Interdisciplinary Fun with Knapp Chairs, MIT’s Erik and Martin Demaine

"Anything that's fun, that's what we like to do," said Erik Demaine, an electrical engineering and computer science professor at Massachusetts Institute of Technology, near the end of a presentation that he and his father, Martin Demaine, gave on April 16 in the Joan B. Kroc Institute for Peace and Justice Theatre.

Fun, with elements of art, science, math and engineering, is what the University of San Diego's two spring Knapp Chair of Liberal Arts guest educators have had the good fortune to do both in their careers and while taking part in USD's Research Week activities. Erik and Martin Demaine, the latter who is the Angelika and Barton Weller artist in residence at MIT, have given two talks, have done guest talks in USD math classes and have been in community with USD students, faculty and staff at multiple sites in San Diego County and Tijuana to share their fun, creative work with everyone.

Labelling themselves as both artists and scientists, the Demaines have been inspiring students by showing them and working alongside of them in places on campus such as the classroom in the Humanities Center, the Architecture Pavilion and Loma Hall's first-floor ideation space.

Both Demaines are glass blowers and origami enthusiasts. Martin has a nickname, "the father of Canadian Glass," and has even created goblets for the Queen of England. Combining their artistic outlets and mixing in a computer science and engineering focus, the duo's work is something to behold. Glass containers they've made are filled with unique curved-creased sculpted objects that have been assisted by math processes such as geometry in how they are constructed. They've been working with students on daily "challenge" projects that utilize paper to fold, cut and glue items such as letters, fonts, shapes and more.

"The Demaines are amazing. They are the perfect example of people who look at the world in a completely interdisciplinary way. They combine many different disciplines to address issues and yet they focus on exploring and having fun," says Perla Myers, PhD, a professor of mathematics at USD and who has championed the idea of bringing the Demaines to campus. "They are doing things that are fun to them, but, in turn, these things they do for fun have pretty incredible applications."

The Demaines have been here for USD's Research Week, but their impact will continue as they are speaking to a section chapter of the Mathematics Association of America on April 21 at USD. Their work, along with some of the work done by students at USD, at Tijuana's Escuela Libre de Arquitectura and non-profit organization Advancing Students Forward and at three local sites — Kearny High School, Chula Vista Library and High Tech Village — will comprise the display called, "Folding Borders, Making Unfoldings," that's on display in the Humanities Center for the next month. There is a grand-opening celebration on April 27.
— Ryan T. Blystone

Photo album of the Demaines’ visit: https://flic.kr/s/aHskzFxEgS