# Chakra's, Harmonics and the Links to Body Chemistry

By George Essence

The entry for chakra on Wikepedia says;

"Chakra is a concept referring to wheel-like vortices believed to exist in the surface of the subtle body of living beings. The Chakras are "force centers" or whorls of energy, rotating vortices, the focal points for the reception and transmission of energies. In the West there are said to be seven chakras".

These whorls of energy are governed by harmonics, the rules of vibration which also govern music (a side issue here). However elementary music is the best way to describe harmonics because it is familiar to everyone so I will describe harmonics in this way, and then show how they apply to chakras. Harmonics explain features of the real world of biology, and they also explain obscure features of myth and religion. They appear to have been a central feature of the science of the Stone Age.

Two basic things about harmonics.

Firstly play a note on a piano, F say, and then look at which other piano strings seem to be vibrating in harmony. The strongest vibration is the string of the next F up. This relationship is called an octave, and the vibration is double the original F. The note F has been reproduced by doubling, like cell reproduction. This relationship of doubling is a harmonic 2/1, and is called female.

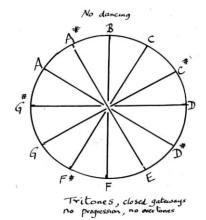
The next strongest vibration will be the C above the second F. The transition from F to C is the 3/2 harmonic. It is the "male" harmonic because C is a "new note". In mythology the male god, Gilgamesh, is called "two thirds" (3/2 upside down). All harmonics above 2/1 change the note, but 3/2 is the harmonic that changes them with the least possible energy. Birds and animals use 3/2 and the octave 2/1. They make the "overtones" of the original base note. Singers use them for "overtone singing".

Question: How many different notes there can be gained by 3/2? The answer is just the 12 that we know from the piano. This is how 3/2 makes the 12 notes.

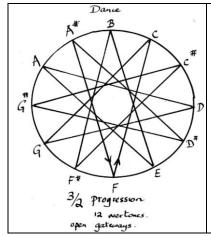
When you play C, it makes G as its (male, 3/2) overtone. Then play G as the base note. G makes D as its overtone and so on. D make A, A makes E, E makes B, B makes F#, F# makes C#, C# makes G#, G# makes A#, A# makes F and you are back where you started, after "creating" all 12 notes.

All 12 notes are called "an octave" when they lie within one doubling. There are 7 octaves on a piano keyboard, so there are 7 of each note. However F is at the bottom and at the top so there are 8 F's.  $7 \times 12 = 84$ , so there are 85 "keys" on a piano. The design of the piano keyboard goes back to Pythagoras in the sense that he is the original source of knowledge about harmonics 2/1 and 3/2.

Secondly Pythagoras said that the 12 notes are connected by some harmonic fraction (like 2/1 3/2 4/3 etc) except for when two notes are 6 apart. This he said was "anathema", a harmonic discord, a shut gateway, a TRITONE.



Here are the tritones, the pairs of notes directly opposite each other. A tritone is sterile. When you repeat the tritone you just return to the base note. It is a metaphor for closed gateways, where there is no resonance, no dance is possible. It is "no life"

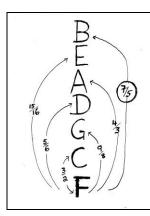


Here is 3/2, a harmonic.

It takes you from F through C G D A E B F# C# G# D# A# before returning to F. It is a dance. It is life itself.

Moreover it doesn't <u>quite</u> return to the exact same F of the start, so mathematically this dance will never end. It will eventually filling the entire circumference with enormous energy.

Prophets in the Old Testament are said to have seen fiery wheels, an apt metaphor for this energy. Every composer writes discords deliberately (eg Mozart) so they are not anathema to modern musical sensitivity.



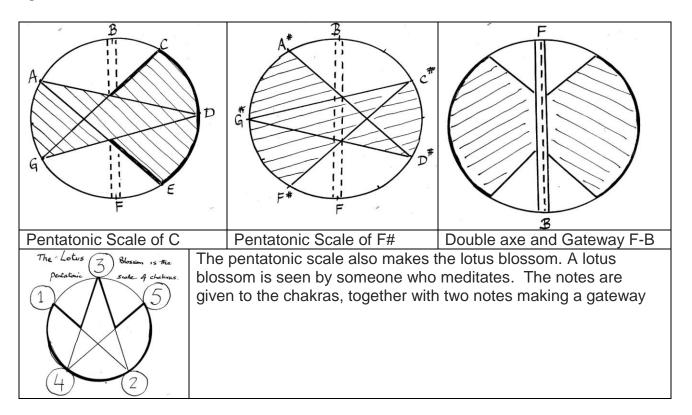
The reason why tritone discords are important is that a single harmonic ratio (like 6/5, 5/4, 4/3, 9/8, 10/9) will join any given note, eg F, with every other note above and below it EXCEPT for B, its tritone

For example, F-F# is 16/15, F-G is 9/8, F-G# is 6/5, F-A is 5/4, F-A# is 4/3, *F-B is 7/5, which is NOT a harmonic*.

