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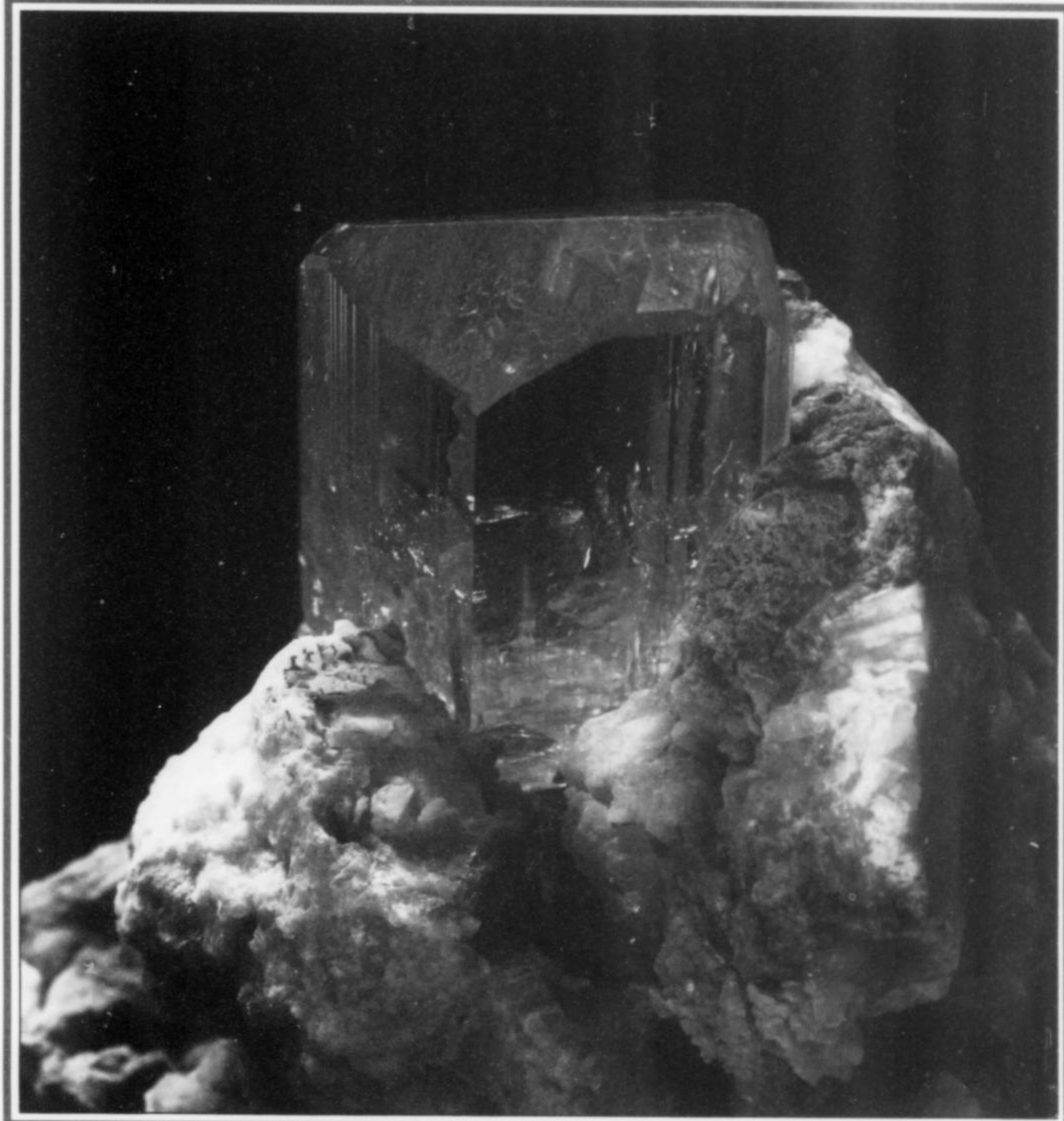
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JOSEPH A. FREILICH COLLECTION

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THE MINERALOGICAL RECORD

VOLUME 31 • NUMBER 1 • JANUARY-FEBRUARY 2000 • \$15







Gem and mineral dealers depicted in the  
*Hortus Sanitatis* (1491) (Freilich Library)

THE  
JOSEPH A. FREILICH  
COLLECTION

*David P. Wilber, Curator*



Specimen Photos by  
Harold & Erica Van Pelt

Text by  
Wendell E. Wilson



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THE MINERALOGICAL RECORD  
TUCSON  
2000



*The Mineralogical Record*



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FRONT COVER: Golden Topaz, 3.5 inches, from Katlang, Mardan District, Pakistan; Freilich Collection.

OPENING SPREAD: Some exceptional mineral specimens from the Freilich Collection (*left to right*): Topaz from Dassu, Pakistan; Amethyst from Guerrero, Mexico; Gold from California; Pyromorphite from the Bunker Hill mine, Idaho; Wulfenite from the Red Cloud mine, Arizona; Calcite and Fluorite from the Elmwood mine, Tennessee; Aquamarine from Pakistan; Wire Silver from Kongsberg, Norway; Powellite from Nasik, India; Blue Topaz from the Ural Mountains, Russia; Devilline from the Czech Republic; Duftite in Calcite from the Tsumeb mine, Namibia; Novacekite from the Brumado mine, Brazil; Elbaite from Nuristan, Afghanistan; Neptunite from San Benito County, California; Spinel from Mogok, Burma; and Emerald from the Coscuez mine, Colombia.

OUTSIDE BACK COVER: Beryl crystals: heliodor (left), 5.4 inches, from Joerania, Minas Gerais, Brazil; aquamarine (right), 5.1 inches, from the Pioniera mine, Minas Gerais, Brazil; Freilich Collection.

Canfield



Bancroft



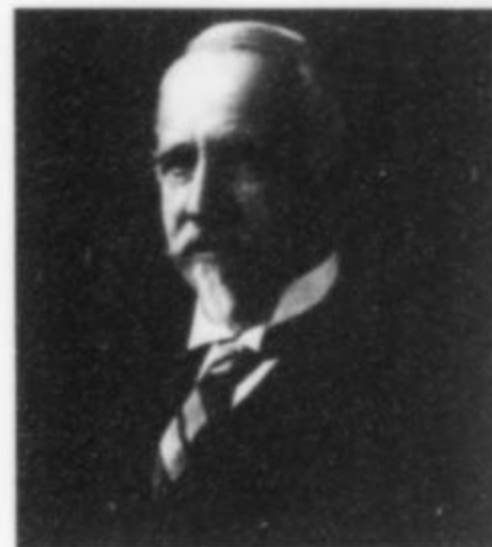
Sams



Roebling



Barlow



Bement



Swoboda

## Foreword

The mineral collecting "elite" in America have been an important influence for centuries, from the time of Thomas Jefferson and George Gibbs (1776-1833) to Washington Roebling (1837-1926), Clarence Bement (1843-1923) and Frederick Canfield (1849-1926), and finally into the late 20th century with collectors like Peter Bancroft, Dave Wilber, Ed Swoboda, Bill Pinch, Perkins Sams and John Barlow. That tradition is alive and well today, and ready to move into the next millenium with renewed vigor.

Since the early 1990's an organization called The U.S. Trust has surveyed the top 1% of U.S. taxpayers,\* a group of affluent individuals earning an average of nearly a quarter million dollars per year. In the great American tradition, these are mostly self-made men and women who rose from middle-class or poor backgrounds. They made their fortunes in their own businesses or professions, or by achieving high positions in large corporations (only 10% inherited their wealth). "Most attribute their success to hard work, intelligence, good career choice, special skills, and the support and encouragement of their spouse." As it turns out, fully 29% of these people invest in collectibles, and an increasing number of them harbor a love of fine mineral specimens. In fact, there are more "elite" collectors active today than at any other time in history.

Mineral collecting can be carried on at many levels, but it is a demanding hobby if the goal is to build a collection reflecting the very highest level of taste, quality and connoisseurship. Most people who attempt this rely on a few highly knowledgeable, trusted dealers to advise them, or they simply follow their own taste. Some have pulled it off beautifully; Washington Roebling, builder of the Brooklyn Bridge, stands as a great example. But mistakes at that level can be costly, the learning curve can be steep indeed, and a collector who can learn the ropes, to a first approximation, in four or five years of serious study is doing pretty well.

To become a true connoisseur with a balanced, in-depth knowledge of mineralogy, aesthetics, market factors, geography and history takes decades of devoted study and an in-born sense of aesthetics. Most people at the upper levels of business or a profession simply don't have the time for such an intense level of

\*Barrons, September 20, 1999.

dedication to minerals. They can evolve into well-informed appreciators of the beauty of minerals; but they may still want help in safely guiding the expenditure of large sums of money in a field where each and every object is unique in its own way. There are no price catalogs to use as a guide, no comprehensive index of all known top-level specimens. Unlike the collecting of rare antiques or coins or stamps, entirely *new* types of mineral specimens can and do get discovered each year. Evaluating unique new finds accurately takes many years of experience and a high level of knowledge.

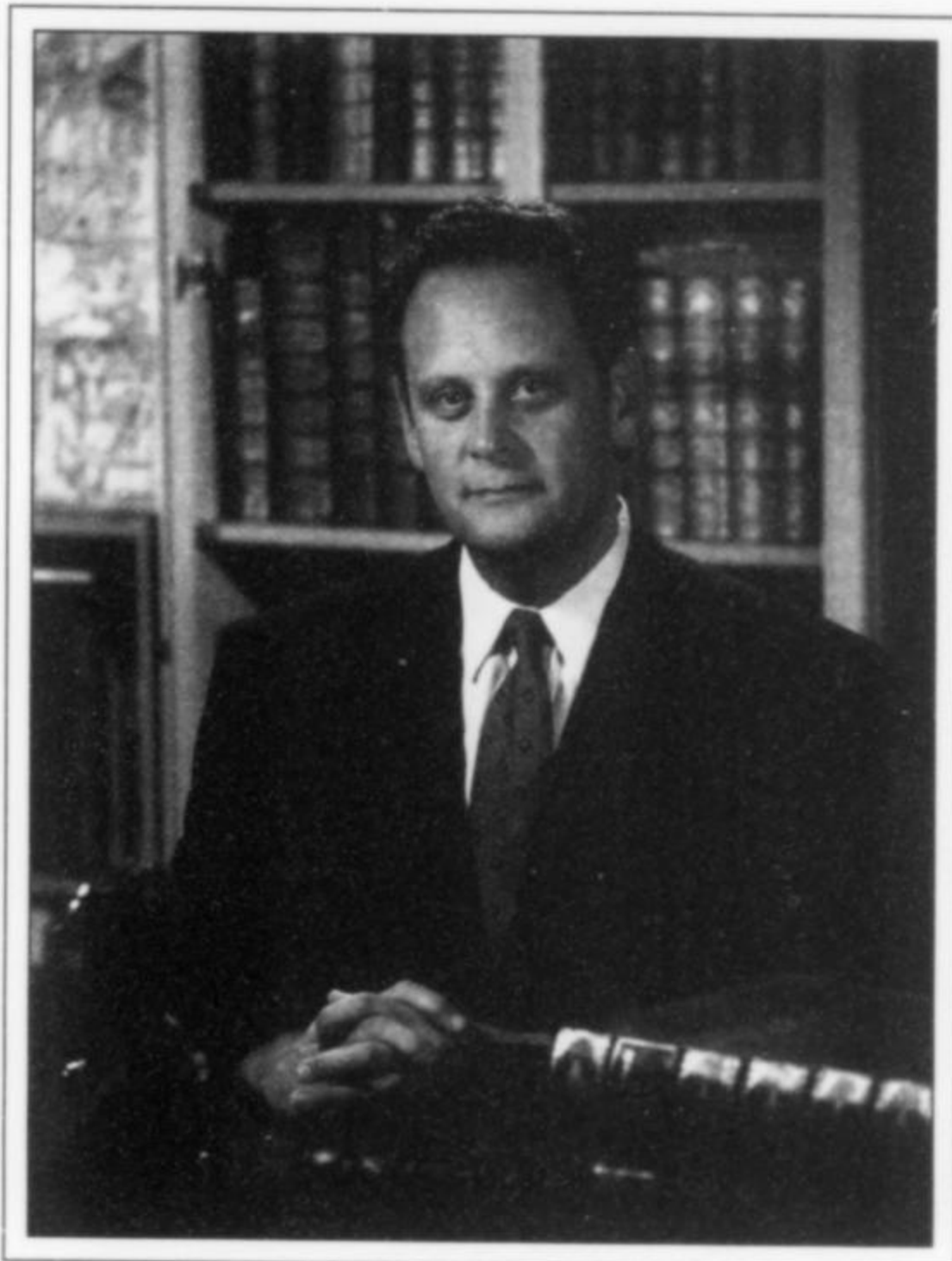
Beyond all these difficulties is the indispensable element required for the building of any great collection: it all boils down to taste. How many of us would pit our taste against that of the best-known connoisseurs of today? Just listening to these men casually expound on what makes a particular specimen great can be a fascinating experience, one which reminds us that we don't know as much about the mineral world as we thought we did.

Of course, some people collect solely for fun, for what pleases them personally, and don't aspire to "greatness." In truth, most collectors at *all* levels would be well advised to follow that example; collecting doesn't have to be so serious! However, in its most advanced manifestation, the creation of a coherent collection through the careful selection of top-level specimens is an *artistic* exercise incorporating a strong scientific component. There may be no other field in which this synthesis is quite so critical or so difficult.

Affluent collectors throughout the ages have sometimes tried to cope with the demanding aspects of elite collecting by hiring knowledgeable curators to advise them. However, the two men involved in the creation of the collection to which this catalog is devoted have a somewhat different relationship. It is more like the relationships between a medieval prince acting as the *patron* of a famous master artist. Through the patron's support the artist is free to create great things with minimal, if any, interference. The result is often something truly extraordinary which could not have come into existence without their symbiosis. Though patrons may be discerning experts in their own right, like the Medici of Renaissance Italy, they know that an artist brings something special and unique beyond simple expertise, and so they support him in the creation of something wonderful. So it is with the Joseph A. Freilich Collection by David P. Wilber. Read over the biographies of these two interesting men and you will see how well they fit together. Then sit back and enjoy a rare look at some masterpieces of nature from a collection that is truly extraordinary.

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**Joseph A. Freilich** is one of the new breed of mineral connoisseurs: those fortunate and canny individuals with a passion for fine mineral specimens, a regard for them as Nature's equivalent of fine art by the Old Masters, a determination to build an exquisitely chosen collection of

top-level pieces, and a budget adequate to the greatest challenge. The selection of his specimens shown here is incredible, not just for quality but also for the relatively short time period during which they came on the market and were acquired.

The Freilich Collection, great as it is, is not the result of family wealth; like most mineral collectors, Joe was the product of an average middle-class family. Born in 1952, the youngest of three children, Joe grew up in Yonkers, New York, and received his first exposure to minerals at the tender age of six. A neighbor preparing to move had been cleaning out his attic and came upon a small collection of specimens which he gave to Joe. Many of us can remember that magical moment when we first saw and handled a crystal specimen, and became imprinted for life; that was Joe's moment, and he still remembers the thrill of examining a cool, colorful, symmetrical crystal of apatite that lay among the other specimens (some of which he still owns!).

For his seventh birthday Joe's parents bought him a copy of Fred Pough's *Field Guide to Rocks and Minerals* (now in its fifth edition, 1996). It was a fortunate choice; thousands of fledgling mineral collectors and mineralogists got their start with Pough, not to mention at least one mineral magazine editor. Joe devoured the little book, and dreamed of some day owning treasures like those he saw pictured.

He began trading with other young collectors, and visited some local quarries in the hope of finding something, but they yielded little or nothing. At the age of eight, in 1960, he was taken on his first visit to the American Museum of Natural History in New York; that famous collection was a major inspiration to seriously pursue minerals with whatever funds he could muster.

At the age of ten Joe's interests broadened into the field of music, and he was soon recognized by his instructors as a gifted musician; by the end of high school he had mastered five different instruments, and played guitar in a local band. Being also a born

collector, he had expanded his collecting activities to include not just minerals but also coins and stamps, and had even acquired his first rare book (an early German work on mining laws . . . incomprehensible as to subject matter, but with a wonderful old binding).

Joe attended college on a music scholarship, and it was there that he met his future wife, Robin Greenberg. They married in 1975 and now have two wonderful children: Heather (17) and Lee (9). After college he intended to go on to law school and would ultimately have become an attorney, were it not for a chance conversation with his cousin. He learned of a man who had recently purchased a precious-metal casting business, and was looking for someone to join him as an assistant. In 1974 Joe took the plunge into this new business and, for the next 11 years, gained valuable experience in the field of jewelry manufacture and sales. In 1984 he was recruited by an important customer of the firm, and in 1986 joined the new organization as a full partner.

During those early years as a partner he concentrated on building a strong position for the company in Asia, manufacturing low-cost promotional jewelry. He spent many months in Thailand and Hong Kong, expanding the company's operations until they had become the largest importer of Asian jewelry in the world. By 1990 he had also formed several joint ventures in Asia which continue to thrive even now. Today Joe is "a principal" in the firm which he helped make into the largest diamond and jewelry company in the world.

Joe's collection of minerals had lain dormant for some years, but in 1992 he attended the Munich Show and found himself once again drawn into the hobby. He made the acquaintance there of mineral dealer Herb Obodda, and bought from him his first new specimen in many years: a fine matrix topaz from Pakistan. Joe was struck by the realization that he was now in a much better position financially than he had been in during his early years of collecting. What he once could only admire wistfully, now he could own! The "new" Freilich Collection was off and running, and Herb Obodda became a good friend as well as a major supplier.

Naturally, once back in New York, Joe arranged to visit Herb in Short Hills, New Jersey. At first these visits focussed on minerals. But after a while Joe could not help but take increasing notice of Herb's extraordinary collection of antiquarian mineral books, the finest such private collection in the Western Hemisphere and perhaps the world. Joe's collector instincts began to twitch, and he soon found himself to be hopelessly fascinated by the subject. He began acquiring mineral books from several American booksellers including Ed Rogers, who patiently led him through the complicated world of the bibliophile. Ed and Herb served as his mentors, and Herb introduced him to Tucson bibliographer Curtis Schuh, who provided additional guidance, and has remained a faithful

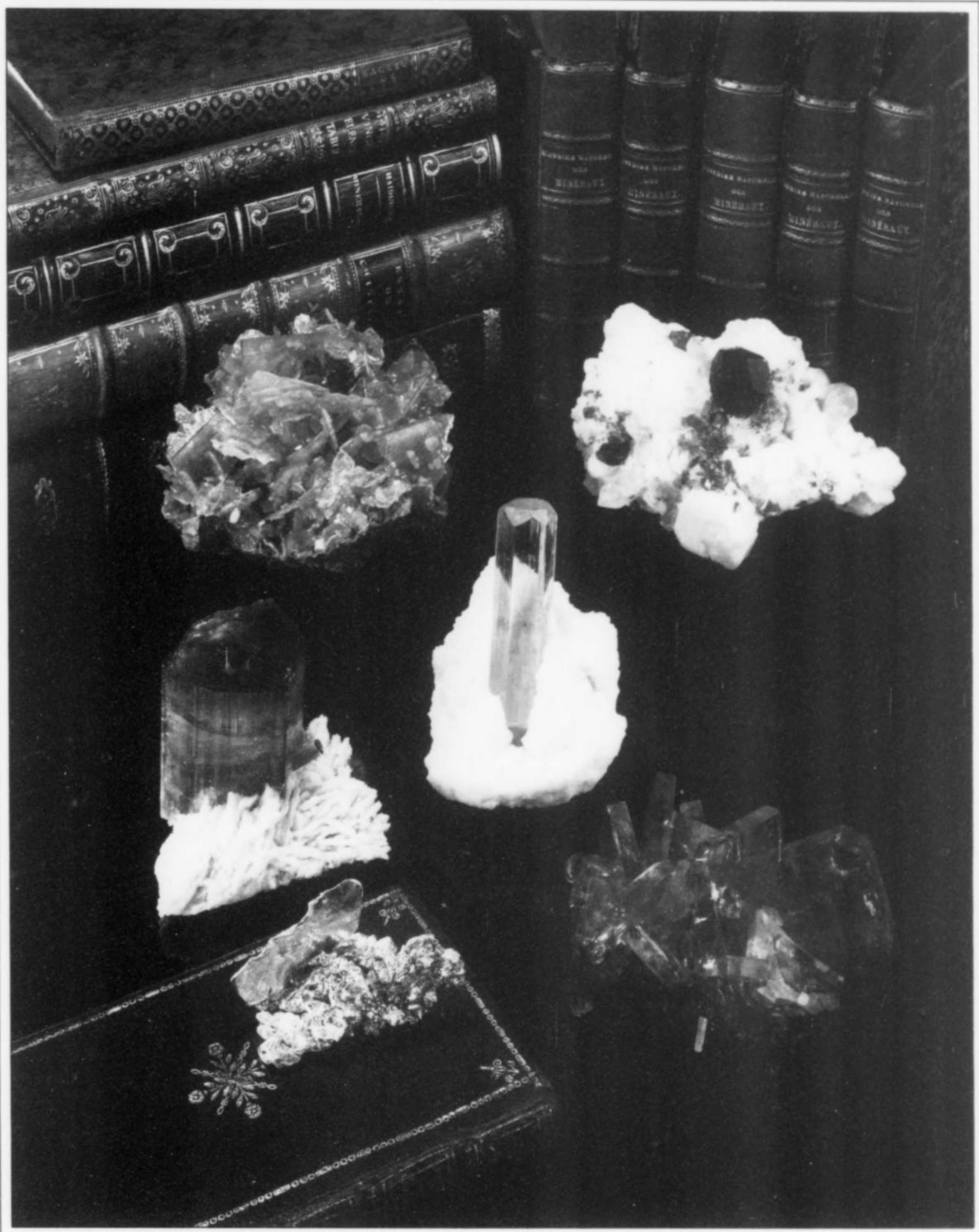
"guiding light" ever since. Houston Museum of Natural Science curator Joel Bartsch, also a book collector, introduced him to the New York bookseller Jonathan Hill, who became a prolific supplier. The Freilich Library now rivals the Freilich Mineral Collection for overall quality and significance.

The mineral collection, however, was creating demands on time that could not be met. Executives in large corporations generally can't spend three or four weeks in Tucson every winter scouring the shows and motel rooms for top-quality specimens. If he was to build a truly world-class collection it became clear that he was going to need some help, someone whose character and level of connoisseurship were as world-class as the collection he envisioned building.

This problem had faced other collectors as well, and Joe knew that at least one great collector who had gone before him, Texas oilman Perkins Sams, had come up with an effective solution. Sams had hired the number one American mineral connoisseur of his day, former Smithsonian curator Paul Desautels (now deceased), to be his buying agent. Under Paul's guidance the "Perkins and Ann Sams Mineral Collection" was built in just a few years, and today forms the core of the Houston Museum of Natural Science. Joe had been in the "mineral world" long enough to know exactly who *he* wanted: Dave Wilber, a long-time private collector famous for his taste, knowledge and character. As good fortune would have it, Dave was available, and the rest, as they say, is history. Has the collaboration succeeded? The 95 specimens illustrated here speak eloquently that it has.

Today the Freilich Collection consists of about 500 specimens. Joe had about 300 when Dave was hired on; of these Dave selected about 35 to be retained as core pieces, another 100 as important specimens to complement certain suites (e.g. tourmalines), and about 170 that should be sold. Since that time, Dave has personally overseen the selection of about 350 new specimens of superb quality, so there is far more to the Freilich Collection than could be shown in this special issue.

Secure at the top level of his profession, and still just a young guy (I can say that because he's six years younger than I am), Joe Freilich has a brilliant future in the collecting world. With Dave Wilber guiding his mineral acquisitions, and with a new book specialist, Nina Musinsky of Christie's Rare Book Department, now "on staff" to help acquire and curate rare books, we may be looking at what is just the beginning of a collection that will be a world leader in the 21st century. Even if we can only admire wistfully the treasures that he has assembled, being allowed to do so is an enriching experience, indeed. In that way, such a collection benefits all collectors of our time, and also collectors of generations to come.



Specimens from the Freilich Collection (*clockwise from upper left*): Spessartine from Pakistan; wulfenite from the San Francisco mine, Mexico; elbaite from Nuristan, Afghanistan; gold from California; barite from the Mickle mine, Nevada; and (center) aquamarine from Dassu, Pakistan.

Dave Wilber and Paul Desautels, Tucson, 1979.

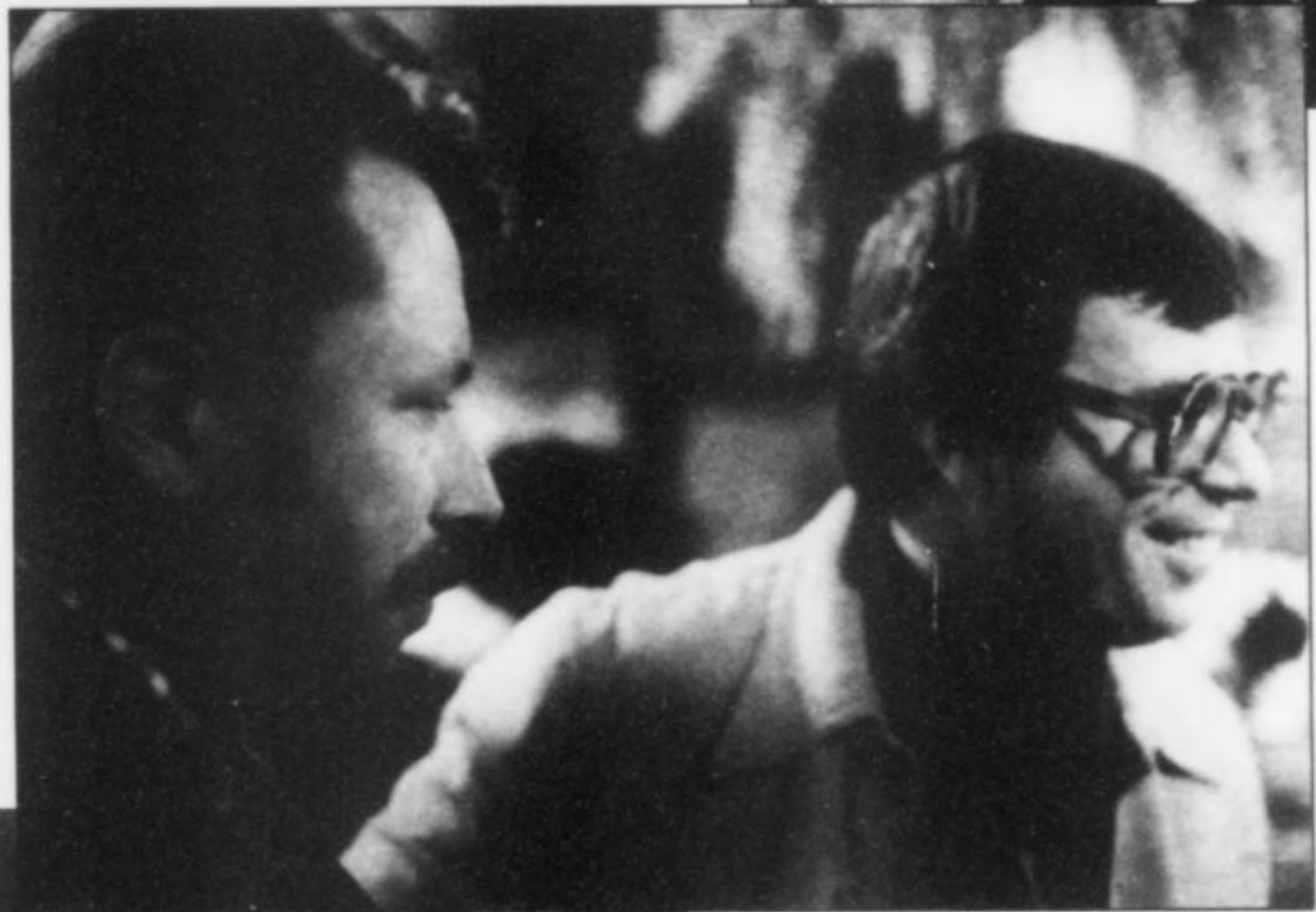


K. ENGLAND

Dave Wilber and Charlie Key, Tucson, 1976.



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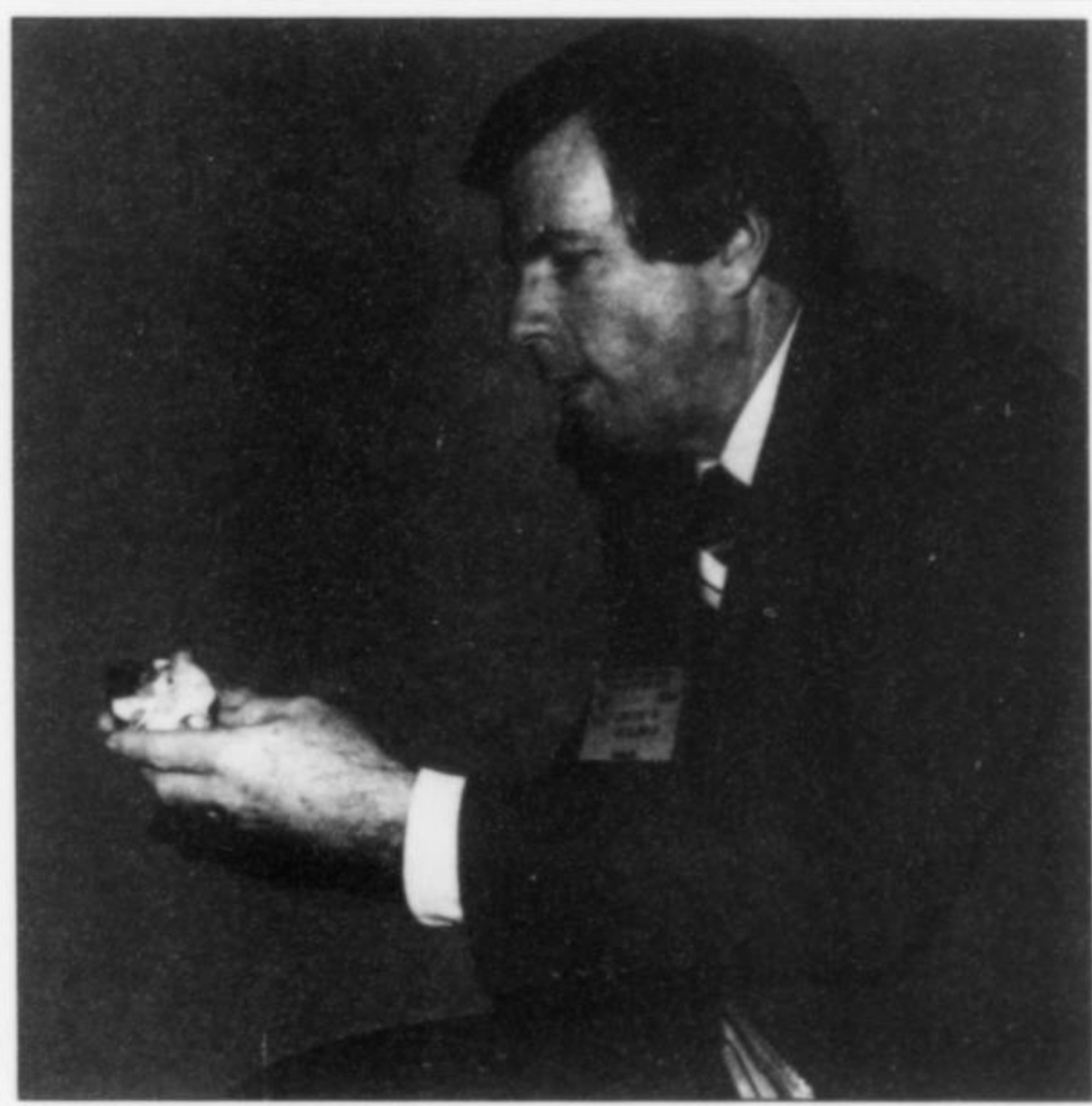
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Dave Wilber and Gerhard Becker, Tucson, 1976.



K. ENGLAND

Dave Wilber and Larry Conklin, Tucson, 1979.



Tucson Show, 1984

**David P. Wilber** has been in charge of acquisitions for the Joseph A. Freilich collection only since the Tucson Show in February of 1998. But in that short time he has succeeded in elevating the collection to world-class status, and continues to build on this already formidable base. Some of the finest examples have been chosen for illustration in this catalog.

Dave's first encounter with minerals took place in 1943 when, at the age of six, he moved with his family from Cleveland, Ohio, to southern California. While en route they stopped at Yellowstone National Park to see the wonderful sights there, and in due course arrived at the local curio shop. There he noticed sets of attractive little mineral specimens glued to the bottom of small white boxes and carefully labeled. The colors and the shapes of these little pieces, looking just as they had come out of the ground, grabbed his attention. Sensing his fascination, his parents bought him the little box of specimens, and his life changed forever.

The family continued on to California, but Dave didn't become an active collector until three years later, at the age of nine. A friend gave him several specimens that his rockhound father had found while "rock hunting" in the Bishop area of California. That got his attention once again, and he was off and running as a young mineral collector. In fact, he still possesses those specimens of smoky quartz, California lapis, stibnite in quartz and a polished agate.

In 1952, at the age of 14, Dave had become interested in the colorful, radioactive uranium minerals as a specialty. The uranium boom of the 1950's was then in full swing. For a time that was his main focus, but an old gentleman, then 82, advised him to broaden out and collect worldwide minerals. Dave agreed after seeing the man's own collection, the first really significant private collection he had ever been introduced to. Dave was amazed by the beauty, colors, shapes and exotic localities of the many specimens; it was an experience he never forgot, one which forever after prevented him from becoming overspecialized. The old gentleman died shortly after Dave's first visit, and consequently Dave hardly got to know him, but his advice (at least for Dave) proved sound.

Shortly after getting started in minerals, Dave was invited as a guest to a meeting of the North Hollywood Gem and Mineral Society. He immediately became a member, and in short order

learned who had the best "rocks." He visited all sorts of local collections, public and private, soaking up information on the mineral world. The Natural History Museum of Los Angeles County was particularly interesting among the museums. His favorite private collectors and dealers of the day, to name just a few, included George Burnham (*Burminco*), Bob Pascoe, Helen Hanke, Willard Perkin, George Holloway, Ed Swoboda and Peter Bancroft. Another was Bill Larson, now the owner of *Pala International*, but of course just a kid in those days; also Herb Obodda, a young guy working for gem dealer Ron Romanella in New York; and Rock Currier (owner now of *Jewel Tunnel Imports*), with whom he traveled to Bakersfield on mineral-buying trips. Dave also got to meet the legendary Martin Ehrmann, perhaps the greatest mineral dealer of his time and a real gentleman; Ehrmann (committed then to being a wholesaler) wouldn't sell to Dave directly but they made deals through the (retail) mineral dealer Marian Godshaw. Dave also enjoyed meeting the movie writer Arch Oboler and seeing his fine mineral collection. Oboler was very admiring of Dave's growing collection as well. Southern California was indeed a great place to be for the budding connoisseur of minerals in those days, and it still is.

When he was 17, and well along on his quest to collect and learn about worldwide minerals, Dave's family was hit by tragedy: his father was diagnosed with cancer. He'd had a good job as a cost accountant for Warner Brothers Motion Pictures, but the illness soon rendered him unable to work. As a consequence, Dave was forced to quit school after the tenth grade and go to work in order to help support his mother (his six older brothers and his sister were all married, with children!). He went to work for the Prudential Insurance Company and did well, even allowing himself a little extra money to buy minerals. The purchase of a beautiful cobaltoan calcite from Spain for \$35 (a lot for a mineral in 1954!) was a proud moment . . . at least until his mother and sister saw it and raised the roof over what was to them an incomprehensible expenditure. Dave was not discouraged, and when at the age of 19 he showed his father some beautiful minerals that he had acquired, his dad, sick and bedridden, approved of what he knew then would become his son's lifelong occupation; he died later that same year, 1957.

Dave eventually worked his way up to the position of Methods Examiner at Prudential, working many hours of overtime. It was the overtime pay that went to buy minerals. Word began to spread that a young up-start mineral collector named Dave Wilber was snapping up good mineral specimens, that he was very wealthy (who but a wealthy person would spend any significant money on minerals?), and that his family owned a brewery. Where did *that* rumor come from? Perhaps from his work (100 hours a week during his two-week vacation from Prudential) helping his brother, Jim, with his draft beer home-delivery business. He delivered beer to such Hollywood notables as Frank Sinatra, Gene Kelly, Jerry Lewis and others. More cash for the mineral budget!

One of Dave's favorite memories from those early days was a visit to the Smithsonian Institution, where he got to meet Curator George Switzer and Assistant Curator Paul Desautels (both luminaries now deceased). The two men were extremely kind to the young collector, recognizing that he had a vision of becoming a world-class collector some day, and that he was already well on his way. On Dave's second visit he successfully completed specimen exchanges with the Smithsonian. At mineral shows Dave capitalized on his acquaintance with the Smithsonian curators by constantly picking their brains for advice about potential specimen purchases. Having such mentors was a great good fortune; and it was the only way to really learn about top-level collecting.

Another interesting experience took place in 1961, when Mrs.

Daniel Malaylee convinced Dave to enter his mineral collection in competition at the National and California Federation Show, held that year in Eureka. He had not been interested in competition and did not collect for that purpose. He always bought what *he* liked, and not what he thought some judges would like. But he decided to give it a try. As it turned out, Mrs. Malaylee had given him some bad advice, causing him to enter in the wrong division. Consequently, *she* won the big "Woodworth Trophy" for best minerals, and Dave took home only a blue ribbon in a minor category. The judges all told him he would have won if he had entered in the right division. Dave still dislikes judged competitions, knowing that the judging is not always competent. But he doesn't advise others to avoid competition; it can be great fun, and a great learning experience.

As the years passed, Dave's connoisseurship, and his status as a world-class collector, continued to grow. In 1971 he exhibited a large showcase containing over 100 superb miniatures at the Tucson Gem and Mineral Show (the last year in which it was held in the "cow barn" at the Rodeo Grounds, before moving into Tucson's new convention center in 1972). It was labeled "New Acquisitions of David P. Wilber"; along with Peter Bancroft's fabulous exhibit of cabinet specimens, including the famous Alma rhodochrosite, it was the hit of the show.

In 1973, when a prestigious new award was established for best minerals at the Tucson Show (the "McDole Trophy," named for a famously eccentric, deceased mineral dealer), Dave was invited to compete for it. Feeling inadequately prepared with regard to labels, shipping arrangements, and so forth, Dave declined. Ed Swoboda won the award that first year, but Dave entered and won the following year, in 1974. That same year Dave purchased the best part of the Peter Bancroft collection, 52 specimens for what was then the highest price ever paid for an American mineral collection: \$400,000. It made the news, but today you couldn't buy two or three of those same superb specimens for that amount of money.

Over the years Dave became a regular non-competing exhibitor at mineral shows across the country. His fabulous display cases gave the entire hobby a lift, attracting new generations to mineral collecting and educating the existing collector community in the fine points of high-end aesthetics and connoisseur-level collecting. He always felt a duty to share and to educate, to give back in gratitude for all the kind assistance and mentoring he had received in his earlier years. In fact, he has carried on the tradition by mentoring others himself. Joel Bartsch, currently Curator of Minerals at the Houston Museum of Natural Science, was once just a young kid looking for help and guidance. At the age of 11 he sought out Dave who, along with Herb Obodda and Wayne Leicht, helped him learn about minerals and collecting while he was growing up. Joel is now in charge of one of the finest public mineral collections in the country.

One of Dave's biggest collecting projects was inspired by the 1971-1972 discovery of incredible blue-cap rubellite tourmaline and associated minerals at the Tourmaline Queen mine in San Diego County, California. By 1978 he had accumulated a huge Tourmaline Queen collection, through the liquidation of much of his general collection, and exhibited it in two 6-foot-tall cases at the Detroit Gem and Mineral Show. It dazzled both the general public and the hard-core collecting community. He expanded the Tourmaline Queen collection (including the famous Postage Stamp Tourmaline) into a general San Diego County pegmatite collection of nearly 200 superb specimens. Fine tourmalines and beryls and garnets stood side-by-side with rare and exotic pegmatite species. It was widely acclaimed as the finest such collection ever assembled, and was later sold to Texas oilman Perkins Sams in 1981 for \$600,000.

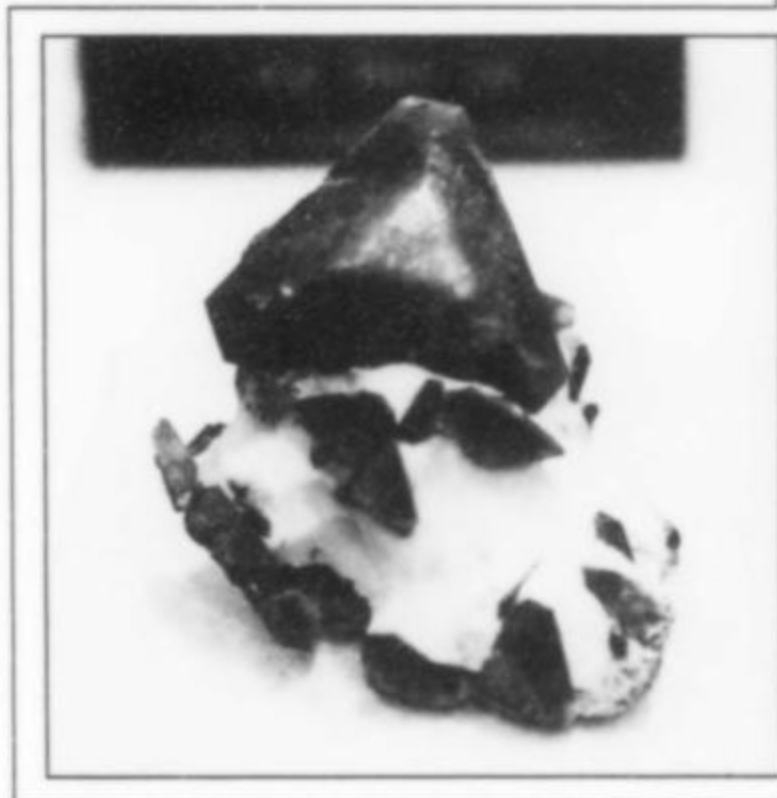


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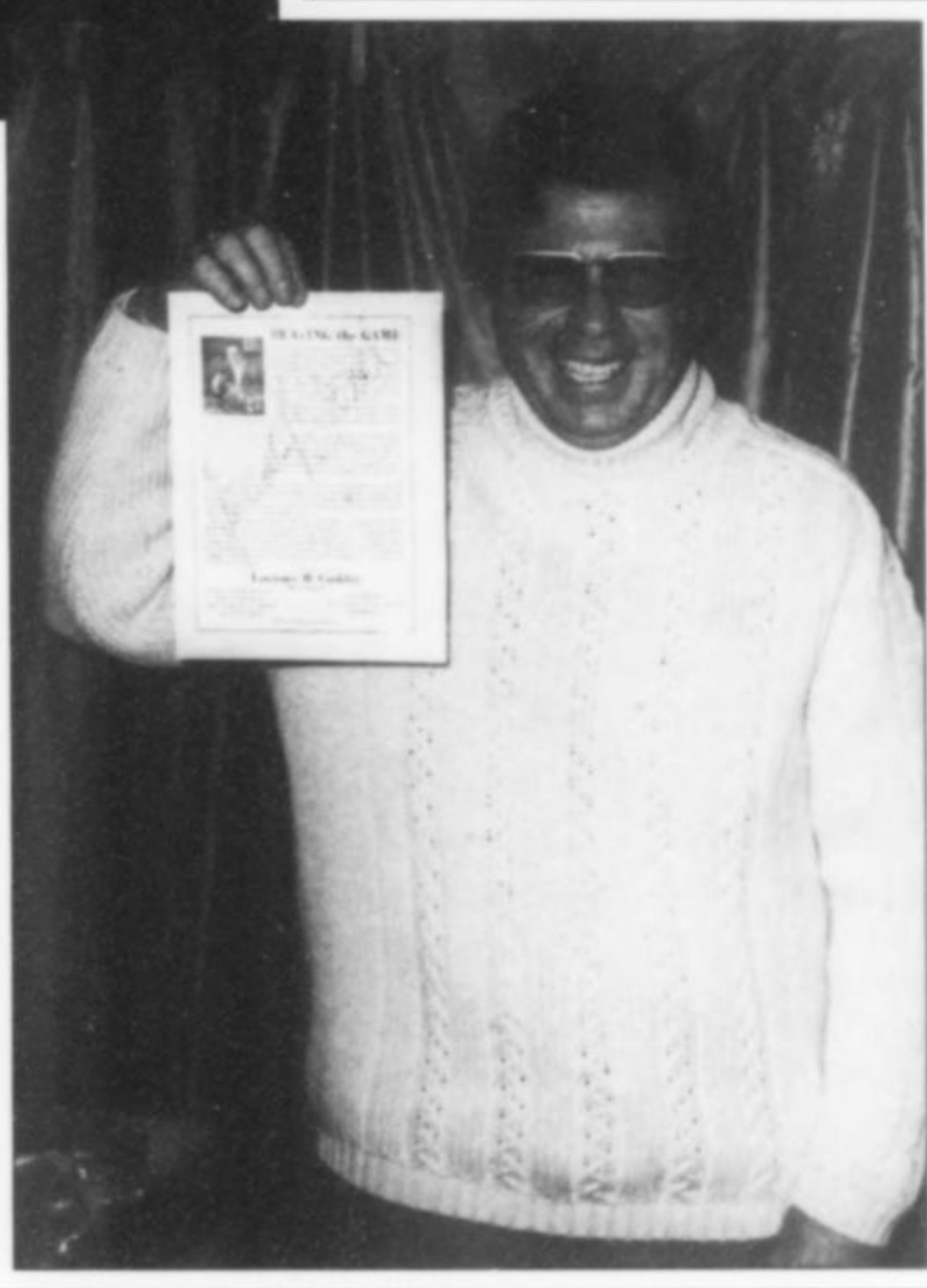
Dave Wilber proudly showing off his autographed ad and Larry Conklin official mineral dealer's sweater, purchased at the 1979 Mineralogical Record Auction, Tucson.

Dave Wilber, a young Joel Bartsch, and Bill Larson, Tucson, 1981.

The superb benitoite which Dave donated to the California Federation.



WEW



WEW

Sometimes Dave is asked which mineral specimen, of all those he has ever owned, is his all-time favorite. He replies without hesitation: the specimen now known as "The Great Phosphophyllite" (see the cover of the January-February 1999 *Mineralogical Record*), a huge, doubly terminated twin on matrix from Potosí, Bolivia. "It's one of the great mineral specimens of the world," he says wistfully.

During his best times Dave was able to make significant gifts to a number of institutions. Perhaps his favorite was a big textbook-perfect benitoite crystal on matrix which he presented to the California Federation of Gem and Mineral Societies. It is now on permanent exhibit, along with the Federation's famous "Golden Bear Nugget," in the Natural History Museum of Los Angeles County.

Selling off the last of his minerals in 1981, Dave decided to branch off into other exotic fields of collecting such as fantastically expensive glass paperweights, elegant antiques of various sorts,

top-level faceted gemstones, and so on. Yet he never lost his interest in, or devotion to, the mineral world. And, in addition, he managed to raise a family, two wonderful daughters and a fine son.

Still, he admits that if it weren't for a few good friends who worked at keeping him involved in the hobby, he would never be where he is today. When he had fallen on bad times and was unemployed, mineral dealer Victor Yount hired him to do miscellaneous work until better opportunities came along. Bryan Lees took him on as a member of the *Collector's Edge* staff in the early 1990's to help market the Sweet Home mine rhodochrosite that was just starting to come out; Dave's high reputation in the mineral world helped him place many of the top pieces.

Hard times hit again in 1995, and Dave had to take a leave of absence from *Collector's Edge*. Just when he seemed to be getting through those difficulties, illness stepped in and he was forced to go through two operations for knee-joint replacements. Rex Harris, owner of the famous red beryl mines in Utah, hired Dave back into



The Dave Wilber Collection as exhibited at the Tucson Show in 1974; it won the McDole Trophy.

the hobby. "Dave had done so much for the advancement of our hobby," said Rex, "that I had to do something to help him out."

