

## **Cymatics: A Brief History**

**and**

## **How To Build Your Own Tonoscope**

*Cyma* from the Greek “*kyma*” ... *the wave*.

The term *Cymatics* was coined by Dr Hans Jenny (1904-1972) and is the study of visible sound and vibration. Dr Jenny was a Swiss doctor, artist, and researcher who pioneered the science of Cymatics. He demonstrated what happens when certain materials like sand, salt, water, and other viscous substances, are placed on vibrating metal plates and membranes, which mirrored forms found throughout nature, art, and architecture. These patterns were created using simple sine wave vibrations (pure tones) within the audible range. So what you see is a physical representation of vibration, or how sound manifests into form through the medium of various materials. The tonoscope was constructed to make the human voice visible without any electronic apparatus as an intermediate link. In his book, ***Cymatics - The Structure and Dynamics of Waves and Vibrations***, Dr Jenny says that “the key to understanding how we can heal the body lies in our understanding of how different frequencies or ‘tones’ influence our physical reality.”<sup>1</sup>

**You Tube Video Clip:** <http://www.youtube.com/watch?v=HsWdBI2vsfg&feature=related>

Dr Peter Guy Manners, MD, was an English Osteopath, and pioneer in using sound to heal. He studied Dr Jenny's Cymatics and created Cymatics therapy. Dr Manners correlated different harmonic frequencies that are the healthy resonant frequencies of various parts of the body. He researched the use of Cymatics for medical diagnosis and treatment, including the healing effects of certain sound vibrations and harmonics on the structure and chemistry of the human body as well as the importance of sound and light in our natural environment. Cymatics therapy uses a toning device to transmit into diseased areas of the body the signature vibrations of healthy organs and tissues. Dr Manners designed a machine that would deliver frequencies directly to the body using an applicator. There are over 700 frequencies that can be transmitted through this tool to help normalize imbalances and synchronize the cells' frequencies back to their natural, healthy state of vibrational resonance. Sound is capable of rearranging the structure of molecules, and therefore has unlimited potential as a tool for healing. A form of sound therapy that is not applied through hearing, but by instruments that send audible sound waves directly into the body through the skin.<sup>2,3,4</sup>

“Working at his clinic, home, and research centre in Bretforton Hall, UK, Dr Manners encountered many personal challenges and acquired great knowledge, which led to the invaluable conception in the early 1960s of one of the world’s first-known sound therapy instruments. This development marked the birth of what we now know as Cymatic Therapy or Cymatherapy®, which is the therapeutic application of sound and magnetic energy, based upon research from the field of Cymatics. Dr Manners tirelessly and single-handedly developed, promoted, and taught Cymatic therapy throughout the

world. His greatest achievement was that he generated and inspired so much interest in the therapeutic use of sound.” – *Chris Gibbs (last UK student and assistant to Dr Peter Guy Manners)*<sup>2</sup>

Some of the earliest discoveries in Cymatics date back to 1632, when Galileo Galilei wrote in ***Dialogue Concerning the Two Chief World Systems***. “As I was scraping a brass plate with a sharp iron chisel in order to remove some spots from it and was running the chisel rather rapidly over it, I once or twice, during many strokes, heard the plate emit a rather strong and clear whistling sound: on looking at the plate more carefully, I noticed a long row of fine streaks parallel and equidistant from one another. Scraping with the chisel over and over again, I noticed that it was only when the plate emitted this hissing noise that any marks were left upon it; when the scraping was not accompanied by this sibilant note there was not the least trace of such marks.”<sup>5</sup>

Ernst Florens Friedrich Chladni (1756-1827) was a German physicist and musician. One of Chladni's best-known achievements was inventing a technique to show the various modes of vibration on a mechanical surface. Chladni repeated the pioneering experiments of Robert Hooke of Oxford University who, on July 8, 1680, had observed the nodal patterns associated with the vibrations of glass plates. Hooke ran a bow along the edge of a plate covered with flour, and saw the nodal patterns emerge. He is known as the “Father of Acoustics”.<sup>6</sup> Dr Hans Jenny, inspired by the work of Chladni, began researching the visual display of sound.

The CymaScope is a scientific instrument that makes sound visible. John Stuart Reid and Erik Larson are the co-inventors of the CymaScope. “Vibration underpins all matter in the universe. No matter can exist without sound and vibration. To see the periodic motions that lie at the heart of matter is to lift the veils that conceal many mysteries of the universe. The CymaScope represents the first scientific instrument that can give us a visual image of sound and vibration – a cymatic image – helping us to understand our world and universe in ways previously hidden from view.” *Erik Larson on the CymaScope* – <http://www.cymascope.com><sup>7</sup>

## Let's Build Our Own Tonoscope!

**Items Needed:** 2-inch diameter PVC pipe approximately 2 feet long. PVC elbow joint with at least a 3-inch diameter opening (though 4-inch works a bit better). 1 dark-colored balloon (black or dark navy blue works well). 2-3 rubber bands. Salt or sand. **Please refer to accompanying PowerPoint presentation for demonstration and instructions on how to build your own tonoscope.** Enjoy!

### References:

1. Hans Jenny. *Cymatics - The Structure and Dynamics of Waves and Vibrations*. Macromedia Publishing. Third Printing 2007.
2. Cyma Worldwide. [www.drpeterguymanners.com](http://www.drpeterguymanners.com).
3. David Helwig. *Gale Encyclopedia of Alternative Medicine*. Gale Group. April 6, 2001.
4. <http://www.cymatictherapy.com/history.html>.
5. Maurice A. Finocchiaro. *Retrying Galileo, 1633-1992*. University of California Press, 2007.
6. Ernst Florens Friedrich Chladni, Institute for Learning Technologies, Columbia University.
7. Erik Larson. <http://www.cymascope.com>.