

MEDIA COLUMN

In addition to longer reviews for the media column, we invite you to watch for and submit short snippets of instances of women in mathematics in the media (WIMM Watch). Please submit to the Media Column Editors: Sarah J. Greenwald, Appalachian State University, greenwaldsj@appstate.edu and Alice Silverberg, University of California, Irvine, asilverb@math.uci.edu.

MSRI@PlayGround

Alice Silverberg

Monday Night PlayGround (<http://www.playground-sf.org/monday.shtml>) was created in 1994 to nurture the talent of budding playwrights. Each month from October to March, six 10-minute plays are chosen for staged readings at the Berkeley Repertory Theatre, from a pool of about 30 Bay Area playwrights, on that month's theme. For the month of February a mathematical theme was chosen by Berkeley's Mathematical Sciences Research Institute (MSRI).

During a recent stay at MSRI, Director Robert Bryant invited Barry Mazur, Manjul Bhargava, and me to give short presentations to whomever of the playwrights were both interested enough to come and able to find their way up the winding road to MSRI on a dark winter evening. Our talks were supposed to inspire the 20 playwrights who showed up.

Mazur's very philosophical presentation was mostly about "nothing," evoking Beckett, Shakespeare, and the concept of zero. He also talked about the notion of negative. Following G.H. Hardy's exposition in *A Mathematician's Apology*, I initiated a dialogue about Euclid's proof of the infinitude of primes, and other issues relating to primality, number theory, and cryptography. Bhargava gave a beautiful talk on how the golden angle and Fibonacci numbers arise in nature, and about mathematical underpinnings of Sanskrit poetry that he learned from his grandfather.

The writers were then told that they would have about five days to write their scripts on the theme "Kingdom of Number." Citing Gauss's "Mathematics is the queen of the sciences and number theory is the queen of mathematics," I snarkily added that perhaps the topic should be "Queendom of Number."

I agreed to be one of the judges for the 32 submissions. We were told that diversity of plays and playwrights was one of the goals, so that they weren't putting on plays by the

same people each month, and to ensure gender and racial diversity.

For each of the six winning entries, some actors and an experienced director met and rehearsed on the day of the performance. There was a pre-show Q&A, with a panel made up of playwrights, PlayGround staff, and mathematicians. Then staged readings of the six plays were performed in front of a large and very enthusiastic audience.

Many submissions had little or in some cases nothing at all to do with mathematics or the theme. Several were "math and madness," and for others the only mathematics was that the names of some the characters were integers. Some of the plays made me cringe, because the authors just didn't "get it." The moods ranged from philosophical and nihilistic to light and funny.

Some, including one we chose, *Bowling for Decads* by Martha Soukup, were about people who were passionate about doing something well, the way mathematicians are passionate about what we do. That play was one of several with mildly dysfunctional men trying to make sense of their lives. I tended to prefer the light, funny ones with strong, capable female characters and sharp, snappy repartee.

One that I found delightful was *Rapunzel's Etymology of Zero* by Katie May, which eventually was selected as a People's Choice Award winner to be one of seven full productions delivered at the Best of PlayGround Festival in May. Subtitled *A Feminist Fairy Tale*, it drew on a number of sentences or themes that we three "muses" had presented at MSRI. Its success at the staged reading was aided by exceptionally good acting and directing.

While *Goulash* by Mercedes Segesvary had only a thin sliver of math, it showed that a little knowledge of numbers (and the withholding of information) can be used by a clever old woman as a source of power.

Generally, the mathematics was peripheral. The exception was *Laura and Curt: A Story of Love and Big Numbers* by Rod McFadden, inspired by the true story of the 1978 discovery of the 25th and 26th Mersenne primes by Laura Nickel and Landon Curt Noll, two Bay Area teenagers. The play included some gender issues and contentious questions about assignment of credit for the discoveries. Since the real life protagonists currently live in the Bay Area, having them in the audience or at the Q&A would have been interesting. There was a lot of information, and even some mathematical depth, in this play, which must have been hard to try to fit into the ten minute format. I think this play has a lot of potential, and with additional time and work could become a good full length play.

While I had great fun being involved with MSRI Night at PlayGround, my overall evaluation of the process is that one can't do much that is deep or significant under such time constraints. More time and thoughtful reflection would be needed, in addition to more extensive interaction between playwrights and mathematicians. I feel this way about many initiatives that bring mathematicians and non-mathematical artists together to try to do something meaningful to popularize mathematics.