Of course, red beryl can be both a mineral specimen and an extremely valuable gem commodity, and Dave is an expert on both. He is well known in the field of gemology, especially at the Gemological Institute of America (GIA). He would often visit GIA headquarters bringing extraordinary gemstones (superb star sapphires, star rubies, cat's-eye chrysoberyls, a 5.08-carat D-flawless Lazare Kaplin round-cut diamond, limpid Imperial jades looking almost like green Jell-o) to show off to students involved in the GIA courses.

In 1997 Dave received an unusual honor: a large display case at the Tucson Gem and Mineral Show was devoted entirely to very fine mineral specimens that Dave had once owned and sold. Curators and top collectors from across the country brought out their most treasured ex-Wilber pieces for the exhibit. The result was truly dazzling, and unprecedented as recognition for a mineral dealer. Even more impressive, though, was the extremely warm welcome the case received from the mineral community as a whole, and the honest outpouring of affection for the man most people would vote as one of the nicest guys in the mineral world.

Today, Dave can state with authority that mineral collecting (at its highest level) is one of the most complex and difficult of all collecting fields. One can never know it all, and can still be excited by unexpected new discoveries. Although not a mineralogist himself, Dave is an avid reader of the mineralogical literature, and knows that one must never stop learning. His fascination with minerals is every bit as fresh and intense as it was when he was just a young, new collector; and that kind of happy enthusiasm is contagious.

Yes, mineral prices have gone up significantly for the best pieces. But Dave is not dismayed or surprised, even though he himself can no longer afford to collect at the level he used to. He is amused when fellow collectors and curators complain about the

current high prices. That's because he predicted the current situation in a lecture at the Rochester Mineralogical Symposium 25 years ago!

Dave firmly believes that the current price levels carry significant benefits. For one thing, the great increase in specimen hunting and mining produces more material for research, including more new species to be described. More specimens become available in the lower price ranges where prices have not risen nearly as much, if at all. The money which top specimens can bring is now sufficient to finance mining projects aimed solely at specimen recovery. New people in the high income brackets are discovering fine minerals, as the equivalent of art collectibles, at *comparatively* very reasonable prices even now.

Nevertheless, Dave recommends against collecting minerals as a financial investment. Some specimens have indeed risen dramatically in value, but many others have not, and the long-term investor may well be disappointed. Collect minerals for what they are, he says, and for what gives you pleasure, not for profit. A true collector of anything does not collect for investment.

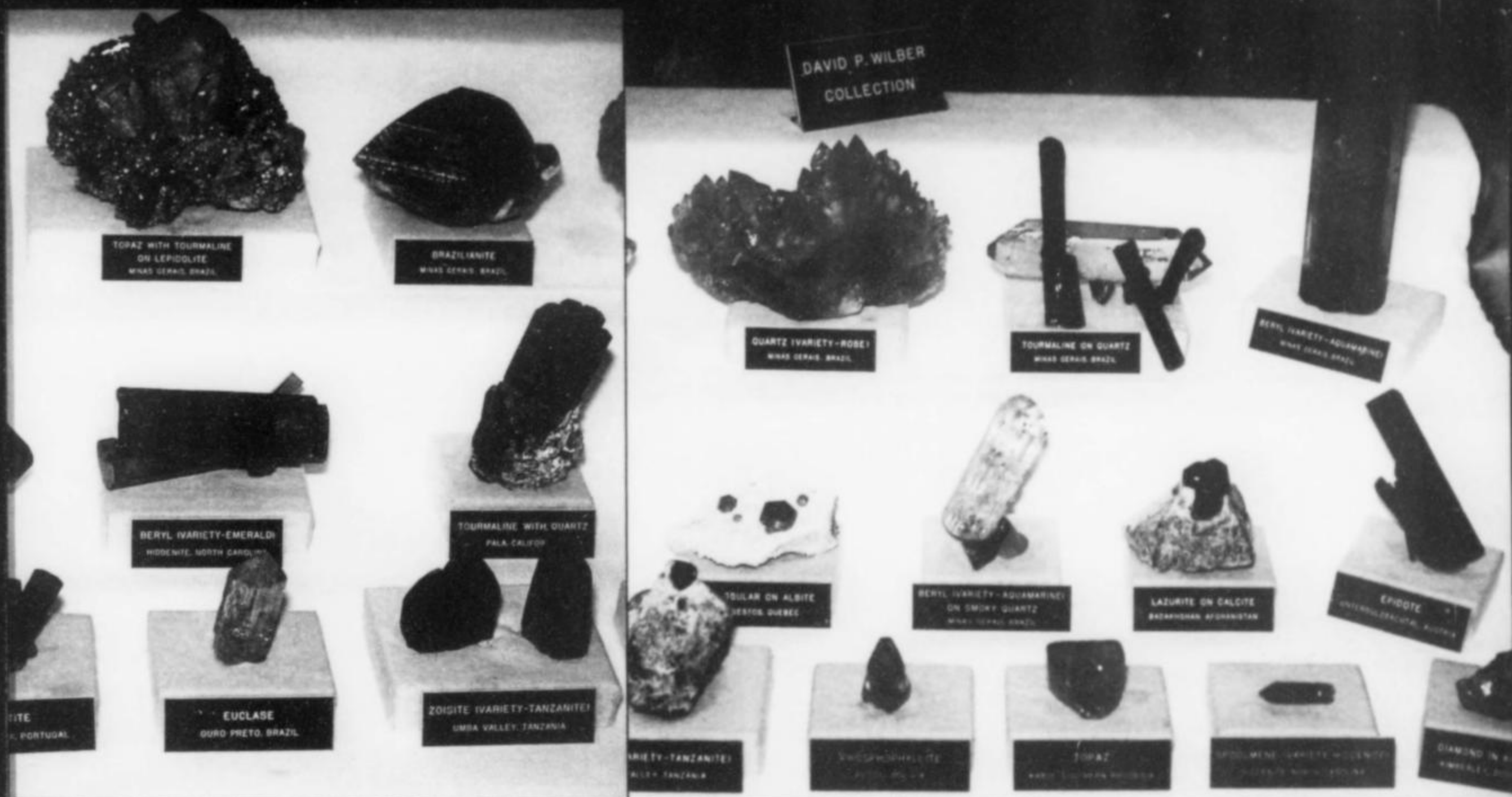
How did Dave become so happily involved in the Freilich collection? He still finds his good fortune hard to believe but, in a real testament to the power of good karma, the biggest break of his life came unexpectedly in January of 1998, a time of the year when everyone in the mineral world is preparing for the coming Tucson Show in February.

He was visiting his brother, Don, in southern California, still undecided about attending the upcoming show. His work with Rex Harris had come to an end and he was essentially unemployed. Why bother going? He considered putting the time in on antiques, but after having attended every one of the last 33 annual Tucson Shows he was not about to miss this one. He would give himself a vacation, bum around with friends, and see lots of minerals.

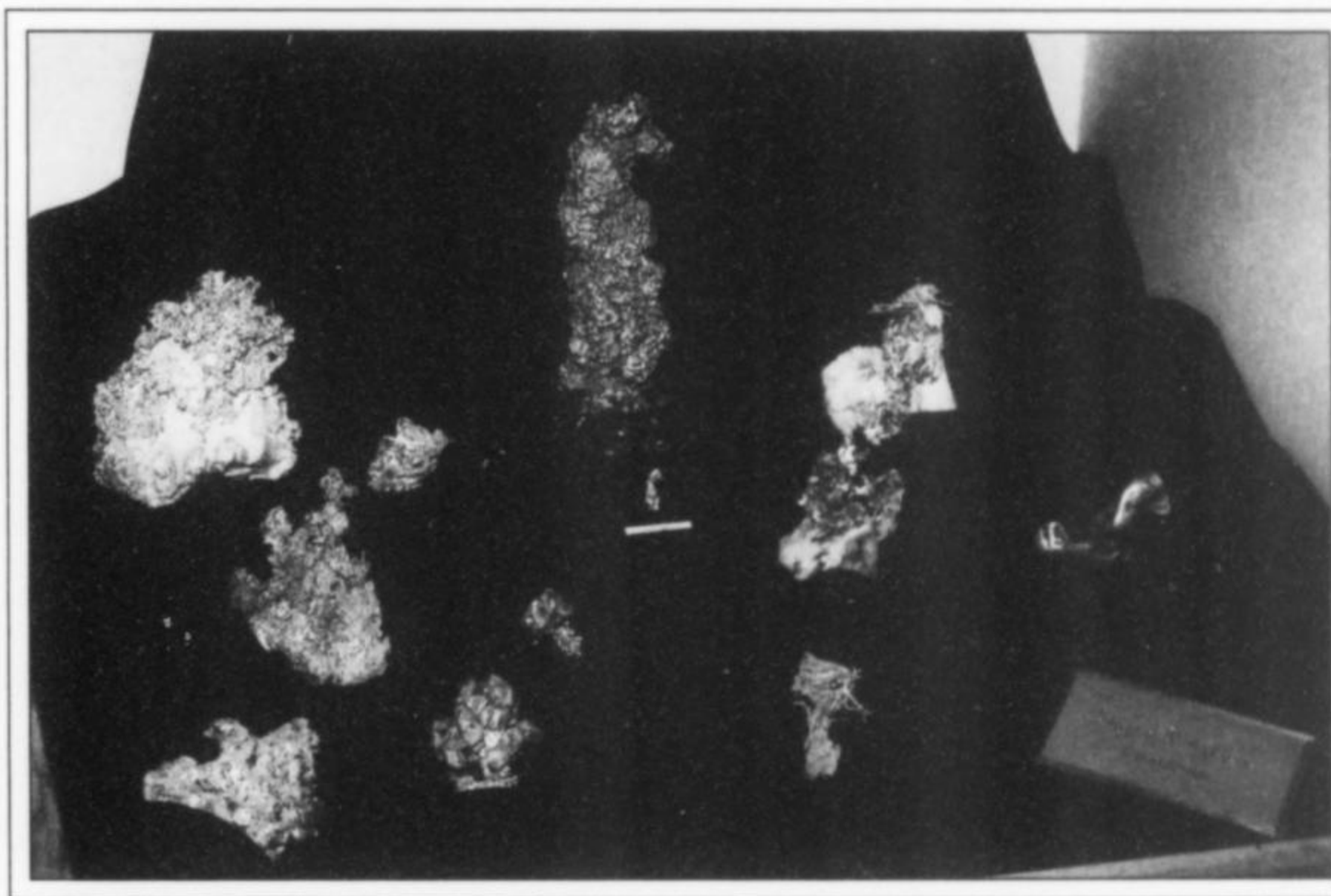
On the morning of January 10 he received a call. "Hello, Dave. I'm Joe Freilich. Do you remember me?"

"Yes," said Dave, "you're the collector who bought a big axinite from Bryan Lees and me at his *Collector's Edge* booth at the New Jersey show back in 1994."





Dave Wilber's gold collection, exhibited at the Tucson Show in 1975.



WEW

Joe was pleased that Dave remembered, and asked him how he'd been. They chatted for a few minutes and then Joe dropped the bombshell:

"Dave, since you're not working for anyone at present, how would you like to work for me and help me buy some fine minerals at the Tucson Show?"

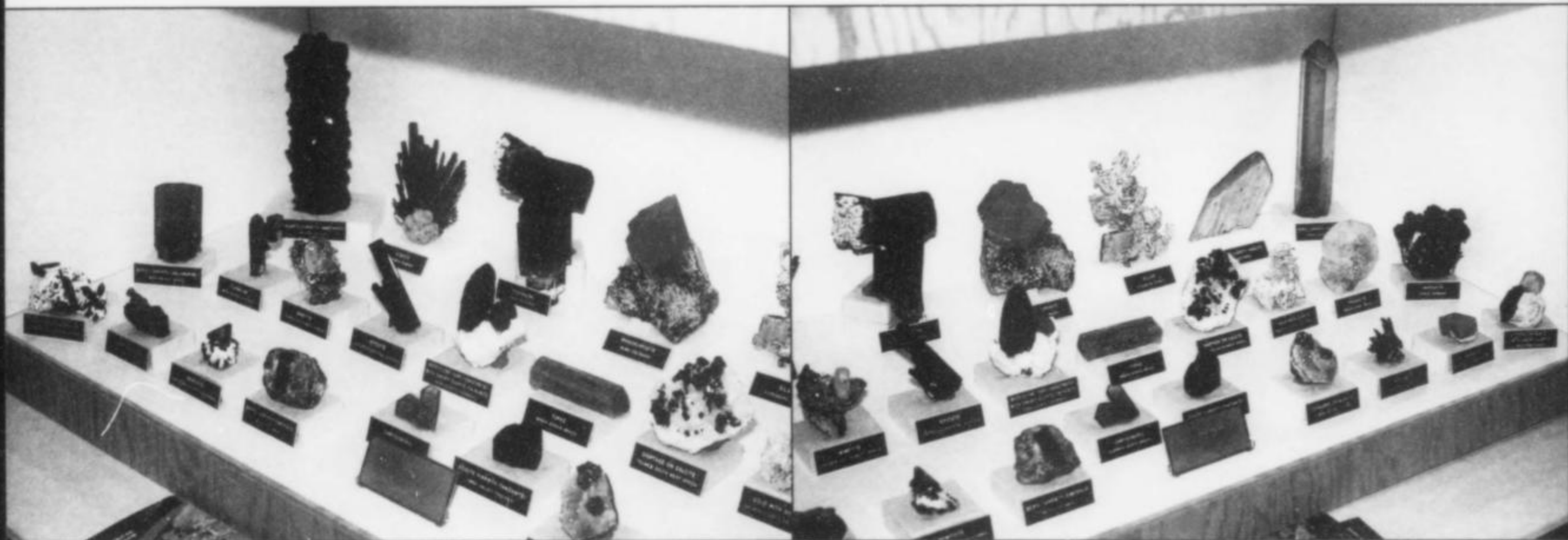
Dave was wondering if he had died and gone to heaven, or was this real?

"I'd love to," said Dave, "but I should really visit with you *before* the show so that I can see your collection and get a feeling for what kinds of specimens you like."

"By all means, Dave," said Joe. "I'll be out of the country for about ten days, but when I return you can fly out to New York and

we can make our plans together." That was it, and the conversation ended.

Dave was still stunned. What an opportunity! To help build a world-class collection again! He knew Joe to be a quiet, soft-spoken man with a kind and friendly personality. And he knew his background, having learned about his remarkable rise from friends in the jewelry business. Joe had been a mineral collector, seriously, for over seven years, so he knew minerals and was not a beginner. But as a corporate vice president and partner with a busy schedule he had not been able to devote the time necessary in order to build an elite collection, even though he had plenty of funds which he could devote to that purpose. Now Dave was to be his purchasing agent and curator!



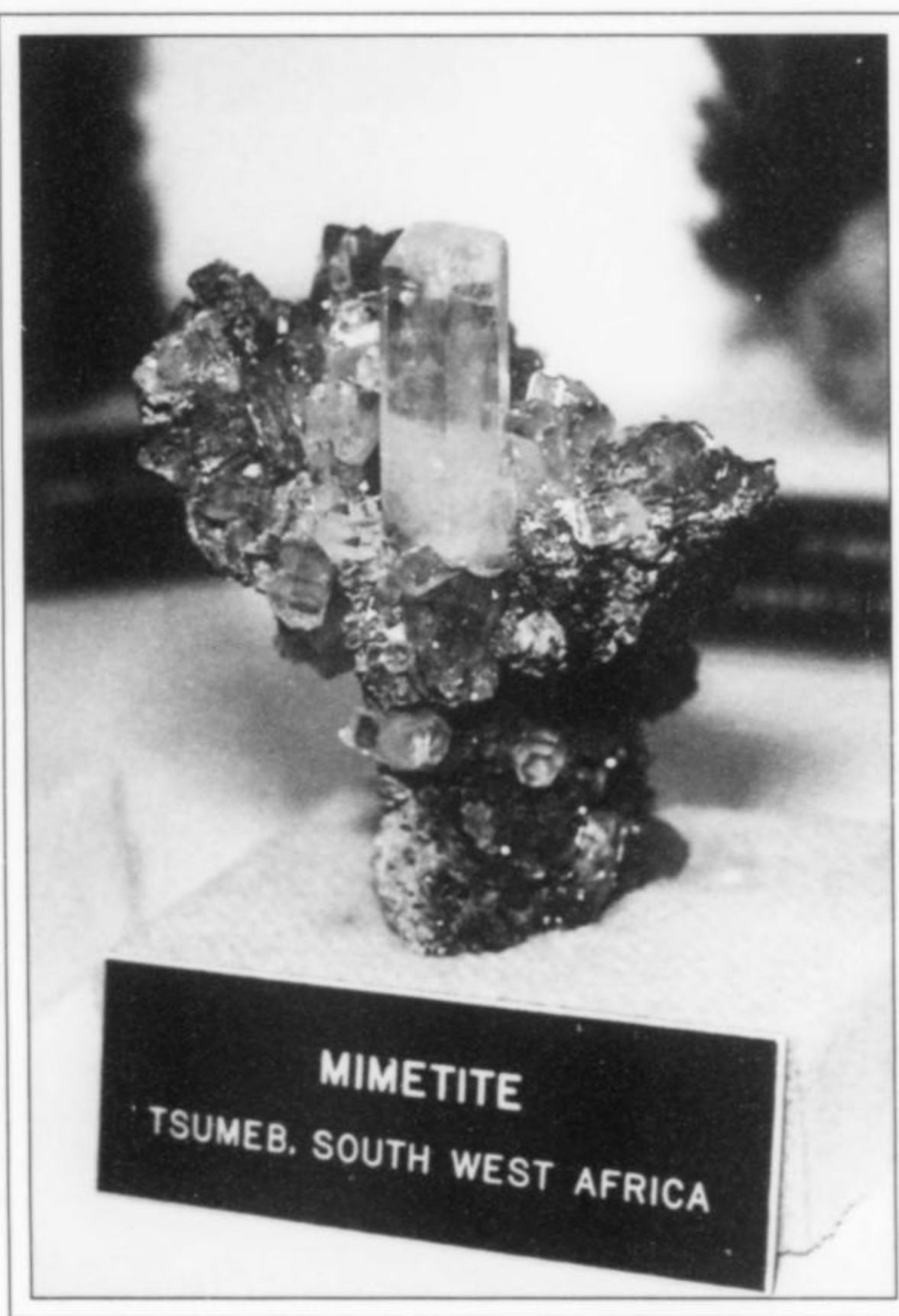
Dave's exhibit at the Lincoln, Nebraska, Show in June of 1974, including superb specimens just acquired with the Peter Bancroft Collection.

Dave's incredible Tsumeb mimetite, still a standard for the species, from his Lincoln Show exhibit, 1975.

From that time until this, Dave has been in collector heaven, and Joe's collection has quickly risen to world-class status. The hobby today is extremely active, with more fine minerals being dug out of the ground than perhaps at any other time in history. The rapid rise in prices for the best specimens has financed much mining and travel on the part of dealers; miners are being more carefully schooled in collecting technique; and several geographic areas have been bursting with new specimens.

The collection which Dave has been building for Joe has great variety in both species and specimen size. Advanced collectors know that superb quality comes in all sizes, not just cabinet sizes. (High quality does become rarer, however, in the larger specimen sizes.) Quality is the over-riding factor in his specimen selection, and nothing less than very fine to top quality will do. Nevertheless, the collection contains specimens that will excite all types of collectors, not only those who specialize solely in aesthetics, but also those who know rare species, and those who like same-species suites and special locality collections. It is a true "collector's collection," demonstrating a full spectrum of expertise, knowledge, and also good collector's luck.

What we have here is good fortune all around: Joe's good fortune to have Dave's expertise working for him; Dave's good fortune to be "working" for Joe in that capacity ("... And I get paid, too?"); the *Mineralogical Record's* good fortune to be able to publish this beautiful catalog; and the public's good fortune that Joe is willing to give us all a look at his treasures.



WEW

*Photo Album:*

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*the*

*Freilich Collection.*



# The Specimens

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- Gold, California 19
- Gold, Russia 20
- Gold, California 20
- Gold, Australia 21
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- Silver, Germany 22
- Silver, Norway 23
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- Sperrylite, Russia 32

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- Fluorite, Russia 33
- Fluorite, Russia 34

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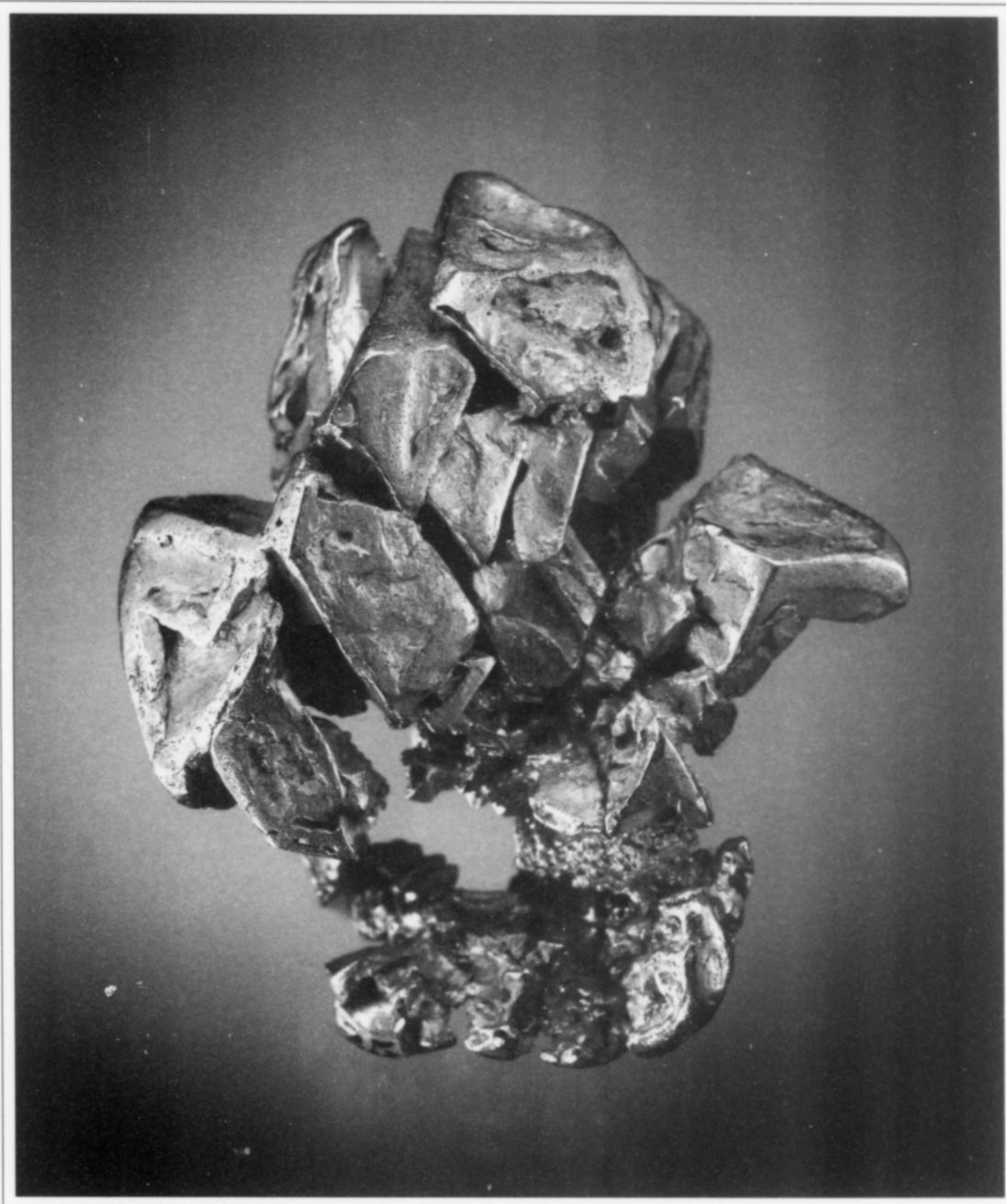
- Whewellite, Russia 78

## Cover 3

- Azurite, Namibia

## Back Cover

- Aquamarine, Brazil
- Heliodor, Brazil



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## GOLD

---

specimen known as "the Eagle," from  
Placer County, California; 1.75 inches.

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## GOLD

---

in cubic crystals, from the Lena River placer deposit, near Yakutsk, Siberia, Russia; 1.25 inches.

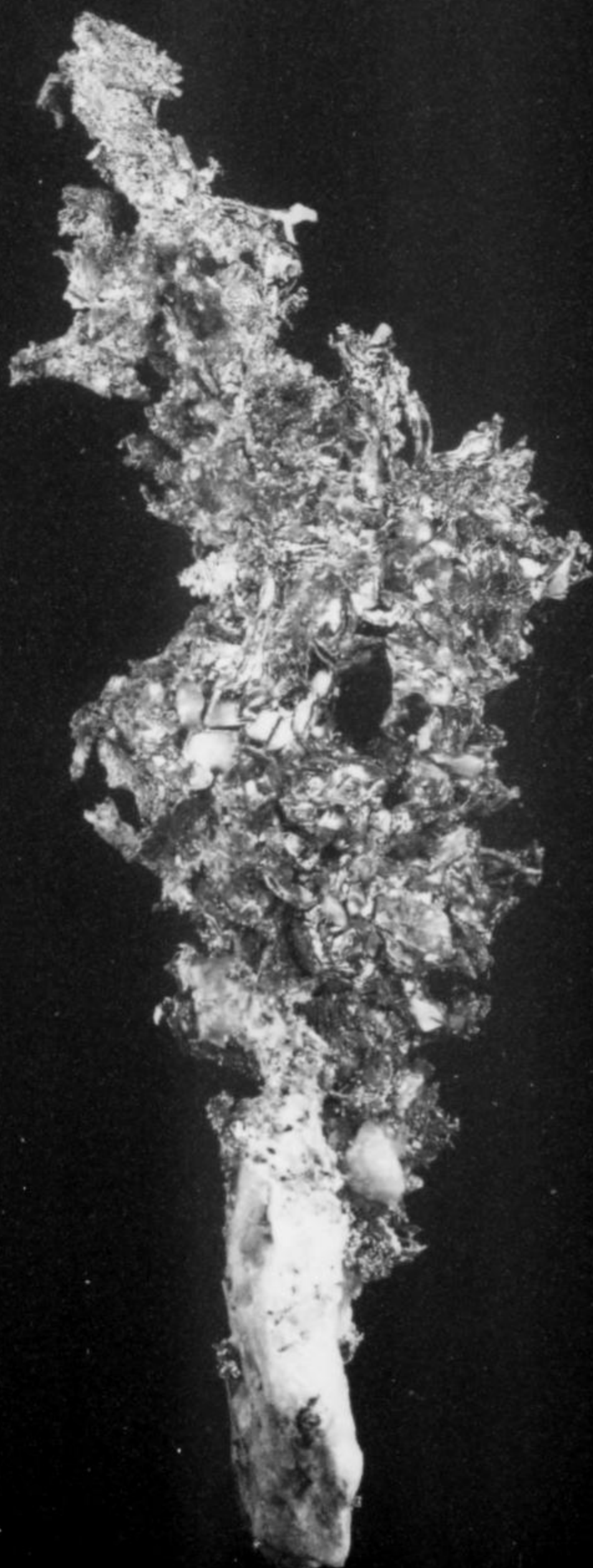


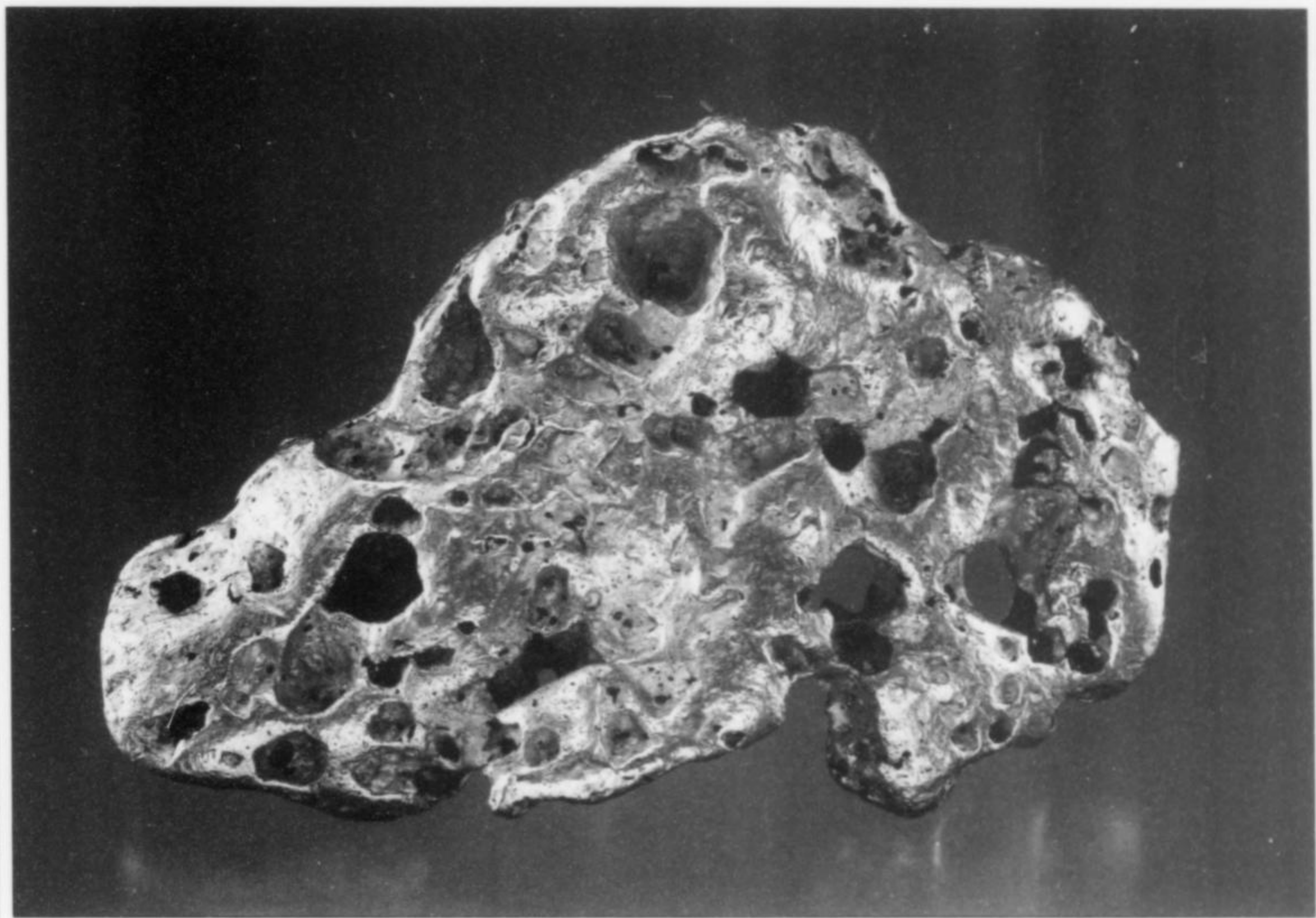
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## GOLD

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crystal cluster with milky quartz, from the Eagle's Nest mine, Placer County, California; 8 inches.





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## GOLD

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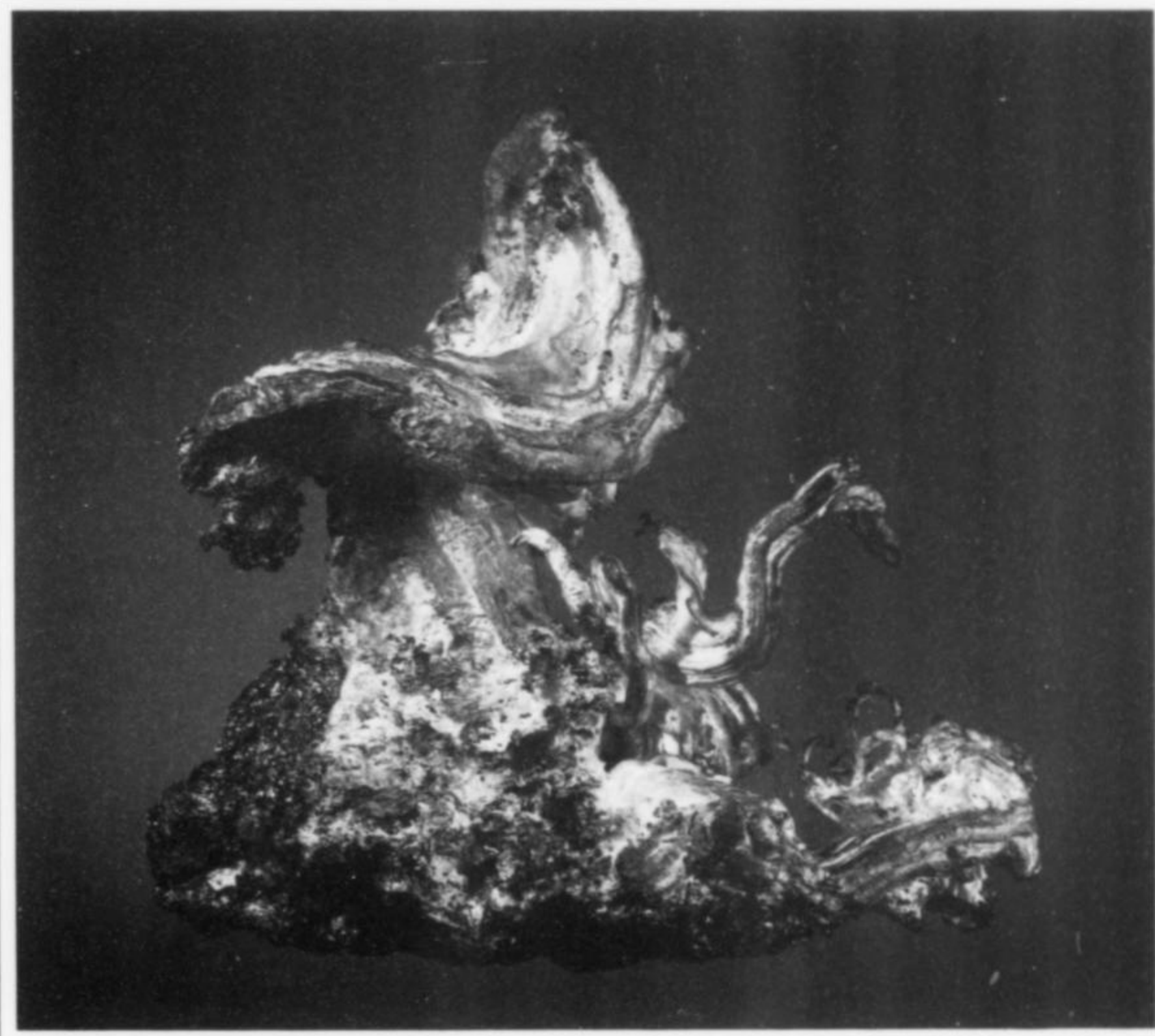
nugget from Western Australia; 5.5 inches, 55 troy ounces.

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## SILVER

---

in thick wires from Kongsberg, Norway; 3.75 inches.





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## SILVER

---

wires from Freiberg, Saxony, Germany; 6.5 inches.





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## SILVER

---

wires with calcite, from Kongsberg, Norway; 4.1 inches.

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## SILVER

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---

wire in a spiral shape, from Dzhezkazgan,  
Kazakhstan; 0.75 inches.

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## BISMUTH

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crystals from Schneeberg, Saxony, Ger-  
many; 2.25 inches.





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## COPPER

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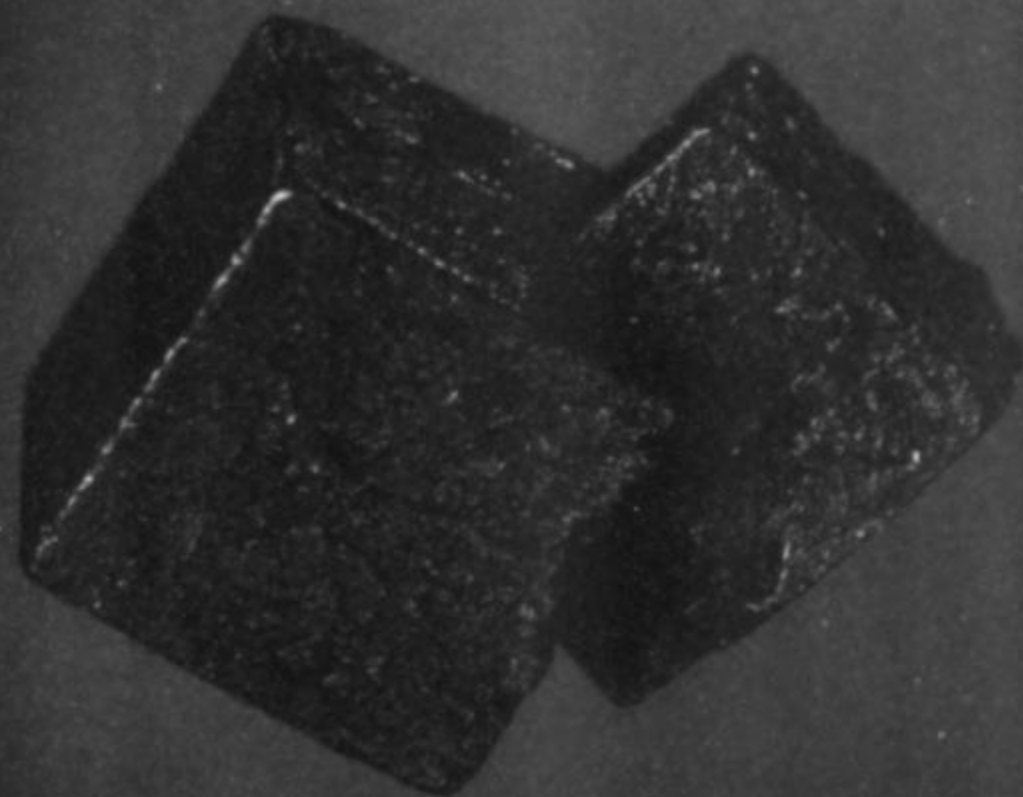
crystal cluster (originally from the B. S. Butler collection), from the Keweenaw Peninsula, Michigan; 4.75 inches.

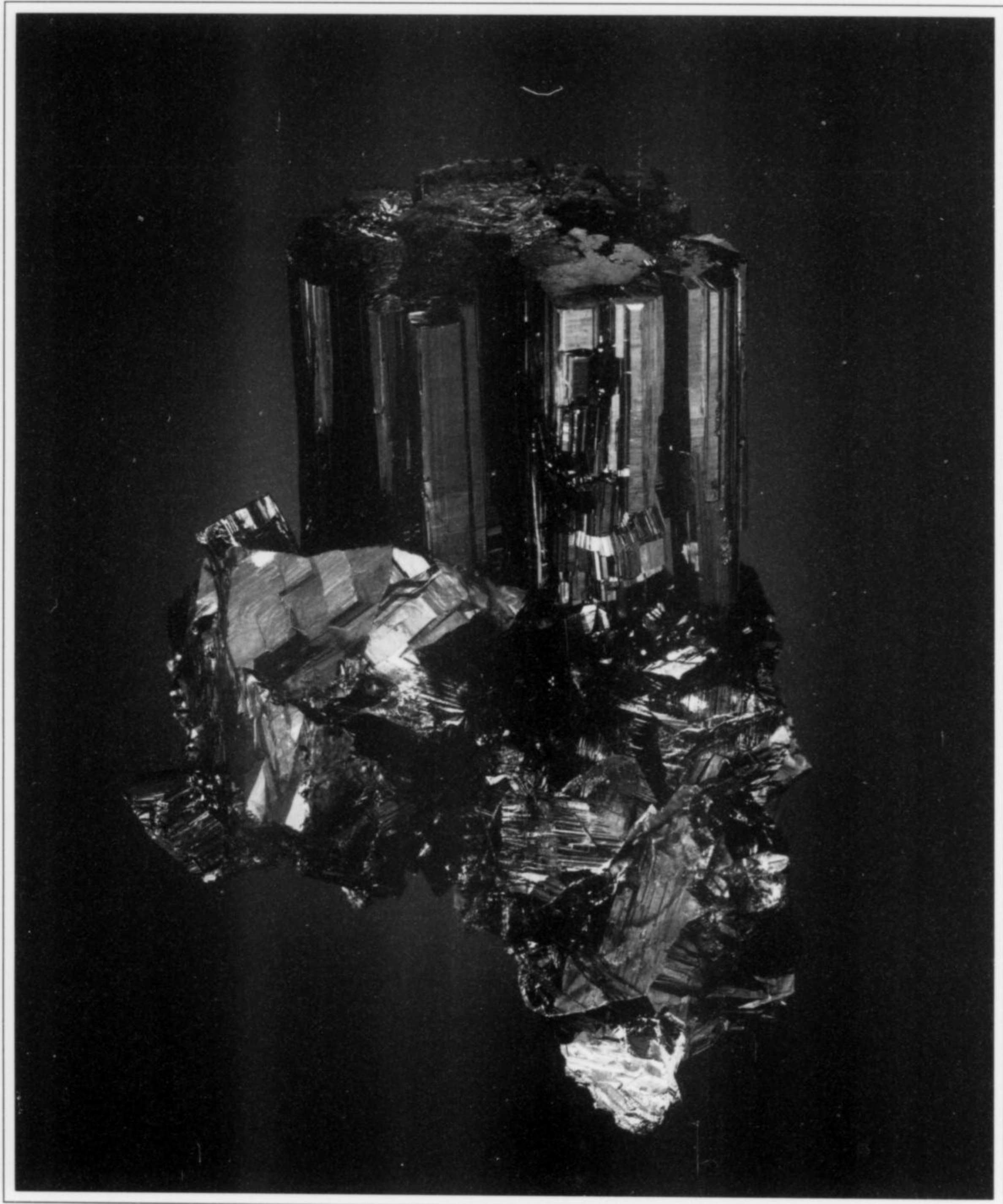
---

## PLATINUM

---

crystal group from Konder, Khabarovsk Kray, Russia; 0.44 inches.





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## BOURNONITE

---

on chalcopyrite from Qiang Gi Dong,  
China; 1.5 inches.



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## PYRRHOTITE

---

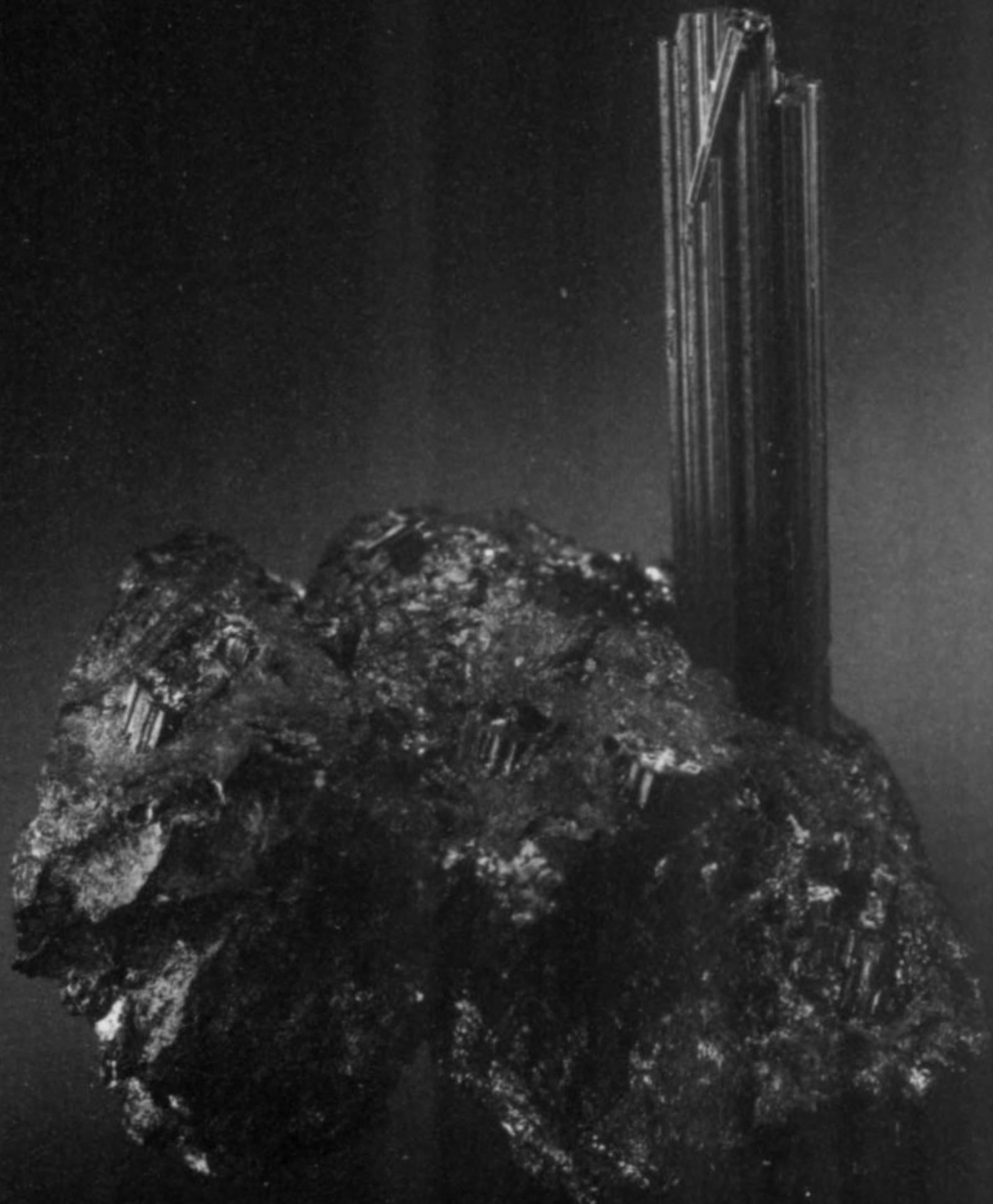
crystals on a spinel-law galena twin, from Dalnegorsk, Russia; 3 inches.

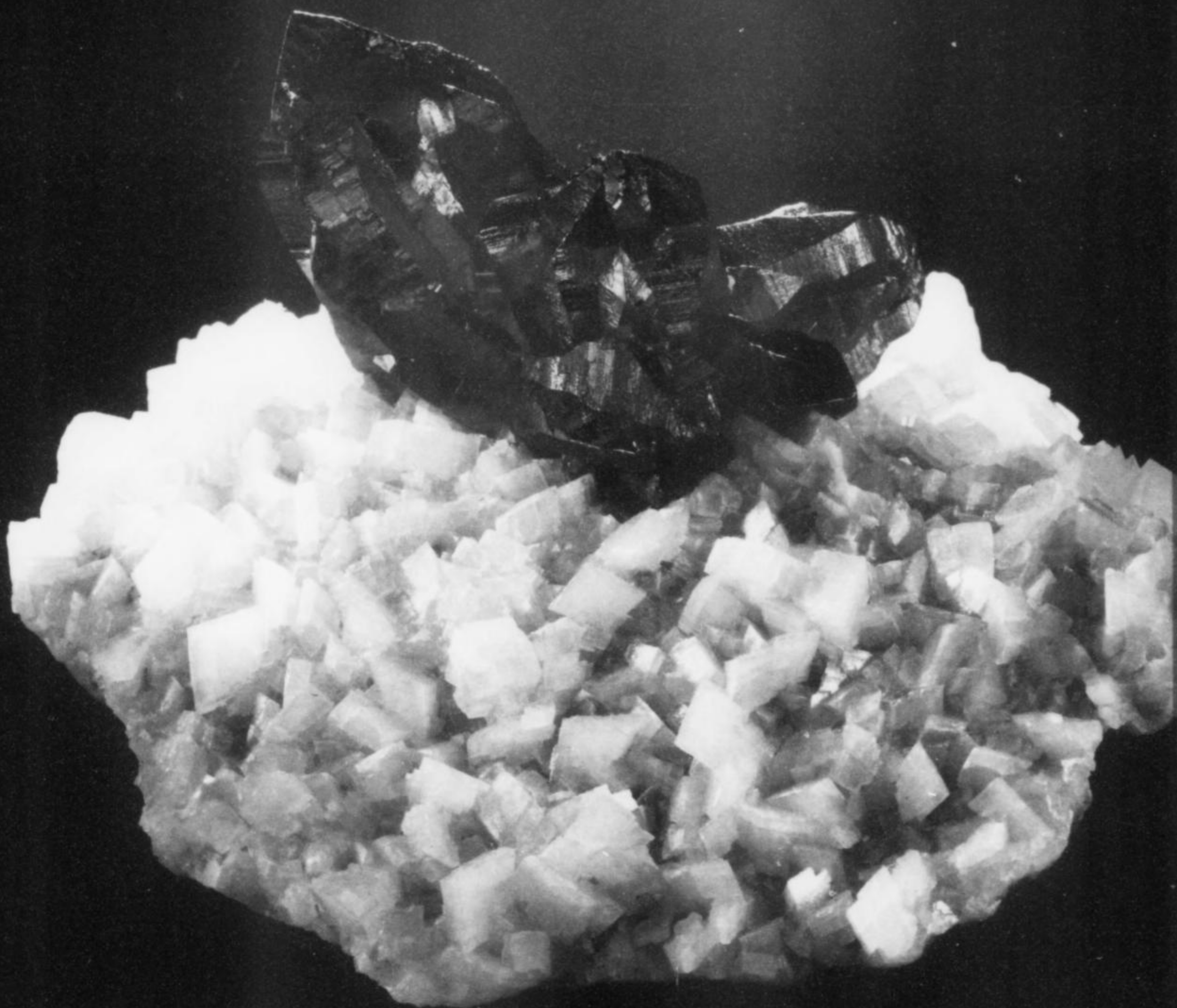
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## BETEKHTINITE

---

crystal on bornite, from Dzhezkazgan, Kazakhstan; 1.5 inches.



