

# Itinera

*The Newsletter of the River Ridge Alumni Association*

Volume V, Issue ii

Fall 2008

## Structural Design: Translating Theory into Function

By Suzanne Schmitz ('03)

The challenge: construct a 1:10 scale bridge that would span 20 feet and hold a little more than a ton. It may sound like a project of nerdy amusement, but that's what you encounter when a few structural engineering students get the opportunity to go beyond hypothetical classroom problems and apply a bit of everything they've been learning. During my senior year at North Dakota State, I traveled to Los Angeles with a group of engineering classmates to compete against other universities from across the nation in the National Student Steel Bridge Competition.

Our project was an upscale version of one of those balsa wood bridge projects that the Trinity seniors have been doing for the past few years. For this project, however, we got to use a material for which we could apply a little more theory and predictability—steel; and the competition wasn't so much about which bridge could carry the most weight as it was about which was the best designed.

In our engineering classes, we had learned the properties of materials, the calculations required to determine physical behavior, etc; but it takes more than just general theory to be able to design a structure for specific situations. By taking into account the many factors (beyond just being able to stand up) that determine a final design, this project

mirrored the process of designing a real bridge, such as the new 35W bridge recently completed.

I currently do design work for buildings, and there are many instances when our overall design must account for limiting factors that are secondary to strength. Among these considera-

out needed to be both sequential and easily accessible—all without compromising any strength.

The second category, the efficiency of the design, meant we had to use the least amount of material needed to meet the strength requirements. Since all the bridges were loaded with the same amount of weight (2500 pounds), the efficiency was determined by the amount the bridge sagged in the middle compared with how much the bridge itself weighed. In other words, a bridge might be constructed with the least amount of total steel needed to hold the load but end up bending to an extreme; or a bridge might allow only minimal deflection but be constructed with excessive material. An ideal design would find the balance between those two ex-



Suzanne (bottom left) and her team take 1st place in national competition!

tions are construction time (winter vs. summer, as well as length of construction), permissible deflection (i.e. movement of the structure), and of course budgets.

For this particular project, the scoring was based on two categories: economy and efficiency. The first category, economy, reflected the constructability of the bridge itself. It factored in a combination of the number of people required to assemble the bridge across the 20-foot "river" and the time it took to do so. Thus, we had to be aware of things such as the sequence of construction or even the intricacy of parts and connections themselves; the lay-

tremes.

In the end, our NDSU team came up with a bridge that weighed 108 pounds (1/20<sup>th</sup> of the load it carried) and allowed only 3/4-inch deflection. This was a combination good enough to win 1<sup>st</sup> place at the national competition! On a small scale, this competition required us to take into account some of the main considerations that go into the design of any structure, giving us students tangible experience with what this word 'design' really involves.

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# Bringing Contemporary Global Issues to the Trinity Curriculum

By Andrew Gaylord ('98)

For two years the Global Issues Colloquium has offered a new kind of challenge to the Trinity Juniors. We have researched blood diamonds in Sierra Leone, the AIDS epidemic in Sub-Saharan Africa, and human trafficking in Eastern Europe, to name a few projects. We have watched films about the Indian caste system, the origins of terrorism in the Middle East, and the economic theory behind the end of the Cold War. We have read novels about the effects of Colonialism in the "Third World" and about the unique challenge of building schools for girls in Pakistan. We have listened to men and women tell us their stories of working with people in Is-

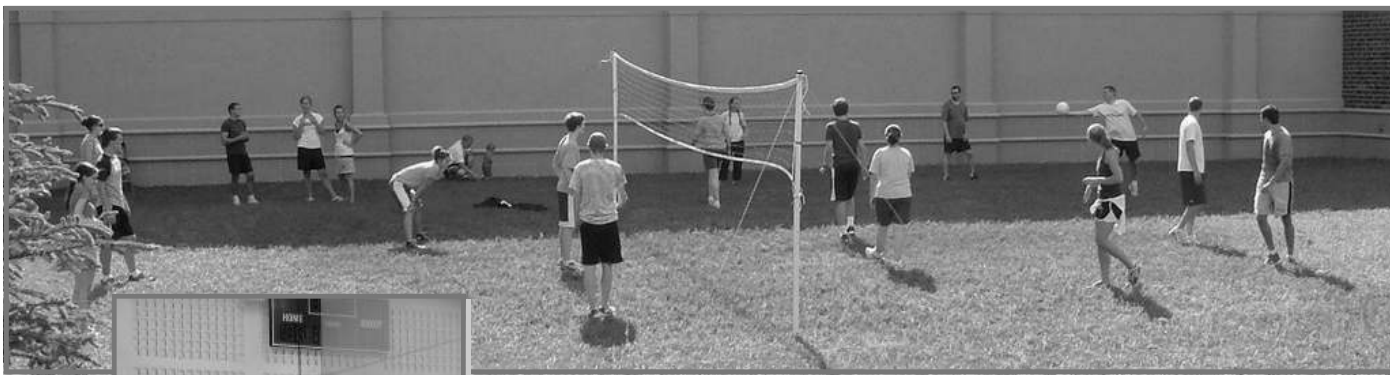
rael, Kenya, Ghana, Sierra Leone, China, and South Africa. And as we have become aware of new situations of human suffering, we have asked the question: how should I respond?

