CHAPTER TITLE: Media borders in a post-media age: the historical and conceptual co-evolution of cinema, television, video and computer screens¹

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ABSTRACT:

This chapter offers an overview of literature theorizing our condition defined by electronic screens, often called a post-cinema age, the age of expanded or fragmented cinema, or indeed named the spatial turn in the analysis of electronically mediated audiovisual communication. With a faraway starting point in Marshall McLuhan's *Understanding Media* and relying on Lars Elleström's media theory throughout, the overview covers comparative theorizing of cinema and television, cinema and video, and cinema and digital screen(s). Such monographic titles are covered as Bolter and Grusin's *Remediation*, Manovich's *The Language of New Media*, Sybille Krämer's *Medium. Messenger. Transmission*, Gaudreault and Marion's *The End of Cinema*, as well as referring interventions by Roger Odin, Francesco Casetti, Giuliana Bruno, Thomas Elsaesser, Erika Balsom or Irina Rajewsky and Laura Mulvey.

The media borders between cinema, television, video and streaming are shown to be conditioned by historical developments in electronic communication technologies, by the fictional filmic representation of such developments, and finally by the critical-theoretical conceptualization of their co-dependencies. The concepts of broad intermediality (Lars Elleström) and genealogical intermediality (Irina Rajewsky) are proposed as denoting the default experience of our era of media convergence on the all-engulfing digital platform. The suggestion is made that the electronic screen has been existing as a messenger of medium specificity in the pre-1990s era, keeping its status amid the changed circumstances of the digital era too.

KEYWORDS: screen, electronic, intermediality, broad, genealogical

INTRODUCTION

The hybrid or the meeting of two media is a moment of truth and revelation from which new form is born. For the parallel between two media holds us on the frontiers between forms that snap us out of the Narcissus-narcosis. The moment of the meeting of media is a moment of freedom and release from the ordinary trance and numbness imposed by them on our senses. (McLuhan 1994: 55)

From 'Broad' To 'Genealogical' Intermediality and Back

"Broad intermediality" – when border(s) between "dissimilar qualified media types based on similar basic media types" are crossed (Elleström 2020: 49)² – could be the default experience

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² It is based on the variables of the four modalities ("the material, the sensorial, the spatiotemporal and the semiotic" describing all media, building "a medial complex integrating materiality, perception and cognition" (2010: 15)), and the "two qualifying aspects" ("historical, social, cultural circumstances" or the "contextual qualifying aspects", and "aesthetic and communicative characteristics" or the "operational qualifying aspects" (2010: 24)) that Elleström differentiates between basic media, qualified media and technical media: "[b]asic and qualified media must be understood as abstractions that need *technical* media to be materially realized." (2010: 36, emphasis in the original)

of our era of media convergence on the digital platform. The icon of this condition is the electronic screen, and electricity is an element engendering the phenomena described thereinafter, in its capacity to "offer a means of getting in touch with every facet of being at once", an existence" "only incidentally visual and auditory", and "primarily tactile" as we read in *Understanding Media* (McLuhan 1994: 249). Brian Ott also emphasizes that electricity is "a structural feature of digital media", adding to the "speed with which people process and manage information." (Ott 2007: 159)

Electronic screens cue a high number of "qualified media types" (Elleström 2020: 49): analogue and digital television, analogue and digital video, desktop and mobile computer interfaces for streaming. As a matter of fact, Sylvie Leleu-Merviel enumerates seven types of screens defining our present age, arguing that "for a long time, we had two [screens] in our lives – cinema and television", to which further ones have been added: "three, with the computer screen that opens up access to the immense resources of the Web and the Internet, (...) four with mobile tools – smartphones. Some are pursuing inflation by adding five (the intermediate terminal that is the tablet), six (the games console) and seven (the immersive helmet)." (Leleu-Merviel 2020: xiii) Leleu-Merviel's categorization is enabled by her primary interest in projection mapping – a practice and ensuing phenomena definitely beyond the tipping point of an electronic screen-based existence, composed of "screenscapes", to use Francesco Casetti's term (2019: 46). Defined by these enumerated elements and aspects, the present chapter offers an overview of literature theorizing our condition defined by screens, often called a post-cinema age, the age of expanded or fragmented cinema, or indeed named the spatial turn in the analysis of electronically mediated audiovisual communication.

Marker of media convergence and of fuzzy cases of broad intermediality as we will see, the electronic screen also mobilizes the arsenal for discussing (electronic) medium specificities. This may be identified as a constant need even if less and less occasions for the material actualizations of electronic medium specificities are available for being experienced by large contemporary audiences – who are exclusively linked to the digital platform. Watching an outdoor electronic screen of advertisements at a train station, a television screen at home, a translucent window screen in a museum or immersing in the (once) silver screen at the movies are common situations for us all. Even if fully digitally mediated, such occasions recall the media history and specificities of the respective media – somewhat similarly to watching such fictional moments in film diegeses. Having the capacity "to non-neutralize" television, cinema or video (art) – to use Sybille Krämer's terminology (2015: 31) – our encounters with electronic screens might make these media "visible", evoking their historical lineage to us, as spectators involved. According to the main argument developed currently, 'non-neutralizing' and 'making visible' electronic screen-based, historically developed media occurs not only on the level of materiality, but also concerning the perceptual and cognitive processes involved. Or as Torben Grodal observes: "[t]he use of technical devices [to represent these processes in an intersubjective form] makes the mental processing visible; the gadgets are real, but they are also an extension of the way normal perception and cognition work, and are therefore mental models of perception and cognition." (Grodal 1997/2002: 242)

Yet, modelling analogue television 'mentally' while (being) cued by an electronic digital screen to do so definitely differs from 'non-neutralizing' analogue television as such for the viewer of an analogue television set. As so adequately summarized by Irina O. Rajewsky in her influential 2005 article, we have reached the stage when "a medial difference is no longer a given, i.e., is no longer discernible" (Rajewsky 2005: 62-63) – at least not in the classical,

analogue sense of medium specificities defined and intermedial relations developed among them. Moreover, "computer technology, with its increasing capability to (more or less) 'perfectly' simulate earlier media forms, does not quite fit into a division of different intermedial subcategories ..., and even more generally challenges any definition of intermediality that is based on medial differences." (Rajewsky 2005: 32) Lars Elleström's already defined concept of broad intermediality, combined with issues of medium specificity in reference to electronic screen-based media definitely initiates a framework for more nuanced descriptions and subsequent analyses, yet further specifications are needed.

