Oskar Steffen, Andrew MacGregor Robertson and Hendrik Kirsten in the mid-1970s were three very different men who shared a common ambition and desire. Though separated only by a few years in age, they had different personalities and enjoyed different areas of professional expertise — the first was a leading specialist in the great gaping maws of open-pit mining, the second a master of soils and foundations, and the third an expert in the structural stresses and extraordinary pressures of rock mechanics.

In 1973, they lived comfortably in Johannesburg, South Africa, earning decent livings while designing, consulting or lecturing at the University of the Witwatersrand (Wits), the nation’s original School of Mines. The trio was marked as a rising constellation in the country’s mining firmament, where academia and industry were inseparable and intimate. The three men had the respect of their peers, stature and bright futures, yet they yearned for more.
The youngest at 30, Robertson was an energetic, personable sparkplug who already had his own geotechnical instrumentation company and a burgeoning foundation practice — he was a natural entrepreneur. A brilliant mathematician in an age before personal computers, Kirsten had extensive mining and industry contacts thanks to his established teaching and consulting work. The eldest at 33, Steffen turned heads and silenced rooms — erudite and accomplished, he exuded the confidence and assurance expected from a man whose leadership mettle had been tested for several years as an open-pit manager at one of the world’s largest copper mines, in Zambia.

Only a few months after he opened his practice in early 1973, Robertson urged Steffen to join him. Although he was being groomed to take over the university’s civil engineering department, Steffen was restless and contemplating full-time consulting. Still, he wasn’t sure.

In a coincidence that could be called fate, while working on a contract with Robertson, but without knowing of the recent conversation between Steffen and Robertson, Kirsten asked Robertson if he would consider forming a partnership together.

“It took about one second to make a decision,” Robertson recalls. “Yes,” I said. ‘And you’ll be interested to know I am already talking to Oskar, and I think there’s room for a third in our partnership — you!’”

A firm that embraced the three of them seemed natural to Robertson; they had known each other so long. The only hurdle was that Golder Associates, the international consulting firm, had offered Steffen a position in Vancouver, Canada. Established in 1960, Golder specialised in soil mechanics and foundation engineering. Steffen was a recognised star, given his wealth of practical experience, theoretical insight and charisma.

“I called Oskar after talking with Hendrik,” Robertson says.

“If I come back and join you,” Steffen told him, “then let’s make it a threesome.”

Steffen flew to Vancouver over Christmas, visited Grouse Mountain ski resort overlooking the stunning West Coast city, toured its downtown jewel, Stanley Park, and kicked the tires at Golder. As attractive as the offer was, Steffen decided it wasn’t for him. A meeting with Golder executives convinced him. When he mentioned that he was thinking of joining two colleagues to create a new firm in South Africa, one scoffed,

“If that company ever took off, Golder would just gobble you up.”
Steffen left the meeting and immediately sent a telegram to Johannesburg: “Get my office ready.”

“On January 1, 1974, we were in business,” Robertson says. “Oskar came back a couple of days later and he and Hendrik moved into the offices that I had rented.”

Recounting his Golder experience to his partners, Steffen insisted no one would ever gobble them up: SRK was here to stay.

Shortly after establishing the offices, Steffen and Robertson discussed their new venture with Dick Bieniawski, head of the rock mechanics section of South Africa’s Council for Scientific and Industrial Research (CSIR), the country’s leading governmental organisation for multidisciplinary research, technological innovation, and industrial and scientific development. Bieniawski told them he was delighted they were setting up shop and that a genuine dedicated rock-and-soil mechanics firm would be welcome. The “but” wasn’t long in coming.

“There will be plenty of work for one of you,” he told the pair, “but three?”

Bieniawski was skeptical; they were undaunted. Even when Kirsten’s head of department at the university commented that each was married and that they were collectively rearing 11 very young children, they shrugged off the concern.

Aside from their ambition, the trio shared a belief that geotechnical expertise could be marketed as a basket of professional services in the same way as lawyers or accountants were selling their skills. They knew their individual talents and personalities were a good fit: Steffen’s reputation anchored the firm, Robertson was a dervish of an über-salesman and imagineer, and Kirsten had the required ardour for detail and organisation. They had forged abiding friendships over the years through Wits; through a common mentor, Professor Jeremiah (“Jere” pronounced “Jerry”) Jennings, who was an icon in the field; and by working together. Each admired the others’ accomplishments and abilities, which became the cornerstone of SRK’s pervasive culture of mutual respect. Each had a thick Rolodex of potential clients and each was a workaholic.

