Image: David Pirrò

Algorithmic Space Studies | Space Material Detail

Understanding space is a basic precondition, not just for architecture, but also for our lived environment. According to this perspective, architecture is not just about buildings filling up space, but about the production of space.

Sciences contributes to the understanding of our lived environment, addressing relations and humans necessities for living in an increasingly complex world. The cultural anthropological question "How do we want to live together", for example, is crucial to solve scientific problems and to foster development and innovation in technologies with a social consciousness. Art and creative industries can certainly help to answer the question.

Combining Art, Science and Technology in an experimental manner, allows us to use the unexpected and create something anew. The intermediate realm of AST focuses thus on solving problems of society by combining scientific method, technological advancement and artistic out-of-the-box thinking, it penetrates society, looking for solutions of a betterliving of the humankind. Art cannot directly solve the problems of society, but it can give people some kind of sense for ambivalences and a sense for empathy. These senses are basic preconditions for living in a multicultural and highly diverse society, . In his new book "buildings and dwellings _ Ethics for the City", Richard Sennett describes the necessity to combine the built city with the lived city and to deal with themas correlation, that means to develop soft skills and to create lively situations around buildings and cities. Therefore, we have to constantly think of the process of transfer from the living to architecture and vice versa. Plurality, diversity and flexibility are part of the public sphere and influence architectural decisions, as well as decisions in urban planning. Urbanity means diversity. To be conscious about this correlation means to generate spaces for transformation and transfer.

Transfer is communication and also understanding the structure of thing and matters. This workshop aims to understand the transfer of sound generated by algorithmic methods into three-dimensional models of the space we are working with. Space Material Detail will be an experiment to create a spatial structure based in sounds, the transfer of soft elements into physical models which are somehow hard parameters.

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in collaboration with Algorithms that Matter – FWF PEEK AR 403-GBL

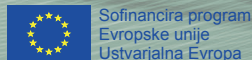*Algorithmic Space Studies*
Sound as Material — Space as Detail

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David Pirrò | Hanns Holger Rutz

LvNr.-SE-151.805
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esc medien kunst labor, Bürgergasse 5

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Algorithmic Space Studies
Sound as Material - Space as Detail

TASK

The iterative nature of algorithms, their provisions of repetition and the possibility to rerun them, lead to a straight concept of algorithmic space, as the breadth and organisation of all the forms they are able to produce. However, we assume that algorithmic space is not primarily the result of form generation but of an intrinsic speculative movement of the algorithmic and its interaction with humans who write code and experiment with it. Therefore, making visible and audible the exchange processes between humans and machines becomes a means of critically articulating this space. Data and algorithms are not only operating machines, but they increasingly influence our thoughts and actions, and consequently art and science. The departure point for the course Space Material Detail are algorithmic elements, created within the context of the project *Algorithms that Matter* that provides an open source for inspiration, exploration and manipulation. Some elements of software, sound and graphics can be translated into models to the (physical) three-dimensional space in order to create an installative experience of space(s).

DILEMMA DIARY

Each participant keeps a daily track of the occurring dilemmas (questions, problems, issues to be solved…) and how they responded to them.

To be kept as a table, containing three columns:

* (DATE/TIME)
* QUESTION (an issue to be solved...)
* RESPONSE (how you responded...)

At the end of the workshop, when presenting the results, the participant may look back to track own issues and responses…

(The *dilemma diaries* of all participants will be used as prospective evaluation material of the MAST project, the entries may be published partially, but only in anonymized form.)

PROGRAM

1. Introductions (Mon 8th April)

10:00 – 11:30	Introduction to Algorithmic Space	lecture by F. Hederer and N. Castillo-Rutz
11:45 – 13:15	On Rendering Algorithms	Hands-on lecture with H.H. Rutz

H.H. Rutz has been interested in the materiality of digital signal processing for many years. It views digital data, whether it is sound, image or moving image, as a radically atomised set of numbers which may undergo analyses and transformations irrespective of their physical modalities. For the workshop, Rutz will prepare a group of programs to be installed on the participants' computers, and participants can use their own materials and experiment with parameters to obtain sources for the construction of spatial concepts.

14:15 – 15:30	Threading time and space : Performing Algorithms	lecture by D. Pirrò

In Pirrò's understanding of experimental computation, algorithms become performing entities that attune both with a speculative mode of thinking and an enactive mode of cognition. This lecture will seek ways to introduce this perspective into a working practice that departs from a strictly digital embedding of algorithms.

16:00 – 19:00	Team building and independent working time

2. Investigating the space (Tue 9th April)

10:00 – 11:00	About Installations	lecture by N. Castillo-Rutz

N. Castillo-Rutz works as a researcher in the fields of art intervetions, collaboration and spatial experiments with focus in public space. In her lecture she elaborates on contemporary methodologies of installation art.

11:00 – 11.30	Introduction to esc medien kunst labor	Reni Hofmüller

About the working space esc medien kunst labor, Do's and Don'ts
https://esc.mur.at/

11:30 – 19:00	Elaborating first ideas, working on models and sketching
14:00 – 15:30	Sound Materials	lecture by J. Balint

J. Balint works as a researcher in the interdisciplinary fields of acoustics and architecture. In her lecture she will talk about the perception of space within the auditory dimension and the sonic environment as an augmented design tool.

3. Developing Methods (Wed 10th April)

10:00 – 11:00	Jour-Fixe
11:00 – 17:00	All day research, planning and construction of an algorithmic space.
17:00 – 18:30	Reading Circle
19:00	Back to the Future	presentation by Markus Metz, Georg Seeßlen

With this eloquent and monumental critique of society, the well-known Bavarian duo Metz/Seeßlen leads us from the passive comprehension of existing technical and sociopolitical changes to active resistance to the same.

4. Elaborating (Thu 11th April)

11:00 – 17:00	Adapting ideas and making improvements of design. (Preparing a documentation brochure and finishing the models and setup)
17:00 – 18:00	Critique with the MAST Faculty
18:30	Joined Dinner at esc medien kunst labor

5. Preparing the Exhibition (Fri 12th April)

10:00 – 11:00	Jour-Fixe
11:00 – 15:00	Printing the Brochure and final touches.
15:00 - 16:00	Reflection
19:00	Exhibition / open to the public

WORSHOP OUTPUTS

- A 1:50 scale model for an installation in dialogue with sound and algorithms

- A brochure documenting the process of creation

- A proposal for detail-sound-material to be used as construction part for the installation.

(Some of the projects or some of the ideas are to be used for the exhibition in 2020.)