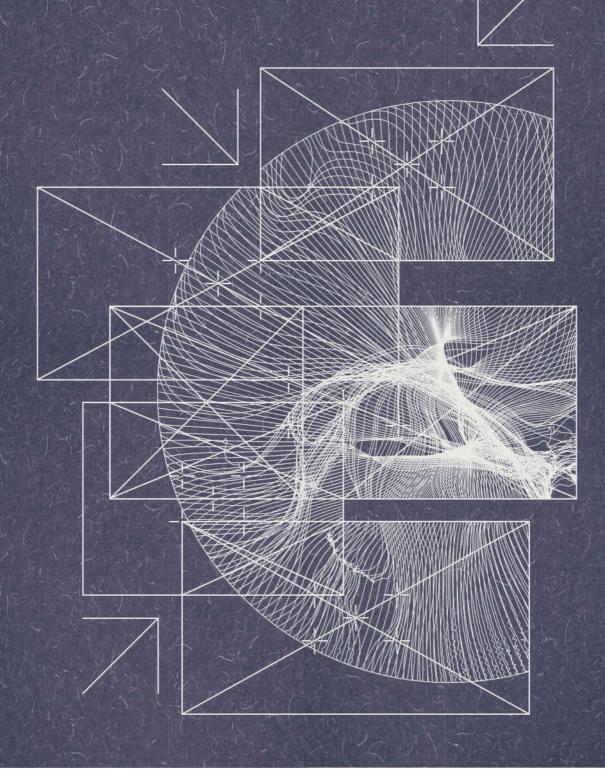
DICERN^{11/01} journal of design culture _Total Cinema: Film and Design



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Disegno publishes original research papers, essays, and reviews on all aspects of design cultures. We understand the notion of design culture as resolutely broad: our aim is to freely discuss the designed environment as mutually intertwined strands of sociocultural products, practices, and discourses. This attitude traverses the disciplinary boundaries between art, design, and visual culture and is therefore open to all themes related to sociocultural creativity and innovation. Our post-disciplinary endeavour welcomes intellectual contributions from all members of different design cultures. Besides providing a lively platform for debating issues of design culture, our specific aim is to consolidate and enhance the emerging field of design culture studies in the Central European academia by providing criticism offundamental biases and misleading cultural imprinting with respect to the field of design.

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INTRODUCTION TOTAL CINEMA: FILM AND DESIGN

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The movie screen is up in flames and the audience flees in panic, thinking an atomic bomb has just been dropped. The director rubs his hands: film and the outside world have blended into one—at least in Joe Dante's Matinee (1993), set in the 1962 Cuban Missile Crisis. May this be the "myth of total cinema" described by André Bazin in 1946, according to which the art of film was never really driven by its accidental technological history but by a desire to grasp reality in its entirety, to reconstruct "a perfect illusion of the outside world in sound, color, and relief"? (Bazin 1967a, 20) Dante's larger than life director pays homage to B-movie showman William Castle, who shied away from little when it came to engagement, be it narrative, visual, or somatic. Castle appeared on screen offering the audience a (faux) choice between alternative endings, used 3D illusionism, and installed "buzzers" in the seats and skeletons flying over the auditorium-not unlike Eisenstein's Proletkult theatre which included tightrope-walkers over the viewers' heads and firecrackers under their bottoms. Is it possible to unite the effects of agitprop theatre, the illusion of agency in American trash films and the immersive formats of our time into a single conceptual framework? And if it is, would that be cinema? Film theorist Andrew Dudley already claimed in 1997 that "[t]he century of cinema offered a fragile period of détente during which the logosphere of the nineteenth century with its grand novels and histories has slowly given way-under the pressure of technology, of the ascendance of the image, and of unfathomable world crises-to the videosphere we are now entering." (5)

When we published the call for contributions analysing moving images and experiences from the perspective of design culture, we envisaged approaches that try to understand how design actually creates lifeworlds as seamless webs of discursive meanings and sensual experiences in films and interactive digital narratives. Moreover, and taking into account the most recent developments in the technology of making, distributing, and exhibiting films, we considered that a focus on design related issues of film could bring us closer to understanding how the Bazinian myth of total cinema compares to the perceptual experiences created by contemporary filmmakers and designers. If Bazin was right, and cinema has been and will be always driven by the dream of achieving total realism, that is total representation of reality, than the different versions of VR and XR (extended reality) experiences, 360-degree films should be considered as important new steps towards the realisation of this century-long dream.

It is still an open question whether Bazin would actually consider the latest developments in immersive film technologies a new step towards total cinema, or if he would just consider them "pseudorealism," a technological illusion created merely to fool the eye (Bazin 1967b, 12). An important aspect that should be taken in consideration is the fact that in VR and 360 degree films the movements of the body and eye are not restricted to the main event and spectacle designed for viewing (Gyenge 2019). One might consider the inherent possibility for distraction of the user as a new step in the total representation of reality, as it recreates an everyday experience.

László Tarnay discusses the Bazinian concept of the realism of the digital moving image through two characteristics: immersion and haptic visuality. He argues that due to the high resolution of the image, its three dimensionality, and its interactive nature, digital simulation produces a kind of immersion that has not been experienced previously. However, such immersion significantly reduces the critical distance between image and user/spectator. In contrast, as it has been shown by theorists such as Jennifer M. Barker or Martine Beugnet, the source of haptic perception is most often reduced, low resolution, and faulty images. Thus, Tarnay reaches the conclusion that these two main experiences of the digital moving image work against each other. The more complex and perfect the graphic simulation, the more intense the immersive effect on the viewer; the more schematic, elliptical the representation, the stronger the haptic effect, and thus the greater the critical distance between the image and the viewing subject. Moreover, in Tarnay's view the real novelty of any (digital) total simulation could be the complete elimination of the existential difference between spectator and artwork. The only limit to this being the fact that bodily presence is not projectable. It remains an open question if VR helmets represent a new level within the technological evolution of digital images, if they can become the crucial step towards crossing the boundary of the unprojectability of embodiment, or if they should be considered just a different expression of embodiment, alongside 3D films, for example. Tarnay's main argument when dismissing immersive and interactive film as cinema is related to the temporal simultaneity between the time of the represented story and the time of its perception: a simultaneity that practically effaces the difference between spectator and character. According to him, this means that these new types of moving images are not intended to create images, but to create experiences in the subject by eliminating the consciousness of mediation. While classical cinema tried to substitute representation for reality, new digital developments try to replace it with the inner experience of the spectator resulting in what Tarnay terms

perceptual realism (18). However, we should not forget the cognitive distancing that users can develop in the process of becoming familiar with the nature of the new medium such as VR helmets (Hartmann and Fox 2021, 722), as cognitive distancing might be considered a type of "(media-) awareness of the difference between representation and reality." (Wolf 2017, 32)

Broadly speaking, the contributions in this issue approach the design of filmic space from the perspectives of spatiality and immersion. Many of the articles investigate how the design of filmic space is capable of creating meaning, and several articles deal with the question of how to analyse the perception of what in VR is called the experiencer.

Dave Gottwald is interested in the historical process of the theatre stage becoming a set, and how the set subsequently became architecture as more and more complex environments were built for films. What makes this article theoretically intriguing is that Gottwald uses Bazin's seminal concept of Total Cinema to link the spatial environments (i.e. sets) designed for various popular twentieth century spectacles, from theatre and early film to the most recent video game engines. Based on this he then proposes a "spatial regime" for the description and classification of sets, a system that seems to be capable of categorising all types of sets from the most traditional ones to the inhabitable spaces of theme parks, the playable sets of video games, and to the virtual sets used in recent movies.

Pedro Crispim's paper analyses four films of one of Japan's most subversive filmmakers, Kōji Wakamatsu. The "womb tetralogy," as Crispim calls these works, is analysed in terms of its single diegetic space, a spatial tightness that allows the viewer to focus on the constraints and possibilities offered by such a radical spatial organisation. Moreover and according to Crispim, this spatial tightness eventually becomes symbiotic with the womb: "the context of unity of places becomes a way to operationalise it, turning it into a tangible, set-bound way to materialise the womb's airtightness induction." What makes the paper even more relevant from the perspective of cultural studies is that it never contends with an aesthetic analysis that points out the constant presence of "womb-like inscriptions," instead it repeatedly emphasises the rebellious political stance that accompanies every frame of Wakamatsu's cinema, by using, for example, the tactics of an overtly escapist entertainment (erotic pictures) to problematise sociopolitical anxieties. The claustrophobic single locations used by the Japanese filmmaker are interpreted by Crispim as womb spaces, ones that are in essence spaces of loneliness. It seems that this spatial isolationism is capable of providing a "dark [...] portrait of Japanese society as a disintegrated, fragile social unit."

In his article on the experimental filmmaker James Benning, Péter Horányi points to the crucial role of long takes and wide shots in Benning's work, a formal decision for presenting the spatial organisation of buildings, objects, and people within the frame. The article argues that Benning's cinema "provides a perceptual experience into the realities of American material environments" through the detailed observation of landscapes and the uncanny use of off-screen space.

It is important to remind ourselves that VR was not the first radical break with the established space of the cinematic experience. For several decades now, moving image installations have become central to contemporary art museums, galleries and shows, proving in many instances how crucial the design of the projection environment can be in regard to the understanding and interpretation of films. The essay by film studies scholar and documentary filmmaker Patricia Nogueira presents the planned intermedial migration of her own film Displacement (2021) from the film theatre to the exhibition space. The article re-interprets Guy Debord's term détournement to describe the process and argues that the exhibition subverts the original footage and narrative to the point that "the installation 'hijacks' the pre-existing images and sounds of the documentary, re-mixing them in a novel interpretation." Furthermore, the spatial display of the projection in the installation where the gallery works as a "transitional space," instead of passive contemplation, demands agency from the audience. While "self-détournement" may amount to a paradox—the détournement of détournement itself—Nogueira stays true to Debord, who claimed that "[t]he function of the cinema, whether dramatic or documentary, is to present a false and isolated coherence as a substitute for a communication and activity that are absent. To demystify documentary cinema it is necessary to dissolve its 'subject matter.'" (Knabb 2003)

The quasi-architectural spaces constructed by set designers for shooting movies are also explored in this issue. Film historian and theorist Marshall Deutelbaum contends that critics and scholars usually find it difficult to understand film as something shaped by its process of production and suggests that the relationship of set design and the visual composition of the picture frame in widescreen movies is worth in-depth analysis. Based on the formal analyses of nearly two hundred widescreen films, he aims to uncover the principles that guided their visual construction and concludes that "the fundamental rules defining widescreen aesthetics were embodied in the set design."

In her essay, Maria Cecilia Reyes also points out the crucial role of space in VR filmmaking. She argues that if we agree that the central goal of the practice of screenwriting for immersive screens is to achieve immersion, then we should recognise that these screens are designed to not be noticed during the viewer/user experience. This is why she proposes that XR screenwriting should be named space-writing: these spatial narratives all have as starting points the location of the human perception at the centre of the immersive experience, and they all intend to construct a fictional space with narrative content. In her view, one of the key tasks of VR designers is to overcome the effects of the disappearing picture frame by finding alternative methods and perceptual cues to frame sections of the space and direct the users' attention. Based on all this,

Reyes asserts that space-writing describes much better what happens during XR writing, because in contrast to cinema, human perception is no longer located outside the scenic space but right at the centre of it.

The question of the sense of immersion, together with the importance of how the audience members experience the environment and their situatedness are tackled in several articles. The sense of immersion can be achieved by applying various design strategies such as offering (illusory) agency to the participants, creating multisensorial spaces and situations; and engaging the experiencers into an encompassing story world. The experiencer—due to their real or imagined agency—can try out various forms of behaviour and can use these situations for practicing or constructing attitudes.

Horányi argues that wide shots and long takes are crucial to James Benning's documentaries because they create an immersive perceptual experience that allows the viewers to forget the narrative and instead observe in detail the material elements of the represented environment.

Nogueira hypothesises how the spectator would become "both a subject of imagination and an embodied subject" in a liminal situation for being immersed: the participants finds themselves in between documentary footage where they can order the sequences, which increases their possibilities for participation. While in some cases the indexical characteristic of reality can be alienating, the author here attempts to create a framework for how the documentary aspect can be circumvented.

Gottwald discusses the development of set design and camera movements, and how game engines such as Unreal and Unity can be used to create "total worlds." The author's main claim is that cinema, together with performative theatricality, came to "subsume our spaces, and thus, our very lives." His concept of immersion has a medium-related approach: he claims that certain novel ways of filmmaking (as in the case of *The Mandalorian*) merge Bazin's concept of cinematic truth (re-enacted life) and the concept of theatre (which presents life in an abstract form). When the audience members step into theme parks or experience the above-mentioned movie crafted carefully by the creators using innovative technologies, what they experience can be considered a precursor to virtual reality. The audience's senses are overwhelmed by the meticulous planning; their illusionary agency is engaged in discovering the story world. The genesis of this is the filmic grammar of sets which become inhabited.

Reyes approaches immersion from the creator's perspective. She draws on lessons in Janet Murray's paradigm changing book *Hamlet on the Holodeck* (Murray [1997] 2016). Reyes discusses how design approaches in moving images and immersive experiences that put the audience in the centre can be understood as tools for social transformation. She emphasises that the role of the creator shifts from solitary activity to teamwork in which different types of expertise and approaches combine to ensure an interactive and immersive production.

The book reviewed in this issue by Ervin Török, Jonathan Rozenkrantz's Videographic Cinema: An Archaeology of Electronic Images and Imagi*naries*, analyses the technical medium of video turned obsolete by newer media, focusing on the differences between the expressive capacities of electronic and photochemical moving images. The book is also relevant to the problems discussed in this issue because the coming together of the two technologies in theatrical films significantly affects the sense and degree of immersion achievable for the spectators.

All these articles touch upon the crucial question of how the new film design grammar defines the role of the audience in terms of spatiality and a sense of immersion. Several authors underline important points about engaging the audience on various levels (e.g., how to script their role in a way that would offer them a more immersive experience) and in this way they point out crucial design strategies that lead to the sense of a total world where set design and dramatic acts define the experience. On the other hand, while the articles of this issue discuss in detail the sense of immersion from the viewpoint of cinema studies, it is also interesting to note that they often disregard the importance of engaging the experiencers and motivating them to be interactive. The sense of immersion can be maintained only when the possibility of interaction (either on an illusory or real level) is reached: in order to achieve this-besides the sense of spatiality and the sense of presence—a sense of engagement and guiding UX design elements are needed that offer feedback on the experiencer's actions. While these topics do not fall squarely into the scope of film studies, video game studies and interaction design theory can present fruitful ideas and data to further strengthen the relationship of design and film. Future research of the continuously evolving nature of virtual reality should also look closer to the existing XR productions (AR and VR) in order to understand the current possibilities of this medium as well as the limitations that the technology imposes on creative thinking. The importance of design in cinematic-like experiences points towards near-future developments that can further nurture the process of blurring the boundaries between film and everyday experience.

Pondering what may follow "the century of cinema," Steven Shaviro argued in 2001 that Bazin's myth of total cinema has already been realised but with a final twist: "instead of the movies becoming more like reality, reality has become more like the movies." With reality losing its charm in the ceaseless audiovisual flow, "one possible cinematic response," Shaviro claims, "is to summon the invisible and the inaudible: to bring us close to the mysteries of the divine and the demonic, the dark and silent states of the body and soul" by allusion, implication, and indirection. And perhaps this domain is shared with certain kinds of immersive storytelling formats—such as *Bloodless; Tearless* (Kim 2017; 2021); *Goliath* (Murphy and Abdalla 2021); *Darkening* (Moravec 2022); *Firewatch* (Moss and Vanavan 2016)—which point towards new ways of invoking what, per Shaviro, "has been left out of Bazin's 'total and complete representation of reality."

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REFERENCES

Bazin, André. (1946) 1967a. "The Myth of Total Cinema." In André Bazin, *What Is Cinema*? vol. 1., edited and translated by Hugh Gray, 17–22. Berkeley: University of California Press.

Bazin, André. (1945) 1967b. "The Ontology of the Moving Image." In André Bazin, *What Is Cinema?* vol. 1., edited and translated by Hugh Gray, 9–16. Berkeley: University of California Press.

Dante, Joe. dir. 1993. Matinee. Universal City: Universal Pictures. Film.

Dudley, Andrew. 1997. The Image in Dispute: Art and Cinema in the Age of Photography. Austin: University of Texas Press.

Gyenge, Zsolt. 2019. "Bazin, mitul cinemaului total și realitatea virtuala." *Revista Vatra*. February 23. https://revistavatra.org/2019/02/23/zsoltgyenge-bazin-mitul-cinemaului-total-si-realitatea-virtuala/

Hartmann, Tilo, and Jesse Fox. 2021. "Entertainment in Virtual Reality and Beyond: The Influence of Embodiment, Co-Location, and Cognitive Distancing on Users' Entertainment Experience." In *The Oxford Handbook of Entertainment Theory*, edited by Peter Vorderer and Christoph Klimmt, 717–34. New York: Oxford University Press. https://doi.org/10.1093/ oxfordhb/9780190072216.013.37

Kim, Gina, dir. 2017. Bloodless. 360° VR film.

Kim, Gina, dir. 2021. Tearless. 360° VR film.

Knabb, Ken. 2003. "Critique of Separation." *Bureau of Public Secrets* (website). Translation of the voiceover of Guy Debord's 1961 film *Critique de la separation*. http://www.bopsecrets.org/SI/debord.films/separation.htm

Moravec, Ondřej, dir. 2022. Darkening. VR film.

Moss, Olly, and Sean Vanavan, dirs. Firewatch. Video game.

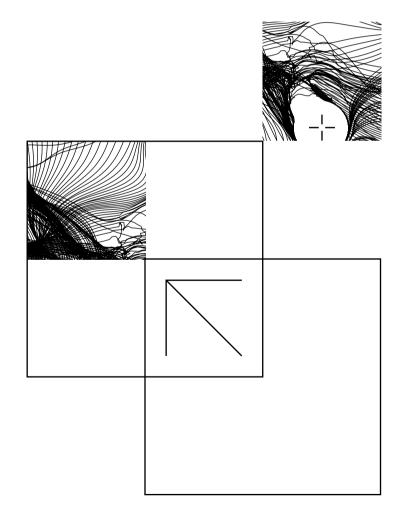
Murpy, Barry Gene, and May Abdalla, dirs. 2021. Goliath: Playing With Reality. VR film.

Murray, Janet H. (1997) 2016. *Hamlet on the Holodeck*. Cambridge: MIT Press.

Shaviro, Steven. 2001. "The Cinema of Absence: How Film Achieves a Greater Reality By Showing Us What Isn't There." *The Stranger*. July 5. https://www.thestranger.com/pullout/2001/07/05/7939/the-cinema-of-absence

Tarnay, László. 2017. "A Digitális mozgókép szomatoszenzorikus fordulata." *Metropolis* 2: 8–23.

Wolf, Werner. 2017. "Aesthetic Illusion(s)?" In *The Aesthetic Illusion in Literature and the Arts*, edited by Tomáš Koblížek. London: Bloomsbury Academic.



TOTAL CINEMA, TOTAL THEATRE, TOTAL WORLD: FROM SET AS ARCHITECTURE TO SET

AS VIRTUAL PERFORMER

Dave Gottwald

ABSTRACT

Sets are a construction within André Bazin's "recreation of the world in its own image." During the 1920s, advances in film stock (which improved image clarity) and better lenses (which expanded depth of field) meant that the visual fidelity of sets had to increase. Most critical was more sophisticated camera motion. Cranes could now take the camera into sets, which required more complete environments. Sets have mutated and spread ever since. Architects began working in the movie industry and movie people began working as architects. With the introduction of the first Disney theme park, this practice became codified and thematic placemaking has since proliferated globally. Sets later provided the blueprint for digital games, and as embodied in the game engine have reached virtual holism. Today, Industrial Light & Magic's StageCraft pairs LED display walls with game engine technology on a soundstage called the Volume. StageCraft replaces both CGI and the traditional set with mixed reality, photorealistic digital environments. Filmmakers can also make design changes in real time and move these virtual backgrounds around the players. This article posits a new history of the spatial philosophy of set design in which the experiential mode of themed spaces, video games, and virtual reality each become a unified recombination of Bazin's rigid theatre/ cinema dichotomy.

#André Bazin, #set design, #theme park, #game engine, #StageCraft

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INTRODUCTION

"Realism in art can only be achieved in one way—through artifice." —André Bazin

Whatever else fascinated André Bazin about motion pictures, he did not mention their sets often. In his discussion of *Une fée pas comme les autres* (*The Secret of Magic Island*, 1956), Bazin does not mention its production design at all (1967).¹ This is puzzling because the miniature sets of the film not only complete the unreality of the story but are in fact its central conceit. Without presenting the small animals at human scale, all the tricks and sleight of hand Bazin considers—pouring cocktails, playing billiards—are for naught. Absolutely nothing in the film works. To show the animals in the actual built environment would shatter the entire exercise in anthropomorphism. Rather than a rabbit driving a car, the rabbit is now in danger of being run over by one.

This article applies Bazin to a spatial regime model as published by myself and Gregory Turner-Rahman (2021) in which we link "key historical moments when the cinematic imaginary and its entire contemporary offspring collide and collude" (110) across the twentieth century. In this model we have traced how film sets begat the contemporary theme park, then the interactive worlds of the video game, and finally, were reconstituted virtually within the holistic construct of game engine software. In this way, sets have spread well beyond the boundaries of cinema. Once you are familiar with their contours and contrivances, you will see sets everywhere. Much like Bazin insisted that "cinema is also a language" (1967, 16), sets have a visual grammar. The properties of set design were first dissected in the 1980s (Ramírez [1986] 2004; Affron and Affron 1995), but our spatial regime model takes that grammar and runs it through a classification system beyond the soundstage: the filmic, the thematic, the electronic, and the holistic (Gottwald and Turner-Rahman 2021). Our concept is adapted from the work of Arsenault and Côté (2013) who use the term "graphical regime" (61) to describe the relationship between play and imaging within a given gamespace. After them, our "spatial regime" denotes the relationship between experience and spatialisation. By considering Bazin's theatre/cinema dichotomy, here I add roles as spectators,

¹This film by French director Jean Tourane, whose "naive ambition" was "to make Disney pictures with live animals" (Bazin 1967, 43), consists of the creatures appearing to behave like people using tricks "either with a hand offscreen guiding them, or an artificial paw like a marionette on a string" (44). ² I have limited my discussion here to the essays which comprise the two volumes of What is Cinema? (Bazin 1967; 1971).

³ Debray's Vie et mort de l'image (1992) is a key text which gives birth to this polemic. For a more recent discussion of Bazin in the context of CGI, digital animation, and digital imaging, see Hoberman (2013). For a broader view of digital film provocations, see Gaudreault and Marion (2015).

⁴ "Now the digitisation of the image threatens to cut the umbilical cord between photograph and referent on which Bazin founded his entire theory" (Matthews 1999).

⁵ "Because Bazin thought of the cinema camera as an unmediated instrument for capturing a 'pro-filmic reality,' and because he did not have a critique of its mediated illusionism, Bazinian 'realism' has been a debate in film studies for more than two decades" (Friedberg [1993] 1994, 130). participants, and even designers within each experience.² Through this lens, our spatial regimes can be seen as an evolving, reconfigurable model of theatre and cinema as a single, coalesced experiential medium. I thus ask us to reconsider Bazin as a new media theorist, and with regard to the comparison of theatre and cinema, a kind of spatialist. He would have found common ground with Marshall McLuhan, who once warned that "patterns of environments elude easy perception" (McLuhan and Fiore [1967] 2001, 68).

Beginning in the 1990s, critics used computer generated imagery (CGI) to dismantle Bazin's notion of cinematic truth.³ *The Matrix* series (1999–2003) and the *Star Wars* prequels (1999–2005) appeared to unravel Bazin's image object,⁴ a critique which I feel misses his philosophical mainspring.⁵ He was fine with illusion if it served the greater truth of the fiction. All of his image plastics and even montage (editing and all assembly, including the soundtrack) "can work either to the advantage or to the detriment of realism" (Bazin 1971, 27) as long as the illusions are immersive and the lie is credible. "We would define as 'realist' then, all narrative means tending *to bring an added measure of reality* to the screen" (ibid.; emphasis added). Accepting this, I apply Bazin's parsing of stage and soundstage to the experiential journey below which suggests that cinema, combined with performative theatricality, has come to subsume our spaces, and thus, our very lives (Gabler 2000; Klein 2004; Gottwald and Turner-Rahman 2019).

THE STAGE BECOMES THE SET, THE SET BECOMES ARCHITECTURE

Cinema began wedded to still photography (Bazin 1967). Similarly, early film sets were bound up with the art of scenic design, an ancient tradition (Barsacq 1976). Technology moved both away from their antecedents. Early films resembled theatre, so that "if the scene were played on a stage and seen from a seat in the orchestra, it would have the same meaning" (Bazin 1967, 32). Painted backdrops and simple flats sufficed for this (Ramírez [1986] 2004). The first to employ more sophisticated sets was Frenchman Georges Méliès (Barsacq 1976; Ramírez [1986] 2004; Whitlock 2010). Méliès enjoyed creating illusion through editing and employed special effects, as in Le Voyage dans la Lune (A Trip to the Moon) (1902). So, it seems natural that he would realise the power of sets (Barsacq 1976). Soon appetite for spectacle led to larger productions. Italian director Enrico Guazzoni was the first to use large-scale, three-dimensional sets (Ramírez [1986] 2004). American D. W. Griffith followed with massive Babylonian sets for Intolerance (1916) (Affron and Affron 1995). Then beginning in Hollywood in the early 1920s, designers began working architecturally (Albrecht 1986; Esperdy 2007).

Three factors explain how more elaborate sets developed. The first was panchromatic film stock, which allowed for greater clarity (Bazin 1967). Costumes and props now required more detail; painted backgrounds would only fool the eye at a great distance (Esperdy 2007). Another was better lensing, capturing with "equal sharpness the whole field of vision contained simultaneously within the dramatic field" (Bazin 1971, 28). Deep focus meant structures would read dimensionally. Most revolutionary was camera motion. During the silent era, the camera was fixed, so the audience experience was static (Friedberg [2006] 2009). With rigs which allowed for movement towards and around actors, the audience's connection to the camera's point of view (POV) became dynamic (Affron and Affron 1995). Cranes now also took camera and audience into sets. By the late 1920s, what were once crude flats became environments which could be inhabited by actors (Gottwald and Turner-Rahman 2019). This was the shift from stage to set; from staging a drama to acting in a setting. It was a dynamic camera which cleaved sets away from the stage, delivering shots now empowered with "a god-like character that the Hollywood crane has bestowed" (Bazin 1971, 33).

Attributing Jean-Paul Sartre, Bazin observed that "in the theatre the drama proceeds from the actor, in the cinema it goes from the decor to man. This reversal of the dramatic flow is of decisive importance. It is bound up with the very essence of the mise-en-scène" (Bazin 1967, 102).⁶ In theatre the performer sets the stage, and in cinema the set stages the performer. The architecture of the theatre functions as a container for drama; stage and backstage, wings and amphitheatre. It is a sealed box where performance takes place "in contrast to the rest of the world" because "play and reality are opposed" and "theatre of its very essence must not be confused with nature under penalty of being absorbed" (104). Bazin does not use the terms "set" or "scenic design" but instead refers to all manner of stage dressing as "decor" (103). And he does not distinguish between the soundstage and locations. To Bazin, a farmhouse and a hillside are both decor. Ontologically—as image objects-they are identical. Important to Bazin are two notions: that the set has been torn out of the stage and placed at will (thus ceasing to be architecture), and that mise en scène does not require performers at all. "On the screen man is no longer the focus of the drama [...] The decor that surrounds him is part of the solidity of the world. For this reason, the actor as such can be absent from it" (106). Decor is what distinguishes theatre from cinema.

