Music History Notes

ORIGINS

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1 CONSIDERATIONS

I MUSIC IS A UNIVERSAL PHENOMENON NOT A UNIVERSAL LANGUAGE

Music is shaped by unique cultures and each culture shapes both the social concurrence of people who decide what is music and what is not. Music is a characteristic expression of different races and epochs. This implies that the definition of music will vary with each unique culture defining what is considered music and what is not. In addition this defining will determine not only what is music but what is acceptable as 'music' so the 'sounds' of music are defined by culture as well.

The change or stability of the concept of 'music' is tied to both the stability of cultural concepts or the change in those concepts. Individuals will accept or reject the musical product but with consequences for the established cultural norms. An acceptance will reinforce the established cultural music norm while rejection can spur a change – and this product creation of 'music' (acceptance or rejection) involves creator, performer, and listener.

A. CULTURE IS STABILE BUT NOT STATIC

When situations of stimulus and response change, culture also changes – a younger generation will modify cultural responses to meet current challenges and their own likes and dislikes.

Music responses while learned and shaped within each unique culture also respond to the cultural changes over time. Music behavior must be learned based on the cultural concept of music as part of the process of enculturation.

Learning and culture are intertwined with change and stability. Culture provides the conditions for learning enabling specific cultural responses to external and internal stimulus and these responses are learned as culturally 'appropriate'.

The culture will internally provide reinforcements for these responses as a set of rewards or punishments to promote appropriate responses from the individual or sub-group. This provides an internal tendency to 'self-perpetuation' for cultures values.

Change occurs when stimulus and response situations change over time providing a gradual cultural change (though abrupt changes can and do occur)

No culture escapes change over time and with that change music will change. Here, a distinction of 'function' and 'use' is required as music functioning in a religious ceremony will actually be part of that ceremony and cannot be changed without changing the actual ceremony. Music 'used' in a religious ceremony is not an integrated aspect of the religious ceremony and can be changed without affecting the actual ceremony.

Functional music in this context will change very little over time.

B. NO CULTURE ESCAPES CHANGE OVER TIME

The process of cultural change (innovation) must be considered against a background of cultural stability. This phenomenon of cultural change involves both 'innovation' within the culture but also 'cultural variability'.

Innovation occurs as new 'habit' which is learned by other members of the society. The path of change moves from: individual habit → social acceptance → selective elimination (where the 'new' is weighed against alternatives) → acceptance.

Cultural variability is a direct outcome of the internal variation in human behavior. A constant as there exists an almost infinite series of deviations from the 'norms' of society – no two people will behave exactly the same in response to stimulus and no society exists that does not offer individuals behavioral alternatives an acceptable distance from the norms.

These factors also exist in music. The common factors resistant to change are physiological or acoustic that are common to humankind.

Other factors fostering change are 'reinterpretation' and 'syncretism'. The former is an internal process and the latter a result of outward exposure to other cultural influences.

Reinterpretation occurs when old meanings are ascribed to new elements and also a development of new values that change the cultural significance of old forms.

Syncretism is the process where the elements of two or more cultures are blended together. The blending involves both changes of value and form.

It should be noted that groups in sustained contact, in close proximity, and with a number of commonalities in culture will have a greater exchange of influences than those of greater difference.

II PROBLEMATIC ORIGINS OF MUSIC

A. PREHISTORY MAN LEAVES LITTLE OR NO TRACE

The civilizations revealed through archeology are not old enough to reveal the origins of music. Pre-history societies leave little trace as artifacts of wood or cane would not survive and only remnants of stone or bone are possibilities.

And while pre-history cultures planted the 'seeds' which all music evolved (both East & West) direct evidence is very sparse or non-existent. One possible solution would be to seek out contemporary societies not influenced by the modern world and retaining their pre-history culture. However, there is no certainty that theses characteristics have been retained unaltered over so great a time. The result would be only assumptions.