Although not negating the need to concentrate "on concrete medial configurations and their specific intermedial qualities" as Rajewsky so relevantly formulates (2005: 51), and evidently containing such instances too, the focus of this handbook entry lies elsewhere. Thanks to the ever-present formation of electronic screens and their cueing, occasionally even simulating medium specificities pertaining to pre-digital film, video and television as well as the digital formations enumerated by Leleu-Merviel (2020: xiii), one is constantly reminded of the new situation that digitally coded audiovisual media, or new media have induced. Obviously, this is a contemporary subcase or actualization of Marshall McLuhan's fundamental thesis, advanced in his paradigmatic 1964 *Understanding Media*; namely, that "media as extensions of our senses institute new ratios, not only among our private senses, but among themselves, when they interact among themselves", with "[r]adio [having] changed the form of the news story as much as it altered the film image in the talkies." (McLuhan 1994: 53) Therefore, the author's hope that the slice of examinations below is relevant enough to be classified as such "new aspects and problems" "under the heading of intermediality" that "have emerged, especially with respect to electronic and digital media", while not just repeating truisms about "intermedial relations and processes per se ... which have been recognized for a long time" (Rajewsky 2005: 44, emphasis in the original). Since the stakes are high: does the digital encoding transform the previously intermedial references from and to film, video, television and the pre-digital image to intramedial references, allusions and figurations (Rajewsky 2005: 54, emphasis in the original)? Or, should we rather categorize these as cases of "virtual intermediality" (Rajewsky 2005: 62-63) within what Friedrich Kittler describes as "a total connection of all media on a digital base" (Johnston, 1997: 5–6)?

This chapter strives to show that, in the context of 21st century media convergence as described by Kittler, the concept of broad intermediality is essential because of an interconnected chain of causes. Even if encountering film, television or video in their own pre-digital, distinct materialities and medialities is an ever-shrinking or even non-existent possibility on the large scale of global audiences, the intense and constant 'intermedial referencing' of television or video from within the digital (streaming) platform is more vivid and flourishing than ever, including the "virtual simulation of a perceptible medial difference, in order to create a discernible effect of intermediality." (Rajewsky, 2005: 62-63) Erika Balsom also identifies the phenomenon from within her field of study, contemporary gallery art working with film and moving images. Observing that convergence and the "dissolution of the boundaries of individual media has been met by a reassertion of medium specificities produced out of intermedial tension" (2013: 14), Balsom opens a whole new field where the abovementioned examples populated by electronic screens will find their peers.

Yet, the question remains: when a characteristically digitally produced feature film in the tradition of analogue filmic narratives includes various electronic screens as meaningful surfaces in their diegetic worlds – television sets like in *Lost Highway* (1997, David Lynch), *Irma Vep*

(1996, Olivier Assayas) or Maps to the Stars (2014, David Cronenberg); computer or mobile screens like in Arrival (2016, Denis Villeneuve) or The Square (2017, Ruben Östlund); or indeed outdoor environmental screens like in Blade Runner 2049 (2017, Denis Villeneuve) - which or what are the media that are "present in its [their] own specific materiality and mediality"3? It is evident that understanding the processes of mediation happening in such cases calls for what Irina Rajewsky describes as "genealogical approaches to intermediality", the characteristic of which is their "main focus" "on the fundamental interrelatedness of earlier and newer media" (2005: 63), in the best McLuhanian traditions, we can add. This method – as hopefully demonstrated in what follows – enables us to describe and theorize our electronic media history conditioned by Elleström's broad intermediality, actualized in the constant gestures of intermedial and/or intramedial referencing and (most conveniently) cued by the formation of the (electronic) screen. This can be argued to be the case since "genealogical intermediality" reinserts meaning into discussions "once a medial difference is no longer a given" - instead of making such discussion "pointless." (Rajewsky 2005: 62-63) Therefore, in what follows the "constructed and perceptual" media borders (Newell 2020: 3) between cinema, television, video and streaming are shown to be conditioned by historical developments in electronic communication technologies, by the fictional filmic representation of such developments, and, finally, by the critical-theoretical conceptualization of their co-dependencies. Or as summarized by Balsom.

[r]ather than buy into the notion that all media will converge into a homogeneous digital field, it is necessary today to interrogate the ways in which the boundaries between media are both articulated and blurred, to see the pair convergence/ specificity as existing in a dialectical tension with one another that allows for a new thinking of historicized ontologies rather than a dissolution, or even disappearance, of a given medium. (2013: 17)

MAIN TEXT

Historical Genealogy: A Sample in McLuhan's Steps

The first electronic screen is the projection-based one of film, conditioned by the analogue film-platform, with its celluloid-based material modality, to use Lars Elleström's terminology (2014: 37).⁴ It is in *Understanding Media* that McLuhan introduces his famous description of cinema and film, very much with regards to the view projected and experienced, as "a hot, high-definition medium" (McLuhan 1994: 318), with its "message" being "that of transition from lineal connections to configurations" according to McLuhan's 1964 formulation (McLuhan 1994: 12). In their capacity to generate classical narrative filmic diegesis, the analogue platform and the celluloid-based material modality have implied the usage of film genres, while "impos[ing] masculinity as 'point of view" (Mulvey 1989: 29), thus giving birth to what Laura Mulvey famously named "visual pleasure in mainstream film" in her pivotal 1975

³ Of course, this leaves with the very important differentiation as signaled by Rajewsky's categorization too, that "in intermedial references ... only *one* conventionally distinct (either monomedially or, as in the case of dance theatre, plurimedially constituted) medium is present in its own specific materiality and mediality." (2005: 59)

⁴ See footnote 1 for a draft of Elleström's system.

