

Mathematical Community

Only we can tell the story—and it's time we did

The common image of a mathematician is of someone isolated and working alone: someone without a community. Some six generations ago, such perception was reality. What would become the AMS was in 1889 an organization of only sixteen people. Not surprisingly, books about mathematicians have long emphasized individuals, their work, and sometimes their wonderful idiosyncrasies.

That small community is now long past. The AMS alone counts over 30,000 members. Mathematicians meet often, through conferences and visits. We see our colleagues more regularly and know them better. More and more of us collaborate on projects and get together for walks or hikes at institutes.

In the United States, Project NEXt has played a signal role in amplifying this wave, helping a new generation of mathematicians create their own community from the very beginning of their careers. And the growth of research experiences for undergraduates, as well as the AMS's own Mathematics Research Communities program, offer the promise of creating a community larger still.

It's time that books and articles about mathematicians reflect mathematical society. The stories of our community—the peculiar predispositions we share, what distinguishes us from other academics, or other scientists—haven't been told.

The writers among us have continued to focus on individual mathematicians: esteemed researchers, or authors of definitive textbooks. Their stories are certainly valuable, and I wouldn't want to lose them. But they don't tell us about our community, about what it's like, generally speaking, to be a contemporary mathematician in contemporary mathematical society.

We need stories about our community for several reasons.

First, there's more public interest than ever in what it means to be a mathematician. Playwrights and screenwriters have sensed this for some time; David Auburn's *Proof*, Tanya Barfield's *Blue Door*, Tom Stoppard's *Arcadia*, and of course Nicolas Falacci and Cheryl Heuton's *NUMB3RS* confirm that we're long past having Ted Kaczynski define for the public what it means to be a mathematician.

Yet these stories are not ours, and they serve purposes other than accurate representation. Alice Silverberg drives this point home in her 2006 *MAA FOCUS* article "Alice in NUMB3Rland" [26 (2006), no. 8, pp. 12–13]. Our own stories, authentic and insightful, will better meet the public's interest—and likely create more empathy for mathematicians.

Second, our stories would benefit the profession, helping us recruit those for whom life as a mathematician would be desirable if only they knew what it would be like. Graduate school in mathematics is certainly not for tourists—it's just too hard—but we can do more to tell potential graduate students what their future, beyond teaching classes and doing research, is likely to be. Taking students to undergraduate conferences, introducing them to visiting speakers, and advising them one-on-one: all these are good. But offering extended portraits of mathematical communities, written by mathematicians, would be even better.

Finally, as mathematicians, we share—and continue to create—our own mathematical culture, and we should communicate that culture as a means of consciously shaping it. We all know anecdotes about mathematicians, and we can use these as starting points for insights into who we are and where we're going. By finding patterns and disseminating them, we'll begin to involve the community at large in exploring, developing, and even celebrating mathematical culture.

What do we need, then? We need mathematicians willing to pen a few words about what they observe when they sit down with other mathematicians, and to compare us to other groups, of faculty or of researchers.

These observations don't need to be scientific. It's not as if we're considering the theoretical underpinnings of a sociology of mathematicians. And we should let go of any notion that our observations will all agree, as proof of some essential consistency in mathematical society. But short observational pieces, whether humorous or serious, will inspire us to think more deeply about ourselves.

Potential topics abound. Does mathematics attract lovers of the outdoors? Why the emphasis, after all, on places to walk or hike at mathematical institutes? Or, do mathematicians approach travel to other countries differently from the way other academics do—with more familiarity, or predispositions? Are we, as a group, truly more eccentric than others on campus? Are mathematicians at the forefront of collaboration, with the advent of the Polymath Projects and Math Overflow?

I wonder: are others as interested in this project as I am? I hope so, and I'd be interested in hearing from them. Essays on mathematical life and society will be fascinating and meaningful, both to us and to others outside mathematics—and they'll help us create an even richer mathematical culture.

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