Having said this, it should be noted that music is one of the steadiest elements in cultural evolution. Many relatively high cultural groups (Polynesians, Micronesians, European 'peasant' groups) retain music styles of an astonishingly archaic character.

With the exception of Greek and Catholic Church music we know nothing prior to year 1000. This makes the prehistory of music some 4000 years longer than the other arts.

Music of a certain kind even individual melodies is can be unchanged over very long period of times.

- Songs of the French Troubadours written down 800 years ago are still sung by Catalonian peasants
- Gregorian chant melodies still live today in the Jewish rites of Yemen and Babylonia (A.Z. Idelsohn) communities – separated from the rest of the Jewish people in the first exile (middle millennium BC)

Above all else is the fact that the music of the ancient world has faded away. There is no adequate idea of the 'living' sound in antiquity. The handful of 'notations' available give no real sound information.

B. THE ANCIENT CIVILIZATION TRACES

The finds and depictions of ancient musical instruments are markers in space and time provided the archeological context is documented. With the found historical written sources concerning music (both in word and 'notation') as well as the performance spaces a picture of this musical world can be developed – but the 'living' sound is only a construct based on the archeological interpretation.

The study of found notations can be partially transcribed but are confined to mainly Mesopotamia, and antiquity Greece & Rome. Preserved song texts and chants along with accounts of performance practice and images of musical performance expand the clues to the musical practice of antiquity. Preserved instruments help in revealing the elements of what the music was composed of.

With all the revealed remnants the melodic and rhythmic elements of music in antiquity the music still remains lost to our time.

Complicating the process is that our view of the past is often static and might be reflected in the archeological interpretation. Also, a small number of finds (musical instruments or depictions) will not be necessarily representative of a musical culture.

C. EXPERIMENTAL ARCHAEOLOGY

Works with reconstruction and the ancient forms of life in comparable conditions to the past. A part of this is imitative experimentation – i.e. the manufacture of replicas based on 'finds' and created with original tools and techniques such as the production of flint tools.

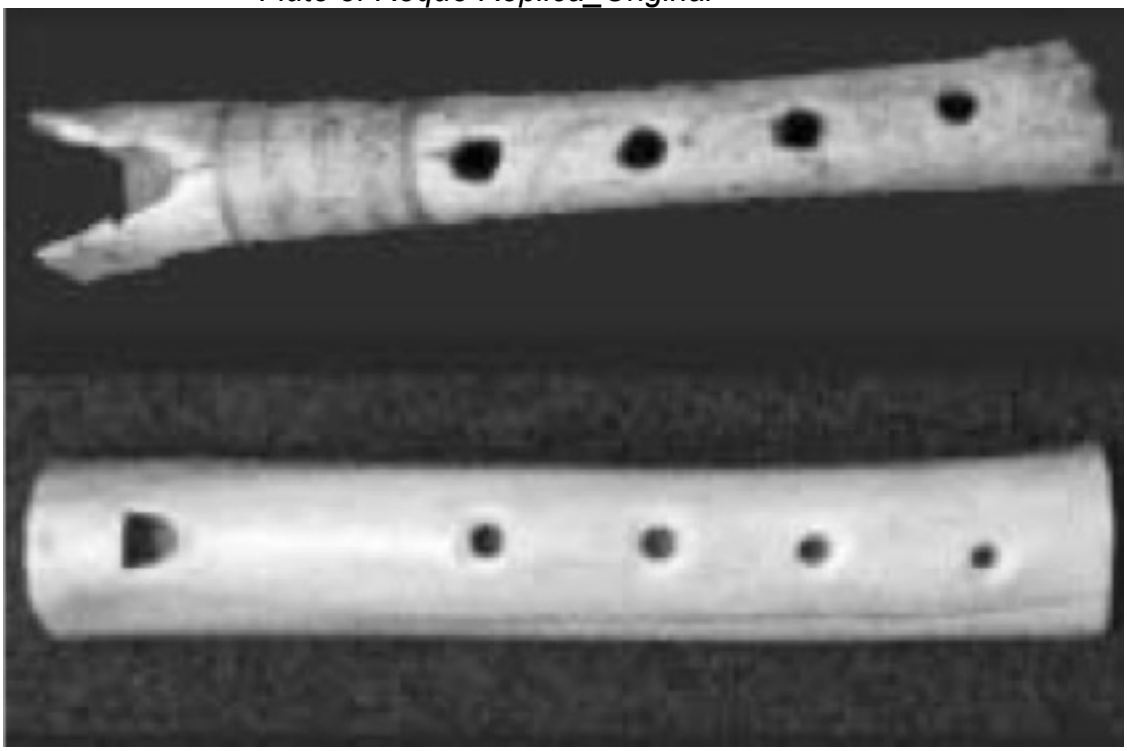
For music studies, the production through experimental manufacture and functional models of replicas can provide a window into the 'lost' musical past. This can open a path to understanding:

- Materials of manufacture
- Varieties of between different locations
- Treatment and workmanship
- Particular efforts of production
- Ancient knowledge of processing materials
- Insights into individual acoustic principles

There are controversies about the archeological finds – the 'Neanderthal flute' particularly being misinterpreted as intentional human construction but the result of carnivore activity

The experimental playing of the replicas can also provide insight into possible playing techniques as well as sound capabilities of an instrument or ensemble.

Flute of Roque Replica_Original



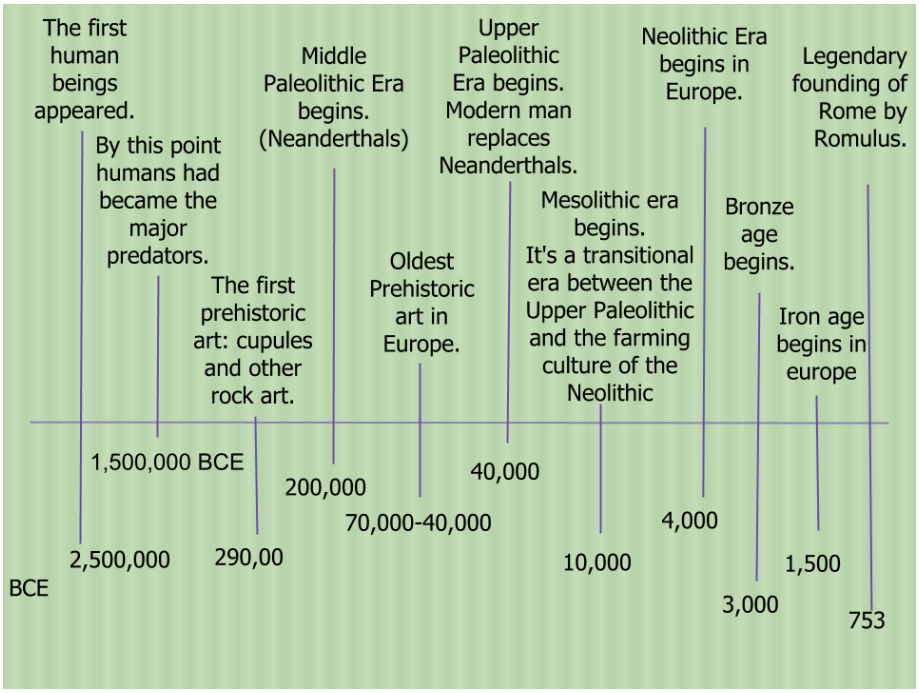
The flute of Roque St Christophe/
Pas du Miroir