They shared a commitment to excellence, integrity and intellectual achievement. And they agreed to build their own practices under a single umbrella, dividing equally whatever profits materialised.

“We got together after the first week and found out what each other had been doing and how we might be putting each other at risk by committing to projects we couldn’t handle,” Steffen chuckles. “We had that meeting every week — sat down with each other and went over what we had been doing. We didn’t earn any money for the first nine months, plowing what cash came along back into the business.”

They were determined to prove Bieniawski and other skeptics wrong.
Oskar Steffen, Andrew MacGregor Robertson and Hendrik Kirsten were the progeny of South Africa’s colonising European families. Their names declared that heritage — the German, British and Calvinist Dutch stock who arrived in search of paradise, diamonds and gold, but who remained to establish an industrial power. The three men built their global consulting practice on the enormous mineral wealth of the country and the sophisticated technologies required to extract it. This was the cornerstone of their international success.
Steffen was born in 1940 in Swaziland. His first memory was of riding in a truck to visit his imprisoned father, Oskar Sr., and maternal grandfather, Louis Charles von Wissell, something of a local legend whose autobiography read like an Edgar Rice Burroughs novel. Only months before Oskar Jr.’s birth, the government imprisoned the pair as potential enemy sympathisers. Steffen grew up watching his mother maintain the family trading business. She had been raised in the bushveld, where von Wissell had forged ties with the indigenous people and carved trading routes out of the rugged wilderness.
Steffen Sr., who was born in the same town near Hamburg as his future father-in-law, arrived in 1938. The Second World War was brewing and Steffen père thought he could escape its consequences by going to Swaziland to visit old friends of his family. He married Ilse von Wissell shortly after arriving and threw himself into von Wissell's trading-and-supply business with passion and new ideas about inventory and what they should be selling. But the war interrupted those efforts.

The von Wissell family farm was confiscated and sold off to aid the war effort when the two men were arrested. Still, Steffen's father and grandfather spent little time lamenting the loss when they got out. Ilse had managed to keep the trading-and-supply business alive, if not prospering. They rebuilt it and re-established themselves. The family was committed to Swaziland, and Steffen Sr. developed and expanded the strong native network and alliances that his father-in-law had cultivated as one of the first Europeans in the region.

“I don't remember missing my father at all during the war,” Steffen says. “I met him for the first time when he came home five years later. At that time we agreed to become very good friends. I grew close to him and, particularly, my grandfather. My grandfather was my first teacher. He actually got a little school desk and sat me down every day for a certain number of hours and taught me the rudiments of learning. There was no school out there.”

Steffen considered his childhood idyllic, filled with friends. He and his siblings grew up “Swazi-cultured,” running with kids, black or white, amid a lush landscape: fields of cotton, sugarcane and cattle; and orchards of mangos, bananas, and citrus and other fruit. He grew into an athletic teen who loved tinkering with engines and cars, a habit he would keep up throughout his life.

Steffen’s strong sense of self, and his unshakable faith in the importance of family, were instilled by his grandfather. Von Wissell was a larger-than-life figure who had hunted and traded across South Africa — a stereotypical Great White Hunter complete with a trusty native servant, Mlindaas, a warrior who fought in the Zulu War that ended in 1879.
In 1956, Steffen left for university. He spoke little English and had a difficult time in his first year at Wits. But he overcame the challenges. He played sports and associated with older engineering students.

“At university registration, there were only about 10 of us in mining, but there were about 100 civil and mechanical engineers,” he remembers. “I decided that there must be something wrong with the mining industry [and] I walked next door and became a civil engineer. I always knew I was going to do engineering. My strong subject was math. I didn’t know whether it was mining or civil or chemical engineering. Still, when I finished my civil engineering degree, I promptly went to a mine and became more interested in the mining game.”

