

**Interviews of the Margaret MacVicar Memorial AMITA Oral History Project, MC 356**  
Massachusetts Institute of Technology, Institute Archives and Distinctive Collections

**Margaret Marcou** – class of 1954

Interviewed by Callie Kunz, class of 2023

July 29, 2020

## **Margaret MacVicar Memorial AMITA Oral History Project**

Margaret Marcou (SM Mathematics 1954) was interviewed on July 29, 2020 by Callie Kunz (SB Computer Science/Neuroscience 2023) via a videoconferencing app. Mrs. Marcou was at her home in Bethesda, Maryland and Ms. Kunz was at her home in Woodbury, Minnesota.

Mrs. Marcou grew up as the oldest of five in the Washington, D.C., area before attending the College of New Rochelle for her undergraduate education, where she received a degree in Liberal Arts Mathematics. After earning her master's degree in Mathematics from MIT, she worked at IBM for a short period before marrying her husband, George Marcou, another MIT graduate. Mrs. Marcou and her husband then moved several times for Mr. Marcou's work, living in Nashville, Tennessee, and Urbana, Illinois before settling in the Washington, D.C. area. The Marcous then had five children, and Mrs. Marcou stayed home for several years to care for them. Two of their children later graduated from MIT. Years later, Mrs. Marcou completed additional classwork to become a teacher, and went on to teach high school math for seventeen years.

Mrs. Marcou enjoys spending time with her children, grandchildren and great-grandchild, doing puzzles and learning about new topics.

KUNZ: I want to thank you for having a Zoom call with me. I'm glad that we'll be able to include this interview in the Institute's MacVicar/AMITA oral history collection. It's so valuable to learn from everyone's individual stories, especially from alumnae from the 1950s.

MARCOU: Good – I agree. Thank you.

KUNZ: I was hoping we could start with your early life. Where did you grow up? Were there role models who influenced you, especially when it comes to excelling in STEM subjects in school?

MARCOU: Well, I was a classroom teacher. Therefore, I'm going to start the meeting in a slightly different way, by getting on the record my ties to MIT, which, it turns out, are quite extensive. We'll start with my husband [George T. Marcou '53; Professor Emeritus at the Catholic University of America], who was an undergraduate and graduate student at MIT. He was Course 4 and 11. Maybe that translates into Architecture now, but it was City Planning then. My daughter-in-law, Roby Marcou, was Course 7, which is biology [Rosebeth Marcou '78, University of Pennsylvania MD '82; Developmental and Pediatric Behavioral Specialist]. My two sons, John [John Marcou '78; Stanford University Masters of Petroleum Engineering '85] and George [George Marcou '79; Georgetown University JD '84; currently an intellectual property lawyer], both were MechE's Course 2, Mechanical Engineering. And I was, of course, a course 18 graduate, Mathematics.

KUNZ: Yes.

MARCOU: In any case, I grew up in Washington, D.C. I was the oldest of five children. I went all my life before college to parochial or private Catholic schools, and, in those days, they were run by nuns. My elementary school was co-ed, and then I went to an all-girls Catholic high school, where I majored in math.

KUNZ: Did you have strong math and science curricula, going to a Catholic high school?

MARCOU: No.

KUNZ: No?

MARCOU: Not at all. In fact, in those days—I bet it's still quite true—Catholic education was more-- The old-fashioned word was humanistic. I don't know if they still use that term, but it was definitely liberal arts. I got a degree in Liberal Arts Mathematics. Math was taught, but it was certainly not the main point of the curriculum. History and English were very much more valued.

KUNZ: What pushed you toward math rather than a degree in History or English, coming out of an experience where school was very liberal arts-focused?

MARCOU: Well, it's a fact that I test much higher in literature, English, things like that—things involving verbal skills—than I do in math, so I'll be honest: I think I'm pretty sure that what drew me to math was that there was no argument about what was right and what was wrong.

KUNZ: That's a great part of math, I would agree. It's right or it's wrong.

MARCOU: And, Callie, for most of my life, I have been, by nature, I don't know what word to put or not, but I'm still kind of an independent, contrarian, weird thinker. I liked math. I love logic. I do logic puzzles every day with my children for fun. I don't "like" math and I'm not adequate at it, but it just seems better to study it.