There are six "distinctive qualities" (Ramírez [1986] 2004, 81) or properties which separate sets from true architecture, whether constructed within a soundstage or on location.⁷ First, film sets are typically *fragmentary*. Only what is photographed is constructed. Second, *sets have altered size and proportion* to account for lens distortion and

⁶ Ouite literally in English, "setting the stage," mise en scène is a theatre arts term which became more widely used in film criticism during the 1950s by the writers of French film magazine Cahiers du Cinéma, including its co-founder Bazin. For him, mise en scène comprises all that you see on the screen, from set design to costumes and lighting, composition to camera motion. Bazin called these individual properties "image plastics" (Bazin 1967, 24).

⁷ For this original discussion in English translation, see Ramírez ([1986] 2004, 81–89). For the later expansion, see Affron and Affron (1995, 31–50). accommodate where they are built. To create illusions, perspectives are altered. Third, further contorting, the interiors are *rarely orthogonal*, producing "strange deformities" (84). Rooms are trapezoidal, to control echoes and also to "force" perspective for an illusion of depth. Fourth, sets are *hyperbolic* "as much to simplify as to create greater complexity" (Ramírez [1986] 2004, 85). Such exaggerations can communicate instantly, establishing locale, period, and class (Macfarland 1920). Sets thus function as characters, conveying both atmosphere and exposition (Esperdy 2007). Fifth, sets must be *mobile and flexible*. They are frequently disassembled, so the camera can enter, making them "wild." Finally, film sets are the very definition of ephemera, *built rapidly and abruptly demolished*.

Referencing Italian Marxist critics Baldo Bandini and Glauco Viazzi, Charles and Mirella Jona Affron (1995) posit that "as soon as the camera began to move, stage design was no longer suited to the film medium. Cinematic sets can, indeed must, conform to spatial and temporal rhythms; theatrical sets remain tied to the constraints of the stage" (33). The properties thus fracture the film set, breaking the fixed relationship between performer and spectator established by the theatre stage which "mark[s] out a privileged spot" (Bazin 1967, 104). "Because it is only part of the architecture of the stage, the decor of the theatre is thus an area materially enclosed, limited, circumscribed" (ibid.) and now it is free. For before the camera began to move, "the framing in [a] 1910 film [was] a substitute for the missing fourth wall of the theatrical stage" (Bazin 1967, 34).

Sets were now truly spaces, and skilled labour was needed to design them. "For the purposes of the modern picture play the ordinary stage setting will no longer suffice [...] [sets now] are in three dimensions" (Ziegler 1921, 547) reminded The American Architect. During the 1920s, such journals called for men to work in motion pictures (Barnes 1923; Macfarland 1920). Especially later during the Great Depression, many architecture graduates could only find work at studios (Grey 1935). Nearly all art directors in the industry during the 1930s were trained this way (Erengis 1965). The pay was good and the work interesting. And a building in a movie would be seen by many more people than a real one (Grey 1935). Some likewise argued that the sociocultural impact of cinema exceeded that of architecture, and that images of environments would educate and make lasting impressions (Macfarland 1920; Wiley 1926; Ziegler 1921; Ramírez [1986] 2004). Only the wealthy travelled abroad at this time, yet millions went to the movies every week. If the American public had a chance to admire an Italian villa, a Greek temple, or a French cathedral, it would be via cinema (Macfarland 1920).

At the same time architects began designing sets, studio people designed architecture. This filmic regime brought three properties

of set design to the built environment: buildings were wildly hyperbolic and stylised, sometimes nonorthogonal in nature, and often employed forced perspective (Gottwald and Turner-Rahman 2021). Southern California was ready for this shift. The glamour of Hollywood sets felt right to Hollywood people, and the look of the region was already trafficking in similar illusions (Heimann 2018).⁸ As greater Los Angeles was colonised by this "movie architecture"-the built environment as a kind of a grand production—we are reminded of Bazin's praise for the Italian urban landscape, so "prodigiously photogenic" and "theatrical and decorative" (Bazin 1971, 28-29). He considered films shot on location there superior. "City life is a spectacle [...] that the Italians stage for their own pleasure [...] The courtyard is an Elizabethan set [...] the theatrical facades of the palazzi combine their operatic effects with the stage-like architecture of the houses" (29). The stages which Bazin describes evolved naturally of course, which prompts architects and critics to label all cities, as Bazin does Rome, authentic. The ultimate soundstage for total cinema. Conversely, Los Angeles in the early twentieth century was a blank slate, designed with intention and immediacy. L.A. is not "fake," yet it is the kind of real untruth that Bazin was fascinated by, a nouveau Garden of Eden fed by all manner of illusion: an imagined water supply, romanticised Spanish glory, and a fantasy architecture born on the Hollywood studio lot.9

THEMED SPACES: INHABITABLE SETS

Disneyland opened in Anaheim, California on July 17, 1955 and heralded the birth of the thematic regime. Considered the sui generis contemporary theme park (Adams 1991; Marling 1994; Mitrasinovic 2006; Lukas 2008), it arrived directly in the middle of the "cinematic century" (Friedberg [2006] 2009, 242). Until this moment the application of set design to the built environment was intermittent and varied. True to how critics describe the period today, the filmic regime was regarded as a novelty (Heimann 2018). Sets of course are designed and constructed to service the story of a film. There is no such narrative crutch for a Los Feliz mansion built in the Storybook Style, or a Las Vegas casino approximating the Wild West. Just aesthetics, impressions; mere motifs without context. What was truly needed for the set to exist outside the soundstage was a script.

It was at Disneyland where the properties of the film set were codified into an experiential language. This is the interdisciplinary development of themed spaces, the "praxis of thematic design" (Gottwald and Turner-Rahman 2019, 41).¹⁰ During the filmic regime the language of sets was applied in architecture, with art directors taking on the real as architects took on the illusory. At Disneyland ⁸ This began with the Spanish Colonial Revival in the early 1900s. Similar architectural revival styles also took root in the Los Angeles area during this time, from English Tudor to Moorish (Gebhard [1980] 2018).

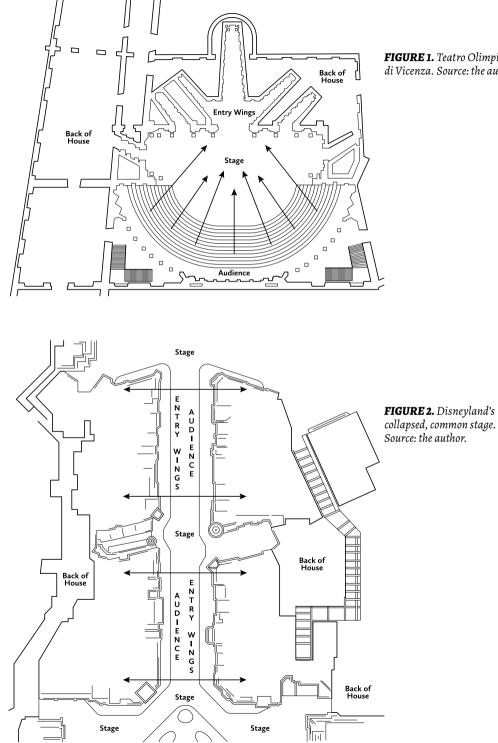
⁹For a discussion of Los Angeles and all its fantasies in those early decades, see Krist (2018).

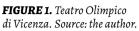
¹⁰Thematic is used to connote this design process, as opposed to themed which refers to the end product (Gottwald and Turner-Rahman 2019; Lukas 2007). " By the 1990s Disney's terminology had transformed the entire hospitality industry. "Host" and "guest" are now used in most experiential contexts and even taught in business schools. See Clavé (2007). For an extended insider discussion on this language and how Disney cast members are trained to use it, see France (1991).

¹² Bazin used the Olympic Theatre of Vicenza as his example of how the architecture of the stage functions as an internal world to keep it isolated from reality outside. See Bazin (1967, 105).

¹³ More recent scholarship in performance studies has brought the focus back to experience, agency, immersion, and the "tourist as actor" (Kokai and Robson 2019). Architectural critique has also come around to approach the theme park experientially. See Klingmann (2007); Lonsway (2009). the intermix would produce a fantasy Potemkin village like no other; the film set as a replacement for architecture. After consulting with architect Welton Becket, Walt Disney decided to form his own company staffed with Hollywood people (Marling 1997). Though many had architectural training, there was not one licensed practitioner among them except Ruth Shellhorn who was belatedly hired to save the landscape design (Comras 2016; Pierce 2016). The rest planned out the park as an interrelated sequence of images, which they storyboarded just like one of Disney's animated films (Bright 1987; Hench and Van Pelt 2003). At Disneyland, the original 1955 narrative is one of the television viewing experiences mapped onto the built environment, fusing Disney's televisuals with an improved version of the amusement park (Marling 1994). Thus, the theme park resembles a soundstage (Adams 1991); it is like walking into a movie (Freitag 2017). In the thematic regime, the language of set design had now been contained, contextualised, and given a screenplay in the form of its storyboards (Gottwald 2021). The themed environment is thus a kind of scripted space (Klein 2004).

Theme parks are permanent, vary in scale and rigor, and are exaggerated and fanciful. Yet also fragmentary like film sets, for only what is seen by the public is built. The rest is an extensive back of house. Turner-Rahman and I have previously noted its transmediated aspects, and with Bazin we see the thematic regime is as theatrical as it is cinematic. Consider the novel service vernacular Walt Disney and his staff devised: park employees are known as "cast members," and when in public areas of the park, are "onstage." Areas not visible to the public are "backstage." (Bright 1987; Mittermeier 2021). Operators are called "hosts" and there are no rides but rather "attractions," "adventures," and "shows" (France 1991)." Remarkably, within the themed environment Bazin's spatial construct of the theatre folds in on itself. Tourists are called "guests" by Disney because we have been invited by the cast onto a collapsed, common stage. Postmodern architect and critic Charles W. Moore once described the Disnevland experience as one of "inhabitation [...] where we are protected, even engaged, in a space ennobled by our own presence [...] merely celebrants at a real affair but also the objects of celebration" (Moore, Becker, and Campbell 1984, 38). This complicates Bazin's insistence that live performance remain sundered from reality, sequestered within the "locus dramaticus" (Bazin 1967, 104) of the stage as embedded within the architecture of the theatre (fig. 1). Reality has not "absorbed" (ibid.) theatre as he feared; instead, precisely the opposite. The entry wings of the Teatro Olimpico di Vicenza¹² have become the city streets themselves, the backstage has surrounded all common areas, and the spectator is now also performer, inhabiting the same space (Kokai and Robson 2019) (fig. 2).13





¹⁴ "Disney is not attempting to recreate actual structures or to simulate authentic experiences [...] It is not a poor copy of reality, because there is no attempt to recreate reality" (Kokai and Robson 2019, 7). This collapsed, common stage did not remain inside the gates of Disneyland for long. Over the past 60 years, thematic design has spread throughout the global experience economy (Pine and Gilmore [1999] 2019) encompassing not just hospitality and entertainment, but where we dine, shop, live, and even receive medical treatment (Gottdiener [1997] 2001; Hannigan 1998; Lonsway 2009). The grammar of sets is the vector by which the cinematic experience had escaped the screen, and not just with-in the private sphere. Beginning in the 1970s in the United States, smaller towns revitalised their own main streets in the guise of Disney's example (Francaviglia 1996). They were redesigned and collapsed into their own common stages. "When we stroll down Disney's Main Street, we become participants in a much larger drama that is redefining how we perceive place [...], *because the streetscape itself was designed as a set of sorts* [...] Disney's Main Street (and, by definition, historic restorations of Main Streets in real towns) puts the observer in a unique position (183; emphasis added).

In the process of consumption and commodification on the one hand, [we are] a consumer of the landscape and, on the other, actually [become] one of the elements or objects consumed by others; the process, like filmmaking itself, forever confuses consumption with object, and commerce with art." (ibid.)

When Umberto Eco visited in the early 1970s, he found Disneyland to be "a fantasy world more real than reality, breaking down the wall of the second dimension, creating not a movie, which is illusion, but total theatre" (Eco 1986, 45; emphasis added). This harmonises well with Bazin's total cinema, yet tellingly Eco also called film "illusion." If cinema's "fundamental contradiction [...] at once unacceptable and necessary" (Bazin 1971, 26) is that it can never reach the state that it was designed for, that it so desires to be (reality itself), then themed spaces overcome the dilemma by declaring themselves "real" without any fidelity to reality.14 This assaults Bazin's myth with a different one entirely, for "Disneyland is presented as imaginary in order to make us believe that the rest is real, whereas all of Los Angeles and the America that surrounds it are no longer real" (Baudrillard 1994, 13). Disneyland functions as a counterpoint to a built environment which claims authenticity but has already been Disneyised (Bryman [2004] 2006). And yet Eco's assessment that Disney "tells us that technology can give us more reality than nature can" (Eco 1986, 44) lets us substitute the theme park for cinema and still retain an essence of Bazin, that verisimilitude is tied up with technological representation. The audience of a film observes. The audience of a themed space observes and simultaneously acts (Lukas 2007). Yet both are consuming an art form whose purpose is "the creation of an ideal world in the likeness of the real" (Bazin 1967, 10). The themed space is a manifestation of Bazin's quest for ideal realism in cinema, a kind of credible illusion, constructed on a stage: total theatre.

VIDEO GAMES: PLAYABLE SETS

Video games evolved from primitive constructs presented in thirdperson perspective to richer environments (Nitsche 2008). With Wolfenstein 3D (1992) and then Doom (1993) came the advent of the first-person shooter (FPS) genre. The FPS made gameplay more cinematic and immersive. In *Doom* one plays through the virtual camera's POV and interacts from the perspective of an avatar, the character being played (ibid.). Once again, the camera drove the spatial evolution of sets forward. As Bazin notes of cinema, "the screen is not a frame like that of a picture but a mask which allows only a part of the action to be seen. When a character moves off screen, we accept the fact that he is out of sight, but he continues to exist in his own capacity at some other place in the decor which is hidden from us" (Bazin 1967, 105; emphasis added). The world of the video game is also one of hidden decor, revealed to the player over time. And the spatial construct of gameplay is Bazin's "mask" of the camera which only permits a part of the gameworld to be experienced.

Like sets, video games are hyperbolic and vary in proportions; like themed spaces, they often contain transmediated narratives, and are fragmentary, as spaces are rendered only when needed for play.¹⁵ Yet the electronic regime also exhibits two additional properties due to its virtuality (Gottwald and Turner-Rahman 2021). Game environments are flexible and mobile in "that they span a multidimensional array of levels to facilitate whatever play requires" (117). And of course, being electronic, they are also singularly ephemeral; close the software and the world vanishes.

As with all architecture, a video game consists of structure and presentation. The code provides parameters, and the world is presented to us via graphics. Yet there is also functionality, which makes gamespaces distinct from other spaces (Juul 2005). The rules embedded in the game are enmeshed within its environments (Nitsche 2008). Now within a gameworld, we are spectators, performers, and players. The combination of structure, presentation, and functionality within a virtual construct is mise en image, which defines how interaction is embedded within the graphical environment (Arsenault and Côté 2013). The result is a common, collapsed, actionable world; a myth of simulated lived experience (Wolf 2015). Spectator, performer, player, character, environment, and camera are amalgamated into a single experiential regime. Bazin's theatre/cinema has been reconfigured once again. The stage has merged with the mask. With cinema, "drama is freed by the camera from all contingencies of time and space," yet "the theatre in contrast uses a complex machinery to give a feeling of ubiquity" (Bazin 1967, 103). The gameworld is a virtual stage without the backstage which, for Bazin, defines the stage.¹⁶

¹⁵ Both practitioners and scholars have noted the environmental language and experiential objectives which theme parks and video games share. See Carson (2000); Pearce (2007).

¹⁶ "[The stage] exists by virtue of its reverse side and its absence from anything beyond, as the painting exists by virtue of its frame" (Bazin 1967, 105).

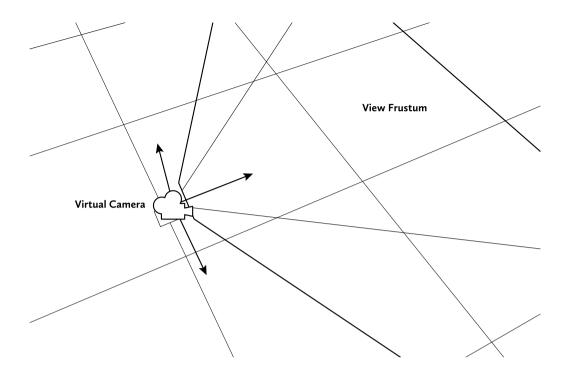


FIGURE 3. Typical game engine design space. Source: the author.

All this shifted paradigmatically with the introduction of game engine software (Gregory 2018). Imagine a house being built. Now picture a team of architects who live inside while it is being designed and constructed. They can make any change they want. Iterate and test endlessly. While they still live in the house. This interior holism is the game engine, which is also explicitly cinematic: the operational metaphor is a virtual "camera." Bazin's mask is here called the view frustum, which represents the camera's field of vision-the region of the virtual world which will appear on screen (Sung, Shirley, and Baer 2008) (fig. 3). Thus—for a third time—the camera's ability to move and penetrate space advances the overall environment. We call this final phase the holistic regime, for virtual space is the tool "and the resultant environment itself [...] in essence both the dreamer and the dream" (Gottwald and Turner-Rahman 2021, 120). Today there are two leading engines which are open to all, Unreal (1998) and Unity (2005). Within these, developers inhabit and iterate simultaneously. Environmental changes affect gameplay, so designers must play as they refine (Gregory 2018). The game engine is a culmination of all the prior spatial regimes (Gottwald and Turner-Rahman 2021). Here the filmic and thematic are embedded within the electronic, virtualised, and framed by Bazin's mask. In the holistic regime we are now also writers, directors, and editors. Not only have the boundaries between theatre and cinema collapsed, but so have production and consumption, design and designer.

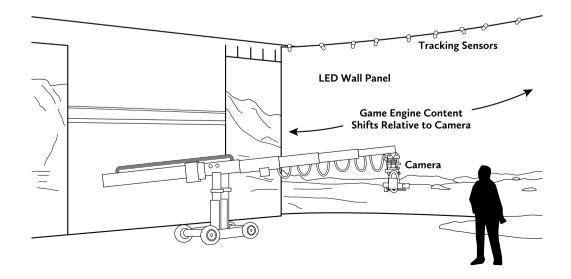
STAGECRAFT: VIRTUAL SETS

While shooting *Rogue One: A Star Wars Story* (2016), director of photography Greig Fraser experimented with a large format LED screen depicting a starfield (Bishop 2017).¹⁷ The spaceship set was mounted on a gimbal, and the digital backgrounds were displayed in real-time synchronisation with its motion (ibid.). Despite poor quality, director Gareth Edwards saw potential. "You really feel like you're in the place [...] it's really convincing, and I think there will be studios [...] one day that are just wall-to-wall LEDs" (Bishop 2017). Director Jon Favreau next experimented with virtual technology on *The Jungle Book* (2016) and *The Lion King* (2019) but those two Disney films still relied heavily on CGI (Thompson 2017; Faughnder 2019; Holben 2020). For Favreau's new project, he wanted to solve problems he had with green screens, a technology in use since the 1990s.¹⁸ His Disney+ streaming series *The Mandalorian* debuted in the fall of 2019 with the answer: StageCraft (Holben 2020).

StageCraft is a partnership between Epic Games and Industrial Light & Magic (ILM), the effects house founded by George Lucas to make *Star Wars* (1977) (Industrial Light & Magic 2019). Partnered with other companies, ILM built a small prototype soundstage in June of 2018 which they call "the Volume" (Martin 2020). StageCraft is the combination of a Volume set covered in LED panels with live Unreal game engine content (fig. 4). The stage is circular, and the backgrounds fill peripheral vision (Failes 2020). The larger Volume set built for *The Mandalorian* is approximately 23 meters in diameter, and approximately 6.5 meters high, providing digital imagery on ¹⁷ As the technology is nascent, here I rely on quotes from practitioners in the press and online industry publications.

¹⁸ Matting performers onto backgrounds in postproduction is also called "blue screen" because the color was used for the earlier, optical process. A bright green is typically used for digital matting.





¹⁹ Film reviews noted this at the time. "There is a certain lifelessness in some of the acting, perhaps because the actors were often filmed in front of blue screens so their environments could be added later by computer" (Ebert 2002). every surface except the floor (Industrial Light & Magic 2020). Because partial physical sets, furniture, and props are also on the stage, StageCraft is a mixed reality (MR) environment, and it represents a new kind of immersion. Films which used green screen sets almost exclusively, like the *Star Wars* prequels, were criticised for listless performances.¹⁹ Thus Richard Bluff, visual effects supervisor on *The Mandalorian* celebrates that "Jon Favreau found the breakthrough that George [Lucas] was always looking for" (Baver 2020). *The Mandalorian* was the first major production to use LED walls at a time when blockbuster Marvel films like *Avengers: Endgame* (2019) were still shot within green screen environments (Insider 2020).

StageCraft advances filmmaking in several key ways. The LEDs not only display content, they also provide realistic lighting with adjustable colour. As Kim Libreri at Epic Games notes, "the problem with the green screen is it basically puts a lot of green light on you. We call that 'spill.'" StageCraft completely eliminates this. "If you wrap an actor with a big 360 LED wall, you can light in a way [...] so you can really make it feel like the characters are embedded in the environments" (Insider 2020). This was important on *The Mandalorian* because the eponymous character wears a shiny costume. Every single bit of LED light reflected off that metal is true to life. For this reason alone, traditional CGI is becoming extinct. "Eventually, of course, we hope to never use green screens," says Bluff, though they are still useful within StageCraft itself for matting purposes in close-up. A block of digital green matte can be inserted anywhere within the Volume, limited to just behind a character—without any spill—because the matte is virtual (ibid.).

StageCraft is dynamic, responsive, and endlessly mutable. Because Unreal is serving real-time content, it can be linked to camera positions. As the camera moves around the set, the background moves in response, preserving parallax and depth (Martin 2020). A green screen is simply a matte painting, delayed. StageCraft is instead truly virtual mise en scène. When describing the relationship, Kris Murray at Lux Machina chose to characterise it as deception, because "we can track a camera's position in space in real time and render its perspective so that we can compellingly convince a camera that something else is happening in front of it that isn't really there" (Unreal Engine 2019; emphasis added). This is what makes StageCraft fundamentally different from rear screen projection and green screens: the camera views the virtual via the same physics as reality. Also, not unlike a set of Matryoshka dolls, there are nested layers of imagery. Cinema is now being produced in a factory that is itself composed of cinema, shot on a set which is constructed of other movies. Image production and consumption have folded back on themselves and collapsed, just how spectatorship and performance collapsed within themed spaces. The image object is also an image product, and what is captured exists to be

photographed yet does not really exist either—a stunning perversion of the image object which also furthers Bazin's ontology. The image object/product is saved and stored, and all footage can be recalled at any time for later use or manipulation (Industrial Light & Magic 2021).

The Volume set is also a virtual performer. When "you want to turn around an actor, you're not physically moving the cameras, you're actually just moving the background, and all the lights change" (Industrial Light & Magic 2021). Director of photography Barry Baz Idoine observes that it's remarkably easy to "shoot any sequence where you say, 'oh, this world's not quite right. Let's just move it a little bit'" (Industrial Light & Magic 2020). However, StageCraft's most stunning aspect is its reconfigurability. "We now have the capability to grab hold of any tree in a forest," says Bluff, "and move them around independently. To re-set dress on the day, based upon what we were seeing through the camera" (Industrial Light & Magic 2021). Dedicated technicians can adjust the environment, lighting, vantage, and focus. Known as the "Brain Bar" (Failes 2020), this team literally moves mountains and turns night into day right in front of the actors. A director can now perpetually remake the entire world of a film while it is being shot.

For the second season of *The Mandalorian* (2021), ILM continued to use Unreal for previsualisation. Yet the company also developed their own proprietary engine called Helios. Because it was designed from scratch, StageCraft 2.0 has improved complexity and colour fidelity (ibid.). The new Volume sets are larger and are being used in conjunction with traditionally lit tracking shots that begin outside a Volume and conclude within it seamlessly (Seymour 2021). Like stage sets before them, virtual sets are becoming contiguous and more architectonic, a mixed reality world with potential to evolve into an extensible system.²⁰

If the theme park was for Eco total theatre, then StageCraft is a total world. The Volume set provides design, lighting, and even a sense of performance—all of Bazin's plastics at once. To the camera, it looks no different than a location shoot. If you ask StageCraft to move around the performers, it moves (as with blocking). Ask it to change and it changes (as with costume and makeup). And most importantly, because it was preassembled in the game engine and even edited in situ, StageCraft is montage in the round. The technology is aptly named. It reconciles Bazin's distinction between the "stage" of the theatre and the "craft" of filmmaking. Like Teatro Olimpico di Vicenza, a Volume set is "outwardly [...] a purely utilitarian piece of architecture [...] secretly oriented inward [...] conceived according to the laws of an aesthetic and artificial space" (Bazin 1967, 105). Yet StageCraft also honours Bazin's holism and aligns with his declaration that "essential cinema [...] is to be found in straightforward photographic respect for the unity of space" (ibid., 46).

²⁰ "ILM is [...] opening the door to multiple connected volumes, multiple vertical volumes. One can [imagine] new and vast shots that travel from different rooms or spaces, with dynamic LED volumes via connected practical corridors, trenches or openings" (Seymour 2021).

CONCLUSION

Not only does some marvel or some fantastic thing on the screen not undermine the reality of the image, on the contrary it is its most valid justification. –André Bazin

StageCraft seems like something Bazin certainly anticipated, and probably would have embraced.²¹ Its dynamic imagery is illusory yet still ontologically "photorealistic." Let us again be clear about what Bazin means by truth. When he complained that "the German school did every kind of violence to the plastics of the image by way of sets and lighting" (Bazin 1967, 26) he was not saying the production design of *The Cabinet of Dr. Caligari* (1920) was poor. Bazin was decrying the abstractions of the film and was indeed pleased when "the expressionist heresy came to an end" (Bazin 1971, 26). Bazin was not so much a realist as he was an anti-abstractionist. He asked for verisimilitude, not literal truth.

