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# The Aesthetics of Music and Sound

## Cross-Disciplinary Interplay between the Humanities, Technology and Musical Practice

<http://www.soundmusicresearch.org>

**Research Director: Cynthia M. Grund**

*Please note that this pdf-document is only occasionally updated. This version is from April 16, 2010. The website for The Aesthetics of Music and Sound – <http://www.soundmusicresearch.org> – is more comprehensive, continually updated and should be consulted for the most current information about the program and its activities.*

### Program Description

For several decades, philosophy of music or, more generally, humanistic research in music has concentrated on issues such as

- the relationships between music and speech
- the influence on local and global culture exerted by the immediate availability of music from virtually any time and place
- the ways in which agents hear sounds as meaningful and representative, even when they come from the realm of what is usually thought of as "noise"
- the ontological status of the work of music or more narrowly the status of the composition

And, more recently,

- understanding processes in the minds of performing musicians and
- inspired by the results of such investigations in music ensembles, getting a deeper understanding of human interaction in communities (or just person to person) in general.

The Research Program *The Aesthetics of Music and Sound*, centered at the Institute for Philosophy, Education and the Study of Religions (IFPR), University of Southern Denmark (SDU), aims at shedding new light upon these questions by viewing music in terms of information and communication, aided by the tools under rapid development within information technology, practice-based research and the new perspectives arising within aesthetics as a result of new technologies for studying and producing music.

Among the topics to which these considerations give rise are:

- the extension and application of successful music teaching strategies to pedagogical method in general
- expanding the techniques of music pedagogy by integrating those from other disciplines

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- assessing the implications of various approaches to music pedagogy with respect to expressivity, mastery, and individuality.

See under "Background" on <http://www.soundmusicresearch.org> for a full description of the goals of the Research Program.

## Projects within the Program

(Project titles are hyperlinked to project descriptions on <http://www.soundmusicresearch.org>.)

### 1. Understanding Music through Modern Technology

#### a) **Recognizing Music**

(Jakob Christensen-Dalsgaard, Cynthia M. Grund)

#### b) **Recognition of Expressive Styles in Music Performance**

(Niklas Saers (Ph.D.-project) with Kristoffer Jensen, Mogens Christensen)

The different playing styles of a large number of music instruments will also be investigated in a performance-based research project.

(Mogens Christensen, Axel Momme, Niklas Saers, Kristoffer Jensen)

#### c) **Autonomous Agents – An Accompanist in VR**

(Kristoffer Jensen, Lars Graugaard)

#### d) **The Composition and Its Role in the Ensemble**

(Ph.d.-project by Søren R. Frimodt-Møller)

### 2. Intermediality

(Lars Ole Sauerberg)

### 3. Learning through Music

#### a) **Music Communication**

(Mogens Christensen, Frederik Søegaard, Axel Momme, Hans Sydow)

#### b) **Children's Knowledge Creation with Intelligent Agents in Music Education - Understanding for Optimizing Motivations**

(Eva Petersson, Tony Brooks, Kristoffer Jensen)

#### c) **Adaptable Interfaces & Augmented Avatar - Introducing Tools for the Disabled and Musicians in VR**

(Kristoffer Jensen, Tony Brooks, Eva Petersson)

#### d) **Community Singing and/or Ideology**

(Peter Edlef Nissen)

### 4. Practice-based Research

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a) **Analysis and Implementation of Practice-Based Research**

(Tere Vadén, William Westney, Fredrik Søgaard, Cynthia M. Grund)

b) **Relationship of Gesture to Communicative Authenticity in Performance**

(William Westney, Kristoffer Jensen, Cynthia M. Grund)

c) **Musical Implications of the Work of Pragmatist Philosophers James, Dewey and Peirce**

(William Westney, Cynthia M. Grund)

d) **Employing the Methods of Discourse Narrative to Support Interpretive Choices Faced by the Practicing Musician**

(William Westney, Marianne Horsdal, Cynthia M. Grund)

e) **Soundmapping the Genes**

(Fredrik Søgaard, Claus Gahrn, Kristoffer Jensen, Cynthia M. Grund)

## **Researchers in the Program**

*Jens Arnspang*, Medialogy, Aalborg University Esbjerg-AAUE (Recognition of Expressive Styles in Music Performance)

