

A Context-Sensitive Theory of Post-tonal Sound Organization

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University of Music and Performing Arts Graz, Austria

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Project website <http://ctpso.kug.ac.at>

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1. Report on research work

1.1 Information on the development of the research project

The general goals of our project have been achieved rather comprehensively as the prolonged time frame (34 months) allowed for a continuous elaboration, expansion and refinement of the theses and arguments put forward in our application written almost four years ago, in May 2011. At the same time, the cognition-oriented and perception-oriented focus of the original research proposal has somewhat shifted towards historical, phenomenological, and semiotic contexts. The key ideas of the proposal, however, such as a modular approach to post-tonal morphosyntax, a ‘performative analysis’ integrating diverse poietic and perceptual perspectives, and a reciprocity of morphosyntax/morphology and metaphor have been developed throughout all discussions, presentations and publications. While the historical, aesthetic, and analytical research was developed in both scope and depth to a considerable degree, it proved more difficult to integrate listening experiments – which from the beginning were conceived as informal and explorative – into our studies on a broader scale.

The evolution of our research took place in at least five main areas:

(1) The analyzed repertoire was continually broadened and finally included detailed analyses of post-tonal instrumental works by Schoenberg, Stravinsky, Varèse, Cage, Boulez, Stockhausen, Scelsi, Ligeti, Bernd Alois Zimmermann, Feldman, Lachenmann, Klaus Huber, Ferneyhough, Kurtág, Grisey, Sciarrino, Czernowin and Mundry. The restriction of the analyzed repertoire to instrumental music without electronics was largely preserved, while the microformal approach focussed on at the outset was continuously expanded to macroformal dimensions, especially in the analyses of works by Scelsi, Sciarrino, Zimmermann, and Kurtág (cf. pub. 1,2,8,15,16,19¹). Applying our approach to a macroformal dimension led to a thorough discussion of musical time experience (see point 3). Sketch studies, based on archival research at the Fondazione Isabella Scelsi Rome and the Paul Sacher Foundation Basel, were integrated into the analyses of works by Scelsi and Sciarrino (cf. pub. 9,16).

(2) The historical dimension of the research was substantially expanded and now includes a historicocultural interpretation of sound- and time-related perception models since the late 18th century (cf. pub. 1,13,15,20); this research was greatly supported and inspired by groundbreaking studies in the field of the history of musical perception and aesthetics provided by Stollberg, Janz, Thorau, Berger, Sterne, Cook, Hentschel, Sponheuer and others and proved vital to a more thorough understanding of time-space-conceptualisations of 20th-century composers as these turned out to be multiply indebted and cross-related to earlier models of and ideas on sound-time perception.

(3) The methods of a perception-informed ‘context-sensitive’ analysis were continuously refined, focussing mainly on Bregman’s auditory scene analysis and Délièges’ concept of cues, imprints and prototypes, but also integrating aspects of memory and memory ‘sabotage’ (Bob Snyder) and a thorough review of expectancy-related psychological research; this led to a more distinguished consideration of phenomenological, philosophical and compositional dimensions of musical time (cf. especially pub. 1,2,9,16,19) and, more particularly, to a discussion of a conceptual ‘spatialization’ of time in post-tonal music (cf. pub. 1,2) and to the introduction of the paradigmatic key terms ‘time-space movements’ and ‘time-space experience’ (pub. 18,21).

(4) The computer-aided parts of our analyses turned out to be less pronounced than initially expected; however, the representation of spectral or amplitude diagrams has been retained in several

¹ Publications are referenced by their order number in the list provided in section III of this report.

publications, amended by analytical annotations, as it provides a useful overview on macroformal processes and helps to corroborate arguments about the sonic characteristic of specific passages (cf. pub. 1,2,9,14,15,16,19). In the course of the project, Kleinrath further refined and developed the software originally named MUSE by complementing the original sone-based spectral analysis functions with annotation and playback functions so that the software could also be used during the listening experiments; a further refinement and open source publication of the software is scheduled for 2015.

