

# Of Runaway Generators and Striking Students

*On the eve of big changes for Kingsbury Hall, Focus takes a look back*

Since it opened in 1950, Kingsbury Hall has seen trends in everything from electrical equipment to student haircuts come and go. Some styles repeat themselves—the buzz cuts so prevalent in the hallways today are reminiscent of hair styles in the 1950s. But others, like the motor-generators in the power lab, have gone the way of the dinosaurs. Today Kingsbury is home to six of the departments in the college, and students from all ten departments have taken classes there over the years. The history of the building is, in many ways, the history of the college over the past half century.

Construction on the new engineering building for the College of Technology began in November of 1948.

Originally proposed at \$2 million on a nearby site, Kingsbury was built for \$1 million, with a number of cost-cutting measures. When it was “completed” in the spring of 1950, for example, the new building had no lab benches or shelves. Alan Bruce, chemistry '51, looking for a job that summer, got a different kind of “lab work” than he'd expected. He spent the summer building benches and tables. “The wood supply was good,” he recalls, “but the budget for furnishing was not.”

The power lab was another place in Kingsbury where cost-cutting measures created expensive headaches shortly after the building opened. Although conduits leading to the multi-ton motor-generators had been requested for safety reasons, they had been eliminated from the design. Bill Nulsen, an electrical engineering professor otherwise known as “The Bull,” decided to take matters into his own hands. Prof. Ron Clark recalls: “He went out and rented a gasoline-powered jack hammer and proceeded to produce a hole in the new cement floor. Dean Seeley did not take too kindly to a professor in EE jack hammering his new

pet building apart. After some negotiating, it was decided that it would be OK if no reinforcing rods were severed. Now if you are cutting a trench for a very large conduit, what is the probability that you won't encounter any reinforcing rods?” Some time later, a nickel-plated piece of rebar appeared, like a trophy, on Nulsen's desk, and was, no doubt, noted by the dean.

With the help of students and faculty members, the furniture was completed in time for fall classes, and the new building—then the largest on campus—was dedicated in October. It was named for Albert Kingsbury, a professor of mechanical engineering at the university from 1889 to 1899, then known as the New Hampshire College of Agriculture and Mechanic Arts.

***The mechanical engineering department offered a forum on “The History and Development of the Black Panther Party.”***

## GI Joes

When it opened, the building housed the four engineering departments: civil, electrical, mechanical, and chemical—newly separated from chemistry. The first students to use the new facilities were mostly, like Alan Bruce, beneficiaries of the GI Bill after World War II. According to Alden Winn, a professor emeritus of electrical engineering, these students were mature,

often already skilled at debugging electrical equipment, and in a hurry to graduate.

## Faster than a Speeding Generator

If, as in Lake Wobegon, the students were all above average in those days, the professors were larger than life. The stern Professor Iddles, head of the chemistry department, insisted that professors wear their coats and ties throughout an August heat wave. A stickler for rules and regulations, he once required a technician in electrical engineering to fill out a two-page form to borrow a chunk of dry ice the size of a cookie. After he told the professor what he could do with his dry ice and his red tape, the newly hired technician,

expected to be fired by the dean. Instead, he was praised for helping to loosen up Iddles's interdepartmental-loan policy.

At least one professor is remembered for his heroism. Bull Nelson ruled the power lab, home to four sets of motor generators reminiscent of a chain of baby elephants linked by trunks and tails. These machines made the cement floor vibrate beneath your feet and could accelerate out of control if a student “dropped the load” on one. A runaway machine could quickly self-destruct while throwing hunks of metal around the room, which might have as many as 20 students working there.

One day, a student goofed, and The Bull heard the unmistakable sound of a 15-horsepower motor taking off. In a flash he did a high jump over one of the machines to reach the circuit breaker. “It was the fastest I ever saw him move,” recalls Don Melvin, professor emeritus. “The second fastest thing that moved that day was the student leaving, at Bill's request.”

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*ALBERT KINGSBURY, a UNH professor of mechanical engineering from 1889 to 1899, was internationally recognized as an expert on lubrication. During his years at the university, he invented an air-lubricated thrust bearing, the Kingsbury bearing. In 1950, the university's Alumnus magazine reported: “A large proportion of ships built all over the world during the past quarter-century are equipped with Kingsbury bearings, and the bearings have made possible the operation of large generators for many of the country's most famous power plants, such as those at Niagara Falls and throughout the TVA system.” Later in his career, Kingsbury founded a successful bearing-manufacturing company. The father of five daughters, he could read in more than seven different languages and was an expert on the interpretation of the poet Mallarme.*



*THE BULL'S DOMAIN: Electrical engineering students perform an experiment on a motor-generator set in the Kingsbury power lab in the early 1950s. The lab was the domain of Prof. Bill Nulsen, a.k.a. “The Bull.” There were many safety rules in the lab—no neckties, one hand behind your back, connect to “hot” terminals first. But the now-standard no-smoking rule was conspicuously missing. Nulsen, recalls Joe Murdoch, professor emeritus, smoked 6c King Edward cigars that were “just atrocious.”*

## Strike!

In the 1960s, times changed and students did too. Retired chemistry professor Alexander Amell distinctly remembers the first time when he couldn't identify the sex of a long-haired student in one of his classes. Alden Winn remembers being taken to mediation when a young woman insisted that she deserved a passing grade for just "thinking" all semester.

