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Interviews of the Margaret MacVicar Memorial AMITA Oral History Project

Frances Margaret "Meg" Hickey– Class of 1963

(interviewed by Tatiana Mamaliga)

November 12, 2012

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MAMLIGA: My name is Tatiana Mamaliga, and I am a student at MIT, participating in the Women's Oral History Project. I am doing an interview today with Margaret Hickey, MIT class of 1963. If you could, please tell me a bit about your childhood.

HICKEY: I was born in Akron, Ohio in 1941. My Canadian father worked for Goodyear Tire and Rubber Company International, and when I was four, at the end of the war, we sailed on a troop ship to England. And so I grew up in the British educational system, right after the war. Everything was rationed. I went to an English girls' high school, and it was something like six hundred girls - that was it. There were no men teachers at all, and in fact few men around on the streets who were not clearly damaged by the war. It was a female community of scholarship. I did take advanced classes in math while I was there. At the age of fifteen we moved back to Akron Ohio. Then I did two years of high school in Hudson, Ohio. It was a big shock because I'd never been to school with boys before, or had men as teachers. And I didn't think that the students were very serious compared to the students I was used to. So then I applied to MIT, and at

the age of seventeen I started MIT.

MAMLIGA: At seventeen! Wow - quite early. So were you encouraged by your parents and your teachers in school, in England or here, in high school?

HICKEY: My parents, when we first got to England, took me at the age of five to enroll in a private school. The two ladies who ran it told my mother that I was a moron, and it was "too bad about Meg, she would never learn anything." They left me in the corner, with the crayons, most of the time. They really didn't spend much time trying to teach me. So by the time I was nine I still hadn't learned to read. My mother put me in another school, and she finally taught me how to read; initially I read upside down. By the time I was eleven, I was able to pass the Eleven-Plus Exam to get into high school. In those days, only ten percent of English people went to high school. So it turned out I wasn't really a moron, that actually, I could use my brain.

MAMLIGA: So you said in high school already you got to interact with boys. And then, coming to MIT, was it any different?

HICKEY: Well they let in nine hundred freshman students that year, 1959. Of these there were twenty-one women. Seventeen of us lived in a dorm, on Baystate Road in Boston, near BU. Of the other four, a couple were

commuters, so they didn't need a dorm, and then a couple got placed in a dorm belonging to some other school. But in those days MIT's admissions policy for women was essentially based on the fact that they could fit in seventeen beds at 120 Baystate Road in Boston. As an admissions policy it was pretty weak.

MAMLIGA: Now it's changed quite a bit. It's close to 50/50.

HICKEY: Well we ran a big conference on women in engineering, trying to get MIT to really look at having more women there. We had gotten a number of speakers, including Erik Erikson, and involved SWE, the Society of Women Engineers, and around about this time, Mrs. McCormick gave MIT money for a women's dorm. So that was really what started them admitting enough women in the classes.

MAMLIGA: So then, being at MIT, did you feel as though you were treated differently by professors or by the boys around you?

HICKEY: A lot of the male students referred to us as "Tech Co-eds" and wouldn't have anything to do with us. I was in Mechanical Engineering. I was the only woman in Mechanical Engineering, and the guys in my class wouldn't speak to me, most of them. Except for one guy, who was an Israeli fighter pilot, who came to MIT. He was a lot older than the others.

And he invited me out a couple of times. But, for the most part, the women kind of stuck together because a lot of them were having the same experience that the men weren't interested in talking to us. There were a few men whom we referred to as "Co-ed Lovers." But I had a classmate, in my freshman calculus class, who offered to marry me, as long as I would transfer to Wellesley. I didn't think much of that offer. And I don't know whatever happened to him. But, in essence, the professors were all perfectly polite. There was one of them who said he liked having women in the class because they were "like flowers," and so that was kind of silly. Anyway, if we didn't have each other we would've been pretty lonely I think.

MAMLIGA: So the main social support for you was coming from the other women at MIT?

HICKEY: Yes, I mean for most of us it was the first time we'd ever had a chance to meet other women who were interested in the same things. So I'm still friends with quite a few of them although they don't live nearby. We did have one woman who went catatonic, and she was carried off. We never saw her again. But of the ones of us who graduated, I think at least two thirds of us graduated. We get together once in a while. And we are friends with some of the people just a bit ahead or a bit behind in the years.