essay (2005) – another concept fundamentally dependent on the projection of a flawless filmic image on the best possible (silver) screen. ⁵

The emergence of Mulvey's deep-impact critical concept has been conditioned by what we can retrospectively assess as the first technological challenge addressed to the analogue, celluloid, film-stock based paradigm and its screenic endpoint. Mulvey positions her insights into the way "the symbolic unconscious of the patriarchal order" (2005: 59) is constituted as being enabled by the development of "an alternative cinema" made possible by such "[t]echnological advances (16 mm and so on) [that] have changed the economic conditions of cinematic production, which can now be artisanal as well as capitalist." (Mulvey 2005: 59) We can no doubt add video technology mainstreamed in the next decade, the 1980s, described by Lars Elleström as "first launched as a technical medium" which "eventually gave birth to a qualified medium with specific aesthetic qualities." (2010: 44)

Resulting in Mulvey's creating such powerful, enduring concepts as visual pleasure, male gaze and female to-be-looked-ness reverberating to the present days, this smaller revolution on the borderland between the analogue paradigm and forthcoming digitalization is most suggestively staged, but also narratively capitalized upon in a 1992 film directed by Lucian Pintilie, *The Oak*. The female protagonist, Nela lies in an unmade bed with her terminally ill father, and a celluloid Super 8 home movie projector is in function, placed between them on the bed, and projecting its content on the opposite wall in the cramped little room. The home video presents a long-gone St. Nicholas/Christmas party, with high-ranking communist army and party officials celebrating in an elite communist mansion, persons we possibly identify as Nela's former entourage, while the little girl taking centre stage in the events seems to be herself, several decades ago. Pintilie's screen inserted in *The Oak*'s diegetic world is not an electronic one, but a projected smaller frame, showing a strange coincidence with the "triumph of projection over monitor-based presentation" brought forth by the 1990s (Balsom 2013: 20).

The alternation of projected, monitor-based, and again projected screens within the electronic realm incorporates cinema, video and television, and then the digital possibilities. Equipped with a monitor-based screen, television is the first example of "cool" audiovisual media that "is visually low in data." (McLuhan 1994: 312-13) According to McLuhan's conception this means that television leaves "much more for the listener or user to do than a hot medium" (McLuhan 1994: 319) also because the television screen offers "some three million dots per second to the receiver" from which they accept "only a few dozen each instant, from which to make an image." (McLuhan 1994: 312-313) This characteristic of electronic screens – as part of complex media apparatuses, cool or hot – is to be linked with a further important differentiation that also allows today's audiences to construct and envisage pre-digital medium specificities based on the principle of Rajewsky's genealogical intermediality. Namely, that these devices "hosting impermanent images" (Casetti 2019: 46) allow, on the one hand, for smooth "media representation" defined by Lars Elleström as being "at hand whenever a medium presents another medium to the mind. A medium, which is something that represents, and becomes itself represented" as in ekphrasis (Elleström 2014: 15). Or, on the contrary, a 'non-neutralization' of the medium/media involved is just as possible, making these 'visible' through glitches and noises

⁵ "In a world ordered by sexual imbalance, pleasure in looking has been split between active/male and passive/female. The determining male gaze projects its fantasy onto the female figure, which is styled accordingly. In their traditional exhibitionist role women are simultaneously looked at and displayed, with their appearance coded for strong visual and erotic impact so that they can be said to connote *to-be-looked-at-ness*." (Mulvey 2005: 62–63, emphasis in the original)

– evidently more and more frequently perceivable on cool television screens. This is an idea developed in Sybille Krämer's media theory, where the constant neutralizing of media is suggested for the sake of the message to be revealed – as "[t]he message is ... considered primary, while the medium itself is secondary; it neutralizes itself, becomes invisible and disappears in its (noise-free) use." (Krämer 2015: 35)

David Cronenberg's 1984 film, Videodrome sets up the rules of its diegetic electronic screen use aiming at making the medium visible and filling it with noises of all kinds already in the introductory credit sequence. First, animated letters fill the cinematic screen, their candy colours and rudimentary design disturbing, evidently, the cinematic immersion and recalling the 'cool' television screen in a gesture of 'non-neutralizing media representation', to combine McLuhan, Elleström's and Krämer's concepts. Then, a shortly visible screenic glitch of a blackand-white nonfigurative formation informs the actual viewer that the sensible surface of this screen does not bear messages as usual, as normatively should be case, emphasizing thus its "cool" nature "visually low in data." (McLuhan 1994: 312-13) Already in these introductory 'media representational' credit sequences we are presented with what Sybille Krämer names "the medium's inherent features" Krämer 2015: 31): television's specific framing techniques, the striking visual glitches and its two-dimensional, flat liveness. In their monumental Remediation Bolter and Grusin observe that McLuhan and British television theorist Raymond Williams "have both suggested that the poorer resolution of or different lighting robs television of visual depth", with "the flatness and coarseness of the traditional televised image" making "it harder to remediate the perspective techniques of photography and film" (Bolter, Grusin 2000: 186-187). Employing these 'inherent' characteristics to full effect, the introductory sequences of Videodrome also "transmediate" television's "functional logic" which "only takes effect when media are in use, "its (media) performance" (Krämer 2015: 31), thanks to the cinematic screen. In this case we see the first character – Bridey, the secretary – appear after the mentioned 'noisy' and 'cool' title sequence as having been recorded, meanwhile, by a small video camera – a method flagging television's less success in achieving "perceptual transparency." (Bolter, Grusin 2000: 186-187)

In their capacity of material and technical platforms for the classical narrative film the 'celluloid analogue', the 'artisanal 16 mm' (Mulvey), 'cool' television (McLuhan) and 1980s video technology may be categorized as phenomena of what John Johnston – summarizing Friedrich Kittler's poststructuralist media historical framework – names the "past modernity" when the "data flows of optics, acoustics and writing [have been] autonomous." (Johnston, 1997: 5–6) Interestingly enough – and supporting this chapter's claim that the electronic screen has been existing as a messenger of medium specificity in the pre-1990s era, keeping its status in the changed circumstances of the digital era too – in *Understanding Media* McLuhan also deduces the developments in the future along this formation. Film (and cinema, or moving image-based representation) will abandon "its manuscript phase", pressured by television "to go into its portable, accessible, printed-book phase." (McLuhan 1994: 291-292) The result?