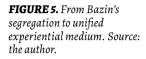
Bazin was a great admirer of Orson Welles. His Citizen Kane (1941) is expressed completely by set design, mattes, and practical effects. Apart from stock footage, there are practically no locations in the entire film. Much like the shattered snow globe from its opening moments, Kane exists only within an artificial interior world. Bazin praised Welles for his dedication to continuity and skill with deep focus.²² For most key scenes the camera does not move at all. Bazin concluded that it was reasonable to forgo locations in order to exert artistic control. "In ruling out [...] all recourse to nature in the raw, natural settings, exteriors, sunlight [...], Welles rejects those qualities of the authentic document for which there is no substitute and which, being likewise a part of reality, in themselves establish a form of realism" (Bazin 1967, 28–29; emphasis added). Thus, a film can be an entirely virtual event and that makes it no less credible. "There can be no cinema without the setting up of an open space in place of the universe rather than as part of it [...], it is less a question of set construction or of architecture or of immensity than of isolating the aesthetic catalyst" (ibid., 110–11). Bazin asks the filmmaker, what is your motive? If your motive is "truth" (by which he means credibility),²³ then yes, Bazin could be considered a proponent of virtual reality. Like themed and gamified spaces, StageCraft is "the creation of an ideal world in the likeness of the real" (ibid., 10). In fact, Bazin described it perfectly as one of the "future technical improvements [...] [which] will permit the conquest of the properties of the real" (Bazin 1971, 30).

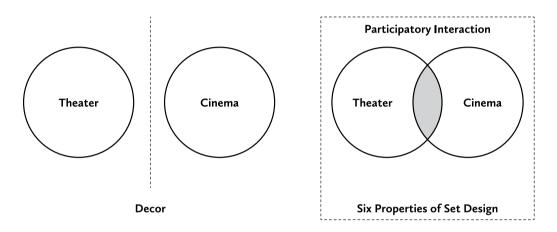
Bazin's inexorable segregation of film and stage was two-fold: the spatial characteristics of each, and how those aspects formulate and facilitate the relationship between audience and performer. While drama is performed within the theatre, framed abstractly in

²¹ "The quality of the interior shots will in fact increasingly depend on a complex, delicate and cumbersome apparatus. Some measure of reality must always be sacrificed in the effort of achieving it" (Bazin 1971, 30).

²² "Dramatic effects for which we had formally relied on montage were created out of the movements of the actors within a fixed framework" Bazin 1967, 33).

²³ "Cinema is dedicated entirely to the representation if not of natural reality at least of a plausible reality" (Bazin 1967, 108; emphasis added). self-aware presentation, cinema is captured as life re-enacted. What Bazin could not foresee is how media would shift from passive to active; how theatre and cinema would become a new unified medium of participatory interaction. The catalyst for this, as well as the binding concept, was spatial too—the properties of set design (fig 5.). All of our contemporary spatial regimes have their genesis in the filmic grammar of sets. As such, when we inhabit these spaces, we are acting by default. Bazin's distinction no longer matters. We watch the performance as we ourselves give it.





In his 1967 introduction, editor and translator Hugh Gray praised Bazin for helping advance film studies in the United States, writing that "the more we see the screen as a mirror rather than an escape hatch, the more we will be prepared for what is to come" (Bazin 1967, 7). As we have seen, the screen is not just a mirror. It is also a projector. Bazin's ontology of the photograph has been reversed. Rather than the image object as a document of the world which exists (having been captured from it), the human-created image brings the world into existence itself (having been released upon it). A world of screens, a world of mirrors, a world of projectors. The virtual filmmaker's total world of unreality will in the future, I suspect, become wholly merged with daily life. A world in which we desire the cinematic, perpetuate the cinematic, consume the cinematic, and produce the cinematic. All while performing and spectating on a physical stage of its enactment. The unanticipated fusion of Bazin's theatre and cinema becomes the totality of our built environment; a single camera obscura massa. Once considered more holistically, its relevance transcends the photochemical artefact Bazin so revered to reveal the environments in which we live—a world which is increasingly realised as a grand "hallucination" that is also a fact" (ibid., 16).

REFERENCES

Adams, Judith A. 1991. The American Amusement Park Industry: A History of Technology and Thrills. Boston: Twayne.

Affron, Charles, and Mirella Jona Affron. 1995. *Sets in Motion: Art Direction and Film Narrative*. New Brunswick, NJ: Rutgers University Press.

Albrecht, Donald. 1986. *Designing Dreams: Modern Architecture in the Movies.* New York: Harper & Row.

Arsenault, Dominic, and Pierre-Marc Côté. 2013. "Reverse-Engineering Graphical Innovation: An Introduction to Graphical Regimes." *Game: The Italian Journal of Game Studies* 2 (1): 57–67. https://www.gamejournal. it/reverse-engineering-graphical-innovation-an-introduction-tographical-regimes

Barsacq, Leon. 1976. Caligari's Cabinet and Other Grand Illusions: A History of Film Design.

Edited and revised by Elliott Stein, translated by Michael Bullock. Boston: New York Graphic Society.

Baver, Kristin. 2020. "This Is the Way: How Innovative Technology Immersed Us in the World of *the Mandalorian*." May 15. https://www. starwars.com/news/the-mandalorian-stagecraft-feature

Bazin, André. 1967. What is Cinema? Vol. 1. Edited and translated by Hugh Gray. Berkeley: University of California Press.

Bazin, André. 1971. *What is Cinema?* Vol. 2. Edited and translated by Hugh Gray. Berkeley: University of California Press.

Bishop, Bryan. 2017. "Rogue One's Best Visual Effects Happened While the Camera Was Rolling." *The Verge*, April 5. https://www.theverge. com/2017/4/5/15191298/rogue-one-a-star-wars-story-gareth-edwardsjohn-knoll-interview-visual-effects

Bright, Randy. 1987. Disneyland: Inside Story. New York: Harry N. Abrams.

Bryman, Alan. (2004) 2006. *The Disneyization of Society*. Repr. London: Sage Publications.

Carson, Don. 2000. "Environmental Storytelling: Creating Immersive 3D Worlds Using Lessons Learned from the Theme Park Industry." *Gamasutra*, March 1. https://www.gamedeveloper.com/design/ environmental-storytelling-creating-immersive-3d-worlds-usinglessons-learned-from-the-theme-park-industry Clavé, S. Anton. 2007. The *Global Theme Park Industry*. Oxfordshire, United Kingdom: CABI.

Comras, Kelly. 2016. Ruth Shellhorn. Athens: University of Georgia Press.

Debray, Régis. 1992. Vie et mort de l'image. Paris: Gallimard.

Ebert, Roger. 2002. "Star Wars—Episode II: Attack of The Clones." *Chicago Sun-Times*, May 10. https://www.rogerebert.com/reviews/starwars-episode-ii-attack-of-the-clones-2002

Eco, Umberto. 1986. *Travels in Hyperreality*. Translated by William Weaver. San Diego, CA: Harcourt.

Erengis, George P. 1965. "Cedric Gibbons." Films in Review 16: 217–32.

Esperdy, Gabrielle. 2007. "From Instruction to Consumption: Architecture and Design in Hollywood Movies of the 1930s." *The Journal* of *American Culture* 30 (2): 198–211. https://doi.org/10.1111/j.1542-734X.2007.00509.x

Failes, Ian. 2020. *"The Mandalorian* and the Future of Filmmaking." VFX Voice: The Magazine of the Visual Effects Society, April 1. https://www. vfxvoice.com/the-mandalorian-and-the-future-of-filmmaking/

France, Van Arsdale. 1991. Window on Main Street: 35 Years of Creating Happiness at Disneyland Park. Nashua, NH: Laughter Publications.

Francaviglia, Richard V. 1996. *Main Street Revisited: Time, Space, and Image Building in Small-Town America*. Iowa City, IA: University of Iowa Press.

Freitag, Florian. 2017. "'Like Walking into a Movie': Intermedial Relations between Theme Parks and Movies." *The Journal of Popular Culture* 50 (4): 704–22. https://doi.org/10.1111/jpcu.12569

Friedberg, Anne. (2006) 2009. *The Virtual Window: From Alberti to Microsoft*. Cambridge, MA: MIT Press.

Friedberg, Anne. (1993) 1994. *Window Shopping: Cinema and the Postmodern*. Paperback ed. Berkeley, CA: University of California Press.

Gabler, Neal. 2000. *Life—The Movie: How Entertainment Conquered Reality*. New York: Vintage Books.

Gaudreault, André, and Philippe Marion. 2015. The End of Cinema? A Medium in Crisis in the Digital Age. Translated by Timothy Barnard. New York: Columbia University Press.

Gebhard, David. (1980) 2018. "A Lasting Architecture." In *California Crazy: American Pop Architecture*. Rev. ed., edited by Jim Heimann, 285–313. Köln: Taschen.

Gottdiener, Mark. (1997) 2001. The Theming of America: Dreams, Media Fantasies, and Themed Environments. 2nd ed. Boulder, CO: Westview Press. Gottwald, Dave. 2021. "From Image as Place to Image as Space: Pinocchio, Pirates, and the Spatial Philosophy of the Multiplane Camera." *The International Journal of the Image* 12 (1): 71–93. https://doi. org/10.18848/2154-8560/CGP/v12i01/71-93

Gottwald, Dave, and Gregory Turner-Rahman. 2019. "The End of Architecture: Theme Parks, Video Games, and the Built Environment in Cinematic Mode." *The International Journal of the Constructed Environment* 10 (2): 41–60. https://doi.org/10.18848/2154-8587/CGP/v10i02/41-60

Gottwald, Dave, and Gregory Turner-Rahman. 2021. "Toward a Taxonomy of Contemporary Spatial Regimes: From the Architectonic to the Holistic." *The International Journal of Architectonic, Spatial, and Environmental Design* 15 (1): 109–27. https://doi.org/10.18848/2325-1662/ CGP/v15i01/109-27

Gregory, James. 2018. *Game Engine Architecture*. 3rd ed. London: Taylor & Francis.

Heimann, Jim. (1980) 2018. California Crazy: American Pop Architecture. Rev. ed. Köln: Taschen.

Hench, John, and Peggy Van Pelt. 2003. *Designing Disney: Imagineering and the Art of the Show*. New York: Disney Editions.

Hoberman, J. 2013. Film After Film: Or, What Became of 21st-Century Cinema? Brooklyn: Verso.

Holben, Jay. 2020. "The Mandalorian: This Is the Way." American Cinematographer Magazine. February 6. https://ascmag.com/articles/themandalorian

Industrial Light & Magic. 2019. "ILM StageCraft." April 10. https://www. ilm.com/ilm-stagecraft/

Industrial Light & Magic. 2020. The Virtual Production of The Mandalorian Season One. February 20. https://youtu.be/gUnxzVOs3rk

Industrial Light & Magic. 2021. The Virtual Production of The Mandalorian Season Two. April 1. https://youtu.be/-gX4N5rDYeQ

Insider. 2020. "Why *The Mandalorian* Uses Virtual Sets Over Green Screen." June 11. https://youtu.be/Ufp8weYYDE8

Juul, Jesper. 2005. Half-Real: Video Games between Real Rules and Fictional Worlds. Cambridge: MIT Press.

Klein, Norman M. 2004. *The Vatican to Vegas: A History of Special Effects*. New York: New Press.

Klingmann, Anna. 2007. Brandscapes: Architecture in the Experience Economy. Cambridge: MIT Press.

Kokai, Jennifer A., and Tom Robson, eds. 2019. *Performance and The Disney Theme Park Experience: The Tourist as Actor.* Cham, Switzerland: Palgrave Macmillan.

Krist, Gary. 2018. The Mirage Factory: Illusion, Imagination, and the Invention of Los Angeles. New York: Broadway Books.

Lonsway, Brian. 2009. *Making Leisure Work: Architecture and the Experience Economy*. London: Routledge.

Lukas, Scott. 2008. Theme Park. London: Reaktion Books.

Lukas, Scott, ed. 2007. The Themed Space: Locating Culture, Nation, and Self. Lanham, MD: Lexington Books.

Macfarland, J. H. 1920. "Architectural Problems in Motion Picture Production." *American Architect* 118: 65–70. https://archive.org/details/ americanarchite118newyuoft

Marling, Karal Ann, ed. 1997. *Designing Disney's Theme Parks: The Architecture of Reassurance*. Paris: Flammarion.

Marling, Karal Ann. 1994. As Seen On TV: The Visual Culture of Everyday Life in the 1950s. Cambridge, MA: Harvard University Press.

Martin, Kevin H. 2020. "A New Hope." *International Cinematographers Guild Magazine*, February 3. https://www.icgmagazine.com/web/a-new-hope/

Matthews, Peter. 1999. "The Innovators 1950–1960: Divining the Real." Sight & Sound August. https://www2.bfi.org.uk/news-opinion/sightsound-magazine/features/andre-bazin-divining-real-film-criticismoverview

McLuhan, Marshall, and Quentin Fiore. (1967) 2001. Repr. *The Medium Is the Massage: An Inventory of Effects*. Berkeley, CA: Gingko Press.

Mitrasinovic, Miodrag. 2006. *Total Landscape, Theme Parks, Public Space*. London: Routledge.

Mittermeier, Sabrina. 2021. A Cultural History of the Disneyland Theme Parks: Middle Class Kingdoms. Bristol: Intellect Books.

Moore, Charles, Peter Becker, and Regula Campbell. 1984. *The City Observed: Los Angeles - A Guide to Its Architecture and Landscapes*. New York: Vintage Books.

Nitsche, Michael. 2008. Video Game Spaces: Image, Play, and Structure in 3D Worlds. Cambridge: The MIT Press.

Pearce, Celia. 2007. "Narrative Environments: From Disneyland to World of Warcraft." In *Space Time Play: Computer Games, Architecture and Urbanism: The Next Level*, edited by Friedrich von Borries, Steffen P. Walz, and Matthias Böttger, 200–205. Basel: Birkhäuser.

Pierce, Todd James. 2016. Three Years in Wonderland: The Disney Brothers, C.V. Wood, and the Making of the Great American Theme Park. Jackson, MS: University Press of Mississippi. Pine, B. Joseph, and James H. Gilmore. (1999) 2019. *The Experience Economy: Competing for Customer Time, Attention, and Money*. Updated ed. Boston: Harvard Business Review Press.

Ramírez, Juan Antonio. (1986) 2004. Architecture for the Screen: A Critical Study of Set Design in Hollywood's Golden Age. Translated by John F. Moffitt. Jefferson, NC: McFarland Press.

Seymour, Mike. 2021. "Mandalorian Season 2 Virtual Production Innovation." *fxguide*. February 10. https://www.fxguide.com/fxfeatured/ mandalorian-season-2-virtual-production-innovations/

Sung, Kelvin, Peter Shirley, and Steven Baer. 2008. Essentials of Interactive Computer Graphics: Concepts and Implementation. Wellesley, MA: A K Peters.

Thompson, Anne. 2017. "Jon Favreau's VFX Master: Why *The Jungle Book* Will Win the Only Oscar It Can Get." *IndieWire*, February 20. https://www.indiewire.com/2017/02/the-jungle-book-vfx-rob-legatooscars-2017-1201785243/

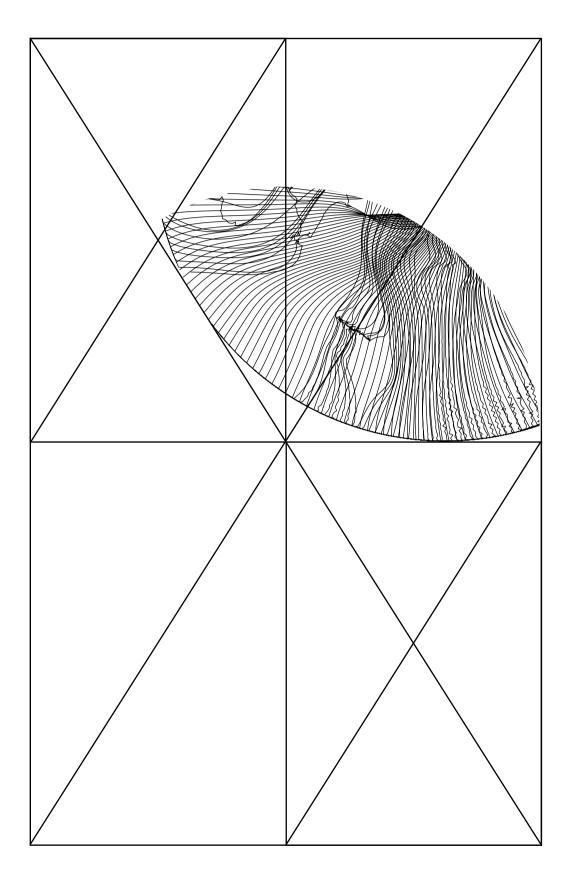
Unreal Engine. 2019. Real-Time In-Camera VFX for Next-Gen Filmmaking | Project Spotlight | Unreal Engine. August 1. https://youtu.be/bErPsq5kPzE

Whitlock, Cathy and The Art Directors Guild. 2010. Designs on Film: A Century of Hollywood Art Direction. New York: It Books.

Wiley, G. Harrison. 1926. "The House That Jack Builds." *Motion Picture Director* 2 (6): 37–39. https://archive.org/details/ motionpicturedir4240moti

Wolf, Mark J.P. 2015. "Video Games, Cinema, Bazin, and the Myth of Simulated Lived Experience," Game: The Italian Journal of Game Studies 4 (1): 15–24. https://www.gamejournal.it/wolf_lived_experience/

Ziegler, Carl A. 1921. "Architecture and the Motion Picture." *The American Architect* 119 (2367): 543–49. https://archive.org/details/ tamericanarchitec119newyuoft



KŌJI WAKAMATSU: Alienation AND THE WOMB

Pedro Crispim

ABSTRACT

This essay intends to analyse four feature films from Japanese filmmaker Kōji Wakamatsu: The Embryo Hunts in Secret (1966), Violated Angels (1967), Go, Go Second Time Virgin (1969) and Violent Virgin (1969). Besides its narrative simplicity bordering on appalling eroticism, this informal tetralogy shares a particular design and spatial trademark: all four films are set in a single, tight, claustrophobic space. By resorting to Wakamatsu's poetics of cruelty, political criticism and his use of sexuality as social commentary, I intend to inquire into the actual nature of his tetralogy's use of filmic space in three particular dimensions: firstly, through an understanding of postwar Japan—especially the 1960s—, which contextualises Wakamatsu's blossoming career in pink films during chaotic times; secondly, through individual analysis of each film, underscoring common denominators like their use of horrific sexual violence, themes of pseudo-revolution that degenerate in alienation, and Brechtian stylistic flourishes: all emerging from these films' spatial dramatic unity, its chamber-like enclosure which recurrently resonates with metaphorical designs of the "womb;" and thirdly, by the tetralogy's—and Wakamatsu's other work from this period—ability to conceptually predict the ultimate paroxysm of its sociopolitical context, when revolution, sexuality, and death came together in Yukio Mishima's bizarre suicide in 1970. Hence, Wakamatsu's use of womb-like design of space in his informal tetralogy acts as a nihilistic, feverish cinematic rendering of all those major Japanese afflictions that, climaxing in Mishima's attempted coup, ultimately put an end to the social turmoil of 1960s Japan, and paved the way for the social transformation that steered the country in a mostly steady, conservative way from the mid-twentieth century onwards.

#Kōji Wakamatsu, #Yukio Mishima, #film, #space, #alienation

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INTRODUCTION

Movies can't really be called "pink" if they're being accepted by the general public. They've always got to be guerilla. Pink films are about putting it out there in the public's face and smashing people's minds! — Kōji Wakamatsu

Japanese filmmaker Kōji Wakamatsu is one of cinema's most subversive and extreme auteurs. Grounded in the fictional nature of the medium—which he believes renders him morally unassailable (Desjardins 2005, 166)—Wakamatsu boasts an incredibly extensive body of work, even though most of it is virtually impossible to access. Arguably the most controversial figure to emerge from the Japanese New Wave, despite his peripheral association with the movement,¹ and known as either the "godfather of *pink*" (Weisser and Weisser 1998, 287) or the "king of *pink*" (Yomota 2019, 347), Wakamatsu's work offers a surprising perspective on the complexities of Japanese society.² His films appear to function as a vortex of social, sexual, and political afflictions from post-World War II Japan.

[Wakamatsu] has the ability to depict disturbed mental states with a gritty visual eloquence, supplying an unobtrusive psychological subtext that coaxes a mysterious compassion for even the most unsympathetic monsters. Wakamatsu's poetic irony of juxtaposition combined with a surface detachment creates an atmosphere of clinical study gone gonzo, beyond all limits, establishing links with nether regions and tapping directly into the sexual libido and the subconscious–unconscious states of being beyond morality shaped in the womb, then moulded by our families or lack thereof, and, by extrapolation, society-at-large. (Desjardins 2005, 166–67)

Symbiotically, Wakamatsu intermingles the psychological anguish of his sociopolitical context with a sordid, sensationalistic pulse which Noël Burch simply names *journalistic* (Furuhata 2014, 166). His cinema is essentially darker than that of his *pink* peers, and mostly due to the extremist nature of his political observations. If Wakamatsu seems, in a certain way, aligned with other *pink* luminaries whose work also has political overtones such as Tetsuji Takechi, Toshio Okuwaki, ¹ Wakamatsu's most direct association with a Japanese New Wave film was as coscreenwriter and assistant producer (albeit uncredited) on Nagisa Ōshima's controversial and seminal In the Realm of the Senses (Ai no korīda, 1976).

² Pink *derives from* pinku eiga (pink film). It initially appeared in 1962, coined by film critic Minoru Murai, referring to excessive female nudity, and ended up characterising a certain kind of low-budget erotic cinema. Despite Wakamatsu's several evolutions and ramifications, his career is mainly associated with the first wave of pink film, from 1964 to 1972, and his films are among the most influential in the genre (Weisser and Weisser 1998, 15–20). In a way, pink is the Japanese congener of other filmic explorations of sexuality within their own cultural peculiarities, like the lederhosenfilme in West Germany, pornochanchada in Brazil, or the commedia erotica all'italiana in Italy.

³ Claustrophobia is also present in other Wakamatsu films from the same period that do not feature unity of place. Films like Secrets Behind the Wall (Kabe no naka no himegoto, 1965), Season of Terror (Gendai kōshoku-den: Teroru no kisetsu, 1969). The Woman Who Wanted to Die (Segura magura: Shinitai onna, 1970) or Secret Flower (Hika, 1971) take place, in most cases, in a handful of different rooms or small apartments. Moreover, by not clinging strictly to the three dramatic unities (action, time, and, most importantly, place) as the four films of the "womb tetralogy" do, these examples nevertheless remain powerful examples of a claustrophobia inducing use of space by narrowing the spatial scale of its own production values.

and Masao Adachi, his work nevertheless often feels quite distant from most of the *pink* farces that constituted escapist, adult-themed forms of entertainment in Japan, and which have been frequently linked with other (and mostly later) *pink* filmmakers such as Tatsumi Kumashiro or Masaru Konuma. Yet, in the hands of Wakamatsu, the marginal nature of *pink* cinema becomes a kind of observational vantage point.

Unlike most film eroticists, Wakamatsu was uninterested in sexual titillation and was eager to collapse sexual excitement in favour of a political edge that, as I will try to demonstrate, is intimately connected with the afflictions of alienation, featuring the recurrence of the womb motif, whether clear or tacit, thematically or visually.

Firstly, I will establish the *pink* context of early 1960s Japan: how the Japanese erotic film medium raged in an otherwise highly political and convoluted time and place. That curious dichotomy is integral to Wakamatsu's poetics. Secondly, I will delve through what I have informally coined the "womb tetralogy:" *The Embryo Hunts in Secret* (*Taiji ga Mitsuryō Suru Toki*, 1966), *Violated Angels* (*Okasareta Hakui*, 1967), *Go, Go Second Time Virgin* (*Yuke Yuke Nidome no Shojo*, 1969) and *Violent Virgin* (*Gewalt! Gewalt: shojo geba-geba*, 1969). These four Wakamatsu films can be understood as a tetralogy by the fact that all of them take place in a single location, that is, they are narratively constructed by the unity of place and, consequently, are completely pervaded by the womb concept.

Taking into consideration the gargantuan size of Wakamatsu's filmography, I decided to include only the tightest, most severe setbound examples. These films are largely not set on a given diegetic space; they are set entirely in a single diegetic space. This chamber-like oppressiveness (depriving us of spatial omniscience that is usually granted by parallel editing and the inclusion of other diegetic settings and eternally trapping us in the very same poisoned space) becomes a vital element to identify the womb concept in the filmmaker's poetics; therefore, even aspects such as claustrophobia become secondary to the hermetic nature of the themes invoked by the womb.3 This methodological aspect serves a double purpose: firstly, it narrows down Wakamatsu's massive work output to its upmost extreme spatial cases (unity of place in its absolute superlative state), allowing it to be, analysis-wise, practical; and secondly, this spatial tightness eventually becomes symbiotic with the womb. Wakamatsu's insistence on the womb serves, as I will try to demonstrate, thematical preoccupations. In that sense, the context of unity of place becomes a way to operationalise it, turning it into a tangible, set-bound way to materialise the womb's airtightness.

In what follows, I will analyse the way Wakamatsu uses unity of place to intensify his revolutionary and alienating themes according

to the womb metaphor that so closely pervades this tetralogy. Finally, we will inevitably arrive at the sociopolitical realm of early 1970s Japan. With the invocation of the Mishima Incident, an attempted coup led by ultranationalist writer Yukio Mishima, which imploded those rowdy, troublesome times and paved the way to the steady, conservative path that Japan has followed ever since, I will try to dislodge Wakamatsu's "womb tetralogy" from its original *pink* designation and reframe it as a serious observation of Japanese afflictions that effectively predicted the Mishima Incident.

In short, I will analyse the tetralogy's filmic space, and how, through the womb motif, Wakamatsu's use of the spatial dramatic unity can instil ways of observing or commenting the *zeitgeist* of its time and place.

WAKAMATSU AND THE PINK BACKGROUND

The importance of *pink* cinema of the 1960s is a vital element to understanding the intents of the Japanese New Wave. The recklessness of filmmakers like Nagisa Ōshima, Shōhei Imamura, or Masahiro Shinoda, and how they proposed a new way to critically think contemporary Japan, usually through the opposition of tradition and actuality, is also important to understanding the prominence of erotic productions. These audiovisual products were not simply sleazy, escapist entertainment; they provided an uncanny point of observation on a society experiencing deep sociopolitical aftershocks ever since the surrender of Imperial Japan in World War II.

The Japanese 1960s—dubbed *seiji no kisetsu* (season of politics) (Hamblin 2015, 125)—was the epicentre of that social and ideological battleground. If the Japanese New Wave daringly depicted that time and place, *pink* cinema constitutes the reverse-shot of the New Wave. Despite the heavy criticism he usually directed at the genre, even preferring to name it "eroduction,"⁴ Japan-based American writer Donald Richie repeatedly noted the social importance of *pink* (Richie 1987, 156)⁵.

Whatever its name, the genre's often lurid, degrading nature was fertile terrain for Wakamatsu. Firstly, it is important to considere that *pink* started in the 1950s and flourished in the 1960s and 1970s with a studio-based industrial mode of production making *soft-core* products.⁶ *Pink* was one of the most important parts of the studio system, mostly to boost declining box-office numbers due to the rise of television (Cazdyn 2002, 173).

Nevertheless, *pink* cinema was broad enough to attract very different filmmakers, in both studio and independent productions. The typical cheapness of the genre was the main reason for Wakamatsu's prolificacy from the 1960s onwards, as well as the creative liberties he was afforded throughout most of his career.

⁴ Eroduction is a portmanteau derived from erotic production.

