

TERRY HUIZING: MINERAL COLLECTOR

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1. Terry and Marie Huizing on an African mineral safari, posing with a quiver tree, an aloe that lives for up to four hundred years in the arid desert at the Goegap Nature Reserve near the town of Springbok, Cape Province, South Africa. Tony Kampf photo.

All photos by Terry Huizing unless noted otherwise

2. Approximately 300 specimens are on display in a secure mineral room.



Terry E. Huizing (b. 1938) is the genial fellow behind the *Rocks & Minerals* booth at the Tucson, Rochester, Cincinnati, Springfield, Denver, Detroit and Munich shows where he assists his wife, Marie, the Editor-in-Chief of *Rocks & Minerals*, promoting the magazine. An internationally known figure, Huizing is a veteran collector noted for his focus on calcite. His mineral collection is an achievement rooted in his background as a field collector, mineral society member and leader, exhibitor, mineral photographer, museum curator, author and traveler.

Biography

Huizing was born and raised in a working-class family in Grand Rapids in the western part of Michigan's Lower Peninsula where he enjoyed the out-of-doors and was intrigued by his natural surroundings. Small pebbles of brown jasper that were so different from the other stones in the gravel-covered playground of his elementary school were the first minerals to attract his attention. Collecting began at about age 12 by taking a rocks and minerals course at the Grand Rapids Museum of Natural History. Ms. Dockery, who was fresh from university, eagerly provided instruction as well as specimens and required that they be numbered and documented in a catalogue. From that time it was clear that Huizing was to be a mineral collector. A logical consequence of his early mineral experience was discovering an interest in chemistry in high school that led to a degree in chemical engineering from the University of Michigan in 1961. He married Marie, an English major, and they moved to Cincinnati, Ohio, where he became a manager at Procter and Gamble (P&G) and Marie became a teacher. One week after arriving, a fellow



3. The Bigrigg mine near Egremont in the West Cumbrian ore field of England was operated for ores of iron, so it is no surprise that **hematite** occurs with magnificent clear and transparent crystals of **calcite** from this classic locality.

Specimen TEH # 269 measures 6 x 7 x 5 cm. Jeff Scovil photo.

4. The plumbian (lead-rich) variety of **calcite** is uncommon in collections as fine crystals. This exceptional 9 x 6 x 12-cm specimen of beige plumbian calcite rhombohedra with dark green mottramite is from the famous Tsumeb mine in the Oshikoto region of Namibia. It was previously in the collections of Marshall Sussman and Julius Zweibel. TEH #504.



P&G employee mentioned that there was a local mineral society and there was to be a meeting Friday night. Their first night out in Cincinnati was spent as visitors to the Cincinnati Mineral Society (CMS), which they promptly joined after Marie won the evening door prize, an Estwing geologist's pick (that he immediately appropriated). From that time forward they had a new "family" who shared common interests in minerals, field collecting and other social activities. For 35 years Huizing has volunteered as Adjunct Curator of Mineralogy at the Cincinnati Museum Center where he has put the collection in order and doubled its size. In 2001 he retired from Emery Industries, another chemical company in Cincinnati. The Huizings still live in the home they built in 1968 on a lovely wooded lot, perfect for shade-tolerant plants. Here they raised a family of three children and grow over 200 named varieties of hosta among the other 300 perennials, trees, shrubs, grasses, and ferns. Their gardens were featured in a recent issue of *Horticulture* magazine.

Building the Collection

The 1960s and '70s were times with nearly unfettered access to operating mines and quarries, so it was natural that Huizing's early collection reflected his personally collected specimens from the Midwestern states of Ohio, Indiana, Kentucky, Illinois and Michigan. He was one of three young CMS members who discovered the Hall's Gap, Kentucky millerite-bearing geode locality while scouting locations for CMS field trips. These millerites and celestine geodes from Mitchell, Indiana became hot commodities that he exchanged with other collectors and notably with Paul Desautels, legendary curator of minerals and gems at the Smithsonian Institution. Exchanging reduced the volume and increased both the quality and diversity of his collection. In the 1980s, purchasing largely replaced field collecting as family needs became more secure and site access became increasingly difficult.

