

Exposé for an Artistic Research

The Perception of Real Things and Spaces in the
Dualism of Analogue and Virtual Processes

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1. Introduction

This paper presents an overview of my artistic processes and questions, which are the starting point of my project on artistic research. I will also discuss artistic and scientific methods and processes that I would like to apply and develop further.

Real things are impossible to recognise if they cannot be experienced directly or indirectly through our senses. For this reason, much of the work of science consists not only of interpreting measurement data, but also of collecting it. Through them, reality that cannot be perceived by our senses becomes visible. The influence of this transformation on artistic work is undeniable. Not only abstract feelings and thoughts, but even complex philosophical ideas have undergone a process of materialisation since antiquity. Language itself shows how much we trust our senses to orient ourselves in the world, but at the same time how much we are at their mercy. I can grasp something particularly well if I can touch it. You can sense an object with your eyes or with your hands. Our senses serve to recognise reality.

My artistic research focuses on the question to which extent people's relationship to their environment and their perception of it is changing as a result of ever-advancing processes of digitalisation and virtualisation. My interest is not only guided by aesthetic questions. I am exploring new artistic processes on the basis of current technical developments. The results leads to a change of perspective and a re-contextualisation, and therein lies the potential for an expanded gain in knowledge. To this end, I would like to document and evaluate current socio-cultural and ecological developments of living spaces in the spirit of investigative aesthetics and make them perceptible to the senses in presentations and exhibitions.¹ The resulting research results will directly give rise to further works. Regarding the presentation of artistic results, it is crucial to create opportunities for artistic interaction between the recipient and the work. Based on sensory knowledge, I will derive arguments for the discourse regarding the influence of humans on ecology and geology in terms of the emerging idea of an Anthropocene.² This content-related and methodological orientation will be exemplified by selected projects in the following statements.

¹ Cf. Martin Kiel, *Investigative Ästhetik. Immersion und Innovation als handlungshermeneutischer Kunstgriff*, Kiel, 2019, 14.

² Henk Borgdorff, „The production of knowledge in artistic research.” In: Michael Biggs and Henrik Karlsson (Ed.): *The routledge companion to research in the arts*, Oxon: Taylor & Francis Group 2011,49.



Figure 1: *Scotland's Three Castings - Visualisation (2)*, montage, 2018

2. The Perception of Digital Processes in the Field of Tension Between Human Living Spaces and Nature

Digital processes are generally not directly perceptible to humans without auxiliary devices. Through my work, I would like to artistically explore new possibilities of how digital processes can be translated into the sensually perceptible world. My work *Scotland's Three Castings* is a first step towards addressing this question.³ The measuring of the world, as humanity has always done it, has given way to a screening or rather a continuous scanning. Satellites, and more recently drones, deliver detailed images that are transmitted and available in real time. There is no dark spot, no unmeasured point, no place that we cannot walk through virtually. *Scotland's Three Castings* is planned as an installation consisting of three objects, situated in the solitude of the Scottish Highlands. It is my first step into the exploration of this reality, which is increasing in intensity and dynamism. The main idea is to materialise the digital scanning and measuring of the earth's surface by satellites, which transmit and process their collected data in real time, and thus make it possible to experience it with our senses. Aerial photography is the starting point for this work. Its selection depends on the geographical position. The objects developed

³ Figure 1 shows a visualization of the work *Scotland's Three Castings*.

are to be placed in the corresponding landscape. The polygonal structure of the works, visible at close inspection, will raise questions about digitality in social processes and in art in general. The interaction of the various objects in the landscape will lead to a more intensive examination of the surface structures. This new reality is followed by a shift of our perception of nature from the intimate to the public, from the unknown to the rational known.

Based on this methods and processes, a new research project to explore the human influences in further habitats has been planned. I will start with the cultural region of Sicily. The human influence on this region has a particular long history. In doing so, I would like to methodically reach further and apply digital processes of documentation and surveying in the spirit of investigative artistic documentation and analysis. In terms of content, the focus will be on visualising socio-cultural and ecological impacts of human life on different living spaces. I will develop virtual artistic works that allow a more dynamic and direct experimental approach to this field. This leads me to the second point.

