The Dodecahedron



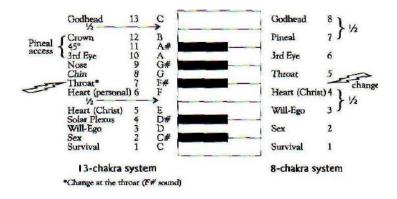
Background history of project Dodecahedron

This project began with a single challenge which was to create and develop a new therapeutic musical system whose primary function was healing. The project was called the Dodecahedron as a dual tribute to the Russian scientists Morasov and Makarow who began to examine the globe to see if any pattern should emerge linking significant places in history. A complex geometry was discovered in the shape of a dodecahedron linking major sacred sites around the world, which I considered appropriate considering the project's development of the didgeridoo – a 20,000 year old instrument used by the Australian aborigines to activate the earth grid (referred to as song lines). The aboriginal people were amongst the last cultures to follow the song lines and literally sang the power places alive up until 1944.

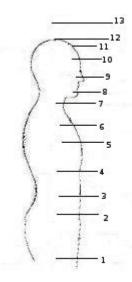
Secondly, the project title perfectly encapsulated my personal homage to Pythagoras who did not hesitate to influence the mind and body in what he termed as "musical medicine" (expounded on in detail in his seminal work "Music of the Spheres"). Thus the hermetic tradition was adopted as a logical approach to the aforementioned challenge as it is most likely that the Pythagorean mystery school derived its knowledge of the healing power of music from the Egyptians who attributed the God-form Hermes (Thoth) as the founder of their art (the Egyptians confined their sacred songs to the seven primary sounds and planets, forbidding any other to be uttered in their temples).

What transpired was thus a development and variation on such Pythagorean principles (i.e. an adaptation of the "Music of the Spheres" to accommodate the influence of new planets such as Neptune, Uranus and Pluto). (This is a break with the Pythagorean tradition of a seven notes scale corresponding to the seven planets or seven heavens of Assiah). The early instruments of both the Greek and Egyptian schools used seven strings lyres and most scholars concede that Pythagoras was the one who added the eighth string to the lyre of Terpander. Insofar as Pythagoras used seven strings and added an *eighth* to achieve his *octave* (8 being the number of Hermes), we are following in his footsteps by utilizing a system of 12 notes corresponding to the 12 astrological houses *with a 13th corresponding with the 13th sign of the Zodiac, Arachne, to complete our octave* (the same as one octave of the chromatic scale, i.e. one octave inclusive of all the white and black notes on a keyboard). ¹

In context to healing, the benefits of a 13 notes system are that they; 1. Correspond to the sacred feminine of the lunar calendar (i.e. 13 moons – menstrual cycles per annum); 2. Correspond to a characteristically feminine *13 chakra system*.



¹ The astrologer James Vogh announced the discovery of the 13th sign of the Zodiac, which he attributes to the spider. He calculated the span of Arachnean influence at 29 days, from May 16th to June 13th inclusive.



3. Also correspond to the contemporary Kabbalah and the aeon of Maat. There is a 13 fold division which occurred with the incoming phase of hyperdimensional consciousness expansion. The 13 fold division is represented as the aeon of the daughter (Maat), for 13 is the number of the woman.

The 13th sign Arachne (the sign of the spider) overshadows and interpenetrates the gate of Gemini which marks the passage of ingress for the influence of Zayin. 4. Correspond to 13 areas of the body in order to aid and focus the healing of a specific ailment with pinpoint precision. Such 21st century modernizations create more options, thus improving on the Pythagorean musical system.