KUNZ: What was it like for you being a high achiever from a young age? Were you treated by your family, teachers or friends differently when you decided to pursue something outside of liberal arts, or because math was a field that was predominantly male at the time? To put it another way: Were you treated differently when you chose math?

MARCOU: Not really, no. That didn't happen until I went away to college, which was unusual in my day, in my social circumstances. Growing up in Washington and being a Catholic girl, you would've gone to Trinity College, which was a very fine girl's school here. I don't know how to describe this. I took the SATs, and my scores were-- The nuns at Holy Cross, which was my high school, had everybody take the test. It was the equivalent of an SAT but it had a different name. The results were published nationally, so any college anywhere could see the results.

All of a sudden—I'll always remember it—we were getting mail every day from schools from everywhere that must have seen my scores, schools offering me scholarships. My own mother had never gone to college.

KUNZ: Wow!

MARCOU: Yes. It had to be a joke! We'd open the mail, and we had never heard of these schools. I clearly wasn't going to go to them. I don't think my parents really even planned for me to go to college, which would not have been unusual. Most of my friends didn't. They went right to work. Some did, but most didn't.

I guess I started thinking about Trinity, and then I got a full, free ride from the College of New Rochelle [a private Catholic college for women in New Rochelle, New York]. Everything.

KUNZ: That's great.

MARCOU: Tuition was not a problem. My father was a very successful lawyer. Again, in those days, scholarships were not need-based. They were--

KUNZ: Merit-based?

MARCOU: Exactly. I don't want to portray it-- In any case, I had a lot of friends, and they just knew I was smart. All my life, they kind of laughed about how smart I was, and then we'd all just go on with our lives. My family are Irish Catholics. It's great. My grandparents were all immigrants. They could all read and write, but that they were maids and domestics and laborers, so I can't explain this [about myself]. I would come home with very good report cards, we'll put it that way. Straight A's.

KUNZ: Circling back a bit, you said that a lot of your friends often do not go to college.

MARCOU: No, they didn't opt to.

KUNZ: What do you mean by that?

MARCOU: Their parents could not afford to send them.

KUNZ: They couldn't afford to.

MARCOU: I was born in 1930, so this is the late 40s. It was totally standard for the girls in my school not to go to college, to go to work and have a job and get married.

KUNZ: For financial reasons, instead of a choice they made, right?

MARCOU: Yes. Their parents didn't have, and wouldn't spend, that kind of money to send them to college.

KUNZ: I understand.

MARCOU: It would be standard. It wouldn't be unusual.

KUNZ: How many women would you say were in your undergraduate class when you were at New Rochelle?

MARCOU: The whole school had 800 women. My husband's phrase for New Rochelle was "Eight hundred women behind convent walls."

KUNZ: That's funny.

MARCOU: For the number in my class, divide by four, with a slight variation for people dropping out, so about 200. Anyway, eight hundred women behind convent walls!

KUNZ: Were there many female professors while you were there, or were the majority of the professors male?

MARCOU: They were nuns! There were a few men, but it was mostly women.

When I finally ended up at MIT, there was one other woman in the graduate Math Department [with me]. The other woman, the only other woman, was a graduate of a Catholic all-girls Boston college called Emmanuel. I've often thought about that. How unusual--

KUNZ: That you both ended up there?

MARCOU: Yes. And there was nobody else.

KUNZ: No other women graduate students in math at that time, aside from the two of you?

MARCOU: Right. The other student's name was Evelyn Bender [Evelyn Vaskas '50; PhD in Mathematics '84]. She went on to get a PhD, and she taught math, and I became a high school math teacher. But we were both graduates from single-sex, religious-run girls' colleges, taught by nuns.

KUNZ: How many other people were in the graduate math department they were working with, just for context? How many male graduate students do you think there were?

MARCOU: A lot, but I have no idea exactly how many.

KUNZ: Would you say that New Rochelle prepared you well for the graduate work that you went on to do at MIT?

MARCOU: No, no, no, no, no. Not at all.

KUNZ: How did the curriculum and the style of education differ between the two?

MARCOU: Where to start? It wasn't the style, it was the content. I was nowhere near prepared.

KUNZ: What was the focus of your studies as a master's student?

MARCOU: I think it was called operations research in those days. I'm laughing to myself; it has been completely wiped out of my memory. I'll just let the record show: I was very lucky to graduate. I was lucky that they didn't ask me to leave academically.