Soon everyone will be able to have a small, inexpensive film projector that plays an 8-mm sound cartridge as if on a TV screen. This type of development is part of our present

⁶ Elleström differentiates between "simple' transmediation", which he exemplifies with adaptation, and "transmedial media representation", which "involves the notion of one medium representing another medium. Media representation is at hand whenever a medium presents another medium to the mind. A medium, which is something that represents, and becomes itself represented" as in ekphrasis (Elleström 2014: 15).

technological implosion. The present dissociation of projector and screen is a vestige of our older mechanical world of explosion and separation of functions that is now ending with the electrical implosion. (McLuhan 1994/1964: 291-292).

This McLuhanian vision is in perfect synchronization with the artworld processes summarized by Erika Balsom, and referencing art historian Bill Horrigan's retrospective analysis of how the 1990s brought "the end of a 'golden age' of video art and the advent of a different, more cinematic paradigm of moving images within the gallery" thanks to the "triumph of projection over monitor-based presentation." (Balsom 2013: 20) The era starting with the 1990s offered us a glimpse of "the/[this] future", when "a total connection of all media on a digital base will [have] erase[d] the very notion of a medium" in Kittler's system too (Johnston, 1997: 5–6).

In his theory "of media relations" Lars Elleström considers the digital base primarily a technical medium of "distribution" (2014: 14) with no specific "aesthetic or communicative" features (2010: 24). According to Elleström, and as far as the "sensorial modality" is concerned, the analogue and the digital cannot (should not?) be differentiated, as "[t]he procedural difference between analogue and digital technologies has no importance in itself when focusing on how the senses meet the material impact." (2010: 31) Sean Cubbitt expresses a similar opinion in his essay "Digital Aesthetics". Cubbitt writes that "[d]eriving from the Greek, the term 'aesthetics' refers to the study of sensory or sensory-emotional values" (2009: 23), and he argues that "this poses a first problem in digital aesthetics" as "many aspects of digital media simply cannot be sensed"; moreover, "what you *cannot* see is often the most significant thing about digital aesthetics." (2009: 23–24; emphasis in the original) Cubbitt's examples are, among others, the unseen, unheard (pieces of) information going through wires and sent to space via satellites, and then back.

We might accept Elleström and Cubbitt's media theoretical standpoints of not seeing a fundamental difference between the analogue and the digital "when they impact upon the senses." (Elleström 2010: 31) Claiming therefore that "the digital cannot be sensed" (Cubbitt 2009: 23) supports the argument of Bolter and Grusin that the digital media may be conceived of as a "remediation" of older media, while also introducing "a new ratio among the senses", as McLuhan states (1994: 53). However not losing sight of the argument advanced currently is paramount too: namely, proposing genealogical intermediality as the standard condition of intermedial effects in our era of "electronic-digital implosion." (McLuhan 1994: 291-292) Consequently, we need to assess digital filmmaking and cinema as yet another phase in what Kittler describes as "technological advance" (Johnston 1997) when the "symbolic unconscious" (Mulvey 2005) becomes, again, exceptionally visible as existing through the analogue celluloid technical medium's symbolic legacy: classical narrative cinema and diegesis, and the (digitally mutating) cinematic apparatus, also displaying an on-living "patriarchal order." (Mulvey 2005) Both Elleström and Cubbitt might be thus quite right on the conceptual level of their respective theoretical frameworks. However, within the qualified medium of "the motion pictures" (Elleström 2010: 19), we may discern a deep interest and concern for the cohabitation possibilities of the analogue and the digital "media systems", which are definitely considered both different and also to be sensed quite differently – in contrast to Elleström and Cubbitt's theoretically generated standpoints.

⁷ "Again, we call the representation of one medium in another *remediation*, and we will argue that remediation is a defining characteristic of the new digital media." (Bolter–Grusin 2000: 47, emphasis in the original)

The "hot, high definition" cinema medium, introducing "configurations" (McLuhan 1995: 12) receives the role of bridging between the analogue and the digital. As Laura Mulvey so eloquently puts in a new millennium piece, "the cinema belongs as much, or even more, to the past as to the present" being "[o]vertaken by the novelty of the latest technologies, the electronic and the digital which create their own dimensions of time and space." (2004: xvii) The extraordinary powers of transformation of the cinematic apparatus's have been noted by many, with

[e]lements of the cinematic apparatus break[ing] out of the previously fixed network of relations of which they were once a part to now appear far from their usual configuration in new constellations that inhabit a murky interstitial space between cinema and its various others – television, the Internet, video games, mobile phones, and, of course, media art. (Balsom 2013:14).

Cinema's versatility definitely serves as a model in our present when the culturally, and perhaps, also cognitively funded differences among the mentioned technical and electronic media are being indexed by the various electronic screen(ic) formations. Olivier Assayas' 2014 *The Clouds of Sils Maria* offers itself as an exquisite training ground about "cinema and its various others" (Balsom 2013: 14) in the context of "'partially connected media systems'" (Johnston quoting Kittler 1997: 5-6). The French director juxtaposes the generation of digital non-natives to that of digital natives in a diegetic world centred on contemporary theatre and filmmaking, both spheres shown as deeply embedded with(in) the online internet sphere.