Defining the note C as the tonic is also a Pythagorean principle. Curiously enough, this highlights that the healing process is more effective in holy sites or power zones and it is no coincidence why these genius loci have traditionally been associated with healing and the *key of C*. For example, the earth mysteries researcher James Godard has drawn attention to a common frequency which apparently unifies sound sources occurring on points along ley lines. Streams, beacon fires and wind blowing through tree clumps were found to produce similar frequencies in the region of middle C (head and aura) and E (heart). Likewise, the sound pictures of Gregorian chants occur within approximately the same range. Godard's thesis is that sound at this frequency is transduced at ley points (or sacred sites), amplifying the earth currents and the subsequent healing process which, in turn, is triggered by the aforementioned keys (refer scales of the serpent).

Sign	Key	Physiology
Aries	С	Head, face, scalp and brain,
		eyes
Taurus	C sharp	Throat, chin and neck,
		thyroid gland, voice and
		vocal cords
Gemini	D	Hands, wrists, arms and
		shoulders, lungs, breathing,
		nervous system
Cancer	D sharp	Breast and chest activity,
		stomach, pancreas
Leo	E	Heart, back and spine
Virgo	F	Bowels, intestines, digestive
		system, solar plexus
Libra	F sharp	Adrenal glands, buttocks and

		kidneys
Scorpio	G	Rectum, colon, bladder and
		organs of elimination, sexual
		organs (male and female),
		PMS and menstruation
Sagittarius	G sharp	Hips, liver, thighs, upper legs
Capricorn	A	Bones and joints,
		gallbladders and gallstones,
		knees, skin
Aquarius	A sharp	Ankles and calves,
	_	circulation
Pisces	В	Feet, lymphatic system
Arachne	С	Aura

5. Greater penetrative resonance, i.e. capable of pitching quartertones (i.e. there are 26 quartertones to one octave = 2 times 13) and eighth tones (52 notes or tones in one octave = 4 times 13), thus achieving a holistic musical system that has a quantum healing effect, which provides two other esoteric functions, firstly to aid Kundalini, the tantric practice of awakening, the fire snake, and secondly, for the ritual purpose of opening and activating the earth Kundalini (i.e. the Dragon current or telluric energy) at major earth chakras or convergence points on the earth's magnetic grid (see Scales of the fire snake). Kundalini, the Indian tantric text, informs us, is "she who maintains all the beings of the world by means of inspiration and expiration and who shines in the cavity of the root lotus like a chain of brilliant lights". Kundalini is also the receptacle of that continuous stream of ambrosia which flows from the eternal bliss. By her radiance it is that the whole of this universe and this cauldron is illumined.

The advantage of the pitched didgeridoo or dodecahedron in this context is its ability to incorporate vowel sounds within an accurately tuned drone if we consider the following.

In the Vedic Japa Sutram, it states that:

"The modern technique of rousing kundalini... has not only missed but 'blockaded' the 'direct home line' of Power's creative harmonised ascent and descent; it has also been called the 'rupture and capture' method... With respect to Power's 'home line' (*susumna*), one method (*viz.*, the modern method of atomic fission and fusion by bombardment) is 'opposite', while the other is 'apposite'.

The end or outcome of the one has been the dreaded Bomb; the origin and culmination of the other is Vyoma-Om as the dynamic background and fulfilling repose of cosmic harmony (*chandah*)."

Kenneth Grant adds the following:

"This comparison with modern nuclear techniques is highly pertinent. The gentle unfolding of the three-and-a-half coils of the Fire Snake will alone irrigate with its healing nectar both macrocosmos and microcosmos. The Swami expresses the matter succinctly:

'Modern methods of atomic assault have shatted the nucleus; they have roused the hooded 'Serpent' circling round Siva's matted locks. But, as yet, there is no cheering suspicion of the Divine Outflow (Ganga) that is 'hidden' inside the locks. Let the shattering forces miss the 'line' or miscarry beyond the nuclear mass, and you have the chaos let loose.'

The *bija* of the Fire Snake is *Hrim*. The Swami equates the *Hri* with the Serpent's three coils; and with the *chandra-bindu*, 'M', he equates – for reasons already explained – the half coil.

