Crystals

Crystals are indeed pretty rocks; but if you need to be healed, read and believe the disclaimers.

George M. Lawrence

YOU SHOULD have bought a crystal mine five years ago. Because of Shirley MacLaine and the media coverage of New Age crystal mania, demand is way up. Laurens Tartasky, owner of the Crystal Galleries in the Boulder (Colorado) Mall, says he can sell all the quartz crystals he can get, but he has to put them in the back room because the street people would come in and hang around all day absorbing crystal power. The Crystal Galleries is a high-quality shop with many fine mineral specimens. A visit is worthwhile, better than a trip to many museums, and one can appreciate the jewelry (gem) value of beautiful crystals. One Boulder collector has specimens appraised at nearly $200,000.

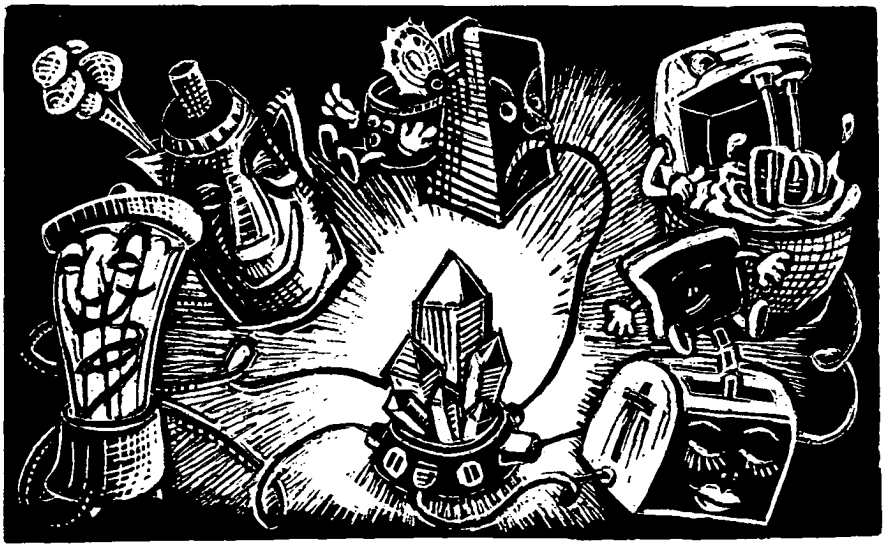

Illustration by Pat Linse.

Dr. Lawrence is an experimental physicist working in space science at the Laboratory for Atmospheric and Space Physics, University of Colorado, Boulder, and a fellow of the American Physical Society. He has used electronic crystals for more than 40 years.

Quartz is oxidized silicon, silicon dioxide. The chemical name is silica. When broken into small pieces by wind or waves, it forms sand. If pure sand is melted at a yellow-hot temperature, and cooled, it forms silica glass or fused quartz. If silicates are added, the mixture melts at a lower temperature (red hot) and forms ordinary glass. Silica dissolves somewhat in very hot high-pressure water. In the cooler portions of this hot water, crystals form in the shape of hexagonal needles, like six-sided Washington monuments. Synthetic quartz crystals of very high purity are produced this way for the electronics industry, with the crystals growing over a period of several days. Sometimes, in nature, impurities cause interesting colors in the crystals, forming the gems: amethyst, smoky quartz, rock crystal, rose quartz, agate, chalcedony, and jasper. Quartz is a somewhat inferior gem, softer than diamonds, rubies, emeralds, and zircons. Its ability to reflect and scatter light is no better than ordinary window glass. However, one can obtain samples that weigh tens of pounds (2,200 carats per pound). Diamonds might cost $5,000 per carat and quartz perhaps only $0.05 per carat. If a crystal contains impurities in interesting shapes (phantoms), the price is higher.

Technically, the value of quartz lies in two remarkable properties: It expands very little with increased temperature, and the crystals change shape when electric forces are applied. (These properties can be explained with the use of quantum mechanics.) One can heat quartz to red heat, throw it into water, and it doesn't break. Hence high-temperature laboratory glassware is made of fused quartz. If one makes electrical contact to opposite faces of a quartz crystal, say to two strips of silver paint, and hooks up a battery to the contacts, one gets a small but measurable change in the shape of the crystal. Conversely, if one squeezes the crystal in a vise, a voltage appears on the electrical contacts. Hooking the contacts to an appropriate transistorized electronic circuit produces a continuous vibration of the crystal. By the 1930s, the technology of this "piezoelectricity" was well understood. Now most of the millions of electronic crystals are made in the Orient. Small plates or tuning forks, precision cut from high-purity quartz crystals, vibrate at frequencies from a few thousand cycles per second (hertz) to 100 million cycles per second, depending on the size and shape. The frequencies of vibration are extremely accurate and stable, literally regulating the pace of modern life. If one were to run a clock from a typical television signal (crystal stabilized), it would be off by a second in 30 years or so. The crystal in your quartz wristwatch nominally vibrates 32,768 times a second ($32{,}768 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$). Each 32,768 vibrations, the watch ticks off a second. Quartz "rings" much better than the famous bell. Modern quantum electronics goes even further, storing holographic images in crystals.