3. Potentials of an Augmented Reality

I am interested in the question of the possible structure of an in-between space in which humans, equipped with artificial, perhaps virtual, sensory possibilities, can be enabled to perceive digital processes. For example, a virtual environment is conceivable, in which digital processes can be virtualised without subjecting them to the limitations and compromises of actual materialisation. In this in-between space, previous boundaries of the genres of art could be overcome.



Figure 2: *A City Scale Sculpture – Visualisation (2), montage, 2020*

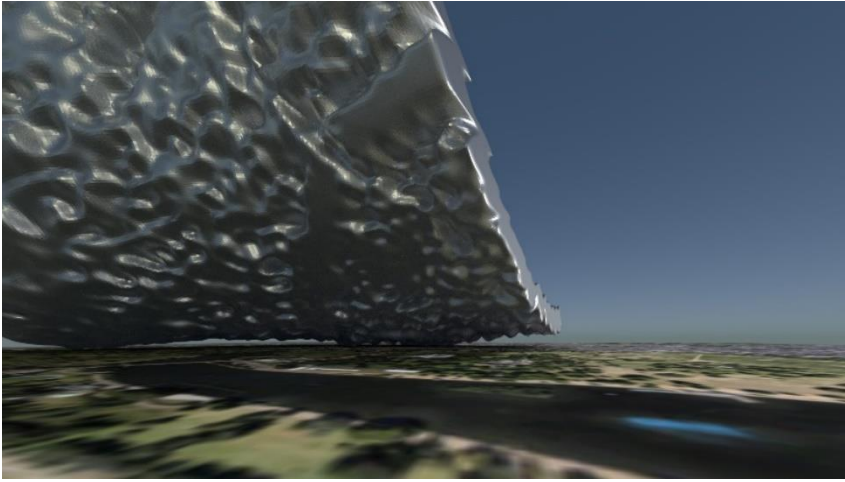


Figure 3: *A City Scale Sculpture*, montage, 2020

My work *A City Scale Sculpture*, developed during my years in London, demonstrates the potential of this approach.⁴ In this work I have limited myself to only one sculptural aspect – the size. What is interesting here is the shift in perception that is taking place. While abstract sculptures above a certain size can be understood as architecture, these extreme dimensions shift any references to human scale into the extreme. *A City Scale Sculpture* becomes a virtual landscape overlaying the metropolis of London. It only completely reveals itself to the viewer in the interplay of walking through and flying over it. Other formal aspects I would like to explore in this context are movement and appearance. It is also conceivable that digital developments or processes can be derived in real time through a virtual sculpture into this in-between space, and thus become perceptible to humans. I want to observe how virtualisation changes the human perception of our reality. My work *A City Scale Sculpture* is the starting point: it changes the recipients' actions. The encounter with this enormous sculpture reflects the encounter with the metropolis. It can crush the viewer, while from other points of view it seems sublime and moving. The way of walking through the city changes. Other people, for whom this sculpture is not perceptible, are not directly affected. A reaction to the changed behaviour of the recipients of the sculpture, on the other hand, would be thinkable. This gives rise to socio-cultural questions of unimagined dimensions: What role do the new possibilities of virtual reality play for the perception of the world? What socio-cultural consequences result from the ever-advancing interweaving of virtual realities with haptically perceivable space? I would like to explore to what extent virtual elements or realities act as mere mirages or rather have already become part

⁴ Figure 2 and 3: Two visualizations of the work *A City Scale Sculpture*.

of human everyday reality.⁵ For Wark, the virtual forms a “third nature” alongside the physical cosmos and the social world.⁶ In this context, I would like to examine to what extent a progressively more convincing virtual reality leads to the first and third natures merging into one? In exploring these questions further, I would like to focus on the possibilities for recipients to interact with virtual objects in installations and exhibitions.



