

Campbell Bridges

Savoring Tsavorite

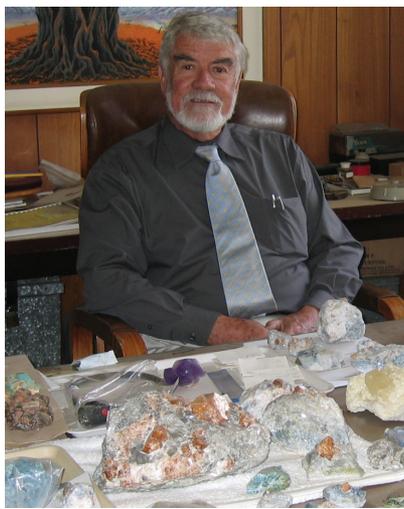
Older than time, greener than an emerald, and discovered by Scottish geologist, Campbell Bridges, tsavorite is considered as close to perfect as possible in terms of clarity and color among precious gemstones.

>> By Cynthia Unninayar, Editor-in-Chief

Pronounced sāv-or-ite, geologist extraordinaire, Campbell Bridges, first came across this dazzling green gem in 1961 in what was then called Rhodesia. He was climbing up a hill, when suddenly a crystal of dark green garnet caught his attention. “I had never seen a green like it. It was pure in every sense,” he reminisces. But because he was working on another project, he did not explore further for the gem.

Destiny was at work, however, and this unusual stone would re-enter Bridges’ life in 1967, this time in northern Tanzania. “The discovery occurred in a small hidden valley in a rugged range of hills about 100 kilometers from Mount Kilimanjaro,” he explains. Yet, his discovery was not to pay off—a couple of years later, the Tanzanian government nationalized all mines in the country and he lost his claim. Although tsavorite is generally not found in stones larger than 3 carats, this particular deposit yielded some larger gems including one of just under 35 carats.

In 1970, Bridges went to Kenya in search of the green stone. “After studying geological maps and aerial photographs, I flew over the area to confirm the relationship between the geology and various faults and folds. In this, I was often helped by vegetation patterns.” The very first day of ground exploration, the geologist found



CAMPBELL BRIDGES IN HIS OFFICE IN NAIROBI.

deposits of his precious green gems right where he expected. By 1971, “I pegged my first blocks of mineral claims,” he adds.

With even larger discoveries in 1973, Henry Platt, president of Tiffany & Company, who had taken an interest in Bridges’ initial discovery, suggested that the new garnet needed its own name. Since the deposits were near Kenya’s celebrated Tsavo National Park, the green garnet was baptized “tsavorite.” But to say that the rest is history would simply not do justice to the story.

Mining this precious fiery stone can be as deadly as it is beautiful. Imagine encountering a two-and-half meter, spitting mad red cobra. This scene is not uncommon for Bridges or his

workers. But when it happens 20 feet down in a mine shaft, it can be lethal. “The sun had just risen,” Bridges explains in manner reminiscent of an African adventure movie, “when several workers jumped down into the pit, ready to start the day’s search for this elusive gemstone. The snake, feeling their vibrations, raised his head almost a meter, spread his hood, and angrily slithered toward the nearest man. A spray of wet venom struck him on the side of his neck, where his eyes had been just a split second earlier. In a frantic scramble, the men piled out of the pit.”

Fortunately, no one was hurt. Deadly cobras, however, are not Bridges’ only threat. Fending off brown scorpions, contemptuous lions, and the much more daunting peril of human vandals are a constant concern. Which is why, in his early years of mining, this adventurous geologist lived with his wife in a tree house 25 feet above ground. “In the early days, I pretty much lived in the tree houses, as they are cool and safe—and the views are spectacular.”



THE ENTRANCE TO ONE OF THE TUNNELS AT BRIDGES’ SCORPION MINE NEAR TSAVO NATIONAL PARK.



TSAVORITE CRYSTALS AS THEY COME OUT OF THE GROUND.

Indeed, herds of wild animals that include giraffes, elephants, impalas, and even a lion or two can often be seen not far away. Bridges, however, is not the only one who sought safety in the tree house. Once, after returning from a brief excursion, he discovered that a leopard had taken up residence. It seemed as though his bed was the perfect place for the large cat to devour his evening's kill.

Although Bridges owns many of the tsavorite mines in the area, he readily admits that finding the stones can be difficult. "Tsavorite tends to occur in 'shoots' which may seem promising near the surface," he explains, "but can quickly pinch out as one follows the deposit down. It can be very frustrating and expensive locating new shoots of tsavorite." The saddle reefs that occur at Bridges'

AN EXCEPTIONAL 7.24-CARAT TSAVORITE FROM THE SCORPION MINE, CURRENTLY ON LOAN TO THE SMITHSONIAN MUSEUM IN WASHINGTON DC.



Scorpion Mine are more persistent and reliable than the "shoots" that occur along planar reefs. The two deepest shafts at this mine are over 100 meters each and the country rock is as hard as steel, making the extraction of tsavorite pockets extremely difficult.