KUNZ: Because you were unprepared for the curriculum?

MARCOU: I wasn't prepared. I totally wasn't.

KUNZ: What pushed you to pursue MIT in the first place for your master's?

MARCOU: I had thought that I would go to law school, and I took the LSAT. And again, I did very, very well. But then I realized I didn't want to work. I liked school; I didn't want to go to work. I'm not kidding!

My father did not want me to go to law school. It was very interesting. My father was a successful lawyer who went to Georgetown Law and had a good practice. This would be 1948. He told me that if I went to law school, I would end up sitting in a government office somewhere at a desk all day. He did not think it was a good fit for me, which I think is interesting because I was offered in a free ride, full tuition, at a good law school. But he just said no, so I thought to myself, "Well, I don't want to go out and work. I'll study math." I just applied. There was no master plan, and everybody knew MIT was a good school. I applied there, among other places, and I was accepted. Once I was accepted, it was crystal clear that it was just a huge opportunity and I should seize it.

KUNZ: Do I understand correctly that you had lived with a family, a professor, during your time at MIT?

MARCOU: His name was Thomas Henry Donald Mahoney. He was a professor in the History-- Well, it wasn't a department. MIT all of a sudden said, "These kids have to have a little bit of liberal arts," so they brought in history. At that time, MIT had 100 female students, roughly 50 undergrad and 50 grad. Side note: I believe, statistically, many of them were in architecture, which was a very female-friendly major. But there were no living accommodations for women. None. So my mother and I went up on a weekend to Boston and we started looking at places for me to live.

KUNZ: I see.

MARCOU: We looked at single apartments. We looked in boarding houses, you would call them efficiency apartments.

Parenthetically, a friend of my father's, who was a federal judge in D.C., who was from Boston, knew Tom Mahoney, and he said, "I want to put you all together. He will be a good resource for Margaret living up in Boston. He's a professor at MIT, and he lives in Cambridge." We looked around, and I believe I actually made a deposit on a place to live, but we got a call from Tom Mahoney. He said, "Please come

over and visit us in our home,” which we did. He lived on Brattle Street in Cambridge. He introduced me to his wife and their brand-new baby. They had, I think, on the spur of the moment, decided to offer me their third-floor bedroom for room and board. In other words, I think it happened kind of spontaneously. My mother and I looked at each other and thought, why not? That's how I ended up living with him and his wife. His mother-in-law lived in the house, too. I was there for two years.

KUNZ: I see.

MARCOU: Yes, so I boarded at the home of a wonderful family, a wonderful guy. I am the god-mother to their second child, who was born while I was there.

KUNZ: That's wonderful.

MARCOU: Yes, we had a personal relationship. I'm still in touch with that family.

MARCOU: And that's where I lived.

KUNZ: So that two years was the duration of your time at MIT?

MARCOU: Well, it took me two years to get a master's degree—I'm not kidding. My last year in Cambridge, before I got married, I lived in Central Square. I lived in a ground-floor efficiency for one year, and then I got married.

KUNZ: You mentioned to me earlier that your husband was also an MIT undergraduate and master's student. Do you mind talking about how you met him?

MARCOU: My husband [George Themistocles Marcou, BAR 1953 and MCP 1955] was a Greek, from Egypt, who arrived at MIT in 1949. He had done one year at the University of Cairo already in architecture with a world-famous architect called Hassan Fathy. And then the second year, they had one day of class before student riots disrupted the school for a whole year. After the opening day, there was never another class, so his family said, “Enough.” He went to the American Embassy and said, “I want to be an architect, where should I study?” It's a famous story in our family. This person said, “You'll never go to anyplace unless it's Harvard or MIT.” Well, Harvard did not have undergraduate architecture; that's how wrong he was, but God bless MIT. He had a work scholarship. He had a loan. And he worked as a waiter in the dining room.



He loved MIT, and his professors loved him. He got a master's degree, and then we were married in 1955.

We have a family secret: I was a pickup. Do you know what a pickup is?

KUNZ: I don't.

MARCOU: When a guy comes up and speaks to a woman he had never met.

KUNZ: Oh, OK!

MARCOU: In the old days, that was called a pickup, so I was a pickup at the library at MIT.