*Tony Brooks*, Medialogy, Aalborg University Esbjerg-AAUE (Adaptable Interfaces & Augmented Avatar - Introducing Tools for Disabled and Musicians in VR)

*Mogens Christensen*, Academy of Music and Dramatic Arts/Syddansk Musikkonservatorium & Skuespillerskole-SMKS (Recognition of Expressive Styles in Music Performance)

*Jakob Christensen-Dalsgaard*, Institute of Biology, The University of Southern Denmark-SDU (Music - biological perspectives on music and the emotions)

*Peter Edlef Nissen*, Research Librarian, University of Southern Denmark-SDU, and Director, *Syddansk Sang- og visecenter*/The Song and Ballad Center of Southern Denmark. (Community Singing and/or Ideology)

*Søren R. Frimodt-Møller*, Institute of Philosophy, Education and the Study of Religions -IFPR, The University of Southern Denmark-SDU (The Composition and its Role in the Music Ensemble; Music and Meaning). For more information, see [www.orkesterfilosofi.dk](http://www.orkesterfilosofi.dk)

*Claus Gahrn*, Composer, Musician (Soundmapping the Genes)

*Lars Graugaard*, Composer, Musician (Autonomous Agents – An accompanist in VR)

*Cynthia M. Grund*, Institute of Philosophy, Education and the Study of Religions-IFPR, University of Southern Denmark-SDU (Recognizing Music; Music and Meaning; Relationship of Gesture to Communicative Authenticity in Performance Musical Implications of the Work of Pragmatist Philosophers James, Dewey and Peirce; Employing the Methods of Discourse Narrative to support Interpretative Choices Faced by the Practicing Musician) <http://www.sdu.dk/staff/Grund.aspx>

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(Temporary short CV; personal homepage under construction.)  
Also: [http://da.wikipedia.org/wiki/Cynthia\\_M.\\_Grund](http://da.wikipedia.org/wiki/Cynthia_M._Grund)

*Marianne Horsdal*, Institute of Philosophy, Education and the Study of Religions-IFPR, The University of Southern Denmark-SDU (Employing the Methods of Discourse Narrative to support Interpretative Choices Faced by the Practicing Musician)

*Kristoffer Jensen*, Medialogy, Aalborg University Esbjerg-AAUE (Recognition of Expressive Styles in Music Performance; Autonomous Agents – An accompanist in VR)

*Axel Momme*, Academy of Music and Dramatic Arts/Syddansk Musikkonservatorium & Skuespillerskole-SMKS (Music Communication; Recognition of Expressive Styles in Music Performance)

*Eva Petersson*, Medialogy, Aalborg University Esbjerg-AAUE (Children's Knowledge Creation with Intelligent Agents in Music Education - Understanding for Optimizing Motivations)

*Niklas Saers*, Syddansk Musikkonservatorium & Skuespillerskole-SMKS and Aalborg University Esbjerg-AAUE (Recognition of Expressive Styles in Music Performance)

*Lars Ole Sauerberg*, Institute of Literature, Media and Cultural Studies-ILKM, The University of Southern Denmark-SDU (Intermediality)

*Hans Sydow*, Academy of Music and Dramatic Arts/Syddansk Musikkonservatorium & Skuespillerskole-SMKS (Music Communication)

*Fredrik Søegaard*, Academy of Music and Dramatic Arts/Syddansk Musikkonservatorium & Skuespillerskole-SMKS (Soundmapping the Genes, Music Communication)

*Tere Vadén*, Hypermedia Laboratory, University of Tampere, Finland (Analysis and Implementation of Practice-Based Research)

*William Westney*, School of Music, Texas Tech University Lubbock, Texas; HCA-Andersen Academy Guest Professor 2009-2010, IFPR, SDU. (Relationship of Gesture to Communicative Authenticity in Performance ; Musical Implications of the Work of Pragmatist Philosophers James, Dewey and Peirce; Employing the Methods of Discourse Narrative to Support Interpretive Choices Faced by the Practicing Musician). For more information, see

<http://www.depts.ttu.edu/music/SOM/WilliamWestney.asp>;

<http://www.williamwestney.com>;

[http://www.sdu.dk/Om\\_SDU/Aarets\\_gang/HCA%20Academy/HCA%20Academy%20Gaesteprofessor/William%20Westney.aspx](http://www.sdu.dk/Om_SDU/Aarets_gang/HCA%20Academy/HCA%20Academy%20Gaesteprofessor/William%20Westney.aspx) and

[http://www.soundmusicresearch.org/HCA\\_Prof.html](http://www.soundmusicresearch.org/HCA_Prof.html).