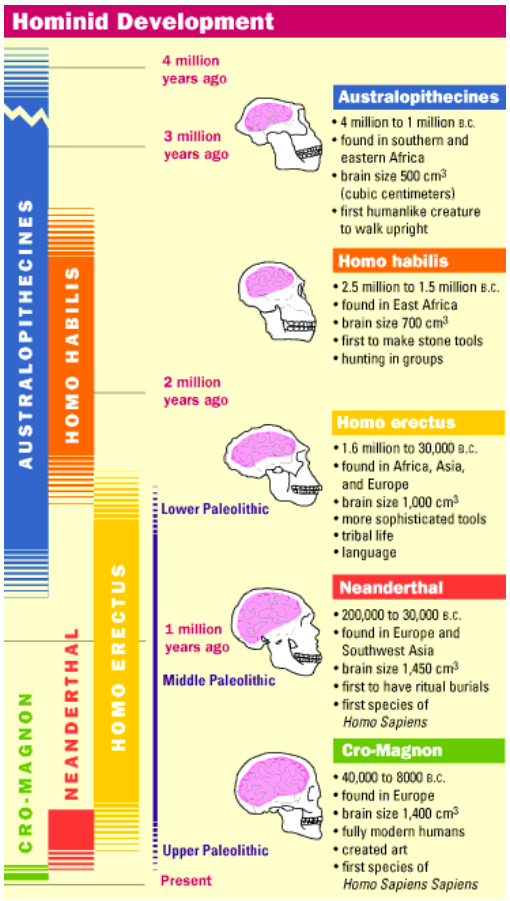
This important instrument is also known as the flute of Abri Blanchard and has been described several times. It has not been dated accurately, but Harrold (1988) and others, including Randall White of the American Museum of Natural History, believe it to be Aurignacian I and thus 25,000-35,000 years old. The original is remarkably complete and in good shape compared to many other flutes of the same vintage. It appears unplayable as a result of critical breakage and material accumulated inside.

What cannot be definite but only surmised is the organization of music in that distant past. The melodies possible with the reconstructions are just possibilities as organization, rhythmic, and scale system remain speculative.

The entirety of ancient past music is lost in entirety and a caution needs to be noted – the artistic recreation of musical history may in actuality be only a reflection filtered through a contemporary viewpoint.

Time Line


The first human beings appeared.
By this point humans had became the major predators.
The first prehistoric art: cupules and other rock art.
Middle Paleolithic Era begins. (Neanderthals)
Oldest Prehistoric art in Europe.
Upper Paleolithic Era begins. Modern man replaces Neanderthals.
Mesolithic era begins. It's a transitional era between the Upper Paleolithic and the farming culture of the Neolithic
Neolithic Era begins in Europe.
Bronze age begins.
Iron age begins in europe
Legendary founding of Rome by Romulus.
2,500,000 BCE
1,500,000 BCE
290,00
200,000
70,000-40,000
40,000
10,000
4,000
3,000
1,500
753


Hominid Development
4 million years ago
3 million years ago
2 million years ago
1 million years ago
Present
AUSTRALOPITHECINES
HOMO HABILIS
HOMO ERECTUS
NEANDERTHAL
CRO-MAGNON
Lower Paleolithic
Middle Paleolithic
Upper Paleolithic
Australopithecines
• 4 million to 1 million B.C.
• found in southern and eastern Africa
• brain size 500 cm³ (cubic centimeters)
• first humanlike creature to walk upright
Homo habilis
• 2.5 million to 1.5 million B.C.
• found in East Africa
• brain size 700 cm³
• first to make stone tools
• hunting in groups
Homo erectus
• 1.6 million to 30,000 B.C.
• found in Africa, Asia, and Europe
• brain size 1,000 cm³
• more sophisticated tools
• tribal life
• language
Neanderthal
• 200,000 to 30,000 B.C.
• found in Europe and Southwest Asia
• brain size 1,450 cm³
• first to have ritual burials
• first species of Homo Sapiens
Cro-Magnon
• 40,000 to 8000 B.C.
• found in Europe
• brain size 1,400 cm³
• fully modern humans
• created art
• first species of Homo Sapiens Sapiens

2 PALEOLITHIC

I DEFINITION OF MUSIC

A. NECESSITY OF A WORKING DEFINITION

There is a difficulty in identifying 'universality' in different cultures' conception of music. The definition used for these notes requires an avoidance of cultural specificity.