It was a brand-new building, that library. I'm sure they replaced it with something different, but it was beautiful. There was a tiny little quiet corner where I could read a newspaper every day. It was a Monday, and I was reading the New York Times book review section. My [future] husband came by and, very politely said, with his heavy, heavy accent, "May I sit here?" So he sat down, and the rest is history.

KUNZ: That's a lovely story.

MARCOU: March 3, 1953.

KUNZ: And you remember the date! When did you get married?

MARCOU: January 25, 1955.

KUNZ: Had you graduated at that point?

MARCOU: Yes, but I had worked for a year for IBM in Boston.

KUNZ: How did you get your job at IBM? What did you do there?

MARCOU: In those days, IBM was the *crème de la crème*. I had no computer knowledge whatsoever. None. But I was put into a computer training program. We went to class all day, really. I started to learn programming, everything like that. And then I became engaged, probably, after I was in that program for about four or five months. I remember the day. I felt that I owed it to them to tell them that I was engaged, that I was going to get married, so I went to the boss and told him. [LAUGHS] The next day, I was yanked out of the course and sent out working. The course cost them my salary, with no money coming back in, so they terminated that bad economic activity for them. And really, in those days, certainly in that office and probably in almost all of IBM, if you were married, you did not work there, because they figured you were going to be pregnant, have a child, and it would be money lost on the teaching or how to run everything. Anyway, I started going out on actual jobs and helping people that were having trouble with the equipment they had. So that was my work career for IBM.

KUNZ: How long did you work there? Only a year?

MARCOU: A year. I'd say half training, half actually working out in the field.

KUNZ: OK.

MARCOU: One of my best jobs was physically at MIT, where, I think, the army had an installation there. They had an IBM machine—you know, these are big, clunky old ones with punch cards.

And this was very unusual. Their problem was the following: they didn't want to lose the machine. They needed to have it running a certain number of hours so they could justify the expense of the machine to their work altogether. These are Army guys, but they loved their MIT little lab, and they didn't want to lose it. So I had to go there and program the same task in a way that it took longer.

KUNZ: Oh, wow. [LAUGHS] That's kind of funny.

MARCOU: I loved that. It's absolutely true. And talk about thinking outside the box. It was a pleasure. It was fun, really. I wish you could see them trying to explain it to me politely, you know?

KUNZ: Yes.

MARCOU: Oh yeah, that's one of my more unusual actual IBM missions.

KUNZ: Nice.

I have in my notes that you moved around several times during your life.

MARCOU: Let's see. We were married in D.C. We went to Nice on our honeymoon to meet my husband's family. We stayed in France for three months, and then we lived in Nashville, Tennessee for a year. One of George's professors from MIT had been made head of the department of planning at the University of Illinois. George—people always wanted to help him, so he called, and they offered him a better job. We moved to Illinois, at the university, and we were there four years. Then my husband really looked around and said, "I want to be my own boss, and I want to start my own firm." So he came to Washington. He had one contract in consulting. He was going to be a consulting city planner. And again, the source of the contract—it was funny—was a guy who had been one of his teachers at MIT.

KUNZ: Oh, great.

MARCOU: The guy gave George half the contract to do. It was enough to open an office with another guy, a non-MIT man, Jerry O'Leary. And they opened an office in D.C., and that was it. My husband ran that business for probably 11 or 12 years, and then he sold it. He was acquired by Westinghouse for a substantial sum of money. It was the early 70s. But he continued to work as a planner. Then he did association work for planners in D.C. And he was always a professor at Catholic University, teaching planning.

My husband came in 1949, indebted already to MIT—he really did not speak English fluently. He had a minimal knowledge of spoken English, and he had a very heavy accent. Got the picture?

KUNZ: Yes.

MARCOU: Eleven years later, in 1960, he was hiring American architects and planners to work for him. Eleven years.

KUNZ: Wow.

MARCOU: That's a tribute to MIT, in my opinion.

KUNZ: Were you working as a teacher during this time?

MARCOU: No, no, no, no. I got married and I didn't work at a job. I had five children [LAUGHS]. My fifth child was born on my seventh wedding anniversary. I'll leave time for you to gasp in horror! [LAUGHS]

KUNZ: Kudos to you! Wow.

MARCOU: Have you gasped? OK. And then I raised my family. Four boys, one girl. Thank god they all live here near me, except one is in Indonesia. But we're a close-knit family. I'm from a clan mentality, where the Irish were clans.

