6-23-2010

Interview with Chad Topaz, Professor of Mathematics

Chad Topaz

MACALESTER COLLEGE

Macalester College Archives, DeWitt Wallace Library

Oral History Project

Interview with:	**Chad Higdon-Topaz** Associate Professor of Mathematics, 2007-present
Date:	**Wednesday, June 23, 2010**
Place:	Macalester College DeWitt Wallace Library, Harmon Room
Interviewer:	Kayla Burchuk, Class of 2010
Interview run time:	34:24 minutes
Accession:	2013-06-28-02
Agreement:	Signed, on file, no restrictions

00:00	Educational background
02:20	Interest in mathematics
03:55	Coming to Macalester, previous knowledge, hiring process
07:43	Macalester at time of arrival, political atmosphere
09:20	Mathematics Department
11:05	Tenure process
13:05	Research
15:37	XMAC Lab
17:35	Role of applied mathematics, collaboration with other departments
25:09	Courses, "Death, Devastation, War, Blood, Horror, and Mathematics"
26:24	Awards, honors, position on board
28:28	Independent research, research with students
29:23	LGBT Allies program, experience as an LGBT faculty member
31:23	Other committees and involvement
32:26	General reflections about Macalester
36:26	Looking forward to in the future

edited

Interview with Chad Topaz

Kayla Burchuck, Interviewer

June 23, 2010
Macalester College
DeWitt Wallace Library
Harmon Room

KB: My name is Kayla Burchuck, and I am a Macalester College Class of 2010 graduate, conducting interviews for the Macalester Oral History Project. Today is Wednesday, June 23rd, 2010, and I am interviewing Chad Topaz, newly tenured associate professor of mathematics, in the Harmon Room of the DeWitt Wallace Library. So, thank you for being here, Chad. To begin, if you could give your full name, the year you came to Macalester, and your age when you came to Macalester.

CT: Sure, my full legal name is Chad Michael Higdon-Topaz. I'm now hyphenated, and I came to Macalester in 2007, which means that I was 33 when I arrived.

[01:18]

KB: What is your educational background, and what work had you been doing prior to coming to Macalester?

CT: Sure, I can sketch out a brief history for you. I graduated from Harvard in 1996, with a Bachelor's in Applied Mathematics. I went straight to graduate school in Applied Math at Northwestern University, and I received my Masters in 1997. I took a year off to work as a

consultant in the Silicon Valley area. I returned to graduate school, and I received my Ph.D. in Applied Math in 2002. From 2002 to 2003, I was a post-doctoral fellow in the Math Department at Duke University. From 2003 to 2006, I was a visiting assistant professor in the Math Department at UCLA. From 2006 to 2007, I was the assistant director of the Center for Excellence in Teaching, at the University of Southern California, and then I arrived here in 2007.

[02:20]

KB: Great, wow. How did you come to study mathematics, and pursue that field as a career?

CT: Sure, that's a great question, and it's one that I also like talking to other mathematicians about. They always have interesting answers. Math was the subject at which I probably most excelled, from a young age, and so I always did well with math in school, and I always found it very engaging. But I had, or I have, an older brother who's very mathematically inclined, and so I think sometimes siblings feel the need to separate what they do, so I actually went on a very long diversion from the mathematical path in high school, and in my early college years, where I focused on writing, and music, and a number of other subjects. And when I was around the middle of my college career, I just sort of realized that math was what my brain naturally enjoyed doing the most. So, I switched to a math major, and I guess the rest, as they say, was history. But I'm especially interested in applied mathematics, I think because I'm someone who's interested in a lot of divergent areas. I view applied math as just a lens through which to view the world. Like, we could adopt a historical lens to view the world, or we could adopt an anthropological lens. We can also adopt a mathematical lens, and so it's just the lens I use to look at all of my other interests basically.

[03:55]

KB: And how did you end up being faculty at Macalester?

