

RESEARCHER: Oliver Gingrich

**RESEARCH
OUTPUT:**

KIMA: Noise

Exploring the effect of
noise on public health
through participatory art

20.11.2019

Dr. Oliver Mag Gingrich

With an Engineering Doctorate in Digital Media, a Master in Fine Art and a 14 year long career as professional within the creative industries, my research focus centres around conceptions of presence, the societal impact potential of participatory art. With a strong practice based research focus, my research outputs discuss the disruptive potential of digital art, to bring communities together, foster societal cohesion and to contribute to social connectedness and mental health.

Section 1	Research Question(s) / Problem Statement
Section 2	Research Output
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Section 1

Research Questions OR Problem Statement

Can participatory arts practices help to raise awareness for the effect of noise on health?

Urban Noise is a major health issue, affecting the general public's health and mental health on various levels: Heart-rate, Sleep pattern, concentration, including mental health. Interventions have shown to reduce the effect of noise on the public. Can participatory art forms help to raise awareness for this issue?



Section 2

The Research Output

Research Outputs

The artefact KIMA: Noise is a participatory art installation that was exhibited at Tate Exchange at Tate Modern, London in November 2019 and prior to this, as a pilot at ACAVA's Maxilla Space in North Kensington, an area affected by noise pollution through the nearby Westway. The piece raises awareness for the effect of urban noise and culminated in several research outputs alongside the art installation.

The art installation itself consists of an interactive sound art piece, that uses real-time streams of noise from the direct environment, representing these noises on a holographic display. The audience playfully learns about the effect of noise by observing noise thresholds (70db, 80db, 90db, 100db) with effect on health in real-time.

A touch screen allows the audience to move the 3-dimensionsal sound scape in real-time, thereby influencing the noise distribution, controlling, and designing it. The idea of control over noise is central to the art piece. The piece was accompanied by talks, workshops, a monography, an article publication and the creation of a film.

Research Outputs

At Tate Exchange, the visitors were learning about the effect of noise, through a multi-dimensional speaker array of 12 speakers, which allowed them to listen to noise trajectories. These trajectories were controlled by the audience themselves in real-time. Lower frequencies were represented as a tactile noise representation in an adjacent room, allowing the audience to perceive physical effects of noise on their body.

My line of enquiry discussed focused on strategies to raise awareness for the effect of noise and to see if participatory art can play a role in finding answers to how the public can protect themselves from noise exposure.

The chosen method, interviews and focus group workshops, helped to provide answers to these questions. These answers were documented and are being published as a film to be premiered at Tate Modern in April 2020.

Section 2: Research Output

Research Outputs



KIMA: NOISE
Installation, Workshop & Talks

Participatory art installation
Urban Noise and Wellbeing
20 - 24 November 2019 10.00-18.00pm
TATE EXCHANGE, Blavatnik Building, 5th Floor, SE1 9TG

ANALEMA GROUP
www.analemagroup.com

ANALEMA GROUP



20th November, 16.00 Opening Talk: Noise and Well-Being

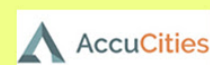
22nd November, 18.30 Opening Event

23rd November, 15.00 Talk: Urban Noise and Communities

24th November, 12.00 Workshop



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Section 2: Research Output

Research Outputs



Research Outputs

Research outputs of KIMA: Voice were multifold:

- **The artefact itself KIMA Noise consisting of a surround sound and visual installation and demonstration of tactile sound**
- **Exhibition at Tate Exchange, Tate Modern**
- **Exhibition at ACAVA's Maxilla Space**
- **Publication of peer-reviewed EVA Conference Proceedings**
- **Publication of a Monography (self-published)**
- **KIMA Noise Film (premieres 1. April 2020 at Tate Exchange)**
- **Conference presentation at EVA London**
- **2 public facing talks at Tate Exchange, November 2019**
- **2 workshops (Tate Exchange and ACAVA Maxilla Space)**



Section 3

The Research Context

The Research Context

Studies have shown that noise impact on sleep patterns can occur at levels louder than 65dB in sensitive people, leading to anxiety, irritation and other symptoms of sleep deprivation (Korica, Popovic 2017). The most frequent response to environmental noise is annoyance, mild anger and feelings of intrusion into privacy (Guski et al. 2017). Prolonged exposure to noise levels of 90dB and above, usually in occupational settings, can cause serious hearing damage and neurovegetative problems.

Excessive noise exposure can furthermore have an effect on the endocrine and immune systems including decrease in immunity to infections, and heightened propensity to develop allergies and a weakened autoimmune system (Ermolaev 2017). Other effects of excessive noise exposure include headaches, memory impairment, undue fatigability, somnolence, sleep disturbances, emotional instability, hyperhidrosis and chest pain (ibid.) Road traffic and aircraft noise have shown to be related to increased blood pressure and a small increased risk of myocardial infarction in adults (Basner et al. 2014).