The Clouds of Sils Maria introduces Maria Enders, a world-famous actress with a venerable career on the stage, but also performing in action blockbusters "hanging from wires in front of a green screen": she embraces the analogue and is cautious with the digital. Maria stands in contrast to with both Valentine – her young 'android' assistant whose two smartphones and tablet are fully integrated into her flesh-and-bone existence – and Jo-Ann Ellis, a hypothetical Hollywood blockbuster superstar, famous for her private scandals gone viral on the internet. The cinematically "transmediated" (Elleström 2014: 15) version of a theatrical performance constitutes the final part of the film: the play entitled Maloja Snake stages the bitter love story of a powerful firm executive (Helena as played by Maria Enders) with her ruthless young assistant (Sigrid as played by Jo-Ann Ellis). At the end of the theatrical scene – and that of the filmic sequence –, Sigrid exits the geometrical, sterile office space towards the audience and stops at the extreme outer edge of the stage. The camera focuses on Jo-Ann-as-Sigrid's angry, disillusioned, tired and sad face: this female face is both filmed in real-time – connoting the analogue system of representation –, and simultaneously projected digitally on the huge canvas of the stage in magnified proportions. The view created is that of a beautiful female head filmed, but also squeezed through the grid of pixels and geometrical lines, "cooling down" the "highdefinition" cinematic medium (McLuhan 1994: 318). The analogue narrative filmic image of an actress performing a role in the sketchy environment of a theatre play is transmediated into the digital filmic image of the same theatre actress in the front of our very eyes. The hybrid representation emerging – Jo-Ann Ellis as playing Sigrid as filmed digitally as screened digitally and all throughout transmediated within the genealogically analogue conventions of the narrative fiction filmic close-up full with Mulvey's "visual pleasure" (2005) – is neither analogue filmic image, nor filmed theatre scene, or digital filmic image, but all at the same time.

According to the main argument of this article, media differences in our era need the genealogical examinations of the nature presented above, since in the electronic digital 21 st century

the most frequent instances of intermediality belong to broad intermediality as defined in Elleström's media theory (2020: 49), and thus need a constant, also latent genealogically inclined self-reflexivity to be identified as such. This need and cognitive process is proposed and demonstrated to be sustained by such constructions in film diegetic worlds where these various media traditions, indexed by corresponding screens, are present as apparently afilmic, but actually profilmic objects with serious functions in the narrative development. The "constructed and perceptual" media borders (Newell 2020: 3) between cinema, television, video and computer in the last part of this text will be surveyed throughout the critical-theoretical conceptualization(s) of their co-dependencies as far as their (electronic) screenic endpoints are concerned.

Being a Screen, Framed

Within this context, screens may be described as historically developing framed spectacles⁸ related to electronic and technical media: film, video, television, and computer or mobile (phone). These media not only produce or store, but also distribute content, in accordance with Lars Elleström's notion of a technical medium that "should consistently be understood not as a technical medium of production or storage but of 'distribution' in the precise sense of disseminating sensory configurations." (Elleström 2014: 14) Friedrich Kittler also emphasizes that storage and information manipulation are interweaving with transmission in the case of media as "[t]here are, first of all, media of transmission such as mirrors; secondly, storage media, such as film; and thirdly ... machines that manipulate words or figures themselves." (Kittler 1997: 132–133) These definitions allow one to fix the screens in the moment of 'distributing/disseminating sensory configurations' according to the various media apparatuses they are the endpoint of – [as] screens "define the way in which the visible is *distributed*, to use Jacques Rancière's felicitous term." (Casetti 2019: 46, emphasis in the original)

The dividing aspect of screens – their power to intervene in continuous space and introduce surfaces that "host impermanent images" (Casetti 2019: 46) – has been repeatedly commented upon by Lev Manovich too in *The Language of New Media*. For example, he draws attention to the fact that "a screen's frame separates two spaces that have *different* scales—the physical and the virtual." (2001: 112, emphasis in the original) Manovich's observation definitely reminds one of the generative dichotomy structuring Bolter and Grusin's theory of remediation (1999/2000): immediacy – cued by what Manovich describes as 'the scales of the physical space' – and hypermediacy – or 'the scales of the virtual space', separated, and also constituted by the frame. Considering it one type of parergon, like the title or a signature on a painting, or indeed the clothing on a statue, Jacques Derrida writes of the frame in *The Truth of Painting* that it "is the decisive structure of what is at stake, at the invisible limit to (between) the interiority of meaning (...) *and* (to) all the empiricisms of the extrinsic (...)." (Derrida 1987: 61, emphasis in the original) The French philosopher repeatedly returns to conditions of consistency for the parerga, and consequently for the frame, and his observations may be extrapolated to the case in point of the various electronic screens under scrutiny presently:

Parerga have a thickness, a surface which separates them not only (as Kant would have it) from the integral inside, from the body proper of the ergon, but also from the outside,

⁸ "As Francesco Casetti summarizes a possible genealogy by now famous, "[f]rom denoting a protection against fire or air, or a divide that splits a room, or a filter that sieves grain, the term 'screen' begins to designate in the early nineteenth century, in connection with the emergence of the Phantasmagoria, a surface that hosts impermanent images." (Casetti 2019: 33)

from the wall on which the painting is hung, from the space in which statue or column is erected, then, step by step, from the whole field of historical, economic, political inscription in which the drive to signature is produced ..." (Derrida 1987: 61, emphasis in the original)

The power of the frame "to create a de-contextualized zone" (Peretz 2017: 36) cannot be overemphasized in the present discussion of electronic screens, being the main constituent of the screen('s/ic) structure in its capacity of "mark[ing] an absolute cut between what it shows and its surroundings." (Peretz 2017: 36) In Ruben Östlund's 2017 The Square, the museum curator, Christian commissions the artwork of the same title, which is further qualified "as a sanctuary, a zone of trust and care", being actually nothing else but a frame placed on the ground. The artwork entitled *The Square* creates therefore "a different scale and order of reality" (Manovich 2001, Odin 2016) within the confines of the museum space, to be filled by the spectator if they have the courage to traverse the frame and step inside. Visiting this artwork in the light-filled Scandinavian museum offers the occasion to experience "the screen ... [as] a mental operator, a filter that produces distance and changes the perception of reality as it introduces points of reference (the edges of the frame) that lead us to build relationships that do not exist in reality." (Odin 2016: 83) This strange generative power of the frame will definitely have a role to play in The Square's dramatic arch, the main character, Christian being literally challenged 'to build relationships that do not exist in reality' to protect this strange work of art, simultaneously with restoring the balance in his personal life gone amok after he loses his mobile phone.