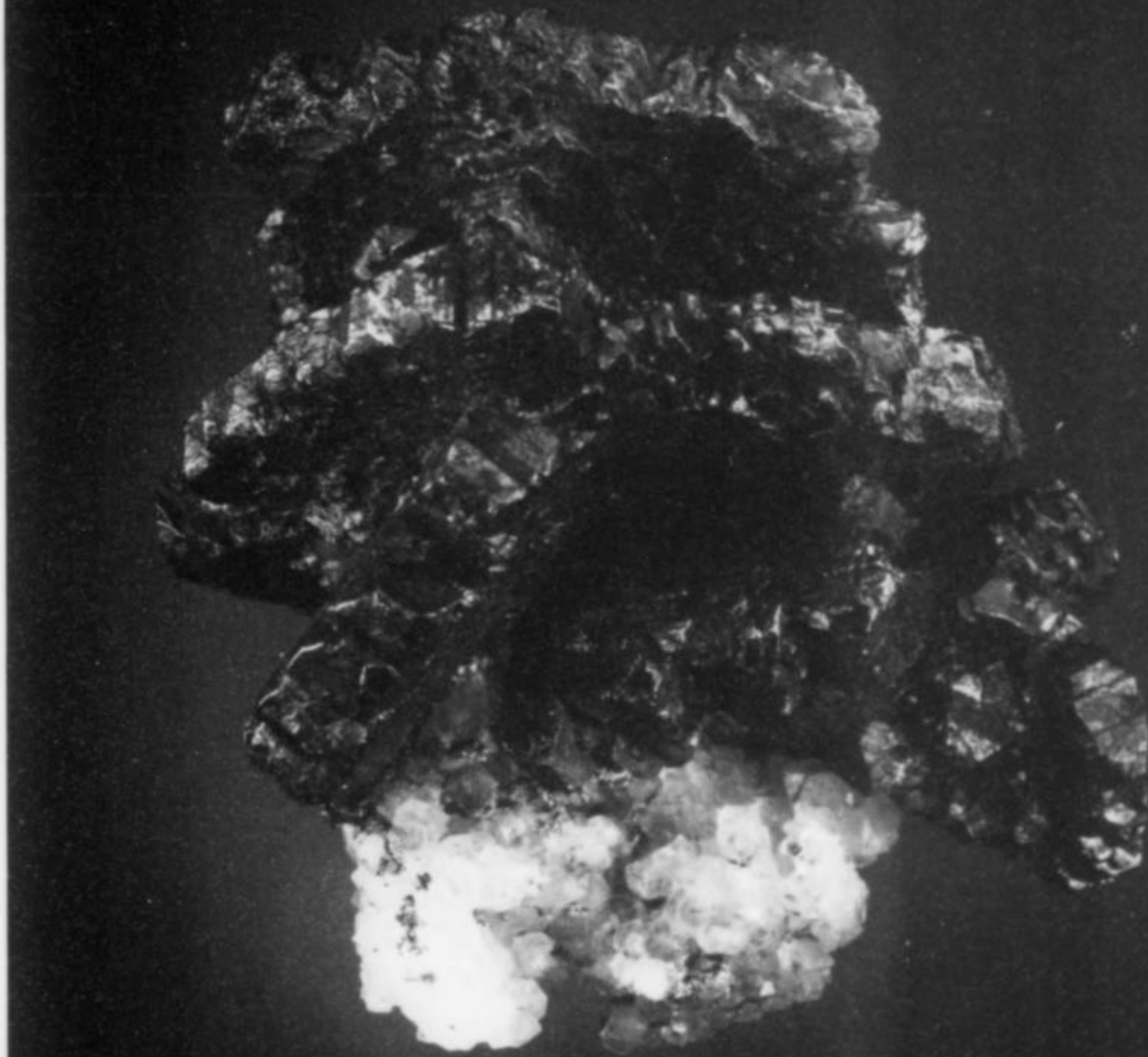


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## CINNABAR

---

twins on dolomite crystals, from Hunan,  
China; 2.63 inches.



---

## BOURNONITE

---

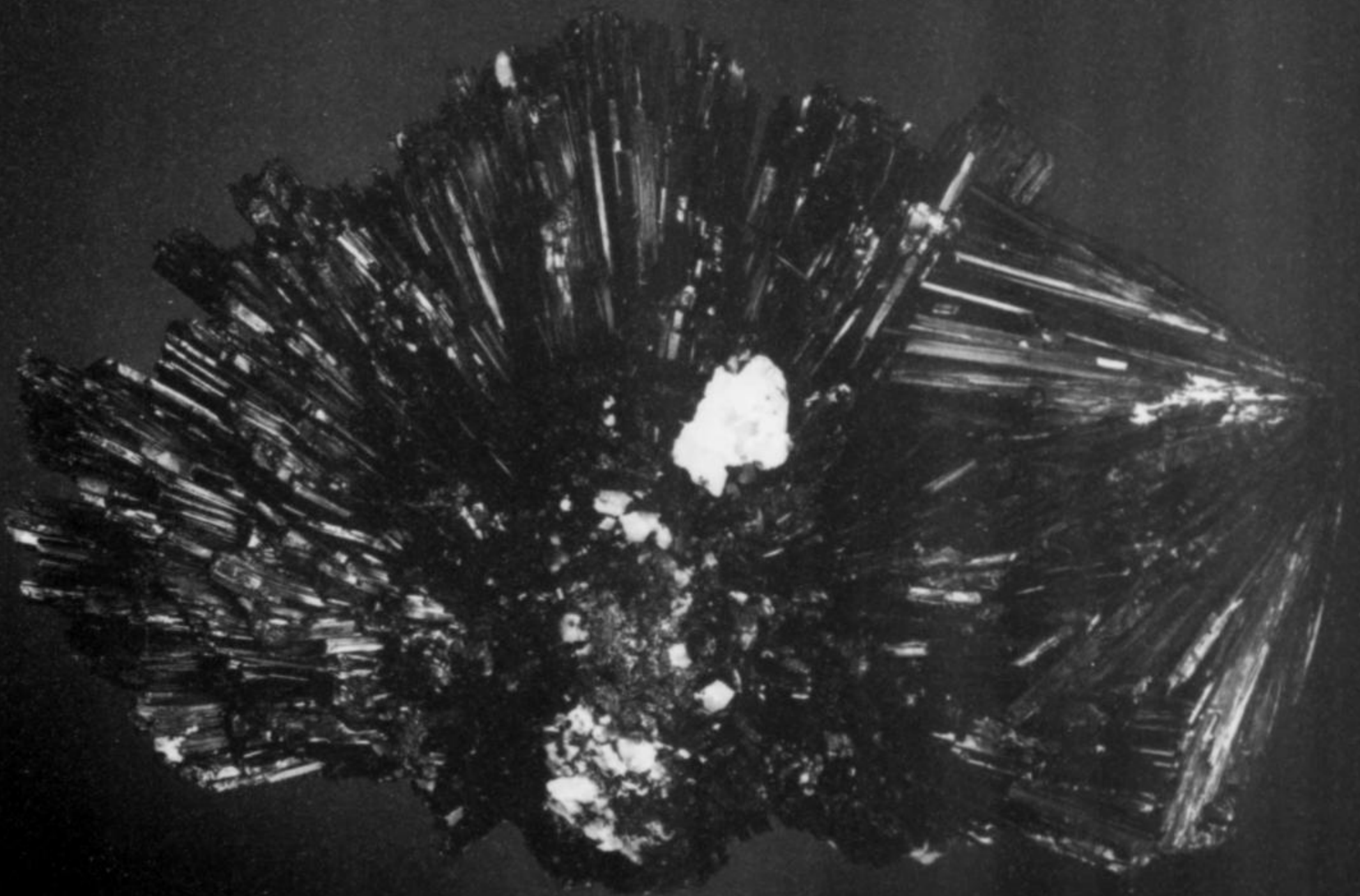
crystals on quartz from the Herodsfoot mine, Cornwall, England; 2.25 inches.

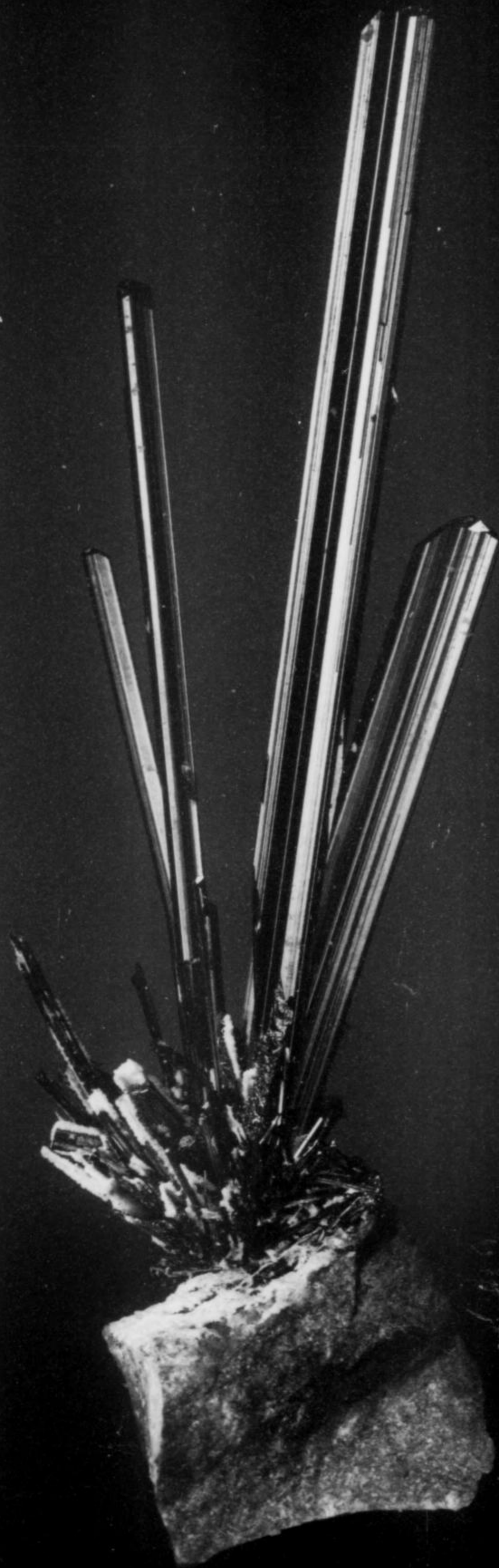
---

## KERMESITE

---

crystal cluster from the Globe and Phoenix mine near Que Que, Zimbabwe; 4.5 inches.





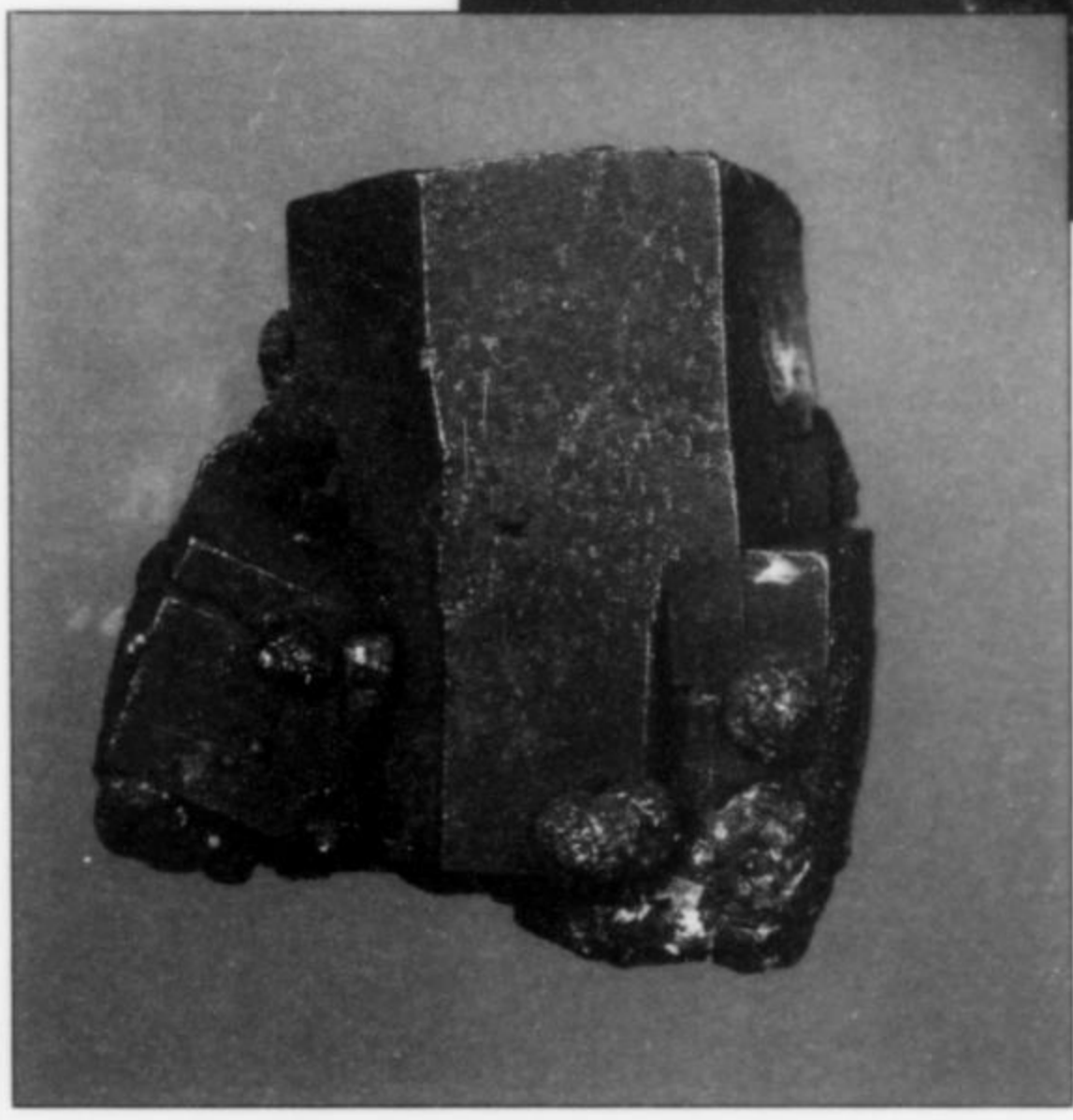
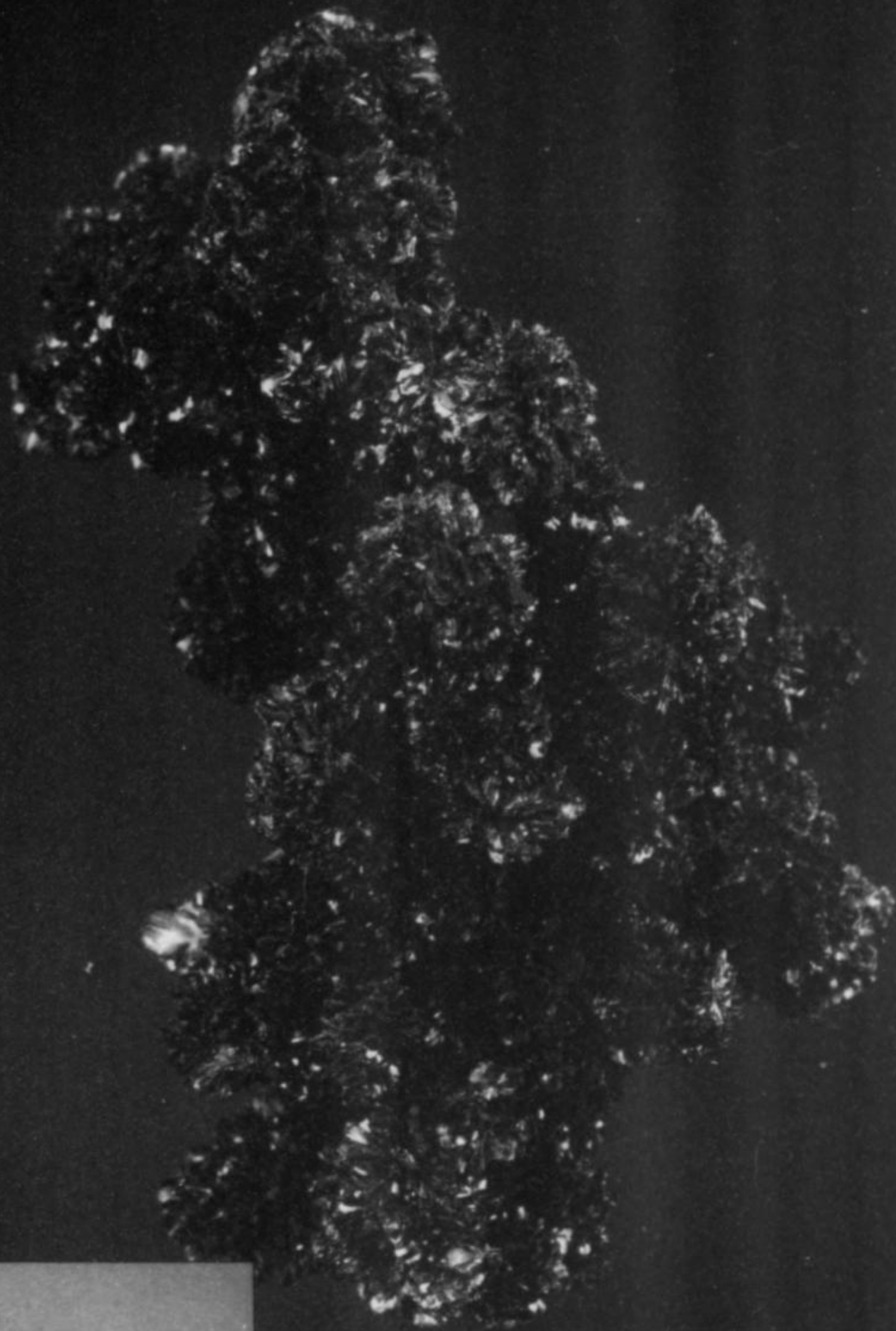


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## STIBNITE

---

*(left)* crystals on matrix, from the Xikuangshan antimony mine, Lengshuijiang, Hunan, China; 8 inches.



---

## FRANKEITE

---

crystal clusters from the San José mine, Oruro, Bolivia; 4 inches.

---

## GALENA

---

pseudomorph after pyromorphite, from the Kautenbach mine, Bernkastel-Kues, Rheinland-Pfalz, Germany; 1.5 inches.

---

## SPERRYLITE

---

crystals in pyrrhotite, from the Talnakh deposit, Norilsk, Russia; 2.25 inches.



---

## SPERRYLITE

---

crystals in sulfide ore, from the Talnakh deposit, Norilsk, Russia; 2.25 inches.

---

## FLUORITE

---

*(facing page, top)* crystals from Dalnegorsk, Russia; 4 inches.

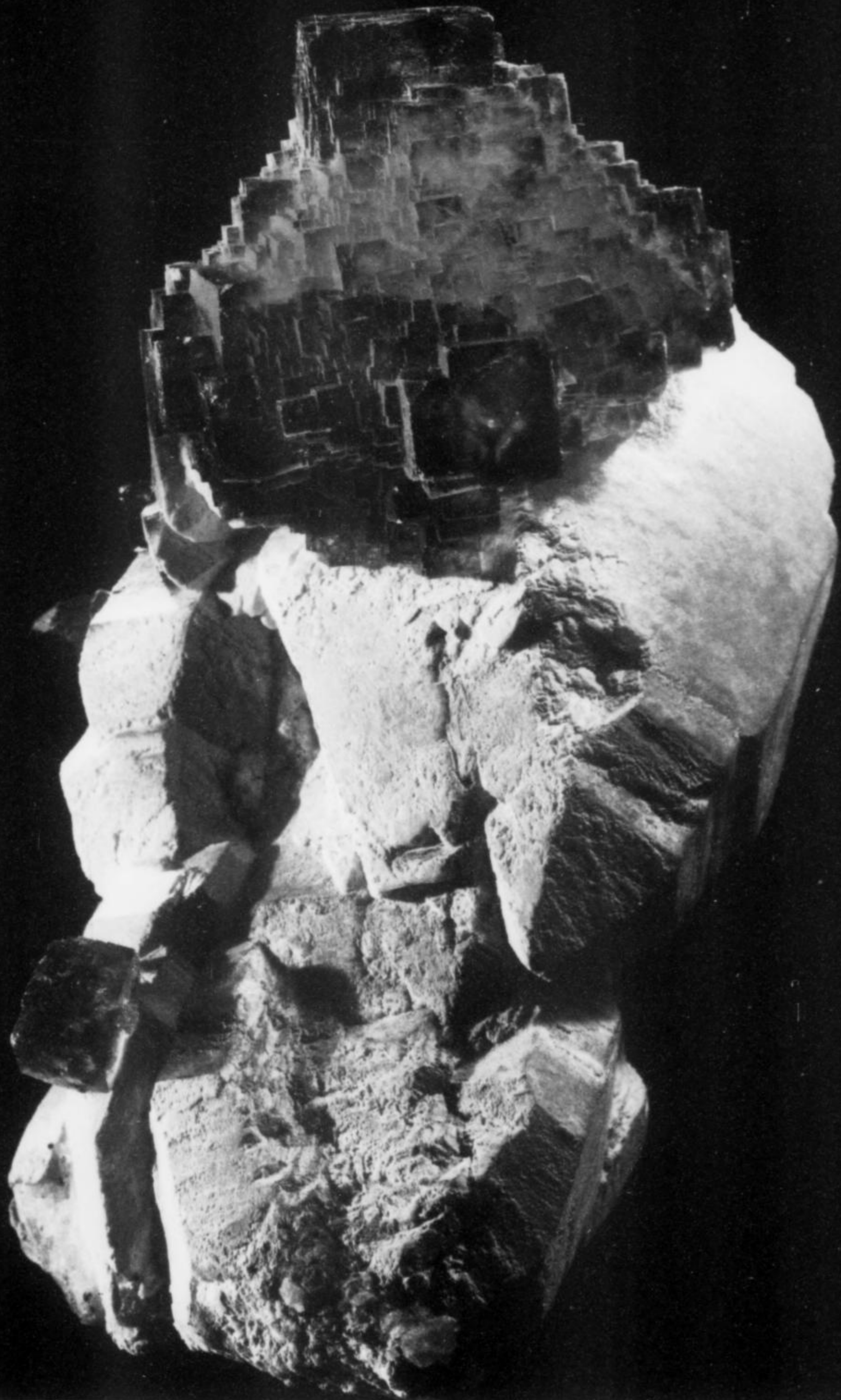
---

## FLUORITE

---

*(facing page, bottom)* crystals from Dalnegorsk, Russia; 6 inches.



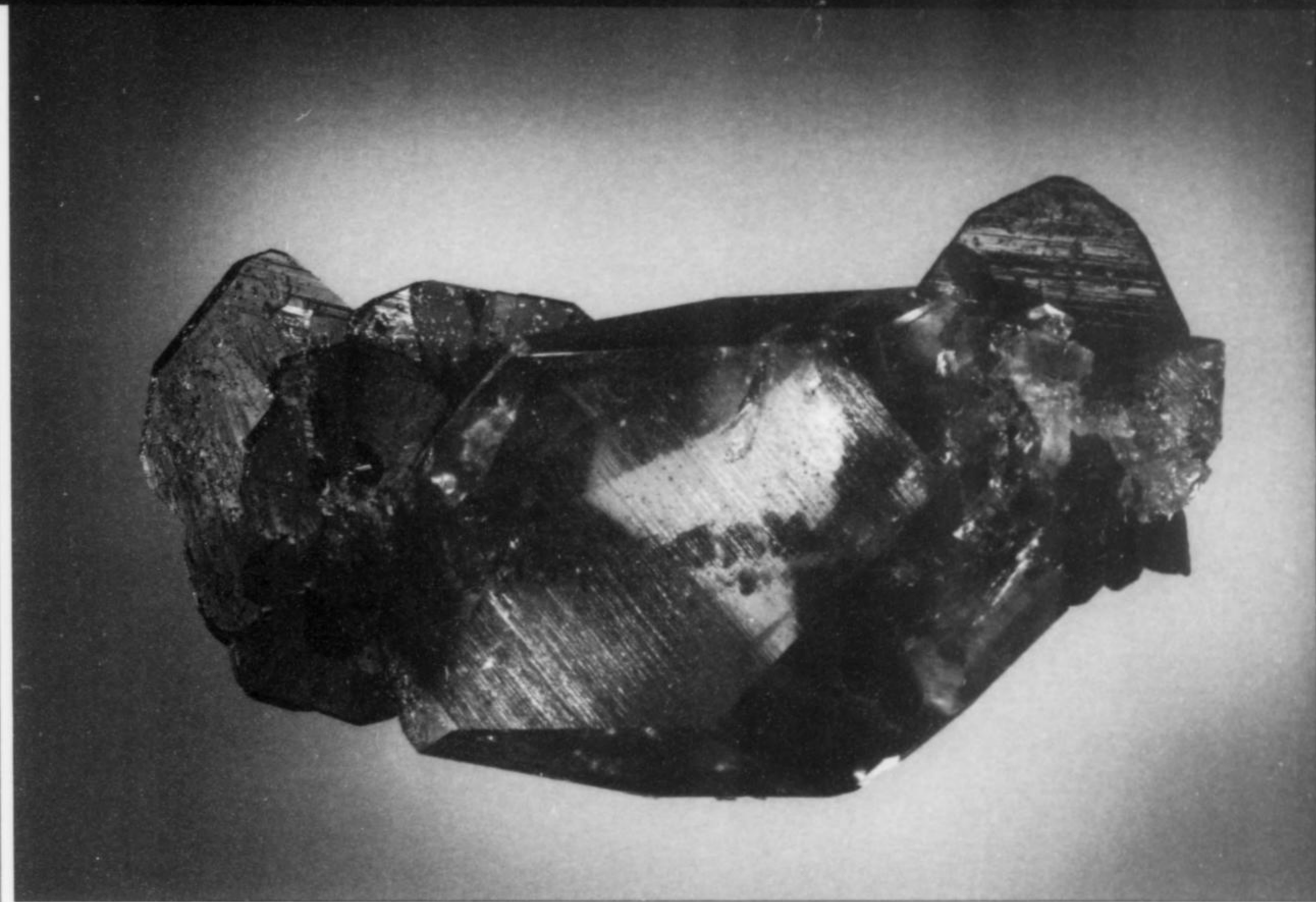


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## FLUORITE

---

crystal on milky quartz from Dalnegorsk, Russia; 5.5 inches.



---

## HEMATITE

---

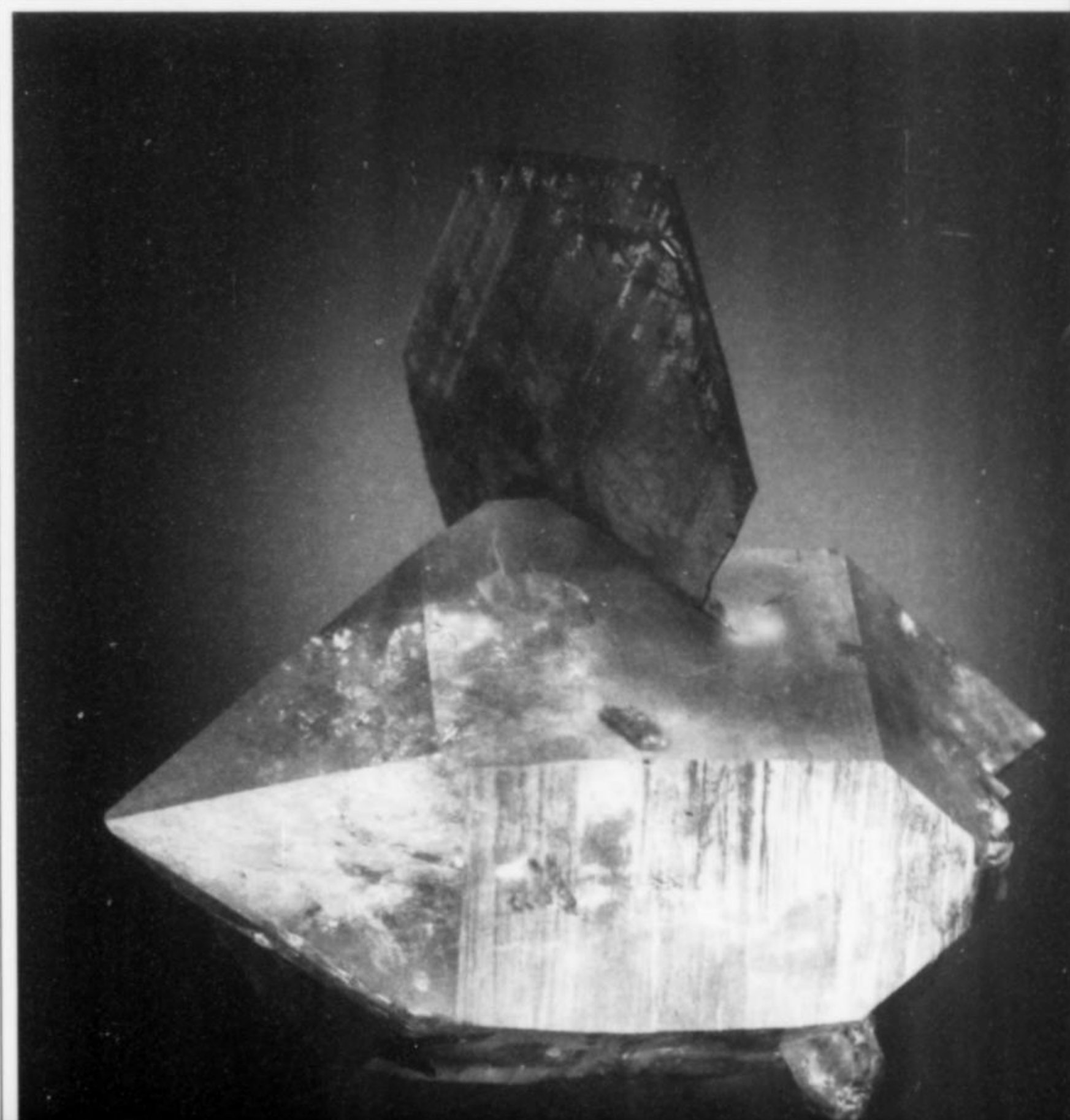
crystals on smoky quartz, from Cavradi,  
Switzerland; 2.5 inches.

---

## BROOKITE

---

crystal on quartz, from the Dodo mine,  
Subpolar Urals, Russia; 1.87 inches.





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## CASSITERITE

---

crystals with aquamarine beryl and muscovite, from the Huya mine, Ping-wu County, Sichuan, China; 7 inches.



---

## CUPRITE

---

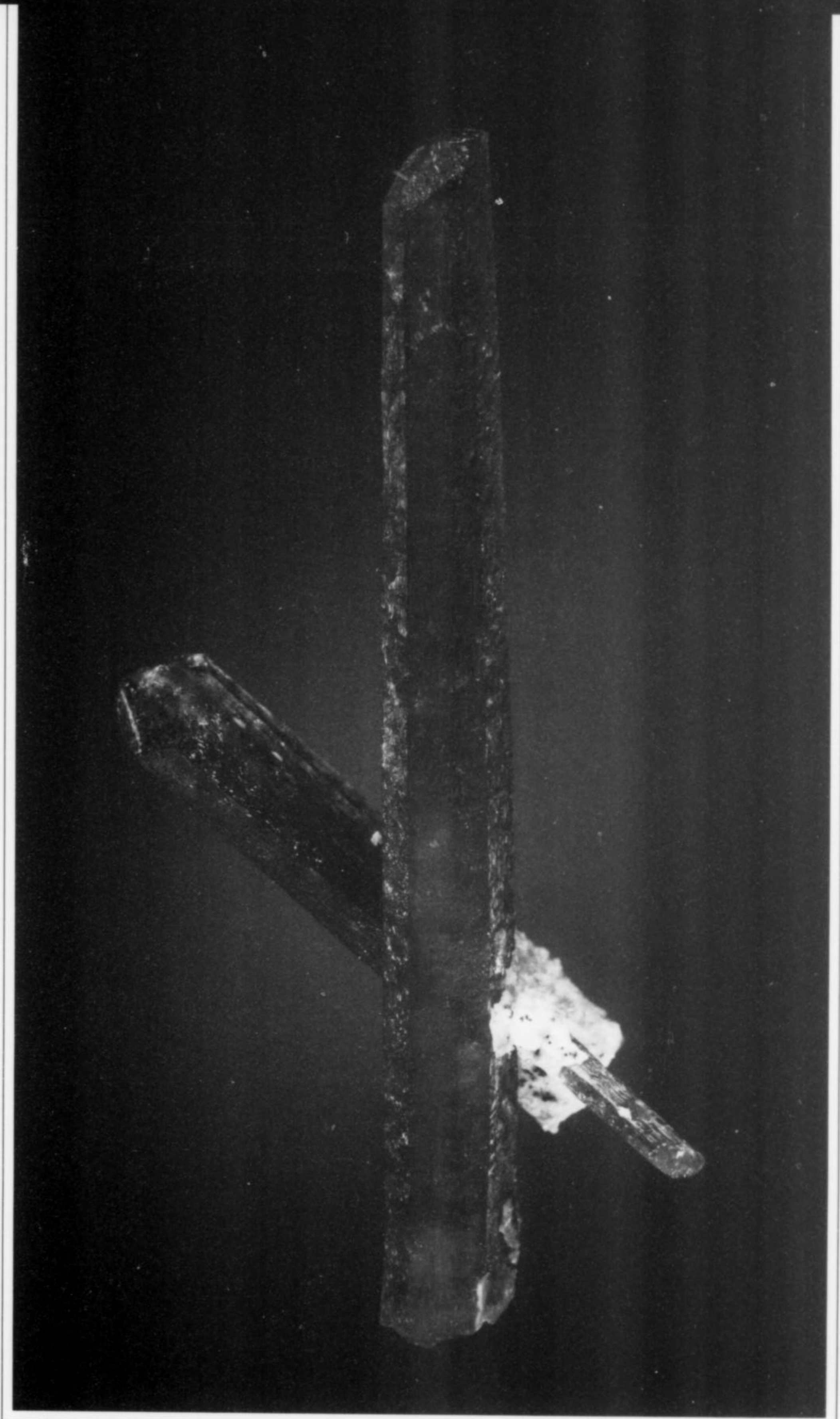
crystals with non-pseudomorphous malachite crystals from the Mashamba-West mine, Katanga, Congo; 1.25 inches.

---

## JEREMEJEVITE

---

*(facing page)* crystals from Mile 72, near Cape Cross, Namibia; 1.87 inches.

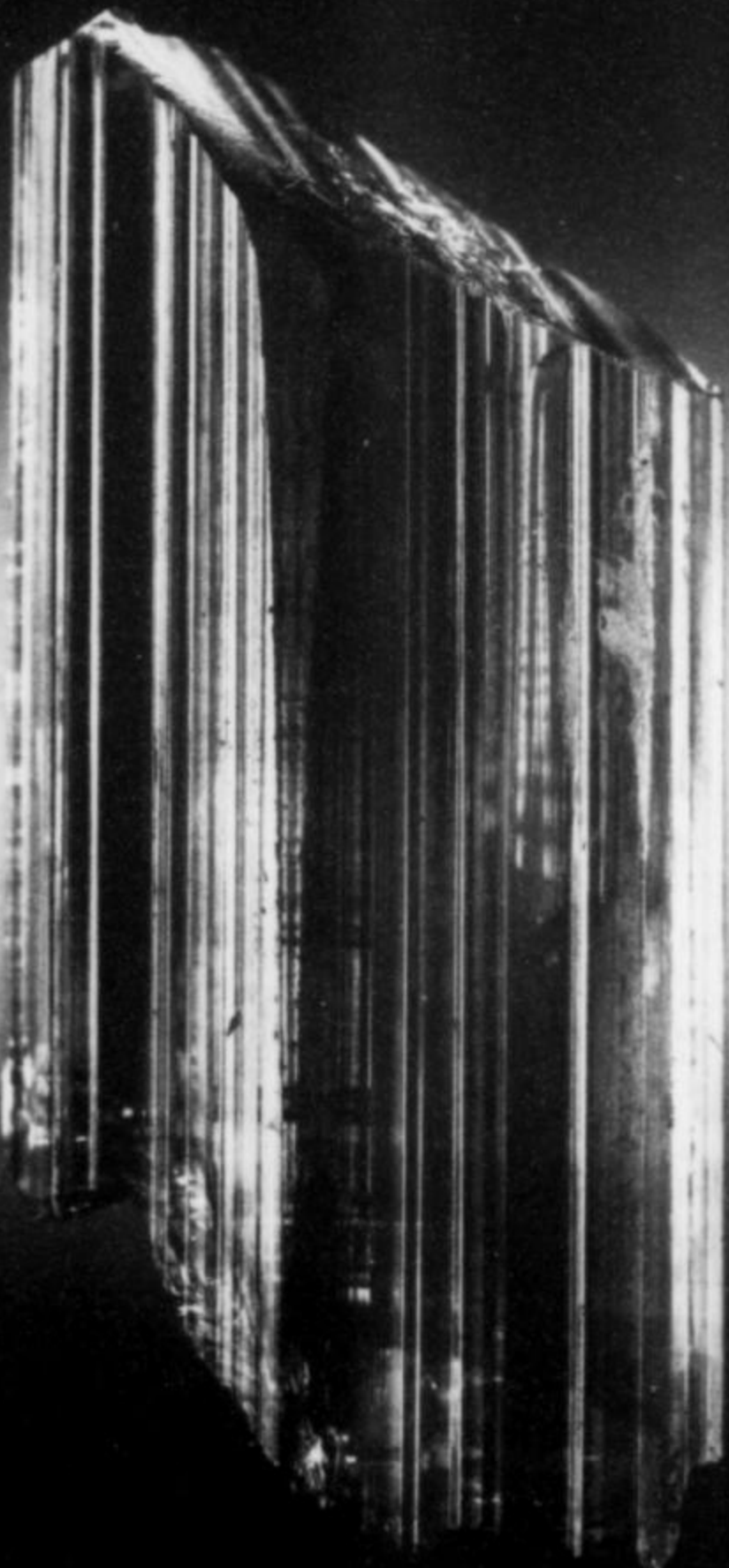
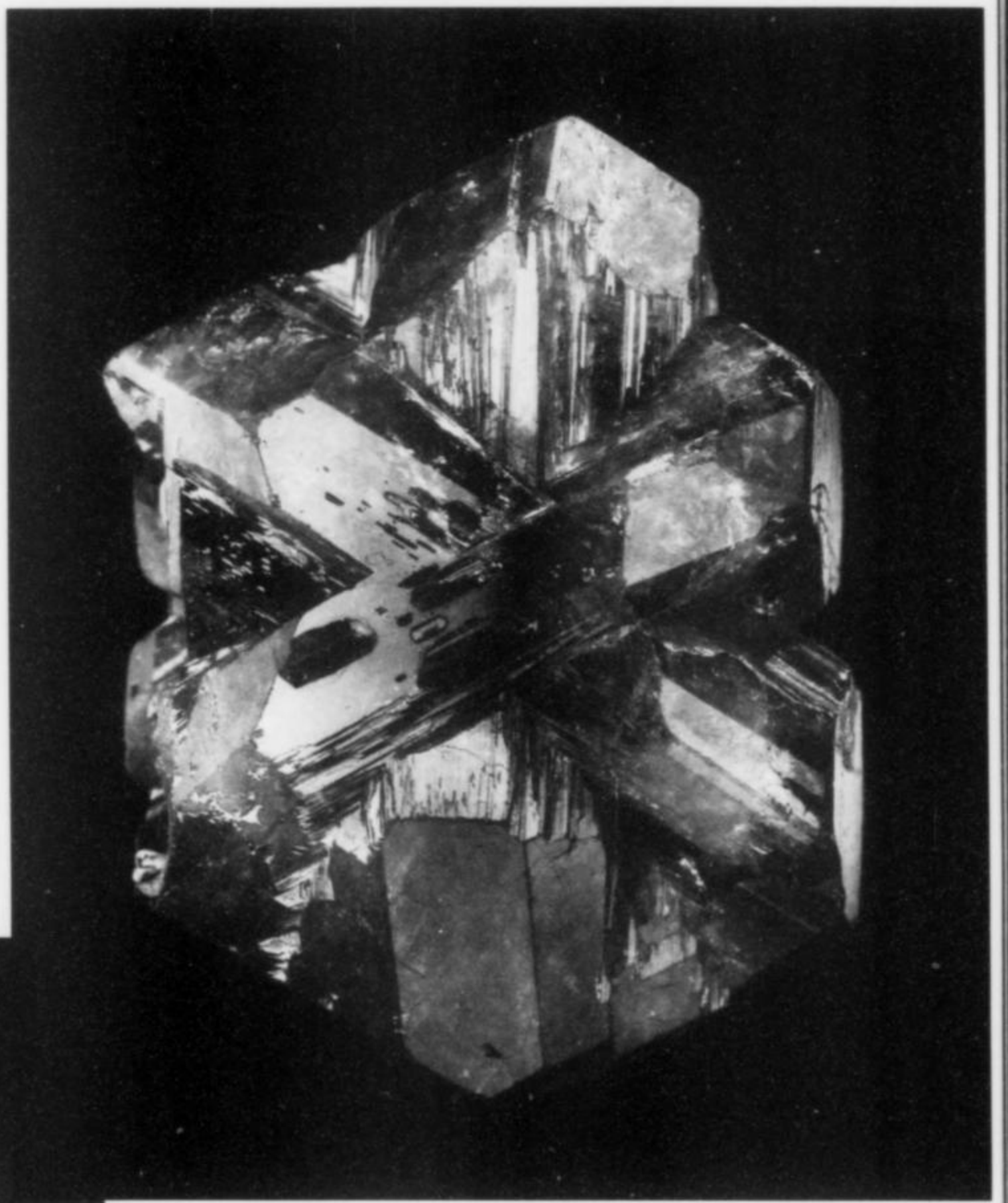


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## CHRYSOBERYL

---

sixling twin from Itaguaçu, Espírito Santo, Brazil; 1.63 inches.



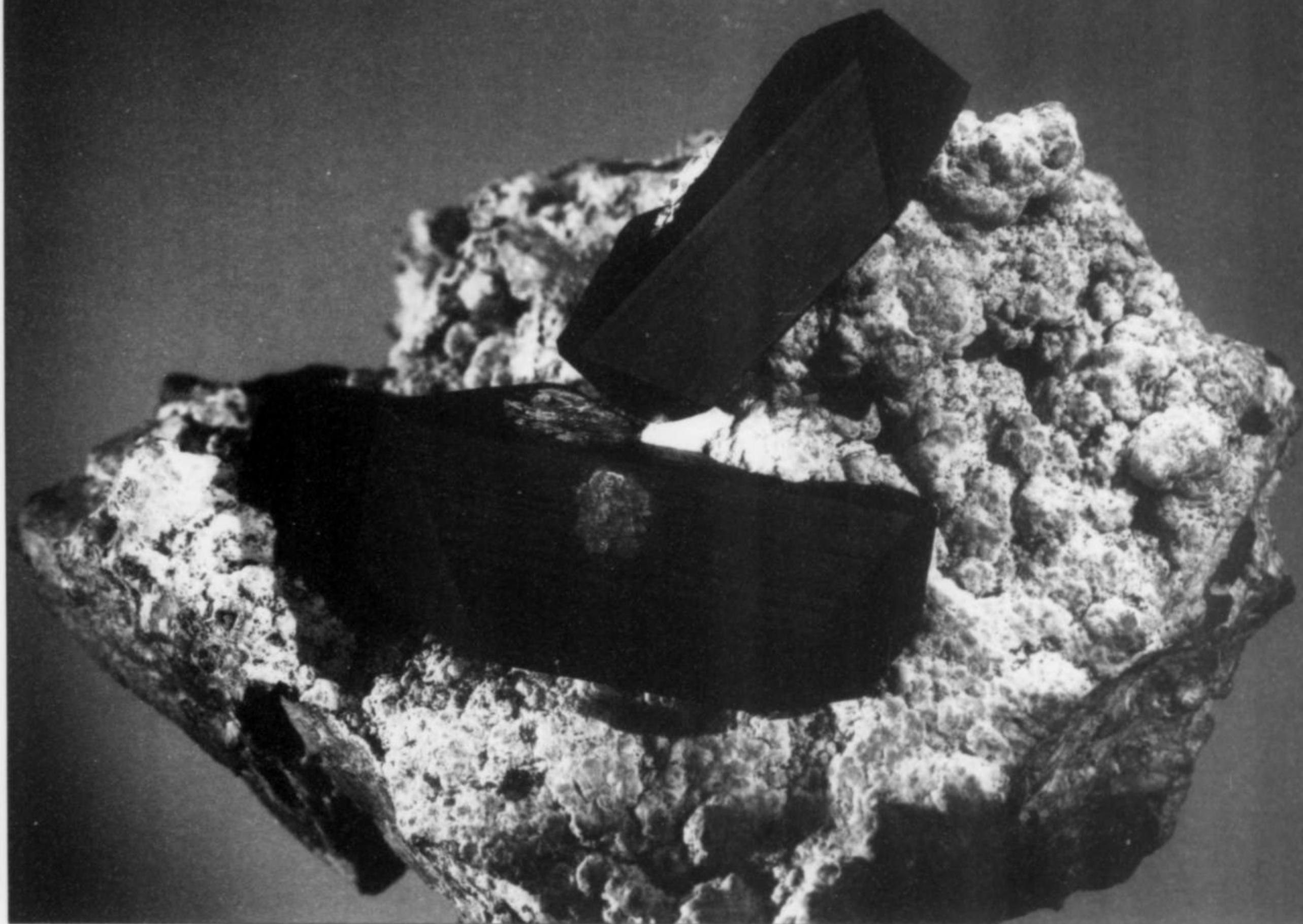
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## DIASPORE

---

crystal from Selcuk, Mugla-Aydin region, Turkey; 1.25 inch.