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## **Selected Publications by Program Members of Relevance to the Research Program:**

- Christensen-Dalsgaard J (2004), "Music and the Origin of Speeches", *JMM: The Journal of Music and Meaning* 2, Spring 2004  
[<http://www.musicandmeaning.net/issues/showArticle.php?artID=2.2>]
- Christensen-Dalsgaard J (2006) "Amphibian bioacoustics." In: *Handbook of Signal Processing*, New York: Springer-Verlag.
- Frimodt-Møller, Søren R. (2009). "Suggestions for Strategies in Modeling the Role of Reasoning in Ensemble Coordination". In Kurzen, Lena and Velazquez-Quesada, Fernando R. (eds.) *Logic for Dynamics of Information and Preferences. Seminar's Yearbook 2008*. Amsterdam: Institute for Logic, Language and Computation, Universiteit van Amsterdam, pp. 1-18.
- Graugaard, Lars (2000/01). "Interaktiv Computermusik er hverken Interaktiv eller Computermusik", *Dansk Musiktidsskrift*, 75/6, pp. 197-201.
- Graugaard, Lars (2004). "Open and Closed Form in Interactive Music." In: *Computer Music Modeling and Retrieval, Second International Symposium (CMMR 2004)*, Esbjerg, Denmark. *Revised Papers*. Berlin & Heidelberg: Springer Verlag, pp. 149-157.
- Grund, Cynthia M. (2009). "Pedagogy and Philosophy Viewed from the Piano Bench: IFPR's Cynthia M. Grund Interviews Incoming H.C. Andersen Guest Professor William Westney." *GymPæd 2.0. 2009*; nr. 2, September 2009, pp. 9-10.
- Grund, Cynthia M. (2007) "How Computer Music Modeling and Retrieval Interface with Music-And-Meaning Studies : Overview of Panelists' Suggestions for Discussion Topics." *Proceedings of the 2007 International Computer Music Conference, August 27-31, 2007. Copenhagen, Denmark*. San Francisco and Copenhagen: The International Computer Music Association and Re:New-Digital Arts Forum, pp. 133-136.
- Grund, Cynthia M. (2006b) "Interdisciplinarity and Computer Music Modeling and Information Retrieval: When Will the Humanities Get into the Act." *Lecture Notes in Computer Science*; nr. 3902, Berlin & Heidelberg: Springer Verlag pp, 265-273.
- Grund, Cynthia M. (2006a) "Mad, betydning ... og så opstår musikken ud af lyd." *Tankeføde - om mad, måltider og fødevarer i sammenhæng*. Eds. Steen Brock; Anders Moe Rasmussen; Brian Benjamin. Aarhus : Philosophia, 2006, pp. 191-200.
- Grund, Cynthia M. (2005b) "Music Information Retrieval, Memory and Culture: Some Philosophical Remarks." *Proceedings of the Sixth International Conference on Music Information Retrieval*. Joshua D. Reiss and Geraint A. Wiggins, eds. London: Queen Mary, University of London, pp. 8-12. (For ISMIR2005 online proceedings, please see <http://ismir2005.ismir.net/proceedings/index.html>).
- Grund, Cynthia M. (2005a) "Double Jeopardy: The Interdisciplinary Study of Music and Meaning." *Danish Yearbook of Musicology*, Vol. 32, 2004, s. 9-14.
- Grund, Cynthia M. (2001) "Music, Logic and Intentionality." *Proceedings of the Twelfth Meeting of the FWO Research Society on Foundations of Music Research: Music and Logic*, Chapter 2, University of Ghent.

