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OH 412-19

Interview with Dr. Gregory St. George (GS)

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by

Dan Finch (DF)

[The beginning of the tape is quiet. The transcription starts with the first sounds on the tape.]

SG: .. .tendency of not planning at all. My, my wife is local in the sense that her dad grew up in Eastern Montana. They have property down the Bitterroot, and so the reason I choose to stay here was basically because I was able to. Which I thought was a pretty good trick to be able to do that. I'm not sure if I'd make the same choice again. I probably wouldn't because I did have some interesting offers back east. It was, at that time, the bottom was falling out of the Ph.D. market, but I probably could have just gotten in under the wire. It didn't get seriously bad probably until '92, or '91. It was terrible. The jobs weren't available at all, but probably could of gotten a job then, but they needed... I didn't know anything about how you get jobs. And I wasn't real good at asking questions, so when I got my degree in '89, or maybe it was '90, I don't know, yeah, it was '89. I sent out about 150 letters. I got my job, my degree in the spring. I hadn't wanted to worry about getting jobs before then. So I sent out about 150 letters in the summer. Nobody hires anybody in the summer. You apply, and you know, there's a regular season for these things; you know you do it probably in November, and the serious decisions are made in January and February, so I didn't get

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much interest. I went to the summer meetings in Boulder, and couldn't pick up anything there, and I decided to apply to next year. So, I needed the job for that next year, and they.. .It's fairly usual that when people get a Ph.D.; they hire them a full year. So, I had a job that next year here running 150. And they were anxious to have somebody continue to do that, so, and they had created this special position which was this teaching position which is the position I ended up applying for. Because normally you wouldn't be able to stay. I don't know. Billstein managed to do it too, but when you get a Ph.D. from a place, you generally don't stay there. It's kind of viewed as a kind of inbreeding. Although eventually you outlast most of the people that taught you, so maybe it's good for continuity in the long run, but, so.Normally you wouldn't get a normal faculty position, or wouldn't be considered for one, but that, they created this special teaching position, and since I had a reputation of being a pretty good teacher, that I applied for that, and I was still applying for jobs back east, and I got an interview here and an interview there, and went to some of those interviews, but I, at that time I was pretty sure I was already going to take this one. So, I took the job here. Which is basically a job coordinating freshman classes. And the, you know the basic reason is to be able to stay in Montana. Because you know my wife had property, and the whole, her family's all here in Montana; mine are in Boston, Cape Cod, those areas so... That's how I ended up here and that's basically been my education. I don't know, I'm kind of a person that educates myself anyway, so I don't feel like it was a terrible blow only to... but you know, it's difficult now, and it would probably have been better to go somewhere else just for, to avoid all that. It's okay too. You know, I'm not mad about anything...and...so...So, there's question number one anyway.

DF: So, as we move on...

SG: .. .the most influential person?

DF: If there was one.

SG: Yeah, that would have been Keith Farver, he, but you wouldn't know him; he was my high school teacher. His name F-a-r-v-e-r. I should get a hold of him one of these days. He was a very rigorous; I guess it's a good argument for having terribly hard math classes in high school. Probably most people hated him. He made the, my high school classes were much rigorous than, probably most the classes we teach around here. I mean, we did, and so, even when I went, I went to a very good high school which is Randolph, New Jersey, and I. Even when I went to the University of Vermont, most of my classes the first year were just. They weren't you know... I took, I started in Calc 2, and that was probably, that was probably a good a split, a good place to start. But my, that first part of my education was seriously disrupted by the fact that they were having a war at the time. So, they did things like take over ROTC buildings and do intelligent things like not taking any finals, because of bombing in Cambodia, stuff like that. Stuff that's you know, ancient history, you know. So, I had a spate of that. Anyway, but that would who that was; it wasn't anybody here. I guess the main thing that, how the person influence me was just, part of the thing is just gave me such a good education that it was always easy. You know, I never I any problems

as a math major, at Rutgers-Newark because I had such a good background, and my background was such better than other people.

DF: Was your high school public? Or religion?

SG: Yeah, public. Yeah, I was going to public schools , never gone to. I guess Ithaca College, I taught at a private school for a year; that was kind of a funny experience for me, because I'd never been at a party school before. They had classes, at that point, I mean, if you had a Monday, Wednesday, Friday class in the afternoon, it would meet Monday, Wednesday, Thursday, because nobody would come to class on Friday.

DF: Is that right?

SG: It's changed since; I guess it's a serious school now. But at that point it was a little less serious. I'm not, on number three. I haven't really been a goal sort of person, you know, so I'm never, I've never lived my life that way. I always try to, you know, much more unconscious sort of kind of ways of making decisions, and sometimes just drifting into things. I think, so I didn't have a real set of goals. If I had to state goals, it would be more kind of personal goals of, you know, I'd like to be a kind person, you know. One of the basic problems I see with being a professor is a lot of professors end up being assholes at a certain point in their career. I always wanted to avoid that. No offense.. .it's just that...

