

English Summaries

Christian Utz

»Liberating« Sound and Perception. Historical and Methodological Preconditions of a Morphosyntactic Approach to Post-Tonal Music

A short perception-based analysis of Helmut Lachenmann's *Pression* for cellist (1969/70) serves as point of departure for a general discussion of sound and perception as key methodological elements in the analysis and interpretation of post-tonal music and in their historical implications. Diverse perception strategies are applied to *Pression*: an »architectural« strategy, based on cross-references between salient cues in the sound surface, a transformation-oriented strategy, based on »categorical transformation« between noise and pitch, and strategies that emerge from the experience of presence and aspects of performance practice.

From this analytical sketch emerges a provisional threefold definition of sound which tentatively suggests (1) that the term includes the entire spectrum between isolated sine waves and unpitched noises of maximal spectral complexity, (2) that there is no viable distinction between musical and non-musical sounds as it is not the property of an acoustic event, but only our interpretation of it that makes it part of a »musical« or »non-musical« context, and (3) that, consequently, our perception has the capacity to »organize« any acoustic event into a »sound«.

Such a »liberal« and context-oriented definition motivates a historical review of the concept of sound and related perception theories since the late eighteenth century. Sound has been a prominent »Other« in nineteenth-century music theory and aesthetics, disciplined mainly by »form«, »structure«, or »logic«, supported by eye- and architecture-related metaphorical language. An early emancipation of sound, in contrast, was articulated through ear- and »wave«- or »stream«-related metaphors that profoundly influenced modernist music aesthetics (Herder, Richard Wagner). Facets of this discourse can be traced to the association of sound with the world of the unconscious and suppressed emotions as well as the discussion about the concealment or disclosure of a sound's source. This debate expanded well into the later twentieth century including criticism of Wagner's »objective sound« (Adorno), theories of »acousmatic listening« (Schaeffer, Scruton), »musique concrète instrumentale« (Lachenmann), and the twofold model of »hearing-in« (Hamilton).

Music theory has yet to cope with the emancipation of sound as a primary category in the twentieth century as it was, and in part still is, limited by the persistence of a hierarchical »surface-depth metaphor« that places (sub-)structural relationships above »surface events«. The morphosyntactic analytical methodology, developed as part of the research project *A Context-Sensitive Theory of Post-Tonal Sound Organization* (University of Music and Performing Arts Graz, 2012–2014), in contrast, aims to place a bodily-perceptual experience of sound events at the centre of analytical attention,

based on three principal preliminaries: (1) the theory assigns a prominent role to the interaction of morphological (Gestalt-oriented) and syntactic (time-oriented) perceptual processes based on syntactic archetypes (tension/release, call/response, presence etc.); (2) it does not idealize a particular listening strategy, but aims at a multiplicity of perception modes that provide the basis for »performative listening«; (3) it understands musical perception as an interaction of cognitive factors and social construction with a particular focus on the relevance of everyday perception.

A concluding analytical sketch aims to demonstrate the interaction of the archetypes »tension/release« and »presence«. A short morphosyntactic analysis of the third movement from Giacinto Scelsi's *I Presagi* (1958) demonstrates how the »flat«, non-hierarchical absence of a conventional »event structure«, provoking the perception of a timeless presence of sound, is juxtaposed with a breath-like, ritualistic phrase arching, suggesting a contemplative experience of sound transformed in time. »Performative listening« might be defined as a mode of perception that (consciously or intuitively) oscillates between such juxtaposed archetypes, allowing for an integration of a broad spectrum of meanings, associations, and emotions.

Thomas Christensen

Psophos, Sonus, and Klang: Towards a Genealogy of Sound Terminology

As we think about sound and its many competing meanings and uses for musicians over the past hundred years, it is worth keeping in mind that defining sound was also a contentious problem in earlier times. Indeed, since the ancient Greeks first invoked the term *psophos* as a general concept for sound, there has been a persistent question of how to draw boundaries between musical sounds (covered by such sub-terms as *phthongos* and *phonè*) and more general notions of noise (*klázō*). The Latin term *sonus* was perhaps even more confusing in this regard, with a numbing variety of meanings and applications that cannot be easily reconciled. Still, one persistent demarcation that we can find in the history of the term's usage is that between sound as an acoustical (»external«) object, and sound as a perceptible (»internal«) phenomenon. Each of these usages implies a distinctly differing aesthetic stance towards sound that has telling resonance for compositional and analytical issues that are still very much alive today. Indeed, an *acoustical turn* in the seventeenth and eighteenth centuries prompted music theorists to confront the perception of musical sounds more thoroughly than before as exemplified by Johann Mattheson's little known treatise *Versuch einer systematischen Klang-Lehre* (1748).