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## AZURITE

---

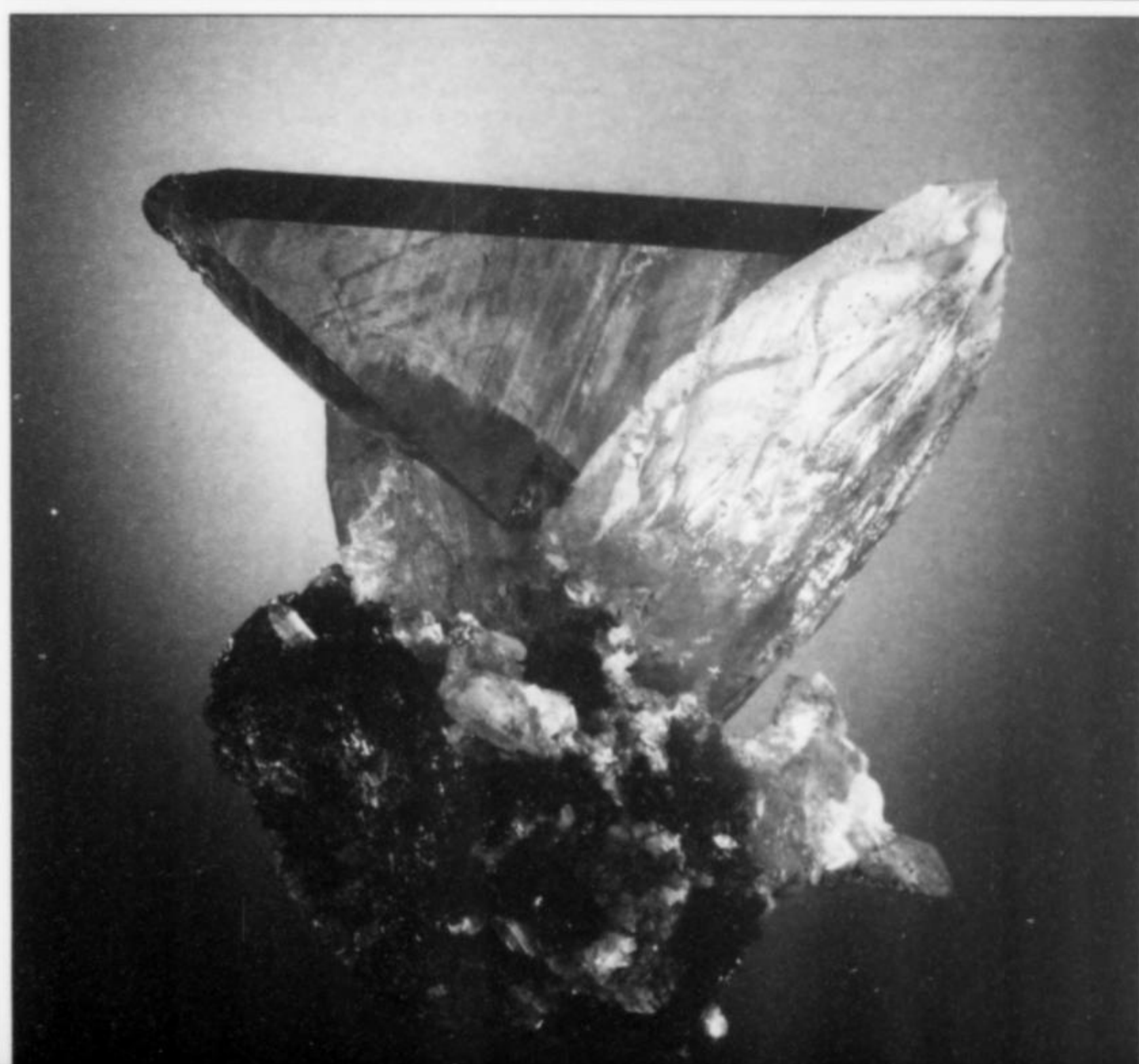
crystals on matrix, from the Tsumeb mine, Namibia; 4.5 inches.

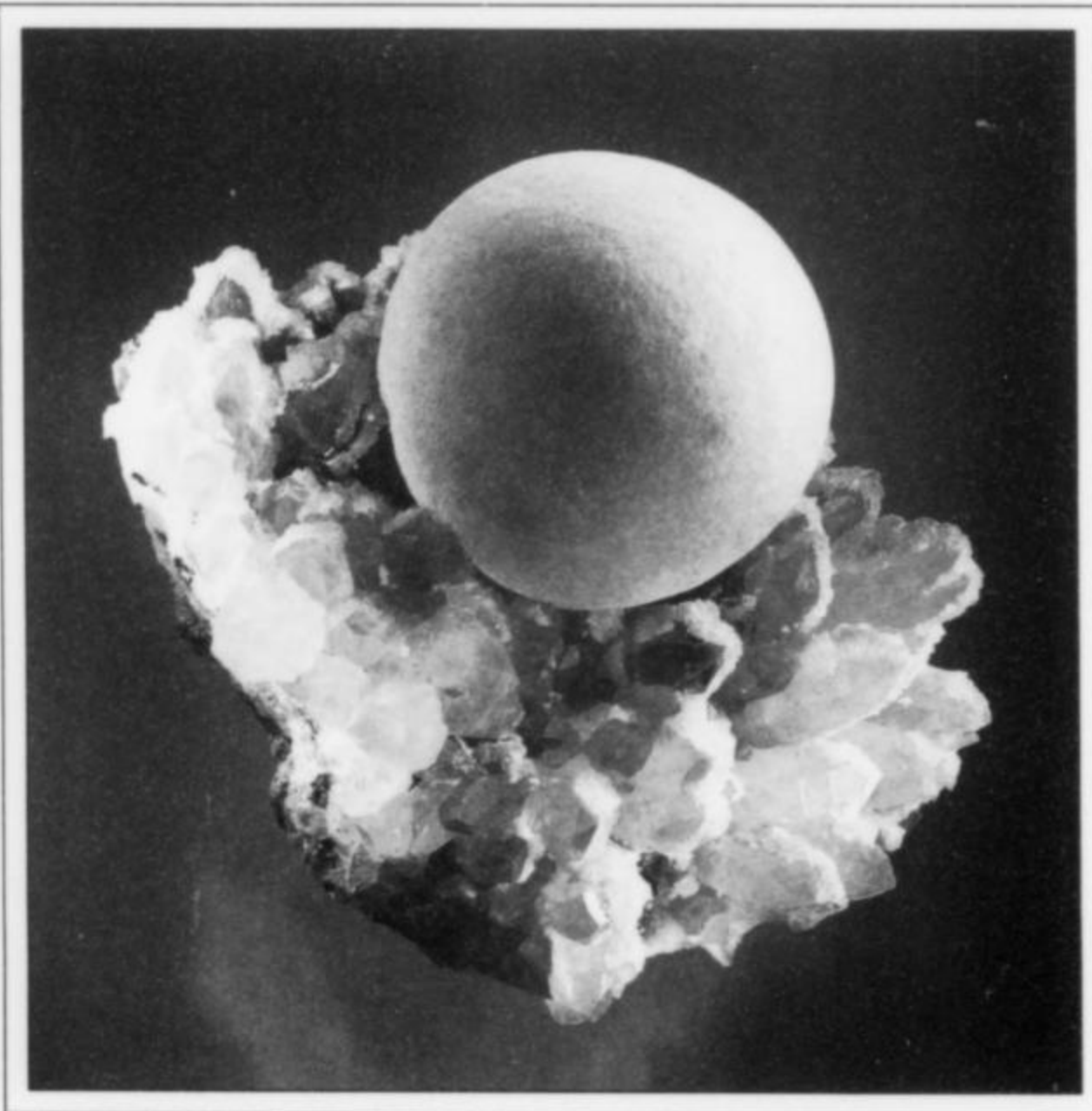
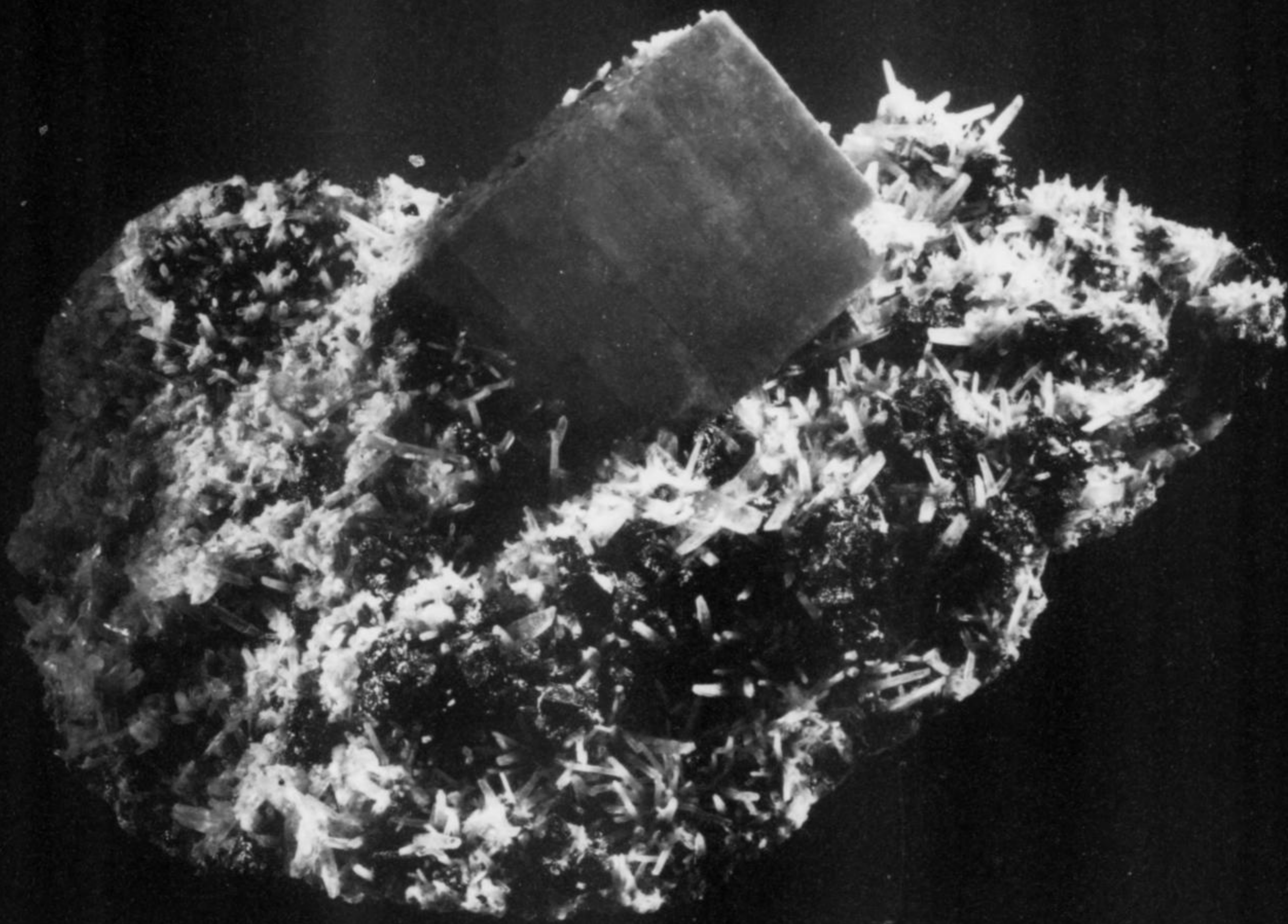
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## CERUSSITE

---

crystal with anglesite crystal on matrix, from the Touissit mine, Morocco; 1.75 inches.





---

## RHODOCHROSITE

---

crystal on quartz and sphalerite, from the Butterfly Pocket, Main Stope Extension, Sweet Home mine, near Alma, Colorado; 7 inches.

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## CALCITE

---

spheroid on milky quartz, from Dalnegorsk, Russia; 5 inches.

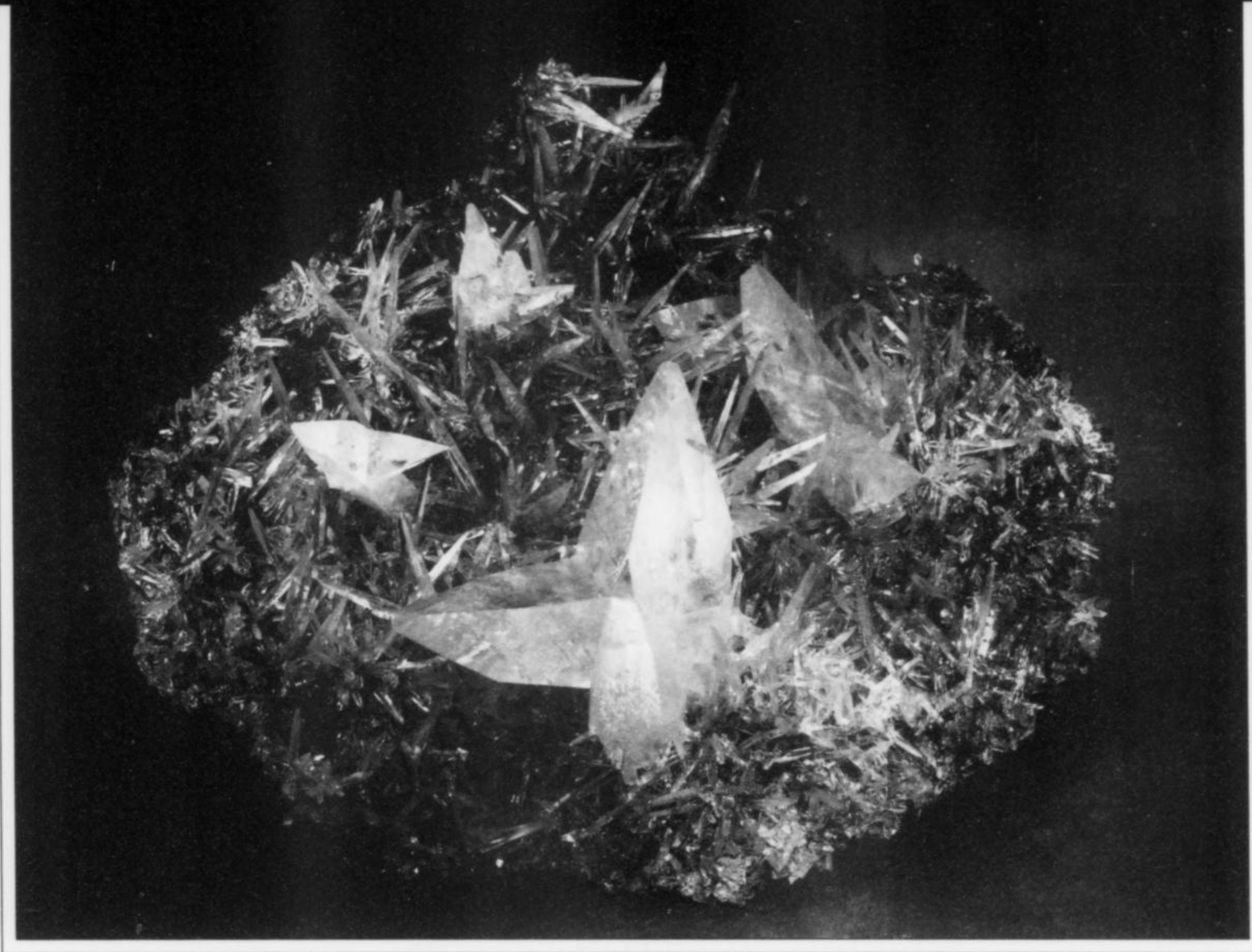
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## SIDERITE

---

*(facing page)* crystal coating on now-gone fluorite crystals, from the Virtuous Lady mine, Devon, England; 3.5 inches.





---

## CALCITE

---

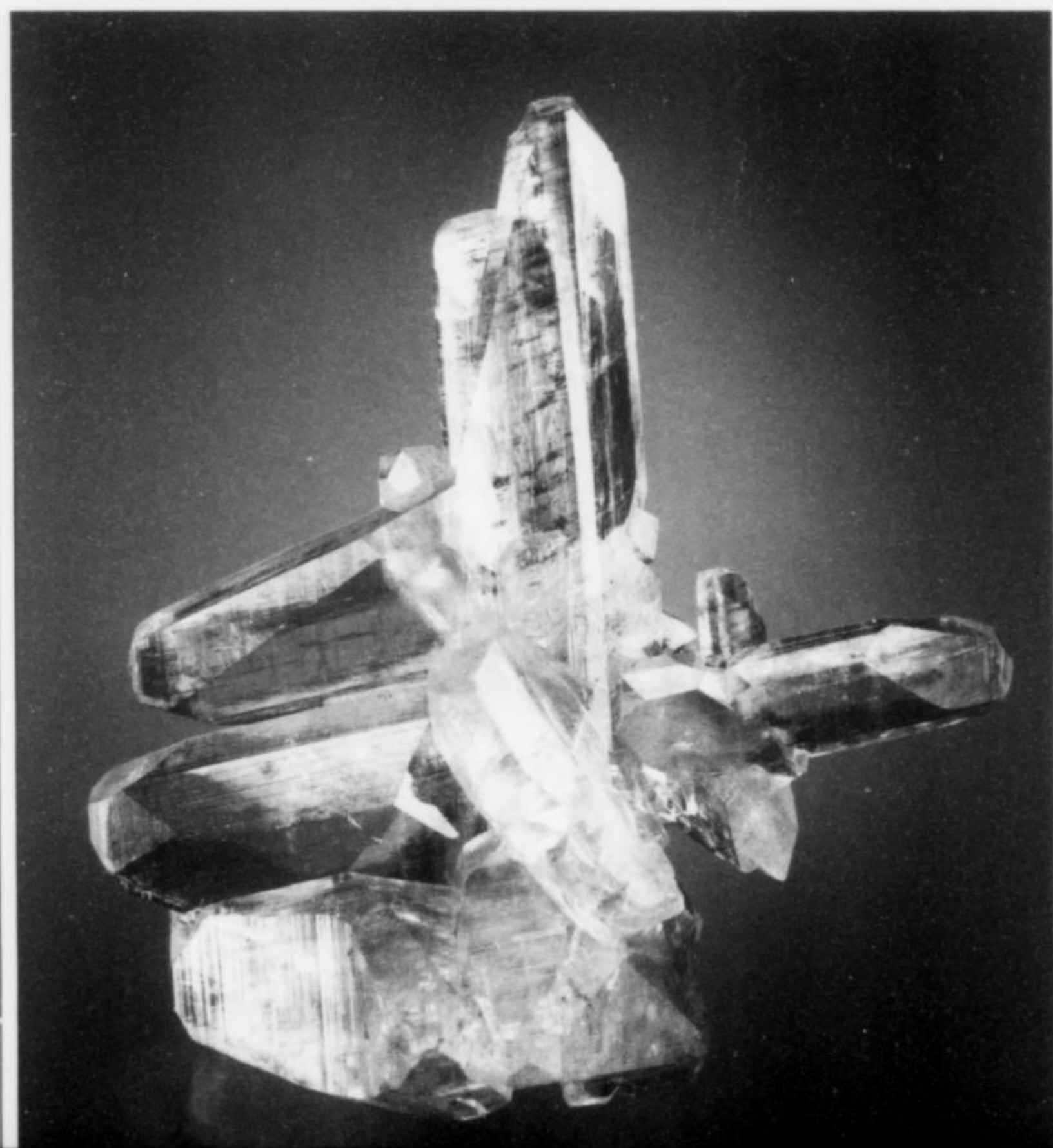
twins on matrix from Hunan, China; 10 inches.

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## CALCITE

---

crystal group from Santa Eulalia, Chihuahua, Mexico; 3.12 inches.





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## AME- THYST

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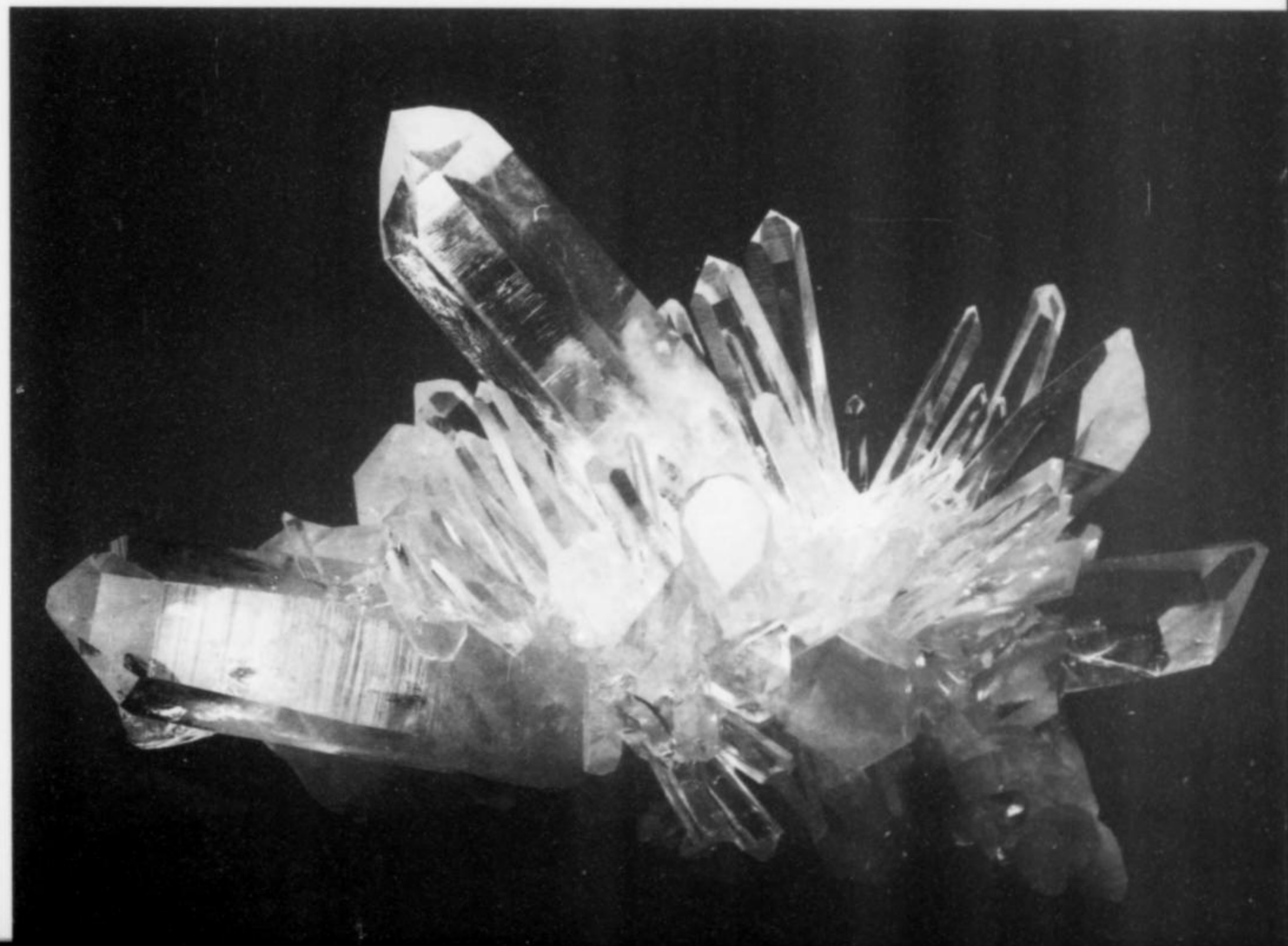
crystals on  
matrix, from  
Little Deer Hill,  
near Stow, Oxford  
County, Maine;  
8 inches.

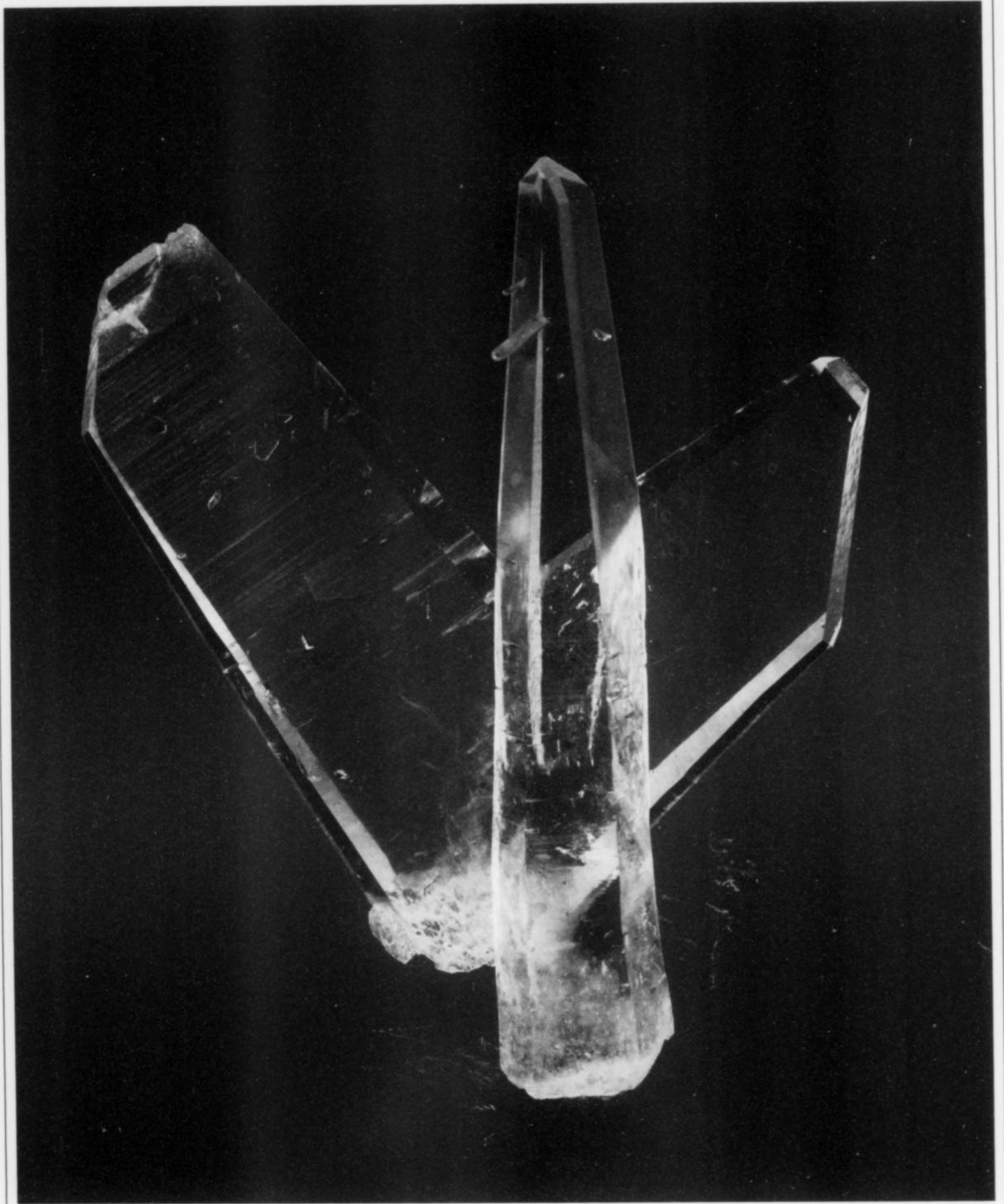
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## QUARTZ

---

crystal cluster  
from Hot Springs,  
Arkansas; 8.5  
inches.





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## QUARTZ

---

crystals, including a Japan-law twin, from the Brumado mine, Bahia, Brazil; 2.25 inches.

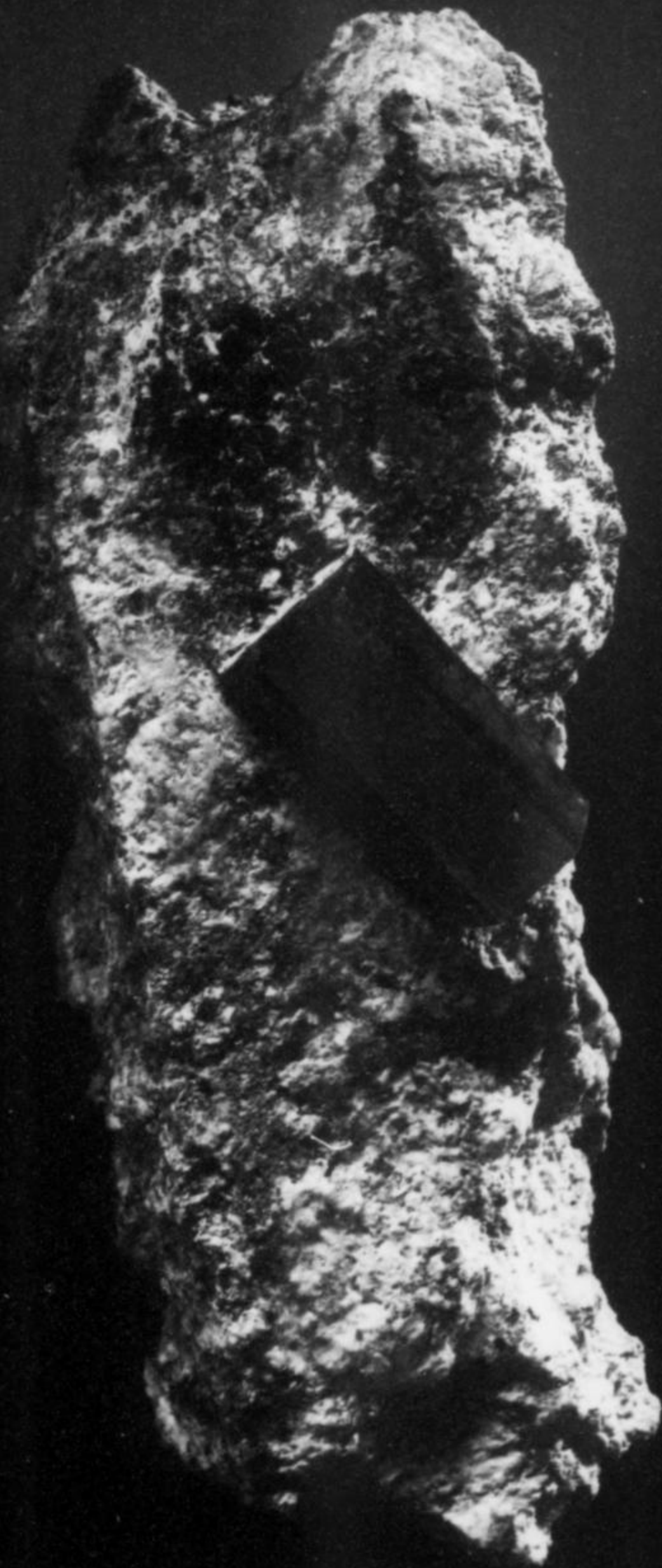


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AMAZONITE AND  
SMOKY QUARTZ

---

from Teller County, Colorado; 5.5 inches.



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## RED BERYL

---

crystal on matrix, from the Harris mine,  
Wah Wah Mountains, Beaver County,  
Utah; 4 inches.

---

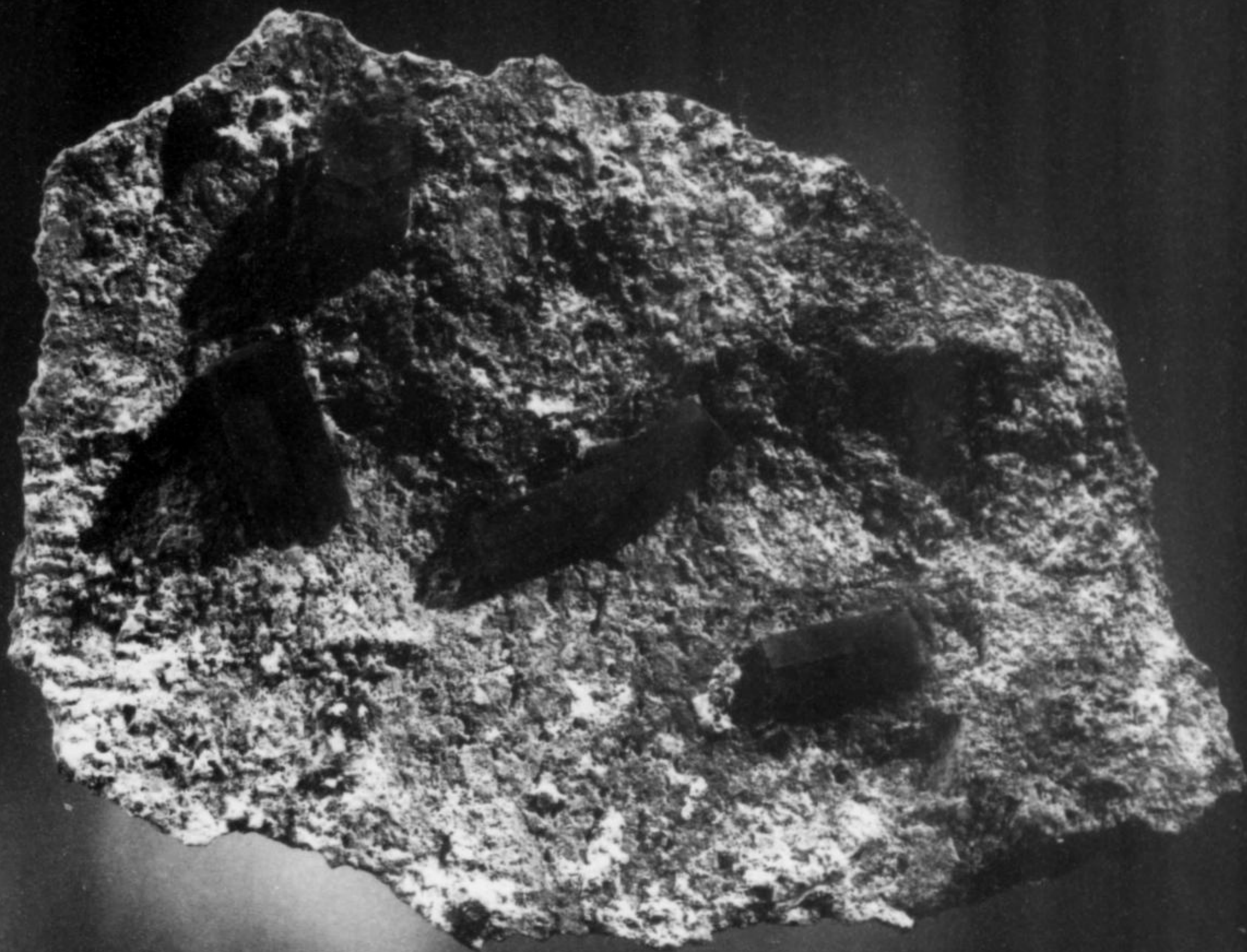
## AQUAMARINE

---

beryl crystal from the Shigar Valley near  
Skardu, Pakistan; 5 inches.







---

## RED BERYL

---

crystals on matrix, from the Harris mine, Wah Wah Mountains, Beaver County, Utah; 4 inches.

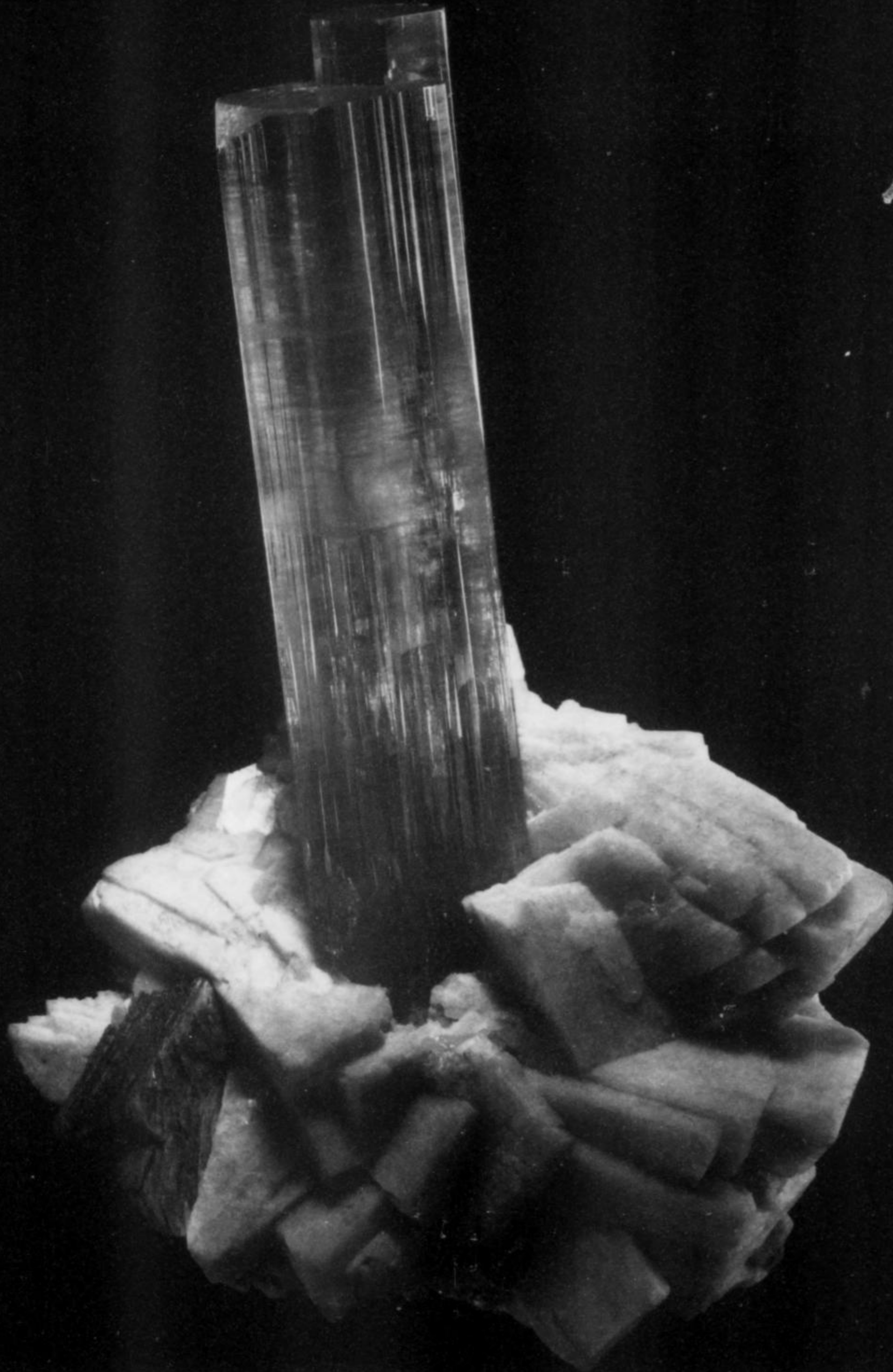
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## EMERALD

---

beryl crystal on calcite crystals, from the Coscuez mine, Boyacá, Colombia; 2.75 inches.





---

## AQUAMARINE

---

on albite crystals, from Shengus, near Skardu, Pakistan; 5.75 inches.



---

## HELIODOR

---

beryl (*left*) from Volodarsk Volynsk,  
Ukraine; 6.5 inches.

---

## AQUAMARINE

---

(*right*) from Tres Barras, Minas Gerais,  
Brazil; 5.75 inches.

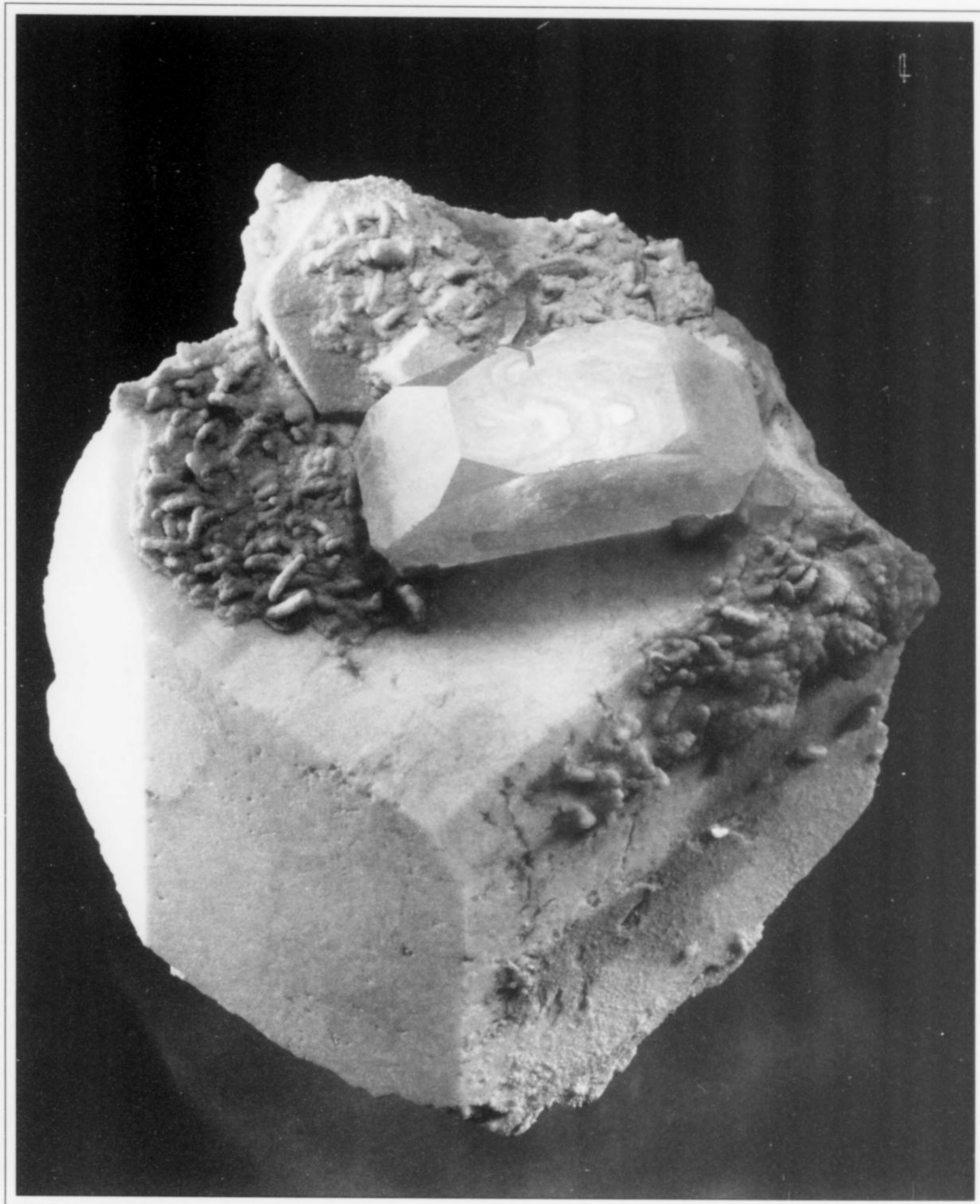


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## AQUAMARINE

---

beryl from Nagar, Pakistan; 5.25 inches.



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## MORGANITE

---

beryl on feldspar from Yunan Province,  
China; 6.5 inches.

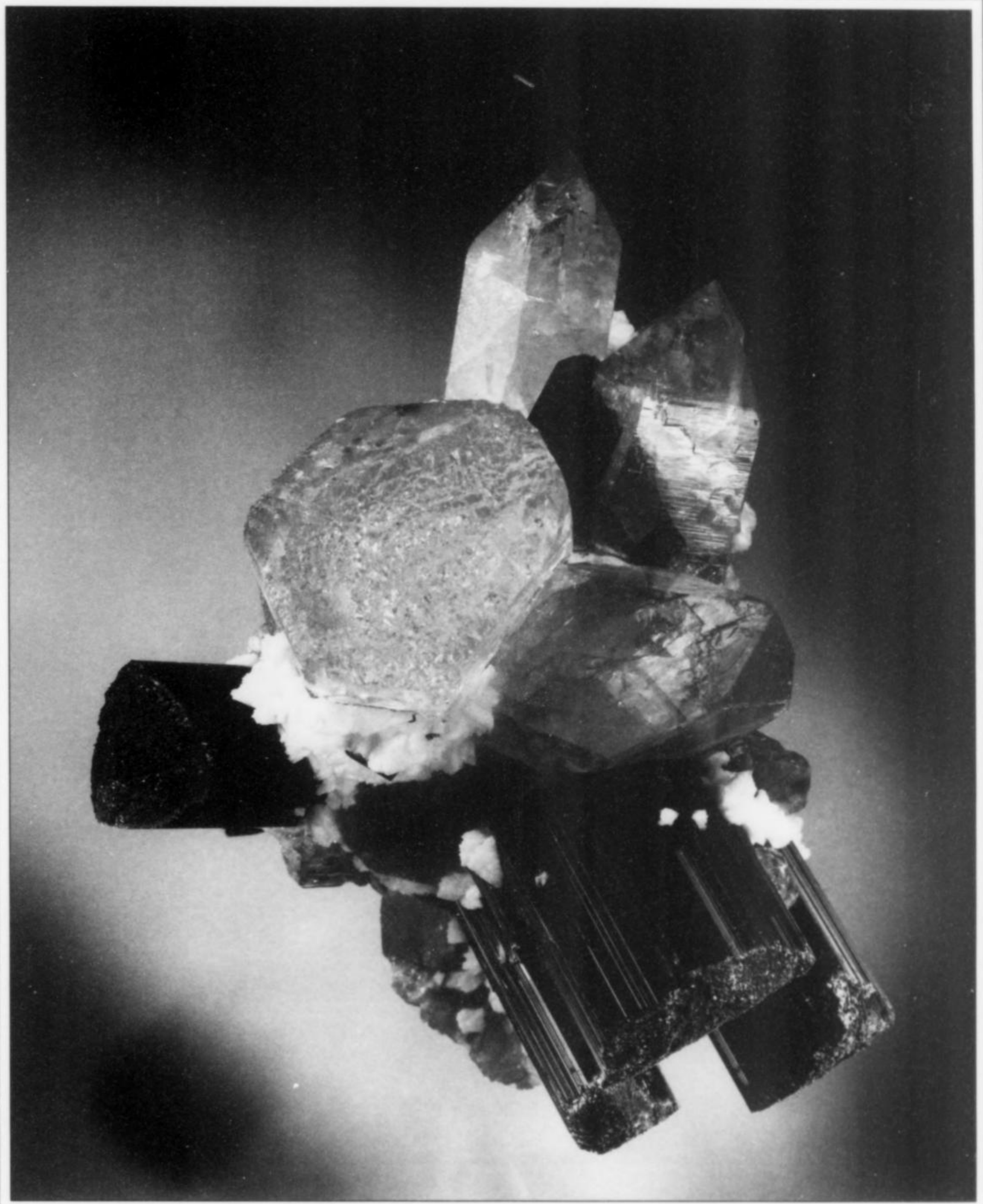


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## AQUAMARINE

---

beryl from Nagar, Pakistan; 8.25 inches.

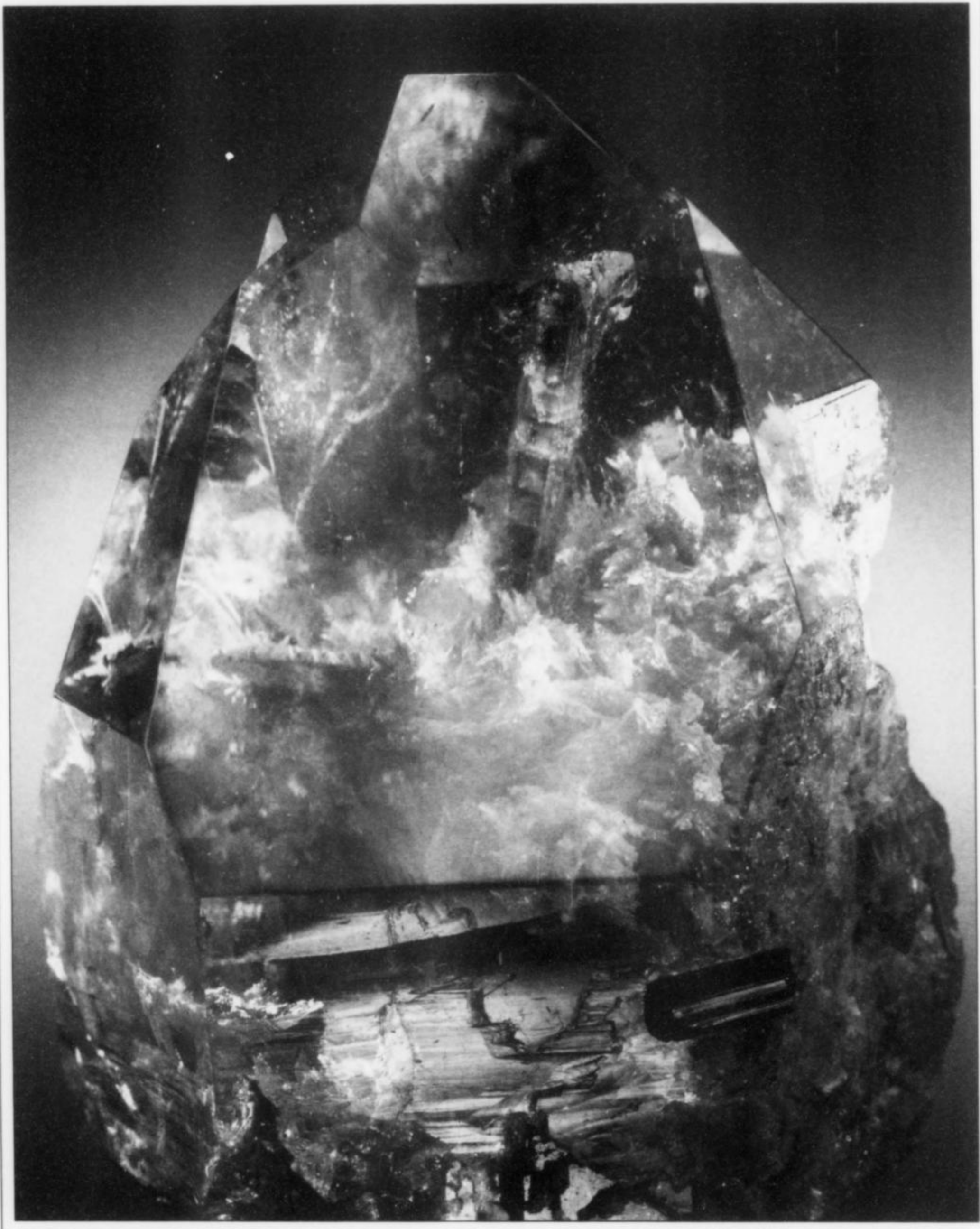


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## AQUAMARINE

---

beryl with quartz, albite and schorl, from  
Shengus, Pakistan; 6 inches.