Figure 4: *The Two Serpentes* [1], Concept render for a Virtual Sculpture, Hyde Park at Lake Serpentine, London, 2017

I have already considered a first step with my conception of *The Two Serpentes* project. The plan is to create a virtual sculpture that can be perceived virtually in the outdoor space, in this case at Lake Serpentine in London's Heydt Park. The analogue reality of the outdoor space (smells, sounds, etc.) is interwoven with the virtual reality (appearance) of the sculpture. The lack of haptic feedback can create discontinuities in this reality that lead to uncertainty experienced by the recipient. Questions about the nature of reality arise through the examination of the work.

⁵ Cp. Frederic Jameson: *Postmodernism, or the Cultural Logic of Late Capitalism*. New Left Review 146, 1984, 60.

⁶ McKenzie Wark: *A Hacker Manifesto*. Cambridge: MA: Harvard University Press 2004, 32

Another question I would like to explore artistically is in which categories this sculpture is perceived and to what extent the virtual imitation of a material should be taken into account.

4. Intermediality and Interdisciplinarity as the Methodological-Formal Keynote of my Artistic Research

I have already explored various possibilities of an intermedial translation of aesthetic values. In the process, certain epistemes have been passed on in an accentuated way. For example, in the intermedial translation of photographically documented spaces into sculptures, the clear contours merge into a more abstract formal language, which, however, visualises the play of light and shadow as well as the vertical structure of the forest. The spatial perception of my walk-through sculptures evokes corresponding impressions and feelings in the viewer, without providing clear references to a forest in terms of any figuration. These shifts in perspective are crucial to advancing my project of artistic research.

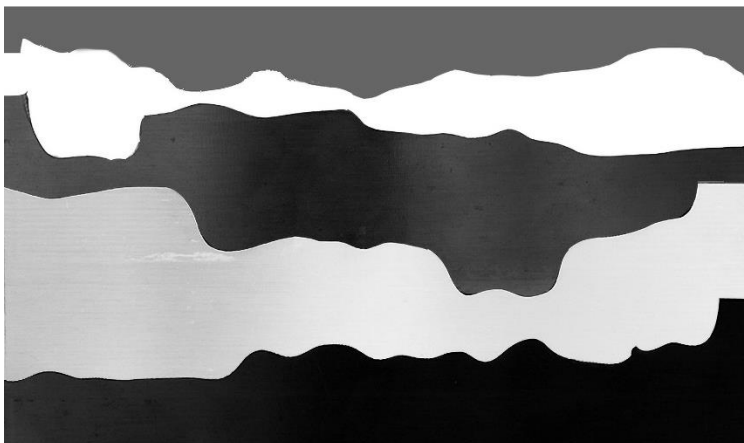
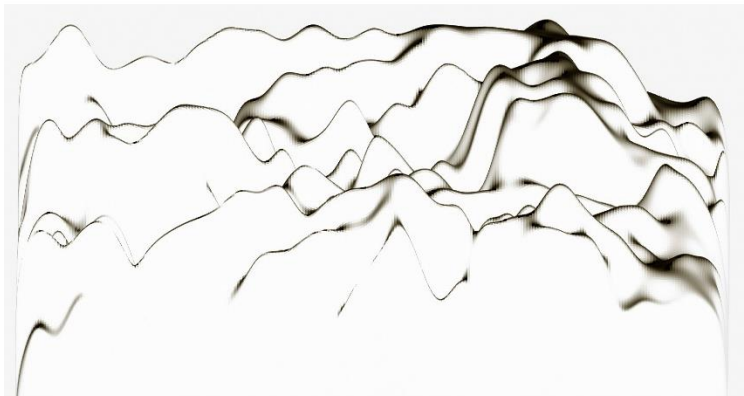


Figure 5: *Two Concepts for "To Be"*, prints, different sizes, 2020

One focus of my work in the field of intermediality will be the translation of visual artworks into sound compositions. I have already started with a kind of an actual derivation of sculptural forms into sounds. This has resulted in a performance in collaboration with a Londoner composer. The focus is on a cross-genre or intermedial dialogue. Large-scale drawing and music merge to create a representation of human life. The performance is divided into three acts and lasts about 30 minutes in total. During each act, a large-format paper sheet (approx. 300x110cm) is filled with charcoal and other drawing materials, so that at the end three drawings document the performance with their "dialogues". In order not to go beyond the scope of this paper, I would like to refer more specifically only to the second act.

