Transcending the Formulaic

EDUARDO CHIBÁS ’69, MS’70

Eduardo Chibás ’69, MS’70 always had a talent for math, yet worried about following rules too closely. “Anyone can apply a formula, but that doesn’t mean you truly understand it. You really understand it only when you know when it doesn’t apply,” he said.

A musician, but not for Chibás, perhaps a philosophy as well. He has never taken a formulaic approach to life. Chibás grew up in New York City, the son of Cuban immigrants who once supported Castro but escaped his growing tyranny. Like many exiles, he studied engineering because it promised the stability of a good job. Yet he also spent the long subway rides to Bronx High School of Science, and then Columbia Engineering, reading novels and history.

At Columbia, he studied IEOR and earned a master’s degree in applied mathematics. Yet his first operation research job bored him. “Math was fascinating to me, but simply applying it was not interesting,” he said.

Instead, he took a job with Procter & Gamble in Venezuela, a country he had grown to love. He said. He did well enough to land a marketing job and then cofound an advertising agency with his stepfather in 1976.

Their first client was Pepsi. They added other Venezuelan and international clients. Then, in 1980, they merged with Saatchi & Saatchi, a fast-moving British agency, and took on more multinational clients.

Success was a gift. It gave Chibás the freedom to pursue orchestral music. It was a love he developed when most people were first tuning into the Beatles. Chibás was 13, and his interest in the French Revolution led him to “The Marseilleaise” and then Tchaikovsky’s 1812 Overture.

He discovered Beethoven and Chopin, the heroic and romantic. He listened to different interpretations and latched onto the work of Wilhelm Furtwängler, the great conductor of the Berlin Philharmonic. “For two years at WNYC, I did a program of just his recordings. He was my mentor, although I never met him.”

Like many passionate music lovers, Chibás conducted symphonies in his mind. Then a friendship with the conductor of the Venezuela Symphony Orchestra led to an opportunity to conduct the orchestra to Die Meistersinger.

“I thought I was going to have a heart attack,” Chibás said of his first day of rehearsals. Although very knowledgeable, he lacked the formal training to convey his musical ideas. On the other hand, he had spent many years as a professional communicator.

He explained how he broke apart measures and sung them out. He spoke to musicians like old friends and then capped them to express emotion. The first day, his arm felt like it was under water. “I couldn’t catch up with the orchestra. It took three rehearsals to get ahead of them so I could lead,” he related.

Chibás built on the concert’s success, going on to conduct orchestras in Venezuela, Germany, and Portugal. His recordings of Beethoven and Bruckner have received critical acclaim in Fanfare, a leading classical music magazine.

It is a fitting way to live a life that transcends the formulaic.

Powering Engines in Uganda

MATT BASINGER MS’07, EngScD’10

It’s a good thing Matt Basinger has a big heart. He keeps leaving pieces of it around the world.

The doctoral student at the University’s Earth Institute saw a lack of electricity in Sao Tome, West Africa, and devised a diesel generation system that got the village on a micro-grid. He was inspired by the drought in Ghana and helped establish a rainwater harvesting program to alleviate the problem.

And when the first ferry in 15 years will launch on Lake Victoria in Uganda in 2011, his modification of its engine will make it possible for passengers, mail, and products to travel safely and securely under the power of biofuel.

“I want to spend my life helping poor people in developing countries,” he says. “Most especially I like tackling interesting problems with alternative/renewable energy solutions.”

Basinger has a heart for the neediest of the world’s population and an intellect for problem solving. By combining the two, he has helped advance the engineering capacity of developing countries through sustainable infrastructure design and development.

“I believe that, as engineers who want to tackle a problem in developing countries, we should take into account all the complexities of the social, political, cultural, and economic situation in the design and implementation of the solution,” he says.

For the Uganda ferry project, Basinger collaborated with EarthTribe Ventures in Seattle to modify diesel engines to run on straight vegetable oil. “I used lessons learned from my doctoral research involving plant oil-fueled engines used in Uganda for agro-processing. Ideally, the oil to power the ferry engine will come from a local crop called jatropha,” he says.

His time spent working on the project was as rewarding for him as it was for the communities the ferry will now serve. “This was very hands-on and, in a way, I feel like I got a mechanics license,” he jokes. “It was a great opportunity to develop skills and understanding related to alternative/renewable energy and impact in the developing world.”

Basinger wishes the organizational side of development work were as easy as the engineering side. “The reality is that development work is incredibly complex and difficult. The engineering/technical side is the easiest part. The biggest obstacle to the engineering getting done is often the social, political, and cultural aspects,” he says.

Basinger sees a way to overcome some of that frustration—live with the people whose lives you want to improve. “To do this work well you can’t be half a world away doing the research. You have to live there, speak the language, and really understand the people.”

To that end, after Basinger finishes his postdoctoral appointment, he and his family are planning to move to Cambodia, and then Indonesia, to one of the most remote islands in the archipelago. First projects on his list include designing and implementing infrastructure to address food vulnerability issues.

“I’ll be able to apply my environmental engineering skills to meet the need for clean water and alternative energy on the island of Papua,” he says. “I can’t wait!”