This framing activity is the common characteristic of all screen-based media, from the painting to the mobile screen, with "the screen ... having] been used to present visual information for centuries— from Renaissance painting to twentieth-century cinema", including of course the "computers" that "have become a common presence in our culture only in the last decade." (Manovich 2001: 94) In his computer and film history of intermedial composition — foundational for how we conceive of old media being influenced by old media nowadays — Lev Manovich repeatedly positions screens as devices that have been making possible experiences of virtuality, a characteristic that might be more important than their relying on frames.

It is by looking at a screen – a flat, rectangular surface positioned at some distance from the eyes – that the user experiences the illusion of navigating through virtual spaces, of being physically present somewhere else or of being hailed by the computer itself. (Manovich 2001: 94)

The specificity of the film or cinematic screen compared to other types of screens, such as computer monitors, becomes, however, evident too if we evoke the comparison of off-screen spaces in the case of film, and respectively computer interface. Per Persson observes that in cinema – which he also names a "realistic space" in contrast to the "abstract space" of interfaces – "the space 'stretches out' beyond the frame; concepts of left-right/up-down/off screen space are meaningful; objects look and behave more or less like everyday objects." (Persson 1999: 204) In contrast, "many (if not most) interfaces are not realistic in this sense", as "[t]he space off screen (right-left or below-above) does not contain anything in particular and does not trigger any particular off-screen space expectations" since [e]verything of interest is contained within the frame. The landscape does not 'stretch out' into the distance in any direction." (Persson 1999: 204)

Thus, the real cinematic space borders on the one hand on ungrounded computer screenic space as we have seen. On the other it touches on painterly space, described by Eyal Peretz in relation to the "outside of the frame [that] seems to be a (nonspatial) part of the painting, belonging to something we might call the fictional realm of the painting (a realm that is 'larger' or 'more' than what the painting makes visible." (Peretz 2017: 4). Interesting aspects emerge in its comparison to the art and practice of projection mapping, where framing exists, but it is not fixed throughout. Or as theorized by Leleu-Merivel, "[i]n cinema or video, the reported scene that fits into the window is dynamic and has movement, but the window itself is motionless" (Leleu-Merviel 2020: xiv), just like in the case of painting in its quality of "a window open onto a landscape and/or a scene to be inserted." (ibid.) These traditions and practices may be contrasted "to projection mapping, which brings out the image on the set, and where the specific geometry of the projection medium reappears." (ibid) This tension between meaningful cinematic off-screen space – grounded in the painterly off-screen – and computer presence ungrounded outside the frame of screen - interestingly mutated in projection mapping - is at the heart of recent digital melodramas like the 2002 SImOne (Andrew Niccol), the 2013 Her (Spike Jonze), the 2015 Ex Machina (Alex Garland) or indeed Blade Runner 2049. In these fictional creations, the analogue filmic traditions are hybridized with digital audiovisualizations within the same time-space continuum of film scenes, and men exist in traversable 'real' cinematic spaces, endowed with analogue bodies, sense perceptions and active trajectories in the diegetic worlds. Meanwhile, digital and computer screenic presences are feminized. Therefore, the low possibilities of actual romance define melodramatic narrative outcomes as in the case of Teodore Twombly's meeting Samantha, the operation system in *Her*; Caleb's and Nathan's falling for the artificial intelligence's bluish wires in Ex Machina; or the new generation blade runner greeted by the marvellous, yet digital wife escort (see Virginás 2017).

Similarly, the particular moments of detecting figures searching through and with the help of diegetic electronic screens in narrative – fictional or documentary – creations – dramatize the tension between the realistic screen of cinema where off-screen space is full with meaning, and the abstract space of interfaces, where (the) off-screen is devoid of meaning. In titles as varied as the 1984 Blade Runner (Ridley Scott), the 2002 Minority Report (Steven Spielberg" or Niels Arden Oplev's 2009 The Girl with the Dragon Tattoo, the investigative documentary Collective (Alexander Nanau, 2020) or the 2021 Netflix-hit, Don't Look Up (Adam McKay) we can survey the modes of constructing such scenes. Therein major data are represented and analyzed by investigators - be they policemen, journalists or scientists - on televisual, video, computer and mobile screens, in such modes as to influence the course of fictional or documentary diegetic events that we, spectators, always encounter on the 'cinematic' screens. Such scenes showcase aspects of how we are able to conceive of our digitally interconnected human existence, contrasting, but also hybridizing the electronic and the cinematic screens. For example, when in Oplev's film the content of the laptop screen that Blomkvist, the investigating journalist watches, will cover the entire cinematic screen in an extreme close-up of long disappeared victim Helen Vanger's digitalized analogue photograph in sepia shades. Such constructions unsettle the conception of what Manovich names the tradition of "the screen as representation" and "being marked by a rectangular frame", in favour of the "screen as simulation" (2001: 112). The film's spectator watching the protagonists navigate through computer screens arrives to experience an "aim[ing] to blend virtual and physical spaces rather than to separate them", with "the two spaces hav[ing] the same scale; their boundary [is] de-emphasized", and "the spectator [is] free to move

around the physical space", even if just hypothetically, given the cinematic dispositif (Manovich 2001: 112).