MAMLIGA: And then, did you have any other system of support at MIT? Was there any system of support specifically for women or just for students, for undergrads, from the administration?

HICKEY: Things were better the second time I went. I entered in '59, graduated mechanical engineering co-op in '63. I came back after two years working as an engineer, to study architecture. So I spent another four years and graduated in '69. So by then things were getting a lot better. Mrs. McCormick had produced the dorm, and then we had a Dean of Women, Jacquelyn Mattfeld was her name. You probably have heard of her. By then, the support for women was a lot better. One thing that did happen when I first went to MIT in 1959 was that some of the women alumni came around and invited us out to dinner. And they did things like show us where the Cheney Room and where the women's toilets were because there were very few women's toilets.

MAMLIGA: Oh, so they had Cheney Room then, because now it's pretty popular among students as well.

HICKEY: Oh Cheney Room was really a huge benefit for us, because if we were working overnight or anything like that, we could stay there.

MAMLIGA: So, you mentioned that you went away from MIT to work in engineering for two years.

HICKEY: Yes, when I graduated in '63 with a degree in mechanical engineering co-op various employers came to interview people. I've always sewed my own clothes, and so I thought I might like to work in the textile industry. So I interviewed with Forstmann Textiles, and they said, "We have lots of women working for us, we find they're very good with their fingers." And it turns out they were all punch card data entry operations women. He wasn't at all interested in hiring a woman to be an engineer; they were just for data support. I did get an offer from Goodyear Tire and Rubber, where I did my co-op training, for \$6900 a year, and then an offer of \$7000 per year from the GE Small Aircraft Engine Department in Lynn, MA. I worked there on various lubrication systems for jet engines, for two and a half years. And then I decided I really wanted to be in architecture so I applied to MIT again. I went in and saw the admissions director, and he said, "Oh, we'll just treat it as though you were already here." So I walked right back in, and signed up for architecture.

MAMLIGA: That's nice.

HICKEY: And I did that for four years.

MAMLIGA: Do you think there was anything at your work place that influenced you to change your major?

HICKEY: I don't think so. As a kid growing up in post-war England I played in bomb sites and new houses under construction, and everywhere you went it was possible to see partial sections of buildings, left over from the blitz, like cut-away drawings. I had always been interested in architecture, but I didn't think you could prove what you were doing, and that you'd have to sell your design ideas. And so, I thought, well with engineering you can always convince someone that what you did was the right thing to do. And my father was an engineer. So I went into engineering. He never encouraged me really one way or another. He never said much. But all over the house there were these little drawings of things he was working on and thinking about. If you wanted to know what he was thinking about, you just kind of looked at the drawings. Anyway, the engineering hasn't been wasted because I teach Architectural Engineering now over at the Mass College of Art and Design. I am teaching what's essentially Mechanical Systems, and then I teach structural calculation, which is sort of the civil engineering part of it. I have also taught calculus, while I'm there, and I've taught Computer Aided Drafting, but for the most part, I'm teaching all the engineering courses. So I actually built the entire building science sequence. It's a small program. MIT has about seven people who teach what I teach. I teach Day Lighting, Acoustics, Plumbing, Electrical

Wiring, Mechanical Systems HVAC, and then all of the structural calculation. It's very rewarding. I love it, and I've been doing it for a long time -- forty years now.

MAMLIGA: Wow! So after you got your Architecture degree, did you start teaching right away, or what did you do?

HICKEY: No, not right away. Although, almost immediately, I started doing free Architecture courses. Those were kind of hippie days. They were the 60's. I graduated in '69. I offered a free Architecture course, just advertised it at one of the local notice boards, and people showed up, and we just talked about Architecture, and walked around the city. I went to work for the Cambridge Redevelopment Authority, doing renovation housing, and I've always done that. I actually enjoy that a lot. A typical job would be, for example, you get a six unit building in East Cambridge, and there'd be one toilet for all six units because the units were built without bathrooms. And so the job would be to figure out how to put a bathroom and a kitchen into these units, which never had a proper kitchen or a bathroom at all, and still do it so it met the health code, and you didn't have to walk through the bathroom to get to someone else's bedroom. It was 3D puzzle solving. I like working at the low end of the economic scale. I'm not interested in luxury housing at all. Actually, my house that you see here, these are all recycled windows and other parts. I built this extension on the back all

with a selection of recycled parts that I had assembled from junkyards up and down the coast.