Dora A. Hanninen

Regarding Music and Apperception.

Locating »Sound« in Tonal and Post-Tonal Contexts

Sound and its apperception are essential to music. But »sound« and »perception« can have different denotations in empirical studies of aural perception and music analysis. To me, musical sound is fundamentally situated: a sound becomes musical when heard not as an isolated aural stimulus, but as an event that serves as the focal point for a complex apperception in which multiple musical events and various human perceptual and cognitive faculties participate.

In his essay *Music Theory, Phenomenology, and Music Perception*, David Lewin probes the sound of a single G-minor chord through an exegesis of various contexts in which it might be heard. After some background on Lewin's work, I develop a way of thinking about musical sound around two ideas: (1) musical sound is qualitative; and (2) it is context-dependent in a deep way – context penetrates, saturates, is embedded in, and creates musical sound. This idea leads to three others: musical sound is multivalent, distributed, and dynamic.

Whereas Lewin explores the formative influence musical contexts exert on sound in a tonal setting (Schubert's *Morgengruß*), I consider how this sort of thinking might apply to music outside the bounds of common-practice tonality. With its massive scale, intricate and diverse compositional design, prominent use of varied repetition, and mix of elements of tonality with Messiaen's modes of limited transposition and atonal materials, Messiaen's *Vingt Regards sur l'Enfant-Jésus* (1944) is an apt environment in which to consider the possibilities.

Andy Hamilton

The Objectivity of Tone.

A Non-Universalist Perspective on the Relation of Music and Sound Art

This essay holds that music is the art of tones, while rejecting the view that music is the universal art of sound; it recognises an emergent non-musical sound art which takes non-tonal sounds as its material. To allow that any sounds can be incorporated into music is not to say that any sounds can constitute music – thus room is left for the conclusion that music makes predominant use of tonal sounds, and increasingly co-exists with a non-musical sound art. This broadly tonal conception of music rests on what I term the objectivity of tone, which several contributors to the present volume seem to question. The article argues that whether a particular sound is musical or tonal is partly an objective matter, independent of how it is experienced by any particular individual. This claim should be understood humanistically and not scientifically – that is, it rests on a humanistic concept of music, and not on an abstract, scientific standpoint.

Christoph Reuter

Modellvorstellungen über Klangfarbe. Von der »Manichfaltigkeit der Praedicate« zum *Timbre Space* [Models of Timbre. From the »Diversity of Attributes« to *Timbre Space*]

What are the timbral characteristics of musical sounds? From the second half of the nineteenth century, ideas about musical timbre were affected by contradictory and platitudinous statements that have led researchers and musicians throughout history to adopt various models and perspectives. However, the influence of pitch and dynamics has largely been ignored within these models by definition. Another fact had further effects on the history of psychoacoustical research: While Hermann von Helmholtz's *Lehre von den Tonempfindungen* was soon translated into English by Alexander J. Ellis, a translation of Carl Stumpf's standard works *Tonpsychologie* (1883 and 1890) and *Die Sprachlaute* (1926) has yet to be published, as are translations of the important writings of other German-speaking successors to Helmholtz and Stumpf (such as Köhler, Schumann, Albersheim, Reinecke, Fricke etc.). Consequently, Anglo-American psychoacoustical research, which has been most influential in this field since World War II, is lacking this particular aspect of knowledge about musical timbre. The relevance of the German research tradition comes to light when we examine an instrument in its entire pitch and dynamic range (rather than only one or a few pitches as in most timbre studies): timbre perception of musical instruments is determined to a certain extent by steady pitch-independent formant areas, whose origin and characteristics at pitch and dynamic changes has generally been resolved today. These timbral effects appear to be in accordance with the principles of *Auditory Scene Analysis* (Albert S. Bregman) as well as with recommendations in orchestration treatises of the last centuries. Anglo-American models, such as John Grey's *Timbre Space* and subsequent research, and German models of timbre perception both have advantages and shortcomings. With the help of sound analysis and re-synthesis software and in combination with the concept of *mel-frequency cepstral coefficients* methods, it seems possible to merge these diverse approaches into a common timbre perception model.