"Well, how can I respond?!" one student spoke up in our discussion of the book *Mountains Beyond Mountains*, which is the recent story of Dr. Paul Farmer's work treating and curing infectious disease in Haiti, Peru, and Russia. "I'm not Paul Farmer," this student said. "I can't do what he does." There was a long silence before another student replied, "You're right. But perhaps we underestimate the wider effects of what we can do well right here." The class then

started to talk about how we are connected and even responsible for apparently far-off human conditions. "Sometimes, if we have the money, we can leave the comfort of our homes to offer help in another city, or another state, or another country," one student concluded. "And sometimes we do best by staying where we are. But we have to do something." This moment of realization epitomized for me what this new course is about.

The course seeks to ask in multiple ways a question that every moral person must face in his or her life: It's your world. What are you going to do with it?

## First Annual Alumni Field Day at New Building



Over 25 alumni and their families gathered at the new building for the first annual Alumni Field Day on August 9. Teams competed in trench ball, volleyball, basketball and relays. Join us next year on August 8 when we'll add ultimate frisbee and soccer!



## Alumni Updates

- ◆ **Graduations, Jobs, Accomplishments, Etc.**
  - ℵ Katie Wind ('02) swam in the Olympic Trials in Omaha, NE on July 4. She achieved her best time, 2:16.38, in the 200 backstroke and placed 43rd out of 95 total swimmers in her event. Katie has now retired from swimming and will attend law school at Loyola University starting this fall
  - ℵ Julia Sewell ('06) has been selected to serve on the 2008-2009 Partnership Team for the America's Promise Alliance (founded by Colin and Alma Powell). She also recently finished a year on the State Farm Youth Advisory Board where she helped give out \$5 million to service-learning projects around the US
- ◆ **Weddings**
  - ℵ Maryrose Callaghan ('96) to Jared Barse on June 14 at Church of the Visitation in Minneapolis
  - ℵ Laura Simones ('00) to Glen DeSouza on June 21
  - ℵ David Lauer ('03) to Elizabeth DeSanto ('03) on July 18 at Annunciation Catholic Church in Minneapolis
  - ℵ Laurel Tambornino ('00) to Jason Stroud on August 17 in Wayne, PA
  - ℵ Sean Ryan ('99) to Tina Schieffer on September 6 in Rice Lake, WI
- ◆ **Births**
  - ℵ Justin Patrick born March 16 to Eric and Kristin (Krause) ('93) Heintzelman
  - ℵ Edward "Teddy" Vincent born March 25 to Pat and Ceci (Garcia-Velez) ('94) Petschel
  - ℵ Faustina Elaine born May 20 to Mike and Cynthia (Lee) ('99) Adkins
  - ℵ Megan Ann born May 12 to Nick ('95) and Jamie Buri
  - ℵ Michael John born August 18 to Mark ('98) and Kate Buri
  - ℵ Alexander Morgan born August 19 to Adam and Vini (Garcia-Velez) ('94) Waud
- ◆ **Deaths**
  - ℵ Nico, son of Adam and Maureen (McNiff) ('97) Swenson, on June 3

## Alumni Pictures Available

Pictures of many of the recent events (past year) at Trinity are available for sale on Tom Bowar's website ([www.bowarphotography.com](http://www.bowarphotography.com)), click on "Clients"). Also available upon request are pictures of concerts, plays, spring formals, graduations, and some sports from 2001-2006 (for these, contact Tom directly at [tbowar@bowarphotography.com](mailto:tbowar@bowarphotography.com) or call 612-325-2246).