⁵ In the introduction to the publishing of some of Richie's final writings before his death in 2013, Abé Mark Nornes sustains that Richie's relationship with pink cinema was essentially paradoxical. Despite all his criticisms, Richie was a regular in pink movie theaters. His unfinished essay "Outside: Gloriole" describes the interiors and attendance of a pink movie theatre (Richie 2014).

⁶ Distinct from hardcore pornography, pink cinema does not include any kind of genital nudity and all sex scenes are simulated, otherwise it would have been swiftly banned under censorship. ⁷Adachi was also a main ideologue of the Japanese Landscape Cinema (which postulates that the filmic representation of the landscape is a way to demonstrate the prevalent political leanings of its time). His extremism led to the suspension of his film career in 1971 when he joined the Japanese Red Army (JRA), a militant Communist *terrorist group with close ties* with the Popular Front for the Liberation of Palestine. Relocated to Lebanon as a JRA spokesperson (Jacoby 2008, 79), he was arrested in 2001 and, after serving time, resumed his activities as a filmmaker in 2007.

⁸ If The Embryo Hunts in Secret was solely written by Adachi, Violated Angels was cowritten by Adachi, Jūrō Kara (the film's protagonist), and Wakamatsu himself; Go, Go Second Time Virgin by Adachi and Kazuo Komizu; and Violent Virgin by Adachi and Atsushi Yamatoya. Even though we can find action films as well as dramas, thrillers, even historical films, horror, and erotic dramas, Wakamatsu's films of that genre are nevertheless made as if under the *pink* spell, with an impetuous, abrasive, and confrontational style. His four films that I will discuss here, made between 1966 and 1969, range from classic to obscure *pink* examples, despite premiering before the 1970s, *pink*'s decade, when it represented forty percent of all Japanese film production (Yomota 2019, 353).

In short, these chaotic times were an important catalyst for Wakamatsu's film career. Coming from a poor family of rice farmers in the Miyagi Prefecture, Wakamatsu arrived in Tokyo early in the decade. After some menial jobs, he then famously became a yakuza, a member of the Yasuma-gumi clan in the Shinjuku ward of Tokyo. His very first contact with cinema, still as a yakuza member, happened when he was ordered to "supervise" a film crew shooting in their turf (Desjardins 2005, 179).

It was after quitting the yakuza and unsuccessfully applying for a television job that Wakamatsu entered the film industry. By this time, he had met Masao Adachi, a director and occasional actor already involved in *pink* circles and other avant-garde tendencies, who became one of his most frequent collaborators as a screenwriter. Adachi's farleft worldview is a decisive factor in the political pulse of Wakamatsu's *pink* films of the period.⁷ As a tentacular figure connected to the yakuza underworld as well as pseudo-revolutionaries of the Japanese Red Army, Wakamatsu merged with the left-wing artistic circles that raged in Japan, witnessing a storm of student insurgencies, social turmoil, and everyday rioting.

In the 1960s, rioting escalated to systematic field battles between students and the police. Violence in front of the *Kokkai*, the Japanese parliament, became the norm (Barber 2013, 7–8), which, together with the radicalisation and larval growth of several militant groups, gave birth to the eventual acts of terrorism committed by the Japanese Red Army.

This is the context of Wakamatsu's tetralogy. This sociopolitical turmoil was the reflection of Japan trying to adapt to a new post-war order. In this conjuncture, the far-left meanders were also the ideal setting for yet another kind of revolution, sexual in nature, which was promptly reflected (and commented on) by *pink* cinema, and certainly by Wakamatsu and his main story-maker Adachi, who scripted all the films of the tetralogy. (Screenwriting credits in Wakamatsu's work of the 1960s usually include pennames such as Izuro Deguchi or De Deguchi. Those pennames could refer to a single person or to a collaborative effort between several writers. However, Adachi, apparently the main driving force behind the stories, is ever-present in these films, even in those written collaboratively.)⁸

THE "WOMB TETRALOGY"

As I have stated previously, Wakamatsu's *pink* films are typically more outrageous than those of his peers. The impetus for this is not only his radical political energy, but also his aesthetic adventures. Wakamatsu's style (and this tetralogy) is shot in grainy black-and-white, and its minimal plots are riddled with sudden bursts of paroxysmic violence that tear through its sexually charged atmosphere. Most notably, its thematic gravitational point is sexual alienation, juxtaposing distancing effects (especially montage sequences with freeze frames, usually extra-diegetic)⁹ clashing with sparse colour scenes.¹⁰

Aesthetic discussions aside, what remains fundamentally more challenging in Wakamatsu's poetics is the way he deflates any kind of eroticism in his treatment of sexuality (despite belonging to the *continuum* of erotic cinema). Instead he elevates sexual status to the level of a rebellious political stance.

The Embryo Hunts in Secret (1966) is the first film of his singlelocation tetralogy and the one that most directly references the womb. It shows a couple locked in an apartment, where a man subjects a woman (presumably his girlfriend) to a long session of sexual torture (fig. 1). Eventually, the man breaks down emotionally and gives up, and in the end, the woman takes advantage and kills him. The bleak nature of the story is very clear from its synopsis, but it is important to note that this is nevertheless a *pink* film, a hedonistic, erotic entertainment.

This is the first way in which Wakamatsu displays his sociopolitical edge. The very fact that he uses tactics of overtly escapist entertainment—erotic pictures—to problematise sociopolitical anxieties (in this case, issues of birth and abortion) demonstrates an aesthetic and thematic boldness. Even though Japan was one of the first countries to legalise abortion, the confrontation of this question in the context of erotic cinema is nevertheless a disruptive experience.

The Embryo Hunts in Secret practically inaugurates all the trademarks to be found in Wakamatsu's next single-location films: sketchy plot, small number of characters exhibiting or inflicting acts of cruelty, power, or subjugation on each other, usually in an intimate, sexualised way (which may or may not have explicit political references), and the stifling use of unity of place. In fact, the enclosure of the story also mimicked its self-imposed production constraints, as Wakamatsu himself states:

I got together the crew and the actors. I ordered them not to set foot outside the apartment until we finished shooting. "You'll sleep here, and I'll cook dinner; I'll feed you until we finish the movie." We were like these refugees living in there. (Desjardins 2005, 182)¹¹ ⁹ I am referring to very brief, insert-like montage sequences featuring newsreels, newspaper clippings, and other topical images usually depicting manifestations of social unrest (riots, police charges). These burst-like sequences are a fundamental element for Nöel Burch's consideration of Wakamatsu's journalistic qualities (Furuhata 2014, 166).

¹⁰ Burch stresses the importance of these "distancing techniques" in Wakamatsu's work, which he bases in the clashing of opposites. The clearest examples are the clash between black-and-white and colour, and between scenes of jarring violence with others featuring suppression of movement and decrease in sound (which he dubs scenes of "aesthetic distance"). Those clashing techniques, together with a kind of filmic primitivism—considering Wakamatsu as someone who "had learned the rudiments of 'film grammar' and still relied on them completely" (Burch 1979, 350–54)—form a kind of perverse, formal reading of Brechtian distancing effects, which I consider a very illuminating way to approach Wakamatsu's poetics.

" Despite its guerrilla-style production, as if the crew and actors were also a kind of revolutionary group, enclosure and entrapment are key motifs throughout the tetralogy. In The Embryo Hunts in Secret all actions are indoors, and the film's political commentary is inevitably achieved through sex. The reduction or elimination of erotic arousal in an otherwise erotic *pink* setting already constitutes a certain revolutionary, even liberating approach—even though it is possible to argue that Wakamatsu's sociopolitical revolutions bear little to no efficacy whatsoever. Even the microcosmical nature of his films can be quite fuzzy regarding the social portrait of its time.



But equally, Wakamatsu's "womb tetralogy" offers a kind of puncture in the country's collective psyche; an attempt to portray the intimate, the private and the forbidden, a look through the keyhole (peepshow-style) of Japanese homes (fig. 2). Therefore, *The Embryo Hunts in Secret* inaugurates Wakamatsu's theatre of cruelty (Weisser and Weisser 1998, 499): with a single apartment and two characters, Wakamatsu instils a constant provocation about Japanese sexual politics, the deterioration of the nuclear family, and the evidence of a widespread, smouldering libidinal frenzy plaguing all his characters and society at large. It is also important to contextualise the fact that Wakamatsu intimately and inherently connects sexual depictions with political power.¹²

I believe that in Japan sex is the privilege of men who have power, like politicians, very rich people, etc. They all have girlfriends, don't they? In the past we Japanese were told: "You the poor people, be content with eating rice."

FIGURE 1. Frames from The Embryo Hunts in Secret (1966). Despite the minimalism of the apartment setting, Wakamatsu constantly includes small glimpses regarding a certain womblike inscription. It can be, as in the frame above, by using non-diegetic shimmering lights (there are no light sources in the room), or, as in the frame below, through the various ways his characters contort or squat, evoking the fetal position, usually with aquatic or liquid elements (baths, rain, and blood). Source: Clap Filmes.

¹² This is also an important political aspect of pink cinema: according to Richie, pink manages to examine Japanese urges and sexual complexities in a country (and context) that banned pornography (Richie 1987, 156–57). Therefore, pink cinema reigns as the sole representation of sexuality allowed by Japanese censorship—even though the exhibition of genitalia remains forbidden. And even now they say to us: "Be content without seeing images of sex." In the Edo period everything was more broad-minded, from what I heard. It is after the Meiji and Taisho periods that the authorities became very strict. (Wakamatsu apud Hunter 2012, 81)

Considering the free access to pornography in the Western world, the satisfied curiosity of pornography consumers opposes the excited lust of the Japanese, deprived of catharsis from sexual audiovisual experiences, thus explaining the long-lasting, compulsive success of *pink* cinema (Richie 1987, 157). Then, Wakamatsu resorts to the single artistic representation of sexuality in Japan and mirrors it with a certain puritanical flair associated with the ancient norms of his country.

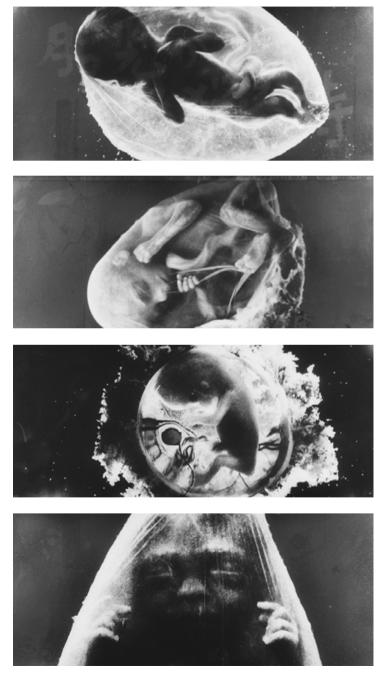


FIGURE 2. Frames from The Embryo Hunts in Secret (1966). Fetal motifs occur when staging the corporality of actors in the setting. Loneliness and oppressiveness are heightened by using space to frame and isolate the characters. Source: Clap Filmes.



A series of foetuses shown *in utero* in the title sequence are the source of the womb metaphor (fig. 3). For the setting, Wakamatsu uses a house. If a quick recalling of Gaston Bachelard's seminal *The Poetics of Space* (1998) takes us to the understanding of the "maternal features of the house" (7), the enclosure of its dramatic unity of place (and the appalling sexual crimes that take place inside) is relatable to Sue Best's suggestion that male—especially Bachelard's—perspectives on space (mostly on the house) are of female nature, because "the house is a woman—a warm, cozy, sheltering, *uterine* home" (Best 2002, 182, emphasis added). On this basis, *The Embryo Hunts in Secret* can been understood as the rape of the uterine home. Even though Wakamatsu will not use a house in the next three films, this female inscription is nevertheless present in his understanding of space.

FIGURE 3. Frames from The Embryo Hunts in Secret (1966). Opening credits play over foetuses in utero, signalling the entrance in Wakamatsu's womb tetralogy. Source: Clap Filmes.



Violated Angels (1967), Wakamatsu's second single-location film, is a reinterpretation of the crimes of American mass murderer Richard Speck. Here, the filmmaker's trademark narrative brevity is the closest he ever got to the depuration of a sadistic haiku: at night, a group of young female nurses notice a peeping tom outside their rooming house, and mockingly bring him inside. Sensing a sexually charged atmosphere, the man starts to kill them oneby-one, with varying degrees of torture and cruelty, heightened by what he perceives as the girls' initial jeering of his impotence.

Probably the most claustrophobic of the tetralogy is its setting, which resembles "the back room of the house [...] an oneiric torture chamber" (Hunter 2013, 16), and considering the concentrative nature of its womb-like enclosure, it ultimately evokes the alignment of the "catamenial compulsion with the melancholy of the exposed embryo, the unbearable isolation in time and space that drives us to our daily rites of annihila-tion" (Hunter 2013, 20). Wakamatsu's womb space, however crowded or fuming with activity, is, in essence, a space of loneliness. One of the most convincing portraits of paranoid psychosis (Desjardins 2005, 168), *Violated Angels* is one of Wakamatsu's bluntest and driest works; its laconic mise en scène works in counterpoint to the extreme violence it depicts.

If the youthful, desperate killer of Wakamatsu's Violated Angels represents a disenchanted generation stripped of its potency by both American neo-colonialism and residual Japanese neo-feudalism, he only does so by suffering an Oedipal complex and concluding his murderous rampage of the women who mock his male inadequacy by burying his head in one of their maternal laps. (Grossman 2014, 247)

However strong or even unbreakable Wakamatsu's misogynistic pulse seems to be, judging by the behaviour of his sadistic, usually impotent male protagonists, *Violated Angels* presents one of the most eloquent visual metaphors of the complexities of Wakamatsu's womb: striking a Brechtian chord, in a brief, insert-like colour scene, the killer coils in foetal position on the lap of the only girl he spared, surrounded by blood splatter and naked female corpses rearranged to resemble the flag of the Japanese Imperial Army (fig. 4).



FIGURE 4. Frame from Violated Angels (1967). Colour is used for a kind of Brechtian shock value in the flag reconstruction, with the sun replaced by the killer 'returning to the womb.' Source: BLAQ OUT.

Again, sexual pleasure is pulverised. Both the torturer in *The Embryo Hunts in Secret* and the lonely killer of *Violated Angels*, strong enough to subdue others to their own whims, are not capable of extracting pleasure from their actions—not without feeling equally affected by them. Andrew Grossman suggests that the origin of that kind of violence lies in American neo-colonialism. Of course, this implies that neo-colonialism manifests itself by proxy of Western influence in Japan (Grossman 2014, 247), both from American presence in post-war Japan, and the ensuing cultural invasion from the West. Hence, that generation, the heirs of the defeated and capitulated in World War II, develops an extremely marked nihilism, with only feverish sexual passions capable of acting as painkillers.

Co, Go Second Time Virgin (1969), Wakamatsu's third and most famous single-location film is set in a strikingly different space: on a terrace (figs. 5–6). In that open space, a boy watches passively as a girl is raped by a gang of four boys. When they leave, the young couple start to bond emotionally and sexually over their equally traumatic past experiences, as the girl intensifies her suicidal thoughts (she keeps asking the boy to kill her). When the gang returns to rape her for a second time, her "new boyfriend" kills the whole group, despite her protests that she had been spared by them. Then, the couple commit a double suicide by jumping off the terrace.



FIGURE 5. Frames from Go, Go Second Time Virgin (1969). An early montage sequence boasts two images of pregnancy, again linking it to the previous films and the subliminal thread of the womb. Source: Clap Filmes.

DISEGNO_VI/01_TOTAL CINEMA: FILM AND DESIGN

The performative nature of this film, as well as in Wakamatsu's womb tetralogy, relies mainly on spatial isolationism. Viewed as a cohesive body of work, they offer a dark (albeit honest) portrait of Japanese society as a disintegrated, fragile social unit. In all four films, Wakamatsu uses marginalised or isolated characters. Using Giorgio Agamben's terminologies, I think that Wakamatsu's narratives deals almost exclusively with that form of life called *zoē*, the bare life (which also serves as a codename for merely private, reproductive, or intimate life), and rejects *bios*, the good or political life, mostly associated with participation in the organics of the city and politics.¹³ Wakamatsu does not ignore *bios*, he even has a very critical view of it, but always manages to distance himself or to isolate his diegetic worlds from it, enclosing them in a womb-like unity.

Therefore, Wakamatsu's characters are stuck or trapped in their own interiority and intimacy. This is the most subliminal (and metaphorical) manifestation of the womb as an enclosed, alienating space, which is then physically evoked by the unitary nature of the single set. And considering the vague character development in these films, Wakamatsu's alienating pulse gives them a certain wandering nature, not in the nomadic or travelling sense, but as beings not adapted (due to inability or refusal) to any social model.¹⁴ ¹³ For a deeper, more complete overview of both concepts in Agamben's political philosophy, see 2017, in particular, the first major work featuring zoē and bios: Homo Sacer: Sovereign Power and Bare Life.

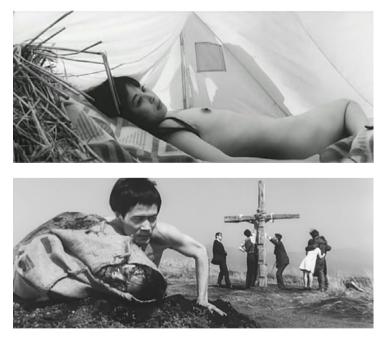
¹⁴In fact, this is very clear if we watch any of his characters (in any of his films) when they are outside. As they walk or wander through the streets, they are frequently shot by the long lenses of Wakamatsu's favourite cinematographer Hideo Itō, appearing alone and isolated against extensive flattened and blurred backgrounds—quite unlike the widescreen shots in the interiors, using all available depth of field, focusing and exposing the characters' closed worlds, becoming one with them.





FIGURE 6. Frames from Go, Go Second Time Virgin (1969). The return of the same strategies seen in The Embryo Hunts in Secret (1966). Above, a figure in a fetal-like squatting pose, drenched in aqueous imagery, and below, the melancholic couple in the darkness of the night, together in a parabolic pool of light, hinting at the contours of an inhabited uterus. Source: Clap Filmes. Wakamatsu does not see any difference between interior and exterior. Closure, as he says, can be achieved in both ways: "I had done a lot of films inside on one location, but I wanted to try to do the same thing *outside*." (Desjardins 2005, 183) His fourth and final single-location example, *Violent Virgin* (1969), presents both a continuation and an intensification of the outdoors from the previous film.

Its plot revolves around the kidnapping of a couple. In a barren wasteland, they are subjected to a series of sadistic games of erotic nature at the mercy of an aspiring yakuza group (fig. 7). Narratively, *Violent Virgin* (1969) is also Wakamatsu's most complex film because halfway through the story a kind of mise en abyme dimension opens when all the events are under surveillance by another yakuza group monitoring the actions of the kidnappers. The whole situation is a kind of rite of passage, as the aspiring yakuza group is simply trying to be admitted to that criminal organisation by showcasing their cruelty.



Despite its narrative plot-points, Wakamatsu's final single-location work distils his essential thematic preoccupation and aesthetic trademarks, sometimes even bordering on surrealism. Its landscape "represents an infernal circle of sex and violence from which there is no escape and in which all the pawns who play out Wakamatsu's cinematic schema are sentenced to either death or a purgatorial eternity as lost souls" (Hunter 2013, 23). Its setting can also be a way to pulverise all the previous spatial notions about the womb.

FIGURE 7. Frames from Violent Virgin (1969). Wakamatsu uses a couple of stratagems of confinement in the vastness of the open space. Namely, the use of a tent, inside which naked bodies move and act in a sexual manner, and the scene in which a character, near the end, manages to crawl out of a bag, as if re-exiting the womb. Source: BLAQ OUT.

This film's unity of place is achieved not through definable borders or even by architecture; instead, it happens through extreme spatial decantation. Its lunar landscape setting is complemented, early on, with the rising of a wooden cross—later used to crucify one of the characters—, helping our sense of spatial orientation, as the film's chaotic mise-en-scène bewilders the very few points of reference for the audience (fig. 8). The omnipresence of the cross, together with the monolithic nature of the setting, acts as a kind of spatial anchor, akin to some kind of magnetic point of attraction, as if urging the characters to spin around them, no matter their attempts at escaping or hiding.



FIGURE 8. Frame from Violent Virgin (1969). Landscape turned womb. Source: BLAQ OUT.

Again, sexuality, branded like a punitive instrument, is depicted as an overtly subversive behaviour. The kidnapped couple eventually succumb to the poisonous pleasures of sexuality in a futile conclusion dominated by the same alienated tone, noting that the definitive way of revolutionary resistance against the *status quo* is to engage (possibly ad *eternum*) in a compulsive circle of sexuality, in which the ultimate orgasm literally overlaps the liberation that comes with death—the ultimate pyrrhic victory over alienation.

Unlike the spatial delimitations of the terrace of *Go, Go Sec*ond *Time Virgin* (1969), the vast landscape of *Violent Virgin* (1969) is no less confined or oppressive than any of the previous closed chambers of the tetralogy. The metaphor of the womb turns from claustrophobic to agoraphobic: it ceases to be linked with topical, merely private, or inwardly intimate preoccupations; it now suggests a systemic problem. Therefore, it overflows its original spatial nature. The final message of Wakamatsu's "womb tetralogy" maintains that alienation and its sexual enticements are now viscerally widespread, perfectly able to manifest itself in society—that is, politically.

THE MISHIMA AFTERMATH

¹⁵ The Tatenokai were a kind of private militia funded by Mishima to defend what he believed to be the traditional values of Japan, namely the unconditional veneration of the emperor and the restoration of his powers.

¹⁶ Twenty-five years after the surrender of Imperial Japan in World War II, Emperor Hirohito, enthroned since 1928, lost most of his formal power, including his divine status. According to the 1889 Japanese constitution, the emperor's divine power has its origin in a Shinto belief in which the Japanese Imperial Family descends from sun goddess Amaterasu. After a coercive call from general Douglas MacArthur, Hirohito rejected his divine status and, therefore, was reduced to a symbol of the Japanese state and people (Dower 2000, 308–9). That status was inherited by his son, Emperor Akihito and remains so today, with Hirohito's grandson, Emperor Naruhito. The Japanese positively embraced the loss of divinity, and more so considering it would also work as a kind of preventive measure against imperial divinity-motivated ultranationalism (Nathan 1974, 210). Therefore, it is nevertheless ironic that that particular aspect became Mishima's motivation for his political deviations.

From a historical perspective, the most chilling aspect to be found in Wakamatsu's cinema is not just the diagnostic of its time and place, but the transformation of Japanese society at the end of the 1960s. History proved that a final, bloody realisation (of an unprecedented theatricality) would occur with the culmination of two incidents.

The most significant one, known in Japan as the Mishima Incident, consisted of an attempted coup involving renowned writer Yukio Mishima, a far-right ultranationalist, when he, along with four members of the *Tatenokai*,¹⁵ entered Camp Ichigaya, Japan's defence head-quarters in the Shinjuku area of Tokyo.¹⁶

It is important to note Mishima and his followers' bizarre adherence to old-fashioned ideals. Hoping to mobilise the army in a coup d'état to restore the emperor as the country's divine and indisputable leader—and then to re-establish Japan as an imperial power—Mishima delivered a speech based on a previously written manifesto to the soldiers, but to no avail.

Wearing a *hachimaki* headband, his theatrical, boisterous body language—widely captured in photographs and live on television (the media were previously summoned to the place by Mishima himself) resembled a kind of modern samurai (one of his lifelong obsessions), and the whole situation was more akin to an outrageous happening than an effective act of military strategy. After that failure, Mishima retreated and committed *seppuku*, a form of ritual suicide, originally reserved for the samurai (Inose and Sato 2012, 726–29).

The bizarre nature of Mishima's act—its grossly extemporaneous historical appeal and a theatrical exhibitionism unprecedented in the history of coups and coup attempts—is totally aligned, just like his political writing, with his own private fantasies, the product of his own equally private cravings or yearnings, making it impossible to discern any kind of political or ideological seriousness in his actions, even though Mishima understood his own suicide as the most elevated form of nationalism (Nathan 1974, 211).

According to Marguerite Yourcenar, Mishima's literary work, as well as his own life experiences, are irrefutable proof of his smouldering obsession with death, most specifically how suicide was paradoxically the ultimate way to showcase the meaning of life (Yourcenar 1986, 5). Mishima's extreme idiosyncrasies were an invaluable contribution to his own alienatingly dangerous loneliness, in which the creative process and the refuge of the masks were palliatives that only grew progressively weaker in time. By the end of his life, Mishima understood that his martyrdom for the imperial cause was above any other notion of heroism, and conceptually represented the very essence of Japanese identity (Nathan 1974, 214). These highly personal forms of violence in Mishima's life and work were not transmissible. There is both an attraction and an ambition for a proud exhibitionism projected in a certain erotic narcissism, a theatricalisation of his innermost problems —in a way, death was, for Mishima, his ultimate artistic work.¹⁷

By invoking this incident, I am not trying to identify Mishima with Wakamatsu, as they are of very different, even diametrically opposite, natures.¹⁸ If Mishima was wealthy, famous, world-renowned and a staunch far-right nationalist, Wakamatsu came from a poor background, operated in the criminal underworld and underground circles, recognition for his work came sporadically and extemporaneously, and he ended up associated with a very critical, far-left inflected scepticism. In this sense and as individuals, Mishima and Wakamatsu could not be more different; but the writer Mishima and the filmmaker Wakamatsu are not devoid of connection points, even beyond Wakamatsu's 2012 film chronicling Mishima's last efforts, 11.25 The Day He Chose His Own Fate (11.25 jiketsu no hi: Mishima Yukio to wakamono-tachi).

It is certainly possible to relate Wakamatsu's poetics, especially his "womb tetralogy," with Mishima's modus operandi. But another important distinction must be left clear: unlike Mishima, Wakamatsu does not use film to stage his own personal complexities. Instead, his use of film entails a certain theatricalisation—or *cinematisation*—of his journalistic tendencies to dissect revolutionary, sexual, and alienating tensions from postwar Japan (tendencies that the Mishima Incident spectacularly combined). In other words, both Wakamatsu and Mishima's gestures consist of employing *artistic mediations of intimate afflictions*, being personal (Mishima) or sociopolitical, even anthropological (Wakamatsu).

By the end of the 1960s, the decade's turmoil was fading. Both Inuhiko Yomota (2019, 352) and Myriam Sas (2011, 27) point to the Mishima Incident in 1970 (and also a second one, the Asama-Sansō Incident in 1972)¹⁹ as a major turning point. On the one hand, the Mishima Incident was the most metaphorical event: a gruesome theatricalisation of revolutionary urges that reveal themselves as deeply personal instead of deeply sociopolitical or ideological; and means nothing more than the autophagy of its own intents.

The Asama-Sansō Incident, on the other hand, is a clear example of an equally solipsistic revolutionary monstrosity with no political or human value whatsoever. In the end, both incidents contributed to the decline of the (mostly left-wing) revolutionary *zeitgeist* in Japan. The rush for change decreased drastically, and Japan became a mainly conservative country once again (Yomota 2019, 352). Despite the mollified political climate, Wakamatsu remained on his own track, his prolific string of works extended through five decades of filmmaking until 2012, when he suddenly died after being hit by a car while preparing another film project. ¹⁷ On Mishima's erotic narcissism, it is important to note Eikoh Hosoe's Bara-kei: Ordeal by Roses (1985), where Mishima poses in homoerotic photographs riddled with an intense death drive. And concerning the theatricalisation of his intimacy, it is noteworthy how the short-film Patriotism (Yūkoku, 1966), the only film directed by Mishima (co-directed by Masaki Dōmoto) predicted his own demise. Based on his own short story, the film depicts, in Noh play-style, the ritual suicide of a Japanese lieutenant, in the aftermath of the 1936 coup attempt. In the film, the lieutenant, played by Mishima, commits seppuku an act which chillingly predicts (and consequently stages and theatricalises) his own suicide four years later.