It wasn’t the subjects he studied that shaped Steffen’s career so much as Professor Jennings, who became his professional mentor at Wits. Jennings made an equally indelible imprint on Kirsten and Robertson a few years later when they arrived. But Steffen was the first to benefit, and their relationship not only determined the arc of his stellar career, it launched it.

**Soil Mechanics Pantheon**

Steffen finished his degrees under the direction of Jennings, hailed as one of the first theoreticians of soil mechanics. Jennings had studied in the United States with Ralph B. Peck, legendary Winnipeg-born disciple of Karl Terzaghi, the Czech god of the field. Collapsing soils and heaving clays fascinated Jennings. He earned renown for his identification of rock joints and rock-joint measurements.

On top of his technical mastery, though, the tall, imposing Jennings was a remarkable humanist who preached the importance of individuals. He impressed upon all his students that engineers must respect the people who built what they designed, as well as those who would use it. He emphasised the need to talk to the construction foreman and labourers on the job site; to learn from the people, not just the data. At the heart of true geotechnical engineering, in his view, lay the application of “judgment” — not some elaborately constructed edifice of mathematics and theory, but intimate human and personal decision making.

As he explained to perplexed students, engineers must assemble the facts, do the calculations and apply their own experience, knowledge and understanding to make a decision. He was an inspirational blend of brilliance and pragmatism who made an effort to get to know each of the civil engineering graduate students, numbering fewer than a dozen in those years. He even socialised with them, which was almost unheard of in those days. Steffen idolised him.

“I was doing my master’s thesis,” he says, “and it was at the end of the term. I was sitting in my room up in the college, perplexed about one particular problem. It was about 10:30 in the evening. There was a knock on the door and it was Professor Jennings. He’d come from his home. He had been working on the same problem. ‘I think we’ve found the solution to this problem and this is how it’s going to work out,’ he said. He sat there until almost midnight, helping me get that bit of my thesis right.”

Much later, when Steffen was desperately trying to finish his PhD and get the partnership going, Jennings again came to his aid: “My wife, Marge, took the kids off for the day so I could work on my dissertation. It was a Sunday morning, and Jennings arrived. ‘I’ve worked it out,’ he said. ‘Let’s have a look at it from this perspective.’ And he used this little wooden model to show me how the mechanism could work and what I should put into the thesis. You can’t help but admire the person who takes that sort of trouble for a single student. That was the character of the man.”
Jennings treated Steffen like family, in the early days taking him home for a bowl of his wife’s ever-simmering soup, or later having him, Kirsten and Robertson over for a gin-and-orange-juice-fueled discussion about soil mechanics.

As important, Jennings was a liberal at a time when it was dangerous to be a liberal in South Africa. Between off-the-cuff speeches about tailings dams, Jennings would rant about the inequities of apartheid. He allowed his maid to live with her extended family in his large home in the colonial suburb of Parktown, north of the university, even though the arrangement was illegal. Later, he paid for her to build a home in her “native homeland” as such areas were dubbed. She retired on a pension that Jennings provided — a revolutionary act in those days.

Jennings pushed the boundaries at the university, too, bringing three black students from Fort Hare, a college in the Transkei, to study civil engineering. He then assigned his students to tutor them: “We need black civil engineers. There is nowhere but here for them to study and we cannot allow them to fail.”

They graduated.

Jennings was an inspirational blend of brilliance and pragmatism who made an effort to get to know each of the civil engineering graduate students, numbering fewer than a dozen in those years. He even socialised with them, which was almost unheard of in those days.
And So to the Mines

Along with holding his university post, Jennings was the country’s leading open-pit and mine-waste consultant. He encouraged his graduate students and faculty to make themselves similarly available for outside contracts. In his world, open-pit mining was the province of the civil engineer. Big excavations, the design of tailings dams and rock-waste dumps, as far as he was concerned, were the civil engineer’s domain. Digging tunnels, shafts and stopes; drilling underground like a mole — that was a mining engineer’s bailiwick.

In 1961, the Nchanga Consolidated Copper Mines at Chingola, Northern Rhodesia (it became Zambia in 1964), then the second-largest open pit in the world, retained Jennings. Although it had opened only in 1955, it already had problems. Jennings chose his best student, Steffen, to assist him in collecting data at the site. Pleased with the work, the professor convinced the mine manager, Mark Rushton, to hire Steffen as his soils engineer.