The Research Context

Despite scientific evidence on the effect of urban noise on health, public awareness on the subject remains limited. In particular, there seems to be a deficit in a deeper understanding of how the public can help themselves through interventions.

The project KIMA: Noise highlights the effect of noise on health, and offers an active process of reflection through talks, workshops, publications and the production of a film on the subject.



Section 4

Research Methods

Research Methods

The research has been conducted through a series of qualitative research strategies including interviews and observation as well as two focus groups in two affected areas in London. Following an intervention (participatory art piece KIMA: Noise), participants came together in workshops to discuss the subject.

In particular, we invited pre-eminent researchers in the field Prof. Stephen Stansfeld, Michael Pluess (QMUL) as well as pressure groups (Plane Hell Action, Noise Abatement Society) and local residents in North Kensington and Southwark to discuss key questions:

- How does noise affect you? What can you do to alleviate the effect of noise on your health? What can we do collectively? Can participatory art play a role in raising awareness for the effect of noise on health?

Answers to these questions were provided by researchers, but also the general public and local community representatives, highlighting the role participatory art can play in raising awareness for an important health issue.

Research Methods





Section 5

Contribution to Field

Contribution to Field

The art piece KIMA: Noise provided new insights into the role participatory art can play in raising awareness for an important side effect of urbanization. As noise levels increase in the urban arena, local residents need to learn how to protect themselves from side effects of noise pollution. Not only does participatory art invite us to reflect on healthcare interventions, personal choices, individual measures we can take to protect us, but the piece also invites us to understand the degree of control we have of soundscapes, as a recipient of noise pollution, but also as a source of noise and contributor to the soundscape of our immediate environment.

Through a series of talks with experts (Dr. Stephen Stansfield, Dr. Sarah Payne, the Plane-Hell Action Group and others) as well as workshops with the pre-eminent noise health scientist Prof. Stephen Stansfield, we provided an experience primarily targeted at local communities affected by increased noise pollution such as the Southwark Community and the North Kensington community affected by the Westway.

Contribution to Field

The piece itself provided a novel, interactive means of engaging with sounds in real-time. Visual representation of noise from the vicinity of the Tate and the Westway respectively, helped to create a visual understanding of thresholds of noise that can have an effect on health.

Through the use of a real-time touch screen interface, the audience was invited to draw their own trajectories of sound, providing control over noise, and turning the participant from recipient into a curator of the sound scape.

The unique mix of background information published in the monography and the film, talks and workshops presented a unique experience for local communities to gain new insights into the effect of noise and what we can do individually and collectively to mitigate side effects on health and wellbeing.

The research resulted in new evidence on the role participatory arts can play in raising awareness for important health issues of our time.



Section 6

Dissemination

Dissemination

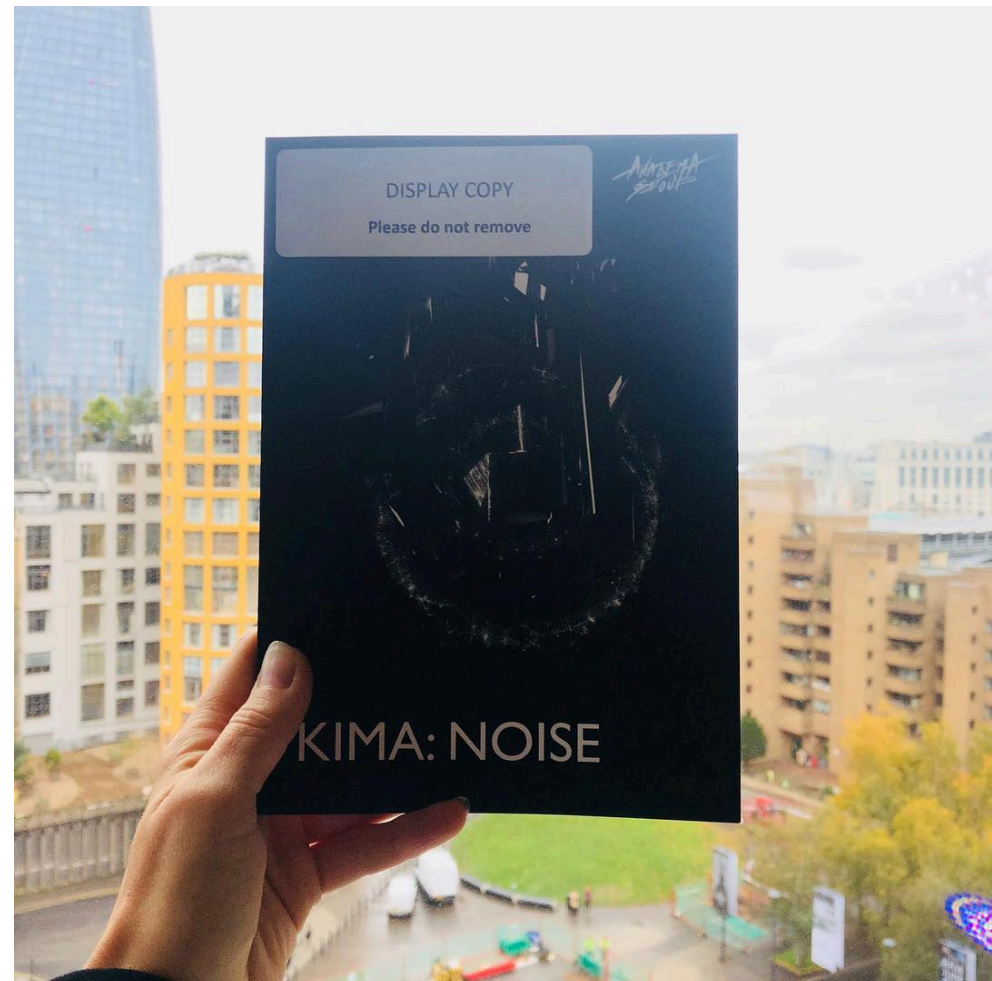
The participatory art piece KIMA Noise was shown nationally at the Tate Exchange / Tate Modern, ACAVA's Maxilla Space, and will now be shown at Geneva's Museum of Contemporary Art as part of the Electron Festival in April 2020.