¹⁸ In a more oblique way, his earlier film The Woman Who Wanted to Die includes news of Mishima's suicide through insert-like shots of newspapers in freeze frame.

¹⁹ The Asama-Sansō Incident lasted nine days, from February 19 to February 28, 1972. It evolved after a purge in the JRA, when two of its leaders killed some members. After a police raid, five other members fled and took refuge in a mountain lodge, degenerating into a hostage crisis. (Yomota 2019, 354; Sas 2011, 27).

CONCLUSION

I have tried to establish Kōji Wakamatsu's "womb tetralogy" as a sort of flare gun for the future of post-1960s Japan, which was confirmed by the implications of the Mishima Incident. How was Wakamatsu able to dissect, to read and interpret the spirit of his time and, consequently, to predict the core preoccupations unveiled by that incident?

The answer mainly lies in a conjunction of two elements: being a narrative filmmaker, Wakamatsu's thematic obsession with sexual alienation and the recurrence of the unity of place are the main two structural points of the "womb tetralogy." Politics-wise, there is an almost unbearable sense of pseudo-revolution in Wakamatsu's universe. If present, the invocation of politics is a sophist alibi for the subversive staging of sexuality and cruelty.

Despite sounding sleazy or cheap, by tapping into those inner, taboo-like problems, Wakamatsu's single-set work achieves an almost crystal-clear portrait of the intimate (i.e., the psychological, the inner, the interiority) of that whole society and its people, systemically infected by the pulse of alienation—which in turn leads to dead-end pseudo-revolutions and/or fatalistic and anguished sexuality.

And as a way of setting and staging those questions, Wakamatsu resorts to the unity of place, conceptualising it as a womb, a place of seclusion and loneliness, of female inscription evoking some of the most primal and archaic elements of human life, namely sexuality, conception, and progeny. Therefore, by simultaneously shooting the inside of the womb and knowing what is happening outside, Wakamatsu's spatial poetics raises both political and intimate problems.

Then, the spatial concept of the womb means the encapsulation of that whole turmoil. In that regard, the "womb tetralogy" is clearly a development to Michel Foucault's claim that "a whole history remains to be written of *spaces*—which would at the same time be the history of *powers* [...]—from the great strategies of geo-politics to the little tactics of the habitat" (Foucault 1980, 149).

And here lies one of the uncanniest similarities between Wakamatsu and Mishima: in addition to the resonance of the nature of their thematic preoccupations is their use of space. The Mishima Incident took place in a military headquarters and (understanding it, like Mishima did, as a work of art) it also employs unity of place, as Mishima theatricalised his own death; he used the military setting like an actor/director uses a theatre stage. Furthermore, he wrote the text, designed his military uniform, called up the audiences, had everything planned way ahead. And all of this to render an extremely alienated worldview, filtered by some form of artistic sensibility in an otherwise military setting.

As with Wakamatsu's "womb tetralogy," unity of place is achieved by confining diegetic space to a very strict single-location setting; his characters submerged in sickly alienation, aiming at some sort of sexual revolution to cope with existential pain. Neurotically spinning between Eros and Thanatos— there is certainly a Freudian reading of *pink* film, as erotic cinema "beyond the pleasure" and into the oblivion of alienation—Wakamatsu also entails this gesture of social observation by employing a constant reversal of the natural, positive values of the womb. Warmth, protection, and nurturing gives way to coldness, isolation, and brutality (in a word, alienation), which is another clearly identifiable element of his subversive nature.

Wakamatsu's "womb tetralogy" is an extremely nihilistic and feverish rendering of social malaise or, in other words, a filmic x-ray of the collective unconscious of the Japanese sexual death drive, exploring the alienation of its time and place by proxy of a womb-like reading of diegetic and dramatic space. In a way, the "womb tetralogy" is a staging of a kind of psychoanalytical rendering of the Japanese zeitgeist's diseased intimacy; the very same affliction displayed by Mishima's suicide.

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REFERENCES

Agamben, Giorgio. 2017. *The Omnibus Homo Sacer*. California: Standford California Press. https://doi.org/10.1515/9781503603158

Bachelard, Gaston. 1994. The Poetics of Space. Boston: Beacon Press.

Barber, Stephen. 2013. Art, Riot, Terror: The 60s Tokyo Avant-Garde. Elektron Ebooks.

Best, Sue. 2002. "Sexualizing Space." In Sexy Bodies: The Strange Carnalities of Feminism, edited by E. A. Grosz and Elspeth Probyn, 181–94. London: Routledge. https://doi.org/10.4324/9780203147825-16

Burch, Nöel. 1979. To the Distant Observer: Form and Meaning in the Japanese Cinema. Berkeley: University of California Press.

Cazdyn, Eric. 2002. *The Flash of Capital: Film and Geopolitics in Japan*. Durham: Duke University Press. https://doi.org/10.1215/9780822383918

Desjardins, Chris. 2005. *Outlaw Masters of Japanese Film*. London: I.B. Tauris & Co Ltd. https://doi.org/10.5040/9780755695515

Dōmoto, Masaki, and Yukio Mishima, dirs. 1966. *Patriotism*. Tokyo: Toho Company, Yukio Mishima Production. Film.

Foucault, Michel. 1980. "The Eye of Power." In *Power/Knowledge: Selected Interviews and Other Writings* 1972–1977, edited by Colin Gordon, 146–65. New York: Pantheon Books, 1980.

Furuhata, Yuriko. 2014. "The Actuality of Wakamatsu: Repetition, Citation, Media Event." In *The Pink Book: The Japanese Eroduction and its Contexts*, 2nd ed., edited by Abé Mark Nornes, 149–81. N.p. Kinema Club Book.

Grossman, Andrew. 2014. "All Jargon and No Authenticity." In *The Pink Book: The Japanese Eroduction and its Contexts*, 2nd ed., edited by Abé Mark Nornes, 237–68. N. p. Kinema Club Book.

Hosoe, Eikoh. 1985. Ba-ra-kei: Ordeal by Roses. New York: Aperture.

Hunter, Jack. 2013. *Pop Avant-Garde Violence: The Films of Koji Wakamatsu*. Elektron Ebooks.

Inose, Naoki & Sato, Hiroaki. 2012. *Persona: A Biography of Yukio Mishima*. Berkeley: Stone Bridge Press.

Jacoby, Alexander. 2008. *A Critical Handbook of Japanese Film Directors*. Berkeley: Stone Bridge Press.

Nathan, John. 1974. *Mishima: A Biography*. Toronto: Little, Brown and Company.

Richie, Donald. 2014. "The Japanese Eroduction—Inside Out." In *The Pink Book: The Japanese Eroduction and its Contexts*, 2nd ed., edited by Abé Mark Nornes, 331–61. N.p. Kinema Club Book.

Richie, Donald. 1987. A Lateral View: Essays on Culture and Style in Contemporary Japan. Berkeley: Stone Bridge Press.

Sas, Myriam. 2011. Experimental Arts in Postwar Japan: Moments of Encounter, Engagement, and Imagined Return. Massachusetts: Harvard University Press. https://doi.org/10.1163/9781684175024

Wakamatsu, Kōji, dir. 2012. 11.25 The Day He Chose His Own Fate. Tokyo: Wakamatsu Productions, Skhole Co. Film.

Wakamatsu, Kōji, dir. 1966. *The Embryo Hunts in Secret*. Tokyo: Wakamatsu Productions. Film.

Wakamatsu, Kōji, dir. 1969. Go, Go Second Time Virgin. Tokyo: Wakamatsu Productions. Film.

Wakamatsu, Kōji, dir. 1969. *Season of Terror*. Tokyo: Wakamatsu Productions. Film.

Wakamatsu, Kōji, dir. 1971. *Secret Flower*. Tokyo: Wakamatsu Productions. Film.

Wakamatsu, Kōji, dir. 1965. *Secrets Behind the Wall*. Tokyo: Wakamatsu Productions. Film.

Wakamatsu, Kōji, dir. 1967. *Violated Angels*. Tokyo: Wakamatsu Productions. Film.

Wakamatsu, Kōji, dir. 1969. *Violent Virgin*. Tokyo: Wakamatsu Productions. Film.

Wakamatsu, Kōji, dir. 1970. *The Woman Who Wanted to Die*. Tokyo: Wakamatsu Productions. Film.

Weisser, Thomas, and Yuko Mihara Weisser. 1998. Japanese Cinema Encyclopedia: The Sex Films (Pinku Eiga). Miami: Vital Books Inc.

Yomota, Inuhiko. 2019. *What is Japanese Cinema? A History*. New York: Columbia University Press. https://doi.org/10.7312/yomo19162

Yourcenar, Marguerite. 1986. *Mishima: A Vision of the Void*. New York: Farrar, Straus and Giroux.

WANDERING GAZES ON THE SCREEN:

THE AMERICAN MATERIAL ENVIRONMENT IN JAMES BENNING'S FILMS

Péter Horányi

ABSTRACT

The experimental filmmaker James Benning has a unique way of approaching American life through a radical film language. My paper addresses the question of how American material culture and design appear in Benning's early work. A recurring feature is his preference for the depiction of landscapes, buildings, objects, and vehicles over human characters that support viewer identification in mainstream documentaries. In the first half of the paper, I present the main stylistic features of Benning's body of work within the context of structural film and documentary filmmaking. Then I provide a detailed analysis of three of his early films: 11 × 14 (1977), American Dreams: Lost and Found (1984) and Landscape Suicide (1986). I show how Benning was able to create a film language with structural experimentations, long takes, and wide shots that offers a perceptual experience that goes against mainstream narrative film and documentary traditions. Overall, the aim of this study is to present how Benning's art provides an epistemological insight into American design and material culture of the 1970s and 1980s.

#material environments #American Midwest #long takes #structural film #experimental documentary

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INTRODUCTION

This study is an analysis of American experimental filmmaker James Benning's films. I seek to answer the question of how the director uses experimental film language to depict the material environment of the American Midwest. This study will detail how his portrayal of American objects and media creates a highly unique experience for the viewer. I will argue that the director uses long takes and wide shots to create an unconventional filmic experience that requires active participation from the viewer, who can often renew their interpretation of the objects depicted in the films.

In the first two sections, I will present Benning's main motifs and stylistic features in the context of structural experimental cinema and documentary filmmaking. I will show how Benning's frequent use of long takes, wide shots, and structural ideas can both break the "dream screen" identification of mainstream cinema and create a type of perceptual experience that allows the viewer to observe the environment in lot more immersive details than they would in commercial cinema.

In the second half of the study, I will analyse three of Benning's films in detail: 11 × 14 (1977), *American Dreams: Lost and Found* (1984), and *Landscape Suicide* (1986). I will illustrate how he creates films with an emphasis on material environments instead of human stories. I have selected these three films because they are the most focused on the design and material environment of America. Benning's other films focus more on agricultural, natural, or urban landscapes. My aim is to show how Benning was able to reconfigure documentary filmmaking within experimental cinema by replacing human stories with a focus on the design of material and media objects.

JAMES BENNING'S STYLE AND RELATION TO STRUCTURAL FILM

James Benning is an American experimental filmmaker who has been making films since the 1970s. He is an extremely prolific artist, who has made over twenty-five feature-length films and several shorts. All his works have similarly distinct and recognisable forms. They are non-narrative, have no protagonists, typically depict everyday American spaces and environments, and are usually filmed in the Midwest. His style is very stripped down, using fixed camera positions and wide shots almost all the time. Benning's films can be considered both structural films and experimental documentaries, although in many ways they exceed these classifications, as we will see in what follows.

The films of James Benning have been often associated with the American "structural film" movement of the 1960s and 1970s—a term first coined by P. Adams Sitney (2002, 347). Structural film was an experimental film tradition where the main focus of filmic language was on a predetermined and often simplified structure and form. Instead of visual sensation that was typical of experimental filmmakers that preceded structuralists (such as Stan Brakhage, Kenneth Anger, or Maya Deren), the primal impression of the structural was not visual content, but the shape of filmic language (Sitney 2002, 348). Michael Snow's Wavelength (1967) is one of the best examples of this movement, as this film is a forty-five-minute zoom in on two windows over a period of a week. As the camera zooms in, we occasionally see human movement in the background, but the camera ignores the story element altogether, putting the structure of the film to the fore (Rees 1999, 73). This approach is even more obvious in Snow's La région centrale (1971), in which Snow used a camera for twenty-four hours on a robotic arm programmed so that it could not move the same way twice. As the content of the film is solely based on its form, the mountainous landscape remains completely subsidiary to the strange movements of the pre-programmed camera. Due to this, the point of the film is not its documentary value but its own form. Similarly radical structural films include Ernie Gehr's Serene Velocity (1970), which is a recording of a hallway with close-ups and wide shots jumping from one frame to another, and Tony Conrad's The Flicker (1966), which consists of a black and a white frame flickering for thirty minutes, creating a nauseating stroboscopic effect (Sitney 2002, 361).

Other structural films do not completely reject the visual content of the recorded images. Hollis Frampton's *Zorns Lemma* (1970) is structured around the twenty-four letters of the Latin alphabet with each shot composed of words that appear on street signs, photographed in Manhattan (Weiss 1985, 125–26). Although a rhythmic alphabetical pattern structures the film, it is made from documentary images taken from real life, creating a "city symphony" effect. Similarly, Ernie Gehr's *Side/Walk/Shuttle* (1992) uses extreme camera angles and irregular movements from an elevator moving up and down twenty-four floors to observe San Francisco from a strange and alien perspective (Sitney, 2002, 435–36). These structural films also rely on dominant shapes and their visual content is complementary.

What defines structural film is not a specific style—most recognised filmmakers such as Snow, Frampton, or Gehr all make stylistically different films-but the reflexivity of these structural experimentations. As A.L. Rees explains, in these cases the viewer's identification with the screen is interrupted, because structural film rejects the cinema of pure vision. In structural film, form becomes the main focus-point, exposing the film apparatus itself (Rees 1999, 72). One of the simplest examples of this is Snow's Back and Forth (1969), a film that showcases the mechanics of the camera by making the frame go back and forth at increasing speed, revealing the particularities and limitations of the technique (MacDonald 2018, 17). Andy Warhol's experimental films of the 1960s were major precursors of the reflexiveness of structural film and its rejection of dream screen identification (Sitney 2002, 349). His films like Sleep (1963) and Empire (1964) are extremely long, eventless, static films where the viewer watches a single image (a sleeping person and the Empire State Building) for several hours. When the viewer watches these lengthy and almost still images, they no longer primarily perceive the "visual story" of the film, but rather the film material itself (Sitney 2002, 350-52).

James Benning, who made his debut feature-length film 11×14 in 1977, also emphasises structural shapes that predetermine the pace and form of his films, and he was fascinated by the idea of using filmmaking as a means of exploring the film apparatus (MacDonald 2018, 17). His long takes which observe American environments rarely coincide with the filmed event, and follow a mathematical rhythm that is independent from the recorded material (Wahlberg 2008, 95). In his three-part topographical study called "The California Trilogy" containing El Valley Centro (1999), Los (2000) and Sobogi (2001) all three films are exactly eighty-seven minutes long, and have 105 shots, all of which are 150 seconds long, regardless of what happens in the scenes. In the 2000s, he radicalised this approach with even longer scenes and minimalist concepts, often turning from material environments to natural landscapes of America. 13 Lakes (2004) consists of thirteen shots of lakes, each ten minutes long, and each separated by a black screen. Ten Skies (2004) is a series of ten-minute long stationary shots of the sky. For Ruhr (2009) he switched to digital technology from 16 mm which allowed him to extend his shots even further. Perhaps his most radical film, *Nightfall* (2012), contains a single ninety-three-minute recording of a forest and the sun going down. His love of symmetry and numbers reflects a sensitivity for structural shapes that dictate the pacing of his films.

James Benning's structuralism is however very different from Michael Snow's, Ernie Gehr's, or the films of Andy Warhol. The pacing of his films does insist on the reflexive predetermination of form, but they never make the content subsidiary to the outline. His typically long, eventless shots and irregular editing rhythms do produce an alienating effect compared to the experience audiences have of com¹ For more information on the type of historical and environmental issues that recur in Benning's films, see Lübecker and Rugo (2018). mercial films, yet at the same time, Benning's experimental approach can provide a very immersive experience of the American environments. He combines predetermined structures with immersive and detailed recordings of American sceneries, where it is very important to watch the scenes with undivided attention in a cinema environment, not as installations (MacDonald 2007). This is a very different attitude to Warhol's approach, where it is pointless to watch the films in their entirety, and it is also different from the radicalism of Michael Snow, for whom the recorded scenery seems irrelevant to the film.

THE EPISTEMOLOGICAL VALUE OF BENNING'S FILMS: OBSERVING THE AMERICAN ENVIRONMENT WITH WIDE SHOTS AND LONG TAKES

Structural experimentation plays a role in Benning's filmography, however the documentary value of his works is also considerable. While watching Benning's films, we are exposed to a wealth of information on and historical and cultural references to America. We often hear radio broadcasts of political events or observe objects and details that specifically reference a given era of American history. Environmental concerns such as the relation between man and nature are also recurring motifs, while land use activities, forestry, agriculture, and industrial landscapes are some of the typical areas he recorded (Lübecker and Rugo 2018, 5). There is a lot to unfold in his shots both visually and sometimes audibly.¹

Documentary-like observations of everyday reality are an important part of Benning's films. In many ways, he follows the open voiced direct cinema documentary tradition as he observes everyday situations and environments without directly intervening or commenting on the events. Benning's camera brings us the moments mostly captured from reality through a direct observation mode (Nichols 2001, 109–15). However, his films abandon the conventional documentary modes of representation, such as narration and explanatory elements. The contrast with the documentary method is particularly striking in his use of sound, especially when the sound does not belong to the images, in effect alienating one from the other. His divergent use of sound does not provide additional information about the images as documentaries tend to, but rather contradicts the images, sometimes ironically or humorously, as is most apparent in American Dreams: Lost and Found. Furthermore, Benning sometimes creates scenes in which he re-enacts situations with actors, particularly in Landscape Suicide, which also goes against the grain of regular documentary filmmaking.

Although Benning's films are often categorised as "experimental documentaries," this is quite a broad term, and only refers to their lack of narrative yet inclusion of documentary elements. While regular doc-

umentaries rely on expository narration and a somewhat conventional structure to tell a story, the impact of experimental documentaries is achieved through a highly stylised, subjective, and reflexive form. (Renov 1993, 12–36). Experimental film has been intertwined with documentary making since the avant-garde movements of the 1920s and 1930s, which were often attracted to the fusion of the two traditions (MacDonald 2014, 8). However, James Benning does not use highly stylised or poetic film techniques that would make it easy to group him together with classic or contemporary experimental film movements.

In my opinion, James Benning is an experimental documentary maker because he uses an observational documentary technique that provides an almost exclusively perceptual experience into the realities of American material environments. His films create a special type of viewing experience for the audience that does not direct their attention like commercial films do. As every take is lengthy and composed of wide shots, Benning gives the viewer time to observe the details of the depicted imagery. The screen reveals more and more information as we take time to immerse ourselves in the content. Due to the wide and lengthy takes, the lack of narrative and protagonists, we can divide our attention between various parts of the screen and let our gaze wander. In this way we can notice a lot more details than we otherwise would in the environment. In Benning's films the viewer's ability to interpret his films often relies on such a wandering gaze.

To understand the importance of this approach better, in the following film analyses I will explain how Benning's long takes, wide shots, and the wandering gaze help the viewer to immerse in the design environment of 1980s America. I have chosen 11×14 (1977), American Dreams: Lost and Found (1984) and Landscape Suicide (1986) because these three films have many scenes where design and material objects are depicted.

A SELF-REFLECTIVE OBSERVATION OF AMERICAN DESIGN AND MATERIAL CULTURE: 11 × 14 (1977)

 11×14 (the title refers to the 11:14 aspect ratio of the film) is James Benning's debut feature-length film separated into sixty-five takes, all of which depict urban or agricultural environments. The way the film begins by shifting the focus from people and human interaction to the surrounding objects epitomises the pacing and the general approach of the film perfectly. In the very first shot, we see a couple standing in the middle of the pavement, then suddenly a car approaches blocking their view while a train also passes by in the background. Our focus shifts from the hugging couple to the vehicle now in the middle of the frame, which the camera observes in detail. The next shots of the film also show people in their environment either going on their

² For more on experimental documentaries, see MacDonald (2014). way or casually doing something in the background, which tricks the audience into thinking that a narrative of some sort is about to begin, but Benning always interrupts the development of a narrative and turns the camera's focus to the surrounding environment. In 11×14 , we see a constant stream of everyday objects, mostly cars, billboards, and buildings, with ordinary people going about their business. We automatically try to discern the stories of these observed people, but Benning turns our attention away to the environment, showing the design of the houses, the cars, and the furnishings in lengthy detail. In Benning's world, ordinary people are surrounded by huge inanimate objects (fig. 1).



FIGURE 1. In 11 × 14, the focus of the camera is always on the environment not the people. The lengthy wide shot helps us to immerse in the details of the place. Source: Österreichisches Filmmuseum.

> Benning's mode of observation is highly unconventional. In one scene we see the kitchen of an average American family, with one member of the couple smoking a cigarette at the table while the wife does the dishes and a shadowy figure gets dressed in the background. Traditional documentary film would focus on human action, but in Benning's film the characters slowly walk out of the frame and the camera then pans slowly through the empty and uneventful kitchen (fig. 2). We might expect that once the characters have left the sequence would end, so this extended shot in the kitchen interrupts our immersion in the scene and makes us realise that we are perceiving something different than we expected. Benning's pacing is not determined by the action of the human figures. Without narrative information, the audience begins to focus on the visual information of the environment instead. In another scene, we see a lesbian couple lying naked in bed for several minutes. In the background, a Bob Dylan song plays from vinyl. This scene does not reveal much about the characters either, however

it does give the audience a lot of time to examine the material environment surrounding them. Again, this change of focus created by the extended shot shifts the viewer's attention from human stories to objects.



FIGURE 2. American kitchen in 11 × 14. Source: Österreichisches Filmmuseum.

This change of attention occurs in many scenes in 11 × 14. There are several scenes where it seems as if something is happening because people are doing something, but Benning's camera never focuses on such an event, but rather on the material world around the people. From this perspective, one of the most expressive scenes is of a human silhouette sitting on a train, surrounded by the landscape that flies by through the surrounding windows. By continually alienating the viewer with this shift of focus, the viewer begins to look at the material world from a new perspective, one with a heightened attention to objects and an observation of details that would not be considered important in a traditional documentary.

A very important recurring motif in the film is modern vehicles, since people are constantly on the move. Benning's images depict an accelerated modern civilisation, rich in external stimuli, constantly besieged by information overload. Benning often uses multi-layered compositions to convey the complexity of the world and the different visual stimuli that simultaneously affect people. Billboards are a very important part of the focus of the film (fig. 3). In the film, we see a lot of long takes of alcohol or cigarette ads, and Coca-Cola billboards and neon signs positioned so that they are visible from the highway by passing cars. Benning's long takes make us look at these billboards for much longer than the people driving on the highway. In other words, the film provides a perspective on these ads that contradicts their design principle. An advertisement is designed to be noticed by a passer-by for a fleeting moment, burned into their memory in an instant. However, by showing these advertisements for an extended period of time, Benning's long takes shift the focus from people to objects, and we are able to examine the billboards in much more detail than they were designed to be. With this change in the object of perception (from narrative element to visual component) it is possible for the viewer to examine the image more closely. The human figures in 11×14 seem to be unconsciously passing by in this depicted world, and the camera creates a focus in which we are consciously aware of the surrounding material world and its intense effects. Benning thus combines a documentary vision with an experimental form to create a cinematic experience that allows us to view the material world with a critical eye.

The wandering gaze of the spectator also changes our interpretation of some of the designed objects in 11×14 . As Dagmar Steffen says, the interpretation of a designed object varies considerably depending on the context in which it is placed (2013, 59). I believe Benning's usage of long takes alters the context in which objects were meant to be viewed, introducing a type of perception that is very different from how we look at these objects in everyday life. As a consequence of our recurring, long-term exposure to advertising products we notice how they are but facades for consumerism. When we see Coca-Cola and cigarette billboards in 11×14 , their underlying ideology come to the fore, while the narrative information of the advertisement is secondary. Thus, the extended shots not only promote contemplation but actually offer an epistemological insight into what these images actually are. We can see that Benning uses a documentary filmmaking method where he draws attention to social issues through observation not narration

FIGURE 3. Billboard in 11 × 14. Source: Österreichisches Filmmuseum.



HOW DOCUMENTING BECOMES A SENSATIONAL EXPERIENCE: AMERICAN DREAMS: LOST AND FOUND (1984)

Benning's film American Dreams: Lost and Found (the title refers to the novel written by Studs Terkel of the same name from 1980) was made between 11×14 and Landscape Suicide and stands out from the director's films because it contains no moving images at all. The "predetermined and simplified" structure that Sitney attributes to structural films in general is very noticeable here (Sitney 2002, 347). The film, like a museum wall, displays American baseball memorabilia from 1954 to 1976, accompanied by radio broadcasts and handwritten diary entries by Arthur Bremmer, the man who tried to assassinate US presidential candidate George Wallace in 1972 (fig. 4). American Dreams perfectly showcases the unique cinematic language that Benning uses to transform information into a perceptual experience in his films.

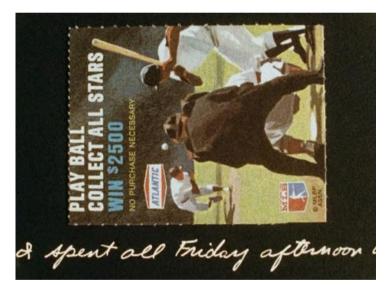


FIGURE 4. One of the many Baseball cards we observe in detail in American Dreams: Lost and Found. Source: Österreichisches Filmmuseum.

Like 11 × 14, American Dreams also focuses on the sensory effects of the material objects. There is so much text in American Dreams, it is impossible to absorb all the information projected onto the screen. The film does not provide a narrative about the historical or cultural context of these materials, instead it focuses on the design of their visual appearance. When watching the film, we stop reading all the material after a while and the graphic design rises above the content, thereby beginning the shift away from information to sensory experience. This is how design comes to the fore while the "narrative elements" of the object recede. Similarly, as in 11×14 , we start to observe the design of the images: how the cards looked in the eighties,

what style they were edited in. American Dreamsdoes not use mainstream narrative methods to explain details of eighties object culture, but rather brings the atmosphere of the era to life through an array of various artefacts. The objects "speak for themselves," reflecting a period whose style showcased an obsession with materialism. Therefore, the documentary value of the film is still considerable, only it is without a directed attention, as Benning lets us observe these objects with a wandering gaze.