“In January 1963,” Steffen says, “I set off in my seven-year-old Volkswagen Beetle, on the long road to the north, arriving two days later at Chingola, the most beautiful town I had ever seen. Copper bonuses were high in those days, as was evidenced by the abundant flashy new American and European cars in the driveways. It all seemed too good to be true.”

Jennings visited regularly to offer his opinion on pit-wall stability and monitor Steffen’s progress. The relationship the two developed and the quality of Steffen’s work inspired Jennings to create an informal program, what he called his “kindergarten school of open-pit mining,” made up of bright young graduate students who would be sent to the mines for experience. Robertson was one. After a few years, the students returned to finish their PhDs with a real understanding of why rock-slope stability, for example, was critical. Steffen blazed the trail, though he didn’t immediately return to finish his doctorate.

“I enjoyed the work tremendously, truly enjoyed the mine environment,” he explains. “It was a fantastic place to work. The town was on the mine, so you had a close relationship with everybody. After I finished as much of the geotechnical and slope lab work that I needed to do, I moved into mine production instead of returning to the university. I was appointed the pit manager and I was proud of that. I stayed for seven years or so and got all the experience that I was aiming to get. The people were all experienced and had high standards. I honed my attitude toward work there. They were very good mentors to a fairly young person like myself. But after two years of running the open pit I felt I had learned everything I could without becoming more of an administrator.”

It was then, in 1969, that Jennings persuaded him to return to the university. The men were more friends and colleagues by that time, but the teacher-student bond persisted and the prospect of returning to academia appealed to Steffen, who was looking to hone his technical skills. Coincidentally, it led to a strengthening and deepening of his relationship with Kirsten and Robertson, both of whom he had already met through Jennings and their connection to Wits.
This 1964 stamp commemorates the creation of Zambia (formerly Northern Rhodesia) and celebrates the importance of copper mining to the country’s economy.
Born in 1942, Hendrik Kirsten was two years younger than Steffen, and his upbringing distinctly different. He was no bush baby. Kirsten grew up in Johannesburg, the second of four children. His father, Louis, was a senior civil servant.

“I’m still in Johannesburg,” Kirsten boasts. “I’m a rare breed because there are very few people that I know of who were born here and have spent their lives here.”
The Kirstens were an old Afrikaans family with relatives in the English and, to some extent, German societies of the Eastern Cape. This is where European colonists clashed with the indigenous people in the early 19th century and where there was much bloodshed. The conflict eventually led to the mass migrations to the future Orange Free State and Transvaal in the north and Natal to the northeast. Kirsten's mother's family hailed from the Free State, the former Boer republic whose high, flat plains were the nation's breadbasket.

His paternal family had its roots as farmers near Fort Hare, home of many pre-eminent white and black political families. The Eastern Cape was the birthplace of leading black activists such as Nelson Mandela, Oliver Tambo and Steve Biko. Louis Kirsten grew up mixing with children of all colours and spoke Xhosa, the local indigenous language of Mandela, as if it were his native tongue.

“I grew up in a very staunch Calvinist, but fair-minded and liberal environment,” Hendrik recalls.

His father entered the civil service in 1930 and rose to one of the most senior positions in the department of mines. As commissioner of pneumoconiosis compensation, he administered the pensions of all persons in the country with certified industrial-related lung diseases, and dealt directly with the minister of mines; the Chamber of Mines, who represented the mines and provided the funds; the Mine Workers’ Union and other labour groups.

Growing up, Kirsten developed strong convictions about equality and social justice that played important roles in his life. He opposed compulsory military service and his father-in-law helped him avoid it. Later, Kirsten became a founding member of the anti-apartheid National Democratic Movement, which grew into the Democratic Alliance.

“When I was in my last year of school, my father asked me what I wanted to do,” he remembers. “I didn’t know. ‘How would I know?’ I replied. So he arranged for me to have an aptitude examination — a day-long evaluation of what I wanted to be, offered by the Council for Scientific and Industrial Research. I still have a copy of that report, which concluded I should either do civil engineering or chemical engineering. Those were the professions for which I would be best suited. I went home, and my dad said, ‘What will it be?’ And I said, ‘I still don’t know.’”

