

GESTURE

In music, the term “gesture” is interpreted in various ways.

(1) the **sonic result** (or 'trace') of a physical gesture, such as: the strum of a guitar, the strike of a stick on a drum

(2) the **sonic imitation** of a physical gesture, such as 'a rising gesture'

(3) a more or less **formal musical pattern** used to suggest a particular idea; for example: the 'opening gesture' or 'closing gesture' of a work

A musical gesture is normally a relatively short and distinct sonic configuration. It can convey mood once its identity is established, just as a hand-wave can express eagerness, boredom, or sadness.

Traditional definitions of musical texture.

Musical texture can most simply be described as “how much is going on in the music at any given moment”*. For example one excerpt of music could consist of a solo voice. Another excerpt of music could have a choir of 100 voices accompanied by orchestra and percussion. The first musical texture we could describe as sparse, and the second as dense.

There are four standard terms that have been used in traditional music theory to describe texture. They are as follows:

Monophony: One single melodic line with or without rhythmic accompaniment. (hear example)

Polyphony: More than one independent melodic line occurring at the same time. (hear example)

Homophony: Multiple voices, where one voice, the melody, stands out prominently, and the other voices form a background of harmonic accompaniment. (hear example)

Heterophony: Many voices producing variations on the same melody simultaneously. (Heterophony is very common in folk music. Different interpretations of a melody learnt by ear produce variation on that melody creating a heterophonic texture). (hear example)

These are the terms that have been by used by music theorists for over a century, but they do not in any way begin to describe the complexity of musical texture.

This void in the formal terminology has, over the years, been filled with many words (often borrowed from the visual language) such as: thick, thin, soft, rough, dark, smooth etc. describing musical texture. However, there is no consensus on what these words mean in relation to music. We have begun to establish a framework for exploring musical texture (outlined on the following page). We invite you to explore your ideas about musical texture through this framework, and help us improve our terminology.

*Catherine Schmidt-Jones - <http://cnx.org/content/m11645/latest/>

Framework for new ideas about musical texture

Musical texture: Unlike images, which can have an impact on the viewer instantaneously, sound needs time. Without time, sounds are two-dimensional (like straight lines). A sound that occurs in a millisecond does not have the same impact on the listener as an image that occurs in a millisecond has on the viewer. Our understanding of time is linear, whereas our understanding of space is non-linear.

Musical texture is often hard to describe accurately because it involves thinking about sound spatially. Rather than a musical line, melody, or gesture that has a beginning and an end, a musical texture can be heard as a distribution of sounds in 'space'. Music theorists call this a 'pitch-space'.

Musical textures usually have a minimum duration of several seconds, and may last for several minutes (or hours, in extreme cases). However, listening to a musical texture can give the sensation of timelessness, because the sense of movement connected to melodies or gestures is not necessarily present in musical textures.

The focus of a musical texture is the specific pattern and "density" of notes within a time frame rather than the direction of those notes within a time frame.

Sparse texture:

Notes (or melodies) occurring at the same time that are easy to hear independently. This could be a result of:

1. Few notes or lines (melodies) per time unit.
2. Very high notes mixed with very low notes.

Dense texture:

Notes (or melodies) occurring at the same time that are difficult to hear independently. This could be a result of:

1. Many notes (or melodies) per time unit.
2. Notes (or melodies) of the same register mixed together.

We do not yet have good terms for describing musical texture beyond 'sparse' and 'dense'. We hope that, through your explorations in this playroom, you will help us come up with some.

Rhythm

Rhythm: All aspects of music concerned with its motion through time, and thus its structure within time.

Beat - Most music is designed around a regular **BEAT or PULSE**, sometimes emphasized by drums and/or other instruments. The beat is something we can feel physically, and coordinate movements to. Generally, it is considered slow or fast according to its relationship to our normal walking pace.

TEMPO (plural **TEMPI**) - The word often used by musicians to describe the speed of the beat.

Metered Rhythm is defined by a regularly occurring pattern of accents in a group of beats. Metered rhythm has a very wide range of complexity.

Simple meter - describes a regular pattern of accentuation (example RH1)

Complex meter - describes a pattern of accentuation with two or more levels: the pulse and the subpulse/s. Complex meter might be: even (having the same number of beats in each group (example RH2), or: uneven (having a different number of beats in each group (example RH3). If two or more of the regular patterns of accentuation fall within the walking range, then two different listeners may perceive different tempi. This is because one person is tracking the slower pattern, and the other person is tracking the faster pattern.

Unmetered Rhythm is defined as a group of beats with no regularity in their patterns of accentuation (example RH4)

POLYRHYTHM is when two or more different beat patterns are present. Imagine a child on a swing, establishing a regular to-fro pattern. If there is another child on another swing at a different rate, the two together form a polyrhythm. (example RH5)

Naturally structured rhythm results from the action of natural phenomenon. For example the sound of something falling, or of a car going by (example RH6)

Do you have other ideas about how rhythm could be structured?

