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4

## The use of 3D hologram and Pepper Ghost technology in the museum's exhibition spaces as a means of interactive communication with the viewer. Methods and assessment of implementation.

The main objective of the research work was to investigate the possibilities of using 3D hologram technology and Pepper's Ghost in the museum's exhibition spaces as a means of interactive communication with the viewer and to assess the methods of their implementation. The research concerned in particular the placement of the technologies in question in the exhibition setting, their impact on the viewer's perception and the possibilities of expanding the substantive and educational offer. An important element was also to examine the impact of holographic installations on museum exhibits. Another objective was the implementation activity consisting in implementing the Pepper's Ghost installation in the exhibition space.

Należy więc zauważyć, że realizowane były dwa korelujące ze sobą cele:

**a.** Research objective, concerning the assessment of the potential of the technologies studied, their history in a specific exhibition environment.

This objective was achieved by implementing the following specific objectives:

- familiarization with the theoretical foundations of 3D technology and holography through a review of literature, source materials and Internet sources;

exhibition opening hours. A mixed method was chosen to implement the adopted assumptions, combining quantitative and qualitative research, so-called mixed method research, and participatory research, so-called action research. These methods provide the largest scale of possibilities to combine theoretical analysis with practical solutions, which is extremely important in the light of the implementation program.

The Pepper's Ghost "Sultan" installation, which is the subject of the implementation, was installed in October 2020 in the exhibition space of the State Ethnographic Museum in Warsaw at the permanent exhibition "African expeditions. Asian roads." The installation was carried out as part of the project "Purchase of equipment and furnishings for the needs of modern exhibitions of the State Ethnographic Museum and educational and cultural activities provided therein" co-financed by the European Union under the VII priority axis of the Infrastructure and Environment Programme 2014-2020

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