

Dr . John Stuart Reid



Sound Healing at the Cellular Level

A presentation by acoustic-physics researcher, John Stuart Reid

During an acoustics research mission to the Great Pyramid, in 1997, I experienced a profound healing of my lower back while conducting experiments to map the resonances in the King's Chamber sarcophagus. This sparked my interest in sound's ability to heal and inspired a study that continues to this day.

It is established fact that sound has powerful healing properties. In hospitals and sports injury clinics, in all parts of the world, therapeutic ultrasound—high frequency sound—is used to support or accelerate the healing of soft tissues and broken bones. In recent years several commercial companies have developed audible sound therapy devices to support a wide range of physical ailments. The manufacturers of the devices have documented many cases in which sonic therapy has benefited people with medical conditions. Audible sound is intrinsically safe and cannot be 'overdosed', while ultrasound, if not properly applied, can cause severe internal burning, resulting in scar tissue. However, the mechanism by which audible therapy devices trigger the healing response is not well understood.

In considering sound as a healing modality it is important to distinguish between the mechanisms by which music supports the body and mind, as distinct from the ability of non-musical sounds to support the body's healing mechanisms. It is also important to distinguish between sound treatments that support the body by 'destructive' principles, such as the shattering of kidney stones, as distinct from those that accelerate cellular division that could be said to be 'constructive'. These differences will be discussed in detail in my presentation.

Musical sources of sound are rich in harmonics—pitches that are mathematically related to the fundamental pitch—but it is the melodic aspect of music and its ability to affect one's emotions, which are thought to be responsible for supporting physical and emotional maladies. Conversely, sound in itself, while not necessarily evoking emotion, can have powerful healing

properties, inferring that music therapy is potentially healing on two levels, first as a result of the stimulation of the brain's pleasure centres, leading to hormonal secretions and 'feel good' effects, and second, due to the physical effects of sound at the cellular level. It is the effects of sound at the cellular level that this presentation focuses on.

The scientific literature does not document that audible sounds manifest as patterns on the Integral Membrane Proteins of living cells, however, my research has demonstrated that sound patterns are created whenever cellular tissue is immersed in a sound field. Whenever we listen to music or immerse ourselves in the sounds of Nature our cells are gently massaged by beautiful—though normally invisible—patterns. This phenomenon, I believe, holds the key to understanding how sound triggers a body's healing response and in my presentation I will explain my hypothesis and show videos of sound patterns on the surface membranes of living cells.

If the biological mechanism that underpins audible sound therapy could be discovered it may pave the way for a new paradigm in treating illness: Sound as medicine or music as medicine.

John Stuart Reid--biographical information

John Stuart Reid is an acoustics engineer, scientist and inventor with a fascination for sound and electronics that go back to early childhood. At age 15 he built a radio telescope with which he listened to the signals of the early satellites orbiting overhead, and noise from the stars. He studied pure electronics at Northumbria University and went on to work under Professor Joseph Joshua Weiss and Dr Alastair Johnson in the Department of Radiation Chemistry where he assisted with their Febetron beta-ray field-emission device for which he built a range of high energy pulse experiments. He also worked with an Electron Spin Resonance machine.

Reid left the University to begin his own sound engineering company that eventually developed into a full acoustics consultancy business and included operating high-powered argon-ion lasers for the entertainment industry. In 1997 he conducted a series of experiments in Egypt's Great Pyramid to study its remarkable acoustics. He devised an experimental setup that would permit the resonances of the granite sarcophagus to be rendered visible, using cymatics principles. During the experiments he experienced a profound healing of his lower back that sparked his interest in sound's ability to heal. The Great Pyramid research was a great success and led him to conclude that making sound visible was potentially a powerful new investigative tool for science. He published the Great Pyramid research in an article titled, *Egyptian Sonics*.

In the years since the Great Pyramid experiments he has continued to develop cymatics technology, resulting today in the *CymaScope* a new type of scientific instrument. It is now possible to image any sound—within the instrument's bandwidth—with a high degree of reproducibility.

A recent collaboration with SpeakDolphin.com resulted in a discovery concerning a dolphin's ability to see with sound, research that was published in the Journal of Marine Science: Research and Development, titled, *A Phenomenon Discovered While Imaging Dolphin Echolocation Sounds*. Reid also continues to investigate sound's ability to heal.

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