No Ordinary Day at the Zoo

Thanks to Columbia's engineering school, a group of high schoolers will never look at camels—or accessibility issues—in the same way again

By Alex Lyda

This past summer, about 10 high school students faced a unique challenge: head out to the Bronx Zoo and design a saddle for children with disabilities so they, too, can enjoy a camel ride. The students were members of Columbia’s “Engineering Design via Community Service” class, a seven-week program held from July 5 to August 19. The students were taking part in Columbia’s Summer Program for High School Students, which for 19 years has given highly motivated teens the opportunity to sample college life in New York City. Participants live and take classes on the Morningside campus. The range of curricular options is broad—from physics to theater, from business to biology. (The program also offers the opportunity of spending a month abroad, in Barcelona, Spain.)

We worked to attract the most highly motivated high school students in the country,” said Darlene Giraitis, the program’s director. “Though the experience is a rigorous one, students have a great time and make some of the best friends of their lives, leaving with an academic experience that tops college take careful notice of.”

This year’s community service class, made up of 45 students, was based at the School of Engineering and Applied Science (SEAS), where it was taught and supervised by Jack McGourty, associate dean for undergraduate studies.

The Bronx Zoo students were given the task of proposing design changes in rides, exhibits and park furniture to strengthen the zoo’s compliance with the Americans with Disabilities Act. Their final class presentations included a recommendation that the zoo be paved with materials of varying textures so that blind visitors could sense with their feet when they were nearing a different exhibit—a relatively simple change that should be easy to implement.

It was the camel harness and saddle, however, that had the students stymied. Although it rarely happens, camels can be spooked. This means that any harness designed to accommodate a person with disabilities must allow for a quick and easy dismount.

Connie Chang, 17, of Holmdel, N.J., was upbeat about taking on such a tough assignment. “I think we can still design something,” she said. In the end, she and her group came up with several design possibilities, both for saddles and harnesses.

Feasible design is important because the students’ work will serve as the foundation for SEAS’ incoming freshmen who will work with their recommendations when practicing how to apply computer-aided modeling, computational techniques and Web applications—to engineering design.

Last year, collaboration between SEAS and the School of Continuing Education brought together 40 high school students to design a playground for children with disabilities. The upshot was a redesign of Harlem’s Marcus Garvey Park, geared especially to PS 79, adjacent to the park.

Recalling that success, McGourty said: “It’s a tremendous transformation the summer students go through. Plus the course itself hones the essential professional skills associated with engineering design that these students will need if they decide to become engineers.”

Participants in this year’s Bronx Zoo project reported that the experience had changed their outlook toward people with disabilities. “The last time we came to the Zoo, we talked to a bunch of people in wheelchairs and felt confident talking to them and asking questions,” said Riva Anand, 17, of Westport, Conn. ‘And I’ve started noticing things like how well city buses are equipped for wheelchair access.

Above left: The camel team sketches a new design for the camel ride based on their observations. Managers from the Wildlife Conservation Society, whose headquarters are at the Bronx Zoo, reviewed students’ recommendations.

Left: SEAS summer students measure the harness in use at the Bronx Zoo’s camel ride. Working through the summer, these students designed an alternative saddle for children with disabilities.

Columbia Hosts Greater Harlem Chamber Annual Awards Luncheon

In August, for the third consecutive year, Columbia University hosted the Greater Harlem Chamber of Commerce’s Annual Economic Development and Business Awards Luncheon. About 200 people attended the event, which featured a panel discussion on the economic future and development of Harlem, moderated by NPR’s Ed Gordon. Panelists included New York State Attorney General Eliot Spitzer and New York State Senator David A. Paterson.

“This luncheon is a reflection of Columbia University’s desire to be woven into the fabric of Harlem,” said Robert Kadin, senior executive vice president of the University, in his welcoming remarks. “We are proud of those ties and proud to host this gathering again today.”

Kadin also introduced Maxine Griffith, Columbia’s newly named vice president for Government and Community Affairs, who commented, “Columbia’s future is inexorably linked with Harlem’s, and the economic health and vitality of this community is tremendously important to the University.”

Following the panel discussion, Larry Daus, Columbia’s assistant vice president and director of community affairs, and Gerri Warren-Merrick of Time Warner Inc. presented eight New York City high school seniors with educational scholarships. One of the recipients, Tiara Francis, will be a freshman at Barnard College this fall. Said the 18-year-old Teaneck, N.J. native: “It feels good to be recognized by the chamber because I plan to be very active in the community.”

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Chamber-sponsored panel discussion on Harlem (in audio)