CT: Sure. So let's see, as I said, I was a visiting professor at UCLA from 2003 to 2006. That's sort of the typical career path for an applied mathematician who wants to go into academia, is that after you get your Ph. D., you work for a number of years as a post-doctoral fellow and/or a visiting professor somewhere, and then it's time to apply for a tenure track job. So, that time came, I actually postponed it for a year because my husband was finishing up his graduate work in Los Angeles, and we didn't want to move away for a time. So in 2007 I went on the academic job market. I have research and teaching interests that are sort of closely linked, and I would say of equal magnitude, and so that meant that I was looking at institutions, either more teaching-oriented institutions where there was nonetheless active research, and the ability to engage students in research, or I was looking at universities, but that had a strong emphasis on teaching. Those were the two kinds of schools that I applied to, and Macalester easily emerged as the one that I was most interested in.

[05:10]

KB: And had you heard anything about Macalester? Did any kind of reputation precede this school before you applied?

CT: Absolutely. I think the first way that I heard of Macalester was through something we have here called Problem of the Week. Problem of the Week has been run out of the math department for many, many, many years here, and especially starting in the '90s with the affordances of the

internet, it got spread around quite nicely, and it was just sort of a brain teaser, math problem that would get published and disseminated every week, and people all around the country would participate in trying to answer this question. So, that was the first way that I heard about Macalester.

[05:51]

KB: What was your experience like with Macalester's hiring process?

CT: Oh, it was wonderful! People made me feel really welcome. My search committee was chaired by Danny Kaplan. Danny is an incredibly, just frightfully smart and very engaging person. So, he made a really good impression. He was very efficient in the way he ran the search. He was very forthcoming with useful information about what the department was like, what the college was like. I really enjoyed coming here to interview. I was having a busy interview season, so when I interviewed here, I had actually returned from another interview the day before, and took a red-eye from California to get here. So I had traveled all night, stepped off the plane, came to campus and interviewed, so I guess the experience was a little surreal for me because I was a little fatigued. But it was a very energizing day, so I think it worked out. The other memory that sticks out about the hiring process, besides just how forthcoming and how engaging all the students and all the faculty were, was that when I was waiting to hear if I had been offered the position or not, I was communicating with the chair of the department, and there was sort of an odd period of a few days worth of silence. And it turns out, she was very apologetic about this, it turns out it was because the school was closed for snow, which she

assured me happened very rarely in all the years she had been here. I think she didn't want this to scare me away, being that I was gonna move here from Los Angeles.

[07:34]

KB: Yeah, they often don't advertise the winter. I'm also from LA.

CT: Oh, you are?

KB: Yeah, so totally weather is a big concern.

CT: [laughs]

[07:43]

KB: And then when you came, what was the lay of the land, in terms of faculty, students, and their relationship with the administration? What do you recall about that?

CT: Ok, well I'll speak about that. I'll try to address your question, and if I'm not addressing it, you should feel free to let me know. I guess what I saw in my department was a great relationship between students and faculty. My department has pretty much an open door policy amongst faculty. We try to leave our doors open, we try to make ourselves extremely accessible to students, and students take advantage of that, which is one of the things that attracted me so much to this school, because I wanted to be able to work closely with students in that way. So, I saw a great relationship between students and faculty immediately around me, and you know,

when I arrived here, really all I knew was my department, and it took some time to get into the college more broadly.

[08:35]

KB: And then in terms of kind of the socio-cultural-political atmosphere at Macalester, what were your first impressions of that?

CT: Oh, my first impressions were that it was very progressive. That was attractive to me, given my own views and beliefs. I had spent some time at some institutions that were more progressive, and some institutions that were less progressive, and I like that Macalester seemed like a progressive place. I think because of the mission of the college, and because of the types of students that get recruited and come here, because of the mission, people are sort of very politically and culturally sensitive here, and I like that.

[09:20]

KB: That's great. And then, you talked a little bit about your department. Was the mathematics and science department really—computer science—was it really different three years ago? Have you noticed a lot of change?

