

Sounds in Nature and the nature of Sound

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There is a fishing village, on the East coast of England, that is a world apart from the clocks of time. It is dotted with long, windswept beaches, rocky cliffs, tall grasses and open flatlands, opaque seas and rare birds. It is a place teeming with creativity, life and memories. I grew up this place. It is called Aldeburgh, and it speaks to my heart. It is a place that, over the passage of time, weaves itself into the very fabric of your being, no matter who you are or where you come from. It has all the hallmarks of raw, elemental living as well as playful recreation and thoughtful meanderings along grassy, dog-walking, marshlands; it is decorated with occasional swans, wooden skeletons of once-breathing boats, bright yachts, blue skies and cotton candy clouds. It is a place of patterns.

On the sea front, there are fishermen who wake up at 3am, to get their small, wooden, boats ready to go out into the North Sea to catch their trout, crab and plaice. They do it all by hand, often alone, with perhaps the aid of a small winch to help them bring in the net. I would lie in bed, hearing the 'put put' sounds of their dinghy's as they motored down the length of the shore, picturing them in their yellow overalls, covered in the oils of the previous catch of fish mixed with the black grease of the boat. Then, still tucked up in the warmth of my comforter, I would reflect on the fact that, in an hour, at 4am, the little window on the side of the bakery on the hill, would push itself open so that people on the way to work could line up to buy their hot sausage rolls, fresh bread rolls (straight from the oven), pastries and sandwiches.

The seagulls would begin to 'caw' at about 5 or 6am as they would visit the sea-front bins, going about their business of emptying them of yesterday's tourists' left-over fish and chips, with their beaks, spreading the papers, that these now-cold remnants had been wrapped in, anywhere that the wind would care to take them.

By about 7am, the older generations - and the brave younger ones - would start appearing on the pebble beach in their necessarily thick toweling robes, walking from the sea wall to the sea, 'crunching' on the stones, until they'd reach the 'pad, pad' sound of their feet on the thin line of soft sand, ready for their early morning, freezing swim; the wind blowing their, as yet, un-brushed hair, touching their faces with its energetically 'whispered' greetings.

Gradually the sun would start to come up and the myriad of eclectic and colorful houses along the sea front would spill out their excess holidaymakers to put up their windbreakers and get settled in for a day on the beach, whilst the locals would open up their shops and exchange

gossip and local news. Fathers and sons would walk together to the newspaper shop to get the local and national papers and mothers and daughters would line up to get fresh, hot, rolls, this time going through the main door at the front of the bakery, which opened at 8am, the sounds of people's greetings and easy, meandering or energetic conversations floating in the air. The day had officially begun.

In a town like this, with so many different people; locals, fishermen, shop owners, visitors, elderly, young, strong elements such as sea, wind and sun and storms, there is a magical composition being constantly woven. With all the different thought forms and experiences and expectations of each type of life represented there, nuances enter that composition. Before long, I was viewing this magical place in terms of the musical composition of life itself.

Whether we live in a village, a town, a city or on a forest floor, we become part of that area's 'tapestry'. That tapestry is made up of many components, both seen and unseen - and this is what creates that atmosphere, that collection of 'sounds', that we associate with a place, an event or a memory. Our thinking, our habits, our behaviors, our sounds and our expectations influence life's composition. All these habits, thoughts and behaviors become 'sonic vibrations' that combine in life's creation. The story that we tell ourselves about who we are and what life holds for us each day is dictated by our environment and by its sounds and vibrations, sounds and vibrations that we contribute to and influence.

Even the weather is a character in this play, speaking to us, influencing our behaviors, our moods, our 'personal atmosphere' and the collective 'town atmosphere'. When thinking of the 'town atmosphere', I am also drawn to thinking of the mixture of people co-existing in the framework of my town, Aldeburgh: the fishermen who get up at 3am, whilst the party-revelers stay in bed to sleep off their hangovers, and the retired local residents who go through their daily ritual of making breakfast at the same time, every day. These habits, and the different kinds of thinking that all these people will be experiencing, have a place, they contribute. All these various 'categories' of experience also trace back down a lineage of time to collective and individual legacies and ancestry, evoking different vibrations of thinking, of being and of memory, conscious or otherwise. The sounds and vibrations of our ancestors are ever present through us, as are our own, contributing to our own contemporary painting on this canvas of time. Nature is playing its part in our lives and the way we are thinking and experiencing plays its part in Nature. We interconnect, a seamless, blending, influence of sound stories, past and present.