Starting with one of my sculptures, which was created from a photographic documentation of a forest area, I translated the information contained in it into sound matter. This process was achieved by developing the technique used by John Cage in his *Etudes Australes* by adding a third "human" dimension. After converting the material in cooperation with the London composer Guido Mallardi, I shaped the raw sound material with an almost sculptural approach. In this way, modules were created that can be placed next to each other, similar to words or letters, allowing free "formulation". The expression is created through varying dynamics and changing rhythm. The free dialogue of the music and the drawing always leads to unique artistic results in each performance. This work demonstrates the potential of a formal and content-related complexity generated by an intermedial approach. The sounds create virtual images that are materialised in the drawing. Based on this artistic work, I would like to explore the process of materialisation of the virtual images created by a sound experience. Furthermore, I will investigate to what extent one's own socio-cultural background as well as the surrounding environment influence this process and the results.

This last work presented illustrates a crucial aspect for my work: artistic and scientific interdisciplinarity. In the realisation of my research project, I strive for a lively exchange and cooperation with artists and scientists from other disciplines. Cultural and social science methods and findings are necessary to process artistic mid-term results with the aim of developing further key questions and new approaches. To mention just one aspect: I understand my own artistic practice as a field of investigation. It is widely accepted that the subjects and objects of field

research in the ethnographic research are closely related and interdependent.⁷ Exploring how the method of field research can be used in the context of artistic research is an obvious research project.

With regard to my research questions on the perception of virtual realities, there are clear overlapping elements with the relatively new field of virtual psychophysics.⁸ In the technical field, digital and virtual processes, require interdisciplinary cooperation with the corresponding disciplines.

5. Works Cited

- Borgdorff, Henk, „The production of knowledge in artistic research.” In: Michael Biggs and Henrik Karlsson (Ed.): *The routledge companion to research in the arts*, Oxon: Taylor & Francis Group 2011
- Jameson, Frederic: *Postmodernism, or the Cultural Logic of Late Capitalism*. New Left Review 146, 1984,
- Kiel, Martin, *Investigative Ästhetik. Immersion und Innovation als handlungshermeneutischer Kunstgriff*, Kiel, 2019
- Renner, Rebekka S. et al.: “Virtuelle Psychophysik – Psychologische Untersuchungen zur räumlichen Wahrnehmung in virtuellen Umgebungen.“ In: Sabina Jeschke, Leif Kobbelt, Alicia Dröge (ed.): *Exploring Virtuality. Virtualität im interdisziplinären Diskurs*. Wiesbaden: Springer Spektrum 2014, 241
- Wark, McKenzie: *A Hacker Manifesto*. Cambridge: MA: Harvard University Press 2004

⁷ Henk Borgdorff, „The production of knowledge in artistic research.” In: Michael Biggs and Henrik Karlsson (Ed.): *The routledge companion to research in the arts*, Oxon: Taylor & Francis Group 2011,49.

⁸ For a introduction into this new field of research, cf. Rebekka S. Renner, Boris M. Velichkovsky, Ralph H. Stelzer, Jens R. Helmert: “Virtuelle Psychophysik – Psychologische Untersuchungen zur räumlichen Wahrnehmung in virtuellen Umgebungen.“ In: Sabina Jeschke, Leif Kobbelt, Alicia Dröge (ed.): *Exploring Virtuality. Virtualität im interdisziplinären Diskurs*. Wiesbaden: Springer Spektrum 2014, 241.