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The Effect of Space on Sound

Spatial Signature - Sound always interacts with the space in which it is produced and/or heard. The set of characteristics of a sound that are the result of its interaction with space is known as “**spatial signature**” (from Rick Altman). The most identifiable form of spatial signature is **reverb**, or the **echo** that accompanies a sound. The reverberation of a sound will vary depending upon the size and shape of the space in which the sound is produced. For example, a large cathedral (*example SS1*) will produce more reverberation on the sound of a person’s voice than a small gallery space (*example SS2*). For this reason, attention to spatial signature can tell us a lot about the space in which any given sound is produced.

Multiple spatial signatures (*example SS3*)– Recorded sound adds another dimension to the spatial signature. Inevitably, we listen to recorded sound in a space that is different from that in which the sound was originally produced and recorded. This means that a sound can take on an additional spatial signature as a result of its interaction with the space in which the sound is being heard. We tend to make a distinction between the spatial signature of the recording space, and the spatial signature of the listening space. The former is embedded within the recording, while the latter is a function of the space in which the recording is being played back. The fact that we make this distinction rather easily points to our inherent ability to understand the difference between recording space and listening space.

Electronically altered Spatial Signatures (*example SS4*)– Recorded sounds that are processed electronically create artificial spatial signatures. Again, reverb is the most common example when used as an “effect” applied to a recording in order to make it sound as though it was produced in a space larger than that of the original recording space. Unless we are trained studio technicians we will likely have much more difficulty recognizing the difference between the sound of real space, and the sound of an artificially created space.

When listening to a sound, try listening for its spatial signature.

Ask yourself:

“What specific auditory elements contribute to its spatial signature?”

and

“How does the spatial signature contribute to the overall effect of the sound?”

Pairings of sound + image:

In mainstream film and TV, sound effects are usually based on *conventions of realism*. But these conventions allow for a certain measure of manipulation to enhance their support of the drama.

Examples of such manipulation would be sounds that are:

Exaggerated - ie. the sound of a phone crashing down after an angry conversation can be given extra weight – hear example.

toned down or removed completely - ie. when the battle sounds fade away as Tom Hanks pauses on Omaha Beach in the opening of *Saving Private Ryan* – hear example.

substituted - ie. the screeching violins in place of a woman's screams in the *Psycho* shower sequence – hear example. Or: percussion sounds to punctuate movements of cartoon characters (a practice known as **Mickey Mousing**) – hear example.

Film music (the score composed for a film), being freed from having to adhere to conventions of realism, is especially good at emphasizing tone and steering the emotional response of audience. But all sound in any given film can be treated as musical composition, guiding emotional response even while it functions as support for the film's sense of realism.

Audio - visual pairing - other useful terms:

synchresis – the joining of sound and image in tight synchronization, forcing audiovisual congruity even when the pairing is unrealistic (from Michel Chion)

asynchronous - no precise points of synchronization between sound and image, the two elements maintaining distinct but parallel tracks (from Sergei Eisenstein)

empathetic - sound and image seem to support each other in mood or function (from Michel Chion)

anempathetic - sound and image seem indifferent to one another (from Michel Chion)

free counterpoint - a middle ground in which the relationship is neither one of obvious support nor indifference, maintaining a loose / ambiguous association (from Michel Chion) (hear example).

The audiovisual unit:

A sound and image pair **might** sometimes be usefully considered as a SINGLE element - no longer regarded in terms their relationship to one another. This could be achieved through a focus on structures (for example, in terms of texture, gesture, or rhythm) that transcend sound or image as individual tracks.

When presented with an audiovisual segment, can you identify a single gesture that reaches through both sound and image to become:

- a distinctly *audiovisual gesture*?
- a distinctly *audiovisual rhythm*?

Such audiovisual gestures or rhythms would not be entirely identifiable if either the sound or the image were removed. Identifying such audiovisual singularities would mean that most of the above categories for identifying audiovisual relationships (empathetic, anempathetic, etc.) would become irrelevant. If sound and image are to be considered as one, then there can be no discussion of a relationship between the two. In such cases there can be no such thing as sound being empathetic towards the image. The two would be inextricable, and would require a new approach for assessment. We are interested in what this approach might be.

QUESTIONS to ask yourself when listening to an audio + video pair:

- Do you think the pairing is empathetic, anempathetic, or somewhere in between? WHY?
- Is the audiovisual pairing based on an implied relationship of cause and effect?
- Are there precise points of synchronization?
- Are there aspects of the sound and image that could be interpreted as offering similar gestures? Similar textures? Similar rhythm?
- Are any of the elements representational? If so, do they support each other in a realist fashion?
- Or is there a synchresis forming based on empathetic relations?
- Or do they operate asynchronously, but still empathetically?
- Or are they simply totally incongruous, asynchronous, or anempathetic?
- Would you come to the same conclusions if either the sound or the image was heard in isolation? If not, how does the sound affect your interpretation of the image, and vice-versa?