The film KIMA: Noise will be premiered at the Tate Modern on the 1st of April 2020.

The conference presentation KIMA: Noise has been presented at the Electronic Visualisation in the Arts Conference in London and has been published as a peer-reviewed proceedings publication, accessible via OpenScience.

A monography containing expert interviews, interviews with the art collective, and background research has been self-published and is available online and at Tate Exchange on demand.

Dissemination



KIMA: Noise Monography

Section 6: Dissemination

Dissemination



Section 6: Dissemination

Dissemination



KIMA: Noise Talk at Tate Exchange



Section 7

Appendix

Section 7: Dissemination

Analema Group

presents

KIMA: Noise at Tate Exchange

KIMA: Noise runs daily from 20 – 24 November from 12.00 – 18.00 at Tate Exchange, Blavatnik Building, Tate Modern

20 November at 16.00: Noise and Well-being, Opening Talk, Tate Exchange

22 November at 18.30: KIMA: Noise, Opening event – Participatory Performance, open to all, Tate Exchange

23 November at 15.00: Urban Noise and Communities, Talk with Experts, Saturday, Tate Exchange

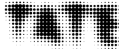

24 November at 12.00: KIMA: Noise workshop with local Communities, Tate Exchange

To purchase Analéma Group KIMA: Noise book please contact analema.group@gmail.com



Section 7: Dissemination


Appendix



SearchShop

BECOME A MEMBER

Exhibitions & events → at Tate Modern → Tate Exchange → KIMA: Noise



KIMA: NOISE
WITH ANALEMA
GROUP

20–24 NOVEMBER 2019 AT 12.00–18.00

KIMA 'The Wheel' at the Curtain Call, Roundhouse, London 2016

How do urban noises affect our physical, mental and emotional wellbeing?

Arts collective Analema Group invite you to explore the effect of urban noise on our wellbeing. Join in a programme of workshops and talks alongside an immersive sound installation created in collaboration with Better Bankside, local residents and researchers in the field of noise pollution.

KIMA: Noise invites you to experience the 'ocean of urban sounds' surrounding you daily. Microphone stations will capture sounds from [Tate Modern](#)'s direct urban environment and recreate them as an immersive surround sound installation within Tate Exchange. Real-time city noises will be analysed and arranged as an immersive 3-dimensional, invisible sound sculpture.

TATE MODERN

[Tate Exchange](#)

Blavatnik Building, Level 5

Bankside
London SE1 9TG
[Plan your visit](#)

DATES

20–24 November 2019

Wednesday, 20 November

16.00–17.30 - Noise and Wellbeing? KIMA: Noise
Opening Talk with Lisa Lavia (Noise Abatement Society),
Stephen Stansfeld (QMUL), Evgenia Emets & Dr Alain
Renaud (Analema Group), Ben Fenech (Public Health)

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'KIMA: Noise': An interactive installation exploring the effects of noise on wellbeing



How do urban noises affect our physical, mental and emotional wellbeing?

From 6-8 September a new participatory art project 'KIMA: Noise' will explore the effects of noise on well-being through an interactive installation at Maxilla Space, North Kensington. Visitors are invited to draw trajectories of noise and to experience