The representation vs. the simulation tradition of screens evokes another fundamental difference between pre-cinematic and cinematic versus post-cinematic electronic screens, identified by Vivian Sobchack in a 1990 essay throughout their capacity of generating or not a diegetic reality through establishing a point of view in unfolding space. Sobchack observes that "ungrounded and uninvested as it is, electronic presence has neither a point of view nor a visual situation, such as we experience, respectively, with the photograph and the cinema," (Sobchack 2000: 80–81). This is a pertinent observation actualizing another of McLuhan's visionary prophecies, namely that "[t]he partial and specialized character of the viewpoint, however noble, will not serve at all in the electric age." (1994: 5)

After the Screen, Comes the Noise

Cinematic and film cultural contexts have collided abruptly with convergence culture since the 1980s and 1990s, being more weakly equipped in dealing with multiscreen realities, yet obviously in need of reacting to global trends in media technological developments. This line of analysis luckily blends with the post-2015 resurgence of interest in screens and their theories, while being an appendix to Gaudreault and Marion's theory of how filmic diegesis exists and exerts its influence in the digital, and even in the post-digital era. It is of the latter that Florian Cramer observes that "[i]t is an approach to digital media that no longer seeks technical innovation or improvement, but considers digitization something that already happened and can be played with." (Cramer 2015 n.p.) In their co-authored volume *The End of Cinema?* André Gaudreault and Philippe Marion set up a system based on 20th century media history, taking as a principle the substitution of the cinema silk screen by the electronic cathodic television screen, and then by the electronic portable small computer screen. ⁹ They argue that "[w]e might even view the emergence of the small (but highly cathodic) screen as the point of rupture between a 'hegemonic cinema' and this 'cinema in the process of being demoted and shared,' which is often called 'expanded cinema' but which we believe would be more appropriately described as 'fragmented cinema'." (Gaudreault, Marion 2015: 11, citing Guillaume Soulez' conference intervention)

Thus, hegemonic cinema would denote the first part of the 20th century when the cinema theatre silk screen was the sole framed surface which displayed electronically mediated, and also always pre-recorded moving images. Expanded cinema should denote developments of the second part of the 20th century, when television, and then video-camera and screen appeared as electronic surfaces where previously exclusively cinematic worlds and narratives would expand, altering the nature and the significance of framed storytelling based on moving images. Finally, the 21st century brought us into the era of what Gaudreault and Marion name fragmented cinema, with the same cinematically constructed narrative worlds scattering further on 'the electronic portable small computer screen,', and also becoming compatible with such surfaces. The analyses presented previously demonstrate that cinematic diegetic worlds, and other electronic screen-based audiovisual representations, react with mutual flexibility to these mutations. Filmic diegeses incorporate smaller electronic, usually portable screens in the modes

⁹ "One of the principal effects of the digital shift has been the big screen's loss of hegemony. ... In fact, projection onto a movie screen has become just *one way* among others to consume images. The screen may have a greater *aura*, but it is now just one means of consumption among others." (Gaudreault, Marion 2015: 9, emphasis in the original)

already described, and all kinds of screenscapes are also eager to overtake the content of once hegemonic cinema screens, in a successful survival strategy of what Gaudreault and Marion call "non-hegemonic-cinema-in-the-digital-era." (2015: 14) It is in this respect that examining the role of electronic screens at large and/or their embedding in film diegetic worlds can be said to belong to what Thomas Elsaesser names "the archaeology of the screen and the frame," (Elsaesser 2016: 112) performed while these ruins are not fully covered by layers of earth.

We also need to mention that the various instances of electronic screens analyzed beforehand along the principles of a broad and genealogical intermediality, and in their capacity of standing in for non-hegemonic cinema in the digital age contradict the widely held idea that contemporary screens need to "mask[ing] the mediate (that is, not immediate) conditions of [their] working." (Rubio Marco 2016: 222, emphasis in the original)¹⁰ The examined sequences when (diegetic) electronic screens are scattered within the non/fictive spaces are aiming for nonneutralizing the media involved, making them visible primarily not for the diegetic spectator, but rather (for) the actual viewer, thus offering such "cognitive representational models" (Grodal 1997/2002: 242) that allow us to decipher or construct medium specificity/ies in our post-digital age. This often happens through introducing media and/or technical noise as a spectacle in the functioning of electronic screens. In the 1997 Lost Highway (David Lynch), possibly as an effect of the noisy video/televisual set the two characters watch in their living room, the whole cinematic screen becomes blurred, covered with non-figurative patches of light and dots – recalling 'the low-definition, cool medium' of McLuhan. Noise introduced makes us realize a case of broad intermediality to be uncovered through genealogical excavations to (re)present the cinematic medium, 'un-aisthecizing' it to refer back to Sybille Krämer's thesis. Namely, that "[t]he implementation of media depends on their withdrawal", in a process that the German media philosopher calls "aisthetic self-neutralization" that "belongs to the functional logic of media", not being "an inherent feature of the medium itself, but rather it only take[ing] effect when media are in use." (Krämer 2015: 31, emphasis in the original) Consequently, "[t]he invisibility of the medium – its aesthetic neutralization" can be said to be "an attribute of media performance." (Krämer 2015: 31, emphasis in the original) This performative aspect has been reappearing along the preceding examinations of electronic screens, and it must have happened so, since, as Francesco Casetti so adequately puts it, "contexts", "set[s] of operations" and "basic operations" "allow a screen – whatever its materiality and substance – to perform as a screen." (Casetti 2019: 29, emphasis in the original)

Such "an archaeology of the screen and the frame" (Elsaesser 2016: 112) definitely belongs to Manovich's representation tradition. Since the virtual and the physical spaces brought to life by the framed screen have (a) clear demarcation (line), "with an emphasized boundary" along the "rectangular frame" evident, and "the spectator" not "free to move around the physical space" (2001: 112) – unlike in what Manovich names the "simulation tradition." (ibid.) Fifteen years after Manovich's fundamental distinction Roger Odin denoted the vanishing point of screen- and frame-based audiovisualizations. In his important 2016 essay theorizing such inspiring concepts as mental and dream screens 11 he observed that "this trivialization of the

¹⁰ Relying on the historical development of the object and the denomination of "screen", Rubio Marco highlights that "every screen is, in a way, a 'masking screen,'" with "the history of screens ... [equaling] the history of the *naturalization* of that mediation to the point at which screens lose their excess baggage ('masking') in order to become just 'screens', allegedly enabled to show every bit of the reality they refer to." (Rubio Marco 2016: 222, emphasis in the original)

¹¹ Odin states that "[t]he notion of a mental screen corresponds to physical screens (cinema, television) that have become mental spaces. Dream screens are mental screens waiting for physical manifestation; one must note that this

frame-screen [e.g., its proliferation though the small mobile screens] should not hide the opposite trend, even if it is still marginal: its disappearance with the emergence of virtual reality." (Odin 2016: 185)

