

The Noise Landscape: understanding the spatial impacts of noise in European airport peripheries

Eirini Kasioumi¹, Dr. Benedikt Boucsein¹, Dr. Christian Salewski¹, Prof. Kees Christiaanse¹

¹ ETH Zurich, Institute for Urban Design, Switzerland (corresponding author)

Corresponding author's e-mail address: kasioumi@arch.ethz.ch

ABSTRACT

In Europe, it is estimated that 5 million people are regularly exposed to airplane noise levels above 55 dB(A) L_{den} , with many more experiencing annoyance irregularly. Noise mapping is a common practice to capture noise impact in the areas around major airports where most of this population resides. The resulting contours delineate the impact space of noise: a space defined by noise both as experience and as metric, since contours are the basis for compensation schemes and urban development restrictions. But what spatial reality corresponds to noise contours? Our research approaches this question by focusing on the “Noise Landscapes” of eight major European airports (Amsterdam, Zurich, London-Heathrow, Frankfurt, Munich, Madrid, Paris-Charles de Gaulle and Paris-Orly): expansive areas affected by noise, infrastructure, and transient architecture. Juxtaposition of the socio-geographic characteristics, extent of noise impact, regulatory frameworks, and noise abatement measures in the eight areas is complemented by case analysis of the spatial impacts of noise and related policy conflicts. We present here some of the results of the upcoming volume “The Noise Landscape: A Spatial Exploration of Airports and Cities”.