“Dad took out a half a crown and tossed it. Civil engineering won.”
Like Steffen, Kirsten came to revere Professor Jennings, whose wife was an acquaintance of his father. On top of his other duties, Louis Kirsten administered the Buy-Aid Scheme for state employees, which included university academic personnel. He regularly dealt with Mrs. Jennings when she came to pay her account. As a result of the family connection, Jennings interviewed Kirsten in his final year at school and encouraged him to become a civil engineer. Upon graduation, Kirsten worked for a year with Arup, the structural engineering consultancy behind the Sydney Opera House.

Kirsten returned to Wits to finish his master’s degree and transferred to the mining engineering department for his doctorate. He was fascinated by the power of mathematics to model and solve complex rock-engineering problems. At the same time, he developed a three-dimensional soil-testing device for his PhD that laid the foundation for a number of specialisations in geotechnical engineering that he pursued throughout his career.

While lecturing, he met Steffen and Robertson, a student in Kirsten’s third-year structural engineering class.

During that time, Kirsten worked part-time for Watermeyer, Legge, Piésold & Uhlman, which later morphed into one of SRK’s major competitors, Knight Piésold. After eight years of teaching and research, Kirsten decided to leave the university and set up a private practice. His classmates and former students were to provide a steady supply of clients. It was at that stage, during a project with Robertson, that the idea of forming a joint partnership germinated.

Steffen and Kirsten were already headed for distinguished academic and business careers. Robertson provided an essential element to the mix — his unalloyed enthusiasm ignited his friends’ ambition and altered the trajectories of all their lives.
Born in 1943 in Pretoria, Robertson was two years old when his father, whom he had never met, returned from the war. In 1947, the family moved to Nelspruit in the Eastern Transvaal. Then, in 1951, they moved again to Northern Rhodesia, settling in a copper-mining servicing hub called Ndola, about 200 miles north of Lusaka. Robertson’s father managed a big mining equipment supply firm that provided everything from piping and lighting to engines and generators. There were only about 60,000 Europeans in the country in those days, less than a half-century after the first white settlers had pushed into the area. There still wasn’t a high school when the Robertsons arrived.
“W

hen I was growing up, a lot of times we simply had to improvise — you had to try lots of things because they weren’t going to be provided in any other way,” Robertson remembers. “My parents believed very strongly in the idea ‘don’t say you can’t until you’ve tried.’ That’s probably the source of my entrepreneurial spirit. For me, it’s always been a case of,

if somebody else can do it, why the hell can’t I? I’ve never been able to say no. I’ve always had an appetite that was bigger than my ability to produce.”

Like the Kirstens, the Robertsons were part of the European fabric of South Africa — related to the great Scottish Dutch Reform ministers Andrew Murray, William Robertson and Andrew McGregor who played important roles in the development of the Western Cape. Hence, Andrew MacGregor Robertson. The “a” was added to MacGregor by Robertson’s great-grandfather in error when he named Robertson’s grandfather.

Robertson grew up steeped in mining culture and returned to South Africa at 18 to attend Wits on a mining bursary. There, he decided to become a civil engineer. Initially not a very diligent student, Robertson had to take a year off after his third year to work while catching up on one subject he had failed. During that time, he worked for the civil engineering consulting firm Keeve Steyn & Partners and the experience convinced him to put more effort into his studies.

Robertson’s great-great-grandfather, Rev Dr. William Robertson credited with being the founder of the Dutch Reformed Church.

Andy (right) always dreamed big. A paper glider is great for flights of fancy, but why stop there when you can build an airforce?

His ineffable excitement about the challenge at hand helped him forge lasting friendships with others who couldn’t help but share his enthusiasm.

This trait would serve him well in the years ahead and help attract the like-minded individuals who became SRK.
“Hendrik was one of my lecturers in structural engineering,” Robertson says. “He was brilliant. But he was also tough on his students sometimes. I remember him kicking me out of class one day for not wearing a tie. He was only a year older than me! I couldn’t believe it.”

“I graduated in ’66, and during that July holiday I went up to Nchanga, the copper mine at Chingola, for student work. It was then I met Oskar Steffen — and what he was doing really impressed me,” Robertson says. “But I really didn’t like the changes that were occurring in Zambia.”