When my youngest child was—it was probably in first grade—I was home all day, and I was an adequate, at best, housekeeper and cook and everything. I was a good mother, but I wasn't that good housekeeper. What can I say? I wasn't worrying about paint colors. I realized that I could read all day long. I loved to read all my life. No, I loved to. No, you're laughing! But I could just read, and I was so happy. And one day, my husband looked at me and he said, "Margaret you've got to get a job." [LAUGHS] He was right. And not for money. We did not need the money.

KUNZ: Right.

MARCOU: In fact, I banked every paycheck; we never spent it. But he said, "I don't care what you do." He said, "Honestly Margaret, you just can't stay home here reading all day long." So I said to myself, "Hmm, why don't I be a teacher?" Now, in theory, I would say, "Because I want to spread my love of mathematics to the world." OK. That's not what I said, Callie. I said to myself, "If I'm a teacher, I'll have all summer off with my children."

KUNZ: That's perfect.

MARCOU: That's exactly why I did it. I went to Montgomery County [Maryland]. I realized right away I should be a public-school teacher. That became clear. I had a master's degree from MIT, but I had to go back to school to take graduate courses in education.

KUNZ: OK.

MARCOU: It's not OK! It was ludicrous. I would go, "OK, so I'm raising a family, making dinner every night—you know, seven people-- and then there were these graduate courses [I had to take] in educational psychology. [SCOFFS]

These courses were not at MIT's academic level. Plus, I had teenagers already. I was in my 40s. I knew something about children, so I would come home and just vent. My family we would just sit there and let me vent for 15 minutes as I came through the door about the claptrap that they taught in class that day.

But I went through it all and I was hired by Montgomery County. I taught at Magruder High School, which was ordinary, run-of-the-mill. Not one of the high-ends. The high-ends tried to hire me, but I was content at Magruder for 17 happy years.

KUNZ: What level of math did you teach?

MARCOU: All levels. Our Math Department chair shared the wealth. Everybody took one low-level class every year. I had to wait until the calculus teacher gave up, and then I was given calculus. But I always taught, in those days, what were the lead-ins, elementary, EFAG classes: Elementary Function, Analytic Geometry, Algebra 2, Trig, "slow Algebra", Math 9, everything. Taught them all.

KUNZ: You said how your kids were already teenagers by the time that you were teaching.

MARCOU: Yes.

KUNZ: Would you say that the work/life balance was a little bit easier for you once you were teaching because they were older?

MARCOU: Oh, totally. I can't imagine working with young pre-school children.

KUNZ: Right.

MARCOU: No, I can imagine it. Let me rephrase that: I would not pay that price. Was it an unfashionable point of view? Let the record show I believe that women today are making decisions which I think are incorrect. I really love work.

KUNZ: You mean, as far as going back to work early--?

MARCOU: With young children, yes, but I'm not going to argue. I have five children. I have 11 grandchildren. I have a great grandchild. I'm not going to argue with all these people, but they know my point of view! It's a different world now.

KUNZ: Yes, it is.

MARCOU: Houses are bigger--

KUNZ: I get where you're coming from. I feel lucky that my mom didn't work when I was growing up—but it's definitely something that women have to consider when they're having kids, whether want to be there for those formative years, and whether they even have the opportunity to do that, if that's their preference.

MARCOU: I guess we're on the same page. I didn't see high school teaching as a calling; it was a job. I was good at it.

I'm going to be 90 shortly; I'm 89. But I'm on Facebook. Some time ago, I got on Facebook to keep track of my grandchildren, like any right-thinking grandmother, and I spy on them—and one of my students found me.

KUNZ: Oh, that's interesting.

MARCOU: Yes. She sent me a friend request, and I said, "Oh my gosh." She was a lively girl, a cheerleader, a darling girl, so I agreed. I can't tell you how many of my former students are now my friends on Facebook, communicating with me every day.

[LAUGHS]

KUNZ: It's funny that you say that. I've had a similar experience. I'm friends on Facebook with my calculus teacher. He was a very influential teacher for me. I think social media friendships like that have become more commonplace, as students feel a lot more comfortable reaching out to the teachers they really enjoyed having classes with, and staying connected with them.

