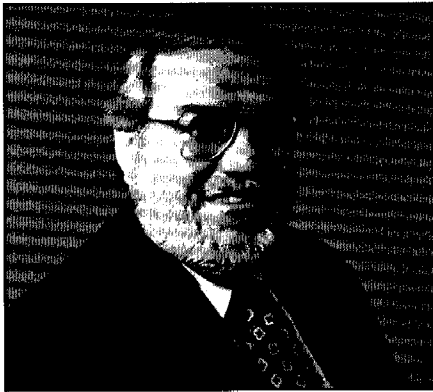


MIT Profiles Merritt Roe Smith



Merritt Roe Smith is Leverett and William Cutten Professor of the History of Technology. His research focuses on the history of technological innovation and social change. His publications include *Harpers Ferry Armory and the New Technology* (nominated for the Pulitzer Prize in History) and, most recently, *Inventing America: A History of the United States* (co-authored with Pauline Maier, Alex Keyssar, and Daniel Kevles). He is a fellow of the American Academy of Arts and Sciences.

The following interview of Prof. Smith (**MRS**) by the *Faculty Newsletter* (**FNL**) was conducted on November 7, 2005.

FNL: Your new textbook is entitled *Inventing America: A History of the United States*. How did that come about?

MRS: The project started around 1991 when several colleagues in the history of technology and I were invited to visit the Sloan Foundation to discuss what it might do for the field of the history of technology. In the course of making my remarks

about the need for graduate student support, I happened to mention how disappointed I was in general American history textbooks because they gave so little attention to science and technology. I finished my presentation and the conversation moved to other subjects. Then, about two weeks later, I got a call from a program officer at Sloan who told me that if I would like to put together a team of scholars to write the kind of American history textbook I felt was needed, the foundation would be willing to support it. I just about fell off my chair because that was the last thing I was expecting. But that's how the project came about. From there I put together a team that included a technological historian (me), an early American political historian (my MIT colleague Pauline Maier), a historian of science (Daniel Kevles of Yale), and a twentieth-century social/political historian (Alex Keyssar of the Kennedy School at Harvard). We began writing in 1996. It was a long, tedious, and difficult process, but we finished the manuscript in 2001 and saw finished books the following year.

FNL: The book comes with a CD-ROM. How is that used?

MRS: The CD enables the user to project the text onto a computer screen and read it that way. In addition, there are extra visuals and study materials as well as interviews that each of us did at a famous historical site. For example, I went to the National Park at Lowell and did one on the nineteenth-century textile industry

and its implications for the advent of the industrial revolution in America. Pauline did one of Washington's Mount Vernon. They turned out well.

FNL: And was it really a lot of work?

MRS: I'll say so. I could have written two monographs in the time it took to write eight chapters of the textbook. If I had known how much work it was going to entail, I might not have done it. But I'm glad I did.

FNL: I would assume there isn't a huge financial payoff.

MRS: Not huge. American history is taught in virtually every college and university in the country, and as a result there are scores of competing textbooks available. So it's not like you're going to be driving a Ferrari if you author a textbook.

FNL: How widely distributed is it?

MRS: It's done quite well. The last I heard from our editor, it had been adopted at over 200 colleges and universities around the country. One of the really pleasant surprises is that high schools are using it, especially advanced placement classes in American history. The City of San Diego, for example, adopted it for all of its advanced placement classes and it's being used a lot in junior colleges, too.

FNL: How does your textbook differ from other American history texts?

MRS: Basically what we sought to do was to take the traditional American history narrative format and show how the inclusion of science and technology reconfigured that narrative, without making it a history of science or technology text. In other words, this is a general American history textbook that has science and technology integrated into mainstream discussions of politics and society. It doesn't cover everything. We choose our shots and then we discuss their implications. It's our angle of vision, if you will.

We knew we wanted to bring science and technology to bear on American history because we felt that it had been neglected. But once we finished the text, we realized that we were advancing a common theme, viz., how innovative Americans have been as individuals and as a society. And so the title, *Inventing America*, conveys a double meaning: first, the country itself as an invention that keeps getting reinvented; and, second, the multitude of ways in which Americans have been inventive. Science and technology are an important part of this story, but not the only part. The textbook is entering a second edition in January, and we've expanded the innovation theme beyond science and technology to art, literature, music, politics, jurisprudence, and other components of American culture. I believe our approach enriches and deepens not only one's understanding of American history but also America's place in world history. Not all the story is positive, however. History is messy and complex, with bright sides and dark sides.

FNL: I know that some of the local high schools are attempting to integrate history and English classes to emphasize their interrelatedness, so that the kids are studying history while they're reading literature that relates to that history.

MRS: I'm really happy to learn this because it signals to me that teachers are becoming more willing to cross discipli-

nary boundaries and that learning is becoming more integrated. I think that represents the future in secondary and higher education. When I hear Susan Hockfield speak about the need for greater interdisciplinarity at MIT, I sense that her educational vision is for something much broader and interconnected than has existed in the past. I think there is a real opportunity here. MIT led the world in introducing what became known as engineering science. It integrated science and engineering years ago, and introduced a new way of educating engineers – for which it became justly famous. For the last 10 or 15 years MIT faculty have been concerned that “others are catching up” and thus asking “what's the next step for us?” I think the next step is a more pervasive form of boundary crossing – one that involves intersections not only between the schools of science and engineering but all the schools at MIT. The current discussions of the GIR, as difficult as they've been, seem to be moving in this direction.

