

WHALE SONG OR WHALE MUSIC? FROM A COMPOSER'S PERSPECTIVE

Lisa Walker

The Grooved Whale Project www.groovedwhale.com e-mail: groovedwhale@gmail.com

If we were to look for music in another species what would we look for? What would we measure? While many species may eventually end up claiming musicality, for me it is the humpback whale that holds the most promise for discovery.

BACKGROUND

I was first introduced to the humpback in 1996 when I was invited to join Dr. Fred Sharpe and the Alaska Whale Foundation in southeast Alaska. It was thought that with my classical music background I might be able to identify subtle patterns in the acoustic activity of the whales that were not readably evident to the scientist.

The field work encompassed identifying individual whales, tracking their behavior and recording their feeding call - a vocalization seemingly utilized as part of their bubble net feeding strategy, where a group of whales dive down, encircle a school of herring in bubbles, blast them with a minute or two of sound, then rise up through the center of the circle with a mouthful of fish.

No feeding call we recorded was ever the same twice - sometimes the notes swooped up, sometime down, some were staccato, others long and legato (to put it in very unscientific terms). My musical senses were piqued.

After three seasons in Alaska I became curious to experience the whales' other vocalization - the winter song. In 1999 I went to Hawaii on an independent mission to record their sounds and while there fulfilled a musician's guilty pleasure of playing a 'concert' on my violin through an underwater speaker to the whales. Playing with the whales was a breeze as the patterns and rhythms in the winter song seem to follow the pattern logic of music. But were the whales interacting with me or was it I with them? When I listen back to the recording it is impossible to tell.

DIVING IN

As I began to familiarize myself with current theories of why whales sing I became curious to see how particular ideas regarding the yearly changes observed in the song - such as cultural transmission, innovation, mutation and drift - might map onto my own species musical use of sound.

To me, human music is much more than a sum of its parts - the individual notes, phrases or themes that otherwise would be simply perceived as organizations of sound. Somehow they combine to loft the resulting mix into the realm of music and away we go - our bodies and minds get wrapped up in it and we are compelled to dance and sing.

As a composer it is my job to bring new songs into being. But why do I compose? From the blank page to the finished song, why do I choose certain notes over others? Why particular patterns? Why particular changes? What is it about the human craving for music that drives my need to create?

EXPLORATIONS

To understand more about my compositional process I first had to find a way to bring it out from the murky depths of my sub-consciousness and expose it to the light of day. If music's power lies in its organization of sound, my solution was to write "de-organized" music. For instance, a bass line and a drum line, both of which have the potential to match up and create a musical unit, were purposefully misaligned in a "non-musically acceptable" way.

The technique circumvented my full immersion in the musical state, allowing me to reserve a bit of brain power to examine my decision making process along each step of the way.

In addition to revealing multiple rules and relationships between the notes, this technique and the resulting mismatched music turned my attention to the zones of "active chaos" in music where things break down and realign. These zones open up the possibility of creativity and are necessary for transitions in music. This led me to focus my attention on certain parts of humpback song, parts which lie in between the identified phrases but are not part of the phrase itself. Do they function as transitional zones for the whale as well?

My second technique of inquiry involved studying West African drumming to learn more about the basic "codes" of human rhythm - an important component of which was learning how two or more rhythms played together created "feel" or "groove".

Learning these poly-rhythmic codes led me to look at humpback phrases, not only the "rhythms" within the phrases, how each one has its particular nuance, but how individual phrases aligned with each other when played in tandem. Are their phrases meant to relate to each other as they do in human music or does each one have its own logic?

The third technique came through my experience of joining a drum ensemble, whereby a handful of drummers meet each week to explore rhythmic idioms (often in three or more parts) which evolve and mutate as the session goes on.

Through the drum circle I have been able to participate in music creation in real time, allowing me to see how rhythmic codes shift and change over time and the logic by which these changes take place. It has also allowed me to examine the experience of creating with others, to understand more about status and hierarchy in music making and the risk and reward of deviating from the established codes to try new things.

It has also brought my attention to particular similarities and differences between humpback and human song. For instance, in the drum circle we strive to meld our rhythms together, and in doing so strengthen the effect of the song. Humpbacks seem to be more disparate as evidenced by their singing independently of one another. Does this exclude their song as music? Or is some other musical logic at play? Are they under the same rules of competition/cooperation as us in the drum circle and do they assume the same risk and potential for reward when forging new sonic ground?

GOING FORWARD

I have developed these techniques as a way to understand humpback song through the lens of human music and understand human music through the lens of

humpback song. I believe that through examining our own rules and relationships of music creation we are better equipped to investigate another species use of sound.

My hope is that by bringing to light particular aspects of music we can ground truth ideas we have about other species to see if they hold water with our own and ultimately establish a framework for a comparative analysis between human and whale song.

AUTHOR'S NOTE

The Grooved Whale Project is headed by Lisa Walker, a composer and musician fascinated by the ever-evolving structure of humpback whale song. Over the past 14 years she has dedicated herself to obtaining a scientific understanding of these animals in order to provide insight as to how the music in other species might be investigated. Her album "Grooved Whale" was released in 2001 and chronicles the beginning of her independent research. She is now preparing to release "Music For Other Ears", an album which draws upon possible permutations of musical organization to take the listener deep into the world of the whale.

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