What Dagmar Steffen says about the interpretation of a designed object varying depending on the context in which it is placed, is also relevant here (Steffen 2013, 59). When we see such memorabilia in a structural film context, their recurring characteristics come to the fore. We start to notice their patterns and visual messages which many times seem to revolve around masculinity and consumerism. We can see that Benning uses a structural shape to help us notice these details. Furthermore, the images in the film are accompanied by loosely related audio recordings, such as political commentaries, news reports, and other radio broadcasts from around the time the film was made. Benning does not want to provide general information about the objects and the time period, but to give an eclectic associative experience of the atmosphere of the era. We do not see these objects in their regular environment and the lack of an explicitly related audio track enhances this effect.

DECONSTRUCTION OF THE CRIME DOCUMENTARY: LANDSCAPE SUICIDE (1986)

Landscape Suicide continues the experimental nature of the previous films, but what is new here is that Benning was influenced by investigative documentaries and the film even has a semi-cohesive narrative throughout. Landscape Suicide recounts two murders that happened thirty years apart: The first part of the film is based on the murder of Kirsten Coasts, who was stabbed by her high-school friend Bernadette Protti in Northern California in early 1894. The second half is based on the homicides committed by Ed Gein in Wisconsin in 1957. What is unique about the film is that it is an experimental film embedded in the framework of an investigative documentary. Its primary focus is not on uncovering the story but on mapping the environment and the material world in which the incidents took place.

Benning employs actors to re-enact the defendants' confessional testimonies. This approach is surprisingly reminiscent of educational documentaries, but Benning also presents these scenes in a way that does not make them seem like a traditional talking head interview. At one point in Bernadette Prutti's interview, the actor playing the girl gets up and walks off the set while the camera keeps rolling and pans the wall behind the girl until she returns. This scene is similar in approach to the kitchen scene in 11×14 where the departure of the human characters from the scene results a change of attention for the viewer. The film often provides long extended shots of the buildings, roads, and neighbourhoods that were somehow related to the murders, such as the sheriff's department where Prutti was held as a suspect, but it does not provide much context about these environments. Therefore, what the viewer obtains from these scenes is not so much the circumstances of the incidents but rather the look and design of the environments that surrounded these events.



FIGURE 5. Scene from Landscape Suicide. Source: Österreichisches Filmmuseum.

In other scenes, the film moves away from storytelling altogether, and in these episodes, experimentation with cinematic language comes to the fore. In the very first scene, we see a shot of a man playing tennis for such an extended period of time that it completely loses its narrative value and we are no longer watching a story of a man playing tennis, but the shape of his movement, the design of the tennis racket, and the sound of the racket hitting the ball. Once again, the images are stripped of their narrative and become solely visual experiences. In Landscape Suicide there is an emphasis on the way we see people in their everyday material environment. In one scene, a young woman makes a long phone call while lying on her bed, but music playing from a vinyl record prevents us from making out what she is saying (fig. 5). The viewer is thus drawn not to the topic of the telephone conversation itself, but to the materials found around the girl, the design of the record player, the books on her bed, the shape of her dress, and the design of the curtains, with such a level of detail that a conventional narrative documentary would not

be able to achieve. In another scene we see an elderly lady dancing in her living room. This episode is in the neighbourhood where one of the murders took place and only incidentally related to the murder investigation. The scene, as always, is filmed in a wide shot, so the focus is not primarily on the dancing, but on the material world around the lady: the lamp, the curtains on the armchair and the radio playing the music (fig. 6). As in 11×14 , in Landscape Suicide we get to observe many locations with long extended shots, where the ordinary person would otherwise pass quickly or not pay much attention: streets, highways, gas stations, liminal spaces that are momentarily experienced by someone passing through. As a viewer, we are often waiting to see how the film will further develop the story, endow us with a sense of readiness and we look more deeply at the scenes to see if they reveal something relevant to the case. Benning directs the gaze of the audience to the atmosphere, vehicles, clothing, and house decorations of the material culture of the time.

FIGURE 6. Observing the design environment in Landscape Suicide. Source: Österreichisches Filmmuseum.



CONCLUSION

My analysis of the three films has led me to the conclusion that the unconventional documentary style, the long takes, and the structural shape of Benning's films has three loosely connected basic effects on the viewer. 1: Due to the long takes, the viewer notices more details in the design and material objects than they would in a film where their attention is absorbed in the development of a narrative. 2: The long takes do not necessary provide the viewer with knowledge, but they do establish a general atmosphere and mood of an environment. 3: The structural experimentations alert the viewer to the film apparatus and this contributes to a watching experience very different than with a regular documentary. All this results in a more self-aware and critical viewing experience. These films do not merely observe reality in detail but provide a view that goes beyond the intended meaning of the observed objects. Benning uses this structural technique to stimulate social criticism.

I have shown that Benning's films are in many ways at odds with traditional documentary filmmaking, but nevertheless paint a vivid picture of American reality. Through my analysis of 11×14 , I have shown that with long takes, the viewer begins to observe in depth the design of objects not designed to be viewed for long periods of time, such as billboards that are located next to a highway. Through my analysis of American Dreams: Lost and Found, I discussed how Benning presents various objects (in this case, diary entries and baseball memorabilia) by focusing on their design and style rather than their informational value. The peculiarity of Benning's documentary method is that he is much more concerned with the mood and sensory experience of the design of objects than the information associated with them. Lastly, through my analysis of Landscape Suicide, I pointed out that by deconstructing the investigative documentary genre, he creates a film where the audience does not focus on solving the case but on a sensory exploration of its material environment. The focus is not on the investigation, but on the mood and atmosphere of the environment in which the incidents took place.

Finally, the way Benning shows the American environment in these films is unique. The long shots affect the viewer's perceptual experience in such a way that each landscape, house, billboard, or vehicle filmed is endowed with specific qualities. When we spend minutes looking at ordinary homes, ordinary cars, or even ordinary American furniture in *Landscape Suicide* or 11×14 , each filmed object begins to transcend the ordinary and starts to have personal characteristics, every object becomes particular, a personal, unique, and self-identical thing. Benning presents a very intimate, personal, and museum-like perspective on these American worlds.

Overall, my aim with this article was to show a documentary method that does not seek to explore reality through clear storytelling and educational content, but rather to offer a new perceptual experience on it which does not direct our attention as commercial films do. Benning uses long takes to let our gazes wander across the screen notice details we otherwise would not. There are very few documentaries that so decisively play with time.³ Benning's films are stripped down, devoid of any external narrative elements, yet they engage with one of the most fundamental sensations that we can perceive: the passage of time. ³ For documentaries with similar attitudes towards time, see Peter Hutton's films, such as At Sea (2007) and Three Landscapes (2013), Viktor Kosakovskiy's Aquarela (2018) and Gunda (2020) or Daniel Zimmermann's Walden (2018).

REFERENCES

Benning, James, dir. 1984. *American Dreams: Lost and Found*. Vienna: Österreichisches Filmmuseum, 2011, DVD

Benning, James, dir. 1977. 11 x 14. Vienna: Österreichisches Filmmuseum, 2018, DVD.

Benning, James, dir. 1986. *Landscape Suicide*. Vienna: Österreichisches Filmmuseum, 2011, DVD.

Lübecker, Nikolaj and Rugo, Daniele. 2018. "Introduction." In James Benning's Environments: Politics, Ecology, Duration, edited by Nikolaj Lübecker and Daniele Rugo, 1–15. Edinburgh: Edinburgh University Press.

MacDonald, Scott. 2007. "Testing your Patience: An Interview with James Benning." *Artforum* (online), September. https://www.artforum. com/print/200707/testing-your-patience-an-interview-with-jamesbenning-15707

MacDonald, Scott. 2014. Avant-Doc: Intersections of Documentary and Avant-Garde Cinema. Oxford and New York: Oxford University Press.

MacDonald, Scott. 2018. "Surveying James Benning." In *James Benning's Environments: Politics, Ecology, Duration,* edited by Nikolaj Lübecker and Daniele Rugo, 15–39. Edinburgh: Edinburgh University Press.

Nichols, Bill. 2001. *Introduction to Documentary*. Bloomington and Indianapolis: Indiana University Press.

Sitney, P. Adams. 2002. *Visionary Film: The American Avant-Garde 1943-2000.* New York: Oxford University Press.

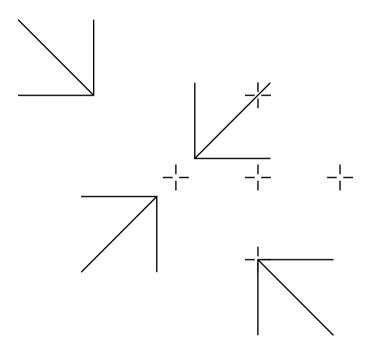
Steffen, Dagmar. 2013. "Jelentés és elbeszélés a terméktervezésben." Helikon Irodalomtudományi Szemle 1: 55–67.

Rees, A.L. 1999. A History of Experimental Film and Video. London: British Film Institute.

Renov, Michael. 1993. "Toward a Poetics of Documentary." In *Theorizing Documentary*, edited by Michael Renov, 12–36. New York and London: Routledge.

Wahlberg, Malin. 2008. *Documentary Time: Film and Phenomenology*. Minneapolis and London: University of Minnesota Press.

Weiss, Allen S. 1985. "Frampton's Lemma, Zorn's Dilemma." October 32: 118–28.



THE HIDDEN ARCHITECTURE OF CINEMASCOPE SET DESIGN

Marshall Deutelbaum

ABSTRACT

Almost seventy years after the popular success of the CinemaScope film, The Robe, inaugurated the widescreen era, there remains little critical understanding of the design logic of wide format films. Drawing on the evidence gained from an examination of nearly two hundred CinemaScope films, this essay focuses on the earliest of CinemaScope films, How to Marry a Millionaire (completed before The Robe but released after it), to offer a radical re-thinking of how set design is the key to widescreen aesthetics. The essay illustrates how, from the very beginning of CinemaScope production, a pair of grids were used to determine the composition of the frame and placement of actors within it, jobs that were normally ascribed to the director. Thus, far from being mere background, the grid-defined film sets add to the general sense of heightened interconnectedness that, like narrative and plot, satisfy a viewer's desire for order and coherence.

#CinemaScope, #set design, #composition, #grid, #rabatment

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Geometry is the grammar, so to speak, of the form. It is its architectural principle. —Frank Lloyd Wright, The Japanese Print: An Interpretation

Dorota Ostrowska could be describing the current state of scholarship about widescreen films in her essay entitled "Magic, Emotions and Film Producers: Unlocking the Black Box of Film Production," when she observes that "we don't understand yet how to see a film as shaped by its process of production, as a representation of this process as opposed to the representation of reality." This is because, as Ostrowska goes on to explain,

most critics and scholars think about the films from the position of a spectator, thus emphasising the social and cultural perspective linked to film reception rather than to film production. At the same time little effort seems to go towards establishing a conceptual link between the processes of filmmaking and the aesthetic object that is film, resulting from these processes. (Ostrowska 2013, 151–152)

What is required, she concludes, is "Seeing images in terms of the process of their production" (Ostrowska 2013, 152).

With almost no access to production materials that might provide guidance to understanding the production process of widescreen films, "seeing [widescreen] images in the process of their production" might seem an insurmountable challenge were it not for the solution to a similar problem that architectural historians found when trying to understand Frank Lloyd Wright's design process. Wright left few preliminary drawings or explicit explanations for the design process of any of his buildings. In "The Integrated Ideal: Ordering Principles in Wright's Architecture," Robert McCarter suggests how, despite this lack, one might begin to discern Wright's design process by studying individual buildings:

[T]he insights into the process of making must be drawn first from things: the buildings themselves. Analysis and design are here understood to be reciprocal; by subjecting Wright's designs to formal and spatial analyses, we may reveal the marks of their making. Wright's process of design went from the general to the particular, therefore analysis should go from the particular (building) to the general (principle). Thus we may work our way "backward," attempting to draw out from the architecture the ordering principles that shaped it. (McCarter 2005, 286)

This essay follows the same methodology. It is based upon working backward from the results of the formal analyses of nearly two hundred widescreen films to the principles that guided their visual construction. The images of the sets built for the films were examined as though they were the final two-dimensional drawings prepared by set designers. A statement by Lyle Wheeler, longtime head of Twentieth Century-Fox's art department quoted by Beverly Heisner in *Hollywood Art: Art Direction in the Days of the Great Studios* justifies this assumption:

The art director was the one who said what went into the construction of the set, and his design had to be followed exactly by the crew and the set dressers. No liberties were taken with the art director's designs. (Heisner 1990, 203)

Because my analyses reveal that the fundamental rules defining widescreen aesthetics were embodied in the set designs for widescreen films, my discussion differs radically from how set design is treated in the current literature. Set design is generally analysed in relation to narrative, as described in the highly regarded *Sets in Motion: Art Direction and Film Narrative* by Charles Affron and Mirella Jona Affron (1995). While I do not ignore narrative entirely, my focus is more fundamental, centring on the rules that guide the production of set designs. In addition, where standard surveys of cinematic set design tend to focus on exceptional sets of great size, unusual design, or elaborate detail, my discussion concerns the average or typical set. Finally, in contrast to the unacknowledged assumption that sets are designed from scratch for each film, I define the foundational rules common to set design in all widescreen films, regardless of studio, genre, or specific set designer. The rules I describe appear to have been part of the industry's rationalisation of set design.

Specifically, I discuss the sets designed by Lyle Wheeler and Leland Fuller for *How to Marry a Millionaire* (Twentieth Century-Fox, 1953), the very first CinemaScope film to go into production. Focusing on one of the earliest CinemaScope films tests the received opinion was that the first CinemaScope films were cinematically deficient, as expressed by François Truffaut in his essay "A Full View":

Certainly—the extracts that have been shown prove it—the first films made in CinemaScope will be mediocre. [...] We shall have to wait for the shooting of a film in CinemaScope to be as natural an occurrence as an ordinary flat black and white film before directors can enjoy the same kind offreedom. (Truffaut 1985, 274) As my discussion will demonstrate, there is nothing tentative or uncertain about the filmmakers' initial use of the CinemaScope format for the rules guiding CinemaScope composition were already clearly defined when the sets were first designed.

Not surprisingly given the standardisation of film production, my analysis of nearly two hundred films revealed that the design of CinemaScope sets was guided by a pair of grids. One grid, laid over the outline of the CinemaScope frame, divided the area within the frame into a number of equal columns. In practice the number of columns ranged from three to sixteen. In almost all of the films I examined, once the number of columns was decided for a film, the same columned grid guided the composition of all the sets for that film. The grid used in laying out the sets for *How to Marry a Millionaire* divided the frame vertically into ten equal columns (see fig. 1). Partially overlaying this grid on frames from the film reveals how the grid lines guided the placement of elements in every set.



FIGURE 1. The Ten-Column Grid.

FIGURE 2. How to Marry a Millionaire. Source: The Walt Disney Company.

The most obvious example of the grid's presence occurs in a powder room sequence where Loco Dempsey (Betty Grable) poses before a slightly curved bank of four mirrors (fig. 2). Grid lines coincide with the frames of the mirrors. (It is worth noting how the band that curls around the lamp on the right of the frame mimics the swirl of Loco's pose as reflected in sequential stages in the mirrors.) Moments later, Pola Debevoise (Marilyn Monroe) also poses in the front of the mirrors. Earlier in the film, Schatze Page (Lauren Bacall) strikes a similar pose,

FIGURE 3. How to Marry a Millionaire. Source: The Walt Disney Company.



hands on hips and without reflections in front of a wall of windows in an apartment (fig. 3).

The following frame occurs at the beginning of a long take at the start of *How to Marry a Millionaire*. Schatze, in the company of a rental agent named Benton (Percy Helton), inspects a posh New York City apartment she hopes to rent as part of her scheme to find a wealthy man to marry (fig.4). Reading from the right, a column is placed along a grid line; a doorjamb coincides with a grid line, the edge of a shelf abuts a grid line; a jig in the wall coincides with a grid line, as does a corner of the wall; the corner of a display cabinet aligns with a grid line; two grid lines define the width of a doorway; and the edge of a lamp rests against a grid line. In this way the grid defines the placement of the details that fill the frame in an orderly, rational manner.

FIGURE 4. How to Marry a Millionaire. Source: The Walt Disney Company.



As the shot continues, the camera follows Schatze's inspection of the room (fig. 5). At this moment in the shot, she pauses as Benton tells her that the apartment's owner has left the country to avoid having to pay back taxes. The shot reveals the patio outside the apartment and the view of the city as seen through a wall of windows. Here, again, the composition of the set has been guided by the ten-section grid. The precision with which the framing of the window aligns with grid lines is especially impressive. Next, without a cut, the camera follows Schatze to a table where she sits to write a check to rent the apartment (fig. 6), a shot which reveals another view of the set. Partially overlaying the same tencolumn grid shows how it was used to compose this view of the set.



FIGURE 5. How to Marry a Millionaire. Source: The Walt Disney Company.

FIGURE 6. How to Marry a Millionaire. Source: The Walt Disney Company.

The ten-section grid is used consistently to compose other views of the apartment at different times: a hallway outside its entrance, a view just inside the entrance after the furniture has been removed, a wider view of a similarly empty living room, and a view of a bare expanse of wall (figs. 7–10).

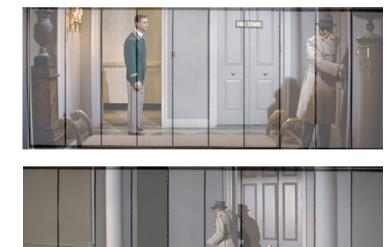


FIGURE 7. How to Marry a Millionaire. Source: The Walt Disney Company.

FIGURE 8. How to Marry a Millionaire. Source: The Walt Disney Company.

Occasionally, as in figure 8, a grid line does not have a corresponding match in a set's design; at times, the corresponding match may be the edge of a shadow, as in figure 9, where the match is the edge of a shadow above the fireplace.

FIGURE 9. How to Marry a Millionaire. Source: The Walt Disney Company.



FIGURE 10. How to Marry a Millionaire. Source: The Walt Disney Company.



Elsewhere in the film, the grid guides the composition of a fancy restaurant, Tom Brookman's (Cameron Mitchell's) office, the hotel lobby from which J. Stewart Merrill (Alex D'Arcy) telephones Pola, and the train car in which Loco travels to Maine with Waldo Brewster (Fred Clark), see figs. 11–14.

The explanation for why such care has been taken to use the grid to compose each view of the set is probably the same as the explanation that philosopher Noël Carroll offers for the satisfaction that audiences derive from a film's narrative:

Our experience of actions and events in movies differs radically from our normal experiences; movie actions and events are so organised, so automatically intelligible, and so clear. The arresting thing about movies, contra realist theories, is not that they create the illusion of reality, but that they reorganise and construct, through variable framing, actions and events with an economy, legibility, and coherence that are not only automatically available, but which surpass in terms of their immediately perceptible basic structure, naturally encountered actions and events. Movie actions evince visible order and identity to a degree not found in everyday experience. This quality of uncluttered clarity gratifies the mind's quest for order, thereby intensifying our engagement with the screen. (Carroll 1985, 93)

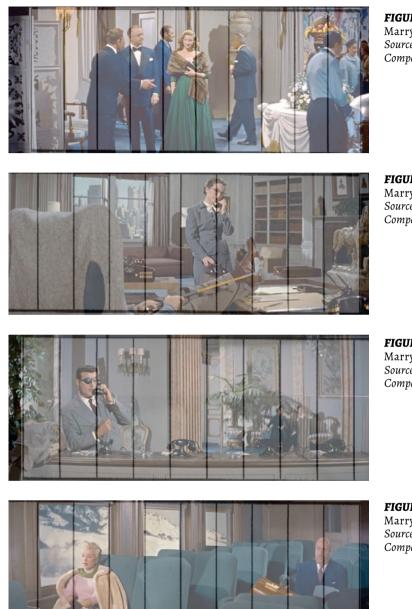


FIGURE 11. How to Marry a Millionaire. Source: The Walt Disney Company.

FIGURE 12. How to Marry a Millionaire. Source: The Walt Disney Company.

FIGURE 13. How to Marry a Millionaire. Source: The Walt Disney Company.

FIGURE 14. How to Marry a Millionaire. Source: The Walt Disney Company.

One need only substitute "sets" for "actions and events" to see the applicability of Carroll's explanation for the pleasure derived from the consistency of sets uniformly composed according to the same grid. The use of the same grid to arrange the set throughout the film offers audiences the experience of a rationally ordered world.

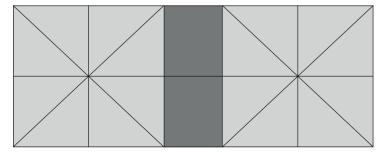
The second grid applied to all the set designs in the film is created by the rabatment of the rectangular CinemaScope frame. Rabatment uses a length equal to the height of the frame to construct squares at both ends of the frame. Because the squares do not fill the frame entirely, the unfilled space between them looks like a vertical rectangle at the centre of the frame. Rabatment has been used by artists as a guide for laying out the details of a rectangular composition since at least the fourteenth century, as illustrated by Giotto's rectangular fresco, *Trial by Fire of St. Francis of Assisi before the Sultan of Egypt* (circa 1315–1320, Florence, Santa Croce, Cappella Bardi, lower right wall, fig. 15). The sultan's throne, flanked by squares, fills the central rectangular space between the squares.

FIGURE 15. Giotto, Trial by Fire of St. Francis of Assisi before the Sultan of Egypt (ca. 1315–1320).



Figure 16 illustrates the rabatted frame:

FIGURE 16. The rabatted frame.



I have added vertical and horizontal mid-lines and diagonals to the squares. In addition, I have shaded the central vertical rectangle to increase its visibility in my discussion of its use. The central vertical rectangle is designed into every set near its middle. Overlaying this rabatted frame on the initial shot of Schatze Page as she surveys the apartment shows how the grid's vertical rectangle fits precisely between the left edge of the mirror's frame and the point at which the back of the tall display case abuts the wall (fig. 17). The position of the vertical rectangle is important because it quite often marks the place where a lone actor, or for the moment, where a less important actor should be positioned. Claiming that the disposition of actors is determined by the rabatted grid is a radical assertion that contradicts long-standing received opinion.

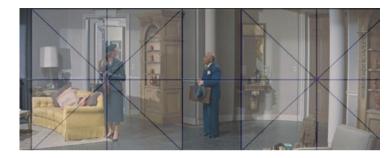


FIGURE 17. How to Marry a Millionaire. Source: The Walt Disney Company.

The disposition of actors within the motion picture frame is usually explained as the result of blocking or staging: how a director chooses to arrange the position and movement of actors in relation to the camera. Something other than this traditional notion of blocking, however, seems to determine the actors' positions in CinemaScope movies. John Belton senses this in *Widescreen Cinema* where he describes two unusual, recurrent arrangements he has noticed for positioning actors within the CinemaScope frame:

Most typically, the frame was composed with the primary figure of interest in the centre, with the secondary figure (or figures) placed to the right or left. (Though exact symmetry tended to be avoided because it "deadened" the composition [...].) The effect of this strategy was to redirect the spectator's attention around figures grouped to either side of the literal centre of the screen, that is, to "recentre" them around an "eccentric" focal point [...]. Yet another strategy, used less often than the other two, involved the placing offigures at the centre of the right or left half of the image, with the remaining three-quarters of the image left empty of narratively significant information. (Belton 1992, 200–201)

Belton does not offer any explanation for these positionings. The rabatted grid provides the missing explanation.

The still of Schatze Page and Benton appear to be a variation of the strategies Belton describes (fig. 17). In the shot, the least important character, Benton, occupies the vertical rectangle at the centre of the frame, while the important character, Schatze, stands on the mid-line of the left square. The right square is "empty of narratively significant

information." (Belton 1992, 200–201) In fact, this arrangement is quite common when there are only two actors in a shot. Another common arrangement is to position each actor on the midline of the squares in a two shot (fig. 18). The final shot in this scene repeats the initial positions of the actors, with Benton again within the vertical rectangle but with Schatze now on the mid-line of the right square (fig. 19).

FIGURE 18. How to Marry a Millionaire. Source: The Walt Disney Company.



FIGURE 19. How to Marry a Millionaire. Source: The Walt Disney Company.



In much the same way, the rabatted grid also accommodates groupings of three, four, or more actors (figs. 20–22). To begin with, Pola occupies the vertical rectangle, alone, while she talks with J. D. Hanley (William Powell) and Mrs. Page who are positioned on the vertical midlines of the left and right squares respectively. When Loco Dempsey joins Pola in the vertical rectangle, the three shot becomes a four shot as the camera moves closer and reframes the group. A group of five figures aligns two with the central vertical rectangle while positioning the film's three main characters on or near the mid-lines of the squares.

FIGURE 20. How to Marry a Millionaire. Source: The Walt Disney Company.





FIGURE 21. How to Marry a Millionaire. Source: The Walt Disney Company.



FIGURE 22. How to Marry a Millionaire. Source: The Walt Disney Company.

How to Marry a Millionaire adapts traditional shot/reverse shot cutting to the CinemaScope format by moving the actors further apart. With the rabatted grid overlaid on the pair of shots, each actor is positioned by the mid-line of a square. The wall trim and architectural detail of the set define the central vertical rectangle of the grid (figs. 23-24).



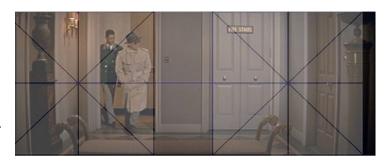
FIGURE 23. How to Marry a Millionaire. Source: The Walt Disney Company.

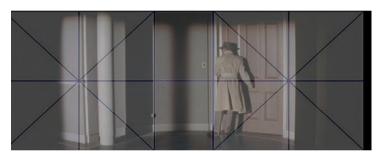
FIGURE 24. How to Marry a Millionaire. Source: The Walt Disney Company.

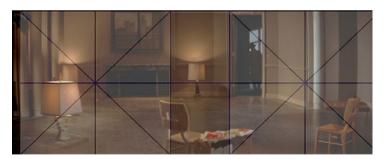


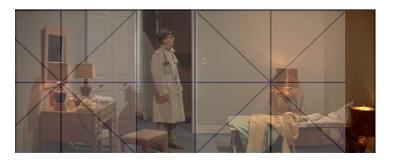
Finally, Freddie Denmark (David Wayne), who has gone into hiding in order to avoid arrest for tax fraud, returns to the apartment that the women have sublet from him in order to retrieve a document from the wall safe in a bedroom. He needs the document to prove himself innocent of tax fraud (fig. 25]. Eight shots trace his movements from

FIGURE 25. These stills from How to Marry a Millionaire show how the architecturally defined central vertical rectangles contribute to visual continuity from shot to shot. Source: The Walt Disney Company.











the hallway outside the apartment, through the apartment to the wall safe in a bedroom closet, to how he hides on the terrace when Schatze and J. D. Hanley return unexpectedly to the apartment. Visual continuity from shot to shot is based upon how architectural details define the central vertical rectangle near the centre of each frame.

Adjusting the frames slightly so their central vertical rectangles are aligned further clarifies their visual continuity from shot to shot. The first two shots merit closer attention for what they reveal about the modular nature of the film's sets. To begin with, the wall between the elevator and the door to the stairs in the hallway in the first shot is identical to the section of wall inside the apartment between the door and the dark panel. In addition, the size and shape of the doorway to the stairs in the first shot is continued in the second by the door of the apartment. Similarly, to the left of the central vertical rectangles, the width of the elevator and adjacent sliver of wall in the first shot is continued in the second shot by a similarly shaped and defined section of wall. In both shots, these additional continuities precisely fill the spaces between the vertical rectangle and the vertical mid-lines of the adjacent squares.