CT: Um, there [have] been some changes, but I think that the department was really strong three years ago, and before that. And I think it retains those strengths now. So, you know, there's a new chair. The chair was new when I first came here—that was Karen Saxe—so there was some new leadership at the time. We have changed our name, so we used to be the department of

Mathematics and Computer Science. We're now the department of Mathematics, Statistics, and Computer Science, which reflects our statistics component, which is very strong, and very unusual amongst liberal arts colleges, to have such a strong offering in statistics. And here, not only do we have the offering, but it's an extremely popular minor on campus, and, actually, a very large percentage of Macalester students take one of our statistics classes before they graduate. So, the department changed our name to reflect that strength. We have a new major track in Applied Mathematics and Statistics, which I know, I think we'll be discussing later, and we have a lot of new faces. So, there were two people hired my year, there was myself and Andrew Beveridge, who came in 2007. Victor Adonna, who's a statistician, had come a couple years before that. The year after I came, Shilad Sen, in computer science came, and the year after that, Alicia Johnson in statistics came. So, there is change in that there's, you know, new faces and some new curricular efforts. And there are always new and exciting things happening, but I think they're just building up the strengths of the department.

[11:05]

KB: Great. And then, just to move along in your career trajectory a little bit, you recently received tenure. Congratulations.

CT: Thank you.

KB: Tell me a little bit of your experience with the tenure review process here at Macalester.

CT: Sure. So, as you might know, typically the faculty at Macalester undergo a pre-tenure review—

KB: Um-hm.

CT: Which is sort of like a practice for the tenure review, to see if you're on track and to make course corrections if necessary. That usually happens during the third year. I did it on a slightly accelerated schedule, so I did that during my second year here, which actually means that the process began at the end of my first year. And, as part of that process, we write some reflective materials about our teaching and our research, we submit our scholarly work, we solicit letters of support from people, and we compile a big file. And I did that at the end of my first, and then going into my second year here. I appreciate that process because we're so busy in what we do, that we rarely have the luxury of taking time to just reflect on our careers from a broader perspective. And I really appreciate that it's a built-in part of the system that we have to do that. I think it's crucial, and it's great to have the opportunity to get feedback on one's career. Um, so that process went well, and it was decided that rather than waiting an additional three years to go up for tenure, that I would just go up for tenure the next year. That was nice, not only because the process got sped up, but because preparing the file is a lot of work. I was able to leverage a lot of work that I had done the previous year to make the process a little easier for me. So I'm very happy and grateful that that's now behind me, and I'm grateful for the feedback that I received as part of the process.

KB: Wow, that's great, and then you have a ton of time ahead of you, that's wonderful.

CT: Yeah. Yeah, yeah.

[13:05]

KB: Um, and I was reading a little bit about your research for this interview, and you do really fascinating stuff. A lot of your work deals with patterns in nature—mathematical models of pattern in nature, swarming patterns and also reaction to fusion systems. Tell me a little bit about your research.

CT: Sure. So, you're exactly right. Pattern formation is really what interests me, and pattern formation—I mean, it's all around us in the world. When I look out the window, I see a pattern of leaves right there. I see a pattern of the sort of very subtle shading of the dots in this carpet and so on. Patterns in sociology and economics and biology and everywhere you can look. It's what I see, and there are a lot of mathematical tools we have to try to understand patterns in nature. So, for the past five years or so, I've been most interested in these swarming problems—looking at groups like flocks of birds, and schools of fish, and swarms of insects—and trying to both understand why biological organisms that are so different, make such similarly structured groups, and also, um, being able to try to make some predictions about those groups, especially locust swarms, which are tremendously destructive, and cause millions of dollars of crop damage in north Africa and the Middle East each year, not to mention the sort of environmental impacts that come along with the methods of control that are currently used —the pesticides that are used. So I'm really interested in trying to understand locust swarms, and hopefully, eventually being able to formulate some strategies to control and to break up those swarms. So, that's the

swarming side of my research. I've also been very interested, as you said, in reaction-diffusion patterns. These are patterns that occur in a number of different biological and chemical contexts, but what most people might be familiar with are patterns like, um, animal coats—so, the stripes on a zebra or the spots on a giraffe. And these are thought to arise from a reaction-diffusion pattern forming mechanism. So, I do some theoretical work with students, where we look at reaction-diffusion equations, and we also have chemical experiments in the lab, where we actually make these patterns. And I mean it's really amazing because you see a pattern of chemicals where it's, you know, a high concentration of chemical, then a low concentration, then a high concentration, then a low concentration, making a pattern of spots in space. And no one puts it there, it just emerges out of this chemical soup. So we do this in the lab here to support our research.

