

VIRTUAL LANDSCAPE

A landscape generated digitally using new computer technologies in a virtual environment.

A virtual landscape is a simulacrum (Baudrillard) imitating the real landscape in such a way as to give the viewer the impression that they are in contact with a real landscape and not just its imitation. Virtual landscapes are used in industry, science, entertainment (e.g. computer games), education (e.g. virtual museums, historical landscape animation). They also appear in films, television and visualisations reproducing the real landscape or creating a virtual reality environment as a static or dynamic image. Its appearance, character and type depend entirely on the creator's invention and the purposes for which it was created. In addition to these applications, virtual landscape also appears as an element of computer programs used to create architectural, urban and landscape designs. In such cases it does not occur on its own, but as a tool used to visualise the intended idea.

Another form of virtual landscape are panoramas created on the basis of photos of a specific object, place or area in a way that allows for a virtual walk, i.e. for experiencing a place or object through new technologies. Virtual models of fragments of cities, streets, museums and historic buildings give the opportunity to get acquainted with a given place in a digitally mediated way, without the need for a real visit. The development of technology has allowed us to cover almost every corner of the earth with the project of virtual reality. Thanks to the use of photography and satellite navigation, as well as via the Internet, it is possible to "travel" to any place. *Google Earth*, *Google StreetView* and the Chinese *Baidu Maps* serve this purpose.

In computer games, the virtual landscape can take different forms, depending on the subject matter of the game, tools used, technological advancement. Good examples of virtual landscapes are provided by fantasy games (rich fictional landscape in "The Witcher" and "Gothic" games), racing games (digitally reconstructed routes or tracks), war games (digitally reconstructed cities, battlefields, forests), historical and archaeological games (reconstructions of ancient landscapes in "Zeus" and "Civilisations" games), as well as devices allowing to feel the multi-sensory experience of driving or fighting using complicated interfaces. Another form of landscape creation in games can be virtual overlays on the real landscape, as is the case in the "Pokemon Go" application. The imposition of a virtual landscape on reality is possible thanks to technologies generating *augmented* reality. This technology is used by the military (the fighter pilot receives various data, overlapping with his vision, and depicting the terrain or temperature distribution), engineering (visualisation of the underground water supply and sewerage system) and tourism (reconstruction of the previous appearance of the site, the previous building or its variant).

The 3D technology has allowed to enrich and improve the virtual landscape as an interactive space requiring action on the part of the viewer. Although the development of the virtual landscape is a result of the progress in computer technology, the history of its creation is longer and includes fresco painting (interior decorations, especially in the form of the so-

called quadrant, baroque painting using optical illusion by combining architectural elements and figural compositions), easel paintings using a linear perspective or the nineteenth-century panoramas (e.g. the Raławice Panorama).

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