There is no harmonic that will make this jump. The tritone F-B acts as a *harmonic gateway*, stopping the sequence. A musical scale is 7 notes chosen so that they are connected in sequence by 3/2, until there is a gateway. The scale of C, in harmonic sequence, is FCGDAEB. It stops at the B, the first tritone, B-F or F-B.

In ancient times F and B were removed, leaving the *pentatonic scale* of C, CDEGA, 5 notes which could safely be played in any order and never produce a tritone.

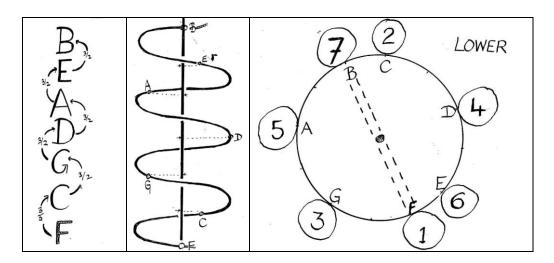
The 12 note circle was divided into one Gateway, F-B, and two pentatonic scales. One was CDEGA, the other was the remaining notes, F# G# A# C# D# which are all black. Each scale looks like an axe blade, and the gateway makes the haft. They make a *double headed axe*, right.



#### **CHAKRAS**

The harmonic 3/2 makes F C G D A E B F# C# G# D# A#, the 12 notes in harmonic sequence. The 7 white notes on the left are given to the chakras, the seven centres on the spine. 3/2 makes a spiral with these notes, so chakras are also seen radiating outwards.

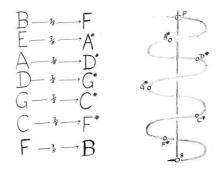
In addition, but not shown here, they spiral outwards because of the increasing vibration frequency, which increases by 3/2 at every stage.



Above left: each chakra is connected to the one above by the 3/2 harmonic.

Above centre: here are the notes as created on the circle, making an upward spiral.

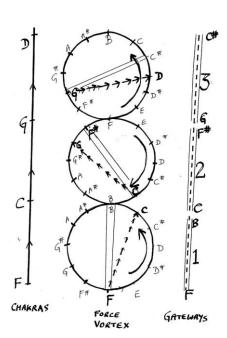
Above right: The chakras on the circle, called "LOWER" because the remaining 5 black notes are above the head.



The black notes form gateways above the head.

When all the gateways open, it is said that an arrow can be shot through them

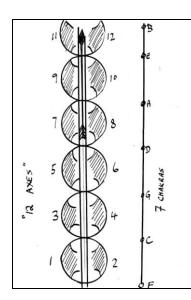




Think of each chakra as a whirling circle of notes, energy. They mesh together like gear wheels.

When they do this the gateways open. Start at F, 3/2 takes you to C, not B.

However the circle turns in time to place C at the top, and you pass to the next circle. This circle turns and presents G at its top and so on. It's a dance.



When the chakras are opened, each circle becomes two pentatonic scales. They make a double axe head with a gateway for its haft.

Odysseus is said to have strung his bow and shot an arrow between 12 axe heads.

This makes sense if he is going through the gateways, and the story is a cosmic tale about shamanic travel.

Legendary archers shoot an arrow from Sagittarius towards the Pleiades, (the "7 sisters"). The Yellow Emperor of China is one. Several American Indian legends have archers (often "daughters") whose arrows make a bridge across the sky from the North onto the ecliptic (the path of the sun in the South). It bridges the Milky Way, towards the "Winter Triangle" and the Pleiades.

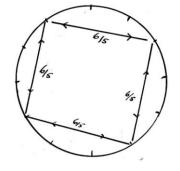
In October Sirius is nearly due South at 4am and will remain visible during the winter, getting there 3 min 56 seconds earlier every night. All stars have this same time factor, which was well known to 18th century precision clockmakers like Harrison. Sirius is "a dog who guards the gates of hell", and who "lies across the doorway of the house of dreams" where the shaman sleeps.