B. DEFINITION

Music embodies, entrains and transposably internationalizes time in sound and action.

The approach to these notes also use music as simply organized sound and silence – here the organization can be decided as a random or fixed organization.

- The initial definition has been proposed by Cross
- 'Transposable intentionality' identifies that music can have multiple meanings – different things to different people in different contexts.

II EVIDENCE FOR THE USE OF MUSIC

A. SHARED FEATURES OF MUSICAL BEHAVIORS

Important to look for the diversity of musical behaviors but also identifying the shared musical behaviors across cultures with close parallels between groups implying either convergent development or a shared cultural heritage.

- Studies of existing hunter-gather peoples showed a great deal of cultural and adaptive variety between populations even in similar environments and with similar technologies.
- It must be noted that existing hunter-gather societies now occupy extreme and marginalized areas occupied in relatively recent history.
- There is no representation in the contemporary habitats of the actual habitats of prehistoric humans.

B. INTERPRETATION

To make any interpretation of the archeological record requires analogy – the interpretation will inevitably draw upon subjective experience of human behavior in one's own culture (or of another).

But judicious use of ethnographic examples can allow a model to be built up that may be unlike any single modern analogue. Studies of four contemporary hunter-gathers (Plains Indians, Pygmies, Pintupi Aborigines, and Alaskan Eskimos) have a number of common features despite geographical separation (across four continents) and occupying four very different environments.

Common Traits:

The music itself has no inherent symbolism for the most part but can be used to accompany symbolic activities.

- Ceremonial and social use of music is very important
- Almost always accompanied by rhythmic dancing
- Music is also performed as a purely communal activity for pleasure
- Music is predominately vocal accompanied by percussion instruments
- Melodic instrument use is minimal invariably consisting of end-blown pipes.
- Percussive and melodic instruments are made from naturally occurring organic materials
- Believe themselves to have come from the land and use music to try to influence the world around them.
- Music (and dance) have important uses in fostering group cohesion, altering mood, and facilitating group interactions and communality.

Differences:

- Blackfoot and Sioux Plains Indians; Aka and Mbuti Pygmies song has minimal lyrical content vocalizations consisting of vocables (emotive sounds with no obvious symbolism)
- Pintupi Aborigines music is almost exclusively lyrical and a repository for community knowledge and mythologies.
- The Inuit and related Yupik people contain both types of content with the lyrical portion containing event histories, environments, journeys, and substance sources – an important repository of the groups' knowledge.

C. First Behaviors

The earliest archeological evidence for musical instruments should not be assumed to represent the first incidence of musical behaviors in humans.

- The four contemporary hunter-gathers referenced have a primarily non-instrumental vocal based music with percussion provided by hand clapping, slapping, and foot-stomping.
- Any vegetable or animal based instrument construction would not survive to be represented in the archeological record.
- Bone would survive providing an isolated historical record.

There should be no expectation that archeological evidence for music instruments would correspond to the first human participation in musical behavior.

In addition, the similarities between the four mentioned hunter-gather groups would indicate convergent development or a shared cultural heritage (or both).

Convergence would suggest important evolutionary driving forces towards common behavior. Shared musical behavior would indicate a very ancient tradition of musical behavior and the groups mentioned are probably separated by 50,000 years.

III Paleolithic Music Archeology

A. Evidence in Middle & Upper Paleolithic (200,000 – 12,000 years ago)

All known or reputed examples of sound-producers from this period are bone – likely the result of preservation rather exclusive choice

An examination of the possible forms of instrumentation and sound reproduction – including use of acoustic features of the environment such as caves and other lithic (related to stone) objects and the temporal distribution of the archeological evidence.