After finishing his degree, Robertson was obligated to return to Zambia to fulfill the requirements of his bursary. But the new country had new rules and the Zambian-isation of the mines meant there was no job for Robertson. He was therefore “excused” from his obligations.

Robertson returned to work on a master’s degree in soil mechanics under the supervision of Professor Jennings. He didn’t require much persuading from Jennings to follow in Steffen’s footsteps and enlist in the Jennings kindergarten school of open-pit mining.

“Oskar had set a pattern for the students who followed,” Robertson says. “You spent one year running a lab — running all the tests, doing the sampling, the drilling, the fieldwork needed to gather the data that allowed you to do the slope-stability predictions and so on. In your second year, you went into the pit as a shift boss and you’d actually start operating within the pit, and you’d work with the new guy who arrived to run the lab. Your next step was moving into mine planning and making a decision about your mining career.”

Jennings was also retained at the De Beers open-pit diamond mine in Kimberley and at the Bomvu Ridge Mine in Swaziland. He needed two assistants at the Kimberley pit — a geologist and an engineer. As a result, Robertson found himself working there with Doug Piteau, another Jennings student. After finishing his PhD, Piteau returned to his native Canada to form a successful geotechnical consulting company.

“Working on his thesis on rock mechanics at the De Beers pit in 1968, Robertson spent 12 months at the mine, where he bought a diamond at the discounted employee price as an “investment.” A year later, he had it set in an engagement ring and gave it to his fiancée Renée — an investment, he jokes, that continues to pay dividends.

“WHO WAS THE GOD OF PITS AND THEIR ROCK MECHANICS IN ACTUAL PRACTICE? IT WAS OSKAR STEFFEN UP IN ZAMBIA”

Robertson: “I started working on the De Beers pit and, of course, who was the god of pits and their rock mechanics in actual practice?” Robertson says. “It was Oskar Steffen up in Zambia. That’s when I first really got to know him because we were interacting all the time. Doug and I picked up some of the work that Oskar was doing and applied it at De Beers.”

During his time at Frankipile, Robertson learned there was no South African distributor of the kind of instruments needed for large dams. In 1969, he formed a company to provide local service — Geophysical Instrumentation (Pty) Ltd. Founding his first company stoked Robertson’s entrepreneurial drive.

“I was working on my PhD, had the instrumentation company, was a full-time employee at Frankipile, was married and had four kids,” Robertson says. “That’s why it took so long to get my PhD. This was my routine while I was at Frankipile for those four and a half, five years.”

That time also provided an opportunity for the close relationship between Kirsten and Robertson to...
blossom at the university. Over the years, Steffen and Kirsten, along with a few others such as Piteau, formed a tight social circle with Jennings at the centre. Next to Steffen, Robertson soon became a special favourite, too — the older man entranced by the younger man’s intelligence, personality and spark. Robertson cherished the relationship and was flattered when Jennings later asked him about forming a consulting firm together. Like Steffen, he considered the professor his most important mentor.

“Jennings actually approached two of us — Ken Lyell and me,” Robertson says. “He used to have tennis matches every Saturday morning at his house. He’d invite a few students and a couple of local engineers. It was really pleasant. And at one of those meetings he said to Ken Lyell and me that when he reached retirement age, which was 65, he was going to form his own consulting practice and would like to have the two of us join him. Ken went off to work for the South African Railway as a geotechnical engineer. But I took Jennings’s offer to heart. When the time came, and Jennings turned 65 in 1972, I was expecting the phone to ring and hear him say, ‘Andy, come and join me: I’m going out.’

“Well, his health started failing, so he decided not to do that. I sat down with him and I said, ‘What’s happening about you setting up a consultancy?’ He said, ‘Andy, you know, much as I’d like to do that and that’s my desire, my health isn’t good. Oskar is going to take over at the university, but I’m not going to step outside. I’m going to remain a professor emeritus at the university.’”

Robertson had difficulty hiding his disappointment.

Geotechnical Engineering and Mining Services

After the hoped-for partnership with Jennings fell through, Robertson discussed his opportunities with one of the few consulting firms with strong geotechnical capabilities that existed in South Africa, Jones & Wagener. Fritz Wagener had established the practice in 1966 and was a good friend of Robertson. So were his partners, Winston Jones and Peter Nutt.