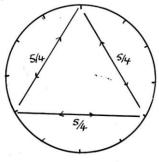
Chakras are the remains of the shamanic lore of the Stone Age, which is described as harmonics in The Epic of Gilgamesh and elsewhere.

#### Harmonics form geometric patterns.

3/2 and 4/3 form the pattern on page 2, the "sun" 12 point star. 5/4 forms a triangle and 6/5 forms a square. For example at Stonehenge the "station stones" form a rectangle with proportions 5x12 (diagonal 13).

The ratio  $12/5 = 6/5 \times 2/1$ , an octave 2/1 and the side of a square 6/5.

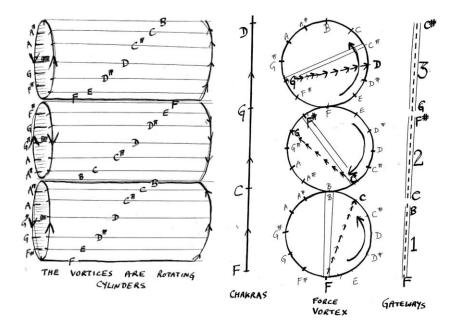




The square forms the sun festivals of the year, the two equinoxes and the two solstices. The triangle is associated with the near point cycle of Venus

## "Force centers" or whorls of energy, rotating vortices"

Each of these circles of "music" notes are actually in 3 dimensions and are cylindrical "whorls of energy"



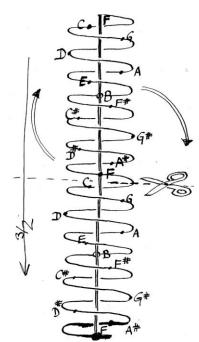
The whole universe is taken to be filled with these infinitely long cylinders.

The notes actually lie on spirals on the surfaces.

So you in fact zig zag backwards and forwards when you go through the gateways

The rotating spirals drag you along sideways while you traverse the rotating circle, but as they rotate in alternating directions you remain in a straight line.

## DNA



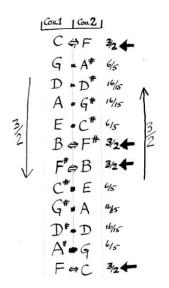
Here is the whole chakra spiral, seen upside down (the sequence 3/2 is going from top to bottom).

Suppose you cut the spiral between the middle F and C.

You reverse the cut off half and place it alongside the other half.

Now it makes a so called "double helix".

Each note on one spiral has a neighbor on the other spiral, to which it connects with a harmonic.



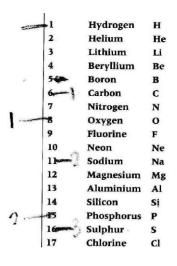
Here are the two halves of the spiral placed side by side. The "reversed" half is COIL2 on the right.

The note pairs are connected by harmonics, but only four pairs connect with 3/2.

The way that I have arranged it here, the pairs are C-F, F-C, B-F#, F#-B.

This is the exact dna pattern.

Dna is made of organic molecules, which are based on the elements hydrogen, oxygen, carbon and nitrogen and here you see that the spiral backbone that join them also contain phosphorus. The elements themselves seem to be linked by 3/2 when they form organic molecules.



This table of the elements is in order of atomic number. It is the number of electrons in the orbit of each element.

The reverse spiral order is given by every 5<sup>th</sup> element, and the original spiral order by every 7<sup>th</sup> element.

So that means Hydrogen is harmonically linked to Oxygen and Phosphorus on one spiral, and to Carbon, Sodium and Sulphur on the other spiral. Hydrogen and Nitrogen form a "gateway" a repulsion.

Organic molecules are arranged in networks. A net requires attraction and also <u>repulsion</u> to keep the mesh open.

### From Wikepedia

Ammonia is a compound of nitrogen and hydrogen with the formula NH<sub>3</sub>. The ammonia molecule has a trigonal pyramidal shape with a bond angle of 107.8°, as predicted by *the valence shell electron pair repulsion theory* 

Ammonia is corrosive Nitroglycerin has the formula  $C_3N_3H_5O_9$  Nitrogen is associated with violent reactions. Nitric acid, HNO $_3$  is very powerful, for example .

I think the idea is that the whole universe of subtle matter permeates all of us, so that when we meditate and "open" we really are in contact with the universe. What we do with that depends on our own minds.

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