(5) Difficulties encountered during the discussion of the listening experiment set-up arose from a gap between the experiential qualities discussed in our perception-oriented analyses and the quantifiability and rationalized verbalization necessary for statistical and empirical testing; this discussion revealed the necessity to pay increased attention to the impact of musical performance and to integrate both performance and perception into the experimental set-up. Such a revised set-up was finally attained by realizing a studio recording of Pierre Boulez's *Structures Ia* (1952) on two MIDI grand pianos, directed by us, which made it possible to produce structural variants and morphological simplifications of the music for experiments (departing from a basic morphosyntactic analysis of this piece in pub. 13) while preserving the original piano sounds. A detailed account of this experiment is going to be published as part of Kleinrath's monograph (see III.1.3.).

The processual character of our research implied that there has been no fundamental change in research orientation between the start and the end of our project. The systematic procedure of the research path can be gleaned from the series of Utz's 17 independent essays that resulted from the project (14 already published, three forthcoming; see III.), 15 of which have been assembled into a collection, enhanced by an introduction, and submitted as a habilitation thesis to the University of Vienna in November 2014. A condensed version of this thesis is going to be published as a monograph with the renowned German publisher Olms (Hildesheim) in 2015 (pub. 21). The published monograph of Kleinrath's PhD thesis (pub. 22), which is going to be completed by mid 2015, is scheduled for 2016.

During the final period of the project, a substantial number of materials and ideas for a follow-up research project have been gathered, motivated by acknowledging the necessity to integrate composition, performance, and perception more closely into the analytical activity. The follow-up project will therefore focus on a re-evaluation of the much discussed relationship between (morphosyntactic) analysis and performance guided by Nicholas Cook's recently developed idea of 'augmented listening'. The basis for this new project has been laid out in a one-day session entitled "*Analyzing Performance and Performing Analysis*". *Synergies and Interactions between Musical Analysis and Musical Performance*, hosted by Utz together with Lukas Haselböck (Vienna) during the Eighth European Music Analysis Conference, Leuven. The two papers presented by Utz during this session were reworked into a major essay which recently has been submitted to the peer reviewed journal *Music Analysis* (pub. 18). This article will function as a bridge between the two projects by interrelating essential features of the 'performative' morphological analytical method and qualitative as well as quantitative performance analysis. This new research area will also form the central topic of the Annual Conference of the Austrian Society for Musicology (ÖGMW) entitled *Analysis – Interpretation – Performance. A Contact Zone For The Reconsideration Of Musicological Methods*, chaired by Christian Utz at the University of Music and Performing Arts Graz (KUG), November 18–21, 2015 (the call for papers was announced recently; see: <http://www.kug.ac.at/performance-analysis>).

1.2 Most important results and brief description of their significance

As the research fields covered by our project are unusually broad, it is difficult to summarize its results succinctly in a few isolated points. We can, however, point to four main areas, in which our research may offer new perspectives and potentially inspire further research:

(1) Although composers increasingly turned to perception-oriented compositional concepts since the 1980s, preceded by pioneers in the 1970s (Lachenmann, Grisey, Tenney and others), many concepts involved in provoking new aesthetic experiences through music appear to have a pre-history, dating back at least to the late 18th century. Aesthetic figures such as sonic and temporal immediacy, the ('timeless', 'limitless') 'presence' of sound in time, or the emancipation of sound from functional contexts reoccur in the history of music aesthetics since Herder; corresponding perceptual experiences constitute a noteworthy branch in the history of musical listening. The turn towards post-tonality in part radicalized such tendencies by constructing a temporal isolation of single sounds or employing other methods of disentangling established perceptual reactions to music, especially those associated with the standard tonal repertoire. Although recent compositional poetics such as those by Lachenmann and Sciarrino demonstrate highly differentiated perspectives on musical perception and its psychological and social preconditions, our analyses suggest that the perception-related conclusions which many composers have associated with their compositional output and the perceptual reactions expected by these composers from listeners of their music need to be reviewed critically to some extent. At least, a description of perceptual effects and results as expected by the composers, and a perception-based analysis of the musical result in both score and sound needs to be separated methodologically – a prerequisite which is rarely observed in current writings about post-tonal music.