Jones and Wagener worked extensively with Robertson at Frankipile, and both encouraged him to join the soils division of their company. On the eve of Robertson’s arrival, however, the South African Association of Consulting Engineers raised questions about his ownership of Geophysical Instrumentation Ltd. It insisted that a consultancy should not have a commercial connection with any company that had an interest in its area of practice.

“They were concerned that I was a geotechnical engineer, and, if I were to design dams, my commercial interest in the instrumentation firm put me in a conflict of interest,” Robertson says. “Jones and Wagener said, ‘Andy, you’re going to have to give up Geophysical Instrumentation.’ I thought: I’m not going to design a dam so that I can sell instruments; that’s just too far-fetched. I said, ‘I don’t really want to do that. Do you mind if I try and go on my own and if it doesn’t work, I’ll come and join you?’”

So, on April 1, 1973, Robertson opened an office in Europa House, just south of the downtown railway station, on Plein Street in Johannesburg. It was a small, threadbare space on the fourth floor — a reception area with a handful of rooms off a single corridor. He called his business Geotechnical Engineering and Mining Services, or GEMS. He continued to work on major foundation projects with Frankipile and with Jones and Wagener, who were upstairs in the same building.
John Robbertze and another draftsman from Frankipile came in on weekends and produced the drawings Robertson needed.

In spite of his youth, Robertson was already heavily involved in some of the biggest structures being built or contemplated in South Africa.

“They’re not big compared to what gets built now, but it was exciting for the time,” he says. “We were doing things that hadn’t been done before, and that’s always exciting.”

It was a steep learning curve.

“In mid-1973, after about three months on my own,” Robertson recalls, “I went to Oskar and I said, ‘What are your plans? Are you going to stay at the university forever?’”

“We knew each other quite well by then,” Steffen remembers. “I was being groomed to take over the department. It had its challenges. It was interesting, but I was not sure that’s what I wanted to do. I realised by that time that teaching wasn’t my game. It was very good from what I gained out of it, but I don’t think I was a good lecturer. I got bored with the repetitiveness. I said to myself: There must be better adventures elsewhere.”

He told Robertson he’d think about it.
SRK is born
Kirsten was sub-consulting with Robertson on a job at the South African Iron and Steel Corporation’s expansion in nearby Newcastle. As they drove back to Johannesburg after a site visit, Kirsten raised the idea of forming a partnership. Robertson informed him that he and Steffen had already broached the subject and he should join them. Kirsten said he would jump at the opportunity. A supportive Robertson replied that he’d talk with Steffen when they got back to Jo’burg.

As the three would-be partners moved closer to commitment, they discussed everything from the values their venture would embrace to the order of their names in its title. SRK was chosen because it sounded like an ascending tonal scale with a hard consonant at the end for emphasis. Over beers and long discussions, the friends also came up with a set of principles to govern the new business:

- The partners will not become just business managers, but will remain involved with the direct provision of engineering services.
- All staff, from senior right down to junior, will be involved in all stages of projects, from data collection in the field and laboratory right through to final preparation of the report.
- Employees will be encouraged to develop and deal with their own clients in pursuit of the ideal that SRK is a series of practices under a unifying and supporting umbrella.
- Staff members will stand on their own legs and not need SRK for job security; they will want to belong to a larger group because it allows them to work on larger projects than a single practice permits and provides the sense of satisfaction that only participating in a world-class team provides.
- Work will be for fun and profit — it is not enjoyable or sustainable unless both objectives are satisfied.
- SRK will pursue growth where it makes sense for the practice. The company will not be in business to grow a business, it will be in business to provide professional services that staff decide to offer and that meet client needs.
- The company will diversify in association, discipline and location to better serve clients, diversify risks and increase the interest value to staff.
- It will promote technology development and training and share knowledge and technology with the profession.

Each of the three had their own area of expertise. They initially expected to chase their own clients and mostly work separately until the firm began to grow. In January 1974, they launched SRK — ready to surround themselves with like-minded adventurers and embark on an incredible journey.  

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In January 1974, they launched SRK — ready to surround themselves with like-minded adventurers and embark on an incredible journey.