DESIGN AND APPLICATION OF ART BASED ON PROJECTION MAPPING

Santa Katkevica,
Aina Strode *(supervisor)*
Rezekne Academy of Technologies, Atbrivosanas alley 115, Rezekne, Latvia, LV-4600

Research purpose. to explore the project mapping impact on art design and application.

Keywords. Art, design, light, projection mapping

Research Methodology. theoretical: studying and exploring the literature and the internet resources of a topic, empirical: analyzing analog in similar fields, qualitative and non-experimental: creating a survey to understand people interest in the topic

Results / Findings. Understand the impact of technology development on art installations – creating interactive performances with projection mapping.

Originality / Practical implications. Since the development and integration of computers and technology into daily life, artists have been experimenting with various media in the art process. The current challenge, is how to keep art occasions engaging and alluring for attendees, especially given that each passing year, a new cohort with a different level of technology sophistication participates. A report by IAEE (Exhibitions and Events Mean Business) states that "the elements of show design must evolve to engage this audience and drive their show experience and level of engagement". With the rise of smartphones and social media, there have been several approaches to achieve this. Gamification, apps and live streaming have already proven themselves as strong tech supplements. Gamification provides a way to engage users and allows attendees to engage with a company's history and offerings in a playful way. It often goes hand in hand with apps, as they have become ubiquitous and easy to access. With more social media platforms offering live streaming services, these too have found their way into the repertoire of engaging users at exhibitions and events. In addition to these technologies, virtual reality (VR) and augmented reality (AR) are seeing a lot of potential, as these are both new emerging technologies. VR, often seen as part of the gaming scene, immerses users into brand new virtual experiences, usually with the help of headsets. AR on the other hand compliments viewers surrounding, by overlaying it with designs and information. Another form of AR is combining projection mapping technology with interactive walls.

Innovative lighting projection and dynamic sound systems as well as adaptive object mapping solutions constitute a rapidly developing branch of projecting and multimedia technology. In order to make it possible to adjust the content to specific objects in the scene, it is necessary to correctly identify them and place them in the accepted frame of reference. Reconstruction and projection mapping enable specialist to bring virtual art media into real spaces, which can give spectators an immersive augmented reality experience. Viewer expect the light to be able to paint images that are as much as they can be to the imaginary reality. Lately new media artist create an illusion of being by mapping on surface of objects, structures, buildings and displayed in public spaces. A new trend of video mapping technology allow for interactive projection mapping to be used in public places for educational and entertainment purposes. Projections have been emerging as an important instrument for presentation and communication for all audiences distinctively.