MIXER
ISSUE 09

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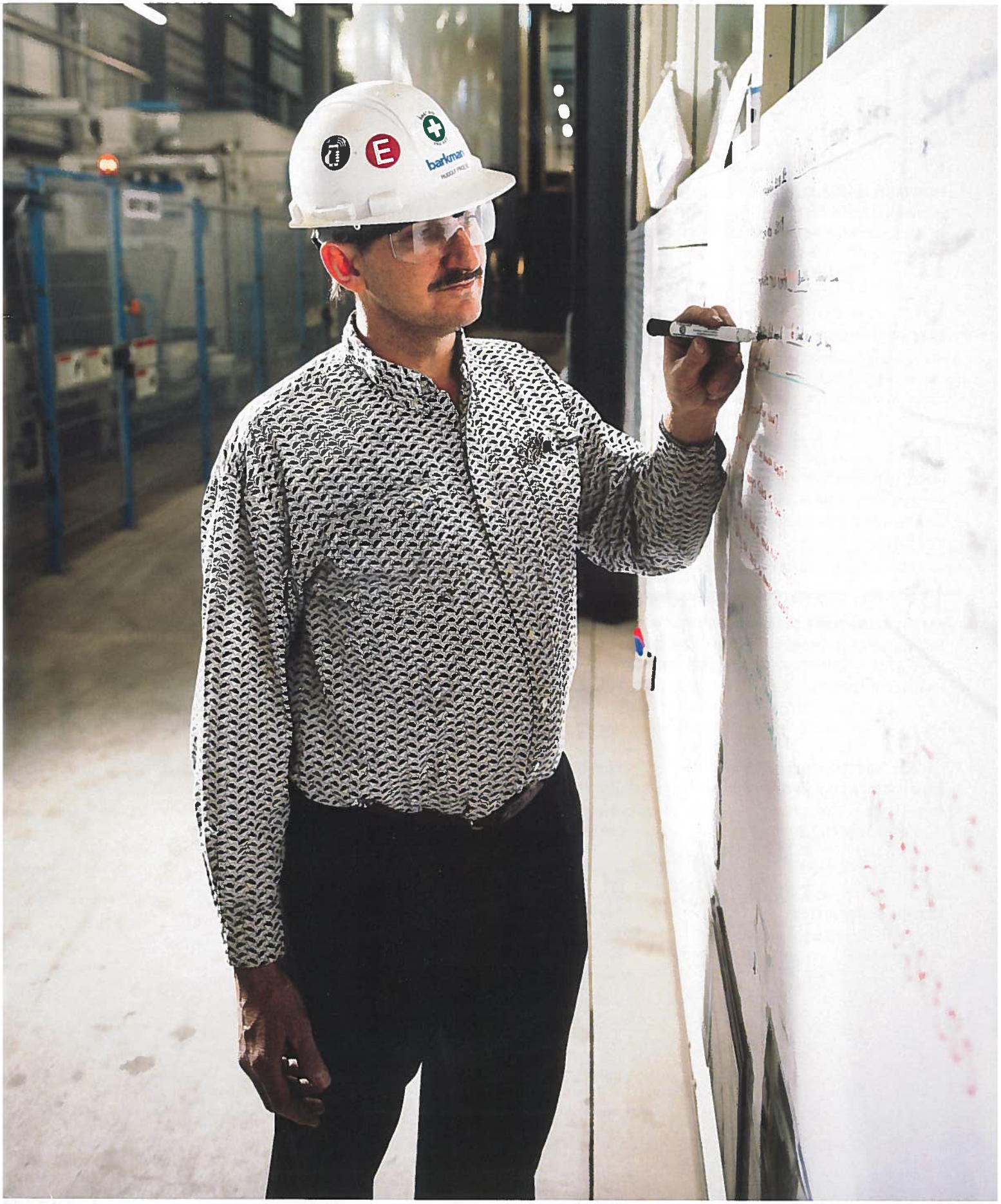

Expertise and Commitment

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Every year Barkman Concrete Ltd. challenges students to celebrate the 'concrete' material with the Barkman Concrete Design Competition. Since 2013 it has been my pleasure to coordinate the pre-cast design proposals as part of my university teaching. The Design Competition is open to any student enrolled in the Faculty of Architecture at the University of Manitoba and is required assignment for students of EVLU 4002 Construction Materials. The jury and I are always enthusiastic about the ambitious ideas and hard work of the students, and it is never easy to select the winners. After promoting and mentoring this competition for over five years, I felt it important to outline its evolution and what has contributed to its success.

1. Industry Communication

The Barkman Concrete Design Competition is unique among faculty-wide design competitions since it promotes communication between industry fabricators, educators and students. Volunteer representatives from Barkman generously provide feedback to the students to develop their ideas even before entry to the competition. The qualities of aesthetics, functionality, as well as marketability, are crucial to ensuring success of the end product. Encouraging entrepreneurial spirit is a welcome alternative pedagogical approach.

2. Teaming Up

In order to facilitate intensive discussion between the students, I shifted the expectation of the competition from individual input to group work. This matches real-life experiences. Landscape architects and urban designers are required to interact, collaborate and to show leadership with their peers. For this reason I wanted to nurture the important skill of 'turn taking' so it becomes an ingrained habit. I also have used this opportunity to inspire students to compete for recognition and cash prizes as a means to stimulate their learning aspirations.

3. Lecture and Plant Tour

Effectively complementing the design competition, since 2015, students are treated to guided tours of the new 43,000 square foot plant in Steinbach. One of the focal points of these visits is to hear the legendary lecture on concrete from Garry Funk, Manager of Barkman's Research Department. Students gain additional insight from

Interacting with people working exclusively in the practice, and from seeing new and advanced methods of concrete formation starting from aggregate, all the way to packaging and storing.

4. Colour Rendering

To make technical drawings easier to understand, I encouraged the submission of additional rendered drawings. The jury has positively commented on this change of approach. I also ask the students to reflect on the inherent sensuous and vibrant qualities of the applied materials in order to make their ideas more appealing. The students have benefitted by learning to convince others through the representation of their objects into real life scenarios.

5. Model Making

As a further addition to the design competition I added the challenge of including model making and delivery, including physical, three-dimensional visualization techniques. To foster three-dimensional thinking, I call for materials that can be reused and recycled such as paper, cardboard, fabric, salt, sand, cement or wood. I see the design process as an experiment and utilize synergies of two-dimensional, three-dimensional, digital and analogue visualization tools in any particular order. Switching between hand-drawing, model-making and digital sketching supports spatial comprehension as well as the jury's decision-making.

6. Stimulating Innovation and Professional Excellence

My motivation of being engaged with this competition originates from my fascination with the exemplary model of the historic German program at the Ulm School of Design that pioneered the systematic integration of art, craft and technology into design education. I see the potential of applying this idea of uniting theory and practice through mentoring my students in this design competition.

7. Future Development and Outlook

In conclusion, I regard it as a success that Barkman Concrete Ltd. has always valued the fresh ideas from students who demonstrated increased learning motivation, team spirit and noticeable supererogation. This unique competition has spread to other campuses and is now being held in a second institution, the University of Calgary. 2018 marks the first year a past winning team was approached by Barkman to possibly commercialize their idea. Embracing this exciting opportunity shows the limitless potential of successful university and business venture collaborations.

Anna Thurmayr is an Associate Professor at the Department of Landscape Architecture at the University of Manitoba. Her work received many awards including the CSLA Award of Excellence, the Prairie Design Award and the Sustainable Community Design Award.