The objects of possible musical instruments fall into five main types:

- Flutes or pipes
- Phalanges or phalangeal whistles (bone digits of vertebrates)
- Bullroarers
- Rasps (usually bone with notched parallel grooves)
- Natural features of caves (or caves themselves) used as sounding devices)

Magdalenian 'bullroarer', covered with red ochre and incised with linear motifs, from La Roche, Lalinde, Dordogne. 180 mm long, 40 mm wide at widest point.
Photo: Bahn (1997) Source and text: Morley (2003)

Closeups of the idiophone (Rasp) from Mas d'Azil above.
Photo: Don Hitchcock 2015
Source: Original, Musée d'Archeologie Nationale et Domaine, St-Germain-en-Laye
Text: Rigaud (2001)

The flute was found in 31 pieces in the Geißenklösterle cave in mountains near Ulm in southern Germany. Two other flutes made of swan bones were discovered at the site more than a decade ago. The three are much older than any other musical instrument yet discovered.

Whistle from Roc de Marcamps, probably from the bone of a bird.
Catalog: 70.19.465
Photo: Don Hitchcock 2015
Source: Original, Musée d'Aquitaine à Bordeau

Not all can be definitely attributed to human production:

- In the case of bullroarers two questions are present:
  1. Were they actual bullroarers or decorative pendants
  2. Were they the result of human creation or animal scavenging such as by hyena.
- For rasps there are not only possible artifacts but possible rasps in cave engravings in the Upper Paleolithic (Venus of Laussel). Again questions arise:
  1. Are those with irregular spaced grooves of inconsistent length the result of carnivore activity
  2. Was the use of those attributed to human activity actually utilized as rasps or just to aid in gripping and the tool used for something else
  3. Tally or counting marks
- Flutes, pipes, and phalangeal whistles are also subject to debate:
  1. Is the object an intentional sound producing construct or just capable of producing a sound
  2. The result of carnivore activity (Divje babe I, Slovenia cave)

It should be noted that representations of musical instruments in Paleolithic art are sparse

Cave engraving:
Venus of Laussel

Previously the most famous such Slovene site had been Potočka Zijalka at Olševa. But in 1995 an extraordinary find was discovered in Divje babe - a bone flute. The flute was unearthed in the 45 000 year old remains of a Neanderthal fireplace. It is widely determined to be the result of carnivore activity.
Text: http://www.narmuz-lj.si/ang/trg/sle/piscal.htm
Photo: http://www.myntkabinettet.se/pressm/prmed9.htm

Isturitz Flute

Earliest known pipe type (to date) are from Geissenklösterle, Germany dated to 36,000 +/- 1000 years BP)

BP = 'years before' the present as archeological term

Richest source is Isturitz, France with these flutes showing a consistency in manufacture and closely resembling Mayan and Mediaeval examples.

- Provide a real indication of sophistication in creation
- Hints at an importance to musical activity
- Design appears to have remained unchanged to at least Mediaeval times in Europe and America

Phalangeal Whistles' anthropogenic origin and important role in human society is not in doubt and many are clearly the result of human agency but again care must be taken in determining authenticity.

- Mostly made from reindeer bone which puncture easily and naturally produced punctures in fresh bone examples do look intentional
- Intentionally produced punctures in deposits can be damaged and be unrecognizable
- Both naturally and intentionally produced punctured phalanges tend to be capable of functioning as whistles

Many of these phalangeal whistles can be classified as intentionally produced sound-producers they should not be necessarily classified as musical instruments as there are many potential uses for a small whistle.

It also appears that acoustic properties of cave locations were also important with a marked correlation between cave painting locations and places of great resonance.

- Evidence points to conclusion that the acoustic properties of a cave location dictated the location of art within the cave.
- Cannot be certain of the nature of the sound-production within these locations.
- Seems evident though that Paleolithic inhabitants were very aware of the acoustic properties.

These cave locations also can contain natural sounding features showing evidence of being struck to produce a tone (Nerja in Malaga, Spain).