MAMLIGA: Wow, it looks very nice. At your job, when you got your very first job, how many women were there at your workplace?

HICKEY: Well, there were some secretaries, the only women. And then there were some old Italian masons, who wrote up the specifications, and I did all the drawings for whatever kind of renovation we were doing. It was low income, a special program, run by the government. Low-income owners got 3% loans to renovate their houses. And they got me to do the designs.

MAMLIGA: Did you feel like MIT prepared you enough for you to start your work?

HICKEY: When I was at MIT in Mechanical Engineering, we got to work in a metal shop. I had familiarity with the shop, and then in those days MIT's Architecture program was filled with people who were "hands on." That was excellent because I was not afraid of building stuff when I graduated, and could talk to the contractors, and they understood that I knew how to build. And that was true. I did co-op training in mechanical engineering. I did my co-op training at Goodyear Tire and Rubber, so that I could live at home in Akron, while I was doing it. I didn't have any trouble with the men there, after they realized that I knew my way around the shop. The

first thing that happened was I had to change a blade on a band saw, and the way you fold up a band saw blade -it's like a large diameter circle, it's about four feet in diameter- you put your foot on it and then you take your hand and twist it down and it coils into three coils. Only someone who worked around a shop would know how to do that. When the guys all saw me folding up this blade the proper way, they realized, "Well she's not going to cut her finger off." My co-op at Goodyear was done in their research building, because they had a ladies toilet there for the secretaries. All the men co-op students worked in the rubber factory, but because there were only men's rooms there I wasn't allowed to work there.

MAMLIGA: How did you make the transition from a company job to teaching?

HICKEY: I didn't give up the job. I was still working for the Cambridge Redevelopment Authority, and I was teaching part time. I loved that. And then eventually, the government stopped the funding. The Republicans got in, and they stopped the funding for the low income housing loans. So then I was hired as a consultant to work for them part-time. I was teaching half time. When I first started teaching, I taught one course a semester. They paid us \$200 to teach a course. That was forty years ago, a long time ago. But I gradually then became half-time, so I was teaching two courses, each semester. That was half-time. Eventually, they elected me Department Chair, and so I had to go full-time. I cut back working for the

Housing Rehab program, but I was still maintaining my practice. I've been full-time now for over thirty years. But I still practice. Mostly now I do work for people who can't afford an architect. So for example, there's a woman whose husband was an MIT professor, who now has Alzheimer's. She needed to convert her basement to an apartment, so that she could have a live-in caregiver. So I do that kind of work for free now, mostly. But I'm seventy now. I'm still teaching full time. When I came to Mass Art, they had no courses in Technology; they just had Design courses. I wanted to make it into a complete Architecture Program. I added in all the Technology courses, one by one. And so that's when we started our undergraduate Architecture Program. Now we're converting it to a Master's Program, and we hope to have it completely accredited by next year. Then I can retire, after I get that done.

MAMLIGA: Sounds like you are doing a lot at your job. So going back to your time at MIT, where you involved in any extracurricular activities or anything besides your classes?

HICKEY: Well I used to write the songs for all the co-ed entries to "All Tech Sing." In those days, the women won every year, because we had a chorus line. The chorus line was very popular, and we always sang very rude songs. The rude songs always attacked the administration. It was just the system. We'd write these rude songs, and everybody loved it. I was Dorm

President the first year. Really, no one else wanted to do it, and I didn't want to do it either, but I was stuck, so I did it. If anything went wrong in the dorm, it was my fault. It prepares you well for industry.

MAMLIGA: Do you have anything, any interests, that you do now, outside of teaching?

HICKEY: Well I do a lot of travel and photography, because I use the information in the photographs in my teaching. That way I can teach with a multicultural approach. There are people solving climate problems in very different ways around the world, for example, and so I use a lot of that. I still sew, and I still do carpentry around the house. Eight times a year, I have the students over for dinner, actually, before every exam. It's become a tradition. I make sure they have a really good meal the night before the exam. A lot of the students are broke. I love the students, and really, that's why I stay. I don't have any children of my own, but as far as I'm concerned, they're all mine.