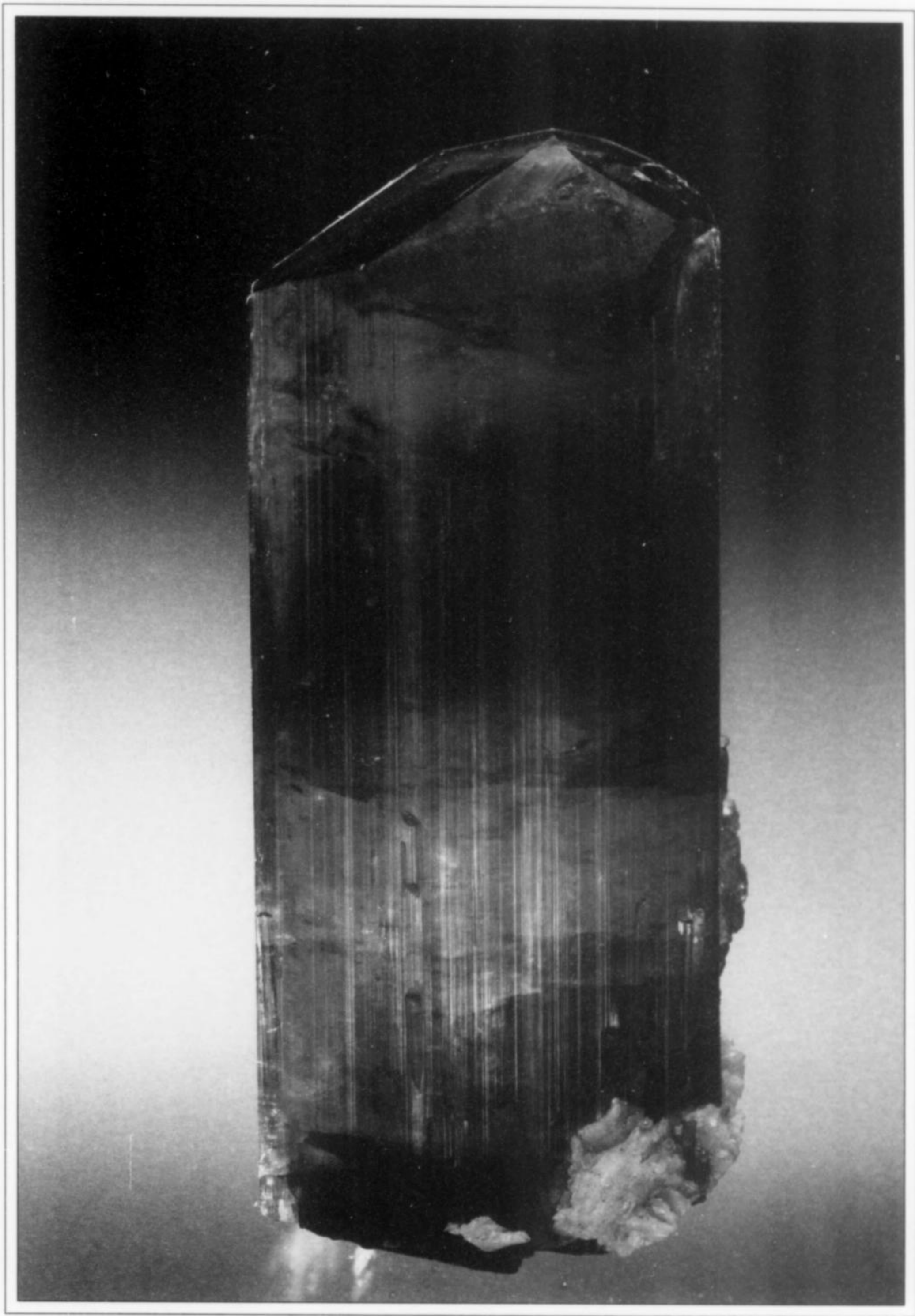
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## ELBAITE

---

crystal (0.5 inches) included deep within a polished quartz crystal, from Minas Gerais, Brazil; 2.12 inches.



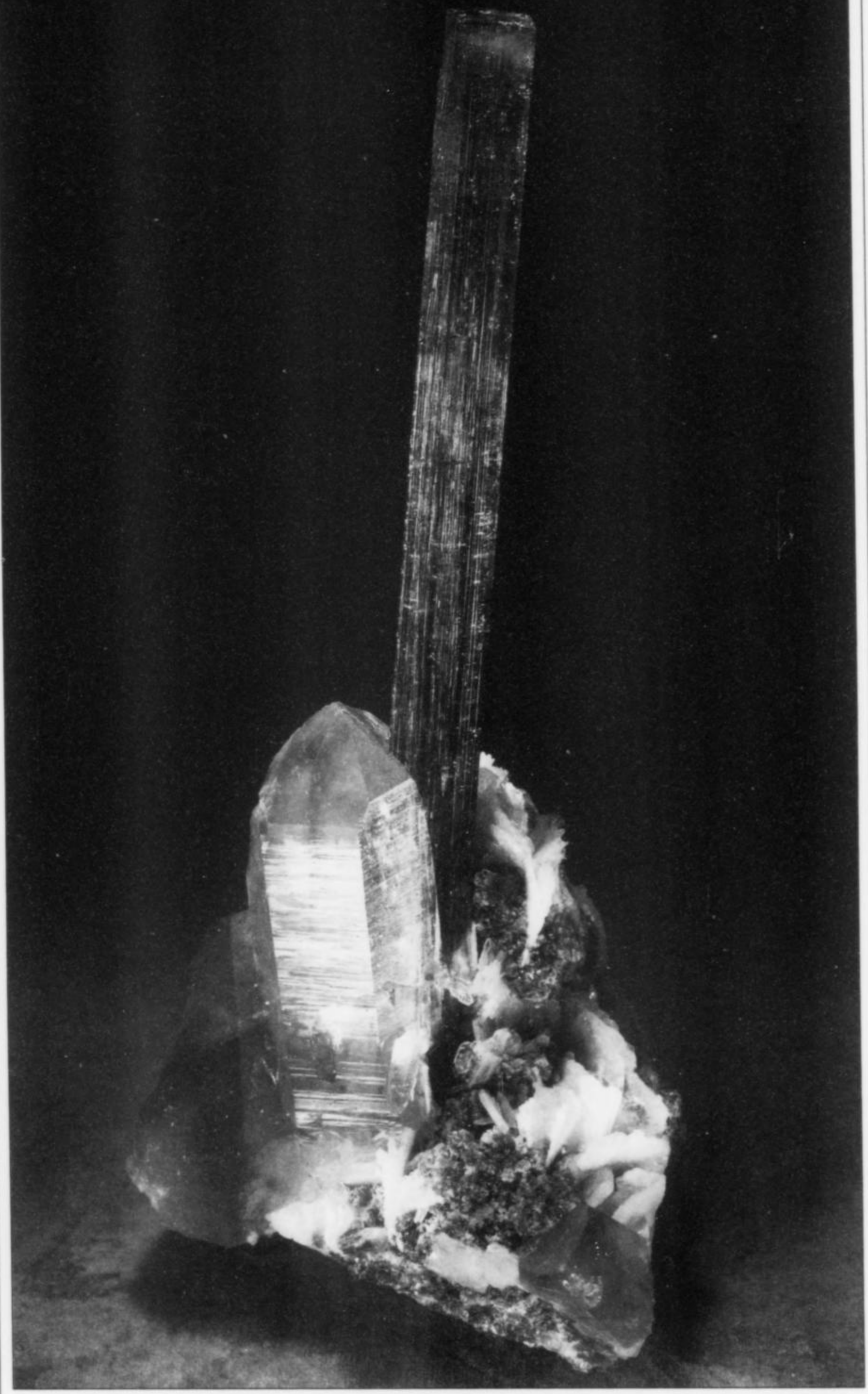


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## ELBAITE

---

crystal from Nuristan, Afghanistan; 4.75  
inches.

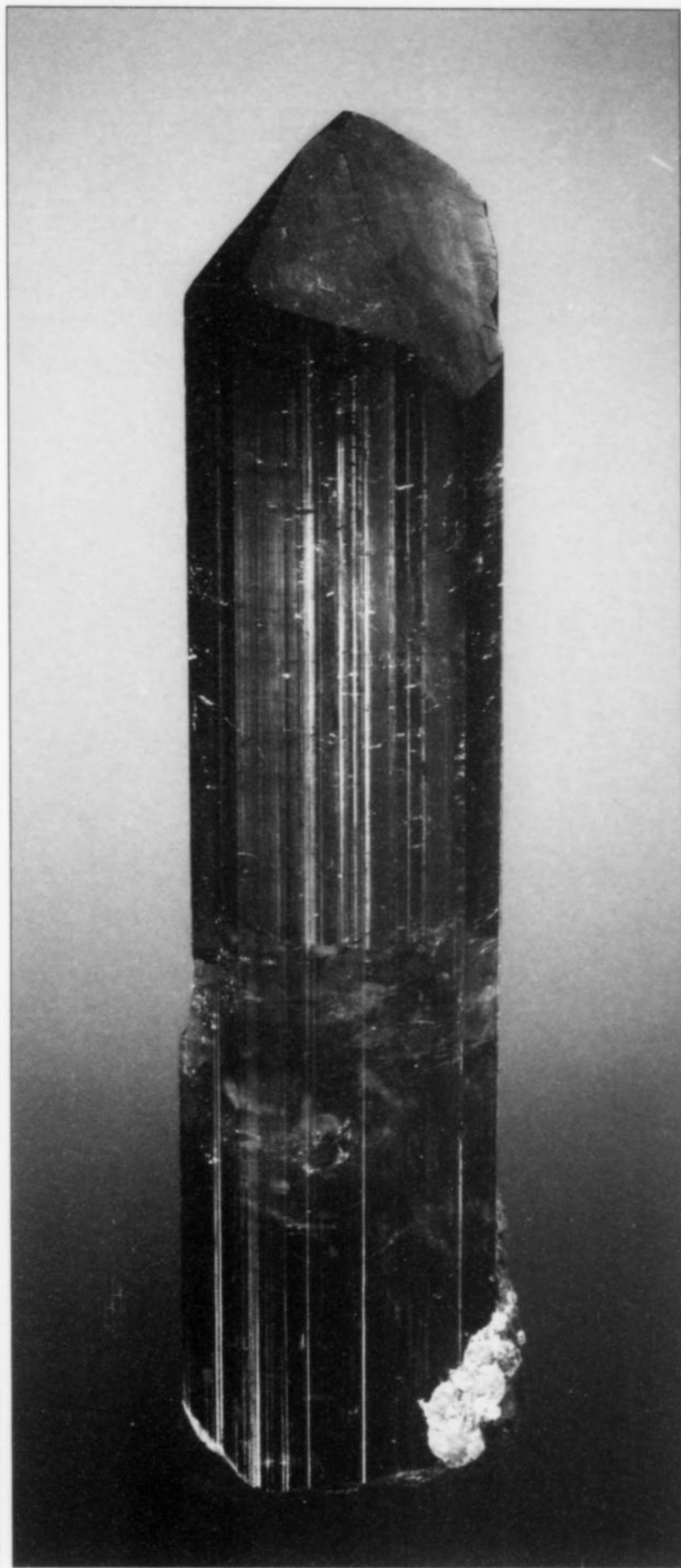


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## ELBAITE

---

on quartz, albite and lepidolite, from the Pederneira mine, Minas Gerais, Brazil; 8.75 inches.

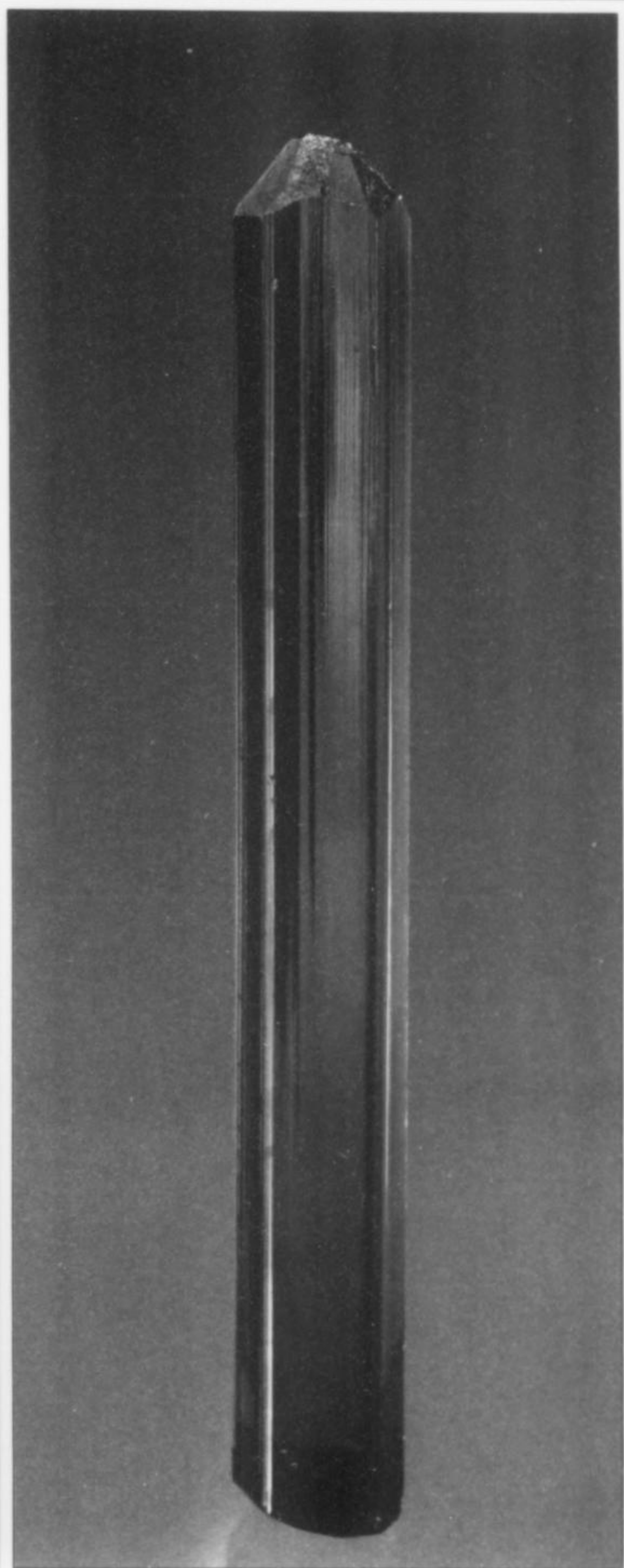


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## ELBAITE

---

crystal from Minas Gerais, Brazil; 2.37 inches.

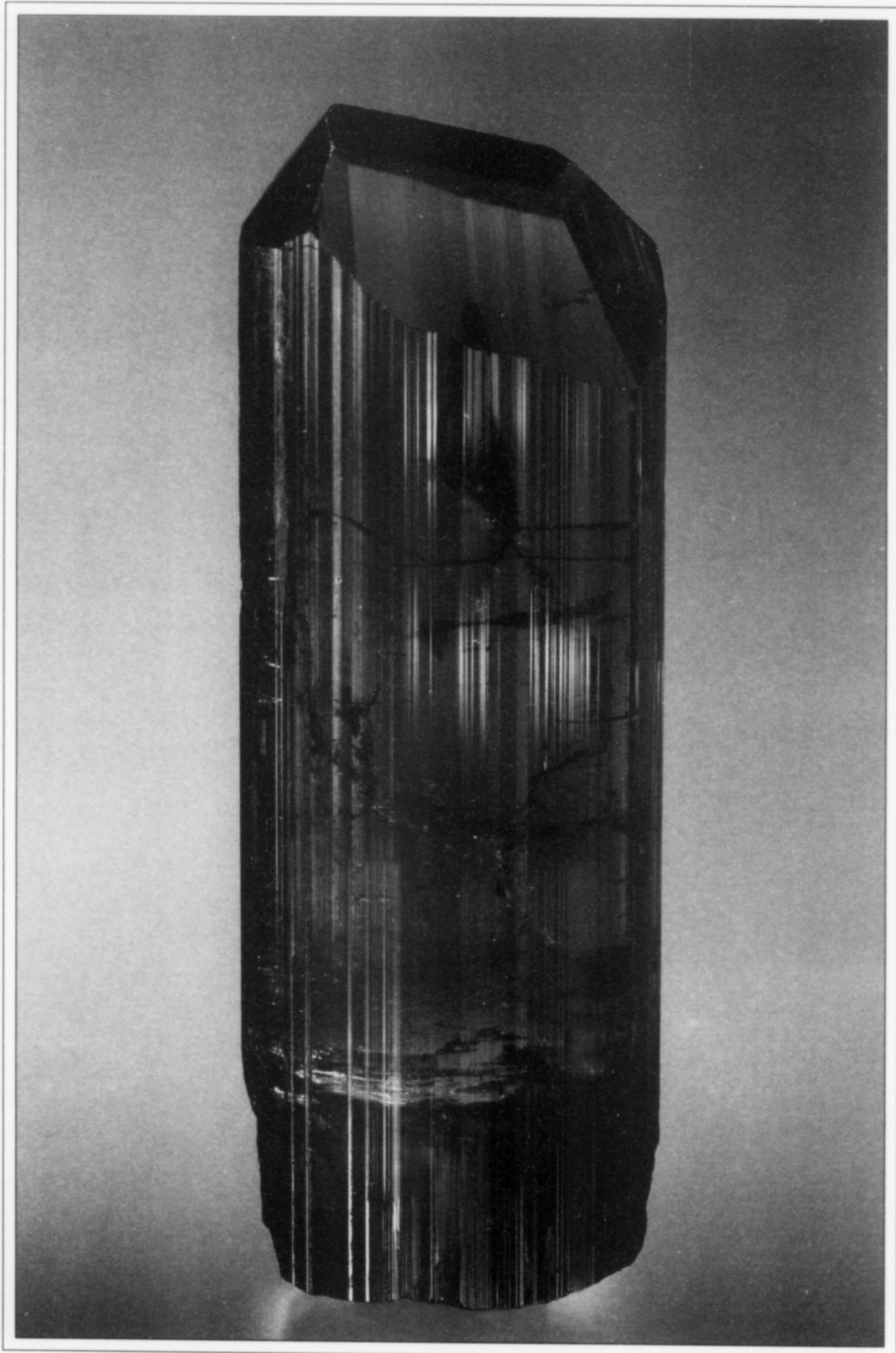


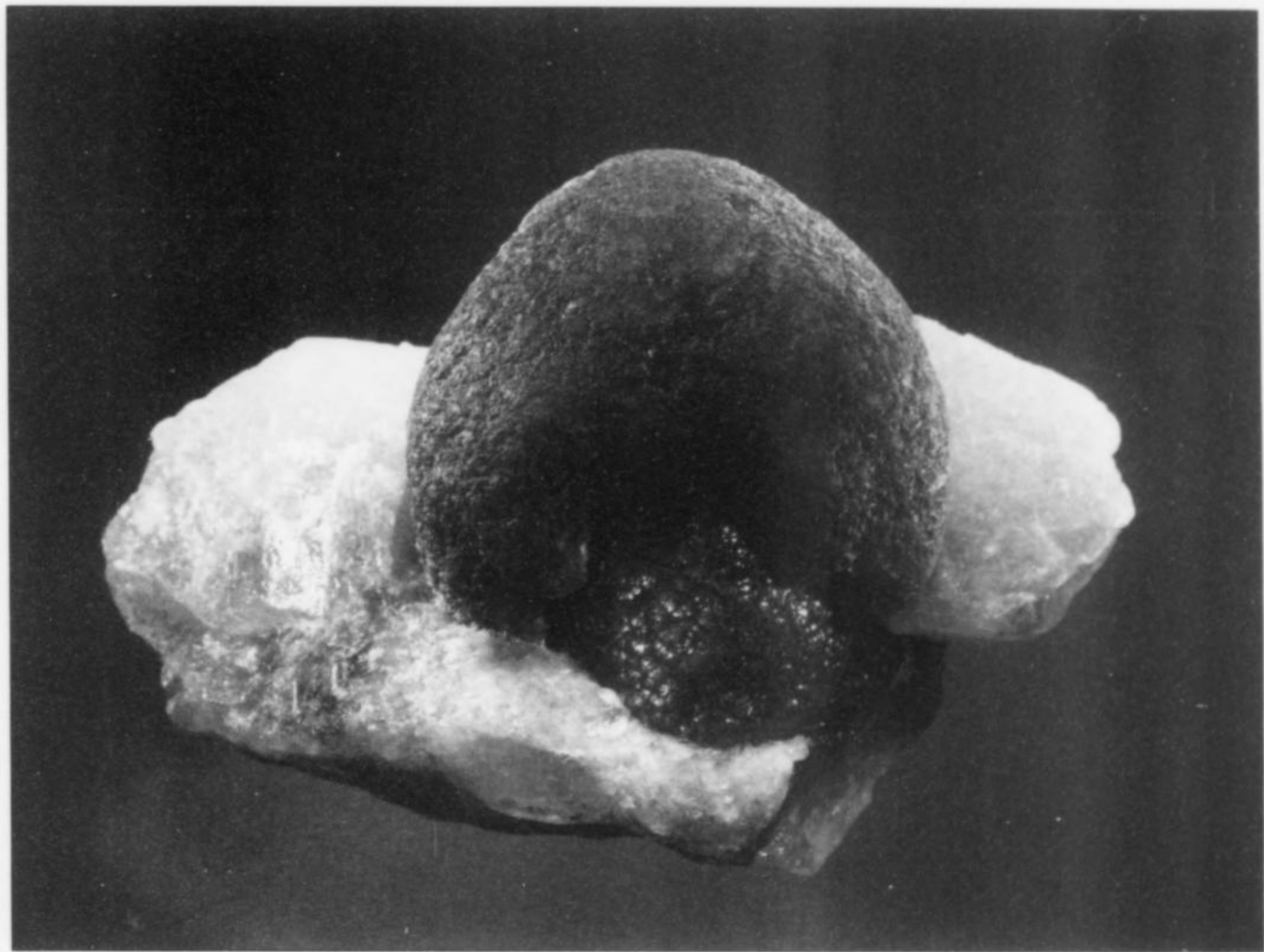
---

## ELBAITE

---

crystal from the Golconda mine, Minas Gerais, Brazil; 3 inches.





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## ELBAITE

---

in rare botryoidal habit, on lepidolite and quartz, from Mogok, Burma; 3.37 inches.

---

## ELBAITE

---

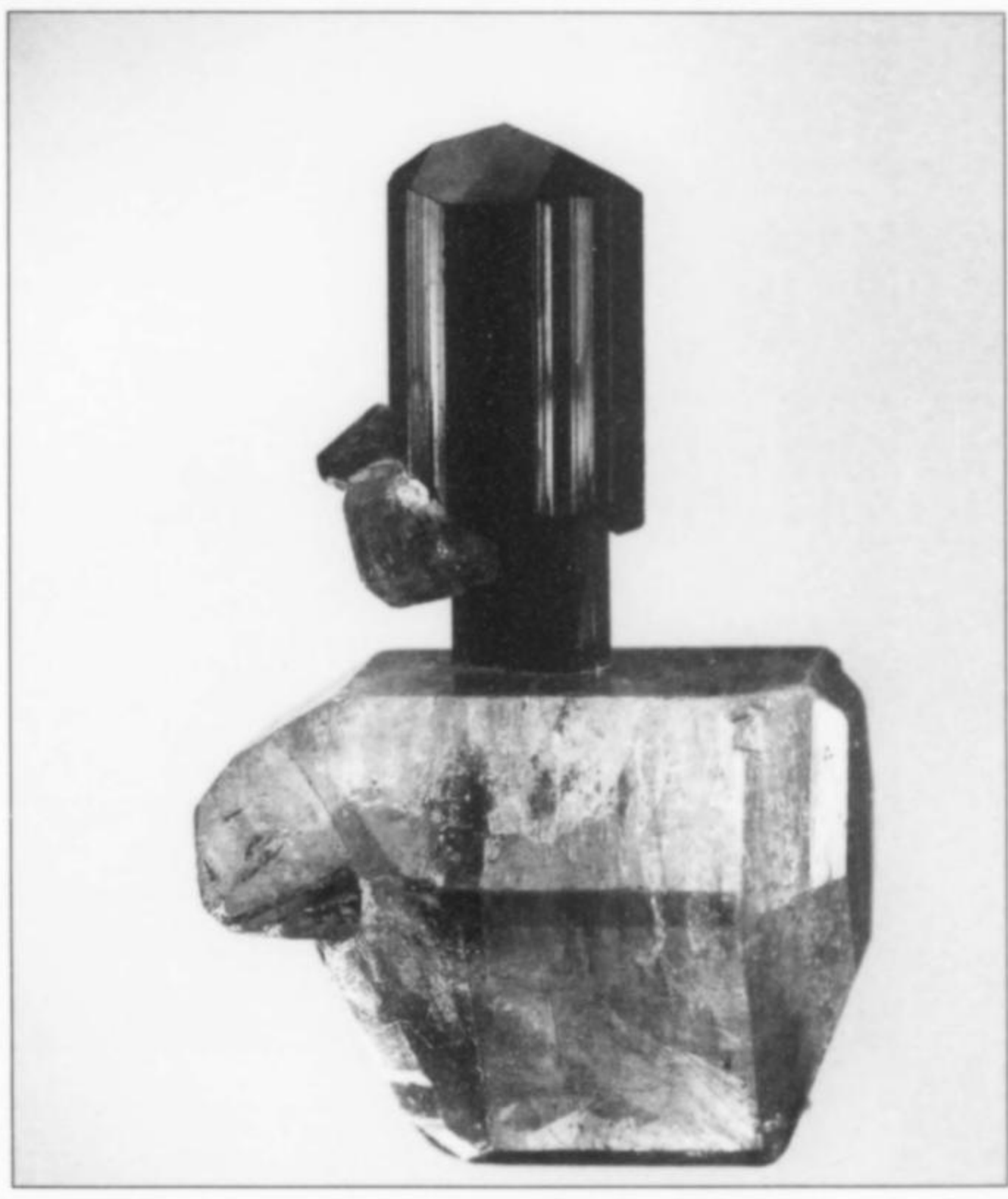
(*facing page*) crystal from Nuristan, Afghanistan; 3.12 inches.

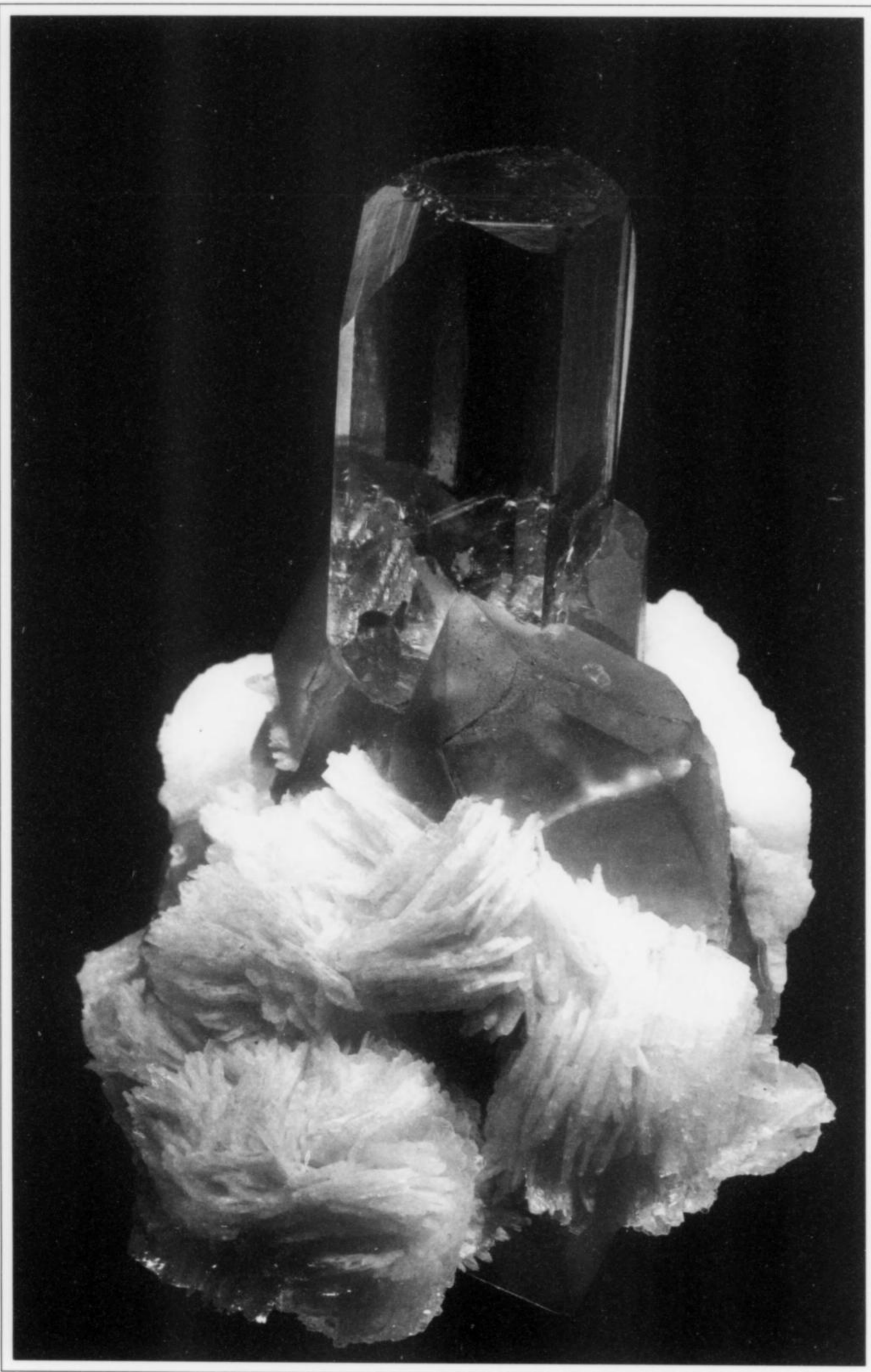
---

## SCHORL

---

scepter crystal on fluorapatite, from Dassu, Pakistan; 0.7 inches.



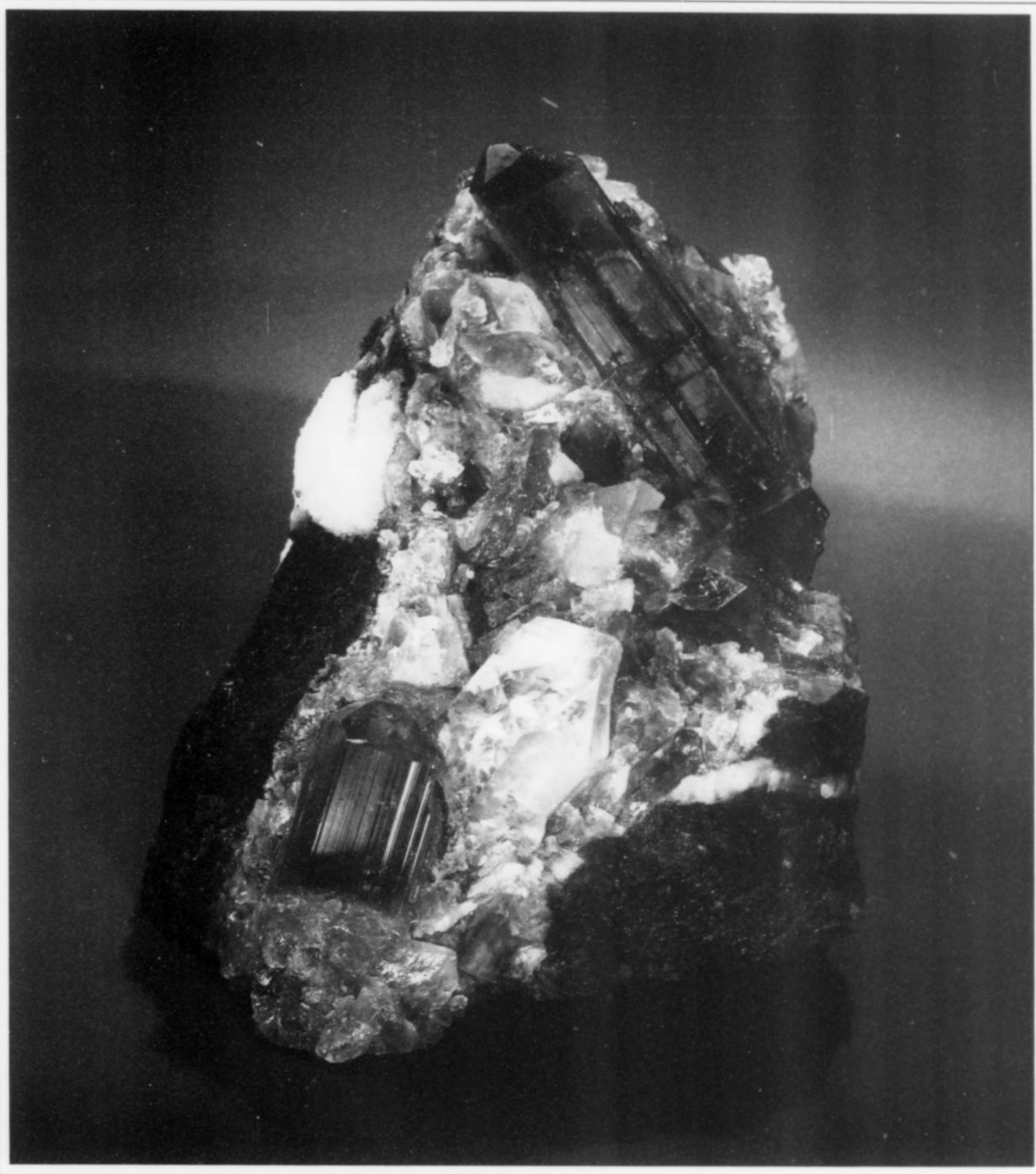


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## TOPAZ

---

on quartz and albite, from Dassu, Pakistan; 3 inches.

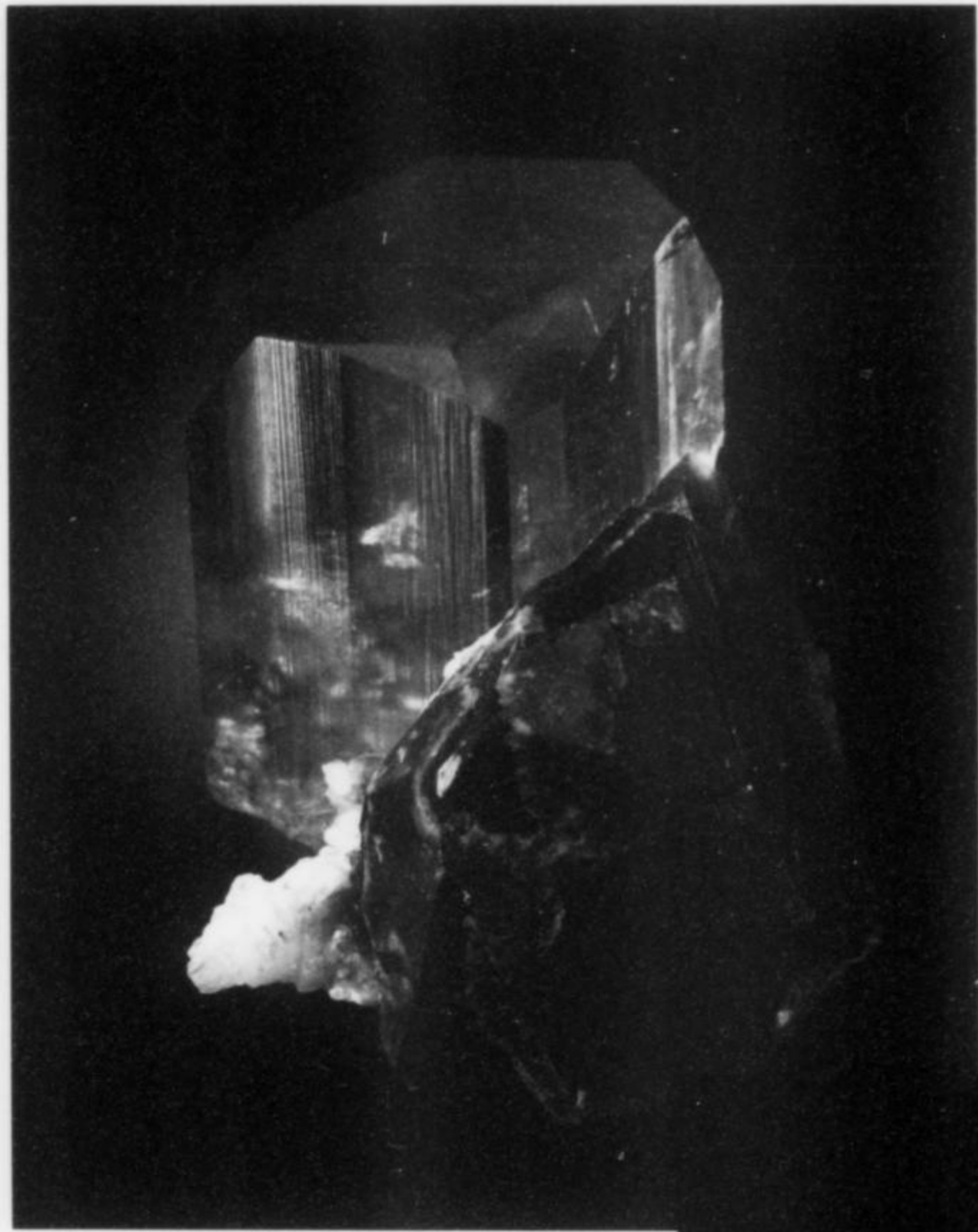


---

## TOPAZ

---

and quartz on matrix, from Ghundao Hill, Katlang, Mardan District, Pakistan; 3.15 inches.



---

## TOPAZ

---

with quartz, from Mursinka, Ural Mountains, Russia; 2.25 inches.

---

## SPODUMENE

---

on albite from Nuristan, Afghanistan; 5 inches.





---

## PETALITE

---

crystal from Nuristan, Afghanistan; 2.75 inches.



---

## TSAVORITE

---

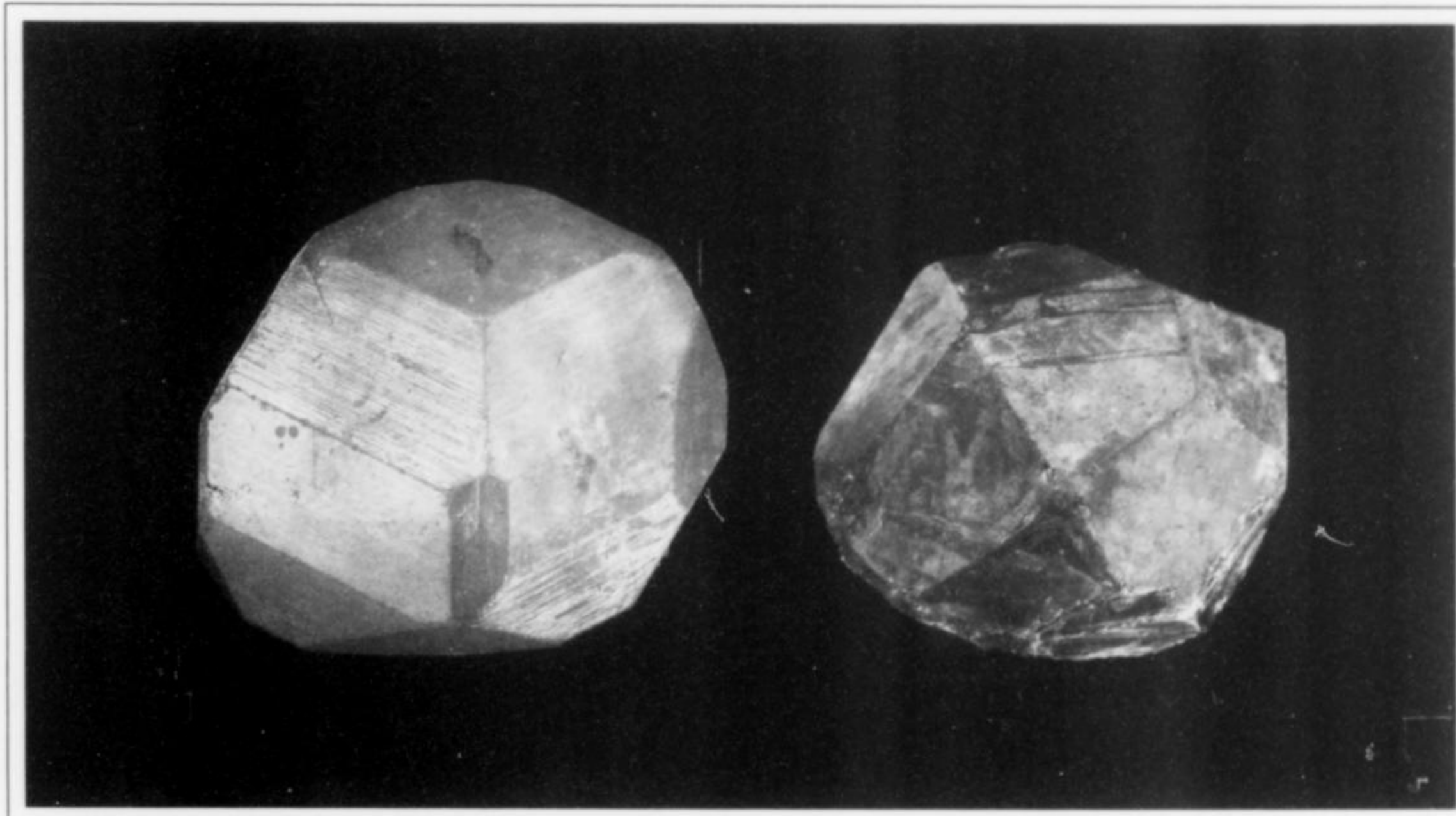
garnet crystal (*below right*) from Merelani, Arusha, Tanzania; 0.63 inches.

---

## SPESSARTINE

---

crystal (*below left*) from the Jouss mine, Nigeria; 0.88 inches.



---

## TITANITE

---

crystal with epidote on matrix, from Dusso, Pakistan; 2.25 inches.



---

## FORSTERITE

---

crystal on a magnetite crystal from Suppat, Kohistan, Pakistan; 1.25 inches.

---

## CLINOHUMITE

---

crystal from Nuristan, Afghanistan; 0.5 inch crystal.



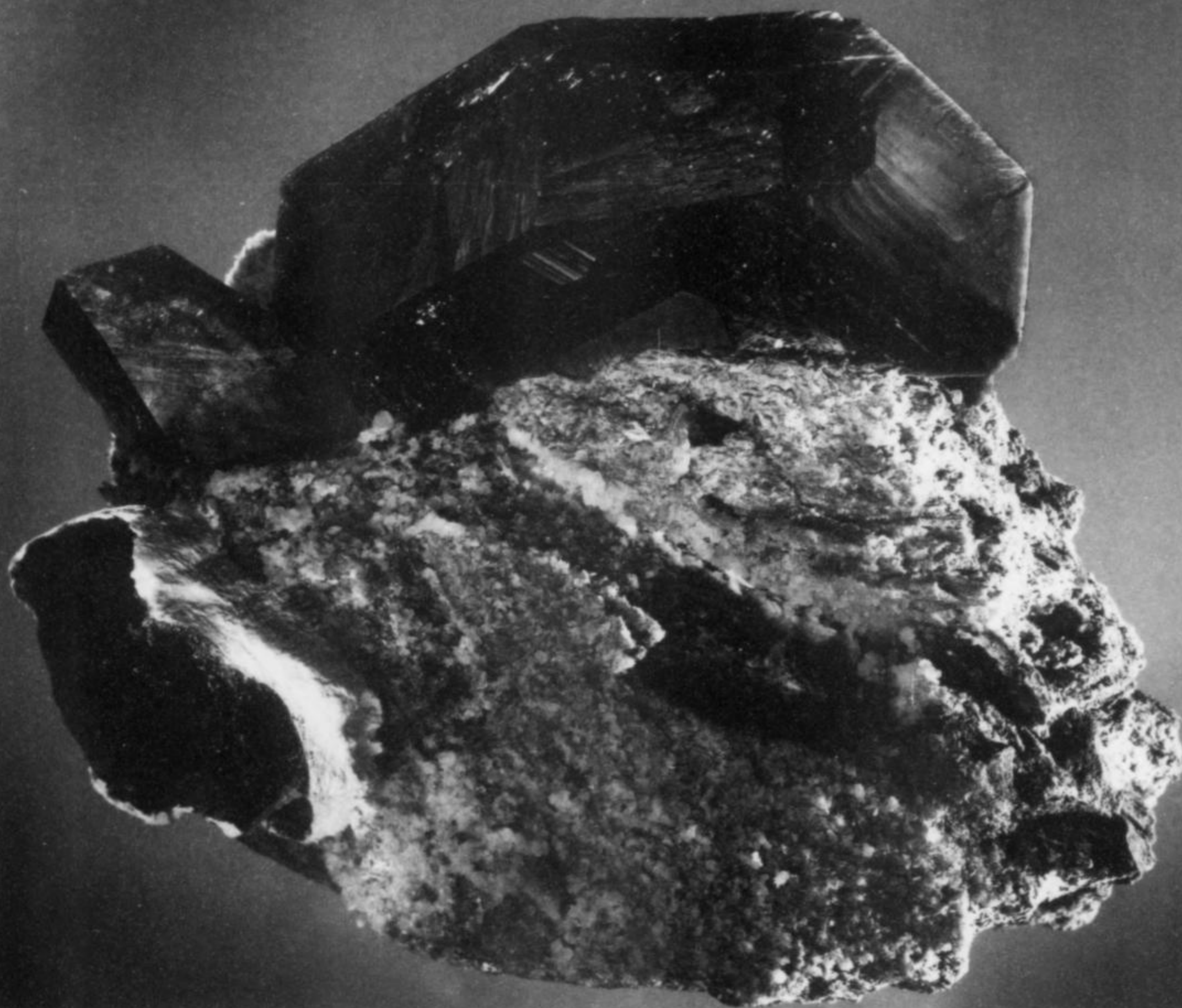


---

## CUPROSKLODOWSKITE

---

pocket from the Musonoi mine, Katanga, Congo; 6.75 inches.