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- Grund, Cynthia M. (1997). *Constitutive Counterfactuality: The Logic of Interpretation in Metaphor and Music*. København: Askeladden.
- Hannula, Mika, Suoranta, Juha & Vadén, Tere (2005). *Artistic Research. Theories, Methods, Practices*. University of Gothenburg.
- Jensen, Kristoffer (2005). "Multiple scale music segmentation using rhythm, timbre and harmony." *EURASIP Journal on Applied Signal Processing*, Special issue on Music Information Retrieval Based on Signal Processing.
- Jensen, Kristoffer (2005). "Atomic Noise." *Organised Sound*, 10(1), pp. 75-81.
- Jensen, Kristoffer (2004). "Irregularities, Noise and Random Fluctuations in Musical Sounds." *The Journal of Music and Meaning* 2, section 2.
- Petersson, E. & Brooks, A. (2006). "Non-formal Therapy and Learning Potentials through Human Gesture Synchronized to Robotic Gesture [HRI] within a Virtual Environment [VE]." In: *3<sup>rd</sup> Cambridge Workshop on Universal Access and Assistive Technology (CWUAAT)*, Cambridge, UK, (in press).
- Sauerberg, Lars Ole (2001). *Intercultural Voices in Contemporary British Literature: The Implosion of Empire*. London and New York: Palgrave.
- Sauerberg, Lars Ole (1992). *Fact into Fiction: Documentary Realism in the Contemporary Novel*. London: Macmillan; New York: St. Martin's Press.
- Skovenborg, E. and Arnspang, J. (2003). "Extraction of Structural Patterns in Popular Melodies." In: *Proceedings of the Computer Music Modeling and Retrieval Conference Montpellier, France, May 26-27, 2003*. Berlin: Springer-Verlag.
- Søegaard, Fredrik & Claus Gahrn (2010), "Soundmapping the Genes", *JMM: The Journal of Music and Meaning* 8, Winter 2009  
[<http://www.musicandmeaning.net/issues/showArticle.php?artID=8.5>]
- Søegaard, Fredrik (2010). *Soundmapping the Genes (SMTG)*, Søegaard Ensemble. CD release, February 2010. Leo Records, CD LR 560.
- Vadén, Tere (2002). "Openness, Criticality and Language. Observations on the methodology of practice-based experimental research." In: Kiljunen, S. & Hannula, M., eds. *Artistic research*. Helsinki: Academy of Fine Arts.
- Vadén, Tere & Hannula, Mika (2003). *Rock the Boat. Localised Ethics, the Situated Self and Particularism in Contemporary Art*. Köln: Salon Verlag.
- Westney, William (2003 hardcover/2006 paperback). *The Perfect Wrong Note*. Pompton Plains, New Jersey: Amadeus Press.

## Research Networks

This list of international research networks with which members of the *The Aesthetics of Music and Sound* research group are actively cooperating is continually updated as it grows. Members of AMS are current or recent members of the networks listed, on organizing committees for the listed societies and their affiliated conferences, contributors and editors on various levels for the publications listed, and peer reviewers for the various conferences and publications.

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### **Computer Music and Music Retrieval**

(For additional background, please

see <http://www.musicandmeaning.net/issues/CFP.php?>



**fourMs: Music, Mind, Motion, Machines** is an interdisciplinary research group at the **University of Oslo** comprising researchers from the departments of **informatics** and **musicology**



International Community for Auditory Display



**International Computer Music Association**



### ***JMM: The Journal of Music and Meaning***

(Funded by the Danish Research Council for the Humanities)



### **Nordic Network for the Integration of Music Informatics, Performance and Aesthetics**

(supported by **NORDPLUS**)

Current Partners within NNIMIPA:

The University of Southern Denmark (SDU)

Academy of Music and Dramatic Arts/Syddansk

Musikkonservatorium & Skuespillerskole-SMKS,  
Odense and Esbjerg, Denmark

Aalborg University Esbjerg, Denmark (AAUE),

The Royal Institute of Technology, Stockholm, Sweden  
(KTH)

University of Oslo, Norway (UIO)

University of Tampere, Finland (UTA)

Sibelius Academy, Helsinki, Finland (SIBA).



netværk for tværvideenskablige studier af musik og betydning/  
network for cross-disciplinary studies of music and meaning

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PHILOSOPHY *meets* POPULAR CULTURE initiative



**re-new - digital arts forum**

**SUM**

**Systematic Understanding of Music**  
(Funded by **Nordic Culture Point**)

In addition, cooperation has been established with *Frontiers of Research in Sound and Music*, a research network currently under development which recently held a conference in India, where *AMS* was represented.

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