Transposed to the sphere of meditation (*dhyana*), the *pranava* OM (or AUM) is interpreted as follows:

'A' represents the waking state; 'U', the dream state; 'M', the deep sleep state." (Beyond the Mauve Zone)

Thus an instrument that could create three separate sine-waves was required for successful grid activation.

Thus these two extra functions (i.e. the Tantric practice of awakening the Fire Snake and Earth Kundalini; the activation of the earth telluric force) require accurate pitching with either mantra or instrument so that specific frequencies can be sustained. Regarding visualizing the possible instrumentation that could effectively deliver such a musical system, my initial inspiration came from two sources: a. The allegory of the walls of Jericho falling when the trumpets of Israel were sounded and b. The accounts of a Spanish visitor who recorded a tradition which said that the great stones of the Cyclopean temple structure of Tiahuanaco in Bolivia had been lifted miraculously off the ground.

"They were carried through the air to the sound of a trumpet."

The development of project Dodecahedron

Not wishing to resort to an artificial or electronic means of musical delivery, I decided upon an acoustic system of instrumentation, the more organic sounding, the better. Instead of starting from scratch and for the sake of expediency, I considered the possibility of adapting an existing design of musical instrument that could fulfil all the previous stated criteria. In the end (after listening to a multitude of exotic instruments), the didgeridoo was the obvious choice for various reasons, as: a. The indigenous tribes of Australia had traditionally used this instrument for healing, b. Its other use is ceremonial, also used for ritual invocation at the dreaming places or crossing points of aboriginal song lines that give access to the dream time. C. It is a 20,000 year old instrument that has not undergone any technical development whatsoever (like for example, the development of the clavichord to the piano forte). D. The didgeridoo is unique insofar as a skilled player can achieve a multiple number of sounds or resonances simultaneously. Furthermore, its sound is truly 3-dimensional as it is capable of creating effects such as a phase whilst at the same time producing a primitive vocoder sound, enabling, for example, a phrase such as "Ave Maria" (or AUM) to be pitched to the drone as well as numerous other atmospheres. E. The didgeridoo has a sliding variable of a semi-tone or less either way from its true pitch, potentially enabling quarter or eighth tones to be played.

The only problem with the didgeridoo was that, in its current form, it was a non-transposing instrument (which is to say it was incapable of changing key). In the flute section of Arabic music, this is overcome by the player possessing 13 separate flutes (nay or kawala - in the Arabic tradition, these are fashioned from bamboo), each cut to a different length and pitched to a specific key. I realized that with the aid of two great players (that, as Providence would have it, I knew too, one of whom was both a skilled carver and a virtuoso), it would be possible to construct 13 didgeridoos of different lengths, pitched exactly for one complete octave of 13 notes. Also, with two sets of 13 instruments, two or more players could conceivably play scales and even chords, a flexibility and function this instrument has heretofore been denied. With the help of Lukáš Toman and my friend Ondrej Smeykal, we constructed our first sets of the dodecahedron (12 notes with one extra, mirroring the Pythagorean addition of the extra string to complete the octave).

The second sets of dodecahedron were constructed out of hand blown crystal glass, to compare the tone with its wooden counterpart. Whilst each crystal didgeridoo cost 20,000 Czech crowns each to construct, collaborating with a master glass blower, both Ondrej and Lukáš preferred the brighter sound of the crystal glass instrument, not to mention the aesthetically pleasing appearance of 13 Czech crystal cut glass instruments, resplendent in all their glory on their lute stand.

The therapeutic use of the dodecahedron

As stated earlier, the didgeridoo has been used as an instrument of healing by the aboriginal communities of Australia for thousands of years. The construction of the dodecahedron enables us, in the Pythagorean tradition, to vibrate a specific key that corresponds with a particular part of the human anatomy (refer to Kabbalistic chart), healing any potential ailments in those respective areas. Ondrej, the construction engineer for the project, had witnessed such healing on multiple occasions in the Australian outback with various aboriginal tribes in his lifelong study of the instrument, so we had the advantage of a basic working knowledge to draw from to add our 21st century refinements, using a synthesis of modern music therapy techniques, Pythagorean healing principles of music, with both Hermetic and Kabbalistic correspondences.