- Covered with abstract decorations that can be seen only with close observation.
- These features had specific significance but were not decorated for general viewing or aesthetic reasons.
- Occur in areas established as artistic and/or social significance.
- Produce clear tones when struck.
- Have been chipped and worn as being struck.
- Appears to be a network of similar features in southern France, Spain, and Portugal treated and used in the same way.

Both art and lithophone properties have been dated to the Solutrean Period of 20,000 years ago

Nerja Cave Art

B. Nature and Possible Purpose of Music in the Upper Paleolithic

Clues to the nature of music in this period prior to 40,000 years ago are of uncertain human origin – after that age, there are several examples of sound-producing objects (mostly bone) confident of human origin.

Archeological deposits coincide with important focal points for large groups of people. The finds (bone flutes) are paralleled in other sites (Isturitz, Mas d'Azil) and are commonly found in the decorated caves of these sites.

This suggests:

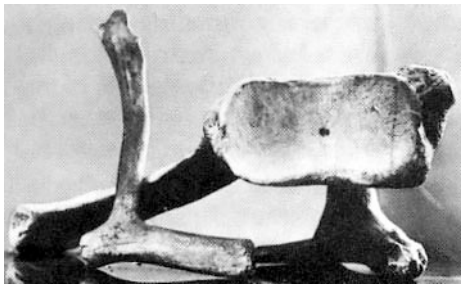
- Acoustics were important
- Relation to the cave art was important
- Or both

Difficult to ascertain if production of music/art was a group activity or by selected few but it is clear that the acoustics of the cave where significant and that sound production bore an important relationship to the cave art.

It should be noted that any certainty the music and the subject matter of the cave paintings were linked is not possible – only that the location of the art appears to be linked to the acoustical qualities of the caves.

Mezin, Ukraine 'mammoth orchestra' (if an actual collection of instruments) points to group participation in music activities – but only indicating music as a social activity as other conclusions are difficult to ascertain.

The instruments consist of a mammoth shoulder blade as a drum with an antler hammer



C. Neurology and Physiology

There is a question of when hominids developed the physiological and neurological capacities to produce and process melody and rhythm.

- Physiology necessary for vocalizations (not equivalent to verbalizations).
- Primates vocalize in discrete units of sound created with single air movements but limited in duration in the breathing cycle.
- Primates are also limited in the diversity of sounds possible.
- The increasing control of intensity, pitch, intonation patterns of discrete vocalizations followed the progressive laryngeal development of evolving hominids.
- Vocal and auditory systems seem to have evolved in response to each other's capabilities.

The physiological tells us when the capability to carry out musical behaviors but little of the form those behaviors.

D. Evolution of Musical Behaviors

Were there selective advantages to musical behavior as a whole

- There is more to musical capability than the cultural aspect
- A particular behavior or trait need not be essential to provide a selective benefit (just a greater likelihood of survival & procreation).

Music does not simply make use of existing cognitive mechanisms but is a development of those mechanisms

- Group Cohesion
  1. Use of rhythm and music both seem to have important benefits for social bonding and group cohesiveness.
  2. Music in almost all modern hunter-gather societies is a group social activity.
  3. May make cooperative behaviors within a group more likely to occur.
  4. The shared emotional experience creates strong bonds of loyalty as well as positive emotional experiences.
  5. A role of engendering strong emphatic association and group membership (still fulfills this role).
- These group music activities reflect not only the level of cohesion and cooperation but also stability and ability to execute complex coordinated actions.
- For the individual the social environment is as important as the natural environment for survival.

Music is different things to different peoples in different places and at different times (transposable intentionality)

Musical activities do not simply provide an opportunity for social interactions but use the mechanisms of social interaction and expression.

IV Summary

A. The ethnographic evidence for the use of music is mirrored in modern hunter-gather societies.

Modern hunter-gather groups (in very different environments) have a number of important features in common with specific differences.