---

## FERROAXINITE

---

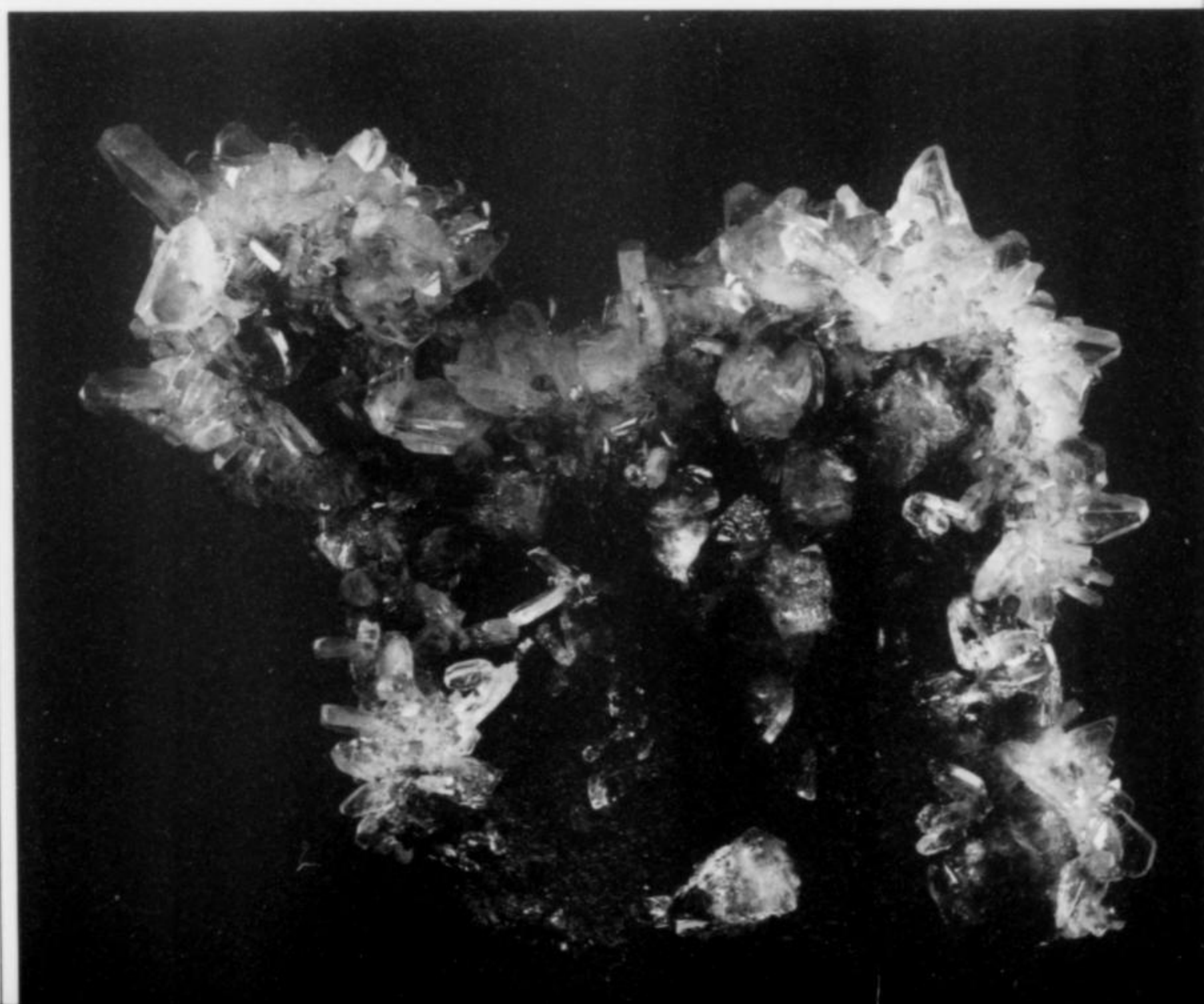
crystals on matrix from the Puiva mine, Subpolar Urals, Russia; 3.5 inches.

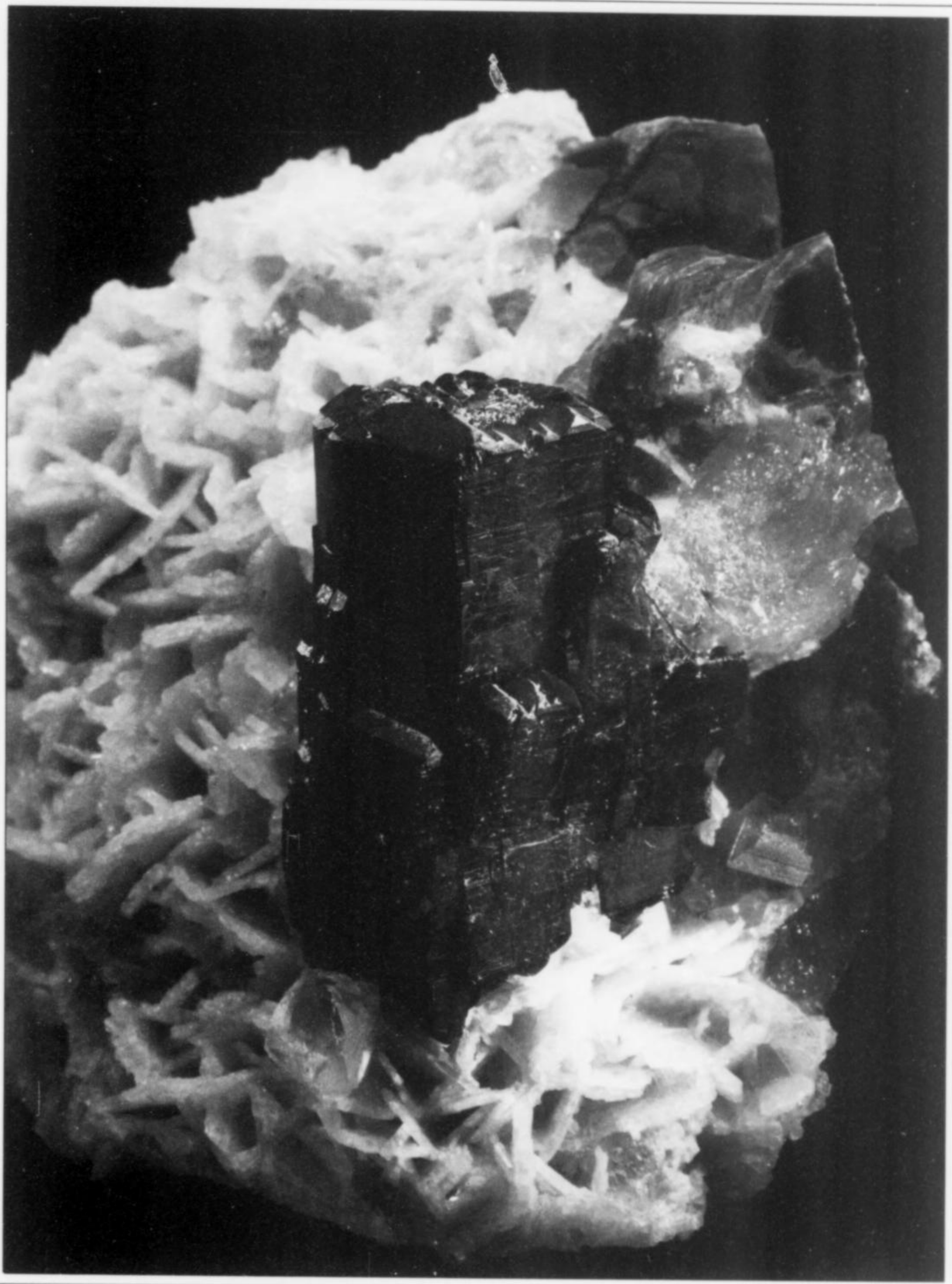
---

## HEMIMORPHITE

---

crystals with adamite, from Santa Eulalia, Chihuahua, Mexico; 4 inches.



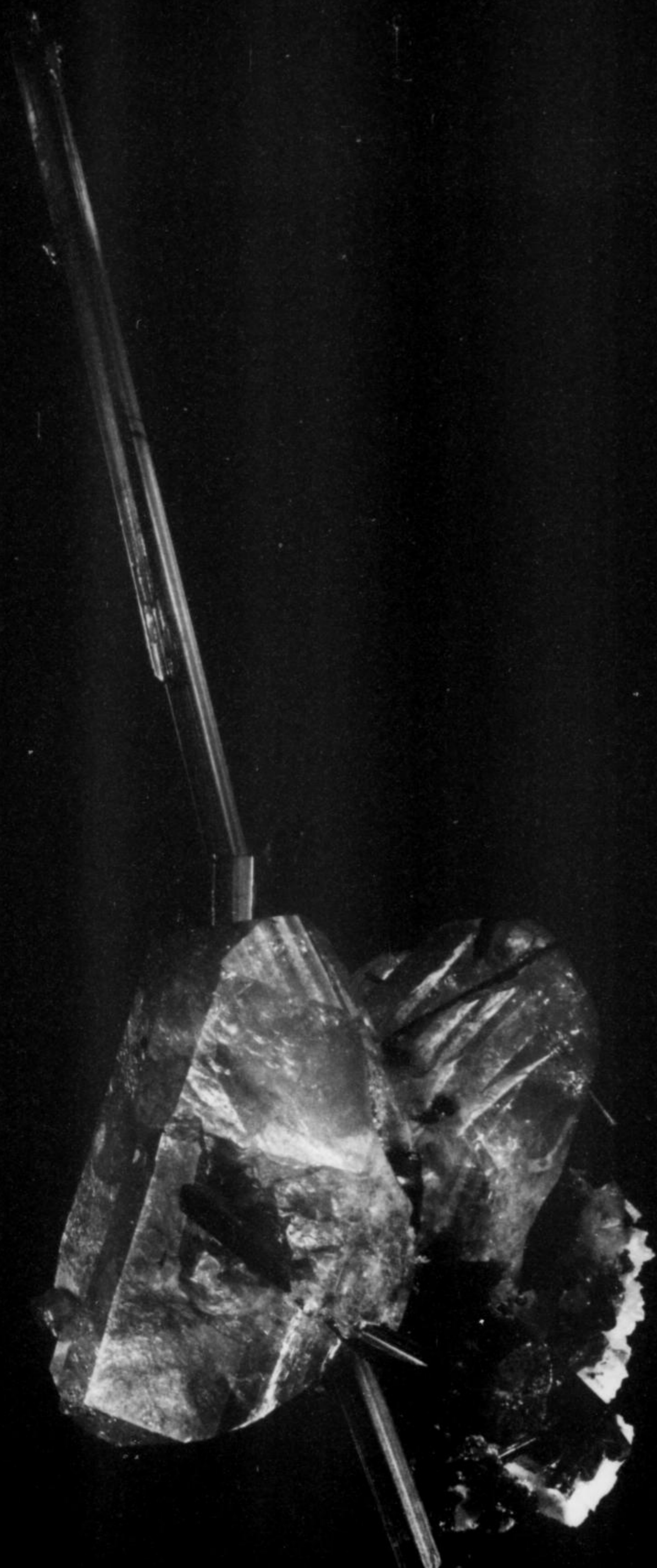


---

**MANGANOTANTALITE**

---

on albite, from Nuristan, Afghanistan; 4 inches.





---

## VIVIANITE

---

crystals on siderite from Morococala,  
Bolivia; 8 inches.

---

## HYDROXYLHERDERITE

---

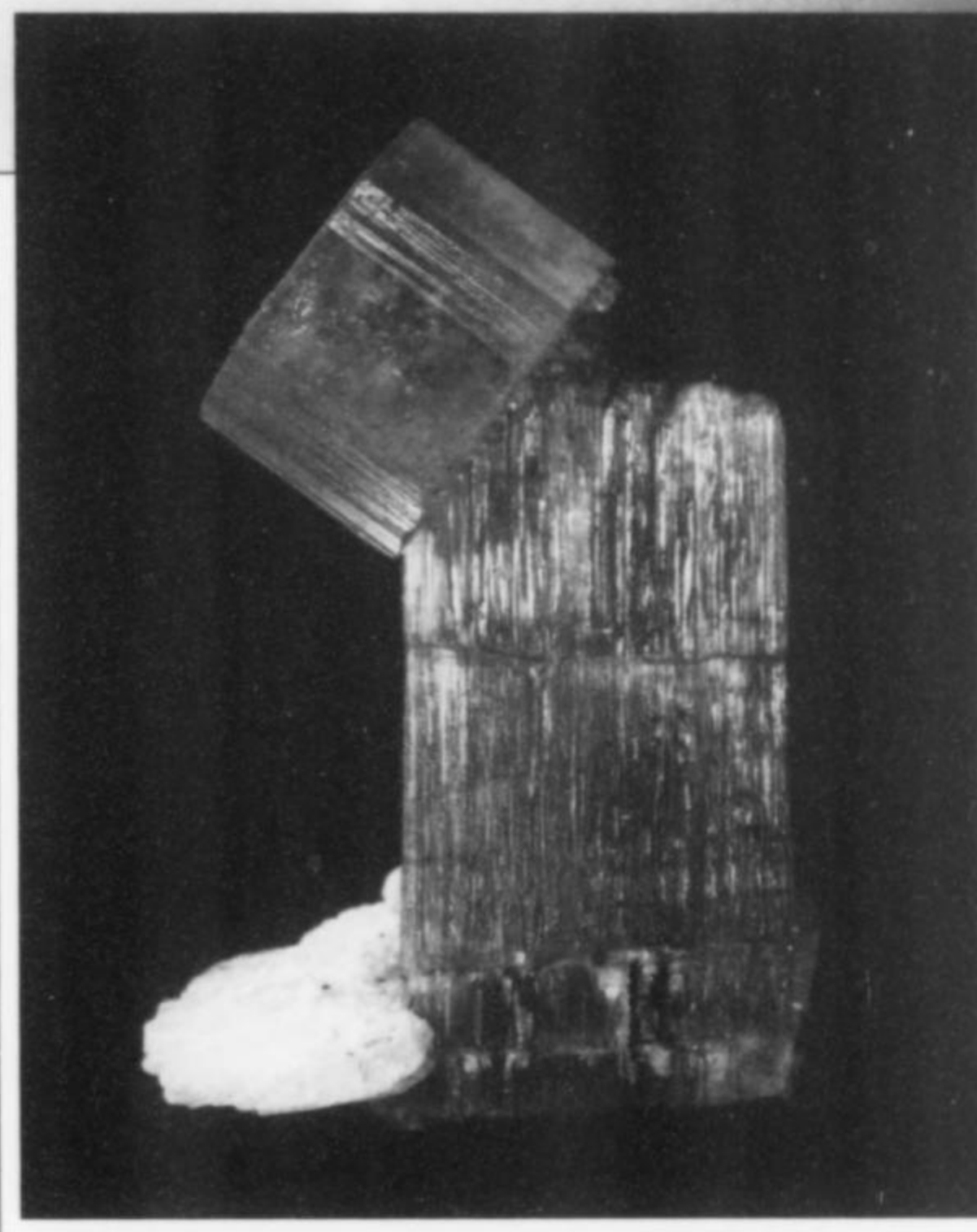
(*facing page*) with elbaite from the Golconda mine,  
Minas Gerais, Brazil; 5.25 inches.

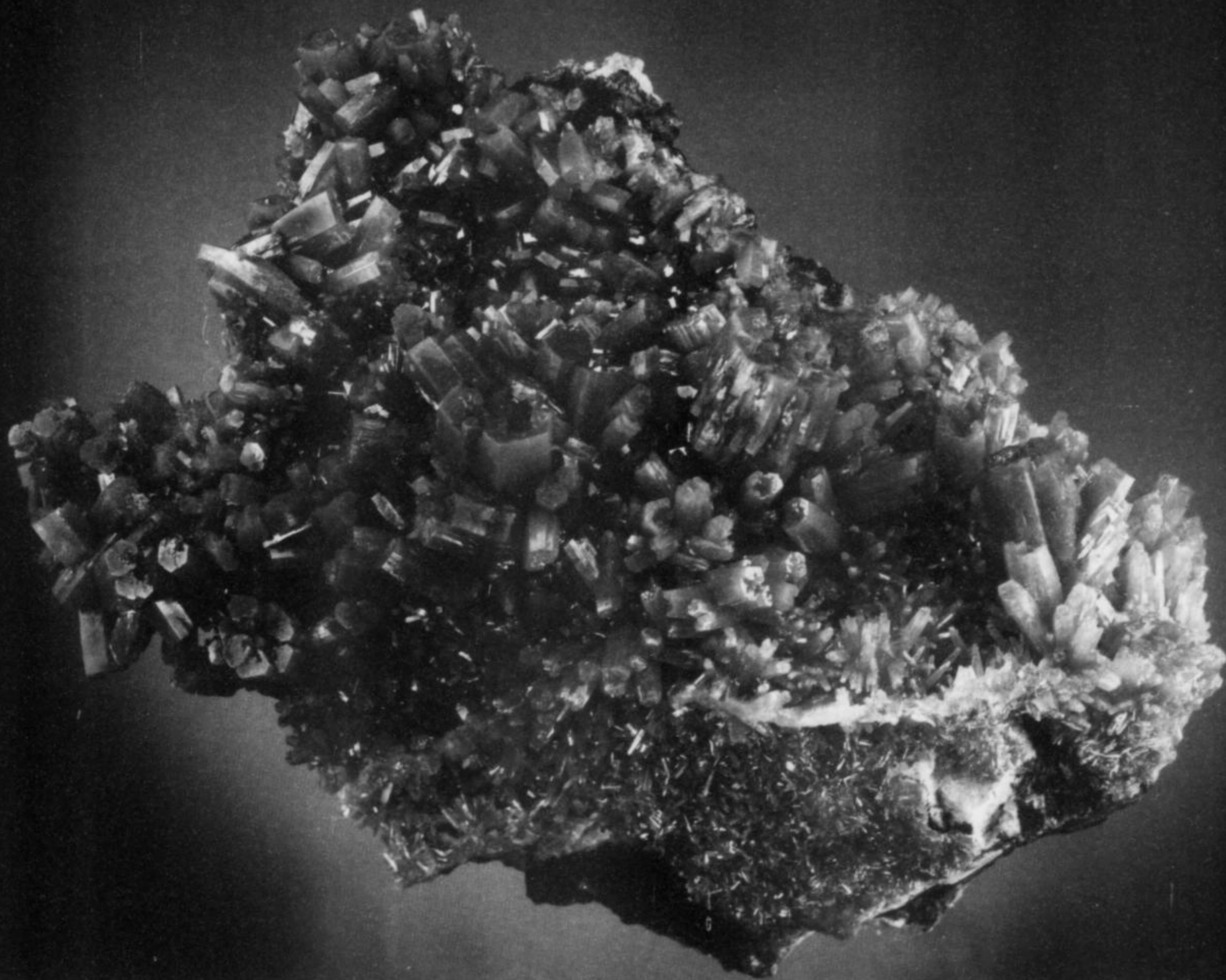
---

## FLUORAPATITE

---

crystal on elbaite from Stak Nala, Paki-  
stan; 1.5 inches.







---

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## PYROMORPHITE

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---

*(facing page)* crystal group from the Bunker Hill mine, Kellogg, Idaho; 6.25 inches.

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---

## AMBLYGONITE

---

---

on quartz from Galiléia, Minas Gerais, Brazil; 2.75 inches.

---

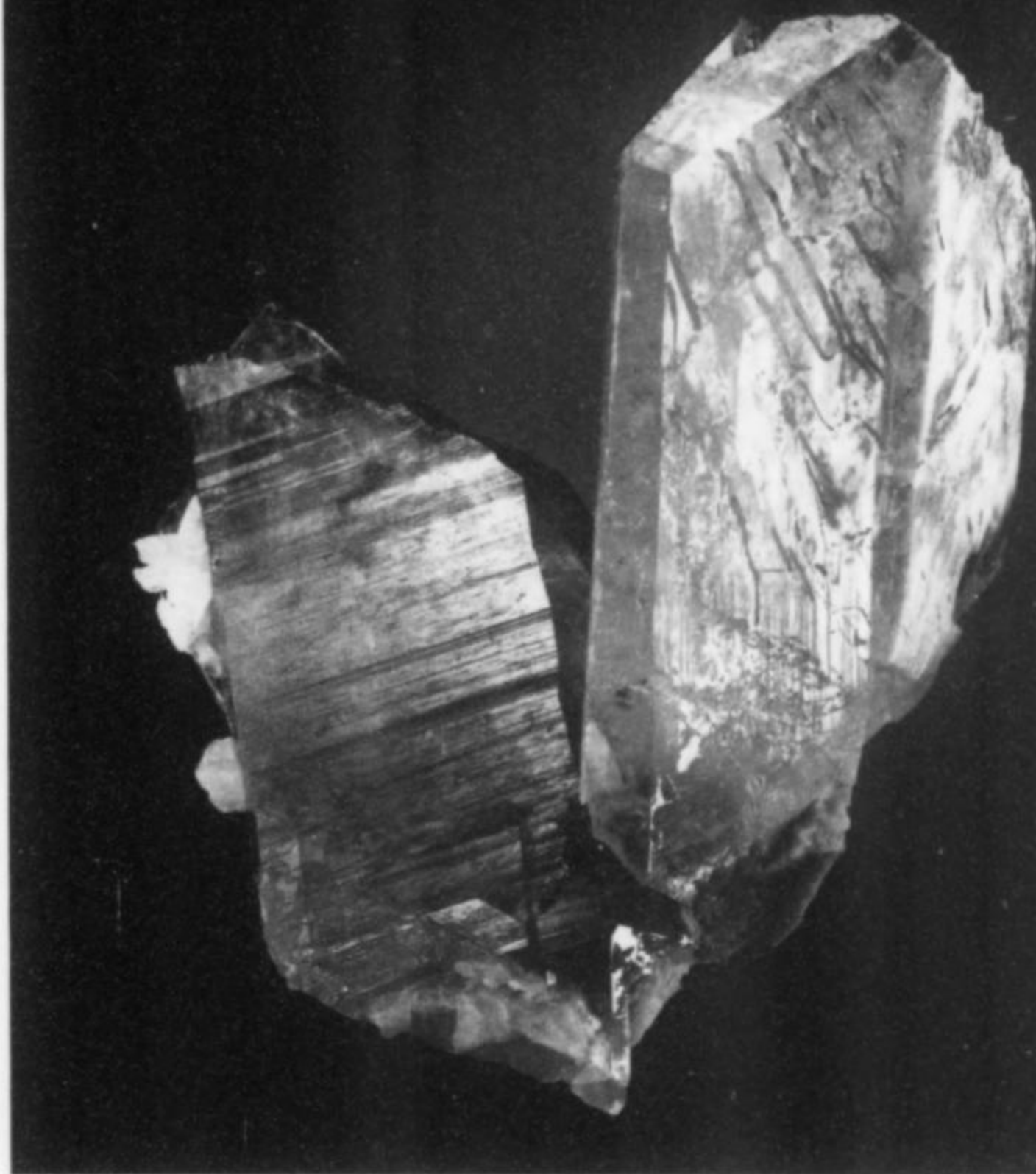
---

## LIROCONITE

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---

*(right, below)* crystal group from Wheal Gorland, Cornwall, England; 1.5 inches.



---

---

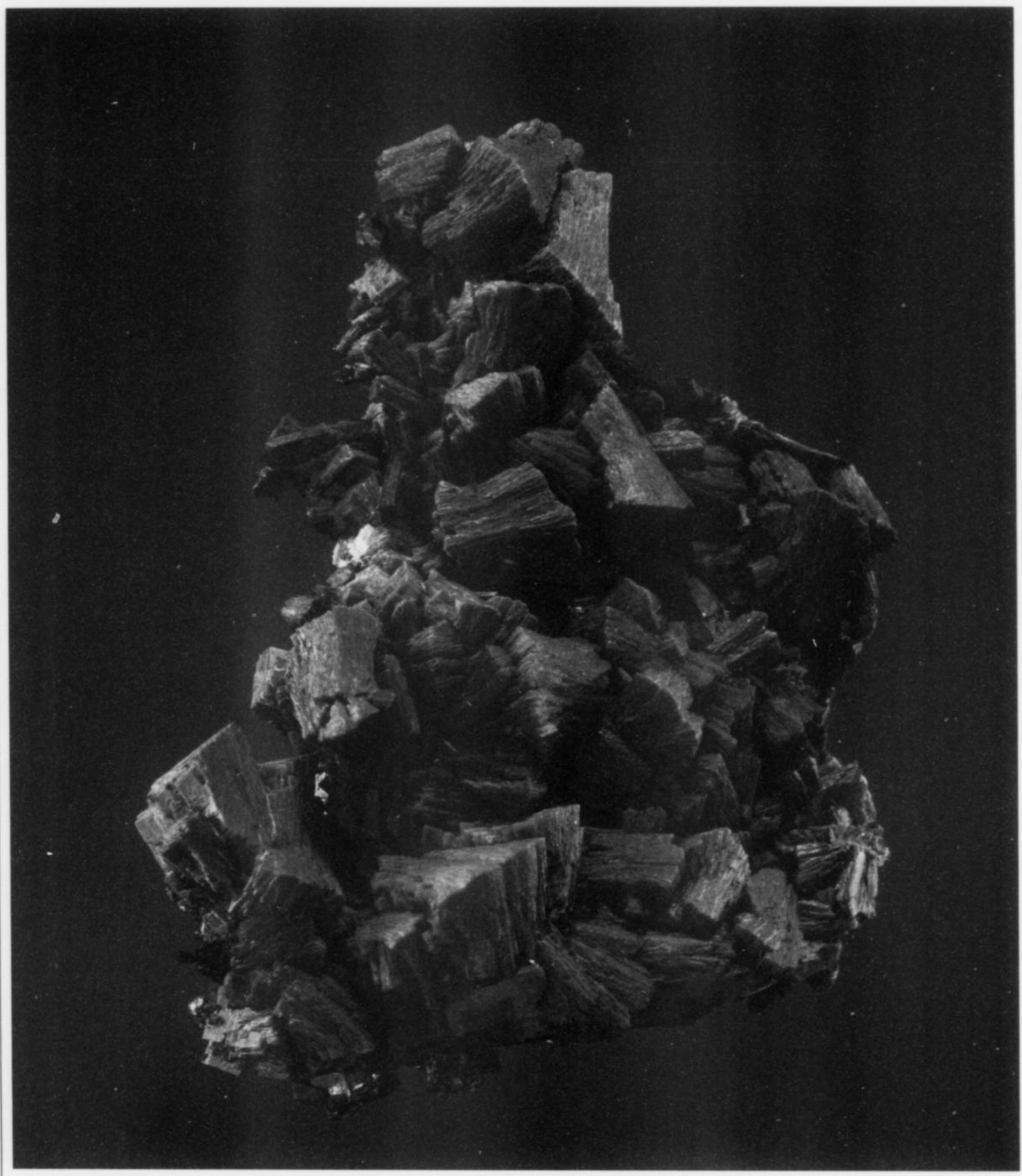
## CHILDRENITE

---

---

*(below)* twinned crystals from Nuristan, Afghanistan; 1.88 inches.





---

## METATORBERNITE

---

crystal cluster from Margabal, Aveyron,  
France; 4 inches.

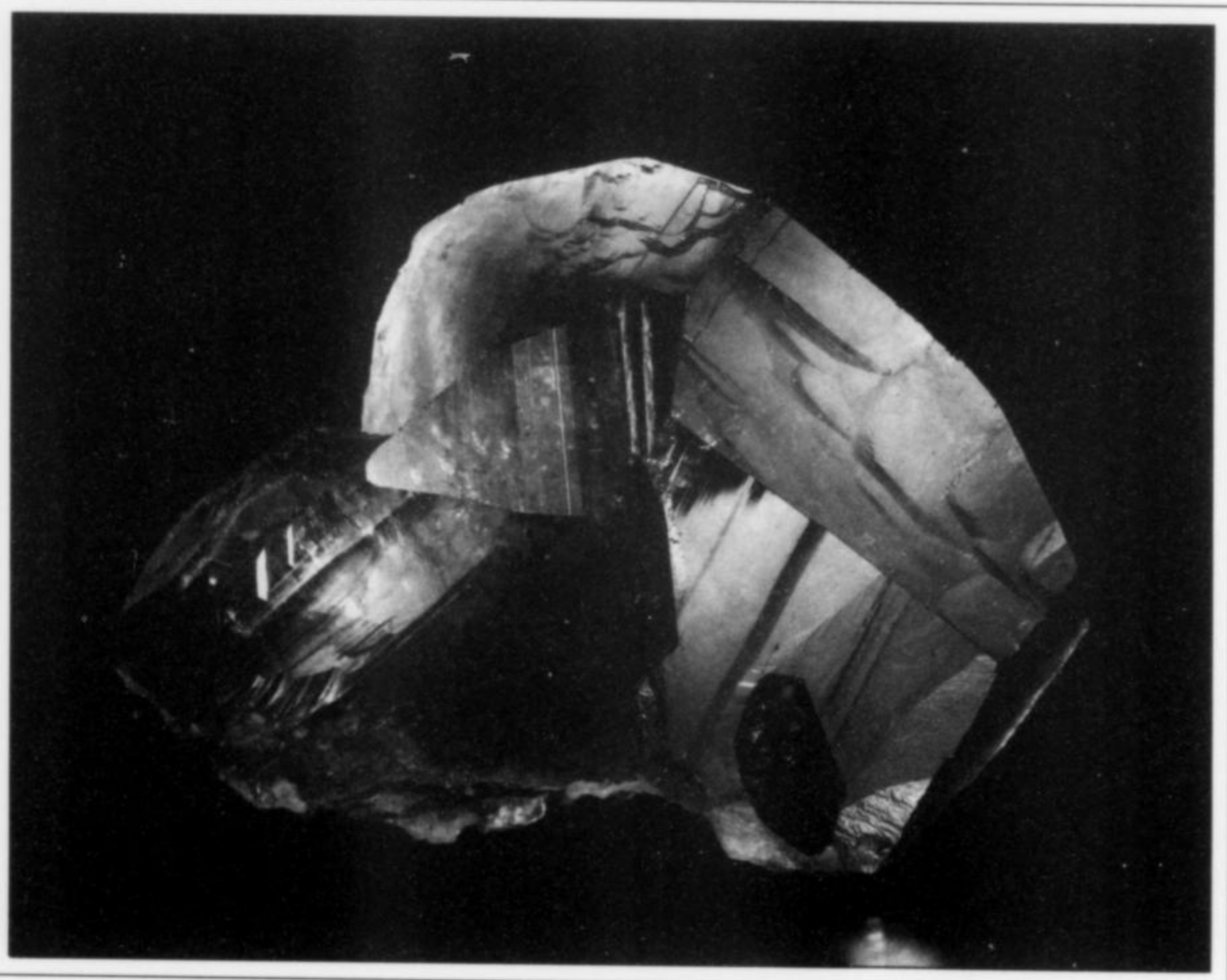
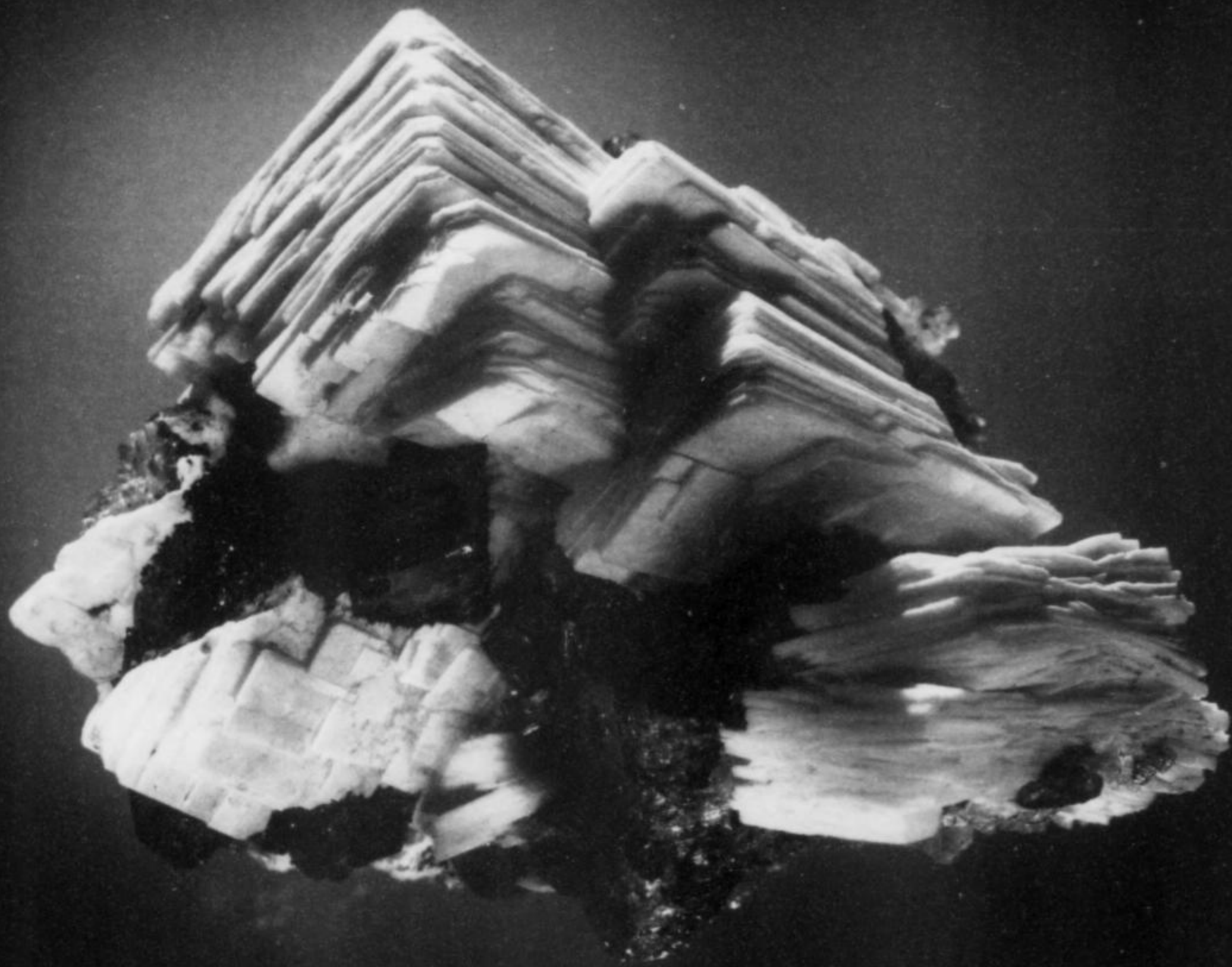
---

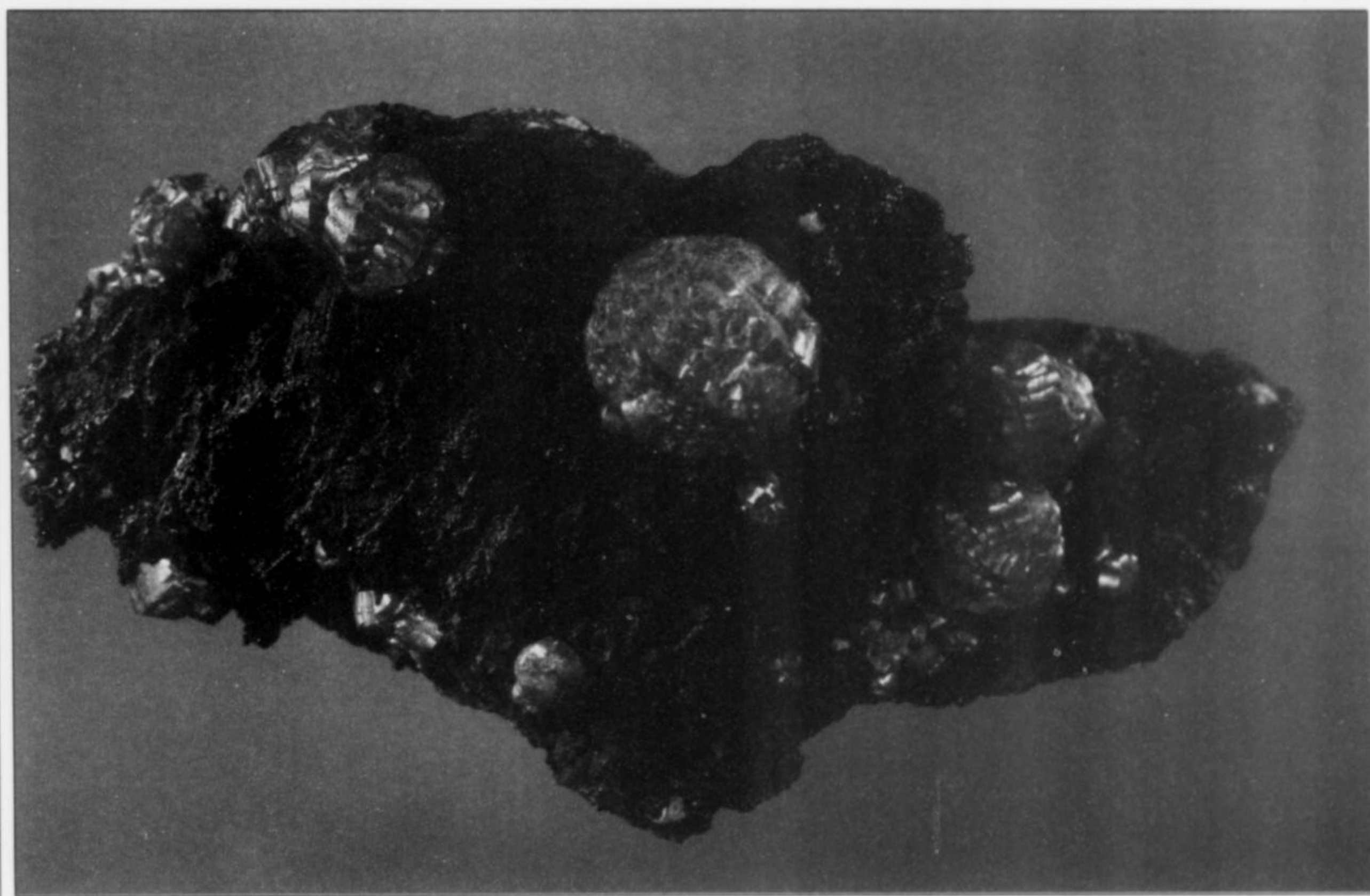
## MIMETITE

---

crystal cluster from the Tsumeb mine,  
Namibia; 2 inches.







---

---

## MIMETITE

---

---

crystal aggregates on matrix from Cornwall, England; 3.25 inches.

---

---

## NOVACEKITE

---

---

*(facing page, top)* from the Brumado mine, Bahia, Brazil; 3 inches.

---

---

## BRAZILIANITE

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---

*(facing page, bottom)* crystal group from the Corrego Frio mine, near Linopolis, Minas Gerais, Brazil; 4.75 inches.

---

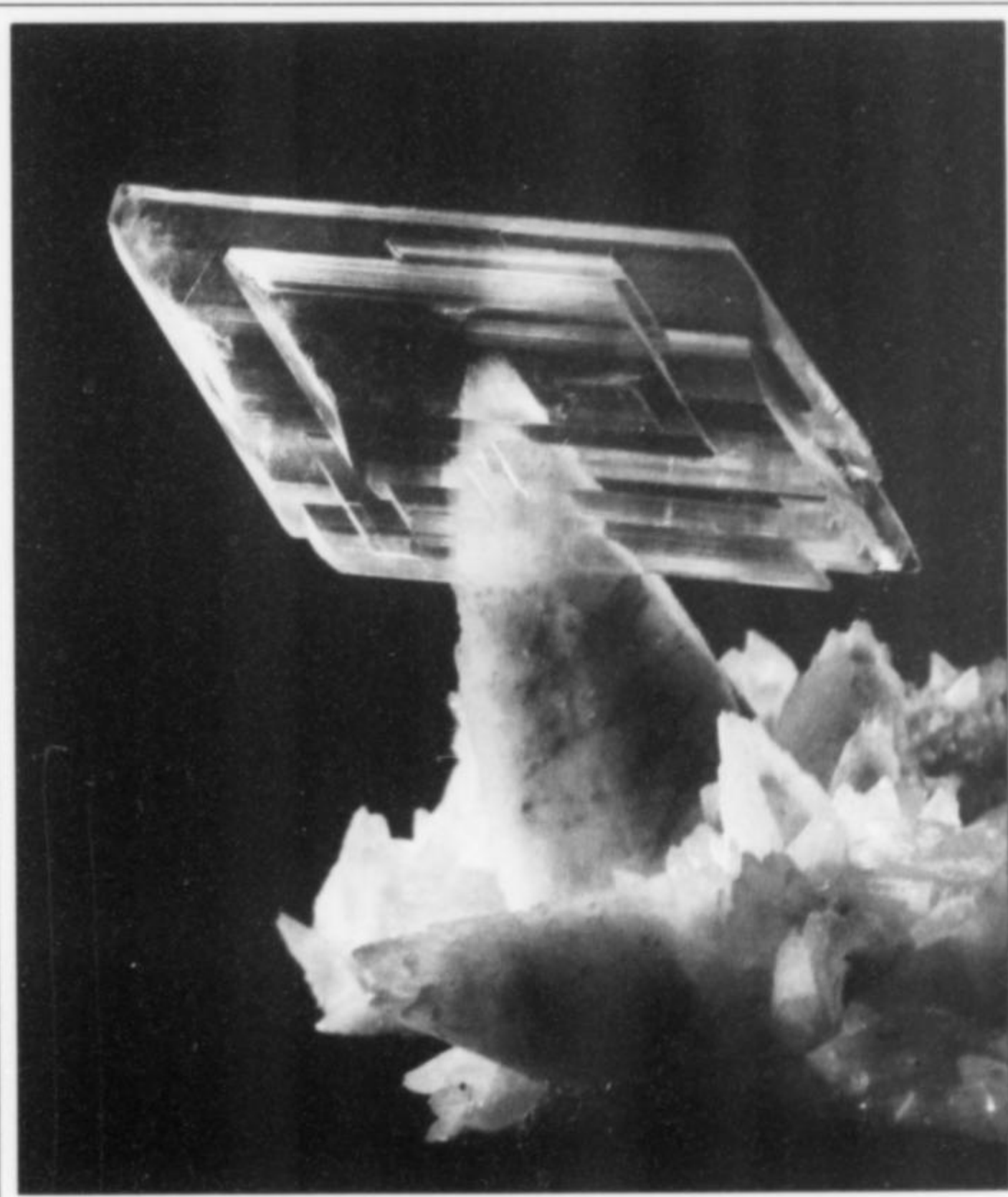
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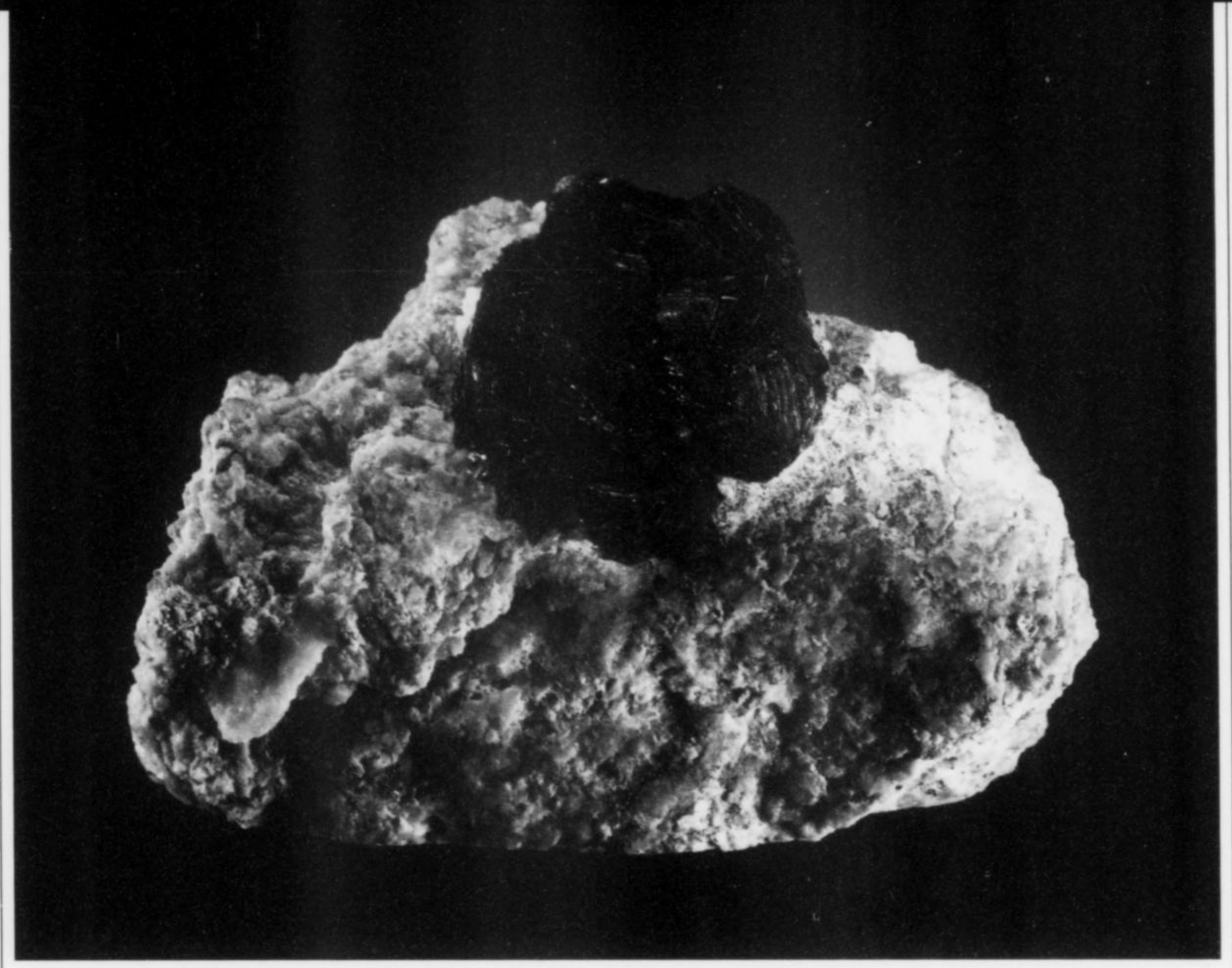
## GYPSUM

---

---

crystal on calcite crystals from Cavnic, Romania; 7.5 inches.





---

## DEVILLINE

---

crystal cluster on matrix, from Spania Dolina, Czech Republic; 2.25 inches.



---

## STOLZITE

---

crystals from the Sainte-Lucie mine, Lozère, France; 1.75 inches.

