laughs].

MD: Yeah, "I'm never going to be able to do that."

ZK: And, you know, I've gone through those hills and valleys a couple of times. And the question of where am I going next has always been hanging over. And there is part of me that—there's a large part of me that wants to just go do the whole academic route, get a post-doc, and then apply for an assistant professorship. Then there's another part of me that says "well, you know you have skills in radio, why don't you do radio? Why don't you try and see if you can actually get into that kind of world?" Then there's another part of me that says "well, you know you actually have skills in programming, you could join a start-up down in San Francisco if you wanted to." But there's a big part of me that says, "you're mediocre in all of these." [laughs]

[1:15:14]

MD: It's what do you want to be when you grow up.

ZK: Yeah.

MD: And you just don't want to grow up.

ZK: And, I mean, one of the things is that there's also - I want to go back to Korea someday and live there. Because that's a, I mean my wife is from Korea, she wants—I mean we both want to live in Korea. We both like it there. But it's not very good for advancing in the academic system.

MD: Yeah. But how about as a botanist? I mean, can you change the world? Can you do something for that country with the skills today from your—

ZK: So, as far as being a botanist goes, we're in the Department of Botany and Plant Pathology. So, I'm not a very good botanist. I know how I can kill plants, I can't grow them. I mean, it might be - my skills might be applicable, but I just don't know. And outside of the academic concept, context, that's just a world that's completely grey to me. I know nothing about it. And I know that, again, if I go to Korea as a post-doc, I will never be not a post-doc. That's the way it stays.

MD: Well it's been fascinating learning about this. I always like to allow my Beavers' stories to end with, do you have any words of wisdom that you'd like to impart to future grad students? People that are fellow Beavers or are going to be watching this? I mean, what have you taken from your experiences being an Oregon State Beaver?

ZK: You know, I mean, this is a great place to be in general. We have a really good thing here in Corvallis. I mean, if you're a science graduate student there's generally funding, there's generally support. We have a lot of really good facilities here and we have a lot of smart minds here, and the graduate students here are really smart overall. I mean, this goes for STEM and liberal arts graduate students. I mean, it's interesting, I don't really know what kind of advice I would give. And it's funny because I always ask for advice every single week. I ask people "what advice do you have" every single week. Everybody has advice, but it's usually advice to get into grad school.

MD: Yeah.

ZK: And surviving grad school? Well, you just persist. You don't let your valley of sorrow dissuade you from being a graduate student; you don't let the little things like being away from your fiancée for two years dissuade you. You just kind of find something to focus on, and that's how you get through the hard times. And when you have the good times, don't let it go to your head. [laughs]

MD: Yeah, makes them that much better. Well on behalf of the OSU Sesquicentennial Oral History Project we really, really want to thank you for a look into your life, a look into KBVR and graduate student culture, and you're going to be a permanent part of this institution as part of this project. So we appreciate it, thank you very much.

ZK: No, thank you.

[1:19:48]