(2) Musical post-tonality established a threefold challenge to the idea of musical syntax: (i) The innovations of twentieth-century music have sensitized us to the contingency of musical progressions to the point where any two subsequent sound events can be perceived as syntactically meaningful; (ii) Serial music and John Cage's aesthetics have placed a dissolution of any preconceived kind of coherence at the centre of their attention, resulting in an emancipation of sound and musical presence from syntactic process; (iii) The high degree of diversification of musical styles seems to undermine the idea of generalisable syntactic principles. In response to this eroding of syntactic stability, Utz's idea of post-tonal morphosyntax (pub. 13) traces musical-syntactic experience back to elementary perception modes in everyday life, namely causal or categorical contiguity, equivalence, and similarity between sound events. Kleinrath's theory of post-tonal semiotics is similarly based on everyday auditory experience. A wealth of analytical examples presented in our writings demonstrates how post-tonal works intentionally subvert tonal phrase structure and harmonic centrism, but also how they retain or even gain morphological profile through their spatial-temporal explorations of musical structure. A morphosyntactically oriented perception of such works as suggested by our analyses, manifoldly connects them to elementary modes of everyday and tonal listening, proposing a new model of post-tonal listening that ultimately frees itself from an author- and analysis-centred structuralist approach.

(3) Any culturally informed theory of musical perception must take into account the correlation between morphology and metaphor. Even if 'meaning' in most forms of instrumental music may be elusive, a broad number of factors, not least morphological and syntactic archetypes such as event/echo/decay, tension/release, loosening/strengthening, transformation etc., contribute to metaphorical strata of musical experience. Our analyses take this into account by revealing inherent

metaphorical potential even in rigorous 'anti-metaphorical' composing such as John Cage's, but also by demonstrating the limitations of arbitrary narrative or metaphorical self-interpretations of semanticized structure by composers. A number of analyses presented by Utz develops a theory of morphosyntactic musical narrativity as an approach to macroformal analysis, e.g. in the case studies of Huber, Mundry, Sciarrino and Kurtág (pub. 3,8,12,19), while Kleinrath's approach to musical semiotics corroborates the wealth but also the ambiguity of metaphorical listening by integrating experimental accounts of listeners' associations to seemingly 'abstract' post-tonal structures.

(4) In order to assess the impact of musical performance on the perception of post-tonal structures, most of our analyses have referenced concrete performances (mostly in the form of recordings) of the analyzed pieces, complementing score-based analysis with annotated amplitude-graphs or sonagrams. In Utz's Scelsi-analyses (pub. 16) in particular, shortcomings of standard and highly valued Scelsi-performances became obvious when compared to Scelsi's original electronic versions, considering the composer's original intention of a 'flat', non-dramatic, contemplative experience of sound. That such obviously diverging strategies of composers and performers are more widespread in new music than commonly assumed is corroborated in Utz's upcoming essay submitted to the journal *Music Analysis* (cf. pub. 18); here, compositional intention, performative decisions and perceptual interpretations are conceived as an open interactive field, in which the established idea of 'fidelity' (Ferneyhough) is retained but gains a new meaning in the light of an emancipation of performers considered partners in creation rather than subordinate interpreters of an unambiguous text.

Constituting a perception-sensitive syntax of post-tonality (2), taking into account the culturally mediated and situated space of metaphor- and narrativity-based musical perception (3), multiply permeated by historical and contemporary aesthetic streams and ideas (1), therefore requires more rigorous research on the flow of information and intensity between performers and listeners (4). As such a communication is undoubtedly historically shaped and inseparable from our experience of earlier music, an isolated study of post-tonal performance practice is likely to produce merely fragmentary results. The follow-up project to CTPSO therefore shall probe the potential of morphosyntactic 'performative' analysis for performance processes of music from three different epochs (Baroque, Romantic, post-tonal), envisaging a mutual sensitivity of perceptual and performative processes in the output of both analysts and performers.