[15:37]

KB: And speaking of the lab, tell me a little bit about the XMAC lab. That's a pretty phenomenal facility to have in an undergrad institution.

CT: It's—it's unusual. So, XMAC stands for EXperiment Modeling Analysis and Computation, which are the different methodologies that I tried to bring into the laboratory. The sort of traditional model in applied mathematics has been applied mathematicians are people who try to model and understand data that has been gathered and amassed by experimentalists. So, the experimentalists go off, they do experiments and gather data, and then applied mathematicians come along and look at the data. Ok, well there's been a growing trend in the last decade or decade and a half, where some mathematics departments at doctoral degree granting departments

at universities have tried to bring experiment and theory for applied mathematicians together a little bit more. And the reason for that is that there are a lot of subtleties with the experiment that a modeler, an applied mathematician, needs to understand, and there's a lot of things that a modeler might wish to know…that an experimentalist might not know that they shouldn't gather that data as part of their experiment. And the idea is that when you have those two people working closely together, they can each enrich what the other side is doing, and when those two skill sets reside in the same person, that's even more the case. So, the trend has been to try to train people to have both experimental and theoretical skills. I thought, if doctoral students can do this, we have good undergraduate students—we have amazing undergraduate students at Macalester, I think they can probably do this, too. So, we're one of only two undergraduate institutions that I know of that has an experimental laboratory in the math department. The other one is a fluid dynamics laboratory at, um, Bucknell. Here we don't really do fluids, we focus on biological and chemical systems.

[17:35]

KB: Um, and speaking of kind of the integration of kind of a applied approach into the field of mathematics, and into the department here, in 2008, it was debated by EPAG—the Educational Policy and Governments Com… and Governments Committee—whether applied math and statistics should be its own major. And it was kind of resolved to be a path within the math major. Tell me a little bit more about the role of applied math in the department, and kind of how it's fitting into the sciences at Macalester in general.

CT: Sure. So, we really have three areas of study—or, I should say, we offer three majors in our department. We have, sort of, math classic, or pure mathematics, which is the part of mathematics that's concerned with proof and understanding mathematical structures. We have applied math and statistics, which are concerned with using mathematical, statistical tools to understand natural and social phenomena, and then we have computer science. These are all, I mean, I think these are all equal and important pillars, and our department— We had the computer science major on the books for quite a while, the math major's been on the books for quite a while, I think the development of the applied math and statistics major just reflects the ongoing interest and strength in applied mathematics that's been at Macalester. Again, I think the role it can play is that because it's an applied tool for studying problems in other fields, it's quite natural for us as applied mathematicians to make connections with students and faculty from other departments. So that to me has really been one of the most exciting things about that initiative.

[19:14]

KB: And, um, have you done a lot of collaboration with other departments?

CT: Yeah. So both curricularly and in terms of research, those collaborations are going on. We have a, uh, a series of courses, a Math 135 and Math 155—that's applied calculus and a statistical modeling—and those were developed several years ago, sort of in collaboration with input from other departments, so that those courses are designed to provide mathematical and statistical tools to students in ways that will serve them in their other disciplines. You know, I advise research with students who often have dual majors, or who are…or who have a minor or

some secondary field of study, or they're using mathematics to study a problem in some other field. I have lots of chemistry students who work in my laboratory, who have strengths in math and chemistry. Our statisticians work with faculty and students across the college because there are a lot of people here who want some input on their statistics. Our computer scientists have connections to neuroscience, and to psychology, I mean I can probably keep listing the connections for several minutes. So they're really quite strong, and that to me is really what sets the Macalester Math Department apart from some other liberal arts college math departments. I think we're very unusual in having an unusually strong component of connection through the rest of the college.

