

One Sound: Many Notes

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Some years ago scientists announced that they had detected the deepest sound known so far in the universe. This is an ultra low B Flat that appears to be emerging from pressure waves through a hot thin gas that fills the Perseus cluster of galaxies, 250 million light-years from earth. I said ‘appears’ because it may be causative the other way round. Could it be the sound itself that is bringing the cluster of galaxies into being.

To give you some idea of how deep this ultra low B Flat is, we will now ask Emma to play a B flat almost 2 octaves above middle C on the piano.

Now here is a B flat played an octave lower

This latter note and its quality are characterised by the string on the violin vibrating at 466 cycles per second. The octave higher that she played first vibrated at twice the number of cycles per second – 932 to be precise.

Now here is B Flat two octaves below that at 233 cycles per second. _____

The violin can’t really go any lower. So you will have to imagine the B flat below that at 114 cycles per second. A cello could play that.

Two more octaves lower and you have reached almost the lowest note on a piano at 28.5 cycles per second. A Double Bass could play that. Another octave below that and you are approaching the pitch of the lowest note that the human ear can hear – about 14.25 cycles per second.

Now here is where the creative imagination comes in because we have to try and hear with our inner ear a further descent of 54 octaves each one halving the number of cycles per second. Just 4 more octaves down and the vibration is less than one per second.

But in our imagination we have to descend in pitch another 49 times. Then we get to the frequency of this ultra low B flat that we talked about at the beginning. The pressure waves are 30,000 light-years across and have a period of oscillation of 40 million years – of one cycle every 40 million years. It is this cosmic hum which is being sung now by the Perseus cluster of galaxies and has been for an estimated 2.5 billion years.

We have to ask ourselves if this sort of phenomenon is a rare occurrence in the universe. I cannot give you the answer scientifically. But my intuition is that of course we cannot confine this cosmic hum to just one galaxy. Don't all the myriads of galaxies in the universe have their own note that affirms their uniqueness and individuality within the vastness of the One Life. And trying to stretch the imagination way beyond any conceivable limit surely we must suppose that the One Life which substands and is the basis of everything in the entire Cosmos must also be generating a sound that holds all of creation in existence.

So now let us try to go in the other direction toward the smaller, if that is indeed the word we can use. What about solar systems and, for that matter, planets too? Surely they too are the physical expressions of some unique and underlying sound.

We are beginning to see perhaps that there might be some truth to Pythagoras' intuitional insight which he verbalised into the "music of the spheres".

So now we must ask ourselves about the note of our own planet, the earth. Can we imagine that there is also here a "One Basic Creative Sound" holding all life in a coherent evolutionary livingness as it creates the multitude of forms that we see all around us and the different states of consciousness that we experience.

For example we can look at the changing geological structure of the planet, and the wonderful variety of the various kingdoms of nature, including of course the human. Surely these are all sounding their own succession of notes in response to the basic "One Sound" of the planetary Will. We can visualise that it is this which is driving the evolution of all life here on earth forwards into some future of meaning and Love in its deepest sense which we are being called to discover.

On an even smaller scale from a human perspective, every person will have their own individual note which expresses itself in the variety of spiritual insights, thoughts, emotions and physical activity that characterise all our lives. In the aggregate of human lives these will sometimes produce a beautiful melodic sequence symbolically speaking, and at other times, the tension of discord. Both of these fuel human progress – painfully at times and beautifully at other times. Indeed at this particular point in history we seem to be travelling forward rapidly from discord to harmony to a new discord, or from crisis through resolution to new crisis. This comes about as consciousness struggles to conform to the as yet unknowable Will or Sound of our planetary life. In our highest moments the best that we can come up with to describe this Will is the building of right human relationships – in other words, Love.

One of the really good ways to understand this is through music. Unlike the notes of the Cosmos, which are changing so slowly as to almost negate the sense of change at all, music speeds up the flow of change into something that gives meaning to the human psyche. It's all to do with relationship. The B Flat Emma played at the beginning can be described as a vibration of so many cycles per second. But the human perception of it is a sound of a particular pitch. The separate oscillations become synthesised into beauty. And it is here where the magic occurs. Let's try another note

E .

When Emma plays this note it exists just in itself and has no relation to anything else. Then she plays another note

D# .

Because of the length of time in between the two notes and because I have been speaking in between them we don't consciously recognise the relationship of these two notes. But as soon as she plays them closer to each other

E D# E (leave a quite long gap between them)

a pattern of relationship starts to emerge in our consciousness – a fall – then a rising return to the first note. Here it is again a bit quicker. _____

Now a sense of purpose is beginning to appear, of progression in the relationship of the notes to each other.

Faster still _____ And then in the hands of a Master musician they magically unfold into a piece for unaccompanied violin by Bach. She will play two movements which end in an exuberant dance which we can think of as illustrating a more joyful and co-operative mode of living for humanity as a whole and a goal to which we can all aspire.