

TANZRECHERCHE NRW #36

STIPENDIATIN:

Outi Elena Valanto, Finland (Choreografin/Wissenschaftlerin)

TITEL:

Solar responsiveness - movement research investigating sensorial processes of light exposure

RECHERCHEORTE IN NRW:

Stadträume von Köln, Landschaftspark Hoheward, Sternenpark im Nationalpark Eifel

RECHERCHEZEITRAUM:

April/Mai 2021 (März/April 2021)

Interview vor Beginn der Recherche (in englischer Sprache)

Congratulations for your scholarship! Can you tell us please what your project is about?

Outi Elena Valanto: The title of my research is "Solar responsiveness - movement research investigating sensorial processes of light exposure" and it is about how to see the light with the body. Human body has various receptors that affect how we perceive our body, in motion and in space (I refer to a Canadian publication: <https://open.textbc.ca/anatomyandphysiology/chapter/14-1-sensory-perception/>). This research focuses on the light sensitivity of the body beyond eyes. Science has proven that the human body has so-called extraocular photosensors that locate for example in the central nervous system. With these sensors and them in communication with the other sensory receptors like the proprioception, the body understands and detects the light and can orient itself in spatialities

without vision. The light situation also affects body activity and many biological processes, increasing health problems like cardiac disease. Therefore the question of light pollution in modern times has increased the interest to understand the power of light to the body.

In your artistic practice as well as in your PhD you are dealing with these phenomena.

My artistic practice is based on observing the concepts of spatiality and their reflection to human movement: how the body performs in spaces and how the spaces perform in the body. Recently, I have been concentrating in urban spaces with various movers like inclusive groups, and also my latest choreographic work E-emotional Landscapes has been visualizing the spatial definition of dancers throughout technology, like motion capture.

Investigations that I am aiming to make in NRW, are based on the methodology which I have been developing in the past years. Methodology is a toolkit that offers various people a possibility to have concrete tools and structures observe their movements in spatialities. I am keen on searching answers; how movement transmits information from the body to space and contrary. Lately I have been focusing much on climatic and atmospheric conditions which directs all the living in the earth. This research in NRW would be an essential part of creating insight of sensorial level process, to work with Mirevi Lab together in order to visualise these processes and to work with blind movers to find out deeper understanding of the body's receptivity. This research in NRW would be an important case study in proceeding my PhD.

What are you planning during your residency in NRW?

This research operates with body based methodology: movement process that happens in various light exposure situations. It consists of two research lines: artificial light exposure in urban space and natural light exposure in nature. In artificial light situations the situation that the built environment has, from the natural and artificial light resources is researched. What kind of awareness the artificial light provides for the body and movement? How the connection between shadow, natural light and artificial light creates understanding in the body about the spatialities and how it directs moving in them? These improvisational findings will be compared with the ones made in natural light settings. Through these investigations is also questioned how much light pollution affects our bodily system, and is it possible to visualise this through movement and with the help of technological implementation? What are the changes that extra ocular photoreceptors create in the nervous system in an artificial setting? Artificial light situation is proceeding in the urban layering of Cologne, because NRW belongs to the one of the most light polluted areas in Germany and in Europe. Natural light setting is proceed in [Landschaftspark Hoheward](#) were the constructed solar clock offers a performative platform for light exposure as well as in the [Sternenpark im Nationalpark Eifel](#) where is one of the rarest spots in Europe for Dark sky situation without artificial light disturbance. Research period is also chosen to meet the sunniest months in the area of NRW.

Movement research is based on the activation of the proprioception and to

target the extra ocular photosensors. How to identify through movement improvisation, bodily sensorial receptiveness for the light? Improvisational aspects rely on the ideas of authentic Movement (Gluck, 2013) where throughout closing a one sense heightens the other senses, and offers position for internal impulses to move like from thermal sensitivity (Stromsted & Haze, 2007). Throughout the sensorial experiences the current light situation provides instant response in the body which is performed in movement. This movement research is done in an outdoor 24 hours cycle to catch the change of light. In this research the biological data measured with the help of technology and the sensorial movement process which is intuitive are set on dialog to reveal the inner process of the human body and to understand the reactions in movement by the current light exposure.

The NRW region is interesting for you for many reasons.

According to the world [light pollution map](#) NRW is the most polluted areas in Germany and belongs to one of the most polluted corners of whole Europe. Especially a city like Cologne despite its rather small inhabitant amount, in comparison to the metropolises like Paris, it has a very strong pollution in light. The characteristics of NRW area historically is also the dense industrial region also increases the pollution. So, the urban structure of Cologne offers a desirable environment for the movement research in artificial and build structures. NRW is also the location for the collaboration partner Mirevilab and the other collaborative partner. Tanz Inklusive operates in the suburbs of Cologne.

Another motive to choose NRW is the natural resources it provides for this research. In NRW it is possible to find one of the rarest Dark Sky Parks in Europe, in the [Sternenpark im Nationalpark Eifel](#), where it is the optimal research location for natural solar situations. Besides that the solar clock at Halde [Hohenward](#) Landscape Parks offers a performative research platform for research the natural light situation throughout 24 hours.

Who are the partners in NRW for your research?

During this research period I am keen on working with [Mirevi](#) Lab at Hochschule Düsseldorf. I have earlier worked in an international dance project with some of the technological researchers Jochen Feitsch and Ivana Drucez, who are working in this place. With this collaboration, I want through technology to visualize the effect of light on the body through different methods like UV thermal cameras and perhaps with other available sensors that visualize inner body sensations. This technological aspect would benefit the research to give insights and support for the movement research. It could make visible the bodily reactions that cause the light receptiveness of the body and to translate the act of sensing the light and taking it to the act: to move.

Additionally, I am keen on collaborating with a group of movers who are blind. With this workshop I could in depth the research of sensing light and its transmitting to the movement with a group that could focus fully and only the extraocular photoreceptors. With this group I would like to work at one or more, of the chosen locations. For my research philosophy it is important

that this workshop would be free to attend for participants.