2. Scholarly / scientific publications

2.1 Peer-reviewed publications / already published

contributions to journals

1. **Utz, Christian: Vom adäquaten zum performativen Hören. Diskurse zur musikalischen Wahrnehmung als Präsenzerfahrung im 19. und 20. Jahrhundert und Konsequenzen für die musikalische Analyse, in: Acta Musicologica 86/1 (2014), 101–123. (No OA)**
2. Utz, Christian: Paradoxien musikalischer Temporalität in der neueren Musikgeschichte. Die Konstruktion von Klanggegenwart im Spätwerk Bernd Alois Zimmermanns im Kontext der Präsenzästhetik bei Giacinto Scelsi, György Ligeti, Morton Feldman und Helmut Lachenmann, in: Die Musikforschung 68/1 (2015), 22–52. (No OA)

contributions to anthologies

3. Utz, Christian: Isabel Mundry's *Ich und Du* and the Elusiveness of Musical Meaning. Variations on Music, Body, Structure, Perception, in: *Bodily Expression in Electronic Music. Perspectives on Reclaiming Performativity*, ed. by Andreas Dorschel, Gerhard Eckel and Deniz Peters, New York: Routledge 2012, 97–113.
<http://ctps0.kug.ac.at/index.php?id=14740> (Green OA)

2.2 Non peer-reviewed publications / already published

anthologies

4. Utz, Christian / Kleinrath, Dieter / Gadenstätter, Clemens (eds.): *Musik-Sprachen. Beiträge zur Sprachnähe und Sprachferne von Musik im Dialog mit Albrecht Wellmer (musik.theorien der gegenwart 5)*, Saarbrücken: Pfau 2013 (177 pp.) (No OA).
contributions by Albrecht Wellmer, Nikolaus Urbanek, Christian Utz, Susanne Kogler, Clemens Gadenstätter, Jörn Peter Hiekel.
5. Utz, Christian (ed.): *Organized Sound. Klang und Wahrnehmung in der Musik des 20. und 21. Jahrhunderts (musik.theorien der gegenwart 6)*, Saarbrücken: Pfau 2013 (231 pp.) (No OA).
contributions by Thomas Christensen, Dora A. Hanninen, Andy Hamilton, Lukas Haselböck, Ludwig Holtmeier, Dieter Kleinrath, Markus Neuwirth, Christoph Reuter, Christian Thorau, Elena Ungeheuer, Nikolaus Urbanek, Christian Utz, Emmanouil Vlitakis.

contributions to journals

6. Kleinrath, Dieter: „Klar ausgeprägte Gedanken und Gefühl“. Die Suche nach einem neuen musikalischen Ausdruck in Franz Liszts Spätwerk, in: *Österreichische Musikzeitschrift* 66/5 (2011), 45–53. (No OA) [published before start of project]
7. Utz, Christian: Struktur und Wahrnehmung. *Gestalt, Kontur, Figur und Geste* in Analysen der Musik des 20. Jahrhunderts, in: *Musik & Ästhetik* 64, 16/4 (2012), 53–80.
<http://ctps0.kug.ac.at/index.php?id=14740> (Green OA)

8. Utz, Christian: Die Inszenierung von Stille am Rande ohrenbetäubenden Lärms. Morphologie und Präsenz in Salvatore Sciarrinos Kammermusik der 1980er Jahre, in: *Die Tonkunst* 7/3 (2013), 325–339. (No OA)
9. **Utz, Christian: Das zweifelnde Gehör. Erwartungssituationen als Module im Rahmen einer performativen Analyse tonaler und post-tonaler Musik, in: *Zeitschrift der Gesellschaft für Musiktheorie* 10/2 (2013), <http://www.gmth.de/zeitschrift/artikel/720.aspx> (Gold OA)**