A typical New Age mystic mentally attaches magic and emotion to crystals partly because he or she is vaguely aware of the near-perfect technical properties of quartz crystals. No matter if the technical facts are wrong (e.g., "Quartz crystals amplify the sound"), the claim is made that science supports the mystical claims. In fact, quartz crystals did not vibrate and resonate until

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twentieth-century science found the way to make them. Left to themselves, they still do not vibrate; they simply sit there like other pretty rocks. In science, one produces detailed descriptions of the behavior of the crystals that allows the construction of new technology. New Age mystics appropriate the words of science but go no further than the use of the words to manipulate the feelings and ideas of their audiences. The users of the crystals are asked to visualize various energies, auras, and colors. Because they naturally can visualize such things, they often assume the reality of these subjective experiences. Technical terms like *resonance, bonding, energy,* and *electromagnetic field* are used by the mystics, not as precise descriptions of the crystals, but as metaphors for human interactions and as buzz words connoting power. Indeed, the ancient phallic symbolism of the elongated quartz crystal, with its points, is not neglected.

The ideas of harmonics, vibration, and resonance show up in the most dangerous theme of New Age crystalogy: healing. A typical booklet, by "gem therapist" Gari Gold, promises "clearing away negative attitudes, centering personal energies, enhancing communications, promoting healing, opening the heart to love and courage, symplifying decision-making, balancing the spirit, focusing the mind, tapping into psychic powers, and using chakras and colors."[1] How can one lose?

This might all be fuzzy, fun, and harmless poetry, but some "healers" promise help for cancer, AIDS, and other dire diseases "if treated early enough." Published healing claims typically contain a disclaimer like this one by Alper: "There are no guarantees, no promises, only your own spiritual belief."[2] Thus having covered himself against a lawsuit, he lists 58 crystal rituals for the "healing" of everything from dysfunction of the adrenal glands to venereal disease.

At a talk to about 15 interested people at the Boulder Unity Church, Allen J. Harrison, D.C., explained "Harmonics, Healing, and Crystals." His brochure states: "Harmonics has uniquely blended ancient healing knowledge with present-day scientific understanding, to create a healing art that will shine into the twenty-first century." The ideas of "harmonics" were taught to him by a Dr. H. L. Rees ("an incredible man"), who lives in Kansas.

First Harrison introduced the group to crystals: "They can be charged with salt water or black light. . . . The copper color of some Brazilian crystals was put there by aliens. . . ." Then he "treated" about six of the attendees,

including me. The "diagnosis" was done by kinesiology. The patient holds out both arms and the therapist pushes down, looking for weakness. By holding a finger on various points of the body, the source of illness is "located." Once having located the illness, the therapist passes his hand over (three inches away) the afflicted part, holding a collection of crystals in the other hand. When the appropriate crystal "resonates" with the diseased organ, the "toxins" are carried out of the body, through the therapist's body, into the crystal, and thus into the universe.

"What is the resonant frequency of the liver?" I asked.

"I don't concern myself with those technical details," Harrison answered.

"How do you know which crystals to use?" someone else asked.

"I keep in touch with the universe," was the answer.

Harrison apparently believed almost any thought that came into his mind. His thinking was entirely metaphorical, without any reference to the nuts and bolts of objective reality. I think that two teenagers and I were the only ones in the audience who did not take everything at face value.

Back to the treatments. A healthy young woman, who said she competes in triathalons, was treated for "toxins." After a treatment on the massage table, she got up, saying, "What a trip. I'm dizzy." Afterward, she told me that hopefully she could give up the adrenal supplements that had been prescribed by another Boulder healer.

I was told that I had a severe hip problem. Scary, but not to worry; the treatment left no sign of the problem. I popped off the table wearing a big grin, leading one member of the audience to comment on how happy the treatment had made me. Harrison was not aware of the severe lumbar strain from which I was just recovering. The two M.D.'s I had visited earlier had spotted it immediately.

Afterward, I talked to a few members of the audience and told them that I didn't believe this "nonsense," and then I quietly left. The next morning I was angry at myself for not being more articulate. This is what I should have said to the group: "I will leave you tonight and you will not see me again. I do not accept what has been said here. There is no science here, only superstition. The use of quasi-scientific jargon is only done to emotionally bend your judgment. For *my* medical help and advice I will go to someone whose knowledge is based on double-blind controlled experiments for finding the truth, rather than to someone who believes any good story that pops into his head. 'Ancient healing' led to starvation, the plague, and early death. As for me and my house, we will seek objective reality. For the improvement of my soul, I will enjoy music, art, gems, poetry, and philosophy for their own beauty, not for the false hope of magic."

Notes

1. *Crystal Energy,* by Gari Gold (Chicago, Ill.: Contemporary Books, 1987).
2. In *The Crystal Sourcebook,* ed. by Milewski Harford (Sante Fe, N.M., and Sedona, Ariz., 1987), pp. 94ff. •