DF: Hope that you would be able to recognize that at least.

SG: Right, I hope so. Well, it's just because they have a little bit of power, and a little bit of power in a limited area is very dangerous. A lot of power, you probably realize that you have a lot of power and you're not so prone to become, I don't know. If I had goals, they'd be goals like that, which are kind of not the kind of thing that really are easy to put into a department mission statement... So, the best asset of the department of mathematical sciences I would say is the faculty. and Montana itself. I mean, the fact that we get some wonderful students here just because they like to come to Montana. You know, probably better students than we deserve. The core of the faculty, which I view as being, you know, people like Don and Gloria and Keith and Bill Derrick, those people. So, they're in the process of retiring and going out the other end, and we're getting some wonderful people in the other end. So, it's… but you know, so those two things. I think we, especially in our programs, like the Wildlife Biology Program brings in really, sometimes some better students that I ever have a right to see. And so that's been a real…, so the location and the faculty is number 5.

DF: They're in number 4, Greg. Do you see some things that you know, that have changed? Whether, you know I mean.

SG: Well, yeah, a lot of things have changed.

DF: Well obviously, there are going to be some, rather some maybe that you can point to and say these have made a pretty big impact on maybe, you know?

SG: Well, a lot of them have been external changes, just in mathematics that have been forced by the technology. I mean the technology is the major, the major fact of not only mathematics, but of the world. It's larger than mathematics, and so, the process of adapting to technology and deciding what's appropriate uses of technology, you know, and what aren't. So, you know, little things like the black boards have turned into white boards, but you know, the computers hanging from all the ceilings, and on all the desks, and the way, the fact that you know, all the computational part of mathematics is basically programmed. So, that's not something that is.. .so, that's major area of change. I don't know if that's what you're actually looking for there, but that's what I think is… What change has the department gone through? While I've been here, the department went through two of these things where they tried to abolish the Ph.D. program. And in two of those, and I was directly involved in one of them, in that I ended up going over to Helena to testify, and also Keith was chairman at the time, so it took a lot of his time. Sort of, those were very debilitating. It took pretty much all the faculties' energies for a couple of years at a time, and ended up being, you know, they did get rid of a number of departments in those, and we ended up surviving, but not by much. So, those are, a couple, they didn't end up changing things, but they did end up maybe weakening things in certain ways. So, changes that the department gone through... I mean physically it's much the same except that everything is now wired. I mean we still don't have a building of our own yet... Psychologically those were important, those, the last of that happened before I was a faculty member, but the other transition which is, you know, not completely immaterial was the semester, quarter to semester transition. Let's see, the major change, I think is a slow change, that people don't see it. I talked to Bill Myers the other night, at the retirement dinner, and he said that when he came here in 1952, there were 2100 students and about 200 faculty members. So that means that the faculty, the student-faculty ratio was 10 to 1. What's happened while I've been here even is that the faculty has become kind of a supervisory core for a large group of part-time people that are doing most of the actual teaching. And, that's not a good change, you know. There should be twice as many permanent faculty for... and I don't know if that's just through, you know you can put some of the blame on the tenure system; you could put some of the blame on; I think you can put a lot of the blame on the administration. You know, I'm not sure if faculty are terribly overpaid; that's a certain amount too. I think they're probably fairly fair, and my brother-in-law that operates a D-6 Cat; he makes more money than I do, you know. About the same number of months a year. So, I don't think we're overpaid; I don't think we're terribly underpaid. I'm not one of these ones that is big to complain about the money or anything like that. The preparation level of the students has gone down because it's become more of a; there's just more people here. A lot of people that wouldn't have gone to school 20 years ago, are now going to college. That's not necessarily a bad change; it's just an adaptive sort of change. But you know, in terms of the psychology here, or that spirit of the department, the major change has been from that. The fact that there's the same number of faculty here essentially as was 20 years ago, or you can look up the numbers, but there's not a whole lot more for, you know, basically a tripling of the size of the university.

DF: That's true.

SG: And that's the kind of thing that happens year by year, so you don't notice the fact that you're spending extra time supervising things, instead of you know, thinking about things instead. So, I don't know if that's an adequate answer, but that's…

DF: Good enough.

