

Northumbria Research Link

Citation: Vickers, Paul (2011) Sonification Design and Aesthetics. In: Northumbria Research Conference, 5 May - 6 May 2011, Northumbria University, Newcastle-upon-Tyne.

URL:

This version was downloaded from Northumbria Research Link:
<https://nrl.northumbria.ac.uk/id/eprint/537/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)



**Northumbria
University**
NEWCASTLE



UniversityLibrary

Sonification Design and Aesthetics

Dr Paul Vickers, CEIS

Dr Stephen Barrass, University of Canberra, Australia

Sonic experience is at once informative, affective, and cultural. A comprehensive approach to sonification (the use of non-speech audio to convey information about data sets) needs to address all of these aspects in an integrated manner. One challenge of sonification design lies in not making our auditory displays sound, as Kramer¹ put it, 'ugly' thus raising the question of the role of aesthetics in sonification design. Therefore we argue that sonification is principally a discipline of design that involves a critical approach to the functionality and aesthetics of a designed artifact. We begin by examining some musical foreshadowings of sonification followed by some definitions of terms. We then review activity and progress on sonification design and aesthetics since Kramer's seminal book on Auditory Display. This leads us to propose that sonification design must go beyond enlightenment era concepts of truth and beauty to take a pragmatist aesthetics approach in which sensory experience is maximized in the pursuit of usefulness and engagement. This integrated approach to design and aesthetics has the potential to move sonification from the current positioning as a scientific instrument or engineering tool towards a medium of mass communication.

¹Gregory Kramer. An Introduction to Auditory Display. In Gregory Kramer, editor, Auditory Display, volume

XVIII of Santa Fe Institute, Studies in the Sciences of Complexity Proceedings, pages 1–78. Addison-Wesley,

Reading, MA, 1994.