[20:53]

KB: And then, you're also involved in a lot of applied math kind of related stuff outside of the school too, like especially your work in the Society for Industrial and Applied Mathematics. How did you get involved in those activities?

CT: Oh, I guess, so SIAM—the Society for Industrial and Applied Mathematics—is one of the main, or the main professional society for applied mathematicians. I first became involved with them as a graduate student. They sort of lobby and recruit heavily to get people integrated into the society, beginning in their graduate careers. It's a wonderful organization. They produce top quality research journals, they have education initiatives, they put on conferences that I travel to every year…you know…so, yeah. They get you when you're young, is the answer.

[21:42]

KB: Uh-hm. That's great, and um...tell me a little bit more about your teaching. What courses have you taught, and how have they changed since you began?

CT: Certainly. So, um…I teach our applied calculus, Math 135 course quite frequently. I teach it pretty much every year, and some years both terms… That course was very well designed before I arrived here, with external grant support. What I've done to that course has been to implement some incremental changes, so I've introduced the use of clicker devices, because for Macalester, these are large enrollment courses, these are classes of 32 to 40 people. Um…at some schools, that's…minuscule, but at Macalester, this is very large. And it's important to me to make sure that students have the opportunity to get assessed frequently, and have an interactive component. And so I've introduced these clickers, that are—if you're not familiar with them, it's kind of like in a game show. I ask questions in class, after I teach a concept. I project a question onto the white screen about the concept, students click in their answer on a little credit card sized device, and I can see basically did people understand what I just taught or not. And if they didn't, then we talk to each other in peer groups, and back and forth with me to try to address the issues. So that's one change. I've also introduced consulting projects into the course, where students are given open ended quantitative problems, just presented with some data and asked to solve some problem with the data, and they have to figure out what mathematics to do on it, and that's to just get at the fact that these courses are designed to teach students how to use mathematics as a tool in their disciplines. So, you know, it's one thing if we say here's a mathematical equation. Solve it. That's never what happens to you if you're a biologist. No one gives you an equation to solve. You have data and you have to figure out what to do with it, and so we've been working a little bit more to train students to do that. Um, I

teach Math 312, differential equations. I've changed the curriculum of that quite a bit. I've changed it from being a traditional course on the solution of differential equations to being a course on the qualitative analysis of non-linear differential equations, which are ones that you usually can't solve, so you have to do something else to study them. And most equations that arise as models in nature fall into that class of problems that you can't *solve*, so you're going to have to study them some other way. So this course is designed to do that. I teach mathematical modeling. I teach our continuous applied mathematics course, which I teach as a course in partial differential equations, and I do it mostly as a research seminar, is how I've altered the course, so that I lecture for maybe four or five weeks at the start of the course, then we divide up into research groups and we work on open ended research problems, and partial differential equations, and each group writes a paper summarizing their results. And I've also taught our scientific computing…scientific computation, Math 365 course. Although, that's just been revised, and is now being taught by Danny Kaplan. And then, I know you'll ask about this later on, but I'm gonna be teaching a new first year course starting next year.

[25:09]

KB: Yeah, tell me more about that course. You received a Mellon Curricular Pathways grant to develop a course called "Death, Devastation, War, Blood, Horror, and Mathematics." What is that course about?

CT: It's about what you just said! No, it's about—I wanted to create this course for first year students because…I think it will serve as a useful transition from high school mathematics to college level applied mathematics. What's typically done in high school mathematics, is

students are taught a very important tool box of mathematical techniques and equation solving and performing calculations, and that's crucial because it's the absolute bedrock foundation on which students' future mathematical careers will sit. But that said, a casualty of that is that sometimes students arrive here thinking that what mathematics, or even what applied mathematics is, is just manipulating formulas, and manipulating equations, and it's not. It's using math as a tool to solve real problems in the world. So that's why I designed this course, with an extremely melodramatic title, to sort of suggest that mathematics is a tool that can be used to address issues crucial to humanity.