contributions to anthologies

10. Utz, Christian: Musik von einem fremden Planeten? Variationen über Struktur, Wahrnehmung und Bedeutung in der Musik des 20. und 21. Jahrhunderts, in: *Musiktheorie als interdisziplinäres Fach. 8. Kongress der Gesellschaft für Musiktheorie Graz 2008 (musik.theorien der gegenwart 4)*, ed. by Christian Utz, Saarbrücken: Pfau 2010, 377–399.
<http://ctps0.kug.ac.at/index.php?id=14740> (Green OA) [published before start of project]
11. Utz, Christian / Kleinrath, Dieter: Klang und Wahrnehmung bei Varèse, Scelsi und Lachenmann. Zur Wechselwirkung von Tonhöhen- und Klangfarbenstrukturen in der Klangorganisation post-tonaler Musik, in: *Klangperspektiven*, ed. by Lukas Haselböck, Hofheim: Wolke 2011, 73–102.
<http://ctps0.kug.ac.at/index.php?id=14740> (Green OA) [published before start of project]
12. Utz, Christian: Morphologie und Bedeutung der Klänge in Klaus Hubers *Miserere Hominibus*, in: *Transformationen. Zum Werk von Klaus Huber*, ed. by Jörn Peter Hiekel and Patrick Müller, Mainz: Schott 2013, 129–165.
<http://ctps0.kug.ac.at/index.php?id=14740> (Green OA)
13. **Utz, Christian: Entwürfe zu einer Theorie musikalischer Syntax. Morphosyntaktische Beziehungen zwischen Alltagswahrnehmung und dem Hören tonaler und posttonaler Musik, in: *Musik-Sprachen. Beiträge zur Sprachnähe und Sprachferne von Musik im Dialog mit Albrecht Wellmer (musik.theorien der gegenwart 5)*, ed. by Christian Utz, Dieter Kleinrath and Clemens Gadenstätter, Saarbrücken: Pfau 2013, 61–101.**
<http://ctps0.kug.ac.at/index.php?id=14740> (Green OA)
14. Utz, Christian: Erinnerter Gestalt und gebannter Augenblick. Zur Analyse und Interpretation post-tonaler Musik als Wahrnehmungspraxis – Klangorganisation und Zeiterfahrung bei Morton Feldman, Helmut Lachenmann und Brian Ferneyhough, in: *Ans Licht gebracht. Zur Interpretation neuer Musik heute (Veröffentlichungen des Instituts für Neue Musik und Musikerziehung Darmstadt 53)*, ed. by Jörn Peter Hiekel, Mainz: Schott 2013, 40–66.
<http://ctps0.kug.ac.at/index.php?id=14740> (Green OA)
15. **Utz, Christian: “Liberating” Sound and Perception. Historical and Methodological Preconditions of a Morphosyntactic Approach to Post-Tonal Music, in: *Organized Sound. Klang und Wahrnehmung in der Musik des 20. und 21. Jahrhunderts (musik.theorien der gegenwart 6)*, ed. by Christian Utz, Saarbrücken: Pfau 2013, 11–46.**
<http://ctps0.kug.ac.at/index.php?id=14740> (Green OA)
16. Utz, Christian: Scelsi hören. Morphosyntaktische Zusammenhänge zwischen Echtzeitwahrnehmung und Formimagination der Musik Giacinto Scelsis, in: *Klang und Quelle. Ästhe-*

tische Dimension und kompositorischer Prozess bei Giacinto Scelsi (Musik und Kultur 1), ed. by Federico Celestini and Elfriede Reissig, Wien: LIT 2014, 143–175.

<http://ctps0.kug.ac.at/index.php?id=14740> (Green OA)

17. Utz, Christian / Kleinrath, Dieter: Klangorganisation. Zur Systematik und Analyse einer Morphologie und Syntax post-tonaler Kunstmusik, in: Musiktheorie und Improvisation. Kongressbericht der IX. Jahrestagung der Gesellschaft für Musiktheorie, ed. by Jürgen Blume and Konrad Georgi, Mainz: Schott 2014, 564–596.

<http://ctps0.kug.ac.at/index.php?id=14740> (Green OA)

2.3 Planned publications

contributions to journals

18.