15. The most common twin law for **calcite** occurs when twinning is parallel to the basal plane of the crystal, and the *c*-axes of both elements lie along the same line. When this type of twinning occurs with rhombohedra, these may be described as “nest twins” in reference to the orientation of the two elements of the twin crystal. Photographer Jeff Scovil arranged the lighting to reflect from the surfaces of the optically clear, 5-cm twinned calcite from the St. Clair Lime quarry in Sequoyah County, Oklahoma. Previously in the Joe Kielbaso collection. TEH #284. Jeff Scovil photo.



16. A common twin law for **calcite** occurs when twinning is parallel to the negative rhombohedron $(01\bar{1}2)$, and the *c*-axes of the two elements of the composite crystal are inclined at an angle of $127^{\circ} 29.5'$ with respect to each other. These are sometimes described as “butterfly twins,” an allusion to the at-rest position of a butterfly. Specimen TEH #305 measures 5 x 4 x 5 cm and is from a near-surface deposit outcropping near the village of Jose Maria Patoni, Rodeo district, Durango, Mexico.



17. The rarest of the four **calcite** twin laws occurs when crystals are twinned parallel to the positive rhombohedron $(10\bar{1}1)$, and the *c*-axes of the two elements of the composite crystal are inclined at an angle of $90^{\circ} 46'$ with respect to each other. This 3 x 5 x 2.5-cm twin calcite from Wheal Wrey, Liskeard, Cornwall, England, shows that relationship very well. TEH #252.

18. Twinning shown by this specimen is considered to be one of the rare **calcite** twin laws. It occurs when the two elements of the composite crystal are twinned parallel to the negative rhombohedron $(02\bar{2}1)$, and the *c*-axes of the two individuals are inclined at an angle of $53^{\circ} 46'$ with respect to each other. This 5.5-cm-tall gray crystal of calcite with a collar of pyrite crystals is from the Brushy Creek mine, Viburnum Trend district, Reynolds County, Missouri. TEH #456.





19. An unusual 2.5-cm-tall "dumbbell," a clear and transparent **calcite** prism (the shaft) sceptered on each end with a larger prism (the weight) and terminated by the combination of a rhombohedron and pinacoid. One end of the crystal has a small hexagonal hole centered in the sceptered end. This, presumably, was the site of a small calcite crystal, now dissolved, that supported the specimen during growth. A number of these calcite crystals to 8 cm long were found in summer 2000 at the Bor quarry, Dalnegorsk, Primorskiy Kray, Russia. TEH #502. Jeff Scovil photo.



20. This is one of Terry's favorite specimens from the Bert Ottens collection. The 8-cm amber rhombohedron of **calcite** is attractively decorated with crystals of **fluorapophyllite**. It was collected in 1976 from the Pashan Hills near Puna, Maharashtra State, India. This specimen may be the most published of any in the Huizing collection, photos having appeared with articles by Ottens on the covers of *Lapis* and *Rocks & Minerals*, and in the *Mineralogical Record*, Bert Ottens' book on India, and several other European publications. TEH #424.



21. This green, 6-cm-tall **mottramite**-included group of **calcite** crystals is from the Tsumeb West mine, located about 20 km from the town of Tsumeb in the Oshikoto region of Namibia. The specimen was collected in 2006, and Terry purchased it from Herbert Naegle while on an African Mineral Safari. TEH #407. Jeff Scovil photo.



22. Finely dispersed **celadonite**, a clay mineral, adds a mint-green color to this 4 x 8 x 5-cm **calcite** crystal group from the Bambari village well, Aurangabad district, Maharashtra State, India. TEH #300.



23. This 5-cm-tall **calcite** crystal of the cobalt-rich variety is from the Mashamba West mine, Katanga Province, Democratic Republic of the Congo. TEH #262. Jeff Scovil photo.



24. A tan **calcite** rhombohedron twinned on {0001} with colorless-to-white **chlorapophyllite**. This 5-cm-tall specimen, previously in the Bert Ottens collection, is from the Nasik district, Maharashtra State, India. TEH #506.