Vertigo of the ears and eyes: Embodied experiences of hybrid spatiality in Brice Pauset's *Vertigo/Infinite Screen* (2021)

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Recent research on musical performance highlights music listening as an embodied activity strongly influenced by and connected to mental representations of music-related movement schemata (Cox 2016). Listening thus can be considered an inner "dance on memorized schemata" (Stahnke 2001, 25) that combines inputs from hearing, touch, vision and bodily motion (Schroedter 2017). Especially composers of contemporary music challenge their listeners by creating complex tonal, temporal and spatial impressions (Utz 2016, 602-609), a phenomenon which is brought further by the increasing use of electronic audiovisual media. Being immersed into an audiovisual performance can be pleasurable, but it can also make listeners feel painful or sick. This article examines the perceptual phenomenon of vertigo in regard to musical intermedia performance, demonstrated by a brief analysis of *Vertigo/Infinite Screen* (2021) by French composer Brice Pauset, an intermedia piece in homage to Alfred Hitchcock's iconic film *Vertigo* (1958). Many current intermedia compositions call into question the distinction between "live" and "mediatized", physical and virtual, resulting in a growing body of scholarship on musical multimedia or intermedia performance (cf. Auslander 2008, Chapple & Kattenbelt 2006). The following analysis shows how *Vertigo/Infinite Screen* plays with sensations of vertigo by blurring the boundaries between experiences of real and virtual space through sound and moving images.

Vertigo describes disorders of the gravitational sense located in the inner ear, resulting in partial loss of spatial orientation and movement coordination. Those can be caused by turning motions of the body (motion-induced vertigo) or they can appear as somatoformic vertigo related to mental disorders. Somatoformic vertigo can result from phobias, depression and schizophrenia, as well as from the consumption of media (Brandt et al. 2013, 146ff.). Vertigo as media sickness results from incoherent and excessive sensory stimuli that create sensory traumata resulting in somatic reactions

of the nervous system. Recent studies show that vertigo appears in a significant number of people in correlation with experiences of virtual (VR) environments. It can be also caused by wearing noise-cancelling headphones (Dan-Goor & Samra 2012, Chattha et al. 2020). Virtual reality can be defined generally as a medially created environment that employs several modalities (vision, hearing, touch) to imitate or implement sensory features, behaviors and qualities of known physical environments, thus allowing for understanding and purposeful interaction (Doerner et al. 2014, 3ff.). Following Eric Clarke (2013), a musical piece can also be considered a virtual space, making listening an effort of balancing between the real and the virtual. Sociologist Shuhei Hoso-kawa had already described negative effects when listeners' attention navigates between virtual and physical sonic environments, which he dubbed as the "walkman effect" (Hosokawa 1984). While Hosokawa had referred to urban contexts, Nicholas Cook later on suggested three categories to describe intermedial relations in performance: conformance, complementation and contest (Cook 2001). Media-induced vertigo can be understood as a result of states of contest between hearing and vision as well as between virtual and real-world experience.

Hitchcock's *Vertigo* is considered a landmark of suspense cinema. The film tells the story of a policeman falling in love with a woman who commits suicide. In an attempt to relive his failed relationship, he starts an affair with a young girl which also ends tragically. *Vertigo* is considered one of Hitchcock's main works and has received considerable attention in film studies for its intricate visual language. The loss of perspective and orientation captivating the characters throughout the film is presented as visual force that destroys their attempts to regain individual agency (Cavalletti 2022). Hitchcock used a special camera technique, the Dolly-Zoom (later also called *Vertigo effect*), to represent vertigo by distortion of perspective and visual space (Hasche & Ingwer 2016, 148f). The iconic film score by Bernhard Herrmann presents an auditory maze made of constantly looping motives, avoiding a tonal centre or formal direction (Gelly 2021).