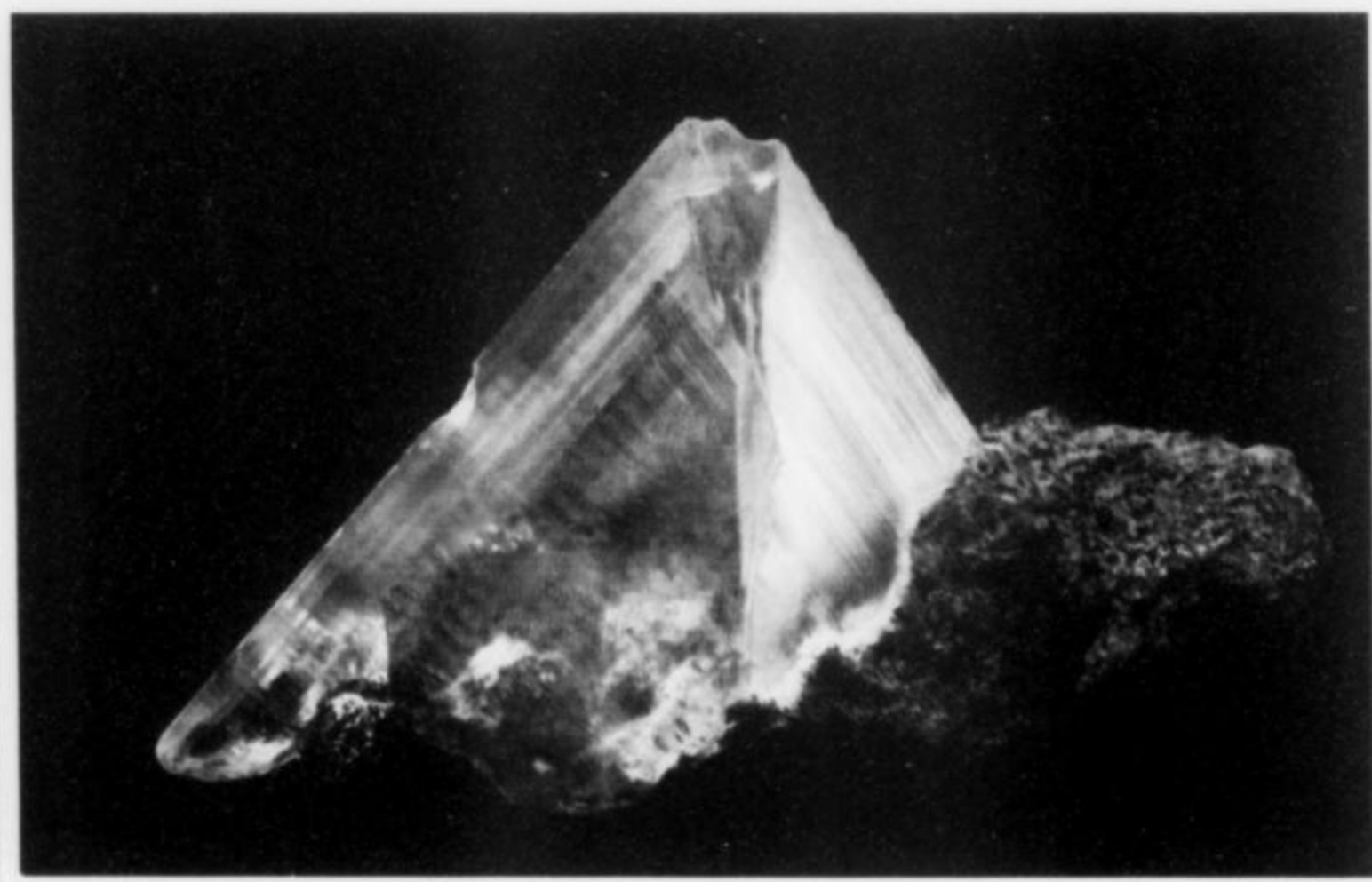
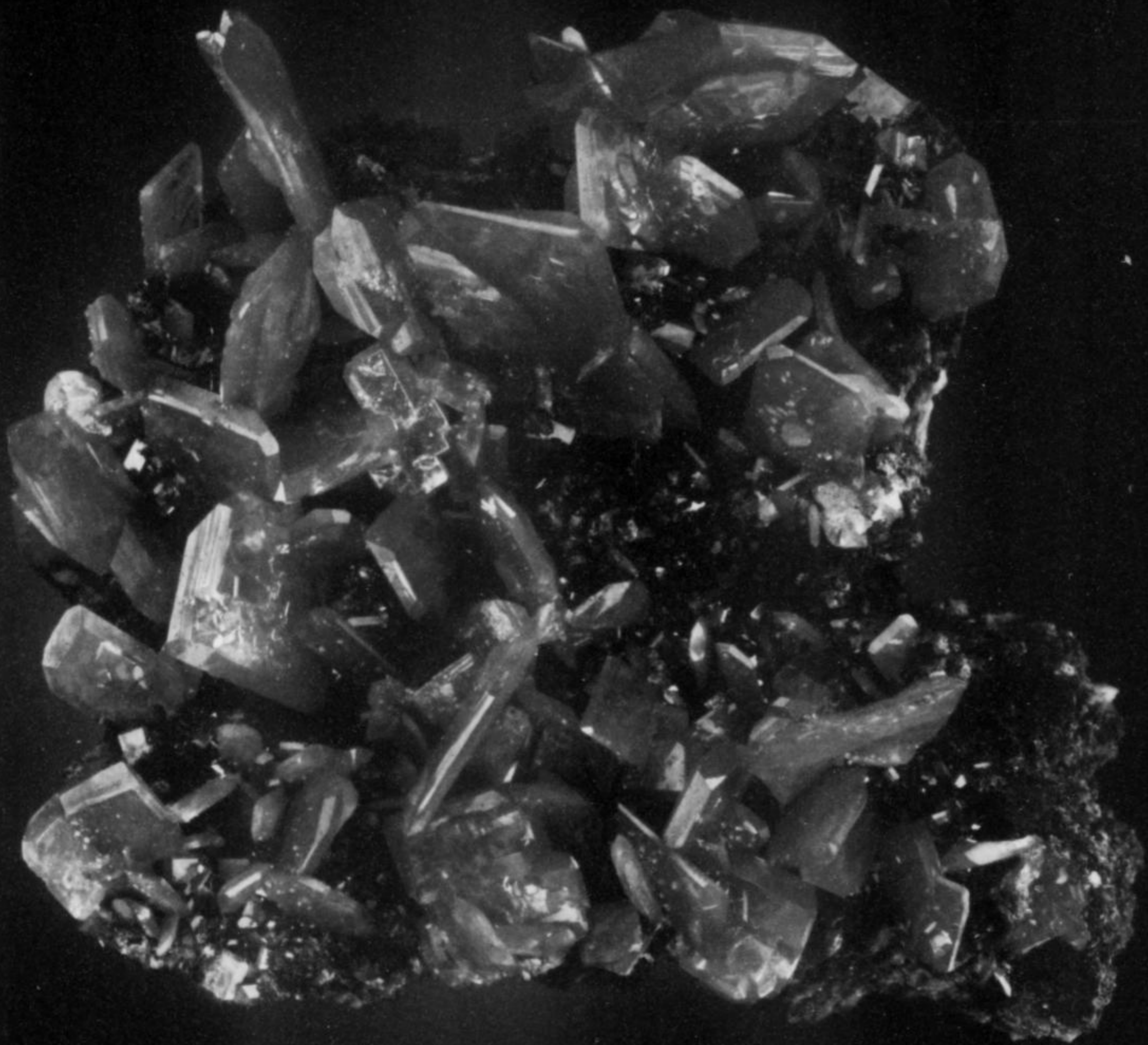
---

## WULFENITE

---

*(facing page)* on quartz from the Red Cloud mine, La Paz County, Arizona; 1.75 inches.





---

## WULFENITE

---

crystals on matrix from the Red Cloud mine, La Paz County, Arizona; 3.25 inches.

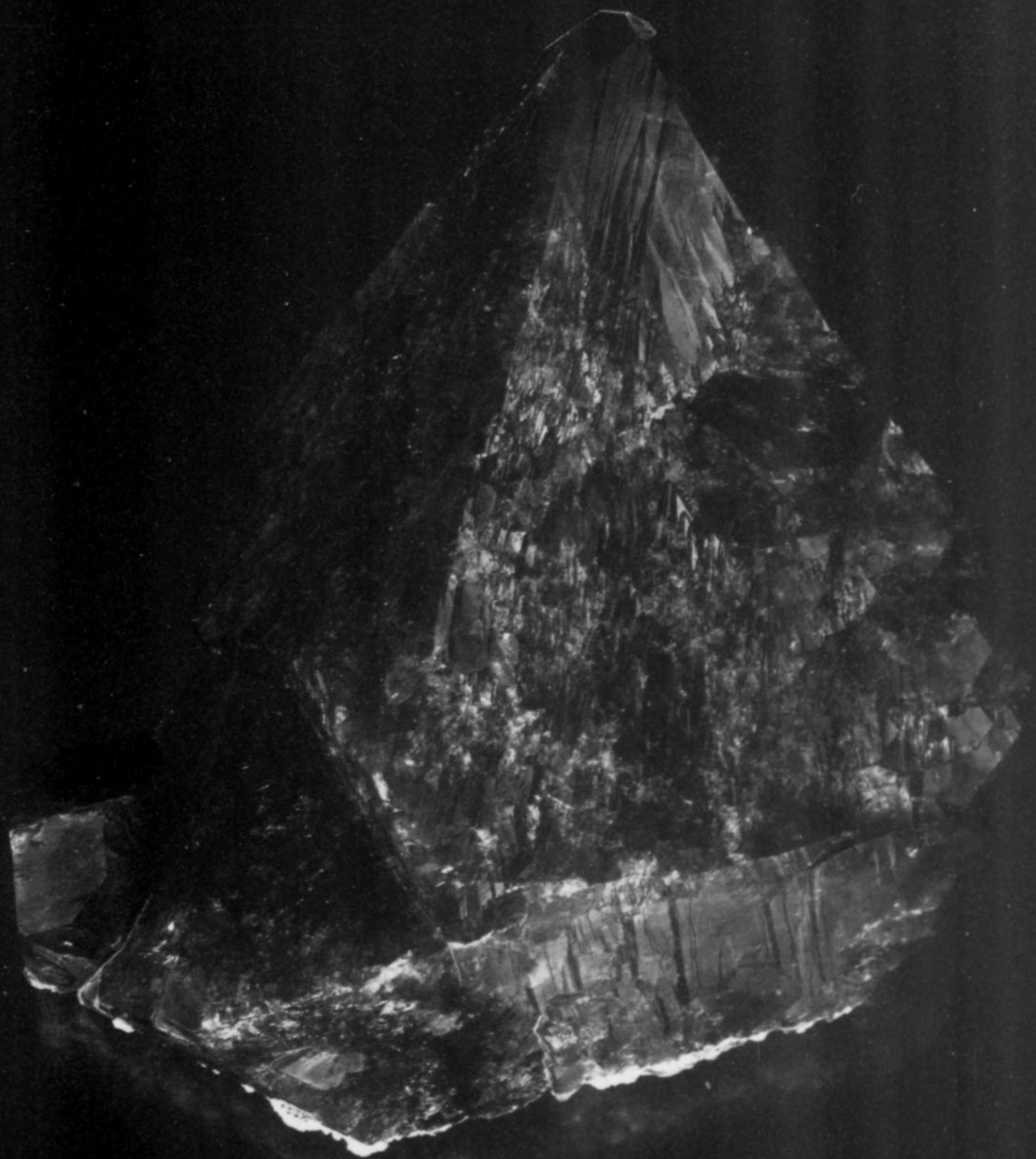
---

## WHEWELLITE

---

twinned crystals from Dalnegorsk, Russia; 3 inches.





---

## SCHEELITE

---

crystal from the Huya mine, Ping-wu  
County, Sichuan, China; 5 inches.

*Joe and Dave*

*would like to thank all of the people  
who have helped to make the assembly  
of the Freilich Collection possible:*

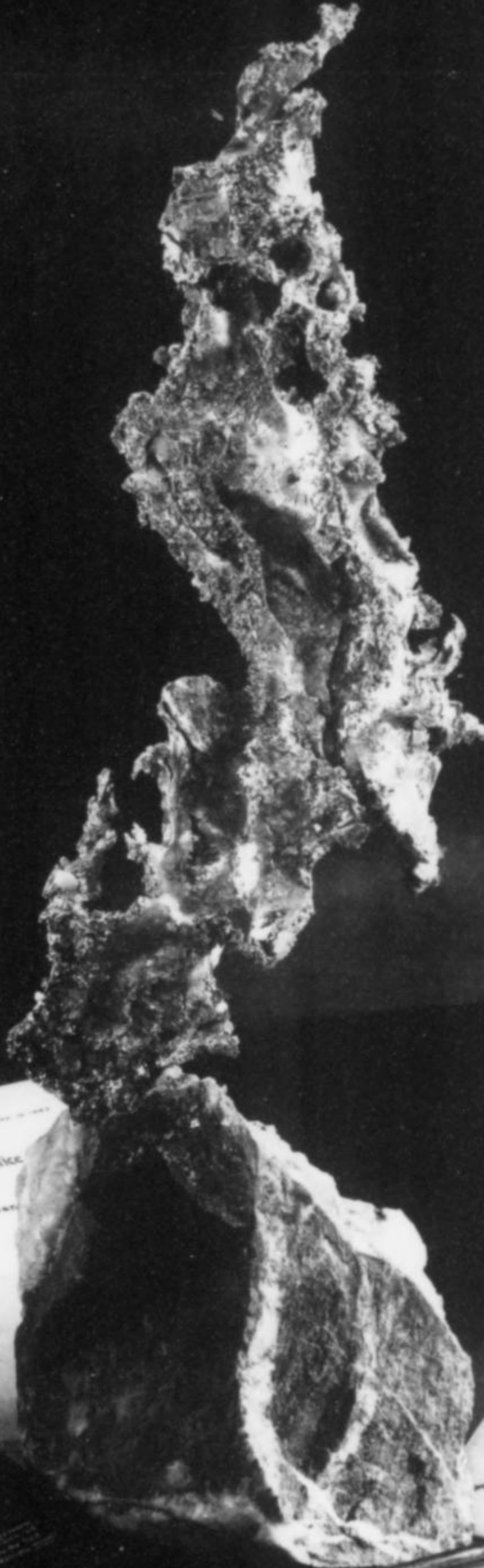
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... And a special thanks to Alec Madoff  
for fabricating all of the specimen display bases

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Specific Gravity and calculation  
Gold specimen  
in specimen 98.2

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is 15" high. Can I take  
it to the Van Pelt to  
photograph?  
Dona



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STILBITE, 3.25 inches, Poona, India; obtained from Kirby Siber in Switzerland ca. 1971.

*Clara and Steve Smale*

COLLECTORS



PHOTO BY STEVE SMALE



*Gold, Colorado Quartz Mine, California, 1.7 inches*

— *Wayne A. Thompson* —

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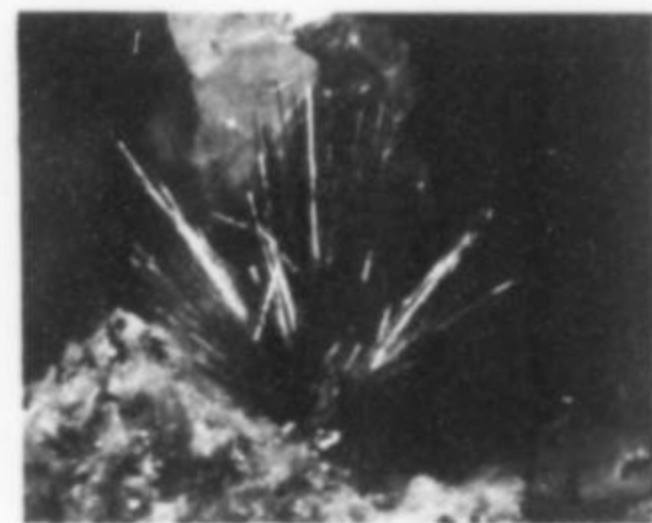
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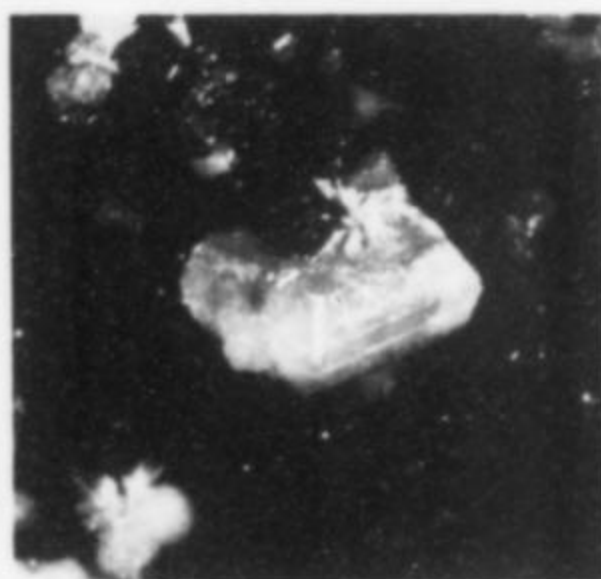
Tuperussuatsiaite - Aris Quarry, Namibia

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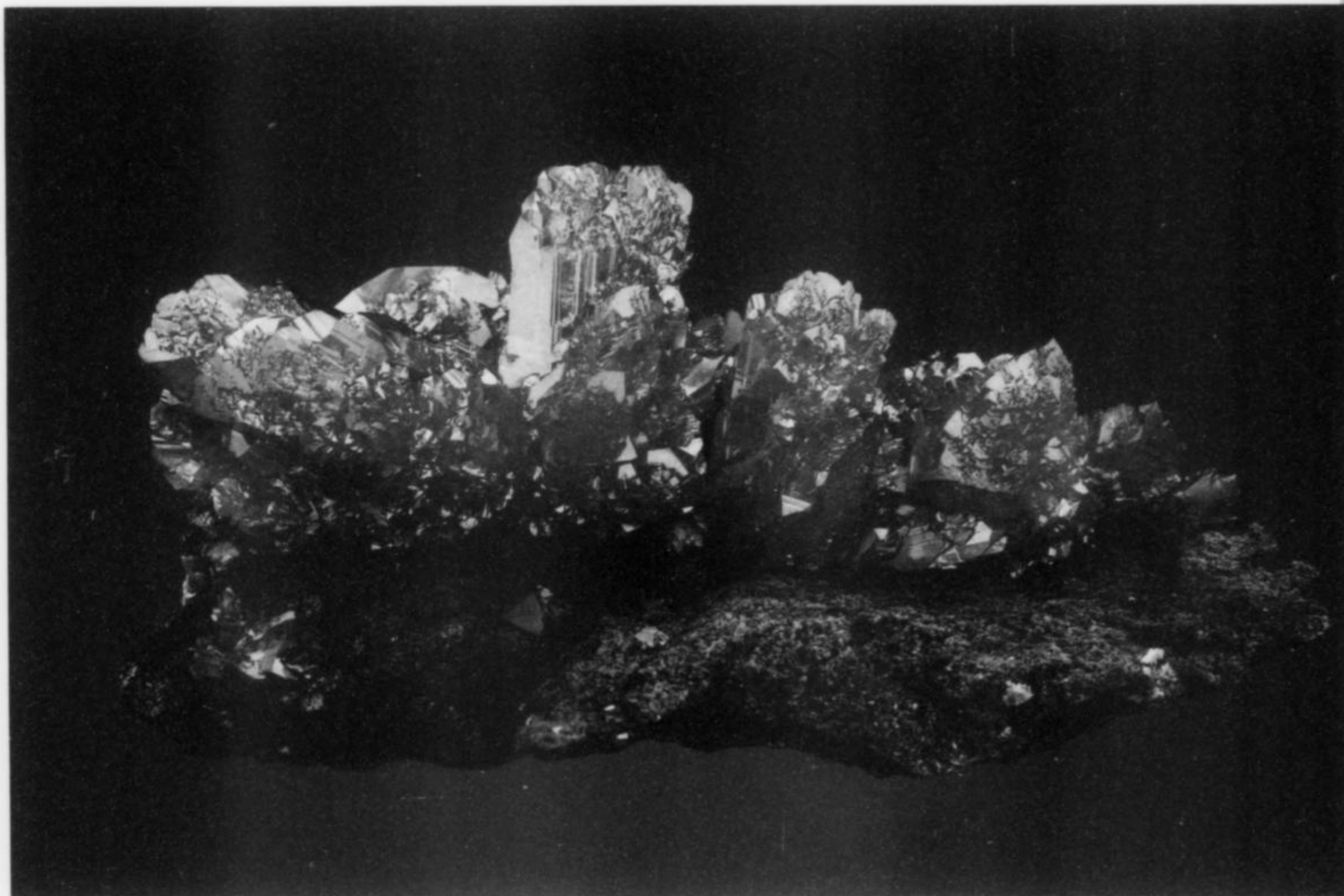
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Orpiment, Twin Creeks Mine near Winnemucca, Nevada



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Orpiment  
Twin Creeks Mine  
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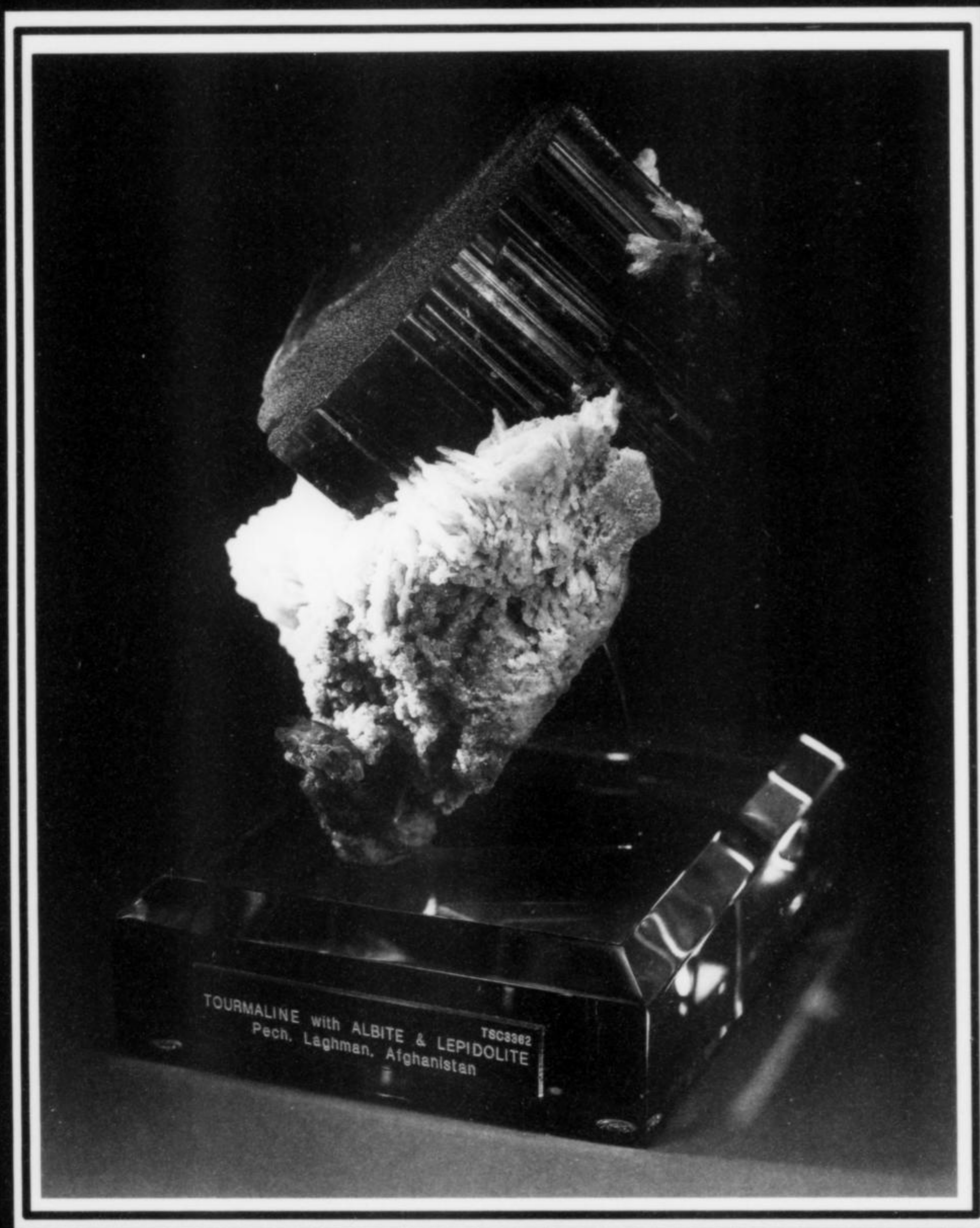
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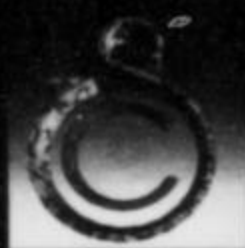
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ORANGE BERYL, 10-inch crystal, Painera Mine, Virgem da Lapa, M.G., Brazil • Photo by Harold & Erica Van Pelt

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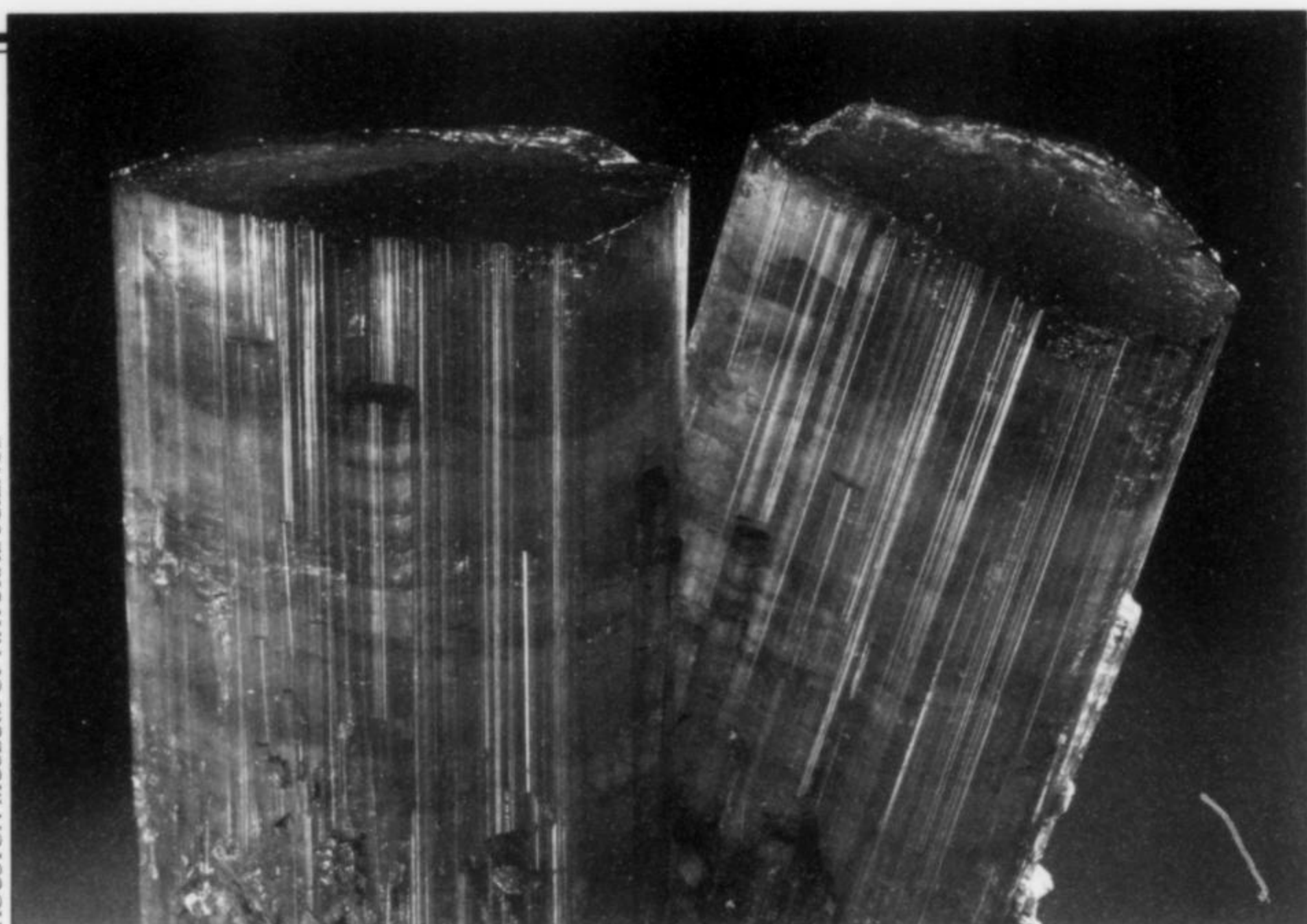
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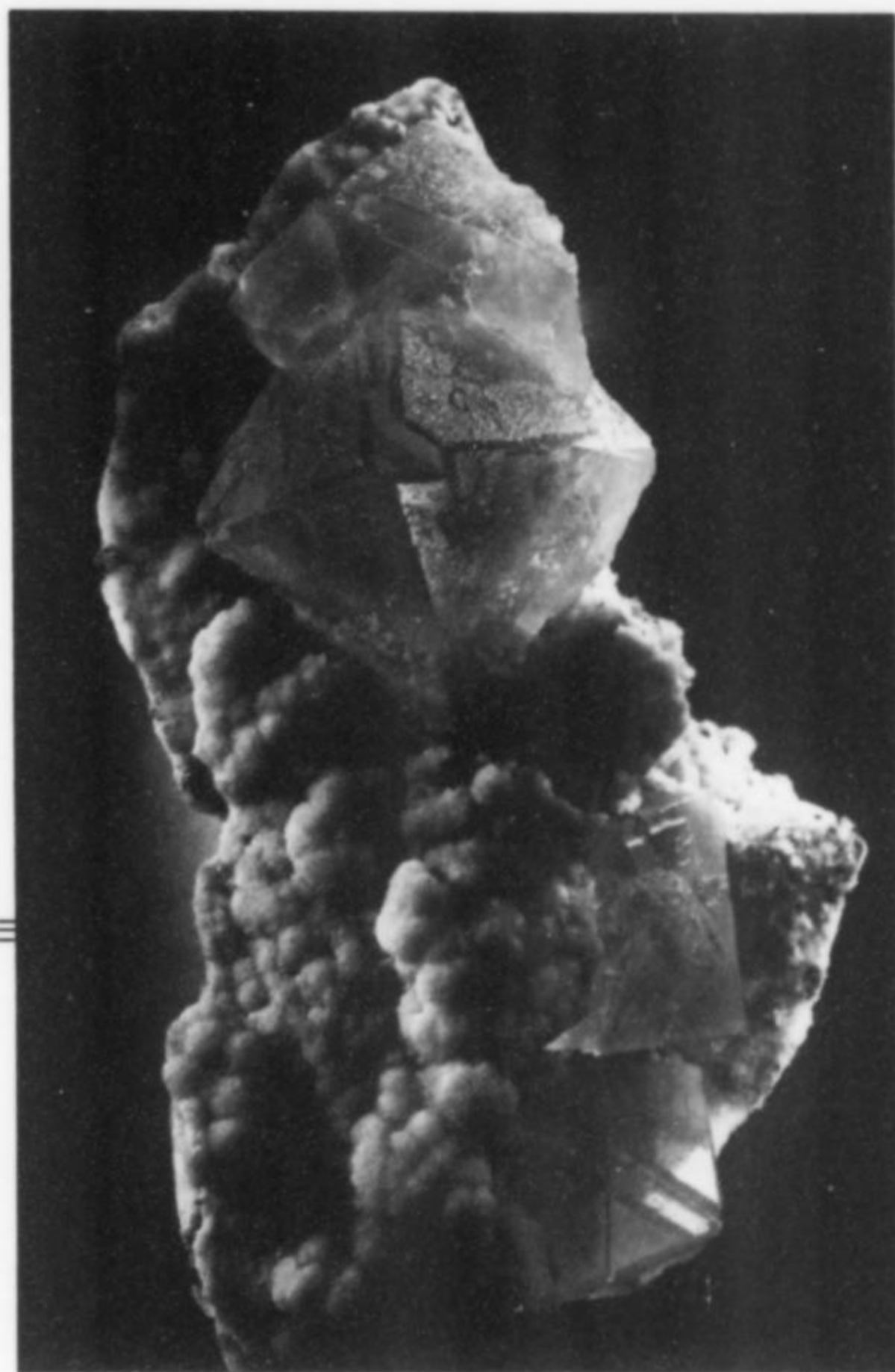
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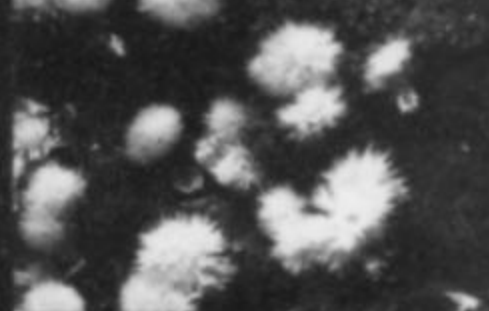
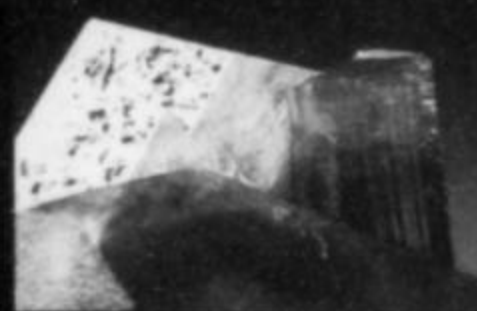
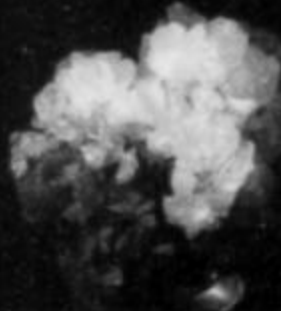
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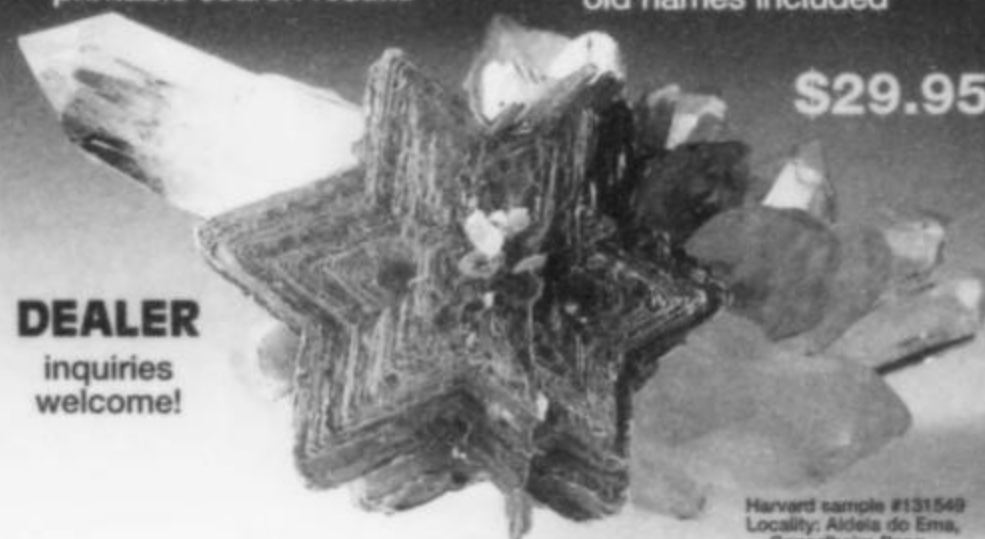
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# What's New



# in Minerals

## Ste-Marie-aux-Mines Show 1999

by Michael P. Cooper

It's been several years since I was in France, or at much in the way of mineral shows at all for that matter, so this year's trip to Ste-Marie was a real treat. Time to brush up my very rusty French, renew old friendships and find out what's been going on in the mineral world during my absence from it. Naturally, a good deal was new to me that was old hat to veterans like Jeff Scovil, who was in the welcome coolness of the Theatre basement taking photographs of some superb minerals during much of the show. It's a long drive from here to Ste-Marie, but the weather was good to us and saved its highest temperatures for the show days. Even Ste-Marie's famous summer storms held off for most of the bourse but when they did fall it was quite a downpour. People on the streets made beelines for the scores of dealer's tents on the site, seeing things they otherwise might have missed and boosting indoor sales. Bad weather isn't always bad news.

I'd gone to the show courtesy of the recently re-named Oxford University Museum of Natural History with curator Monice Price. I was co-driver, sometime translator and extra specimen-spotter. The department's large estate car was considerably weightier going back replete with specimens for new displays in the Earth Science Department.

We arrived on the first of the two dealer days and scouted the show quickly to find new minerals and old faces. There were far more of the latter than the former, but plenty of both to wear out feet and voice over the next few days. First impressions were of Bulgarian, Romanian and Chinese minerals in profusion; lots of interesting things, but little that truly blew me away. The show is much bigger than it used to be: over 500 registered dealers from 40 countries selling more or less anything connected with or made from rocks, minerals, gems, and fossils. They are accommodated in the town theater and nearby school buildings, four large marquees and dozens of small medieval-style tents which lined the closed streets around the theater. There were some complaints that the

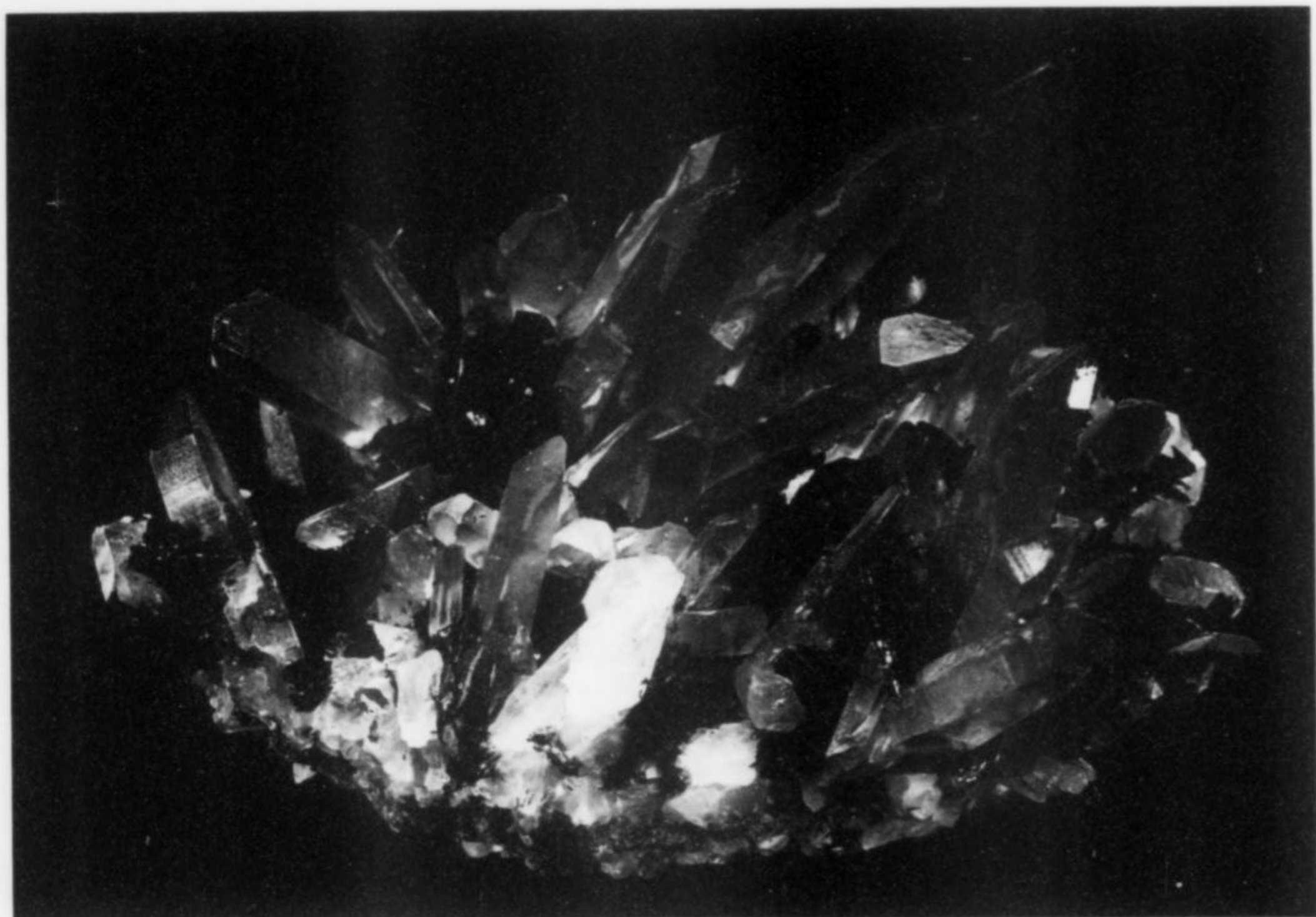


Figure 1. Outdoor dealer booths at the Ste-Marie-aux-Mines Show. M. P. Cooper photo.

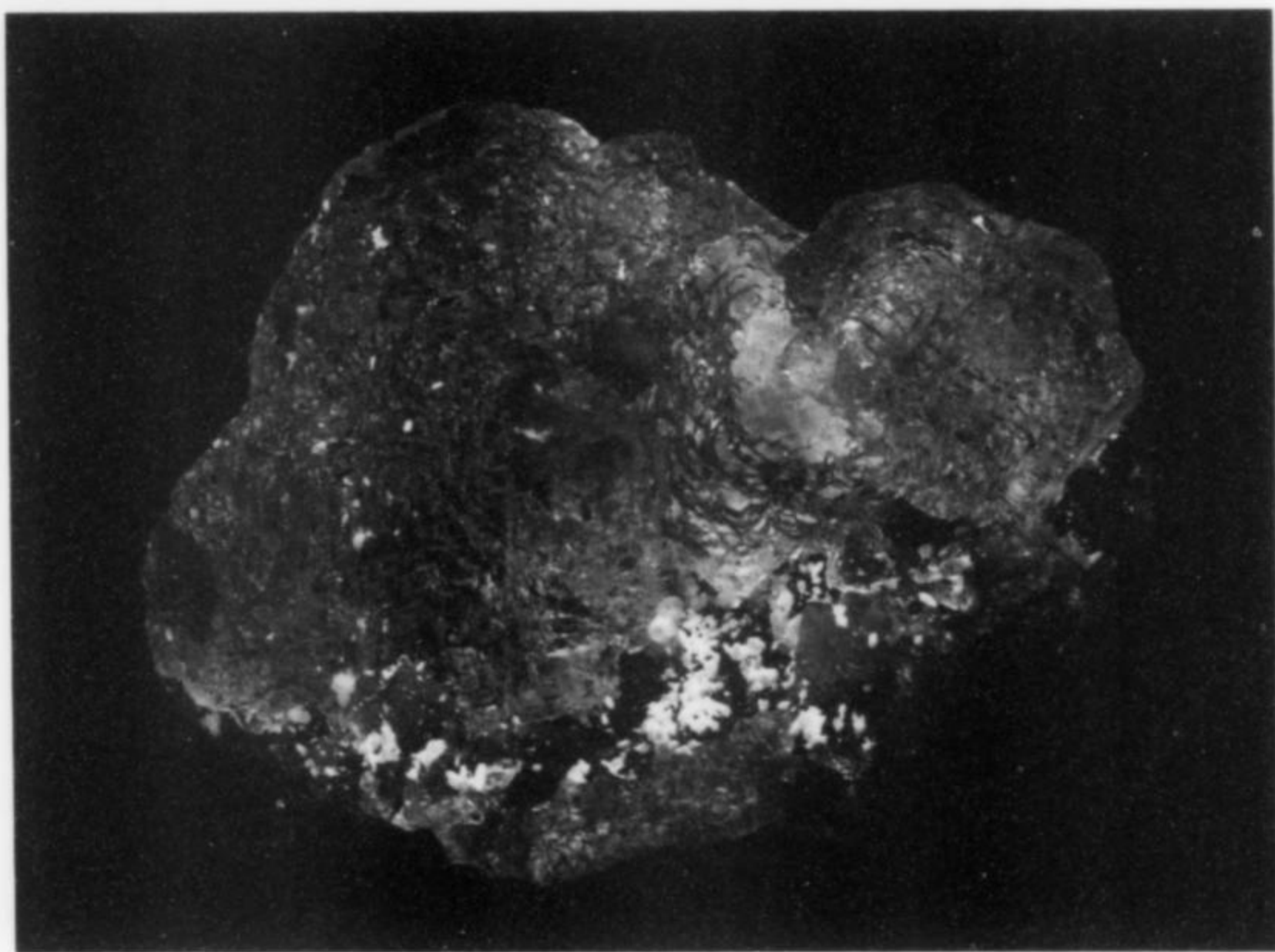
show had become too big, or that the number of non-mineral-specimen stands was too great, but I found that the size of the show made for constant interest and the variety of material offered me things I would otherwise never see or be aware of. Mind you, parking was a problem if you didn't get to town early, and I could only imagine the crush on the last day when everyone tried to clear the site at once. I was still finding tents full of previously-unseen dealers on Saturday, my last day there.

Hidden away in one of the commodious fossil tents was a Bolivian dealer with intriguing **bismuth** nuggets from Vilaque, La Paz. These had been lightly polished with sand and salt as "proper" cleaning chemicals are restricted there to prevent their use in drug trafficking. On the other side of the tent were representatives of *Li's Rock Shop* (Chang sha, Hunan, China) making their first trip to Ste-Marie. Among the usual array of Chinese minerals was a lone specimen of the sharpest octahedral **pyrite** crystals I've ever seen, mirror-bright, to about 1 cm on edge, scattered attractively on an odd, light-weight, pale green, porous matrix. The material was collected in April this year and one would hope that more will turn up over here in the near future.

Chinese minerals were everywhere at the show. A great deal more average quality material was in evidence than formerly, showing a greatly increased traffic in specimens than a few years ago. Dramatic **calcite** specimens from China have been rivalling the world's previous best for a number of years now, Ste-Marie didn't produce anything new of this quality, but there were some fine and sculptural specimens of a new find of steep rhombohedral crystal groups composed of drusy-surfaced white crystals to 10 cm



*Figure 2.* Hematite on quartz, Nanning Shan, Guangdong, China; 12.5 cm. Barras Gautier specimen; M. P. Cooper photo.



*Figure 3.* Fluorite from Hunan, China; 6 cm. Minerama specimens; M. P. Cooper photo.

or more with a stoss-side coating of red hematite. The large architectural groups (over 30 cm) are very attractive, though the smaller, more domestic-scale pieces didn't have the same impact. There's still plenty of Chinese **fluorite** on offer too; many stands had fine pieces. And I was very taken with the **hematite roses** with red-tinged quartz from Nanning Shan, Guangdong, China. Gilles and Françoise Barras-Gautier had the most aesthetic pieces, though several other dealers carried similar material, most of which had only colorless quartz. The roses of thin platy hematite reach 3 cm and the largest of the tapering quartz crystals I saw were about 10 cm long.

Almost as ubiquitous as Chinese calcite was the new **mimetite** from Hat Yai in Thailand. The latest material, at its best, is a beautiful gemmy deep yellow, though the most attractive crystals are small (a few millimeters) others reach over a centimeter and can be well-formed. They glittered temptingly in the sunshine on many of the street-side stalls. My favorites were the few pieces with a softly lustrous iridescent blue matrix. The contrast is stunning under the glass. Matrix specimens to 30 cm are not uncommon. Xiangxi, Hunan, China, had recently produced a few specimens of the related phosphate **pyromorphite**. Although not (yet?) of top quality, the luscious green color and crystal size (to

about 1.5 cm) is promising. Ennio Prato had the best pieces.

I was particularly taken with mica specimens at the show, which still surprises me since I usually consider myself a collector of "metallic" minerals. But ever since the clutch of wonderful muscovite specimens from the Ze Pinto mine, Brazil, in 1989, I've discovered a fascination with the finer points of micas. At Ste-Marie there was plenty to ponder over. François Lietard had some exceptional, bright, rose-pink muscovite from Tchorbarak Village, Pech district, Kunar in Nuristan, Afghanistan, in sheaves of triangular plates to 3 cm on edge poking from a matrix of white albite with embedded sections of bright apple-green **elbaite**. It was a stunning color contrast—had the elbaite protruded among the muscovite these would have been astonishing. As they are they're just plain excellent. It's suggested that the color is caused by manganese.

From the Ipê mine, in Governador Valadares, Minas Gerais, Brazil, Richard Eigenheer (*Bussy en Othe*) had a number of large specimens of sulfur-yellow **muscovite** plates, tinged here and there with black and sprinkled with a second generation of small golden yellow crystals, sitting edgewise on drusy white albite. The mica plates reach over 8 cm and the matrix 20 cm. Unfortunately only two specimens of another Brazilian muscovite find, beautiful golden yellow crystals from Araçuaí, were seen at the show: masses of hexagonal plates to 2 cm on matrixes about 9 cm across. These were offered by a "private collector" (as he asked me to describe him) making his debut at the show with a tent full of Brazilian material which included an interesting suite of globular **malachite** and **azurite** on gossan from Bahia.

El Hamman in Morocco is yielding some promising **fluorite** in fragments of large, deep aquamarine-blue crystals sprinkled with bright colorless to white quartz crystals to a centimeter or so. Cleaved corners of these crystals reach 15 cm, but I didn't see any complete crystals. Had there been any they would've been stunning. A new find from Kerrouchen in Morocco was some well-formed pseudomorphs of **malachite after azurite** in rosettes to 3 cm or so, mostly loose, but sometimes on a gossan matrix. And I also saw a few fine specimens of **azurite** or **cerussite** (or both) on botryoidal **duftite** from Touissit: a new one on me. Not so spectacular but interesting nonetheless, were a couple of specimens from the same place showing coatings of **cuprite** crystals to a couple of millimeters.

British material was almost impossible to find. A few unimpressive Frazer's Hush **fluorites** were almost the sole representatives, but didn't seem to be attracting much interest. The French in search of home-grown material were luckier: some interesting phantom **calcite** from a quarry near Ancenis, in the Loire Atlantique was newly-released at the show, though first found a year or more ago. These consist of reddish scalenohedra with translucent honey-yellow rhombohedral overgrowths on their tips. Most of the material consisted of singles or groups of a couple of crystals, about 5 cm across. There were still some groups of the excellent **torbernite** from Margabal, rich green crystals with black borders, and here and there an old-fashioned **bournonite** from Les Malines. A fresh batch of an old favorite in the form of unusual globular purple **fluorite** from Buxier-les-Mines, Allier, France, sold well. From Spain Jordi Fabre had a fine suite of **kongsbergite**, a new species for the country, collected early this year from an old silver mine at Roza de Santa Matilde, Les Herreires, Almeria, recently cut by a quarry working a related barite deposit. Branching microcrystal groups and thin plates (to 1 cm) spread attractively over fracture surfaces of the gray siliceous matrix. Jordi also had another Spanish novelty in the form of **axinite** crystals from a small quarry at Cantera Juanona, Antequera, Malaga, in southern Spain. I was surprised to learn this species was new to the country.

