

Katriina Ilmaranta:

L'Enfant – The Perception and the Expression of the Scenographic Space in the Virtual Set



L'Enfant et les Sortilèges is an artistically oriented doctoral thesis. The main object of the research is to utilize the new digital set design technology in practice, and to locate some of the major problems associating with it from the viewpoint of the set design process. The research consists primarily of completing a digital set for a 50-minute- long television version of Maurice Ravel's fantasy opera L'Enfant et les Sortilèges. This TV -production will be directed by Marikki Hakola, a pioneering media artist and director of electronic moving picture in Finland. The digital set technique used in this research is specifically referred as the 2D -virtual set among the present film and television industry. This technique allows compositing video-image and computer generated 3D -elements on the fly.¹ In this way the virtual set production differs from the mainstream special effects film in such a way, that

¹ The BBC technical director Danny Popkin writes: "In television production, many of the shots do not actually move at all and when they do, it is only a small pan or zoom to accommodate the artist's movements. In fact, some of the research at the BBC showed that at much 90% of moving shots were only pan, tilt or zoom. In these cases, it is not necessary to have a super-computer rendering the full view of a set all the time because unless the camera mount is moved (dolly, crab, track or height) then the viewpoint looking at the background does not change, and hence neither does the perspective. Thus the background can be moved in sympathy with the foreground by using a DVE, effectively generating a windowed view of a prerendered wide-angle shot. The background is not generated in real time; hence much less computing power is required for rendering. Using multiple layers allows for garbage mattes or foreground objects." Danny Popkin, Virtual Studio, (BBC 1997), 17-18.

the emphasis lies not on the post produced, but on the real-time use of the computer graphics. The analytical discussion concerns to report the experiences when creating a workflow for the 2D -virtual set in the framework of specific production.

Drawing on Lev Manovich's concepts², the 2D –virtual set process is divided into three phases. First, there are factors that need to be considered when one is trying to create one seamless virtual space. How does the blue screen footage with live actors combine with the digitally generated environment within this specific technique? In which ways does the traditional idea presence in the film set get transformed when it is reconsidered in the context of the virtual set? Second, there are specific issues relating to the simulation of the camera movement to be focused. The camera of the 2D –virtual set has a very limited capacity to repeat real-time the movement of the actual physical camera. How does this make filmmaker handicapped to access into the world of virtual set? Above all this “simulation” is based on the illusion of three-dimensionality, not the true simulation of it. Can there be any direct perception of scenographic space – or is there just the delusion of senses? Third, there is discussion of simulation of some other artefacts (like fog) specifically in context with this technique.

Generally the virtual set is understood as being a technology of representation specifically designed to *simulate* the practice of the traditional cinema and to *mimic* the impression of a physically existing scenery environment. The virtual set realization process thematizes also the questions of realism: in order to virtual set simulation to be successful there is a prerequisite of photorealism. The key concepts used this research originate in film phenomenology; however, some additional viewpoints inspired by the cognitive theory are presented. The main argumentation is carried through the practical examples of the documentation of the set design process.

See also <http://www.magnusborg.fi/enfant>

² Lev Manovich, *The Language of New Media* (Cambridge, Massachussettes 2001), 137.