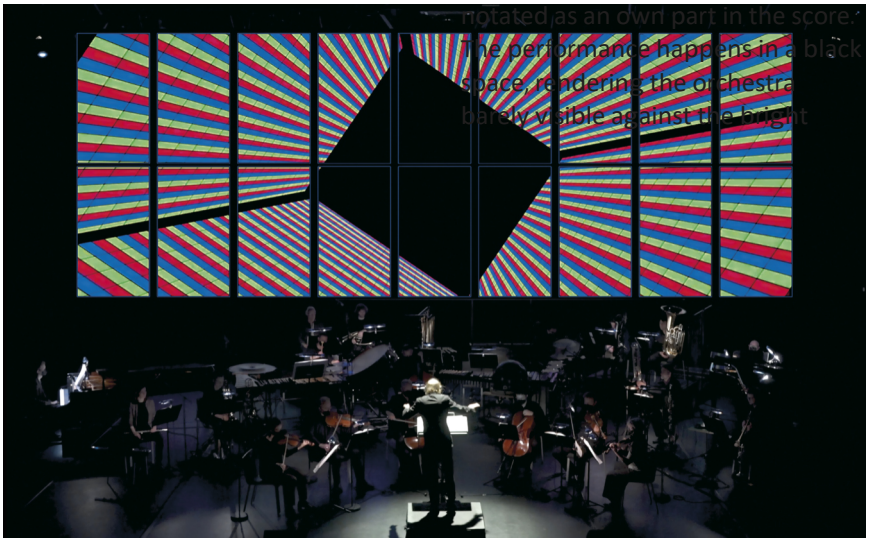

Fig. 1: *Vertigo/Infinite Screen,* performance by Klangforum Wien 2021[1]

Vertigo/Infinite Screen screen was premiered 2021 at the Wittener Tage für Neue Kammermusik. It features an orchestra in six groups, electronic sounds and a visual installation. The composition follows closely the form and structure of the film, incorporating elements of Herrmann's soundtrack as well as sound snippets from the film's dialogue and foley. The visual part of *Vertigo/ Infinite* Screen is a video installation presented on a giant projection wall made up of a grid of 9x2 LED panels. The visuals are performed live on screen. In the beginning, swirling chords cross all instrumental groups. Sudden appearances of film-stills create moments of incarnated perception (Kaltenecker 2008), followed by darkness and color flashes disturbing the sense of time, body and space. Unlike in the film, visuals and music do not create a common narrative but two parallel sensory inputs (Auslander 2013). While Pauset's music has nuanced dynamics, the visuals retain high contrast, strong colours and high speed.

One scene in Hitchcock's *Vertigo* features recorded music playing from a gramophone. Hitchcock wanted the record to sound fragile and blurred, almost hallucinogenic. In *Vertigo/ Infinite Screen*, Pauset picks this up and lets fragments of the gramophone music appear in the electronics (Pauset 2021, bar 42ff., 288ff.) These inserts are a key element for creating sound-related impressions of vertigo: they are clearly tonal and melodic, marking a shift from the harmonic and temporal disorientation happening in the beginning section towards a moment of recognition of known elements (Schroedter 2017, 225). Throughout the piece, the inserts become longer, dislocating and warping the orchestral sounds until the spatialized electronics sometimes take lead over the acoustic instruments. The recognizable acoustic and visual features of the physical room are constantly blurred and overwritten by the fast-changing flashes of light and dark and the changing sonic space created by the electronics. When entering the performance, the listeners arrive with a perception of the physical space that gets subsequently confused by the virtual audiovisual environment which remains inconsistent and fluid, introducing slips of perceptual disorientation, a "Tasten und Zögern" (Waldenfels 2007, 19). Like the "walkman effect", a subtle estrangement happens between the listeners' proprioception and the impressions of the virtual space. Throughout the piece, electronic sound and visuals are used in conformance – to speak with Cook – to create a situation of sensory overload, competing for attention. The fast-changing visual and auditory spatialities challenge the perceptual capacity of the audience, stimulating embodied experiences similar to VR-induced motion sickness. Unlike artists who intended their piece to pose a critique against contemporary media accesses, the actual use of audiovisual media in *Vertigo/Infinite Screen* appears like a "psychic apparatus", a term Friedrich Kittler (1995, 352ff.) introduced to describe electronic media's potential to modulate the psychic states of an audience. *Vertigo/Infinite Screen* is not only a bare retelling of Hitchcock's movie. It uses the unsettling potential of excessive visible and audible movement dynamics to transfer the film's visual effects into the sonic and spatial domain. It draws from embodied

listening to place motion sickness, or vertigo, at the heart of an intense spatial and audio-visual experience.

Notes

[1] Brice Pauset / Arotin & Serghei: *Vertigo/Infinite Screen* (2020-21), intermedial composition based on Alfred Hitchock's "Vertigo" for ensemble in 6 groups, 18 pictures and electronics. Foto from a performance played by Klangforum Wien, Centre Pompidou, Paris 2021; Photo: AROTIN & SERGHEI Contemporary Art 2021.

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