## Class Representatives

- ◆ **Class of 1991/1992**—Ann (Van Natta) Nicklaus ('92) (952-997-7185, [nicklaus6@gmail.com](mailto:nicklaus6@gmail.com))
- ◆ **Class of 1993**—Mary (Hengen) Lee ([maryplee@gmail.com](mailto:maryplee@gmail.com), 651-699-4302)
- ◆ **Class of 1994**—Cecilia (Garcia-Velez) Petschel (651-699-1822) ([cgvelez@hotmail.com](mailto:cgvelez@hotmail.com))
- ◆ **Class of 1995**—Jeff Showalter ([jshowalter@trinityschools.org](mailto:jshowalter@trinityschools.org), 612-702-2974)
- ◆ **Class of 1998**—Andrew Gaylord ([argaylord@hotmail.com](mailto:argaylord@hotmail.com), 651-646-8504)
- ◆ **Class of 1999**—Sean Ryan ((608) 239-7847, [seanryan25@gmail.com](mailto:seanryan25@gmail.com)), Jeanne Grill ([grylevich@hotmail.com](mailto:grylevich@hotmail.com), 952-917-9408), Sarah Coleman (651-485-6506, [sarahmaricoleman@gmail.com](mailto:sarahmaricoleman@gmail.com))
- ◆ **Class of 2000**—Laura Simones ([simmers1331@yahoo.com](mailto:simmers1331@yahoo.com), 612-616-8194)
- ◆ **Class of 2001**—Anne Duncan (651-426-2372, [annabell26@hotmail.com](mailto:annabell26@hotmail.com)), Angela (Adam) Cahill ([angela.therese@gmail.com](mailto:angela.therese@gmail.com))
- ◆ **Class of 2002**—Barbara Ferber (651-726-4569, [barbara.ferber@gmail.com](mailto:barbara.ferber@gmail.com))
- ◆ **Class of 2003**—Karen Coleman ([karen.m.coleman@gmail.com](mailto:karen.m.coleman@gmail.com), 952-890-5903)
- ◆ **Class of 2004**—Lauren Edge ([lcedge@stthomas.edu](mailto:lcedge@stthomas.edu))
- ◆ **Class of 2005**—Lanita Gaworski ([imgaworski@gmail.com](mailto:imgaworski@gmail.com))
- ◆ **Class of 2006**—Annie Bulger ([anniebulger@gmail.com](mailto:anniebulger@gmail.com))
- ◆ **Class of 2007**—Leah Ingram ([leah.is.me@gmail.com](mailto:leah.is.me@gmail.com)), Jonathan Gregg ([acejuanjose00@yahoo.com](mailto:acejuanjose00@yahoo.com))
- ◆ **Class of 2008**—Nick Raway ([n.raway@gmail.com](mailto:n.raway@gmail.com)), Natalie Clifford ([wickedpan@gmail.com](mailto:wickedpan@gmail.com))

These are the current representatives for each graduating class. If you would like to get in touch with someone in your class, have updates for *Itinera*, or propose an idea for a class reunion or party, please contact your class representative.

**Congratulations to the Classes of  
1999 and 2004—  
this year's 5- and 10- year  
graduates!**

# *Itinera*

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## ***Dedication of the Ruth Gaylord Music Room***

There will be a cake reception to celebrate the dedication of the new Ruth Gaylord Music Room on Sunday, November 30th from 2-4 pm. Alumni Chamber Singers are invited to join the current Chamber Singers in singing "Ubi Caritas" in honor of the event. Please arrive 15 minutes prior to the reception to rehearse with Mr. David Jorlett.



## ***Two-Time Blue Ribbon Winner***

For the second time in 14 years, Trinity School at River Ridge has been named a Blue Ribbon school by the US Department of Education. This award distinguishes Trinity School as one of only three private high schools in the nation and as the only high school in Minnesota whose students achieved scores in the top 10 percent on nationally-normed tests (due to the test scores of the Class of 2007!). Bill Wacker and Assistant Head of School David Beskar will represent Trinity School at an awards ceremony in Washington, D.C. on October 20-21, 2008.

**Alumni are invited to an all-school celebration at 2pm on Friday, October 24th.** Special guests will include Representative John Kline and Alice Seagren, Commissioner of the Minnesota Department of Education.