Political upheaval, on campus and off, culminated in May of 1970. Within the space of one week, U.S. forces were sent into Cambodia, four student protestors were killed at Kent State University, and three members of the Chicago 7 spoke at UNH. A core group of UNH students announced a campuswide "strike." It started with the "L.A.'s" (liberal arts students), according to mechanical engineering student Peter Connelly, writing in the summer issue of the Tech Alumni Newsletter. But ultimately, many "Techies" joined in. Students in the college were allowed to choose between finishing their courses or stopping on May 7 (with a grade or an incomplete) to focus on political events. While

many viewed the strike as an early start to summer vacation, others attended special workshops. The mechanical engineering department, for example, offered forums on "The Vietnam War as Viewed by Air Force Officers" and "The History and Development of the Black Panther Party."

## Blazing New Trails

In the 1970s the college expanded and reorganized. A 1966 addition to Kingsbury had already made room for the mathematics department and computation center. (Computer science was not an independent department until 1981.) Earth sciences, formerly geology, switched over from liberal arts to the College of Technology in 1970. Engineering technology came into existence in 1974, and in 1975 the college was renamed the College of Engineering and Physical Sciences.

When the war was over, students were able to focus more on work—and play. Barbara Deguise, mathematics '75, remembers working at the Kingsbury computer center late at night in order to avoid the daytime



*MEGACHANGES: In 1960, the university purchased its first computer, an IBM 1620. In 1966, an IBM 360/40 mainframe computer, shown here in the Kingsbury computation center, was added. It had 128 thousand bytes of core memory. A major upgrade came in 1975, when the university purchased a DECsystem10 computer. At a cost of \$180,000, it had one megabyte of core memory. For storage, the university purchased a number of 100-megabyte discs at \$25,900 each. Today, a new PC might come with 128 megabytes of memory, and a hard drive with 13 gigabytes of storage or more can be had for a few hundred dollars. (Photo: UNH Archives)*

crush of students waiting for their "jobs" to be processed by the IBM360 mainframe. For a break around midnight, there wasn't much to do beyond hitting the vending machines, so Deguise and her buddies became creative. Using a soda can as a soccer ball and doorways for goals, they'd break the silence in the hallowed halls of

Kingsbury with impromptu games of kick the can. "You'd be working away," she recalls with relish, "and you'd hear a can start kicking its way down the hall, and you'd say, 'It's time to take a break!'"

In both math and computer science classes, Deguise was often one of only four or five women. But she didn't mind: "I felt like I was blazing new trails." For years, Kingsbury Hall had only one women's bathroom, since initially the only women in the building were secretaries. In electrical engineering, for example, the first woman student came in the late 60s, but it wasn't until the late 70s that a steady stream of women entered the program.

Even where they have been few in number, however, women have often excelled. Physics has had only about 10 percent women historically. But one of the most memorable physics students was a young woman who graduated with straight As in the late 1950s. She unnerved a number of her professors by knitting through every class. "She never took a note," recalls retired professor Bob Houston. And she would typically have her lab experiments completed, calculated, and written up in the time it took the others just to perform the experiment. "She was a natural," he says with admiration.

Virginia Stuart

## BUILDING FOR THE FUTURE

The proposed renovation of Kingsbury Hall is in the final stages of design and planning. The \$52 million project would include completely renovating the classroom, library, and office wings of the building, while adding a new large teaching laboratory wing, plus an auditorium and indoor courtyard. The courtyard could be used to increase social interaction among students and faculty members, as well as for outreach, showcasing student projects, products developed by businesses in the state, or photos of alums the college wishes to honor.

During the planning, the Kingsbury Hall

Renovation Committee has solicited opinions from students, staff, and faculty members. Other partners in the process are the college's Industrial Advisory Council, the architectural firm Rothman Partners of Boston, and educational planning consultants Paulien and Associates of Denver.

The project is one of four that the university board of trustees has presented to Gov. Jeanne Shaheen in hopes of attaining funding from the state legislature in the next biennium. The trustees will be asking for \$44 million, looking to industrial and alumni support to bring the total funds to \$52 million.

"We are very enthusiastic about the pros-

pect of a renovated Kingsbury Hall," says Robert Henry, associate professor of civil engineering and co-chair of the renovation committee with Robert Jerard, professor of mechanical engineering. "This has been a fast-track project, and we have been able to achieve a high-quality proposal thanks to the efforts of Doug Bencks, UNH architect; Gabriell Yari and Martha Rothman of Rothman Associates; and the Kingsbury Renovation Committee."

To get involved in the project, call Bob Henry at 862-1444, or send him e-mail at [robert.henry@unh.edu](mailto:robert.henry@unh.edu).