Drafts: Design Research Artifacts as an Intermediary Knowledge

- Designing digital dress in virtual spaces

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The presented artifacts were initially developed within the framework of an experimental exploration with the aim to identify possibilities and limitations of ideating dress designs in immersive virtual space. Virtual reality technology in terms of Oculus Quest devices, in combination with Google Tilt Brush as immersive sketching software, was used for this endeavor. Observations and reflections were made during and after the design process with regards to materialities, features, and techniques for designing dress. The findings of the observations made, with regards to the listed criteria, are visually captured in the displayed artifacts, provoking an alternative understanding of what dress could be when designed and experienced through extended reality technologies such as virtual reality devices. The presented artifacts and the reflections made further suggest fundamental artistic possibilities for digital technology as a concept, method, and technique in fashion design.

The role of the artifact in this research practice is guided by Nithikul Nimkulrat's definition of artifacts in artistic-based research practices (Nimkulrat, 2013). Artifacts as inputs serve as a potential starting point from which research questions are formulated or serve as the means to provide data for analysis from which knowledge is constructed. As outputs, artifacts serve to indicate whether identified research problems require reformulation or drifting, as well as strengthen findings articulated in the written output. Thus, artifacts are regarded as an elemental part of knowledge construction and communication by reflecting on the artifacts during and after their production.

Artifact 1

This dress was sketched in VR Google Tilt Brush, further developed in Adobe Dimensions, and finalized in Adobe Aero for Augmented Reality experiences. The intention was to test the effects of absenting gravity on the design process that was made possible with extended reality technology. As can be seen by looking at this artifact, the design for this dress shows that factors for constructing garments such as weight, structures, and dimension were possible to ignore. This opened up idiosyncratic artistic potentials for digital dress-making with regards to spatial possibilities.

Made in 2019-2021, Credits Jan Tepe



Artifact 2

The intention of this dress design was to test how immaterial phenomena such as light can be used for digital dress-making as well as how the use of such phenomena as design materials would influence the dress-making process. Despite initial expectations with regards to the choice of design materials, the design turned out to be rather realistic in terms of construction, proportion, and silhouette development.

Made in 2019-2021, Credits Jan Tepe



Artifact 3

This dress exemplified the possibilities of turning any kind of digital material into dressrelated designs by appropriating and modifying the original material in virtual reality. The presented dress was designed by a student during a virtual reality design course in which all students were asked to test a design method that was developed by the author prior to the course. This method guided the students on how to turn digital materials of various kinds in VR into dress designs which questioned the permanence and purpose of design works in digital spaces.

Made in 2020, Credits: Design - Aleksandra Heinsaar, Method - Jan Tepe

