Female stem pioneer



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Wera Hotz Kowner was the first woman to study electrical engineering at ETH Zurich. Successfully rising above the condescension shown by some of her professors, she focused on preparing herself for her new job as managing director of the family business.

Our interview with Wera Hotz Kowner takes place at the former headquarters of Jakob Kowner AG in the centre of Zurich. Her father founded the company in 1913 to provide electrical work and services, eventually establishing its head office on Oberdorfstrasse. Wera Hotz Kowner subsequently ran the family business for over 40 years. Now aged 83, she still maintains a modest office at the same address and occasionally pops in "to stay on the ball". Her grey-blue eyes sparkle during our interview – she has clearly lost none of her fascination with life. Just four years have passed since she handed over the management of the company and its 60-strong workforce to her daughter Regula. But she is very far from being retired.

Electrifying Switzerland

When Jakob Kowner founded his company in Zurich in the second decade of the twentieth century, the electrification of Switzerland was already in full swing. As well as wiring individual buildings, he also hooked up entire villages to the grid. Meanwhile, his daughter Wera was getting top marks in mathematics and physics at FGZ, a private Gymnasium in Zurich. He quickly realised that she was the perfect candidate to take over the family business – and so began her father's discreet efforts to encourage her to study electrical engineering at ETH. Her

career guidance counsellor had very different ideas, arguing that a technical university was no place for a woman. Despite such resistance, in 1958 she became the first woman ever to embark on an ETH degree course in electrical engineering.

Wera Hotz Kowner has never forgotten the commotion she caused: "Whenever I turned up late for class, all the students would make a big deal of it by stamping their feet!" Some of the professors thought engineering was no place for a woman, she says: "I remember being given an assignment to design a pram. And another professor asked me to analyse the heat flows in a hob ring!" She relates these events without bitterness or resentment. "I just ignored them, focused on my studies and engaged with those students and doctoral assistants who treated me with more respect," she says.

Despite the intimidation she faced, Wera Hotz Kowner still has fond memories of her student years. She particularly enjoyed the opportunity to meet people from all over Switzerland, as well as from Norway and France. "I also remember a Brazilian student who offered to make me a snake soup. Of course I said yes, because I was eager to try out everything I could!" she says. Other students invited her to sports events and took her water skiing on Lake Zurich, and she continues to be a member of the Zurich Academic Sports Association to this day. She recently gave up Pilates because it was "too boring", but has already replaced it with muscle pump classes, she says, unable to repress a smile.

From ETH to New York

Her degree course in electrical engineering included a compulsory six-month internship at Brown, Boveri & Cie (BBC, now ABB). She was the first female intern the company had ever employed. "The men had no idea what to do with me," she recalls. "They sent me off to the precision mechanics workshop and gave me some white cloth gloves to protect my fingers!" Wera Hotz Kowner then turned up in workman's overalls her father had given her, and soon she was commuting to Baden and showing her colleagues at BBC that women can get their hands dirty, too.

As soon as she graduated, the young engineer found herself itching to travel. Her family knew people in New York, so she packed her bags and landed a job in a big engineering firm almost as soon as she arrived.

Wera Hotz Kowner ended up working on a variety of projects, including the electrification of the prestigious Lincoln Center. She shared an apartment with two American teachers on Fifth Avenue, the famous street that borders Central Park in downtown Manhattan. She recalls the apartment being noisy, dirty and dusty, and says her flatmates ate almost nothing but hamburgers: "Sometimes, when they were out, I would make myself some rice pudding with a few slices of apple."

Wera Hotz Kowner often went to Broadway musicals, and she travelled to both Florida and California by Greyhound bus. Two years into her stay, her American employer offered to sponsor her green card, and she was tempted to stay longer. But her decision was swayed by the deteriorating health of her father back in Zurich, and she eventually decided to jump on a ship and return to her family, via Rotterdam. Her father died four years later, and she suddenly found herself in charge of a company with 120 employees, many of whom were engineers and electricians. "I knew about planning, but I didn't have a clue about the actual work on site," she recalls. The electricians expected firm leadership – and they initially had little faith in their new boss. This all coincided with a boom in the construction industry and a huge influx of new orders. The company quickly grew to over 200 employees and opened additional offices in Erlenbach, Freienbach, Regensdorf and Glattbrugg. "It was all pretty stressful," she says. "In retrospect, I would have been better off hiring a managing director and focusing my efforts on bringing in new orders." Back then, however, she thought she had to do everything herself.

Getting more women into stem careers

It was during this same period that Wera Hotz Kowner became a mother. Even with six children, however, she never entertained the idea of staying at home full-time. "I've always believed women should return to the workforce after having children. Taking too much time off derails your career," she says. She readily acknowledges the importance of having a husband who is willing to pitch in – for example, by sneaking their daughters into a

meeting when they need breastfeeding, as happened in her own case. Nannies also played an essential role. "Women are good communicators, and they tend to be more adaptable and resilient," says Wera Hotz Kowner. "That makes them invaluable in the workplace, especially in technical jobs." She spent years working with special-interest groups to campaign for more women in STEM professions, both at the Swiss Society of Engineers and Architects (SIA) and the Swiss Academy of Engineering Sciences (SATW). She also visited secondary schools and companies to give talks on the role of women in leadership positions. "The situation has definitely improved, but it's still not easy," she says, citing examples such as the ongoing challenge of finding female apprentices for electrical engineering.

Wera Hotz Kowner continues to take a keen interest in engineering. As well as attending lectures at the Zurich Technical Society and the Swiss Management Association, she has also maintained her ties with the SIA after many years working for them as an auditor. But, with 14 grandchildren to her name, the energetic ex-managing director also has other demands on her time. Once our interview at the former headquarters of Jakob Kowner AG is over, she'll be jumping on the train and heading to her holiday flat in Zuoz. Six of her grandchildren are already there, eagerly awaiting their grandmother. Perhaps they, too, will study STEM subjects in the future – and some of them may even make up the next generation of managers in the family business.

This portrait was published in the Globe Magazine of ETH Zurich in September 2022.

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Wera Hotz Kowner studied electrical engineering and business administration at ETH Zurich from 1958 to 1963. After completing internships at Brown, Boveri & Cie in Baden (now ABB) and at CEM in Paris, she spent two years working for the engineering firm Syska Hennessy in New York. In 1970, she took on the overall management of Jakob Kowner AG, eventually handing over the reins to her daughter Regula Hotz in 2018. Regula previously studied food science at ETH Zurich. Wera Hotz Kowner has been a donor to the ETH Foundation since 2013, contributing in particular to the Excellence Scholarship programme.

https://ethz-foundation.ch/en/spotlight/female-stem-pioneer/

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