Looking closely at the film's sets with the aid of these grids begins to open the black box that *How to Marry a Millionaire* has been in standard accounts of early CinemaScope filmmaking. The columnar and rabatted grids expose the fully developed aesthetic that guided the film's visual logic. To be sure, both director Jean Negulesco and cinematographer Joseph MacDonald, are important to the creation of the film, but in some ways, as this essay has demonstrated, they remain subservient to the dictates of its set design. To the extent that the grids standardise the film's design as an industrial process, the subtle variations with which the designers define the central vertical rectangle of the grid and incorporate it into the set designs disguises its presence. In redirecting the attention usually accorded the director and cinematographer to set designers, then, this essay begins to recognise the central aesthetic importance of set design to widescreen films.

REFERENCES

Affron, Charles, and Mirella Jona Affron. 1995. Sets in Motion: Art Direction and Film Narrative. New Brunswick, NJ: Rutgers University Press.

Belton, John. 1992. *Widescreen Cinema*. Cambridge, MA: Harvard University Press.

Carroll, Noël. 1985. "The Power of Movies." Daedalus 114 (4): 79–103.

Frank, Marie. 2011. Denman Ross and American Design Theory. Hanover, NH: University Press of New Hampshire.

Heisner, Beverly. 1990. *Hollywood Art: Art Direction in the Days of the Great Studios*. Jefferson, NC: McFarland.

McCarter, Robert. 2005. "The Integrated Ideal: Ordering Principles in Wright's Architecture." In On and By Frank Lloyd Wright: A Primer of Architectural Principles, edited by Robert McCarter, 286–337. New York: Phaidon.

Ostrowska, Dorota. 2013. "Magic, Emotions and Film Producers: Unlocking the Black Box of Film Production." *Images: The International Journal of European Film, Performing Arts and Audiovisual Communication* 22 (9): 151–59. https://doi.org/10.14746/i.2013.22.10

Truffaut, François. 1985. "A Full View." In *Cahiers du cinema: The* 1950s, *Neo-Realism, Hollywood, New Wave*, edited by Jim Hillier, 273–74. Cambridge, MA: Harvard University Press.

Wright, Frank Lloyd. 1912. *The Japanese Print: An Interpretation*. Chicago: Ralph Fletcher Seymour.

FROM SCREENWRITING TO SPACE-WRITING

María Cecilia Reyes

ABSTRACT

In the past ten years, audiovisual creators have been working on the development of narrative experiences for extended reality (XR) technologies, especially virtual reality (VR). The evolution of this practice has led to the creation of a technical language and processes. The transfer of knowledge from cinematography and videography has been the basis for the creative practice of "immersive narratives," very often carrying with it jargon and practices that do not fit entirely with XR's spatial nature. In this essay, I reflect on whether we are still writing for a screen or writing for space from a practitioner's perspective. Such a change of perspective starts with the recognition of the perceptual sphere and how to compose scenes in it. In this regard, a review of storyboarding for VR, followed by my own experience in creating an interactive VR movie, allowed me to reflect on the concept of framing, camera positions, and authorial intentions. Finally, I argue that we can move from screenwriting to space-writing in relation to the technologies and immersive power of XR.

#immersive narratives, #screenwriting, #space-writing, #storyboarding, #XR, VR

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INTRODUCTION

Theory is often ahead of practice, but in virtual reality (VR) storytelling the opposite seems to be the case. Since the beginning of the third wave of VR, practitioners have taken control of the medium by experimenting and translating previous knowledge from legacy media, especially filmmaking, into the new medium. We have seen how VR storytelling techniques have evolved considerably in the past ten years. We have also witnessed how the term *immersion* has taken over the extended reality (XR) technologies, often called "immersive technologies." XR narrative experiences are called "immersive stories" or "immersive narratives." This moment in the evolution of computer-mediated immersive narratives requires us to reflect on our current storytelling practice.

We understand XR screenwriting as the practice of writing stories for screens of immersive technologies. However, these screens are in effect imperceptible to the user. In other words, they are a kind of invisible mediation, offering the users the illusion that their bodily awareness in space is "unaided." In this sense, I wonder how our practice as storytellers can evolve from screenwriting to space-writing?

In this article, I examine several design concepts and frameworks for VR screenwriting: the comprehension of the human perceptual point of view; the segmentation of the perceptual sphere; and how meaning is created through camera positions. Finally, I propose to expand these spatial notions to other types of immersive storytelling, tech-based or analogue, interactive or not, linear or non-linear.

2. WRITING IMMERSIVE STORIES

My path as a creator has taken me from filmmaking, performance, and oral storytelling to interactive fiction in cinematic VR, and more recently to work on multi-reality narratives that move from physical space to virtual space and vice versa. During my career as a creator and researcher, I have seen that experimentation has been the only constant in the artistic practice of creating narrative for VR, and more broadly, for "immersive" storytelling. It was natural for me to approach the VR medium from cinematic VR, in the form of 360° live-action video, and to test classic narratological concepts, such as narrator type, time, velocity, and narrative distance (Reyes 2019), as well as testing filmic screenwriting, shooting and editing techniques (Reyes and Zampolli 2018).

Even though tech manufacturers have been reclaiming the term immersion for XR technologies, writing for immersive narratives expands beyond the computer-mediated all-surrounding experiences, to comprise non digital immersive experiences as well. In this regard, Christian Stiegler (2021) already called for a broader understanding of immersion: "immersion should be understood as a socio-cultural concept, which defines the sensation of all-encompassing engagement and involvement in all-surrounding mediated experiences" (65). He goes further, stating that "immersion generates psychological sensations that make it difficult to distinguish between the physical and the mediated" (53).

Storytellers creating spatial narratives come from very different backgrounds, for example, filmmaking, programming, design, literature, visual arts, sound design, video gaming, and anthropology. Every storyteller brings to the field the practice and knowledge from their background. Such a variety of perspectives is shaping the present and future of immersive storytelling. Nonetheless, they all depart from the same starting point: the location of human perception at the centre of immersive experience, with immersion understood in both physical and narrative senses.

We can say that this practice of immersive storytelling produces a spatial and embodied experience that happens in an all-surrounding mediated storyworld, a fictional space with narrative content. Screenwriting becomes space-writing: narrative and interactive elements (characters, events, objects, setting, hotspots, etc.), and perceptive counterpoints (audio-visual, skin perception, body awareness, etc.) are carefully located and choreographed in space and time.

Immersive stories can be developed through both linear and non-linear interactive narrative structures and can offer several degrees of agency depending on the chosen interfaces. However, regardless of how interactive an immersive story can be, it has the unique quality of surrounding the spectator. It is the authors' decision to make it a safe and entertaining space rather than a prison for human experience, since they are the rulers of our perception in this sphere.

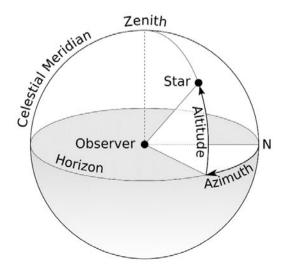
3. THE PERCEPTUAL SPHERE

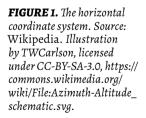
One notion that has emerged in the past ten years during the development of the VR storytelling field is the idea that the frame disappears. This statement feels imprecise. Indeed, the director's power to choose which visual section of the scenic space is shown and which one is hidden disappears. However, in VR, where all the space is available to the eye, an organic framing also occurs, due to the nature of human sight. And even in a traditional "flat" image, the viewer can also choose which areas of the screen to focus their attention on. Framing sections of the space is therefore key to space-writing.

Although writing for VR consists in writing a story that is accessed via a screen, using the term screenwriting, which the cinema industry uses, is not entirely appropriate as human perception is no longer located outside the scenic space but is right at the centre of it. The creative activity of VR storytelling begins when creators locate themselves at the centre of the space, understand their own relation with the space, and then build a storyworld around themselves by assembling interactive and narrative elements within the perceptual sphere of someone at the centre of the space.

I understand perceptual sphere as an individual's spatial interface with the world. From the centre of the perceptual sphere, we perceive the world through our senses. Around the individual, the world takes place. Through vision, hearing, and smell we can perceive depth and objects in space; through our skin we can perceive temperature, objects, and the wind messing with our hair; and we are aware of our own bodies in relation to objects and other humans in space. From physical reality all the way to virtual reality, we use the horizontal coordinate system (fig. 1) to locate ourselves in relation to the visual space, even when we are using "computerized clothing" (Lanier 1988) to interact with digital realities:

It recreates our relationship with the physical world in a new plane, no more, no less. The glasses allow you to perceive the visual world of virtual reality. Instead of having transparent lenses, they have visual displays that are rather like small three-dimensional televisions. When you put them on you see a world that surrounds you—you see the virtual world. It's fully 3D and it surrounds you. (Lanier 1988)





Even though VR has its own "absolute physics" (Lanier 1988), elements of the horizontal coordinate system for our perception of the real world are the same as the ones that we use to perceive virtual reality. These elements are:

• Horizon: the horizon gives us perspective and stability. Nothing is more discomforting than a distorted horizon.

• Upper hemisphere: objects are perceptible above the horizon.

• Lower hemisphere: objects are not perceptible below the horizon, obstructed by earth.

· Zenith: the highest point of the upper hemisphere.

• Nadir: the lowest point of the lower hemisphere.

At the centre of the horizontal coordinate system, we find the observer who is the interactor within the perceptual sphere. The interactor's point of view matches the point of view of the camera, both for traditional cameras and for virtual cameras in computer generated environments, or 360° video cameras for cinematic VR. The interactor is not only looking around, but is also the central recipient of all sensory stimuli provided by the mediated experience within the perceptual sphere.

To understand the point of view of the interactor within the perceptual sphere, early film studies reflected on our relationship with the mechanical "eye" and our appreciation of reality, while leaving open several questions that were fertile ground for the development of VR.

With Vertov's *Man with a Movie Camera* (1929) the relationship between man and the moving image changed radically. The role of the camera was no longer recognised as an external and mechanical element, but as an organic element that does not need further mediation to transmit the phenomenology of the act of seeing and constructing meaning through the sequentialisation of images. The recognition of the camera as an autonomous entity allowed "the creation of an authentically international absolute language of cinema on the basis of its complete separation from the language of theatre and literature" (Vertov 2004, 318). This acknowledgement is very similar to the one that recognises the change of paradigm that supposes locating the viewer at the centre of the mediated space in XR technologies, which, in this case, separates XR language from legacy narrative forms.

Considering the audiovisual nature of VR, comparative studies with legacy media—in particular cinema—allow us to better understand immersive storytelling.. In fact, the mechanism of visualising a sequence of images is very similar to filmic phenomenology: "a cinematographic process directed by oneself [...] giving rise to a disembodied mind-eye capable of experiencing mental products that appear as sensitive only by means of technological prostheses" (Diodato 2005, 8). There is no big difference, in perceptual terms, between seeing reality or virtual reality, as the interface theory of perception suggests. Hoffman et al. argue, for humans, space-time is the desktop of the interface and physical objects are icons on the desktop. The shapes and colours of physical objects resemble objective reality no more than the shapes and colours of desktop icons resemble files in a computer (2015).

If our perception of real and digital realities blends, as it does in the XR spectrum, what do we consider real? Cognitive immersion, "the phenomenon of getting lost, involved, or drawn into storyworlds" (Troscianko 2012), has already demonstrated its power across millennia. All storyworlds are real no matter the media in which they are conveyed.

VR technological development has recreated the nature of human audiovisual perception with the highest possible level of fidelity, Greater levels of presence, immersion, and agency of the interactors' experience in virtual environments (VE), have a direct impact on the impression of reality. To achieve this, there are several elements that need to be articulated together: the quality of the visual experience (the physics of the human eye together with the visual refinement of the virtual environment, its objects, and agents); the quality and quantity of sensory stimuli (haptic, auditory, olfactory); and the usability of the system.

The impression of reality and the materiality of virtual reality are not only determined by the audio-visual sphere but includes everything that can be perceived by the spectator, including themselves. The eye becomes a sort of all-feeling eye that serves as a mediator between the virtual (story)world and reality, the receiver of the articulation of all the systems that interactors perceive. In fact, "one of the factors that determine the difference between looking at a motion picture and looking at reality is the absence of the sense of balance and other kinaesthetic experiences" (Arnheim 1957, 102).

When watching a film, spectators do not confuse the space of the film accessed by a screen with their own space (i.e., the movie theatre or their living rooms), in the same way they do not confuse a film with a real theatre spectacle. In XR technologies in general, this border can reach a point where it disappears completely. Furthermore, in event-based arts or narrative arts—to use Bazin's terminology (Bazin 2004)—the perception of reality also requires interactors' affective, perceptual, and intellectual activity. From a narrative perspective, developing a story for XR is not very different from film, theatre, and even literature, however the craft of translating that story for physical immersion is a completely dfferent task.

4. VR STORYBOARDING

In immersive storytelling viewers have autonomy to explore the space and to naturally frame the areas of the sphere they want to focus on. The creators' concern with how to direct viewer's attention has been a central issue in academic research (Rothe et al. 2018; Gödde et al. 2018; Fearghail et al. 2018; Gruenefeld et al. 2018; Dooley 2017; Mateer 2017; Lin et al. 2017; Sheikh et al. 2016; Syrett et al. 2016; Nielsen et al. 2016). Following this fashion, researchers have also used gaze/eye tracking to identify how users explore the visual story world (Bala et al. 2018; Bender 2018; David et al. 2018; Bala et al. 2017; Löwe et al. 2017; Bala et al. 2016). Useful insights have also been offered by practitioners in non-academic platforms, such as blogs and social media.

The first VR storyboards that I found during my research date back to 2016 (fig. 2). Jessica Brillhart (2016) proposed the first approach to the language of VR, in particular for cinematic VR. "In the Blink of a Mind" (which recalls Walter Munch's *In the Blink of an Eye*) is a series of three chapters in which she explains linear storytelling in cinematic VR. It is interesting that her starting point is the editing workflow in traditional filmmaking, the way in which we articulate the filmic discourse, frame after frame. She moves towards the internal "editing" of the narrative elements in space in each scene, their location and movement in the scene-space, to then elaborate on the transition from scene to scene, or "world to world" as she calls it. Brillhart's contributions paved the way for practitioners to understand VR language.

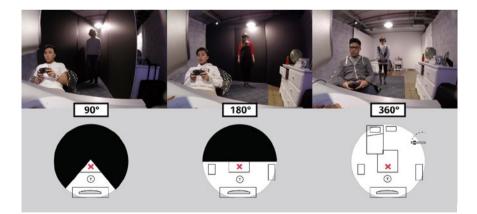
FIGURE 2. Brillhart (2016) illustrations (from left to right) world-to-world, the hero's journey, and layers of experience. Source: Medium.com.



Soon after, Vincent McCurley (2016) proposed a more detailed representation of the perceptual sphere on his blog. Both Brillhart and McCurley reflected on the transition from the framed moving image to the frameless view. It was clear for them that the way to understand VR storytelling starts with a sphere. Nonetheless, based on VR interface design, McCurley points out that the circle is divided into areas of interest, and these areas are defined by the comfortable field of view and the viewing distance that VR head-mounted displays offer. Typically, we have a field of view of around 154° with rotating our heads from side to side, while regarding viewing distance, we have a "sweetspot between 0.5 meters to 10 meters where we can place important content" (McCurley 2016). McCurley proposes a simplified storyboarding layout (fig. 3) that highlights the best area to place content when the user is straight ahead. Behind the user, there is a dark area that I call the "curiosity zone."

A year later, Katy Newton and Karin Soukup published *The Storyteller's Guide to the Virtual Reality Audience* (2017). In one of their experiments, they offer three different fields of vision to measure how much attention spectators give to each specific visual area (fig. 4). The results show that "audiences with a 90° range of vision could recall nearly every event in the story, whether the information was physically in the room or relayed through the audio. However, audiences in the 360° view recalled fewer details of the story and the environment.

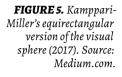
" On the other hand, they found that "audiences in the 360° scene were more aware of the tone of the piece, which they attributed to the pacing and shifts in the lighting" (Newton and Soukup 2017). These results show that space-writing needs a deep understanding of the perceptual sphere for creators to carefully design the scenic space, locate objects and events, and set the tone and rhythm of the narrative.

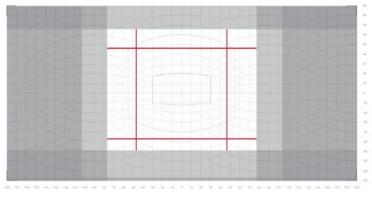


Saara Kamppari-Miller (2017) has shown how to create VR lowfidelity prototypes. Using the McCurley storyboard as a base, she went further and reminded us of organic human visual framing and used it to guide creators in "sketching ideas in 2D for something that is 3D" (Kamppari-Miller 2017). Learning how to use perspective and unfolding the perceptual sphere into an equirectangular projection, we can sketch the space and the key narrative elements of our story. Figure 5 shows us what happens when we translate the field of view and viewFIGURE 4. Newton and Soukup's experiment with different degrees of viewing restriction (2017). Source: Medium.com.

FIGURE 3. Vincent McCurley (2016) storyboarding layout. Source: Medium.com.

ing distance from the circular blueprint into an equirectangular projection: the grey areas represent the areas of the sphere (fig. 5) that are outside a comfortable field of view, the dark lines show the area of clear vision for a human without turning the head or body.





In fig. 6, Kamppari-Miller proposes a VR storyboard comprised of both the visual sphere and the organic frame containing key narrative elements or events.



FIGURE 6. Kamppari-Miller's VR Storyboard template (2017). Source: Medium.com.

4.1. Storyboarding ZENA, an Interactive VR Film

¹ For a trailer see https://www. xehreyes.net/zena. ZENA (Reyes 2017), my first interactive VR fiction film (fig. 7) was part of my experimentation in creating a cinematic VR experience with an interactive fictional structure.¹ In other words, an interactive and immersive fiction film. Each scene of ZENA is a narrative and technical experiment exploring to the possibility for the viewer to change the point of view from protagonist to supporting character, or to external observer. Voice-over, flashbacks, black-and-white scenes are included and different camera positions are used to explore authorial intention (the cinematographic device of generating meaning through framing). Even the duration of the experience (eighteen minutes for the longest path) was an attempt to push the limit of the recommended eight minutes for VR experiences in 2017.

ZENA is a fantasy genre story. Lorenzo, a young alchemist apprentice living in medieval Genoa (Zena, in Genovese dialect), must travel to modern Genoa to save the magic clepsydra, an object that has the power to time travel. In modern Genoa, he needs to find his way through the labyrinth of streets in the historical centre, to follow the advice of diverse characters, and to make difficult decisions when characters reveal their true intentions. The film has twenty-five narrative units, four endings (two negative and two positive), and around forty possible single journeys.

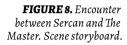
When I was developing the script and the production plan for ZENA, the materials and insights



provided by Brillhart, McCurley, Newton and Soukup, and Kamppari were extremely helpful. Blog posts with simple language, examples, anecdotes and sometimes even templates, are the place to look for step-by-step instructions. I had been experimenting with the 360° video camera Ricoh Theta before acquiring a Kodak Pix Pro, which was needed to seamlessly stitch together the different video files into the full sphere.

From my experiments, I noted that the director's role is not only arranging what happens within the perceptual sphere, but also deciding the camera position, and small differences in placement make a big difference. Locating it lower than the rest of characters in space makes the interactor shorter, locate it above the heads of the rest of the characters and you make the interactor a giant. Locate it between a wall and a threatening character at less than half a metre from the interactor's face and you might provoke a panic attack. This brings us to the next topic: how we locate the camera creates meaningfor the interactor, and it is equivalent to the semantics of the shot in cinematography. FIGURE 7. Poster for ZENA.

Before moving on, in figure 8 we can see how I made storyboards for ZENA. I started by mapping real space, then I located the camera, indicating its front and back, the stitch zone, and the curiosity zone. Finally, I located the starting point of each character in the scene, their movement in space and the area where the main event takes place. The following image (fig. 9) shows the shot scene in its equirectangular version, and the natural frame of the main event when viewed in the headset.



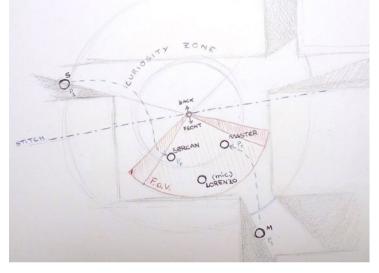


FIGURE 9. Encounter between Sercan and The Master. Final scene in equirectangular version. The organic visual frame of the narrative event is highlighted.



5. CAMERA AND INTENTIONS

Creators' intentions are integral to the story itself. This includes their motivations, the concept, and the sensations that are transmitted during the immersive experience. However, the storyworld and the narrative events need to be translated into space. This translation begins from the point in space where the interactor is looking at the world around her, that is, the position of the camera.

Self-awareness of our body and narrative role in a given reality or the answer to the question "Who am !?"—is generated through our relationship with objects and other people's bodies in space. In my practice, I have had the opportunity to test different camera positions concerning the height of the camera from the ground, the distance between the camera and the key points of interest in space, relative to characters, objects, sound sources, and the architectonic features of the space, but also in response to the question of whether the camera has a body.

When storyboarding, we assume that the camera position is at the average human height. But what does this mean more precisely? Is the interactor standing or sitting? Do we want to make them feel small and afraid, or huge and invincible? Maybe we want the interactor to be lying down on the bed. It is also common to locate the camera at the centre of the dedicated space in which we are shooting, in the middle of the living room, or in the middle of the park. But perhaps we want the interactors to observe the room from the corner, from behind a plant.

These notions together with the director's decisions regarding camera position will have an impact on the production workflow. For example, if the director has decided that the interactor requires a body (human or not), in cinematic VR we will need to build a body for the camera and mount the camera in it or create a virtual body in postproduction.

I have identified four main conditions that affect the position of the camera and have an impact in the meaning-making process. Each camera position has an authorial intention and creates a specific sensation for the interactor. Each position defines a standpoint from which the interactor will make sense of their experience. The four conditions can be combined with each other, generating several types of intentions. A more detailed description of the types of shots and intentions are presented in the chapter "Shooting an Interactive VR Film: ZENA's Production Case" (Reyes and Zampolli 2018).

The interactor has a body. In this case the interactor can look down and discover a body. They are the mind within that body, regardless of being part of the storyworld or not. Normally, when interactors have a body, they are part of the story. They can be the main character or a

supporting character. The interactor can be a human, and in this case the first person shot needs to recreate the human characteristics of the character, or can also be a non-human character, and accordingly the camera position will need to adapt to the physical characteristics of this non-human character. In cinematic VR, this condition requires a special rig to be placed on a person or object to recreate the embodiment of the first person's point of view. While in computer-generated environments, the character needs to be designed.

Height of the camera. Depending on the height of the camera relative to the ground and in relation to the characters and elements that surround it, the shot can have different semantic meanings (fig. 10). We find three cases: (1) A natural view of the surrounding world, (2) a low angle shot when the camera is close to the ground and below the eye level of the other characters in space; and (3) a high angle shot, when the camera is located above the eyeline of the other characters in space and/or a great distance from the ground.



FIGURE 10. Scene from ZENA. Camera above the eyeline of the character combined with half-metre viewing distance from camera. In cinematic language it is equivalent to a high angle shot combined with a medium shot. The intention is to make the interactor feel pity for the main character by allowing the viewer to see him from above.

Distance between camera and key elements/events. Since the camera is at the centre of 360°, the visibility of the objects around it depends on how far they are from the camera. Within the natural framing of the interactors' sight, different types of shots can be achieved from a comfortable viewing distance. From the closest to the furthest point the narrative element is from the camera, we will find a range of shots from close-ups all the way to extreme wide shots (fig. 11).

Position of the camera in relation to the ground. The viewing axis of the camera may not be perpendicular to the ground, as it can also be located parallel to the ground. This positioning gives us three types of

vision not very common to humans: (1) to observe the world at ground level (nadir), (2) to observe the world from above (zenith), and (3) to observe the world on a horizontal axis (i.e., lying down, flying). The location of the camera in horizontal position in relation to the ground can give a feeling of flying, lying on the ground or falling. This choice can cause discomfort, especially if the position of the physical body does not match the position of the camera.



FIGURE 11. Scene from ZENA. A viewing distance of more than half a metre allows the interactor to see the full bodies of the characters in the scene. The camera height is around the eye lines of the characters. In cinematography the equivalent is a wide shot.

TOWARDS SPACE-WRITING

When I started exploring the VR medium around 2014, I remember having interesting and heated discussions with filmmaker colleagues who argued that the director's role disappears in cinematic VR and VR in general because the imposed framing is no longer part of the creative workflow. Several years have passed and I think that this belief has been overcome. From my perspective, film and video makers should abandon this logic when working in VR and immersive narratives in general, as one of the features of immersive technologies is in fact visual freedom itself. As creators, we also have several narrative, visual, and auditory tools, and strategies to guide the interactor's attention. Nonetheless, the will to control a user's attention underestimates interactors' willingness to immerse themselves in the story, to follow the narrative events and to explore the story world that we are presenting to them.

During my experience as a creator and researcher of interactive cinematic VR, I have not only seen the evolution of VR narrative experiences but also the expansion of the term "immersion." Sometimes, it seems that "immersion" is the cultural threshold that we are crossing right now. Despite the fact that we already live in a hybrid environment in which the digital and physical worlds coexist, the immersive endeavour aims to perceptually merge the two. ² Alejandro G. Iñarritu's Carne y Arena (2017) is a good example of this, see https://phi.ca/en/carne-yarena/. Such merging can happen by embedding digital assets in the physical world that are always accessible through different kinds of interfaces, or by accommodating the physical world around the virtual one, as seen in VR experiences that add extra sensory stimuli in the physical setting where the VR narrative is experienced.²

We must remember that immersive stories do not need the mediation of computers, as shown by theme parks, interactive theatre, and other types of fictional spaces that surround the interactors. Considering both immersive technologies but also immersive experiences that do not need the computer mediation, we can think about the expansion of screenwriting to a space-writing practice. As industry and academia reflect on how to find common practices for the creation of immersive experiences that move away from legacy media—especially cinematography—we are slowly moving towards some sort of "immersography," or a unified framework for writing immersive experiences.

The intersection of different media and their processes does not only occur with the shift from older to newer media, but it can also happen the other way around. In this sense, I strongly believe that the language that computer-mediated immersive storytelling is consolidating today can also influence and promote the development of non-digital immersive stories. Syd Field ([1979] 2005) once defined screenwriting as "telling a story with pictures." It remains a question whether we should use the same term when telling a story in space, providing interactors with the unique ability of omnidirectional awareness.

REFERENCES

Arnheim, Rudolf. 1957. *Film as Art*. Berkeley: University of California Press.