Other boundary crossing activities exist at the Institute – for example, the Program on Emerging Technologies (PoET), which involves the Political Science Department, the Engineering Systems Division, and the STS Program and is supported by an IGERT grant from NSF. This graduate program brings engineering students together with social scientists and humanists in the classroom and on research projects about the uncertainties and impacts of new technologies. It has been fascinating to watch them interact and work together and, in the process, not only learn from their professors, but from one another. Although they retain a strong disciplinary focus in their dissertations, each is shaped by a multi-disciplinary experience. More informed and perceptive work is being produced as a result. As far as I'm concerned, this is the future. It's where MIT should lead in the twenty-first century.

FNL: I understand you are a housemaster. How did that come about?

MRS: One night at dinner several years ago I remarked to my wife, Bronwyn, that I'd been at MIT almost 25 years and could count on one hand the number of times I had been west of Massachusetts Avenue to an undergraduate student function. I said that “I am at MIT but I don't feel like I'm of MIT.” I didn't really understand what the student culture was like. I knew them as students in the classroom, not as people. I felt that there was a big gap in my life at the Institute. Thanks to a graduate student who was a GRT [Graduate Resident Tutor] at MacGregor House, I was invited to become a faculty fellow of Entry J. It was a wonderful experience. I really enjoyed interacting with the students on their turf and from then on, I knew that I wanted to become a housemaster.

FNL: So this necessitated you and your wife moving on campus?

MRS: Yes, we are at Burton-Conner where we're housemasters with some 350 undergraduate students.

FNL: Wow.

MRS: Wow is right.

FNL: I'm laughing because I'm envisioning you being in your office and in class, and then instead of going home and relaxing you're in the maelstrom.

MRS: It is in the maelstrom, to be sure, but it's also very interesting and very rewarding. By and large MIT undergraduates are special. We've grown very fond of them. They tend to work hard and, at times, play hard. It's the latter that concerns us. As a housemaster, you have to be prepared that any minute you'll get a phone call saying “we've got a problem” and you've got to drop everything and attend to it. It could be something rela-

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tively minor, or it could be something serious. We've experienced both. But the best thing about being a housemaster is the students. They're wonderful.

FNL: What would you say is the key to being a successful housemaster in an undergraduate residence?

MRS: I don't know that there is any one key. Activism is very important. You can't just live in a house and build a cocoon around yourself. If you do that, you're asking for trouble. I try to be as visible as possible. Every weekend I like to walk all nine floors and check in with everyone.

FNL: And what do you look for?

MRS: Nothing in particular. I just want to make sure that things are OK and let the students know that I'm around and available if they need me. Walking the halls also gives me a chance to meet students and strike up conversations. I also use these occasions to remind them not to endanger themselves or others. That's the number one rule of the house.

FNL: Would you recommend becoming a housemaster to other faculty?

MRS: I would definitely recommend it, but you have to have a certain temperament to be a housemaster. If you don't like loud music at all times of the day with stereo loudspeakers literally vibrating the floor above you, you're probably not going to like being a housemaster. Students like their music and they raise hell periodically. I don't mind it so long as they don't hurt themselves or anyone else. That's where I draw the line.

FNL: Don't you find it impinging on your space or quiet time?

MRS: Not really. My friends think I keep strange hours, but they work well with reference to my role as a housemaster. I usually take a nap early in the evening, then get up and watch the news, then work until four or five in the morning. The most active hours for Burton-Conner students are between ten in the evening and two or three in the morning. So I'm awake pretty much when the students are awake. I'm around when they need me to be around.

FNL: Does your wife work outside the Institute?

MRS: Bronwyn is a former editor who is very active in her church in Newton. She has long been involved in preparing meals for homeless people and other church-related outreach activities. During the past year she's been directing more and more of her energies toward Burton-Conner. Bronwyn turns out to be really good with young people who are having emotional and psychological difficulties. We make a good team because I tend to be more adept at dealing with inter-personal and disciplinary problems. One of the good things about being a housemaster are the excellent emergency, medical, and counseling resources that are available 24 hours a day. The people who provide these services are highly competent, which helps because we're not expert in student life matters. Our job is not necessarily to solve every problem but to know who to call when one arises.

FNL: That's improved a lot in the last several years.

MRS: It definitely has. I think MIT's administration has worked hard to make life a whole lot better for students than it used to be. MIT has come a long way and really puts serious effort into making sure students are well cared for. When they need help, they get it.

FNL: And what does it do for you being with younger people in that role?

MRS: It enlivens my life. I feel much more fulfilled about being a professor here than I did before. I feel like I'm much more a part of MIT – and not just with students. I actually meet more faculty and more people in the administration as a result of being a housemaster. It's nice, very nice.

FNL: A final thought?

MRS: When I first told my colleagues that I was going to become a housemaster, several looked at me and said "are you crazy; what in the heck are you thinking of?" So there is an attitude among some colleagues that housemastering is one of the last things an MIT professor should get involved with. And for some that may be true. But I do think, as I said before, that faculty need to become involved and better acquainted with students in their social settings. We just don't know enough about them as people.

FNL: What's interesting to me is the parallel between your interdisciplinary work, the *Inventing America* book, your advocacy of multidisciplinary learning, and the integration of faculty and students in a way that doesn't separate them as teacher and student. There's a similar theme here.

MRS: It is a convergent theme and I'm glad you've pointed that out because all of them are important to me. They are doubtless connected. I think interdisciplinary teaching and research represent the future and that MIT is on the ground floor. I sincerely hope that, despite all the challenges and uncertainties, the Institute will build in this direction. It's an area where MIT could make a huge contribution. I've seen enough in instances like PoET to know that it works.

FNL: Thank you, Professor Smith. ■