Nikolaus Urbanek

Spur des Klangs. Posthermeneutische Überlegungen zum Eigensinn der Musik (nicht nur) in der Wiener Schule [The Trace of Sound. Posthermeneutical Reflections on the Inherent Sense of Music (not exclusively) in the Second Viennese School]

Based upon a reading of Arnold Schoenberg's theoretical writings on the musical idea and its presentation, this essay discusses the possibility of a so-called posthermeneutical perspective on the phenomenon of sound in the Second Viennese School. Schoenberg's sceptical considerations towards the relevance of sound are confronted with various arrangements, transcriptions, and instrumentations of works by Webern, Schoenberg and Berg. It can be demonstrated that sound here should be conceived neither solely as a means of constituting formal structure, meaning, and sense, nor as

the constitutive Other of meaning. Against the background of current discussions on the concept of »Posthermeneutik« (cf. Dieter Mersch, *Posthermeneutik*, 2010), sound may be understood as a phenomenon oscillating between sense and sensuality.

Lukas Haselböck

Zur Klangfarbenlogik bei Schönberg, Grisey und Murail

[On the Logic of Timbre in the Music of Schoenberg, Grisey, and Murail]

This essay focusses on the relation between timbre and musical logic. I try to draw a connection between Schoenberg's remarks on »Klangfarbenmelodie« in his *Harmonielehre* (1911) and the concept of »harmonie-timbre« represented by the spectral composers Gérard Grisey and Tristan Murail in the 1970s. At first glance, this relation between free atonality and spectral music seems far-fetched as Grisey and Murail rarely commented on Schoenberg's theories. Nevertheless, a detailed investigation shows a parallelism of both analytical and aesthetic problems. Both the free atonal Schoenberg and the spectralists argued for developing sound sequences out of the innermost quality of timbre. Besides, the forming of free atonal and spectral sound sequences cannot resort to a structural preformation of material as in dodecaphonic or serial music. Therefore qualities of listening gain major importance. In order to realize free atonal or spectral sound sequences, it is necessary to apply a wide notion of perception: on the one hand, the composer enters the »inner« world of timbre by eavesdropping on timbral nuances carefully. This perceptual attitude (»Lauschen«) brings to mind the transient presence and alterity of sound. On the other hand, this fascination with an »inner« quality of timbre should not lead to the assumption that free atonal or spectral sound sequences are unfolding in an »auto-generative« manner. Although composers can surrender themselves to a »passive« perception of sonic nuances, they are also compelled to make decisions about the direction of the music – decisions within the area of timbre, which seems to be resistant against decision-making. These decisions eventually constitute what might be perceived as musical logic. As a result, listeners of free atonal and spectral music are confronted with a fundamental tension between »inner« and »outer« compositional aspects: they perceive an illusory perfect and organic growth of sound (cf. Adorno: »Schein des Organischen«). The idea of a subject which articulates itself within a »pure« sound unleashes a tension between sense and its subversion, between active and passive listening. This tension seems to be one of the reasons why Schoenberg hesitated between sound and musical »sense«, and why he was fascinated by the »futuristic phantasy« to reconcile the apparent opposites of timbre and musical logic.

Emmanouil Vlitakis

Schwellenphänomene der Klangwahrnehmung im Violinkonzert György Ligetis
[Sound Perception Threshold Phenomena in György Ligeti's Violin Concerto]

György Ligeti and Gérard Grisey are undoubtedly among the most important composers of the second half of the twentieth century, for they elevated sound and perception to central categories of their compositional work. The play with thresholds of perception and ambiguities is a common ground of their musical thinking. Grisey and other »spectral« composers emphasized psychoacoustic threshold areas in their aesthetic concepts. Similarly, Ligeti's love of intermediate ranges (*Zwischenbereiche*) has led to the shimmering complexity of his music.