[26:24]

KB: Wow. And you seem like someone who is incredibly committed to their teaching. You received the Jack and Marty Rossmann Excellent in Teaching Aw—*Excellence* in Teaching Award this year, and you're also, um, on the board of the Serie Center. How did teaching emerge as such an important element in your career?

CT: …You know, I think my real interest in teaching began with my own undergraduate experience. I had a wonderful experience at Harvard, I'm very grateful for the education I got there, but you know, it's a very different teaching—or, my experience there was a very different experience than I think a typical student has at a place like Macalester. So, I had relatively large classes, I didn't have very much interaction with my faculty members, and you know, the mission of the university is primarily research driven, and I think, sometimes as a student, you don't really realize what a professor's job is. You think their job is to show up in class, and to teach me, and at some institutions that's the case. But at some institutions, their real job, from

the university's point of view, is to publish papers, and write grants, and bring in research dollars, and that sort of thing, and the result was that, while a lot of great things happened to me as a college student, I sort of left college thinking I'm not sure I got all of the education that I could have gotten. And so when I went to graduate school, I had the opportunity to work as a teaching assistant, and I just, I loved it right away. And I loved working with students, and I loved that I felt like it balanced out my, the sort of research half of my career at the time. And that even when I was frustrated or stuck on research, that I could feel like I was making a real contribution by helping teach somebody something, helping them understand something new every day, and it just kind of took off from there.

[28:28]

KB: And you mentioned interaction as something that's really valuable for you. Tell me more about the kind of independent research, as well as advising stuff you've done with students here.

CT: Oh, um, right. So, I advise students on research projects in my lab every summer. So, I have somewhere between two and four students working with me every summer. I advise student capstone projects every year. So, in the math department, the form that the senior capstone takes, is that it's a year-long research project, which culminates for every student in both a written paper, and a presentation on capstone day, where we do like a day-long conference session. And so I advise those capstone research projects, between two and four each year, and then I sort of advise a smattering of independent studies. Although, we don't get that many of those, because there are so many other opportunities for research in the department.

[29:23]

KB: And to kind of shift away from academia, um, how has participating in the Lealtad-Suzuki Center LGBT Allies Program shaped your Macalester experience?

CT: Oh, that's a wonderful question. It's been really good for, uh, helping remind me of the…the diversity of the students that we have here, and how important it is to always be creating a safe space for them. So, you know, the Allies Program has this sort of logo that has a rainbow flag in the back of it, but it's, but there's a lot of other things on that logo too. It's not just an LGBT program, it's aimed at all student—creating a safe space for all students on campus, and I mean I feel that it has helped make me more sensitive to what's going on with my students.

[30:21]

KB: And then—and then, just to ask this question, what has your general experience been like as an LGBT faculty at Macalester, specifically an LGBT parent?

CT: Oh, it's been great. I can't think of a better institution to be an LGBT faculty member at. Um, I really can't. I've never been at another institution—even institutions that were much larger than this one—where there were so many out LGBT faculty members. So, I mean, I know quite a number just in my own building. So, it's been absolutely wonderful. I've only ever felt welcomed here. I also think it's very important that we have those faculty, because that sends a signal to students, and I think it's very important for that reason. Being an LGBT parent has been great. We live close to campus, so you know, my husband and my daughter will come pick

me up sometimes. My students have met both of them, they pop up at Macalester from time to time, and they're always very welcomed and it's great to feel that.

[31:23]

KB: That's great. And tell me a little bit more, what kind of, um— What kind of committees and other kind of institutional service activities have you been involved in?

CT: Sure. I've been on the IACUC committee, which is the Institutional Animal Care and Usage Committee, which is the committee concerned with the use of animals as scientific subjects, and I was on that committee because I have, at times I have an insect colony in my lab that we use for experiments on aphid swarming. I have been on the scholarly publishing advisory committee, where we talk about a lot of issues of open access publishing, and things of that sort. Beginning next year, I'll be on the classroom learning—classroom and learning facilities committee, which is concerned with, sort of, assessing our needs for actual or physical learning spaces here on campus, and addressing those. And then I've just been elected to EPAG, which is the Educational Policy and Governance Committee, which I'll also start next year.