MARCOU: Actually, it's funny. The people who reply to me are not only my calculus students. I myself am startled by how many of them were actually low-achieving students, but a thread is the following: I'm going to sound like I'm bragging. I'm not. It's just that they say to me, "The only time I ever came near to understanding math was in your class." And these would be very low-level algebra students. I think what happened was-- I do know my teaching style was to say, as I always did to them, that "math was going to happen." In other words, I was very intense. I was viewed as funny. I made them laugh, I was very intense—and math happened. We didn't fool around with other topics. Some kids saw the point of algebra for the first and only time in their lives.

KUNZ: That's great. Not an easy thing to do.

How would you say your experience with the students changed over time? Did some things stay the same with the students that came through your classroom, or did they change over time?

MARCOU: Well, I taught for 17 years. Probably four years into that, the school changed from grades 10, 11, 12 to grades 9, 10, 11, 12. So, suddenly, we got ninth graders.

I was teaching with teachers much younger than I. Almost everyone was younger than I, and they were way more experienced than I because they had been teaching all their lives. Some of them had previously taught in junior high, where ninth grade was the highest level, and they actually acted as though COVID-19 was coming. I'm not kidding. They weren't kidding. They weren't trying to be funny. They were just saying that ninth graders were going to change everything because they're so hard to handle—so immature. And when those students were in the junior high setting, they were the oldest in the school. Do you know what I mean?

KUNZ: Yes, that makes sense.

MARCOU: OK. So then, the principal had these dreaded ninth graders coming to our high school. He looked around and took me and a man to handle them. We lost the lottery. We got that Algebra 1 contingent. But again, some of them are my Facebook friends now, and we laugh about it.

But when I taught them, I faced a culture shock, because go to public schools; I went to the nuns [in Catholic school] and discipline was never an issue. It just wasn't.

KUNZ: Right.

MARCOU: I mean, there was discipline. End of story. So, all of a sudden, they started pulling their typical junior high antics [at the school where I was teaching], and that was a change. But we solved that problem quickly. One other change, a big change, was the when the students began to use handheld calculators.

KUNZ: Shifting topics a little bit, would you mind talking about how two of your sons and one your daughters-in-law went to MIT? Did you and your husband push them toward MIT or did they gravitate there on their own?

MARCOU: No. No. No.

They went to a very good local high school, my sons John and George, and they applied to a lot of places. The older one, John, has had a long and very interesting career in the oil business all over the world. He loved MIT. He played college sports.

He put himself through Georgetown law school with honors, Law Journal. Now he's a supremely successful patent attorney. He also played college sports.

KUNZ: Amazing for him!

MARCOU: So, both my sons loved MIT and were a very good fit. My daughter-in-law [Rosebeth Marcou '78, University of Pennsylvania MD '82], she's divorced from my son.

KUNZ: OK, I understand.

MARCOU: She was pre-med. She's from Massachusetts. Taught herself calculus. Went to an all-girls prep school where they didn't have calculus. She got a calculus book and taught herself. Then she went to MIT, where calculus, as you know, is invaluable.

OK. Well, so I told you about Tom Mahoney, and living with him and his family in Cambridge.

KUNZ: Yes.

MARCOU: OK. The next person I wanted to be sure to mention is called George Thomas Jr. [George B. Thomas, late professor of Mathematics at MIT whose widely used calculus textbook is known as Thomas' Calculus].

KUNZ: OK.

MARCOU: He taught math. He had just come out with a new book. Addison-Wesley put it out. Previously, almost everyone my age had taken a book-- had been taught calculus from a book called Smith, Granville, and Longley. The whole country used the same text, but MIT decided they wanted something different. They handed George Thomas the job. He came out with a new book and was trying it out at MIT. It had been in distribution among the students there for one year when I started teaching high school math at Magruder.

I want to pay tribute to him. He was a wonderful teacher. And I used that book. I loved that book. It's the perfect book to teach high school calculus from in my opinion. Nowadays, they've gone into a different world of a lot of-- well, I'll just let it go.

KUNZ: OK.



MARCOU: Now you have to have a computer. Now you've got to have practical examples. It was spare and it was elegant. And, I think, for people like me who are not really applied mathematicians particularly, we're more theoretical, it was just perfect.

MARCOU: The next one I want to mention is John Forbes Nash [Professor Emeritus of Mathematics at MIT; best known for his contributions to game theory, differential geometry, and partial differential equations], who was the focus of the movie "A Beautiful Mind." It's about a man who is a genius and is having a breakdown.

