

The McBride Honors Program in Public Affairs

Remembering Guy Thornton McBride, Jr.

by Dendy Sloan



[Adapted from the author's remarks at Guy T. McBride's funeral on March 25, 2011.]

Guy T. McBride was first of all a public citizen: an educator, an engineer, a civic leader and so much more. His life exemplified the Greek heroic ideal

of superhuman mastery combined with human accessibility. He enriched our lives by his own spirit, which continues to live among us.

Born in Austin, Texas in 1919, Guy earned a degree in Chemical Engineering at the University of Texas, which named him a distinguished engineering graduate in 1963.

Dr. McBride had an illustrious career in both industry and academia, briefly interrupting his doctoral studies to design refineries with Chevron in San Francisco. After graduation he served as a faculty member and then dean of students at Rice University from 1948-1958. He later rose to become vice president and general manager of Texas Gulf's phosphate division from 1958 until

years of Guy's presidency. The entire community was saddened by Becky's passing in 1998.

In years spanning the Second World War, Guy earned his doctorate in Chemical Engineering from the Massachusetts Institute of Technology. There Guy taught thermodynamics as a substitute for the famous W.K. Lewis, who was then away at Oak Ridge working on uranium separation for the atomic bomb program. While living in Cambridge during those graduate school years, Guy and Becky developed a warm friendship with a neighbor couple; the female member of that couple was at the University of Texas, who married Guy in 1999, when Guy was the tender age of 79. Cordelia was singularly responsible for the smile on our friend's face these last twelve years.

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1970, the year Guy was named the twelfth president of the Colorado School of Mines.



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During his tenure of distinguished service at CSM, from 1970 to 1984, undergraduate enrollment nearly doubled. Three major new buildings were constructed on the campus. New degree programs were introduced, including environmental science and engineering. Twenty-five named professorships were established. Dr. McBride raised the endowment to more than \$40 million in his first seven years, in activity that he vigorously continued after his retirement.

The McBride years were ones of laying a solid foundation for the school and sowing the seeds that later came to fruition in a number of areas. He pursued change in a quiet yet deliberate way, without much fanfare. With his gentlemanly intellect, Dr. McBride earned unparalleled respect from other university presidents and from the Colorado legislature.

Yet Guy’s love was always with the undergraduate students. Ted Stockmar said Dr. McBride only took the job on the condition that as president, he could teach an undergraduate class every semester. The alumni of those years still talk about the eight o’clock thermodynamics class they called “Breakfast with McBride,” which they learned both to fear and appreciate.

Two pedagogical innovations mark the McBride Presidency. The first was the institution of the Engineering Practice Introductory Course Sequence (EPICS) to motivate fledgling engineers to apply more sophisticated tools to design problems. Second, Guy led CSM to create the Future Graduate Profile, a transformational document whose value still endures as a pedagogical beacon.

This profile, which emphasized not just technical competence but also civic engagement, critical thinking, and leadership, contains the basis of the philosophy of another major program at the school: the honors program in public affairs that today bears his name.

President McBride was the unseen hand behind the creation of the program in 1978. He recognized that leading a good life required connecting with a broader context than technical engineering and science could provide. It meant addressing larger human problems, ones that were not answered in the back of the book, such as the questions encountered in classic literature and the liberal arts. In recognition of his scholarship and avid interest in this area, in 1984 the Board of Trustees named the Guy T. McBride, Jr. Honors Program in Public Affairs as a living heritage to this hero whose life we continue to celebrate.



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After Guy retired in 1984, he and I embarked on an adventure together – a reading odyssey on the topic of the virtues of individual heroism. Our foray into the meaning of the word

“hero,” a term bantered around far too casually these days, provides an evocative metaphor for the life of Guy Thornton McBride, Jr., who embodied so many Grecian heroic virtues.

One such virtue particularly exemplifies our friend: Constancy. Largely a forgotten virtue in our world, it seems appropriate for a college President-Emeritus who combined the best characteristics of Atticus Finch, a Presbyterian minister, and an energetic, approachable intellectual.



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Constancy is denoted by Guy’s fourteen-year presidential tenure, when the average term for most college presidents is half that. Constancy is denoted by Guy’s continuing for years after the conclusion of his presidency to serve as a valued, positive resource for the campus – a service he provided for over a quarter century as President-Emeritus.

It is this Constancy and integrity which had the long-term foresight to enable the success Mines enjoys today.

That heroic Constancy is to be enjoyed and cherished, especially in a father, a husband, a friend, and particularly in a college president. It is also a virtue we celebrate in the McBride Honors Program – a lasting tribute to the memory and vision of a remarkable hero who continues, through his legacy, to transform the lives of students at the Colorado School of Mines.

