

INING their own BY DIANA JARRETT

Mined in a remote region of Turkey, Zultanite is a color-change stone ready to make a name for itself in the world of gems.

onflict is nothing new in Turkey, with its strategic location straddling Europe and the Middle East. Political strife there predates the Ottoman Empire. And yet, Turks admit that the recent military offensive into northern Iraq's Kurdish territory is unsettling. As one national explains, "Who knows what it will be next, but I know there will always be these problems."

On the other side of the country, in a remote Southern Anatolian mountainous region, a group of miners, unaffected by the military operations, goes quietly about its business of drilling through bauxite ore in search of a unique diaspore mineral variety. Diaspore in itself is not rare, and is found throughout northern and eastern Europe. What is distinctive about this particular cache is that, for the first time since the mineral was identified in 1801, this disapore supply has a transparent gem quality that also produces a striking color-change phenomenon.

The discovery echoes the accidental unearthing of transparent Blue-Violet zoisite in Tanzania four decades ago. Zoisite was already known to exist, albeit as an opaque, brown and unattractive stone with no prospects for jewelry use. But the new zoisite variety, eventually named Tanzanite, was a beautiful, gem-quality version.

NAMED FOR SULTANS

Murat Akgun, owner of the Anatolia mine since he won official government mining permits at auction in 2006, took a cue from the marketers of Tanzanite before deciding on a trademarked name for his gemstone that would reflect its origin. He chose Zultanite because of its similarity to the word sultan.

> Gradually, the gemstone is attracting the attention of the jewelry industry. The International Colored Gemstone Association (ICA) recently reported that "Zultanite is so rare that it comes to you from only one source in the world, a remote mountain area in Anatolia, Turkey. Named by Murat Akgun in honor of the 36 sultans who ruled

the Ottoman Empire in Anatolia in the late-thirteenth century, Zultanite is a true Turkish delight."

This page, top: Zultanite, diamond accent and yellow gold earrings, by David Hrubec. Photo courtesy Murat Akgun; center: oval-cut Zultanite ring with 18-karat white gold and diamond accents. Photo courtesy GemsTV.

The supply of the gemstone is somewhat limited by the difficulty of mining it. Situated at an elevation of up to 5,000 feet, the 22,000-acre mining site is located four hours from a major city, Izmir, and seven miles from the nearest village of some 200 homes. After each rainy season, the solitary road into the mine site needs reworking to become passable again. Otherwise, the only way into the area is on foot. Currently, the mine's core group includes chief engineers, mining supervisors, technical staff, miners, explosives experts, a cook, guards and watchdogs.

Although this district was identified as a mining site in the 1960s, it was another ten years before Zultanite was discovered. The baffled geologists had never uncovered gemquality diaspore before, either with or without its dramatic 100 percent color-change phenomenon. The distinctive colors occurring under different light sources for Zultanite range from kiwi green in daylight turning to purplish-brownish pink or raspberry under incandescent lighting, with a wide variety of other shades revealed in in-between lighting. No treatment is applied to induce this naturally occurring color change.

Geological reports indicate that plentiful reserves exist at the Anatolia deposit. And while the mine owners have managed their modest capital prudently, success will ultimately hinge upon broader acceptance of their gemstone. For this developing country, Akgun asserts, the mining effort carries hope for the regional inhabitants to support themselves for years to come with jobs that are highly regarded by the community.

CHALLENGES

Recovery efforts are complicated by the arduous task of separating the gem from its matrix, referred to as diasporitic bauxite, one of the toughest minerals to extract in mining efforts. "Our permit process took so long because it was the first case in Turkey that required two permits at the same time on the same land — one for aluminum (bauxite) and one for gems," explains Akgun.

"Recovering the rough is extremely difficult. We have to mine and process tons of aluminum ore — bauxite — to find a handful of gemstone rough. Sometimes, there is none and sometimes, a couple of kilograms a week," admits Akgun.

But drilling through the hard bauxite isn't the only tough battle Akgun and the miners face in their struggle for economic stability. Speaking exclusively with *RDR*, Akgun provides insight into what it's like to conduct small-scale mining in an emerging nation. Challenges range from political lethargy to the intrusion of local bureaucrats looking for bribes or booty. It is a place where any news about gemstone production can generate unwelcome snooping and security issues.

Throughout the 1970s, the government operated the Anatolia mines. Prior to their privatization, which began in 1985,



mining engineers often traded cigarettes for rough. "These engineers sold countless buckets of inferior rough to dealers. Also, other government officials, professors and villagers were stealing and selling it to make a quick buck. As a result, some crystals made it into the U.K. and the U.S. by people who had little regard for the cutting. The result was poorly cut stones that were highly included and ugly," admits Akgun.

In his efforts to erase that unfortunate image and increase the industry's familiarity with his new gemstone, Akgun formed Zultanite Gems LLC, in Fort Lauderdale, Florida, in late 2005. In January 2008, he recruited Jim Fiebig, a colored gemstone expert, to serve as the company's global sales director. For Fieberg, an authority on gemstone mining in the third world and in developing nations, the position was an ideal fit for his personal ethos.

Fiebig personally understood the vision that Akgun had held onto for decades for he, too, had followed his vision. A second-generation jeweler, he had given up a thriving jewelry business in order to devote himself to a more altruistic vocation, which is, as he describes it, "to help native inhabitants in gem-producing countries benefit more directly from the gems they mine." For Fiebig, there was something greater at stake than merely trading in beautiful stones. That greater good was the economic growth of a people where they live and work.

Beyond creating a sustainable mine for his native homeland, Akgun aspires to construct a transparent, trustworthy business model for mining and gemstone exportation. At the moment, Zultanite rough goes to Asia for cutting. Extraordinary specimens may be sent to expert cutters in the U.S. and Germany. Someday, Akgun forecasts, "This industry will be developed to the point where the cutting can also take place in Turkey, furthering the economic benefit to the land where these gems are harvested."

This is the first in a three-part series on the gemstone Zultanite.