KUNZ: OK.

MARCOU: So John Nash was a genius. Now, looking back to when I was at MIT. I was in Building 2—I hope they still call it Building 2!

KUNZ: Yes. Math is still in Building 2.

MARCOU: There was one room—they wanted us to have a place to de-escalate, so it was just a plain room. It had a lot of tables and chairs. I think it had a coffee machine. It had a refrigerator. It had a blackboard along one side. This was a Math commons room, and undergrads did not come in. It was for graduate students.

Anyway, they typically would put math conjectures up on the board and leave them there. Then people would come in and look at them and either add something, or make a suggestion, or solve something.

Do you know the World of Mathematics volumes, and that approach?

KUNZ: A little bit.

MARCOU: Well, it was in full bloom in this room, and when Nash would walk in-- He was a low-level teacher then, a great big guy from West Virginia. He had been a wrestler. Not fat, but big. You know, thick wrists, thick neck.

KUNZ: I see.

MARCOU: He would come in, and it was just not unusual at all for him to look at that conjecture and then just solve it or kind of just do it. And then he'd write down something 10 times harder. [BOTH LAUGH]

He was the dominant intellect in a department where there were plenty of smart people. Are we all together?

KUNZ: Yes.

MARCOU: I saw him every day. Every day he was in there, and I was in there every day just sitting quietly trying to survive—I'm not kidding. Either there or the library.

The other person who I saw often, often, often was a man called Norbert Wiener [Professor Emeritus of Mathematics at MIT; the father of Cybernetics, he is credited with initial work that lead towards the beginnings of Artificial Intelligence]. Much of his career was at Harvard and MIT, and he was the father of cybernetics. He invented the term cybernetics. He would walk the Infinite Corridor sometimes with his little beginning cybernetic bugs, which were like little wagons. This was the beginning of cyber-everything: cyber space, cybernetics. He was a pioneer in that field.

I used to walk that corridor often, because the bus let me off on Massachusetts Avenue and then I had to walk down that corridor, hang a right, and go up a flight of stairs to the Math Department. I saw him a lot and I want to pay tribute to him, because he was everything they say.

KUNZ: He was as brilliant as they say he was?

MARCOU: Yes, absent-minded, brilliant. Tom Mahoney used to regale us with stories about him—the original absent-minded professor.

KUNZ: That's fascinating, and wonderful that you had that experience.

Is there anything else you'd like to add, maybe advice for current MIT students like myself?

MARCOU: I don't have any advice except the following: The hallmark of an MIT education was the ability to think independently and rationally. To take a fact-based approach and to value that, and not to be taken in by mottos or agendas.

Intellectually, I hope it's still that way. And I hope that they still continue to think that way and to live their lives by those values: independent, intellectual fact-based thinking. That sounds pretentious enough class! [LAUGHS] Now open your book and do the odd number problems on page 221!

KUNZ: No, that's a great addition.

MARCOU: Well, here where I am, we're in total [COVID-19] lockdown. I'm not in a nursing home; I'm in my own apartment, independent living. But they have really lowered the boom on us, so everything is not as it was.

MARCOU: Just tell me a little bit about your major.

KUNZ: I'm doing the brand-new interdisciplinary major. It's 6-9, Computation and Cognition. It's the new computer science and neuroscience interdisciplinary program.

MARCOU: Wow. I bet it's fun.

KUNZ: Yes, it is. I'll get to take some great new classes now, because I'm going into my sophomore year. For example, higher-level classes that involve machine vision and machine learning.

MARCOU: Oh my god. Machine learning?

KUNZ: Yes.

MARCOU: I want to understand machine learning. Is there a simple book? If so, would you send me a link?

KUNZ: Of course.

MARCOU: I'm talking about where you don't program, which is what I used to do, but you hit 'start' and it does a gazillion operations and you use what it does to pick success. Is that machine learning?

KUNZ: Machine learning is where you will give a program a bunch of test cases or example cases.

MARCOU: Exactly.

KUNZ: There are some awesome lectures online that are put out by both MIT and Harvard. I'll send you some links. They do a really good job of using visual representation to demonstrate what's going on.

In any case, I want to thank you so much for taking time for this oral history. I'm so glad we had a chance to talk.

MARCOU: Of course, Callie. Thank you.