Ondrej noted that the end (or bell) of the didgeridoo was always placed close to the area of the body that was symptomatic of the particular ailment in question, then the instrument was played for an indefinite period. Ondrej pointed out that these nomadic aboriginals that still exist today that employed such techniques have a far greater life expectancy than their urban cousins.

Techniques

Initial experiments using the dodecahedron on volunteers were so successful that Lukáš and Ondrej had to tell many people who kept returning for repeat sessions that their participation and interest in these experiments was primarily for the purpose of musical research and neither of them had any intention of a career change from musicians into therapists!

The initial experiments were carried out with an experienced psychotherapist, František Poliska, the two instrumentalists Lukáš and Ondrej, myself and various volunteers over a period of one week. Firstly, the volunteer was put into a relaxed state of mind by the psychotherapist, whilst lying flat on their backs with their heads orientated to the North. We started by placing the bell of the instrument (the sound hole) close to the head as it is the part of the body corresponding with C or "doh" in the Kabbalah. After playing had commenced, we moved very slowly up the chromatic scale, spending no less than 3 minutes on each of the physical stations. This entire 13 note chromatic scale was played as one continuous descendo, as opposed to separate steps. Also, at every one of the 13 stations, a xylophone was struck to mark the precise pitch and resonance of each stage. With 2 players, there were obvious advantages in the overall smoothness of the operation (i.e. player 2 positions the sound hole of his instrument at the next physical location before taking over from player 1, in the manner of dovetailing.) At the end of the procedure, two players also enabled us to play the open octave, as one instrument was positioned at the head (or north) and the other at the soles of the feet (or south).

We noticed that finishing on such *resolution* (i.e. octave) appeared to have a dramatic effect on the emotions of the volunteer (which in itself I suppose is not so surprising for anyone who has encountered the total body experience when one is in close proximity to the sound hole of this instrument when it is played). One volunteer described the experience as *euphoric*, noting a sense of lightness, another broke down in tears, another

mystically inclined volunteer described the effect as "cleansing", referring to the entire process as a "spiritual shower" and all participants agreed that the entire procedure could be summed up as "emotive".

These conclusions are similar to the observations of Pythagoras that *different keys or notes had the power to incite or allay various emotions*. Also, by corresponding to the 13 chakra system, the entire system is designed to aid practitioners of Kundalini in the awakening of the fire snake or serpent power by pitching, thus opening the various chakras at will. The ceremonial possibilities are obvious. We can, for example, tune entire ritual proceedings to a chosen frequency, depending on the required function. With regards to healing, František Poliska has been carrying out further experiments over the last 6 months on volunteers who periodically suffer from acute depression. This data will be collected and published accordingly.

Conclusions

In taking these primitive yet significant first steps in developing what is undeniably the oldest instrument in the world so that it is not only a *tonal* but a *transposing instrument*, we unwittingly opened up a Pandora's box of potentially embarrassing cultural implications, which I will briefly expound on.

Not only is the didgeridoo the oldest instrument in the world, it is also the definitive *iconic* musical instrument of Australia. By defining it as a *tonal instrument* and demonstrating its *transposing* quality within the Dodecahedron project, we have in effect proved that it is also potentially an orchestral instrument (it should be noted that both the classical guitar and the accordion have only been recognized as classical musical instruments relatively recently). The acknowledgement of this simple fact within Australian musical academia would automatically oblige every department of music in Australian universities (and schools) to initiate courses dedicated to the study, performance and further development of the didgeridoo, which can rightfully claim the title of "the oldest indigenous instrument of the nation".

In my opinion, to concede anything less would be tantamount to racism.

However, since the Dodecahedron project, the primeval tones of the didgeridoo can now be played in tune with, for example, a band or orchestra and this small accomplishment in itself is a historic development.