Due to the tremendous pressures and extremely high temperatures that it takes to create the stones, individual, unflawed pieces generally occur in much smaller sizes than emerald. Tsavorite is also found in considerably less quantity, making the stone far rarer. The pockets of rough tsavorite usually resemble a "potato" in shape and may be the size of a baseball or grapefruit, but are generally much smaller. These "potatoes" normally occur individually in

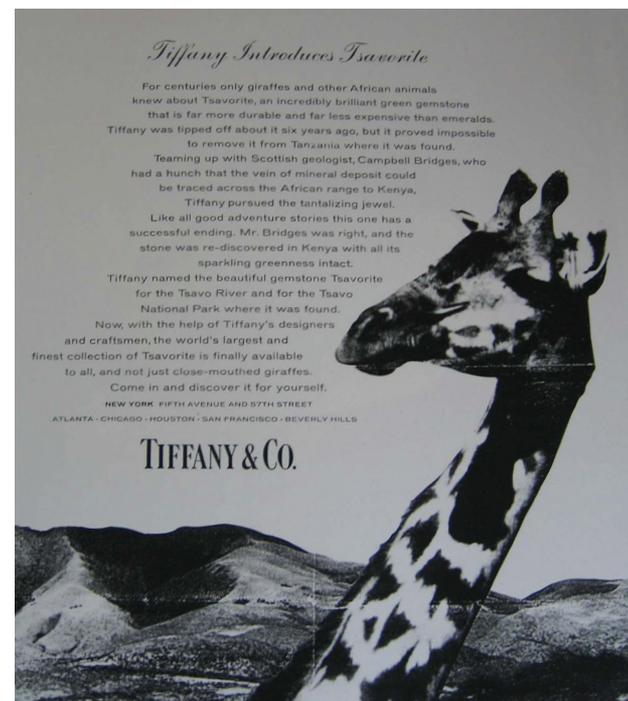
clusters but can be separated by several feet. During mining, each "potato" is dislodged by workers from its base of graphite gneiss, and then the tsavorite crystals are carefully extracted.

"Of all the green stones, tsavorite is the truest green," he exclaims. "And a well-cut stone is remarkably bright and sparkling—much more than an emerald. This is because the refractive index of tsavorite is considerably higher, 1.74, versus an emerald's 1.57. If a diamond is set next to an emerald, you have a brilliant spot and a dull spot. When tsavorite is set with diamonds, the brilliance is a continuous band of fire. The effect is dazzling." He also explains that tsavorite is not oiled, heat-treated, or irradiated, so the color is natural and its durability makes it ideal for jewelry making.

"And as for romance," he insists, "what could be more romantic than a superb flashing green gemstone that existed long before dinosaurs trod the earth, and that originates from a mysterious and beautiful land where the roars of the hunting lion shatter the silence of a star-filled African night?"

Campbell Bridges is quite the romantic, himself. When he is not in one of his mines, or in his suite of modern offices in Nairobi, or lecturing on protecting the trees and animals of Africa, Bridges can be found exploring for African opals or indulging in one of his favorite past times—sitting in the wilds beneath the starlit African sky and composing music. If you listen carefully, you might just hear a lioness respond, or see a herd of elephants and giraffes amble by.

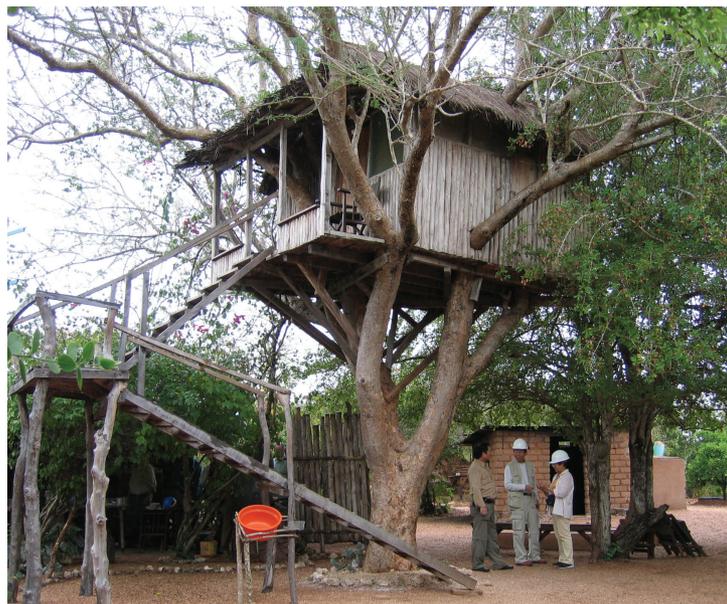
It is a life that most of us can only imagine, but for this world-renowned geologist and environmentalist, it is the only life imaginable. (www.tsavorite.com) **JQ**



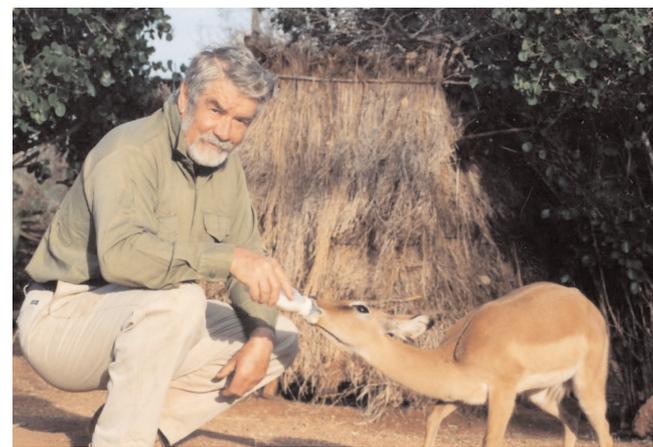
AN EARLY TIFFANY AD PROMOTING TSAVORITE.



CAMPBELL BRIDGES HAS BEEN HONORED FOR HIS WORK BY MANY INTERNATIONAL GEMOLOGICAL ASSOCIATIONS. ONE OF THE MOST RECENT WAS THIS MEDAL, BESTOWED BY THE EIGHTH CONFERENCE OF THE GEMOLOGICAL ASSOCIATION OF PARIS.



A TREE HOUSE AT THE SCORPION MINE.



CAMPBELL BRIDGES FEEDS THE THE CAMP MASCOT FRIDAY, AN IMPALA THAT WAS NURSED TO FULL HEALTH ON GOAT'S MILK AFTER SHE LOST HER MOTHER.