

FIELD TRIP REPORT: GEMSTONE SAFARI IN TANZANIA



Patty's sapphire "pit crew"

Lions, Acacia brush, and Tsetse flies. Not your usual field trip comments. After trying unsuccessfully since January, 2011 to reach a required minimum number of committed attendees for a CCM&GS exclusive field trip - Patty Wintroath and I decided to suit up anyway and join the Swiss gemstone tourist group going to Tanzania. We rounded out a group of 9 gemstone tourists plus 3 guides for the July trip this year.

We headed north from Dar-Es-Salaam to the rural Uмба River Valley. For each day's routine we walked further into the bush from the mining camp to dig and sift for gemstones in the ancient alluvial deposits along the river. Our small group had grown to include several dozen itinerant miners and 3 armed guards for the occasional lion or bandit. The biggest pest however was Acacia brush. This plant is like cactus on steroids and stabs at you at all levels from ankle to the top of your head. Uмба turned out to fulfill its gemstone reputation. Our finds included sapphires, Malaya garnets, Tsavorite garnets, tourmaline, moonstone, kyanite, and the

occasional ruby.

After almost a week in Uмба, we traveled through the Usambara Mountains – home to a unique tourmaline. Usambara tourmaline has a unique gemological optical effect named after the location -the "Usambara Effect." When the thickness of the green tourmaline reaches a critical minimum – the body color suddenly changes to red. You can even stack 2 slices on top of each other and watch the color change happen. Once through the mountains, we spent 2 days in Merelani Hills. This is the world's only source of gemstone Tanzanite. The first day was visits to several independent mines. Some mines were simply hundreds of feet of wooden ladders descending downward following the zoisite ore body. Temperatures exceeded 130 degrees at the bottom. And all who descended came back up looking like black ghosts from the graphite matrix mineral. Day two was a private tour of Tanzanite One. This company has the majority share of the Tanzanite production. Compared to the independent operations, Tanzanite One was relatively safe, highly mechanized, and a tight-security facility.

After two game parks, the group visited a string of emerald and Alexandrite mines near Manyara. These mines are located along a hydrothermal seam up against the Eastern Escarpment of the Great Rift Valley. Next to the Escarpment is where I got bitten twice by Tsetse flies. The bite is very painful and leaves a blister-like welt for a few weeks

The Gemstone Safari group disbanded, but Patty and I stayed in-country and arranged a trip to Olduvai Gorge. With the right contacts, we were able to descend into the gorge and witness continuing fossil excavation. The palm root fossils looked just like the stuff the Caskey's and Pankey's collected with us at Cramer Junction, Mojave, California. At Olduvai, we had the honor to stand where Mary Leakey found the 1.8 million year old human-like skull named *Australopithecus boisei* in 1959.

This Gemstone Safari is scheduled to repeat twice each year until further notice. Contact me if you desire further details.

Dennis Freiburger



**Dennis' new lapidary jewelry:
Tanzanite mining explosives**