Think Otherwise, and Think Big:

A Historian Imagines the Future of McBride

by Kenneth Osgood, Director

I come to the McBride Honors Program as a historian, so it should come as no surprise to learn that I look to the past for inspiration when I think about the future of McBride. After all, when the program was created in the late 1970s, it was innovative and cutting edge.

The founders of the program, including the visionary President Guy T. McBride Jr., recognized that we need more engineers to assume leadership roles in our society. They also understood that to accomplish such an important task we need engineers who are broadly trained and engaged in the world at large. The McBride program, with its novel format of pairing liberal arts faculty with scientific and engineering faculty, was widely and rightly praised. The graduates went on to do great things. The program itself was path-breaking.

A careful look at this glorious past reveals a remarkable vision, a vision for inspiring and motivating engineers to bring their technical knowledge to a wider audience, to affect public policy and to drive social change in positive directions. When I look at what the program has been, I realize that, despite some setbacks in recent years, McBride can again be a model for transformational teaching. But it is going to require thinking big.

Rejuvenating McBride also calls for a return to the type of thinking that inspired the program's creation: thinking otherwise. Here, too, I take my inspiration from the past. Over sixty years ago, the late and great historian Carl Becker wrote that the job of the intellectual, and indeed of any educated person, was to "think other-

wise." Training students to think otherwise, he said, was the core mission of a university. Becker got it right. Developing the habit of "thinking otherwise" is the ultimate objective we hold for our students, whether they be engineers or artists; we want them to see the world differently, to question conventional wisdom, and to challenge assumptions.

When I arrived at CSM several months ago, I started collecting ideas from colleagues, students, and alumni about new things we can do to rejuvenate the program. I started by jotting ideas in a notebook, then cranking them into my iPad, then scribbling them on notecards. Many people, it seems, are as excited as I am to be thinking big and thinking otherwise about McBride.

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So I created a bulletin board outside my office and put a big sign across the top reading "Here's an idea." On the board I started pinning notecards of ideas. When I walk into the office every morning, the first thing I do is stop and take a look at my



Wall of Ideas for inspiration.

I invite all of you – the friends of McBride – to join the conversation. What can we do to think big about the future of this magnificent Honors Program? You can **send your ideas** by email (kosgood@mines.edu), or you can remove the insert card from this newsletter and mail it to me the old fashioned way, or you can simply pick up the phone and call (303.273.3596).

However you send your ideas my way, I look forward to pinning them up on the Wall of Ideas, and I plan on looking at that wall every day when I walk into the McBride house at 1700 Illinois Street. If you're in the neighborhood, I hope you'll stop by and take a look yourself too – and maybe pin something up there while you're at it.

About the new Director:

A historian of U.S. foreign policy, Kenneth Osgood has spent the past ten years teaching and writing about presidential history, intelligence, propaganda, and diplomacy. For more about Ken and his vision for McBride, see the *Oredigger*: <http://www.oredigger.net/news/8-news/1713-new-mcbride-director-brings-enthusiasm.html>

Learning by Doing...and by Giving: A Journey to South Africa

By Kay Godel-Gengenbach and Kenneth Osgood



Students and faculty at the Cape of Good Hope

Their bags were packed with many of the predictable necessities for three weeks of travel abroad, but they also carried some unusual cargo: four wheelchairs and an engineering design. This class of McBride students was going to South Africa not just to learn and explore, but also to give. The thirteen McBride students were going to build a playground – from scratch – for the children of God’s Will Disabled School in Mpumalanga.

The project resulted from a unique collaboration between the McBride Honors Program and the EPICS program. Students in the EPICS course competed to develop the design for a playground suitable for disabled children, using locally available resources and operating within strict budget constraints. Students in the McBride program had to convert that design into a reality by procuring the supplies and constructing the playground – in four days or less.

“When the last finishing touches were done as the sun set on the last day, it was an immensely satisfying feeling that hit me,” reflected Heather Hunt, one of the student representatives for her McBride class. “The school looked desolate and depressing when we arrived and in four days we had done quite a lot to brighten up the place.” Four days of hard work, spent surmounting all sorts of logistical challenges, paid off when the children from the school and the village came out to play on the finished playground. “Seeing them playing so happily made me think we had done our job well more than anything else,” Heather added. “It was immensely rewarding.”

The trip had other highlights as well. The journey began at the University of Cape Town, founded in 1829 and the oldest university in South Africa. Using a UCT dorm as a home base, the students attended a lecture on Sulfide mineral oxidation and viewed the university labs.

