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Encountering the game world

- The perception and experience of video game spaces

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In this paper I will give an approach to the perception and the experience of video game spaces. If James Newman is right in his claim that “videogames may be seen, in part at least, as spatial puzzles” (Newman 2004, p.115) a theoretical understanding of the perception and experience of video game spaces becomes a crucial topic in video game research.

My discussion in this paper will be based on theories of visual perception; the relation between physical space, representation of space and mental space; the incorporation of body and movement in the experience of space; and the role of presence.

The perception of video game spaces can be discussed and explained in the light of theories of visual perception in general, so this is where I too will start my discussion. Classic works on visual perception (e.g. Gregory 1977, Marr 1982 and Gibson 1986) can be seen as representing, at least, to different perspectives on visual perception as such (cf. Bordwell 1990 and Aumont 1997). It is possible to see these different perspectives as being two ends of a continuum (Hansen 2003). In one end you have the analytical approach represented by Gregory and in the opposite end you find the synthetic approach represented by Gibson, what distinguishes the two ends is the degree of constructivism incorporated. I shall argue that the most useful approach will be Gibson’s ecological theory.

Space as a concept can be divided into three: The n-dimensional mathematical space, the 3-dimensional physical space and the 3-dimensional mental space. Moving pictures can be seen as a kind of representation of mental space in physical space (Munsterberg 1916). Space represented in moving pictures and mental spaces are alike because they both typically occur as discontinuous spatialities. But our cognitive work up of a moving picture is typically not concerned with the reconstruction of space, but rather with the reconstruction of time – we try to get the events arranged into a coherent fabula (Bordwell 1990), a good film has a good story and plot. In video games, I shall argue, we are typically not concerned with the (re-)construction of time, but rather the construction of space. As Newman explains it: “the player is not engaged in a struggle to rescue the captive princess so much as they are engaged in a battle against the terrain of the landscape of the gameworld they have to traverse.” (Newman 2004, p.113) In a way video games spaces then can be seen as representations of physical space in physical space, but in such a way that the representation is an enhancement of specific properties of the physical space – e.g. movement.

The space of the video game has been defined as a navigable space (Manovich 2001), a space in which to travel and explore trajectories, or in other words to experience the spatiality of a virtual world. “To experience space is to engage with it through one’s presence, to possess it by being immersed in it, in the way one possesses space when inside a room, in a park or on the streets.” (Legrady 2002, p.221). The role of presence seems to be crucial to the experience of space (Tamborini & Skalski 2006), but in order to understand presence properly, we have to establish an

understanding of the essence of movement. I shall argue that we will be able establish such an understanding in the context of neuroesthetics.

References (abstract)

Aumont, J.: *The Image*, BFI Publishing, London 1997

Bordwell, D.: *Narration in the Fiction Film*. Routledge, London 1990 (1985)

Gibson, J.J.: *The Ecological Approach to Visual Perception*, Lawrence Earlbaum Associates, Hillsdale & London 1986

Gregory, R.L.: *Eye and Brain*, Weidenfeld and Nicolson, London 1977 (1966)

Hansen, O.E.: *Computerspil, engagement og oplevelse*. Ph.d. thesis, Aalborg University 2003

Legrady, G.: "Intersecting the Virtual and the Real: Space in Interactive Media Installations." In Rieser, M. & Zapp, A. (ed.) *New Screen Media – Cinema/Art/Narrative*. BFI Publishing, London 2002

Manovich, L.: *The Language of New Media*, The MIT Press, Cambridge & London 2001

Marr, D.: *Vision*, W.H. Freeman and Company, San Francisco 1982

Münsterberg, H.: *The Photoplay: A Psychological Study In FilmTheory and Criticism*, Mast. (et al.) (4.ed.) 1992, 1916

Newman, J.: *Videogames*. Routledge, London & New York 2004

Tamborini, R. & Skalski, P.: "The Role of Presence in the Experience of Electronic Games." In Vorderer, P. & Bryant, J. (ed.) *Playing Video Games*. Lawrence Erlbaum Associates, Publishers Mahwah & London 2006