A few new, or newish, pegmatite finds are worthy of note. Christian and Petra Gornick had **quartz**, black **tourmaline**, **topaz**, and **orthoclase** from a prospect near Omoruru, in the Erongo Mountains, Namibia. Many pieces have thin coatings of green fluorescent **hyalite**. In the same range the Namgar mine has yielded some good crystals of **dermanoid** garnet. Michel Perraudin and others are working a deposit in Papachacra, Catamarca, Argentina, which is yielding **microcline**, **topaz** and **smoky quartz** along with small crystals of orange **fluorencite-(Ce)** (to 2 mm), purple-black **fluorite** (rarely to 5 cm), **bertrandite** and **pyrochlore**. Most of the good material is miniatures, though I found Jeff shooting a fine large feldspar twin from a French private collection. Carlsbad, Manebach and Baveno twins are available in display-quality specimens, generally to 5 cm long, but exceptionally to almost 20 cm. From Pakistan are some fabulous **ferro-actinolite** crystals from Shigar. The best (on the stand of Umberto Righi from l'Isle d'Abeau, France) was a fantastic 18-cm prism with clusters of 1-cm albite crystals along its length. It lacked terminal faces, but smaller terminated crystals were available on matrix. The specimens came from a single pocket mined out last summer. Pierre and Martina Clavel have been working pockets of **green quartz** at Avessalos, Seriphos, Greece, for several years and brought some very aesthetic recent material to Ste-Marie.

Back among the metallic minerals there were a few excellent native **silver** specimens floating around under tables at the show. From the classic locality of Freiberg, Germany, these are mouth-watering groups of pink-tinged wires, thick at the base and tapering to tangles of delicate hairs. I also admired the new find (this Spring) of **realgar** from Baia Sprie, Romania: clusters of bright red stubby centimeter-long prisms among white quartz and calcite on a dark sulfide-rich matrix. Some of these looked a bit unhappy in the bright sun. The Gorniks took care of some of the finest specimens in the show by keeping their perspex display box out of the sun under black velvet.

A couple of other Romanian finds also deserve mention. In April-May the Boldut mine at Cavnice hit a huge pocket of crystallized **calcite**, **quartz** and **chalcopryite** on the 61 level, 350 meters from the surface. The find yielded hundreds of fine aesthetic groups with frosty lenticular calcite plates to 3 cm and bright sharp chalcopryite to 1 cm. A similarly spectacular strike occurred in the Turt mine at Maramures, a previously unremarkable deposit from the collector's point of view. Here an interesting and attractive combination of **galena**, **amethystine quartz**, **siderite**, **quartz** and **chalcopryite** was found in the first serious strike of collector-quality material in the mine. In the best pieces the lustrous cuboctahedral galena reaches 5 cm and is associated with radiating sprays of pale amethystine quartz and hollow epimorphs of frosty pale-brown **siderite** after calcite crystals to 10 cm. They sold fast. Jordi Fabre had brought out a lot of fine material from both finds.

I've not mentioned Russian minerals yet, primarily because there weren't that many this time around. Despite the general lack there were still a few nice things here and there, principally on the stand of KARP. This mineral dealing collective from the Czech Republic had been held up overnight at customs and had the unenviable task of trying to set up their stand during the free-for-all of the first dealer day. Nevertheless, KARP managed to put on a fine show of material, including some excellent **galena** from Dalnegorsk in large, lustrous, sculptural crystals with frosty amber rhombs of calcite. A couple of these recently-collected pieces are huge, with crystals to almost 10 cm. Luckily the batch included some smaller-scale material so I was able to enrich my suite of Dalnegorsk sulfides with an attractive cabinet specimen. Other material included the once-ubiquitous **pyrrhotite**, now rarely seen

but still being produced in eye-catching variety if small quantity, and some miniatures of small but clean **pyrite** dodecahedra on strange ramose growths of greenish **aragonite**.

So that was my Ste-Marie for this year. It was good to be back. Not to mention an excellent hotel in the old town of Séléstat, great food and some very welcome cold beers.

## Carnegie Show 1999

by Jeff Scovil

[August 26–29]

Every August I travel to the eastern United States to visit relatives, attend the East Coast Gem and Mineral Show (aka Springfield) and do some photography for my East Coast clients; 1999 was the second year that it was my pleasure to end the trip by attending the annual mineral show at the Carnegie Museum of Natural History. This is the second of what is probably the classiest show in the country, held in three opulent halls in the Museum.

The show actually starts on Thursday evening with a catered gala reception and preview party. The public arrives the following morning to view the wonderful offerings of the dealers as well as many fine guest displays. Regional clubs and individuals display the pride of their collections as well as invited museums. The top draw was the exquisite Victoria-Transvaal necklace from the Smithsonian Institution, sporting the 67.89-carat diamond of the same name. There were also demonstrations of jewelry making, and diamond cutting to entertain and educate the public. Twenty-one gem and mineral dealers displayed their wares as well as six local jewelers. Two large booths were devoted to the beautiful work of the Gem Artists of North America. Tomorrow's collectors were not ignored either—for children there was a Mineral Safari, free minerals, geode cracking, lapidary art activities, a learning center and fluorescent minerals. There were of course booths for the magazines *Australian Journal of Mineralogy*, *Lapidary Journal*, *Matrix*, *Mineralogical Record*, *Rocks & Minerals* and *World of Stones*.

Saturday night kicked off with a sumptuous outdoor barbecue followed by the awards ceremony. The next event of the evening was the annual auction, which raises money for the contributing museums, which included The Houston Museum of Natural Science and the Carnegie Museum of Natural History.

Although there were many fine specimens to be had, there was not much that was really new, having already appeared at the Springfield show. In the booth of *Northstar Minerals* I did discover some very attractive **galena** on quartz from the Turt mine, Oas, Satu Mare, Romania. The cuboctahedral crystals are up to 2.5 cm across. Owner Ross Lillie told me that the locality is on the far western edge of the Romanian metallogenic province. It is in a vein-type orebody not previously known to have produced mineral specimens. Recently, several choice pockets were found containing nice purple **amethyst** crystals exceeding 10 cm in length. The galenas are usually associated with dolomite which preferentially coats one or more of the crystal faces.

One other oddity was brought to my attention at the show, and while not really new, is worth noting. *Chris Wright* had a bizarre sample of twinned **calcite** coated with drusy quartz from Jalgaon, Maharashtra, India. The crystals are reminiscent of petrified butterflies stacked end to end.

## Denver Show 1999

by Wendell E. Wilson

[Sept. 15–19]

As of mid-September our regular reporter on the Denver Show, Tom Moore, was still *hors de combat* with a broken foot. Consequently your editor was required to pick up the pen once more and

record what was new at this second-most-important American show of the year.

Were there any big new discoveries for sale at the show? Well, yes and no. In a peculiar precedent, not one but two major discoveries debuted in the form specimen-packed showcases of not-for-sale-until-Tucson specimens. These "Tucson Teasers," as we dubbed them, were impressive and tantalizing, and will surely have the desired effect of priming the market for heavy sales in February.

Teaser no. 1 was a case of spectacular **orpiment** crystal clusters from the Twin Creeks gold mine near Winnemucka, Nevada. About a year ago Newmont Mining, operators of the mine, began to encounter crystal-lined pockets and (to their great credit) recognized the specimen potential. They contacted Bryan Lees of *Collector's Edge Minerals* and arranged for the specimens to be salvaged. That was a good move because Bryan and his team are experts in the art of specimen extraction with an absolute minimum of damage and loss. The resulting pieces are exquisitely damage-free (except unavoidably around the edges of big plates where they were broken away from enclosing rock or other specimens).

The zone containing orpiment mineralization consisted of a folded and faulted decalcified limestone. Pockets ranged from 3 x 25 cm up to 15 cm across and over a meter deep. As the open pit was deepened by the continuation of mining, the zone eventually proved to be about 100 meters long and 30 meters deep. It finally pinched out and is now exhausted.

The orpiment clusters consist of crystals up to 4 cm or so, packed together in solid plates, crusts and vugs, with (dark gray) matrix and without. The sample specimens shown measured from about 6 to 15 cm. The color is a brilliant canary-yellow with an orange tint, sometimes darkened a bit by the dark gray underlying matrix. Luster is brilliantly vitreous. The individual crystals have a habit which appears to be more or less identical to that of Peruvian orpiment and also most Chinese orpiment, although the Chinese crystals can be much longer.

As with many of Bryan's most successful projects in the past, the number of orpiment specimens produced and stockpiled for Tucson is substantial. The prices are promised to be quite "reasonable," so that the majority of collectors should be able to afford a high-quality specimen if they wish to own one. Those pieces exhibited in Denver were not priced, so we will have to wait until February to see how reasonable they prove to be.

Teaser no. 2, also unpriced, was a beautiful and interesting case of deep emerald-green **fluorite** from the Rogerley mine, Weardale, Durham, England. These well-known classics of the past were quite a surprise to see again in quantity.

The Rogerley mine had been worked sporadically for specimens by Lindsay Greenbank and Mick Sutcliffe since 1972, but was closed down in 1996 upon their retirement. American mineral dealer Cal Graeber, in partnership with Paul Geffner and Jesse Fisher, arranged to lease the mine and began rehabilitating the workings in May of 1999. The mine itself is just a short 35-meter adit, driven solely for specimens, into the wall of the Rogerley limestone quarry. This old quarry, opened in the mid-1800's, never produced commercial galena or fluorite, and in fact had discarded these minerals as an ore contaminant whenever they were encountered. The specimen potential of the fluorite was not recognized until the early 1970's by mineral collector Raymond Blackburn; he noticed loose specimens on the quarry floor and traced them to a vein high up on the north face of the quarry wall.

Rehabilitation of the workings involved hosing the mud off of the adit walls with pressurized water, a process which uncovered a promising seam about halfway along the adit. Work began at that site, and soon the promising seam had opened up into a crystal-



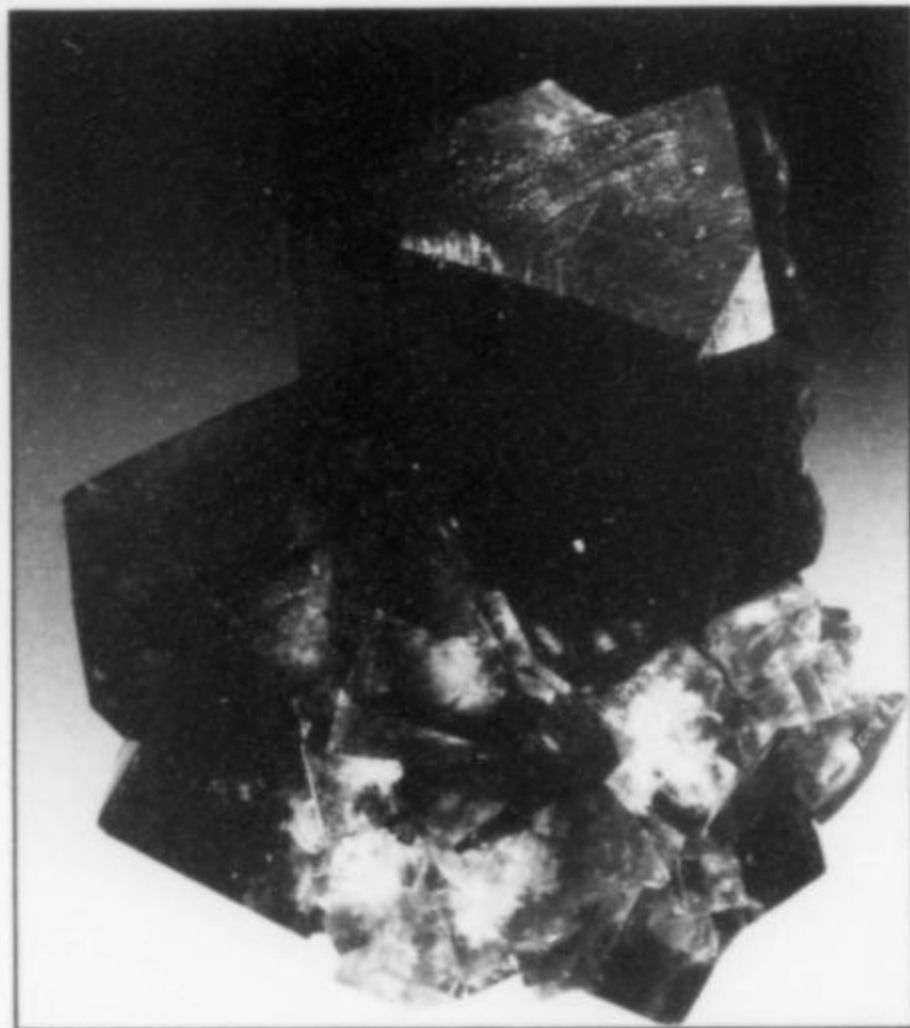
*Figure 4.* Rogerley quarry, with ladder leading up to the fluorite level. K. Graeber photo.

*Figure 5.* Entrance to the Rogerley mine. K. Graeber photo.



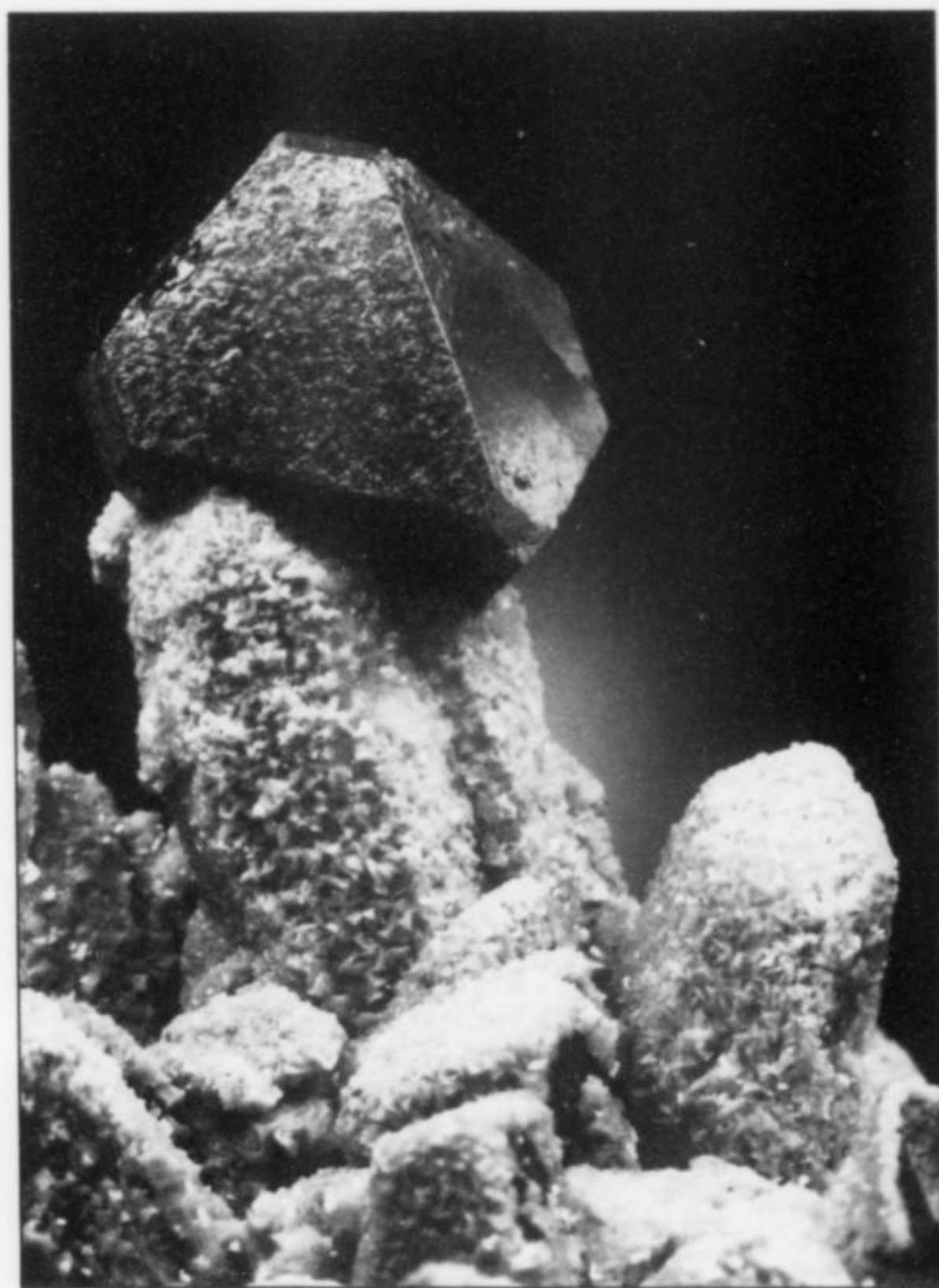
*Figure 6.* Removing fluorite from a pocket in the Rogerley mine. K. Graeber photo.





*Figure 7.* Fluorite from the Rogerley mine, Weardale; 5.7 cm: (left) in incandescent light showing pure green color, and (right) in daylight showing blue fluorescence. UK Mining Ventures specimen; photo by Wendell E. Wilson.

*Figure 8. (below)* Fluorite crystals to 1 cm with galena, Rogerley mine. UK Mining Ventures specimen; photo by Wendell E. Wilson.



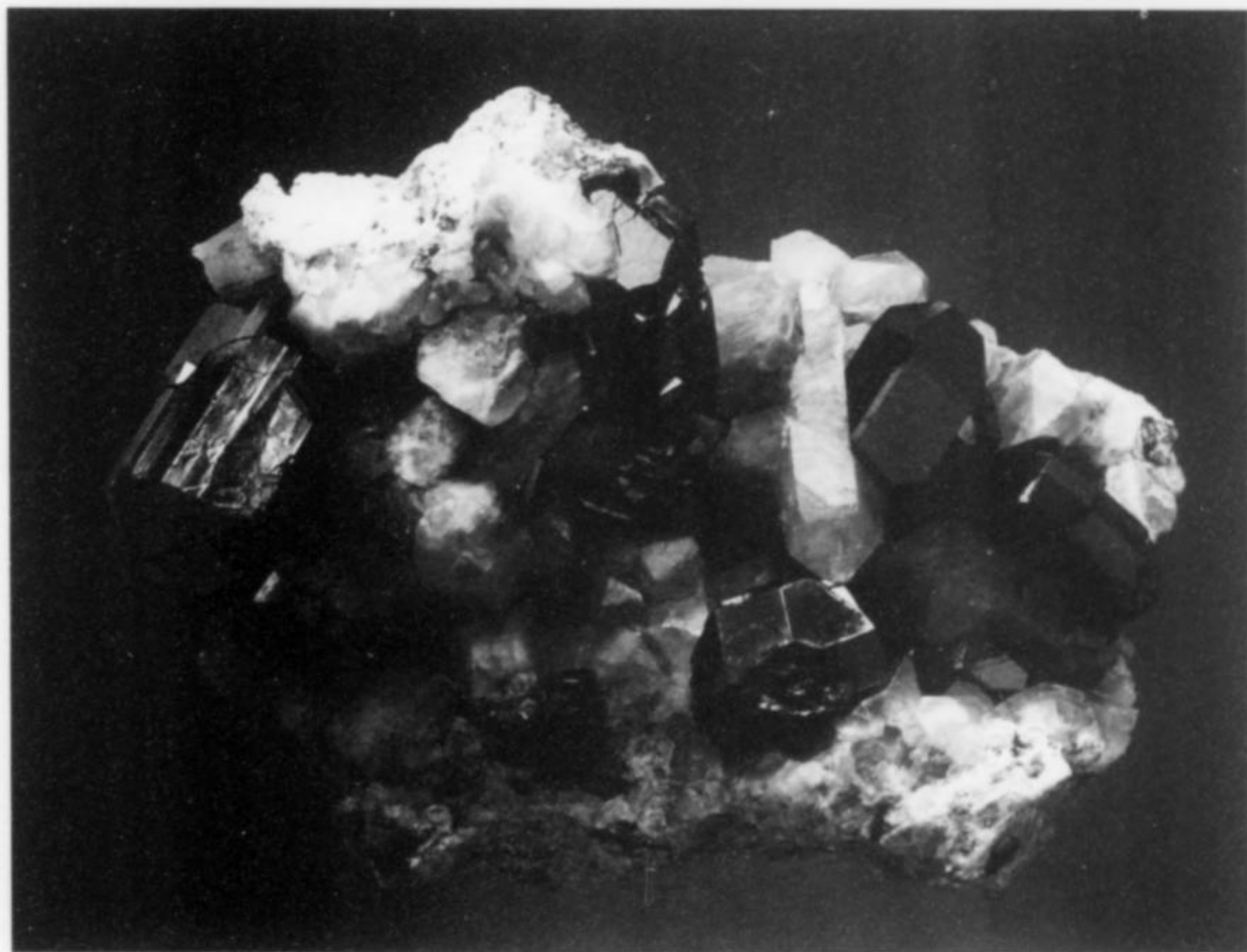
*Figure 9.* Galena crystal, 2.1 cm, with dolomite on quartz, from the Turt mine, Oas, Satu Mare, Romania. Northstar Minerals; Jeff Scovil photo.

*Figure 10.* Axinite crystal, 2.5 cm, on matrix from the Tormiq area, Pakistan. Herb Obodda specimen; Jeff Scovil photo.





*Figure 12. Stone Flower collecting crew on Mount Kapudzhuk, Azerbaijan.*



*Figure 13. Rutile crystals on matrix, 11 cm, from Mount Kapudzhuk, Azerbaijan. Marcos Budil specimen; Jeff Scovil photo.*

lined pocket, the first of an interconnected series. So far the pocket zone has opened up to 1 x 1.3 meters and has been followed into the wall for a distance of 5 meters with no end yet in sight. Many hundreds of fine specimens have been removed thus far.

The fluorite is that peculiar dark emerald-green with flashes of blue or purple fluorescence in ordinary daylight and intense purple fluorescence under ultraviolet light. Some crystals also have a pale purple core or a thin purple outer zone covering the green. Crystals are always penetration-twinning by rotation about the three-fold

axis [111], and reach a maximum size of about 3.5 cm. Some are purely transparent, and others are partially to completely opaque, usually with a high luster. The unusual, intense color is apparently due to an enrichment in rare-earth elements, especially yttrium and europium, and possibly also samarium and gadolinium.

Associated minerals found with the fluorite crystals and plates are limited to drusy milky quartz and corroded octahedral galena. Predominantly purple fluorite has also been found, sometimes coating an earlier generation of pale green or yellow fluorite.

Other famous mines in the district, located just 5 to 10 miles west of the Rogerley mine, include the Blackdene, Heights, Boltsburn, Cambokeels, Stotsfieldburn and Frazer's Hush mines. The Blackdene, Rogerley, West Pastures, Scoredale, Allenhead and Heights mines produced some fine purple to green fluorites in the late 1970's (see vol. 9, p. 37).



Figure 14. Rutile crystal, 2.2 cm, on matrix from Mount Kapudzhuk, Azerbaijan. Stone Flower specimen; Jeff Scovil photo.

A third major discovery (this one actually for sale!) consists of superb, blocky to thick-tabular brown-black crystals of **rutile** to 5 cm on yellowish white quartz crystals. The find was made by Nikolai Kuznetsov and Alexander Agafonov (*Stone Flower Company*, Dovzhenko-6-562, Moscow 117330 Russia) in August 1999, just a month before the Denver Show. They had seen a museum specimen brought back by a geological team of the Russian Academy of Sciences in the 1970's, from an occurrence on Mount Kapudzhuk, Azerbaijan, that was being prospected for titanium. Access was very difficult in that troubled area, and the local people were at first suspicious, but they made friends and enlisted the help of the local military. Once at the site they had to hire local workers to dig out the specimens, over 200 pieces in all, from a single pocket.

The rutile specimens are very attractive, with high luster and a generous density of crystals on the matrix (some cabinet specimens carry dozens of large, fine crystals). Some muscovite, a little

wolframite, and bright yellow crystals of **scheelite** to 2 cm are rare associations. It is true that, because of the need to use untrained workers to recover the specimens, there is a little more damage, on the average, than one would like. But it is amazing that these beautiful specimens came out at all, and collectors should value each piece accordingly. A number of other dealers purchased specimens from Agafonov and Kuznetsov, so we should see at least a few of those highgraded beauties for sale at the Tucson Show.

Coincidentally, another big batch of **rutile** specimens, these from Graves Mountain, Georgia, was available from *Mountain Gems* (P.O. Box 239, Little Switzerland, NC 28749). The big, blocky, lustrous crystals to 7 cm or more look just like the classic specimens of old.

Edson and Laercio Endrigo (*Valadares Minerals*, Rua De. Jesuino Maciel 135B, São Paulo, S.P., Brazil) had a large lot, over 60 pieces, of black **columbite** (ferro- or mangano-?) from an unnamed pegmatite in the Vitoria da Conquista area, Bahia, Brazil. The opaque crystals range in size from 2 to 10 cm, show good crystal faces and mica contact surfaces, and are blocky to thick-tabular in shape.

For tourmaline collectors, a nice pocket of red and green crystals 2 to 23 cm long was found at the Lavra do Sapo in Minas Gerais, Brazil. Hundreds of crystals came out, especially in the 5 to 8-cm range. Most are a pale to medium green with raspberry-red terminations and first and second-order rhombohedron faces on the terminations. Others have a red core with a green exterior and a flat pedion termination. These were all available from Fabiano Vasconcelos (*Vasconcelos Brasil*, Rua Alfonso Pena 3053, Governador Valadares 35010-001, Minas Gerais, Brazil), and secondary sources. Some very fine **quartz** crystal groups came from the same mine.

Amethyst from Las Vigas, Veracruz, Mexico, is certainly not new, but a new find in July was brought out by Dennis Beals (*XTAL*) and Stefan Stolte (*Mineralien & Fossilien Galerie*, Fahrgasse 88, D-60598 Frankfurt, Germany). The crystals are rather elongated for Veracruz, up to 9 or 10 cm, in connected clusters without matrix. Only the tips of the crystals, a centimeter or two, are purple, and the rest is colorless with abundant liquid and gas inclusions. These are particularly elegant crystal groups.

Well, that should give readers a head start for Tucson in February, in knowing what to go after. Of course, every collector has his own favorite dealers whom he likes to visit first. I'm making up my own list right now. Unfortunately, there are a couple of collectors in particular who like to go after the same things I do (you know who you are). I've got to find a way to tie their shoelaces together, or something, to slow them down. Put "The Club" on their steering wheel? Lead weights in their shoes? Hide their glasses? One has always had to compete hard for the best specimens, and Tucson 2000 will likely be no different. But that's what makes it fun! See you there! ☒

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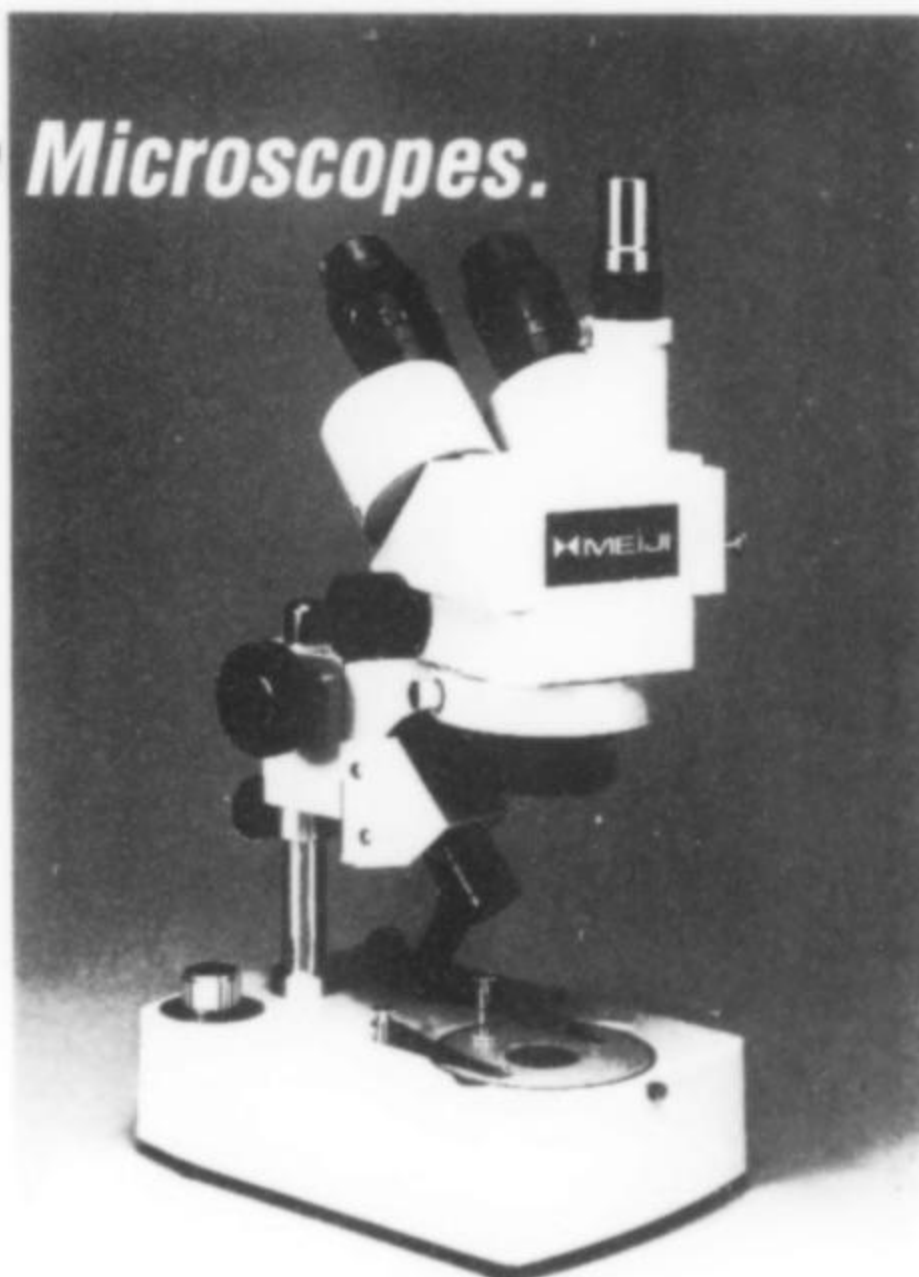
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- \* Support a semi-professional journal of high excellence and interest designed to appeal to mineral amateurs and professionals, through which *FM* activities may be circulated.
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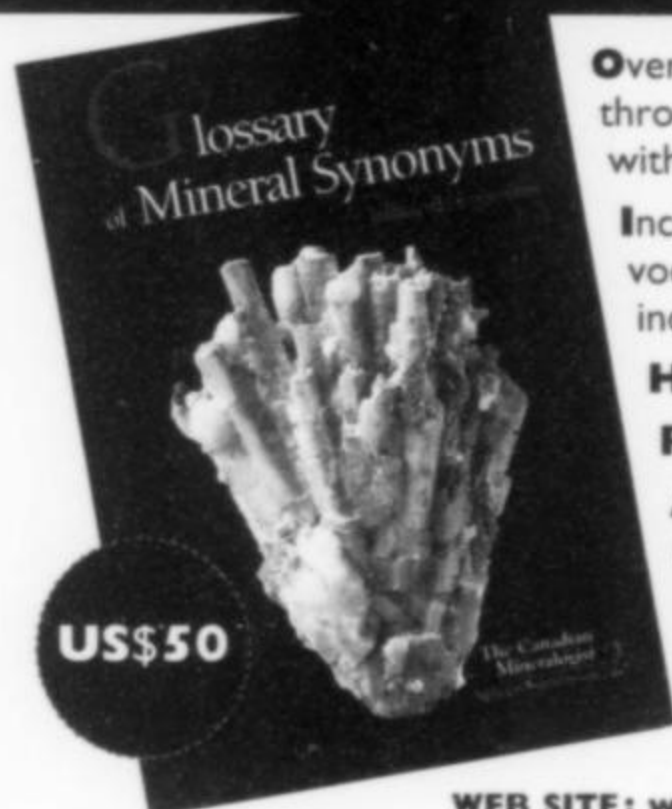
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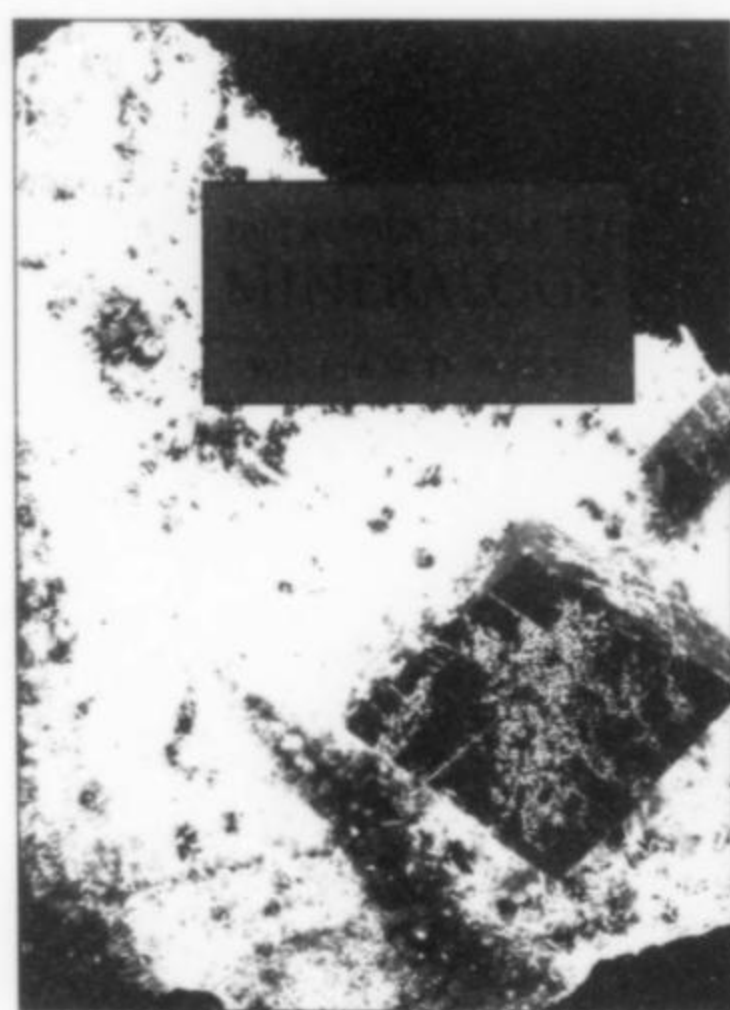
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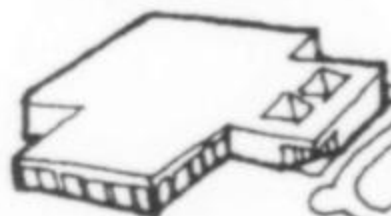
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Telnet [pac.ppld.ord](mailto:pac.ppld.ord) (Library Cat.)  
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*Museums listed alphabetically by city*





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Education Curator: Sue Celestian  
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Phoenix, AZ 85007  
Hours: 8-5 M-F, 11-4 Sat.,  
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Specialty: Arizona minerals

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E-Mail: vwueth@nmt.edu  
Fax: (505) 835-6333  
Associate Curator: Robert Eveleth  
Tel: (505) 835-5325  
E-mail: beveleth@gis.nmt.edu  
New Mexico Tech,  
801 Leroy Place  
Socorro, NM 87801  
Hours: 8-5 M-F, 10-3  
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## Museum of Geology

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E-mail: sicree@geosc.psu.edu  
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State College, PA 16802  
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Penna. minerals, mining art

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Mineralogist: Anna M. Domitrovic  
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Fax: (520) 883-2500  
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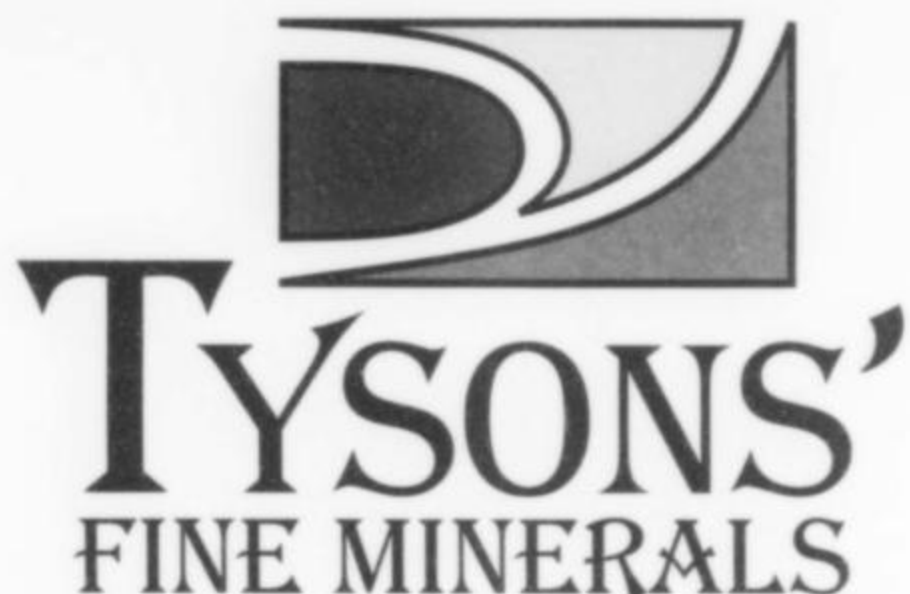
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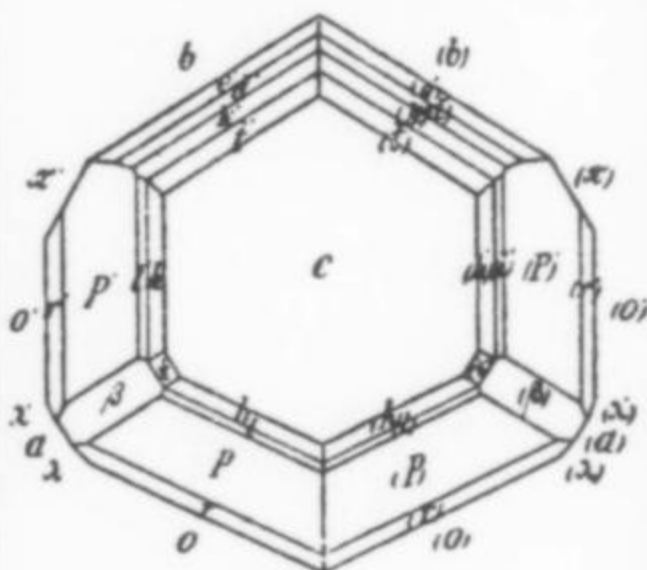
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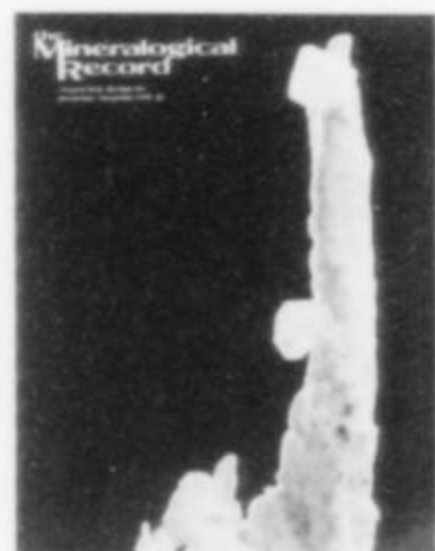
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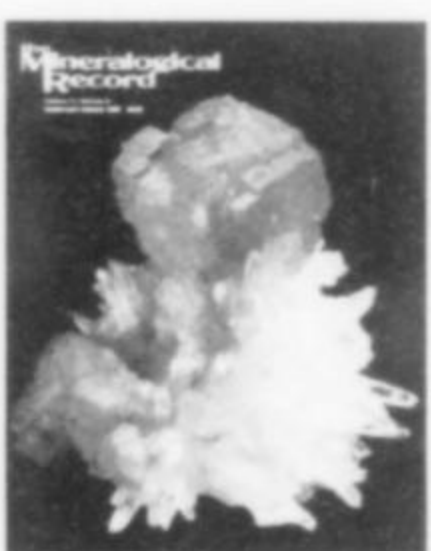
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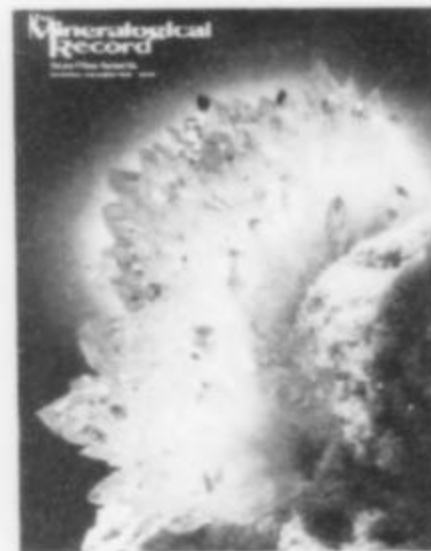
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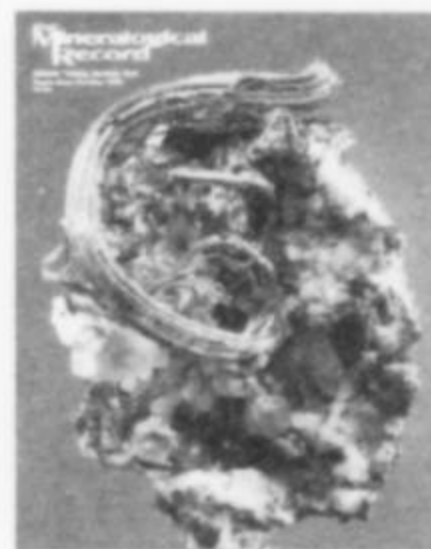
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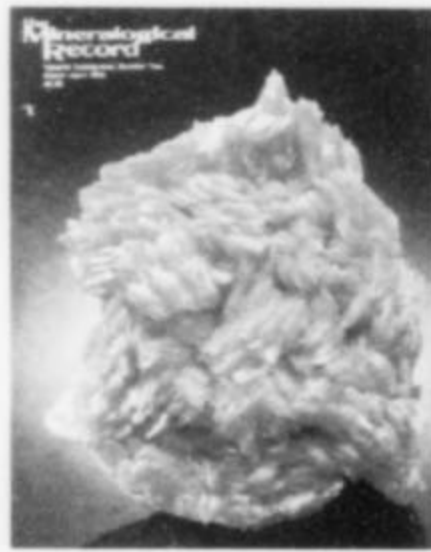
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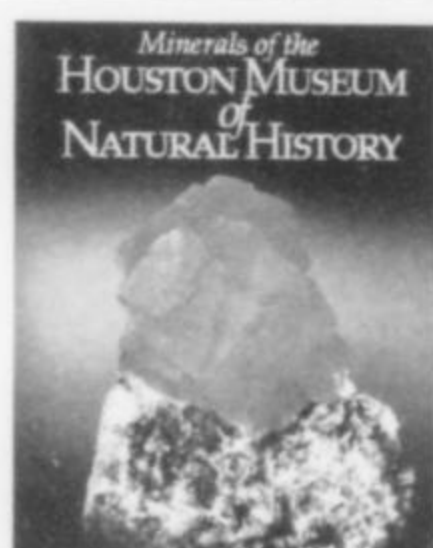
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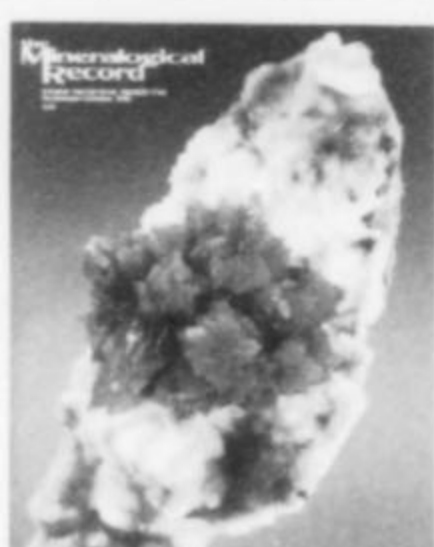
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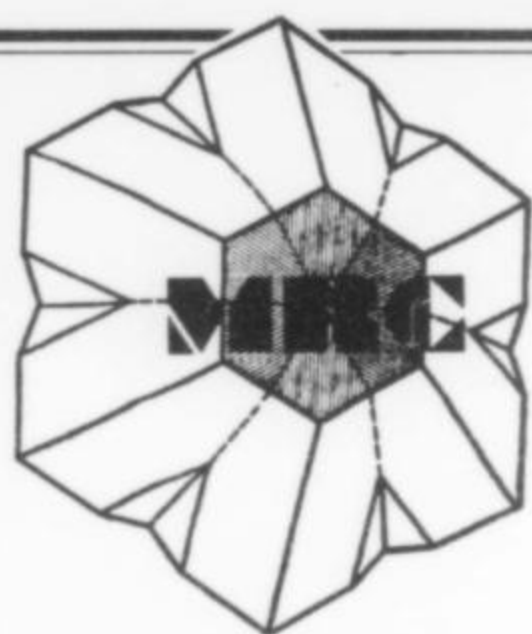
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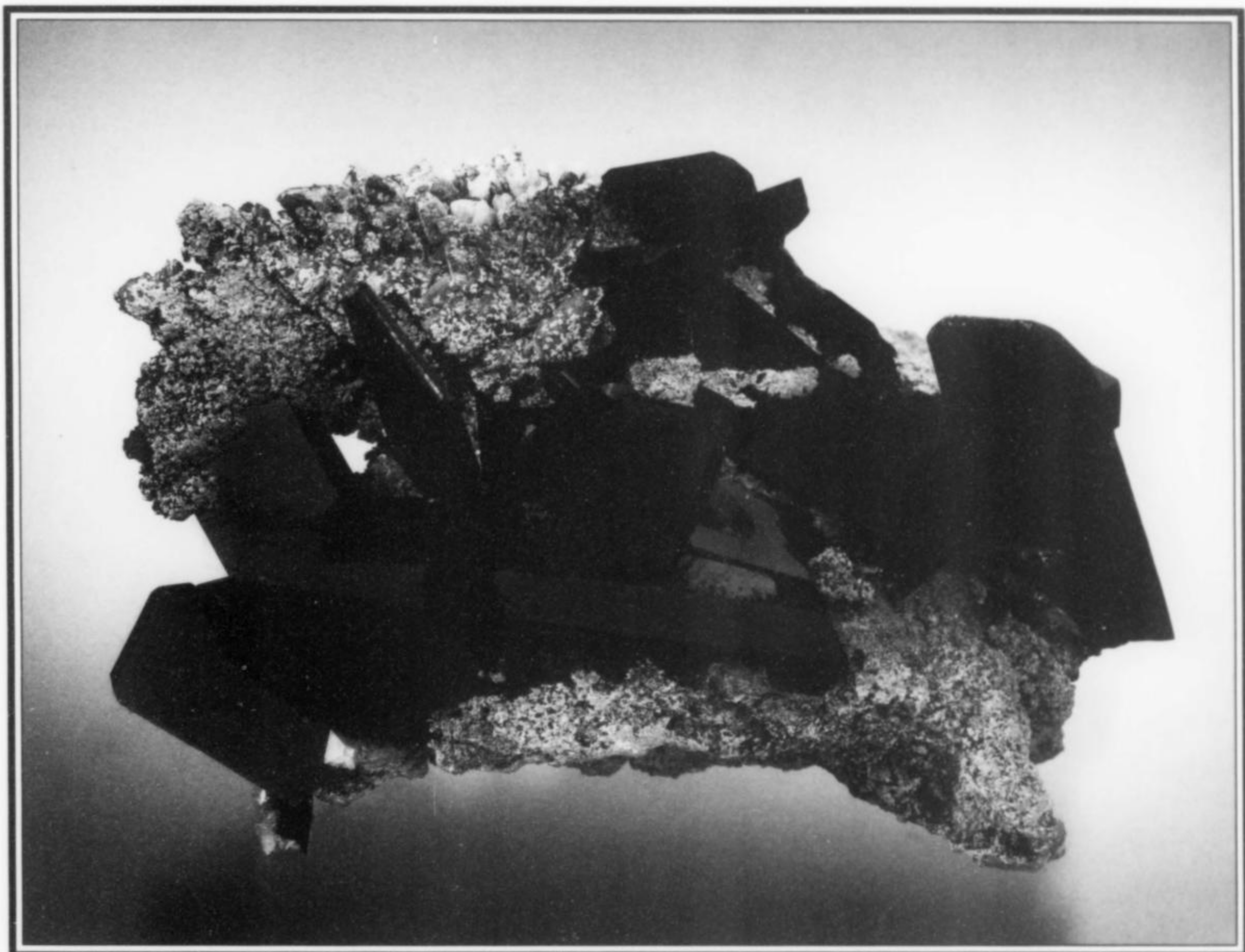
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## AZURITE

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