Students also toured the District 6 Museum, a poignant memorial to the Apartheid regime. In 1966, the government decreed that the area of Cape Town was to become “whites-only.” Over 60,000 people were forcibly relocated, and most of their homes were bulldozed. Austin Granger, a Chemical Engineering major, was particularly moved to see how victims of Apartheid reflected on the experience today. “The man telling us this story [about District 6] had no hatred toward white people or anyone for that matter. He saw his whole neighborhood get bulldozed to a pile of rubble, by a bunch of white people, and he was not angry at them. He preached forgiveness and looking toward the future instead of the past.”

On their travels, the McBride group saw several dams – critical infrastructure for one of the driest countries in the world. Among others, they saw the Sterkfontein Dam, a very effective reservoir and the third largest in the country, holding over two million gallons of water. Students also toured the Cullinan Diamond Mine and the Royal Bafokeng Platinum Mine. For McBride student representative Oliver Dewey, this was an enlightening experience. He valued the ability to go into the mines and discuss the industry with those that know it best: “the con-

tractors, the workers, and the executives. Visiting the mines themselves is perhaps the most effective way of determining where the mining industry stands, where it is headed, and whether or not it is being used to its full potential.”

The McBride students also visited the uKhahlamba Drakensberg mountain range (a World Heritage Site), Lesotho, Johannesburg, Soweto, Gold Reef City, and other destinations. They feasted on chickens that were killed and plucked right before the eyes, and they lingered at a penguin colony at the Cape of Good Hope. The penguins, as Engineering major Matthew Mapes observed, “had sentries that appeared to be patrolling next to the ocean for any danger.”

As they traveled, the students confronted the challenges of poor educational opportunities, HIV/AIDS, corruption and development, and the chasm between the wealthy and the poor. They learned about the legacies of Apartheid and British colonialism, as well as about the origins of human species – touring the Sterkfontein Caves, which reveal early hominids dating back 3.3 millions years. They also learned about sustainable development by visiting Sohms Delta, a winery that puts forty percent of its profits back into the community through education programs, child care, and health initiatives.

Learning by doing and learning by giving, the McBride class had an experience of a lifetime. Geophysical Engineering major Chelsea

Newgord noted: “I learned a lot about what the necessities of life are, and how people from all across the world can come together and work towards the same goal. This was an experience that can only be learned by being there.” The trip enhanced the McBride students’ global awareness and added a dimension of understanding that will help them become better scientists and engineers.

For photos and more information about the trip, see Oliver Duey’s blog for *Mines Magazine* at:

<http://minesmagazine.com/?author=8>

McBride Shapes Public Policy in D.C.

by Kenneth Osgood

If part of McBride’s mission is to inspire scientists and engineers to engage the world of public policy, we must be doing something right. This year several McBride faculty members and CSM students will be working inside the beltway, bringing their expertise to the nation’s capitol.

Jennifer Nekuda Malik (McBride, ’05) will be a Congressional Fellow at the American Association for the Advancement of Science. The fellowship seems hand-crafted for McBride alums, as its core purpose reflects that of CSM’s honors program: to bring technical and scientific backgrounds to the decision-making process in Washington.

Indeed, Malik’s official AAAS biography credits the McBride pro-

gram with sparking her involvement in public policy. She has a particular interest in education and science outreach—an area well suited for a freelance science writer who has published dozens of articles on renewable energy, sustainability, and other topics.

Another McBride alum, Katie Brown, will also be at AAAS as an Energy, Environment, and Agricultural Fellow. A program manager specializing in renewable energy technologies, Brown will be leveraging her industry experience to support policy development related to renewable technology deployment on contaminated lands.

Two other CSM graduates will also be AAAS fellows: Maeve Boland, a geologist who received her

Ph.D. from Mines and who teaches for McBride, and Jennifer Leisch, another Mines Ph.D. who recently worked as a climate change science advisor for the Agency for International Development.

The McBride program will also be represented in the U.S. Department of State, where Mark Eberhart, who has long been involved with McBride, will be serving as a Jefferson Science Fellow.

All of these CSM alums will be bridging the science and policy worlds – using their professional experience and technical expertise to increase the understanding among policy officials of complex, cutting-edge scientific issues and their possible impacts on U.S. foreign and domestic policy.

A Summer on Capitol Hill

by Lexi Salazar, '13



Alexandria Salazar with Rep. Charles A. Gonzalez (D-TX) and Congressional Hispanic Caucus Institute President & CEO Esther Aguilera at the intern graduation ceremony.