MAMLIGA: It sounds like you love your job, and you've been doing a lot, for many years, for your job. But has there been any challenge that you've overcome? Or what would you say was the biggest difficulty that you have had in your career?

HICKEY: I've always found that to be accepted by the men, you have to know what

you're talking about. Thus, I've always made an effort to make damn sure I know what I'm talking about. Then you get their respect. That's the first job. And for fields like Architecture and Engineering, one of the things for example, you never do is wear loose clothing that can get caught in machinery. I mean, you have to have some sense -- you dress appropriately, in safe clothing, and no sexy outfits ever. It's all about the job. That was pretty clear to me, right on. I did a lot of engine testing when I worked for the GE Small Aircraft Engine Department. The engineers wore ties in the office, but then when they went into the factory, they would tuck them into their shirts. So when you're working around rotating machinery, you have to look like you're really serious about what you're doing. And safety is job one. And that's always been important. I always wore my hair in a tight bun. No long hair. I'm not sure the women today quite get it because it's been much easier for them. They haven't had to really convince people that they should be allowed to do what they want to do. In my high school, in America, they had machine shop and technical drawing classes, and only the men took the courses. But I thought, if I'm going into engineering, I need those courses, I need to be able to run machines. So I went to the principal, and I said, "Look here! How am I going to learn this, if you don't let me take this course?" I talked him into it, and so in high school I took technical drawing, then a shop course. In my high school, we were in the same town as Western Reserve Academy, which was a boys' school. So the academically minded boys were going to

that school. I was in the shop with a lot of the shop kind of guys, who were, actually, probably going to do it for the rest of their lives. The shop teacher was delighted, he enjoyed having me in the class, because he saw I was serious, and I knew technical drawing before I went into the shop. So when I applied for MIT, he wrote me a recommendation, which I saw, and it had his greasy thumb print on it. I thought MIT's going to see this and they're going to realize, "This is a real shop guy, who wrote this." One day, Mr. Aeschilman, who was one of the two shop teachers, bent over, and the seam on the back of his trousers broke. And so they put him in a closet, and gave me his trousers, and sent me down to the home economics sewing room. And I sewed them up for him, and brought them back. But it was all part of the job -- fix stuff: if it's broken, fix it!

MAMLIGA: Even the trousers...

HICKEY: Well they knew that I sewed. I mean, for me, any activity, where you make something, is all about structure. Our Architecture Program is all about makers. We want the people who want to know how it's made and care about the details. And that's who we're getting. Mass Art has a glass shop, has ceramics, has wood, has plastic, has cold and hot metals; it has everything we need to make stuff. It's heaven there for makers.

MAMLIGA: That's very nice. So I guess we're out of time. I'm sorry for running over.

HICKEY: That's Okay.

MAMLIGA: One more last question: if you had any advice for the incoming women students to MIT, what would it be?

HICKEY: Well I guess I would say that you need to look serious on the job. You need to know what you're doing, particularly if it's a job that is really, heavily, dominated by men. In my disciplines you need to know how to make stuff. I worry about too great dependence on computers to the detriment of really learning through physical experience how things are made. You need to dress safely. And you need to be serious. I think MIT students are serious already. At MassArt we have roughly equal numbers of women and men. The only thing I would fault the women on is that they wear things to school which are taking the men's minds off actually doing the work. And I think that's probably not such a hot idea, because rape and sexual harassment are still happening in the workplace.

MAMLIGA: The times have probably changed a bit.

HICKEY: They've changed a lot. But for the better in many ways. I think a lot of people today don't realize the kind of things that we went through, the kind of discrimination that we faced, even though we stood on the

shoulders of women who came before us from Ellen Swallow Richards on down. For example, my MIT engineering class went on a field trip to Boston Gear, and I really wanted to see how the gears were made, but I was not allowed into the factory, though I was dressed totally safely, and I had to sit with the woman secretary in the front office while the guys got an hour long tour. Four years later I was one of two women engineers at the GE Small Aircraft Engine Department, and the other woman did mostly calculations; she never got down in the shop. I liked to go down there and test the machines.

MAMLIGA: To actually do stuff. Well, thank you so much for your time. This is very valuable to the project.