The proliferation of multiple screens in our everydays has been usually theorized in their capacities of gadgets or "vertical viewing dispositifs" with practical purposes and displaying Harun Farocki's "functional images" or Wanda Strauven's "image+"-s that need to be manipulated (Strauven 2016:144). From the standpoint made evident by Odin, and adding the metaphorical usage of such electronic screen with the aim of building narratively complex worlds is a swan song of a past system of representation based on a framing activity. This suggestion is definitely built upon in film historian Thomas Elsaesser's 2016 monograph *Film History as Media Archaeology: Tracking Digital Cinema*, where he proposes a cinema that "does not project itself as a window on the world nor requires fixed boundaries of space like a frame," but "it functions as an ambient form of spectacle and event, where no clear spatial divisions between inside and outside pertain." (Elsaesser 2016: 133) With several such theoretical and artistic cases enumerated in this chapter, closing the line with some installations that literally and metaphorically strain the frame of the electronic screenic constructions serves as demonstration and conclusion too.

American art historian Giuliana Bruno describes the case when "[w]e no longer face or confront a screen only frontally but rather are immersed in an environment of screens" (Bruno 2014: 102), making a reference to Pippilotti Rist's 2010 installation *Layers Mama Layers*. Another 2007 installation of the Swiss artist is on permanent display in the Arhus Museum of Modern Art. *Dawn Hours in the Neighbour's House* definitely fits Bruno's description of the process "where one becomes an integral part of a pervasive screen environment in which it is no longer preferable or even possible to be positioned in front of the work." (Bruno 2014: 102) From the window panes of the terrace, on to the plasma TV screen, through the floor and the edge cover of the books on the shelf: in *Dawn Hours* all mentioned objects function as screens that light up and then fade in the dark, creating a "a fluid, haptic world of surrounding screens," (Bruno 2014:102) from where there is no escape.

Another example could be Apitchatpong Weersethakul's 2013 single-channel silent video One Water that the author had the chance to see exposed at the Vilnius Museum of Modern Arts in early 2018. What one sees is a naked electronic screen on a metal frame at a height less than human eyesight, and placed in an immense and otherwise dark hall, in the company of further electronic screens. This screenscape, together with One Water's exhibition guidelines - "Tilda Swinton, a British actress who became a good friend of Weerasethakul, organized a gathering of friends in the Maldives. Weerasethakul asked Swinton to recall her dreams in front of his camera" – introduce the audience in electronic screenic gallery art on its way to the cinematic dispositif. One Water retrospectively can be seen as a stage in the creation process of the director and actor's 2021 fictional feature film presented with great success at art film festivals, Memoria. The eerie, low-definition, cool image of a Swinton lost in her own dreamy processes (and) as seen on a mesmerizing electronic screen may be named a par excellence manifestation of "the mind and the gaze being captured as in hypnosis," (Chateau 2016: 197) enacting the framed screen's capacity to offer "an experience of close relations between subject and object" in Bruno's words (2014: 86). This last aspect of the framed screen, including the diegetic electronic screens in fiction filmic worlds, their 'capturing our wandering minds' is theorized extensively

type of screen is the source of certain inventions: cinema and television have been dream screens before being invented." (Odin 2016: 185)

by Bruno in her 2014 *Surface: Matters of Aesthetics, Materiality and Media* as an "an actual projective surface onto which an experience of close relations between subject and object is inscribed, in a way that overcomes divisions between outside and inside, inward and outward." (Bruno 2014: 86)

CONCLUSION

All the analyzed sequences and examples, including those when diegetic electronic screens are woven into the filmic narratives and within the diegetic spaces, dramatize the barely palpable threshold between what Lars Elleström names 'mediation' and, respectively, 'representation' in the 2014 Media Transformation: The Transfer of Media Characteristics Among Media. In his formulation "mediation is a presemiotic phenomenon and should be understood as the physical realization of entities (with material, sensorial, and spatiotemporal qualities, and semiotic potential) that human sense receptors perceive within a communication context", like hearing "the sound of a voice." (Elleström 2014: 12) In contrast, "representation is a semiotic phenomenon and should be understood as the core of signification", since "[a]s soon as a human agent creates sense, sign functions are activated and representation is at work", thus "one may interpret the sound of a voice as meaningful words." (Elleström 2014: 12) The fictional filmic characters, but also us, as real-world spectators, in our practices of "looking at a rectangular frame" (Manovich 2001) - which is hypnotic in Chateau's sense, and which has a different scale than the first-level diegetic reality, emphasizing both their separation and difference – are in the process of 'creating cognitive import'. This, then, goes beyond/above "human sense receptors' [perception]" (Elleström 2014: 12), in a mode homologous to One Water's Tilda Swinton recalling her dreams in front of a camera and experienced by the audience on a museum electronic screen.

These examples are also instances of technological interactivity within the diegetic filmic worlds for the fictive characters involved, and even more so for the actual spectators interpellated by the various cool, rather than hot media asking for heightened participation. Through their role of questioning, expanding, erasing or simply dispersing the narratively valid information on various electronic surfaces they also force what Gaudreault and Marion name "passive viewer" watching "linear cinema" (2015: 10) into a highly active one. She must energize her mental screen of electronic small portable screens within a filmic diegetic world, or vice-versa, simultaneously while constructing the narrative world(s) as having multiple, intersecting levels. Throughout these processes, the electronic screens related to various media have been existing as messengers of medium specificity in the pre-1990s era, keeping their status in the changed circumstances of the digital era too. Media differences call for the genealogical examinations of the nature presented above, since in the electronic digital 21st century the most frequent instances of intermediality belong to broad intermediality as defined in Elleström's media theory (2020: 49) and thus need a constant, also latent genealogically inclined self-reflexivity to be identified as such. This chapter developed these interrelated claims while suggesting that broad and genealogical intermediality (Rajewsky 2005) need to be positioned as the standard condition of intermedial effects in our era of "electronic", also digital "implosion." (McLuhan 1994: 291-292)

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INDEX: analogue, digital, medium, media, hot, cold, mediation, neutralizing, representation, medium specificity, filmic diegesis