[32:26]

KB: And to kind of back up for a more general view, again, what have you most enjoyed about being a faculty here at Macalester?

CT: Everything. If I had to pick one thing, it's the students, because…they're what get me up every morning, and get me excited about coming into work, and just, you know, being

perpetually inspired by them and their hard work, and their intelligence and their curiosity, and things that they teach me as much as, or more than, I teach them. So I mean, if I had to pick the number one thing, it would be the students.

[33:03]

KB: Great. And, um…what are your major critiques of Macalester, and what do you feel are Macalester's greatest strengths?

CT: …Greatest critiques of Macalester…this may be addressing both those questions at once. I think, perhaps the greatest critiques I would levy at Macalester, is that it has so many potential strengths that sometimes it doesn't know what to do with them, or which ones to pursue. And so, I think, like all institutions, Macalester is, you know, perpetually searching for its identity. And you know, how do we market ourselves to the world and what do we really focus on as our strengths? And here there are so many different directions that could go, um, that I think the institution is always just having to think hard about…about what its mission really should be. I mean, there are so many strengths here. We have a faculty of very dedicated teachers, we have a body of extremely talented students, we have a higher research product—productivity than most of our peer institutions. I think that sometimes causes tension, because…are we a teaching school or a research school or both or something that combines those two things? And I think a great strength is just our college mission, and our emphasis on, you know, diversity and multiculturalism and service to society. And you know, I don't know of another school that really upholds those things the same way that we do, and I guess it's a great feeling for me to

come to work and feel like what I do is sort of contributing to a greater mission that I'm really in line with.

KB: Oh, that's great.

CT: Yeah.

[35:06]

KB: And then, what have been some of your most memorable or meaningful experiences over your career here?

CT: …Well…bagpipers showing up in my office when I got tenure was definitely memorable, and very surprising. It was extremely meaningful and humbling to me to receive the teaching award this past year…I guess for a few reasons. First of all, because I feel like everything—not everything—much of what I know about good teaching and especially good teaching of Macalester students, I've learned over the past three years from looking at my colleagues. And so, I mean, I really feel like it's sort of a testament to the quality of teachers around me in the department, and then the college, so it was very humbling to receive that award. It was also humbling because Jack and Marty Rossmann are just amazing people. So…it was a very special treat to have an award that was endowed by them. Um…other good memories. There have been good times. There have been picnics in the department with students, and departmental retreats and "ah-ha" days in the classroom, and I mean, lots of special times.

[36:26]

KB: That's great. And what are you looking forward to, in this—in terms of your future career here at Macalester and just in general?

CT: Yeah, so one, one thing is, as we mentioned, I'm gonna be teaching this first year course, and that's something I sort of have been waiting to do for a while… We have a large department, and each department, you know, teaches two or maybe three first year courses each year. So in my department, that means we're on a rotation of who teaches the first year course, so I'm very excited that that opportunity is mine now. And I'm also really excited that it means I'll get my first official batch of academic advisees. I mean, I've had, you know, a few who—a few advisees who I've picked up here and there, but this will be my first batch. Um, so I'm really really excited about that. I'm really excited about serving on EPAG, because I care a lot about the curriculum and the educational policy of this college, and it's nice, especially in the sort of post-tenure stage for me, to be able to look at that from a higher level than just the level of my department. So I'm really excited to look ahead and spend some time and energy on that. And then I recently got the good news that my recent application for a National Science Foundation grant was approved, which means I have some research funding for the next three or four years, that's going to support at least twelve students, and maybe more, but twelve students for summer research, and also support for them to travel to conferences. So, I'm just really jazzed for the work that we're gonna do together the next three or four years.

[38:01]

KB: That's phenomenal. That sounds great! And then, that's about all we have for today, but if you have any final reflections, is there anything else you'd like to—statements you'd like to say before we close?

CT: No, I don't think so, I think that does it.

KB: Great, well, thank you so much for joining me today, and congratulations again on your receiving tenure.

CT: Thanks so much.

KB: Sure, thank you!

[End of interview 34:24]