In Ligeti's Violin Concerto (1990/92), many passages and compositional techniques illuminate how Ligeti works with the ambiguity and complexity of sound and perception. Different types of chordal mixture constitute an important technique found throughout the concerto, among others as *spectral mixtures* based on just intonation. Examples from the first and the fourth movement demonstrate the flexible handling of mixtures by Ligeti, which can be understood as an extension and permanent modification of the sound of the solo violin. Varying the number of voices, the spectral or harmonic structure, the position of the solo violin within the mixture, register and dynamics creates diverse sonorities. Progressions of mixtures in the fourth movement can be interpreted dramatically, while in the fifth movement a superposition of several mixtures and layers results in highly complex structures. The relation between solo violin and orchestra, between »them« and »accompaniment« in the beginning of the first movement demonstrates how Ligeti reinterprets traditional structures in order to amalgamate soloistic and orchestral layers. The »splitting of the spatial entity of the instrument« here might be compared to techniques in cubist painting. Finally, tuning systems are combined in the second movement according to the principles of ambiguity and heterogeneity; different tunings are confronted while groups of sonorities connect the quasi-folkloristic with the eminently artificial, the serious with the parodistic, etc. Through a permanently modified contextualization of traditional sounds and gestures, the solo instrument in Ligeti's Violin Concerto seems to acquire a new kind of instrumental identity.

Elena Ungeheuer

Klang komponieren, inszenieren, erforschen. Handlungsprofile im Vergleich
[Composing, Staging, and Exploring Sound. Outlining Aesthetic Agenda]

The huge variety of approaches, goals, and interests in artistic circles, society, science, and industry challenges new methods of evaluating the particularities of culturally formed sound. In the realm of musicological sound research, it might be interesting to compare different musical ways of composing sound from the middle of the twentieth century onwards, and even to compare musical works with non-musical creativity

focussed on sound. To this end, the present essay suggests an action-based analytical approach. This ongoing project does not mean to trivialize analytical purposes by narrating biographical circumstances of sound creation, but intends a systematic approach in describing qualitatively aesthetic actions, actors, and their frames of reference.

Podiumsdiskussion mit Lukas Haselböck, Ludwig Holtmeier, Tobias Janz, Markus Neuwirth, Elena Ungeheuer, Leitung [Chair]: Nikolaus Urbanek

Klang und Wahrnehmung – vernachlässigte Kategorien in Musiktheorie und (Historischer) Musikwissenschaft? [Round Table Discussion: Sound and Perception – Neglected Categories in Music Theory and (Historical) Musicology?]

At the beginning of this discussion, Tobias Janz introduces three areas in which musicology and music theory might benefit from a more thorough study of »sound«: (1) in music analysis, instrumental sound should not merely be understood as the manifestation of an abstract pitch-rhythm structure but the interaction of sound and structure should be acknowledged (a piano reduction from one of Haydn's symphonies compared to one of Haydn's piano sonatas reveals a substantially different idea about musical structure); (2) the origins of an exclusion and emancipation of the sound paradigm should be traced in music history and aesthetics, and it might be discussed to what extent a depreciation of sound has shaped our understanding of music until the present; (3) from a sociological perspective, an emphasis on sound has often been associated with popular music; since the early twentieth century, both popular and art music cultures have had a long history of treating the emancipation of sound as a predominant musical tool and medium, and thus these two »cultures« should not be regarded as entirely separate »worlds«, but rather as interactive.

The other discussants broadly support the notion that sound is still a neglected area in music research by raising a variety of perspectives: our tools for describing sounds verbally and analytically are underdeveloped, and it is not always clear in which manner the idea of »composing [with] sounds«, for example in electronic music, should be grasped theoretically (Elena Ungeheuer); analyses of classical formal types and functions should rethink the common notion that sound and timbre are »secondary parameters« while the perception of form clearly depends on a more complex interaction between the diverse levels or parameters of the sounding events (Markus Neuwirth); established models of pitch-based analysis such as pitch-class set theory have to be complemented by aspects of register, timbre etc. which also would make their results more applicable in pedagogical situations (Lukas Haselböck); a depreciation of »Schöne Stellen« (beautiful moments) as structurally unimportant might often prevent music theorists from integrating auditory experience into analytical practice (Ludwig Holtmeier). Further aspects raised in the discussion with the audience include the idea that theory and analysis should focus more on how sounds are invented intuitively and »haptically«, for example by studying the tradition of the *pianiste-compositeur* and its

interaction of improvisation and composition; the problem faced by a history of musical listening derived from written sources; the necessity to integrate comparisons of different performances of the same piece into a sound-based analysis of musical works; and the necessity of interdisciplinary musical research as exemplified by projects that aim to reconstruct such historical listening spaces and situations as, for instance, the Beethoven era.