SG: Well, that I can think of.. .So, a lot of the changes haven't been really terribly positive. Of course in the last couple of years, we've grown buildings everywhere. And you know, that's not… For a long time, they didn't do any building at all. I don't look at that as being a terribly substantial change. I don't know if I could contribute too much on that. On the other ones because. You know, what research work I'm doing right now, is just basically trying to figure out some things. And you've seen a lot of it because it's just, it's… My whole focus in mathematics is completely different, you know, in the sense that, I'm trying to understand things at a very deep level. I mean, I started like as a philosophy major, and maybe I'm still very much that way, and I'm, I'm interested in ideas and where they began, and how they exist today. Their evolution over time. So I'm not particularly interested in, although I may not. I think I have some pretty strange ideas, so I think some of them might actually be good ideas. I just haven't had time to follow up on a lot of kind of research ideas. So, recently at least, in the last couple of years it's been kind of delving into various areas of history, although I have some ideas for some other things, I just haven't had time, to kind of look at them. I think of myself as kind of a, you know a lot of my, I have a hard time if I have a class you know doing, I don't find I have any time beyond you know what it takes to teach these classes, and run whatever committee I have. I tend to be running big committees at one time or another. You know, I sit computer committee, but before it was the undergraduate committee and stuff like that. Even a 121 class just takes me a lot of time. You know I don't do anything the same way I did it, or use old tests, or do anything like that so, it takes me a lot of time to do that. Maybe I've just slowed down too. I'm not sure. Number 9, I really have to think about for a long time, because anecdote or memory that reminds you of why you enjoy being here…I can't really think right off of... I like the place, you know. I like the place for its, kind of for its sparseness. And I like, I like a lot of the people, not necessarily, I respect the people and the diversity, but a lot of people that I like are kind of the old timers that are around. The ones that I knew mostly through my wife's family. And, so, there's a certain emptiness here, a certain toughness that I enjoy. And that's not something you really find at the universities so much. Overall, I like to be able to point to an anecdote; I have a hard time doing that right now.

DF: Do you find it more to be the attitude of the people living here, more so than, you would trying to get at a specific memory? I mean, you certainly don't have to say, gosh, there's one thing that sticks in your mind as to, why you remain a professor here at the University. And certainly that's not the only thing in your mind….

SG: Yeah, I still find. I mean it's gotten a bit more crowded since I've been here, and so I've moved to a little less crowded sort of area, but that's, but a lot of what I like is kind of the

physical environment, you know, and I see that physical environment reflected in many of the long time people that, you know, grew up here, and you know I found the same thing in Vermont when I was there, and there was a lot of people that were from really small schools and so they were very individual and very interesting. And they had a certain resilience that I don't find in the people, when I, you know, my later life when I was in the suburbs, I think a lot of my life has been boring compared to most groups. Even though, I'm not always, find that was a very idyllic sort of situation. It wasn't a bad situation, but there was a cultural emptiness in the suburbs, and is not. I like towns, I like towns that function and have, you know interrelationships and different community, and suburbs don't have that. They don't exist as any sort of social entity.

DF: They don't have neighborhoods anymore.

SG: No neighborhoods that's right. And you know, in, Missoula's kind of losing its neighborhoods, and Corvallis maybe already has in some sense. It's not, but that's more of a functioning community there, Hamilton. It's been inundated by, maybe half the people in the last three years are, have moved in the last three years.

DF: Right.

SG: .. .so, it's half these new comers that a lot of the people don't know anything about, and a lot of old timers that, you know, know each other and kind of know how things have been, and so, the change has been a little bit too rapid, I would say, but you don't get to choose those things, you know. I'd kind of like to, you know, if I had a choice probably live.. .I did an interview for a job in Helena, and didn't get it, but I think it would be kind of interesting to be on the east side of the divide in maybe a smaller school. Not sure I'd want to go to Butte. Well, you know.

DF: That has neighborhoods.

SG: I'm half Finnish, and the other half is Irish, so I don't know, in some sense I should be in Butte.

DF: The last question Greg, number 7, although you certainly may not have an answer for it now, I mean certainly.

SG: Yeah.

DF: Take your time, all right, and if you do think of something just let me know, but you know one of the things that we're interested in looking at is, we saw when Hilbert posed his first problems, the amount of work that came out of that...

SG: Right.

DF: And of course mathematics anymore is so broad, but would it be possible to construct another set of problems that might help, you know, the direction of math in the next century?

SG: Yeah, and I don't think that I'm really on the forefront enough to have, to kind of have a real good feel for that. I have an idea actually, but I don't, I wouldn't know how to phrase it in terms of a single problem. There's been some kind of things that have kind of been ignored. But you really, I mean what Hilbert managed to do was to focus it in a bunch of specific questions. In terms of math education, I mean, the most, there there's certainly some big questions, and I don't think we have.. .The problem with those is you're never going to answer them and know that you've actually answered them, but I mean as a profession, we have to figure out what role for technology, what's the proper role for technology in learning, and how much you can use it, and where you can't use it, and I mean, we've seen some atrocities committed by using too much, and it certainly, there's, certainly, certainly it opens up a lot of things that you can do that are quite wonderful too. So, it's just balancing that out is going to take, as a profession, is going to take another 20 years. But mathematically, you know that's, I mean the most open area I guess is probably functions of several complex variables. I'm not sure that we're going to get, I don't think we even have the right, a lot of the definitions right. I think the definitions are interconnected in a way, you know you have a, but see, I'm not working in that area, so it's not for me to say.

DF: Sure.