When I got the call that I had been accepted into the Congressional Hispanic Caucus Institute's Internship program, I felt like dancing around. As the intern coordinator spoke, I was filled with an overwhelming sense of excitement. But when I learned that housing was provided, I was also apprehensive. I snore, and loudly. Would my roommate wake up bleary-eyed and murderous after I interrupted her sleep? In the end, I got lucky; my fears did not come to pass. My roommate was fantastic and slept through my evening symphony. Other things worked out too: I figured out the Metro, my boss was remarkable, and my work was engaging. I was placed in the office of Senator Mark Udall where I completed two months as a congressional intern on Capitol Hill. Like many interns, my responsibilities included answering constituent calls. In this respect I had a particularly noteworthy experience the day that President Obama spoke on the debt ceiling. When he implored Americans to call their representatives, all the interns groaned: it was going to be a long day. Indeed, the phone

system was overwhelmed. Calls were dropped. Constituents were on hold for hours. I got a good sense of the pulse of the country that day.

My internship included many more activities, too, including going to congressional hearings, conducting congressional research, and summarizing briefings and research in one-page memos for the legislative assistant. Thankfully McBride honed my writing and communication skills. I was surprised that by the end of my internship I had written over twenty pages of (single-spaced) memos and answered hundreds of calls.

As an intern I was surprised to learn that my McBride background was highly valued: in a sea of political science interns, I was virtually alone in having both STEM and policy experience. My Mines STEM background also set me up to attend several remarkable events. I went to numerous congressional briefings on energy and natural resources. For these briefings, top professors and scientists would present the latest research, often on extremely complex topics, through short presentations that lasted just a few minutes. Each briefing was like a college lecture on steroids! What an education I received. It was one of the best summers of my life.

Editorial Note: The Hispanic Heritage Foundation invited Lexi to attend the first annual Actionable Leadership Summit in Washington, D.C. She attended the event in September, with funding from both HFF and the McBride Honors Program.



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McBride Award Winners

by Peggy Cook



From left to right: Lisa Truong, Outstanding Senior; Heather Hunt, Outstanding Junior, Chelsea Newgord, Procter & Gamble Foreign Area Scholarship recipient.

McBride students and faculty were presented with awards for their outstanding achievements at the Junior-Senior Reception on May 12, 2011. President Bill Scoggins and LAIS Division Director Elizabeth Van Wie Davis congratulated students on their success as honors students in the McBride Program.

McBride junior Heather Hunt received the Borasio Outstanding Junior award, given on the basis of personal and intellectual growth, versa-

tility, respect, leadership, and academic achievement. A dedicated McBride student representative, Heather is an Engineering Physics major from Greenwood Village, Colorado and is also involved in Tau Beta Pi, the Society of Physics Students, and is the Special Events Chair for the Mines Activities Council.

Chelsea Newgord was awarded the Procter & Gamble Foreign Area Study Scholarship, which she used to travel to South Africa. Chelsea, a Geophysical Engineering major and a member

of the CSM Jazz Band and Marching Concert Band, has served as Treasurer for the Society of Student Geophysicists.

The Tom Philipose Outstanding senior award was presented to Lisa Truong. Lisa served as a McBride student representative, Vice President of the CSM Student Body, and Vice President of the Professional Asian Society of Engineers and Scientists.

What Did McBride Do For Me, Really?

By Tracy Copp '99

Years ago, as a new CSM graduate I found that whenever someone asked me what McBride did for me, I was at a loss for words. My best answer at that time was that McBride was a program designed to teach engineers to be better communicators. Yet I was never very satisfied with that answer. It seemed inadequate. I knew there was more to the set of skills I gained from McBride, but I did not know how to put it into words.

It is only now, after a decade in the workforce, that I can really answer that question.

McBride taught me more than how to communicate better; it gave me the skills to understand the subtleties of how technology is intertwined with politics. I came to understand the political environment in which my technical work operates and to really grasp that my technical work's success is, in many ways, tied to politics, broadly defined.

I believe that the alumni of this program are an invaluable resource that should be utilized in order to benefit the program and its students. With that in mind, I have been helping create a vehicle, a McBride alumni association, which will allow the alumni to stay in better contact with one another, to create new connections among the alumni, and to also give the alumni the opportunity to be more directly involved in the program.

So far, my fellow alumni and I have come up with a number of ways we can "give back" to McBride by getting involved. If you want to be sure you are added to the list, or if you are interested in being involved with the McBride alumni group, please contact either me, Tracy Copp, at tlcdancer26@gmail.com, or Ken Osgood, at kosgood@mines.edu.

Tracy Copp graduated from CSM in 1999 and went on to receive an MS in Materials Science and Engineering from CSM. She is now an engineer at Ball Aerospace, where she is working on the James Webb Space Telescope project. She is also serving as a volunteer moderator of McBride's "Leadership and Power" course.