



The Skeptics SA guide to Crystal Power

Throughout history people have been attracted to crystals, and even today some people attribute mysterious powers to them.

Many minerals such as quartz and amethyst occur as crystals, with their atoms arranged in an orderly array. This internal symmetry often produces the regular arrangement of external features — plane faces meeting at regular angles — that we associate with crystals and which makes them objects of beauty to us. Crystals are often valuable because of their scarcity and attractiveness, and have been used since ancient times for decoration and jewellery.

Heart-shaped amulets made from quartz were advocated in the ancient Egyptian Book of the Dead, to be laid in the chest cavity of the mummy to thwart heartsnatchers. In 300 BCE, Theophrastus in his book *On Stones*, mentions quartz more than any other mineral in that ancient work indicating its popularity.

In medieval Europe the finest crystal, prized for its clarity and lack of surface blemish, was shaped into balls for scrying or crystal gazing — a popular art-form for entertainment and divination well before its traditional association with the gypsy fortune teller.

Long before that however, quartz crystal had been a shamanic tool for peering into other

realms of consciousness and promoting physical and spiritual well-being. Some followers of the New Age also allege that crystals have a host of other mysterious powers, such as their supposed protection against illness, bad luck, and ability to ward off evil. There is no sound evidence for such powers, however.

Some crystals do exhibit an interesting property called piezoelectricity (from a Greek work meaning ‘to press’). This is the electric potential produced when pressure is applied in particular directions to crystals such as quartz or tourmaline. This can be demonstrated by rubbing two lumps of quartz together in the dark, where the electric potential can produce visible sparks. Similarly, applying an electric potential across a piezoelectric crystal will result in a small physical movement. Today this effect is exploited in a variety of practical devices such as microphones, phonograph pick-ups, wave filters in electronic systems, plus applications in other scientific instruments.

Some New Age proponents claim that holding or stroking a crystal releases mysterious energies which can be used for healing, chakra balancing, meditation, and so forth. Any old crystal will do, and any New Age shop will sell them. But you have to get one of the really ex-

pensive ones (from \$200 to \$4,000 each!) to benefit from the most highly reputed powers. One very useful power of the crystals in this context is clearly in separating some people from their hard-earned money! There has also been a proliferation of literature available on crystals and their commercial exploitation has been enhanced by dubious claims of supportive scientific evidence. New Agers often refer to crystal watches and crystal radios in conjunction with the supposed powers of crystals. These analogies are seriously flawed, however.

The crystal (usually quartz) in a crystal radio or crystal watch provides the mechanism for an oscillator, which is used in the electric circuits. In no case does the crystal itself provide the power. This is hardly surprising since crystals do not store or emit energy of their own accord. They use well understood physical principles which have nothing to do with any type of New Age ‘energy’. Quartz is simply oxidised silicon or silicon oxide. Its chemical name is silica and it is the most common mineral on Earth. To suggest that the electromagnetism generated by crystals can be used for healing purposes (when in fact they do not of their own accord generate anything) is simply a reiteration of a long discredited belief in the healing powers of magnetism.

Crystals are inanimate minerals which simply do not have the mystical, magic or healing powers attributed to them. They are objects of beauty which, like anything else, can be used as a vehicle for the placebo effect.

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