- Use music to attempt to influence the world around them.
- Melody in predominantly vocal.
- Instruments are predominately percussive and made from naturally occurring materials (with little modification).
- Vocal music has multiple forms and functions.
  1. Non-lyrical (sounds rather than words).
  2. Lyrical used to store knowledge.
  3. Music and dance to facilitate group cohesion.
- Musical behaviors need not have been dependent upon language, symbolism, or instrumentation but instead limited by physical and neurological capabilities.
- Similarities between modern hunter-gather groups in divergent geographies could imply either convergent development or a shared cultural heritage (or both).
- Suggestion of the shared traits as a consequence of the subsistence method or human biology (the principal common factors).

In the majority of instances the music itself has no direct symbolism but used to accompany symbolic activities

B. PALEOLITHIC MUSIC ARCHEOLOGY

There is no current indisputable evidence for musical instrumentation before the Upper Paleolithic (40,000 years ago).

- Some evidence earlier than Upper Paleolithic is questioned as carnivore activity or natural forces.
- Earliest bone pipes date from about 36,000 years ago.
  1. Already sophisticated in design which would indicate instruments were distanced from the earliest musical behaviors and instruments.
  2. Arriving modern humans in Europe were already showing developed instrumental behaviors.
- Bone preservation would explain the prevalence of bone artifacts.
- Must state that focus of archeology has been on Europe.
- Evidence also points to 'focal' locations for large amounts of human activity with art and music activities a factor in the locations. (Suggests music was a group activity)

C. EVOLUTION OF THE PHSIOLOGICAL AND NEUROLOGICAL CAPACITIES FOR MUSIC

Prior to modern humans (Homo ergaster 1.73 Mya) to Homo heidelbergensis 300-400 Kya) there was a co-evolution of vocal apparatus allowing a greater range of sounds to be produced of progressively greater duration.

Mya = million of years ago
Kya = thousands of years ago

By Homo heidelbergensis (archaic Homo sapiens) an essentially modern vocal apparatus was evolved allowing a 'modern' range of sound frequencies and a larynx able to control vocalizations of extended duration.

Evolution of vocal chords and ear seems to have occurred in tandem with feedback occurring between the two processes. Our ability to make planned vocal sequences was proportional to this evolution.

Evidence suggests that specialized human neurology dedicated to higher linguistic and musical functions emerged later. With this the capacity to perceive melody, rhythm, and tonal vocalization is inherited at birth.

D. EVOLUTIONARY RATIONALES FOR MUSIC

Some vocal sounds and frequency changes are fundamental and invariant across cultures (or species) in emotional states expressed.

One way music elicits emotion is a result of the processing and stimulation of mechanisms associated with emotional expression and interpersonal interactions. This is integrated with the 'body language' required to produce 'musical elements'.

Musical behaviors have a foundation in the vocalizations and gestures associated with emotional expression and maintenance of social bonds. This aspect provides a potential for music stimulating and maintaining networks and loyalties strengthening feelings of group empathy and membership.

Music is neither a language nor symbolism but has foundations in communication between individuals. Musical activities could become increasingly important (both individually and in groups) with developing social complexity within in and between groups.

Musical behaviors could be instrumental in re-enforcing in group cooperation and relations. These advantages would in turn lead to the spread of traditions within and between groups.

E. LIMITATIONS OF RESEARCH

Stated is the emergence, development, and interrelationship of the capacities underlying musical behavior and the archeological record representing recognizable musical behaviors. Much remains to investigated regarding the transition between proto-musical behaviors and fully-realized musical behaviors.

Majority of finds related to musical activities from the Paleolithic were discovered in the late 19th and early 20th Centuries and these lack contextual associations and site reports. Many of these were analyzed as parts of museum collections and are restricted only to the properties of the artifacts – not site contexts.

Little has been done (comparatively) to focus on the auditory environment with focus on the visual medium.

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