Author(s)	Christian Utz		
Title	Time-Space Experience in Works for Solo Cello by Lachenmann, Xenakis, and Ferneyhough. A Performance-Sensitive Approach to Morphosyntactic Musical Analysis		
Sources	Music Analysis		
URL (if applicable)	http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-2249		
Peer Review	yes <input checked="" type="checkbox"/>	no <input type="checkbox"/>	
Status	in press/accepted <input type="checkbox"/>	submitted <input checked="" type="checkbox"/>	in preparation <input type="checkbox"/>

contributions to anthologies

19.

Author(s)	Christian Utz		
Title	Perforierte Zeit und musikalische Morphosyntax. Zum performativen Hören von György Kurtágs <i>Officium breve in memoriam Andreae Szervánszky</i>		
Sources	Kürzen. Gedenkschrift Manfred Angerer, ed. by Wolfgang Fuhrmann, Ioana Geanta, Markus Grassl, Dominik Šedivý, Vienna: Präsens 2015		
URL (if applicable)			
Peer Review	yes <input type="checkbox"/>	no <input checked="" type="checkbox"/>	
Status	in press/accepted <input checked="" type="checkbox"/>	submitted <input type="checkbox"/>	in preparation <input type="checkbox"/>

20.

Author(s)	Christian Utz		
Title	Befreiung und Disziplinierung von Klang und Wahrnehmung als Grundlagen eines performativen Hörens in der Moderne		
Sources	Klang und Semantik in der Musik des 20. und 21. Jahrhunderts, hrsg. von Wolfgang Mende und Jörn Peter Hiekel, Bielefeld: transcript 2015		
URL (if applicable)			
Peer Review	yes <input type="checkbox"/>	no <input checked="" type="checkbox"/>	
Status	in press/accepted <input type="checkbox"/>	submitted <input type="checkbox"/>	in preparation <input checked="" type="checkbox"/>

monographs

21.

Author(s)	Christian Utz		
Title	Bewegungen im Klang-Zeit-Raum. Theorien und Geschichte der Musikwahrnehmung im 19. und 20. Jahrhundert als Grundlagen einer Analyse posttonaler Musik (c. 300 pp.)		
Sources	Hildesheim: Olms 2015		
URL (if applicable)			
Peer Review	yes <input type="checkbox"/>	no <input type="checkbox"/>	
Status	in press/accepted <input type="checkbox"/>	submitted <input type="checkbox"/>	in preparation <input checked="" type="checkbox"/>

22.

Author(s)	Dieter Kleinrath		
Title	Prototypen post-tonaler Kunstmusik: Eine musiksemiotische Untersuchung		
Sources	NN (2016)		
URL (if applicable)			
Peer Review	yes <input type="checkbox"/>	no <input type="checkbox"/>	
Status	in press/accepted <input type="checkbox"/>	submitted <input type="checkbox"/>	in preparation <input checked="" type="checkbox"/>

anthologies

23.

Author(s)	Christian Utz and Jörn Peter Hiekel (editors)		
Title	Lexikon neue Musik (c. 600 pp.)		
Sources	Stuttgart: Metzler / Kassel: Bärenreiter 2015		
URL (if applicable)	https://www.metzlerverlag.de/index.php?mod=bookdetail&isbn=978-3-476-02326-1		
Peer Review	yes <input type="checkbox"/>	no <input checked="" type="checkbox"/>	
Status	in press/accepted <input type="checkbox"/>	submitted <input type="checkbox"/>	in preparation <input checked="" type="checkbox"/>

24.

Author(s)	Klaus Aringer, Franz Karl Prassl, Peter Revers, Christian Utz (editors)		
Title	Geschichte und Gegenwart des musikalischen Hörens. Möglichkeiten und Herausforderungen für neue methodische Zugänge der Musikwissenschaften (klangreden. Schriften zur musikalischen Interpretations- und Rezeptionsforschung) (c. 400 pp.)		
Sources	Freiburg: Rombach 2015		
URL (if applicable)			
Peer Review	yes <input type="checkbox"/>	no <input checked="" type="checkbox"/>	
Status	in press/accepted <input type="checkbox"/>	submitted <input type="checkbox"/>	in preparation <input checked="" type="checkbox"/>