With this wider view of sound and environment, we can ask ourselves anew, what is life, from the perspective of music and sound? I used to think that music and sound were obvious, that they were the patterns of jazz, or pop, or Tuvan chants, birdsong, and then I began to realize that that is only a very surface conceptualization of what is, in fact, a field of vibration in which we are both embedded and contributing to. When I say 'we', I am referring to humans, to plants and animals, and even to the elements. All of it, life, is vibrating, all of it is

'thinking' and interacting. All of it is Nature and all of it is sound. It may not all be audible to human ears (which have a range of 20-20,000hz.) but it is audible to other species. And, not only that, but it is also becoming apparent that the sounds being emanated by all the different elements of life, wherever they are on the frequency scale, are somehow creating a sonic fabric, a sonic architecture of the universe. How we think and feel is part of that framework as it is sending out a vibration either sub-sonically, sonically or infra-sonically.

When one starts to expand the thinking to this level of perception, we begin to realize that when we are 'sounding out' we are sounding out the universe, and ourselves in it. It is not just music skirting 'on top' of the universe, but it is the universe speaking, sounding, singing, through us. Somehow we are contributing, unconsciously, as a collective vibration of thoughts, feelings and insights, weaving a sonic structure that literally holds everything in place. We are not the only ones doing this. As Katy Payne (longtime, respected, whale and elephant sound researcher, based at Cornell University) pointed out in her interview with ABC News (2001),

Elephants have ears which are specially modified for good reception of infrasound - sound below the range of human hearing. It is possible that elephants also feel the sounds...there are a lot of animals that communicate seismically, like frogs and insects.¹

Her research partner of many years, Dr. Roger Payne (renowned lifelong animal sounds researcher, author and founder of Whale Conservation Institute) has focused much of his life seeking out whale sounds and whale song, here, in an excerpt from his book, *Among Whales*, he is seeing their constant sound and song-making in relation to their natural environment;

The pace of the song is very grand and extended and appears to me to be set by the slow rhythm of ocean swells - the rhythm of the sea. It is the beat most familiar to whales since they are immersed in it...it would not be surprising to me if ocean swells set the rhythm of whale songs. (p.145)²

David Chandler, a journalist whose article appeared in the S.F. Chronicle, back in 2001, pointed out the following link with his question;

Do musical sounds in nature reveal a profound bond between all living things? The evidence that it may is broad and very specific...Many species of birds also sing in ways that mimic very closely the rules of human song, including the way that songs are passed from one generation to another or are shared by a group of peers. Many use note scales similar to those devised by humans, even though an infinite variety of such scales is possible: The canyon wren uses the chromatic scale, while the hermit thrush uses a pentatonic scale.³

These birds didn't go to music school! So how is it that we humans and birds, and whales are using the same musical structure? Because it's in the harmonics. There is a harmonic structure to the universe that is inherent in all things. It's a mathematical ratio pattern that

repeats out into infinity and is found in the human body, in rainbows, music, architecture, sacred geometry, chemistry and plant tones, to name but a few. It's what we all have in common. It's even in the cosmic spheres as Pythagoras, Kepler, Hazrat Inayat Khan, pointed out, to name but a few philosophers, spiritual masters and musical gurus.

On a more earthly plane, there are many people researching the harmonics of nature in soil, plants and chemistry. Namely, Gerry Vassilatos, Michael Theroux and Michael Riversong, respectively. They have tapes and/or writings available of their recordings and their insights based on these recordings. (see appendix).

It is one thing to hear the sounds of nature, but it is another to see them. This can be done with the aid of a Spectogram. Cornell University's well known Lab of Ornithology, state this on their web page very well;

A sound spectogram, like a musical score, is a visual representation of sound. As in musical notation, the horizontal dimension corresponds to time (reading from left to right) and the vertical dimension corresponds to frequency (or pitch), with higher sounds shown higher on the display...a spectogram provides more complete and precise information than a musical score because it is based on actual measurements of the changing frequency content of a sound over time, typically made by specialized computer software or hardware.⁴

Whether we are talking about sound or vibration as celestial or earthly, cosmic or personal, it is everywhere. It is with us from the beginning, in fact, it weaves us into form and maintains us in life. Even as a fetus we are dependent on sound for our sense of place, for information and comfort. When we rest alongside our mother's spine, we receive information through the physical sensation of hearing as vibration (bone conduction), as well as through aural sound patterns. Sound connects us to years and years of evolution and it holds the stories of the universe. It creates form, sustains form and emits the shapes of our emotions, carrying them, in the ether, to connection with like-minded, like-feeling spirits, from any species of origin. We can talk to each other through sound, whether we are doing it out loud or not. All we have to do now, is listen.

With thanks,
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