Bala, Paulo, Mara Dionisio, Valentina Nisi, and Nuno Nunes. 2016. "IVRUX: A Tool for Analyzing Immersive Narratives in Virtual Reality." In Interactive Storytelling Lecture Notes in Computer Science, 3–11. https://doi. org/10.1007/978-3-319-48279-8_1

Bala, Paulo, Valentina Nisi, and Nuno Nunes. 2017. "Evaluating User Experience in 360° Storytelling Through Analytics."In *Interactive Storytelling Lecture Notes in Computer Science*, 270–73. https://doi. org/10.1007/978-3-319-71027-3_23

Bazin, André. 2004. What Is Cinema? Vol. 1. Berkeley: University of California Press.

Bender, Stuart. 2018. "Headset Attentional Synchrony: Tracking the Gaze of Viewers Watching Narrative Virtual Reality." *Media Practice and Education*, 20 (3): 277–96. https://doi.org/10.1080/25741136.2018.1464743

Brillhart, Jessica. 2016. "In the Blink of a Mind—Prologue." *Medium* (blog). https://medium.com/the-language-of-vr/in-the-blink-of-a-mindprologue-7864c0474a29#.d3x4ljppm

David, Erwan J., Jesús Gutiérrez, Antoine Coutrot, Matthieu P. Da Silva, and Patrick Le Callet. 2018. "A Dataset of Head and Eye Movements for 360° Videos." In *Proceedings of the 9th ACM Multimedia Systems Conference on MMSys* '18. https://doi.org/10.1145/3204949.3208139

Diodato, Roberto. 2005. Estetica del virtuale. Milano: Bruno Mondadori.

Dooley, Kath. 2017. "Storytelling with virtual reality in 360-degrees: A new screen grammar." *Studies in Australasian Cinema* 11 (3): 161–71. https://doi.org/10.1080/17503175.2017.1387357

Fearghail, Colm O., Cagri Ozcinar, Sebastian Knorr, and Aljosa Smolic. 2018. "Director's Cut—Analysis of Aspects of Interactive Storytelling for VR Films." In *Interactive Storytelling Lecture Notes in Computer Science*, 308–22. https://doi.org/10.1007/978-3-030-04028-4_34

Field, Syd. (1979) 2005. *Screenplay: the Foundations of Screenwriting*. New York: Delta Trade Paperbacks.

Gödde, Michael, Frank Gabler, Dirk Siegmund, and Andreas Braun. 2018. "Cinematic Narration in VR—Rethinking Film Conventions for 360 Degrees." In Virtual, Augmented and Mixed Reality: Applications in Health, Cultural Heritage, and Industry Lecture Notes in Computer Science, 184–201. https://doi.org/10.1007/978-3-319-91584-5_15

Gruenefeld, Uwe, Andreas Löcken, Yvonne Brueck, Susanne Boll, and Wilko Heuten. 2018. "Where to Look." In *Proceedings of the 10th International Conference on Automotive User Interfaces and Interactive Vehicular Applications - AutomotiveUI '18*, 221-28. https://doi. org/10.1145/3239060.3239080 Hoffman, Donald D., Manish Singh, and Cheta Prakash. 2015. "The Interface Theory of Perception." *Psychonomic Bulletin & Review*, 22 (6): 1480–1506. https://doi.org/10.3758/s13423-015-0890-8

Iñarritu, Alejandro Gonzalez, dir. 2017. Carne y Arena. VR film.

Kamppari-Miller, Saara. 2017. "VR Paper Prototyping" *Medium* (blog). https://blog.prototypr.io/vr-paper-prototyping-9e1cab6a75f3

Lanier, Jaron. 1988. "A Portrait of the Young Visionary." http://www. jaronlanier.com/vrint.html

Lin, James Jeng-Weei, Henry Been-Lirn Duh, Don E. Parker, Habib Abi-Rached, and Thomas A. Furness. 2002. "Effects of Field of View on Presence, Enjoyment, Memory, and Simulator Sickness in a Virtual Environment." In *Proceedings IEEE Virtual Reality 2002*. https://doi. org/10.1109/vr.2002.996519

Löwe, Thomas, Michael Stengel, Emily-Charlotte Förster, Steve Grogorick, and Marcus Magnor. 2017. "Gaze Visualization for Immersive Video." In *Eye Tracking and Visualization Mathematics and Visualization*, edited by Michael Burch et al., 57–71. https://doi.org/10.1007/978-3-319-47024-5_4

John Mateer. 2017. "Directing for Cinematic Virtual Reality: How the Traditional Film Director's Craft Applies to Immersive Environments and Notions of Presence." Journal of Media Practice, 18(1), 14–25. https:// doi.org/10.1080/14682753.2017.1305838

McCurley, Vincent. 2016. "Storyboarding in Virtual Reality." Medium (blog). https://virtualrealitypop.com/storyboarding-in-virtual-reality-67d3438a2fb1

Newton, Katy, and Karin Soukup. 2017. "The Storyteller's Guide to the Virtual Reality Audience." *Medium* (blog). https://medium.com/stanfordd-school/the-storyteller-s-guide-to-the-virtual-reality-audience-19e92da57497#.5patmkf60

Nielsen, Lasse T., Matias B. Møller, Sune D. Hartmeyer, Troels C. M. Ljung, Nils C. Nilsson, Rolf Nordahl, and StefaniaSerafin. 2016. "Missing the point." In *Proceedings of the 22nd ACM Conference on Virtual Reality Software and Technology -* VRST '16. https://doi. org/10.1145/2993369.2993405

Reyes, María C., dir. 2017. ZENA. Interactive VR Film.

Reyes, María C. 2019. "Interactive Fiction in Cinematic Virtual Reality: Epistemology, Creation and Evaluation." PhD diss., Università degli Studi di Genova.

Reyes, María C., and Serena Zampolli. 2018. "Shooting an Interactive VR Film: ZENA's Production Case Study." In *Looking Forward, Looking Back: Interactive Digital Storytelling and Hybrid Art-Scholarship Approaches*, edited by Rebecca Rouse and Mara Dionisio, 93–108. Pittsburgh, PA: Carnegie Mellon ETC Press Rothe, Sylvia, and Heinrich Hußmann. 2018. "Guiding the Viewer in Cinematic Virtual Reality by Diegetic Cues." In *Lecture Notes in Computer Science Augmented Reality, Virtual Reality, and Computer Graphics*, 101–17. https://doi.org/10.1007/978-3-319-95270-3_7

Sheikh, Alia, Andy J. Brown, Michael Evans, and Z. Watson. 2016. "Directing Attention in 360-Degree Video." IBC 2016 Conference. https:// doi.org/10.1049/ibc.2016.0029

Stiegler, Christian. 2021. The 360° Gaze: Immersions in Media, Society, and Culture. Cambridge, MA: MIT Press.

Syrett, Hannah Syrett, Licia Calvi, and Marnix van Gisbergen. 2016. "The Oculus Rift Film Experience: A Case Study on Understanding Films in a Head Mounted Display." In Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering Intelligent Technologies for Interactive Entertainment, 197–208. https://doi. org/10.1007/978-3-319-49616-0_19

Troscianko, Emily T. 2012. "Cognitive Perspectives on Immersion. In Immersion and the Storyworld, St John's College, Oxford, June 25–26, 2012. JLTonline Conference Proceedings. http://www.jltonline.de/index.php/ conferences/article/view/517/1350

Vertov, Dziga. 2004. *Lines of Resistance: Dziga Vertov and the Twenties*. Edited by Yuri Tsivian and translated by Julian Graffy. Pordenone: La Giornate del Cinema Muto.

SPACE ON AND OFF SCREEN:

THE DÉTOURNEMENT OF DOCUMENTARY FILM INTO VIDEO INSTALLATION

Patrícia Nogueira

ABSTRACT

This essay proposes the détournement of the documentary film Displacement (Nogueira 2021) into a video installation, as a process to subvert the sequential documentary account of reality, as well as to interrogate space and movement on and off screen. Instead of editing and presenting the images and sounds in a continuous flow, the setup of the installation fragments the narrative and replaces the sequential format by a projected, sculptural, four-channel experience, composed of a prologue and three acts: (1) the family's daily activities; (2) disruption of the quotidian routines; (3) the family's displacement. While the installation projects the prologue onto clear white translucent plastic (like the ones used to cover construction sites) at the entrance to the darkroom, the three acts are projected on the three walls surrounding the audience in the darkroom. The result is an intersection of images and sounds: a juxtaposition and intertextuality of the content to offer an immersive view into family life. It also raises the question of embodiment in video installations, especially the notions of spectatorship, authorship, reality, performance, and, most importantly, what the boundaries of the screen are in the expanded practice of documentary film.

#documentary film, #expanded documentary, #landscape cinema, #installations, #détournement

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ONE: DÉTOURNEMENT

It is difficult to define documentary film. From Grierson (1971) to Nichols (2017) or Plantinga (2005), attempts at defining it have foregrounded the underlying difficulty in characterising and conceptualising the field, and commonly define it in terms of its opposition to fiction film. The reason for this is that the term drifts with the creative and fuzzy nature of documentary film. Much like the impermanence of the world we inhabit, documentary film is malleable and encompasses a wide range of aesthetics and approaches to reality that complicates the endeavour to specify the realm. Besides approaching reality through different aesthetics and modes (Nichols 2017), like other moving image formats, documentary film has been shaped by digital technology and has merged with other art forms (for example it now appears in museums and galleries), thereby creating vast scope for practical experimentation in the field and theoretical debate about what it is.

The expanded form of documentary not only raises theoretical questions due to the definition of "expanded," but also opens up space for new forms of documentary practice. Working between its account of reality and the audience's interaction, expanded documentary changes how documentary art is presented to its audience, commonly displaying several projections instead of a single channel, to foster "a recognition of the space outside the monitor" (Rush 2005, 132) and offer an opportunity to explore the notions of time and space. This perspective shifts the concept of documentary from the object to the experience. Following a phenomenological approach, Vivian Sobchack (1999) considers documentary not merely a cinematic object and "less a thing than an experience" (241), fostering in the spectator a specific mode of consciousness and identification with the world represented on screen. Closer to home movies, or film souvenirs, than to fiction films, documentary elicits our position as existential subjects in relation to the screen, as we identify the projected images with the quotidian experiences of the world we inhabit.

Besides the sculptural setup and the performative spectatorial mode, the displacement of documentary footage to an installation setting is a process of transmutability that raises questions and demands ¹A trailer of the original documentary is available at https://vimeo.com/720300431

² The French word dérive means "drifting," or "wandering" and relates to the practice of aimlessly walking to spontaneously and imaginatively reconstruct a space over a rationalised one. The concept was used by the Situationist group to propose an imagined geography against the urban environment shaped by capitalist needs. further discussion. Drawing upon the concept of *détournement* (Debord and Wolman [1956] 2005), I will analyse how the documentary *Displacement* (*Im.per.ma.nên.ci.a*; Nogueira 2021), a twenty minute landscape film, becomes a four-channel installation.¹ *Displacement* portrays a family that lives in the north of Portugal forced to move due to the construction of a dam. The documentary portrays the family going about their daily activities and, as the film unfolds, we realise that people gradually disappear to make room for the empty house, leaving behind only sounds and memories.

As originally conceived, the concept of *détournement* elaborated by the Situationist group implies a reconfiguration of a work, creating an antagonistic or antithetical variation of a previous piece, with a subversive political position questioning the status quo. Although the installation of *Displacement* does not produce a radical decontextualisation of the point-of-view of the documentary, the set-up of the exhibition subverts the original narrative by creating a new material and experiential account of reality with the same documentary footage. In fact, the installation "hijacks" the pre-existing images and sounds of the documentary, re-mixing them in a novel interpretation that highlights the underlying ideology of the original footage while foregrounding the natural and human costs involved in using natural resources to produce energy, such as the river and the wind.

Furthermore, this process of *détournement* fragments, deconstructs, and subverts the sequential documentary account of reality, challenging conventional narrative forms and inviting the spectator to mimic the subjects' movement on screen, by wandering between projected areas and moving her/his own body across the venue. From a phenomenological perspective (Husserl 2012; Merleau-Ponty 2013), while the documentary film invites contemplation of the portrayed world, the installation demands active audience participation for a full experience: this means walking around, getting closer or moving away and mimicking the bodies on screen, which emphasises the idea of the *dérive*.² The gallery works as a "transitional space" (Ellsworth 2005) that bridges the otherwise separate realms of self and other. Hopefully, this active engagement with the world and the social characters portrayed will also encourage the audience to develop a critical position and a political conscience.

The matching displacement process, on and off screen, offers a sense of "realism" close to a pure cinematic experience, which Raymond Bellour (2013) defines as an experience of "cinema, alone." In a certain sense, the installation *Displacement* walks towards an attempt of the Bazinian myth of total cinema, moving closer to "a total and complete representation of reality [...], a recreation of the world in its own image, an image unburdened by the freedom of interpretation of the artist or the irreversibility of time" (Bazin [1946] 1967, 20–21). Furthermore, I argue, that it offers the audience a recreation of the lived experience.

TWO: DOCUMENTARY

The fog over the river disperses as the sun begins to break through the tree branches (fig. 1). At a distance, semi-hidden behind the dense mountain clouds, the wind turbines spin. As the first rays of light hit the undergrowth, a house appears placed between the river and the agricultural fields. The imagery encases a rural scene shrouded by fog which slowly lifts to partially clarify the previously concealed elements on screen. Despite the deceptive simplicity of the shots, the compositional elements of the fog line unveil a buried meaning that surpasses the surface of the landscape. Beneath or beyond the bucolic scenery, the landscape evokes a plane of the immanent sensory experience of being immersed in the natural world, surrounded by fields and mountains.

³ While landscape has always been the subject of representation in cinema (Harper and Rayner 2010), during the last decades and particularly since the beginning of the twentyfirst century, some directors and researchers have been focusing on a more contemplative aesthetics, with a minimalist and observational style, built upon long takes, which challenges the temporality of the cinematographic experience, also known as "slow cinema" (De Luca 2015).

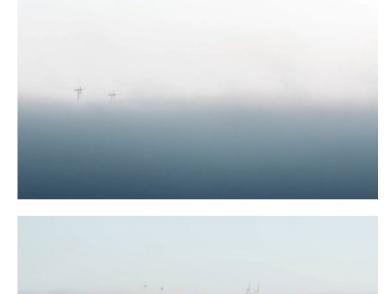


FIGURE 1. Stills from the prologue of Displacement. Source: the author.

This prologue introduces the audience to the space and time of *Displacement* (Nogueira 2021), a twenty-minute documentary film, framed by Landscape Cinema aesthetics,³ that portrays a family living in northern Portugal who are forced to move due to the construction of a dam

that will soon submerge their home. After the prologue, which depicts the surrounding landscape, the camera moves closer to the house and begins to capture the unfolding of daily activities. Through static, long shots, the documentary portrays a family—a mother, a father, and two daughters—in their domestic space and farming the fields nearby

FIGURE 2. Stills from the first chapter of Displacement. Source: the author.





(fig. 2). The gestures, actions, and daily routine of the family sustain the unfolding of the narrative. Mundane activities, such as feeding the animals, weeding the fields, hand-washing clothes, and playing on the swing, become moving representations of reality, a mise en scène of bodies inhabiting the landscape and going about daily life.

The imagery manipulates notions of time and space by juxtaposing stillness and movement, playing with the filmic, subjective time, which contrasts with the real time gestures, rituals, and labours, and foregrounding the landscape as a set for exhibiting the mundane. Drawing upon Kenneth Helphand's thoughts (1986), and following the documentary tradition, *Displacement* portrays "landscape as subject," focusing on the human-environment relationship and foregrounding "the limitations the landscape places upon us, the human transformations of the landscape, and the cultures people have developed by interacting with the landscape" (2). As such, *Displacement* may be seen as a dynamic encounter between the family and the place they inhabit, as well as a portrait of the emotional bond humans develop with places by interacting with the landscape.

If, at first sight, the documentary seems to portray a nostalgic romantic vision of the rural countryside, we soon become aware that the film's subject is far from the picturesque. The sound of the radio news announces the construction of ten new dams, under the "Portuguese National Programme for Dams with High Hydropower Potential," forcing several families to move. Progressively, and while the family proceeds with their daily activities, moving within the house and in its surroundings, the camera begins to frame the subjects as fragments, and the imagery shows human body parts, glimpses behind doors, or reflections on different surfaces. As the sun goes down, a travelling sequence shot embodies the action of the family moving in twilight, leaving behind the house they had lived in for three generations (fig. 3).

FIGURE 3. Sequence shot of the family moving, Displacement. Source: the author.



The house becomes an empty space, inhabited only by the sounds of the family: we see the kitchen while listening to the family having dinner, the toy room while hearing the children play, the steam of the hot water in the bathroom mirror while listening to the children's bath time (fig. 4). From a synchronous, diegetic sound, the sound develops throughout the film into a disruptive device, denying its subordination to the image. This stance is close to that of Mary Ann Doane on voice-off (1980), who—elaborating around sound, space, and the spectator—posits that a spectator who overhears is the sound equivalent of the voyeur (43). Doane refers to the concept of "voice-off" to address the moments when a character's voice can be heard but their body can't be seen because is outside of the frame, off screen, eliciting in the spectator the desire to hear. Grounding this perspective in psychoanalysis, Doane compares the spectator to a child in the mother's womb and situates this pleasure in the divergence between the present experience and the satisfying memory of the first experiences of the voice. In fact, Doane states that "space, for the child, is defined initially in terms of the audible, not the visible" and, she pursues, "the voice has a greater command over space than the look" (44). Following Doane's

FIGURE 4. Stills from the third chapter of Displacement. Source: the author.



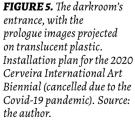


thoughts, the voice-off (or, in this case, the sound-off) challenges the limits of the frame while composing "the unity and the homogeneity of the depicted space" (38). Thus, separating sound or voices from the presence of bodies on screen contributes to the production of an uncanny effect, since the sound-off of the family's memories of living in the house while we watch the house in its empty state results in what Doane terms a "fantasmatic body" (34), which not only "deepens the diegesis" but is also "first and foremost in the service of the film's construction of space" (40). No longer inhabiting the house, the family's bodies become specular memories and the otherworldliness of the film remains oneiric and phantasmatic, and echoes in the space on screen.

THREE: INSTALLATION

There is a piece of white translucent plastic floating in front of me. It partially veils the dark room, where one can make out a projection, and partially allows moving images to be seen projected on its surface (fig. 5). On the plastic, wide angle shots show the morning mist over the river, thick clouds slowly hiding the wind turbines, the morning sunlight illuminating a house located in the fields. Landscapes, nature, objects, compositional lines, skylines... the contours are always concealed by the fogginess of the early morning dusk. The spatial and atmospheric images of the prologue are made even more ungraspable by the projection onto semi-opaque material, which enhances the evanescent properties of the landscape, diluting the screen and the images, and the distinction of reality and its representation. Furthermore, the gauzy, malleable, and wavy surface on which these images are projected emphasises the diffused imagery that cannot be fully grasped through sight, but can only be sensed through an ethereal experience, dragging the spectator to an oneiric, semi-imaginary diegesis. The images seem to escape our ability to see and seem to overflow the limits of the projected area, surpassing the plastic while the material flows.





As Oksana Chefranova (2021) notes, the projection on translucent surfaces explores the ephemeral properties of the images and challenges the design and technologies of the screen, not only on the physical and conceptual level, but also regarding its materiality, texture, and limits, and is an expression of the post-cinematic condition. The transparency of the screen enhances a sense of immediacy and allows the spectator to overcome the surface of the images, going beyond the projection and placing her/himself between reality and its representation. Instead of delineating a barrier or boundary, the translucent screen constitutes "a passage through and beyond projection, suspending the viewer between 'here' and 'there'" (Chefranova 2020, 191), an in-betweenness that mediates the space in the midst of the landscape and daily human life. The spectator is invited to walk through the translucent screen and enter the dark room, breaking the fourth wall and freely exploring the three projections, in a real-time viewing experience.

While the documentary presents a sequential, logical order that is almost chronological, the installation plays with the fragmentation and displacement of content. In fact, the installation's montage exceeds the single temporal line of the linear film and undermines the Aristotelian notion of narrativity and its logic of time as causality. Inside the gallery room, disrupting the linearity of the single-screen film, the documentary narrative is reconfigured into a sculpture installation, projecting the three acts on three separate screens on the walls around the audience (fig. 6). Instead of narrating a sequential account of reality, the installation fragments the daily life of the portrayed family and embraces the various dimensions of the audiovisual media to elicit a individually perceptible sensory experience, foregrounding the nuances and uncertainties of existential life (Merleau-Ponty, 2013). In the installation, the footage is arranged in the same three chapters, preceded by the prologue projected outside the dark room, but the sequence follows an inner, individualised sequence.

The installation transforms the temporality of the images in two ways. On the one hand, the duration of the shots is extended to engage the audience in a contemplative experience of the landscape and its characters, to explore an introspective position and deepen temporal and spatial consciousness; on the other hand, temporality is no longer defined by the director since control over duration has been transferred to the spectator, who decides how long to stay in front of one screen before moving on to the next one. This configuration emphasises experience-as-duration, and captures and preserves the audience's gaze, eliciting a "pensive spectator" who controls the narrative flow so it can "reflect on the cinema" (Mulvey 2006, 186). Taking a stand in the debate on exhibition cinema, Dominique Païni (2002) develops his reflection on the notion of "cinema museum" and proposes a hybrid figure of the observer, a kind of mixture between the museum visitor and the movie theatre spectator, by introducing the notion of *"temps exposé,"* a time which embodies a new existence of cinema, which nevertheless itself becomes what Royoux (2000) terms *"cinéma d'exposition."*



FIGURE 6. Installation plan for Displacement. Source: the author.

The gallery space is designed to elicit the audience to move around the room and explore the space and mediate interaction with the images projected on screen. No longer confined to a seated position in a movie theatre, in the gallery, the audience is itinerant, traversing the space that has been designed for precisely this purpose. The spectator becomes free from the armchair of the cinematographic spectacle in the "exhibition cinema" and makes an "unexpected return as the Baudelairian flaneur," trying to find postures for the contemplative attention of her/his gaze (Païni 2002, 65). Furthermore, the reconfiguration of the documentary into the installation presents an opportunity for the audience to walk through the experience of this family's life. In essence, the documentary provides a sense of realism, but it also actively engages the spectator to question the constructed nature of reality itself. In this sense, the installation described in this essay diverges from the traditional documentary by demanding a new spectator position, a spectator who performs an encounter with the sounds and images dispersed through the venue, as a body "being-towardthe-world" (Merleau-Ponty 2013, 160).

Merleau-Ponty (2013) considers the body's orientation toward the world to be essentially temporal and therefore the space of viewing also becomes an experience of time, both of the artwork's temporality and of the spectator's experience of duration, which changes according to how the viewer engages with work. Simultaneously, this approach promotes the displacement of bodies off screen, enabling the interaction of the audience with the bodies on screen. The spectator engages in a kinaesthetic experience of a pre-conscious system of bodily movements and spatial awareness, acquiring what Merleau-Ponty terms a "body schema" (55). This strategy aims to reflect a matching experience on and off screen, and to engage the spectator in the lived reality, which cannot be removed from the account of the sensory (Merleau-Ponty 2013). The *détournement* of the documentary into a multiscreen documentary installation surrounds and immerses the spectator in the world represented, placing her/him in a dual position: (s)he becomes both a subject of imagination and an embodied subject.

FOUR: DENOUEMENT

The process of détournement of the documentary film Displacement into a video installation requires the consideration of several elements, such as narrative, temporality, fruition, and the spectator's position. By displacing the documentary footage to a video installation and presenting it on multiple screens, the spectator is invited to order the sequences at her/his will and limit or widen their attention and gaze between screens. The exhibition produces an experience which is inherently unstable and unrepeatable, since each spectator engages uniquely with the portrayed reality, emphasising the ephemeral nature of the installation in contrast to the permanence and durability of the traditional documentary narrative. The work expands notions of sculptural space in performance art and moves toward increased viewer participation. The spectator embraces various kinds of corporeal capacities and practices, such as sitting, moving, walking, watching, listening, and sensing, encompassing the ability of intertwining body with mind and merging the senses with reasoning. Between mobility and stillness, the audience becomes performative, interactive, immersed, moving beyond a spatial configuration imposed by the author, and freely exploring amidst screens, images, and sounds, across multiple channels of information and affect, formal and sensory. In this encounter, the installation blurs a clear opposition between object and subject, fostering a fluid circulation of affects.

While the installation denies the traditional chronological account of reality, it also submerges the audience beneath the surface of images, in a metaphysical and sensorial experience, evoking the perceptual reality in the audience's consciousness. Simultaneously, it provides an immersive experience fostered by the images and sounds to offer a new perceptual reality, an expanded experience of reality, encouraging the audience to perform the displacement of bodies off screen, while re-thinking and re-interpreting her/his own experience of the world. Merleau-Ponty (2013) argues that unlike knowing, sensing is a "living communication with the world that makes it present to us as the familiar place of our life" (53), affording the perceived world with meanings and values that refer essentially to our bodies and lives.

From a time-based work, the documentary evolved to a spacesituated experience, where the depiction of the reality presents a more subjective vision that overcomes the referential account of the recorded indexical information. The gallery experience fosters an embodied spectatorship, in which interpretation develops into a physical response, in time and space, escaping the constraints of the linear passage of time. The spatial configuration of the exhibition induces the audience's bodily transformation, transposing the action depicted on screen to the gallery room and providing the impression of real, live, and physical situations. The immediacy of such display transforms the documentary into an all-encompassing experience determined by the physical presence of the audience on site, reshuffling the notions of time and space to elicit an ambiguous experience of the constructed reality. It opens space to the imagined, portraying an unrepresented perspective that escapes representation, and which cannot be portrayed through images and sounds but can only be sensed through the sensibleness of the lived reality.

REFERENCES

Bazin, André. (1946) 1967. "The Myth of Total Cinema." In André Bazin, *What Is Cinema?*, vol. 1, edited and translated by Hugh Gray, 17–22. Berkeley: University of California Press.

Bellour, Raymond. 2013. "'Cinema, Alone'/Multiple 'Cinemas.'" Alphaville: Journal of Film and Screen Media 5: 1–28.

Chefranova, Oksana. 2021. "On Genealogy of the Translucent Screen and the Rehabilitation of the Ephemeral: Post-cinema, Installation, Performance." In *Surface and Apparition: The Immateriality of Modern Surface*, edited by Yeseung Lee, 185–204. London: Bloomsbury.

Debord, Guy, and Gil. J. Wolman. (1956) 2005. "A User's Guide to Détournement." In *Situationist International Anthology*, rev. ed., edited and translated by Ken Knabb, 14–21. Berkeley: Bureau of Public Secrets.

De Luca, Tiago, ed. 2015. *Slow Cinema*. Edinburgh: Edinburgh University Press.

Doane, Mary Ann. 1980. "The Voice in the Cinema: The Articulation of Body and Space." *Yale French Studies* 60: 33–50.

Ellsworth, Elizabeth. 2005. *Places of Learning: Media, Architecture, Pedagogy.* New York: Routledge.

Grierson, John, and Forsyth Hardy. 1971. *Grierson on Documentary*. Berkeley: University of California Press.

Harper, Graeme, and Jonathan Rayner, eds. 2010. *Cinema and Landscape*. Intellect Books.

Helphand, Kenneth I. 1986. "Landscape Films." *Landscape Journal* 5 (1): 1–8.

Husserl, Edmund. 2012. *Ideas: General Introduction to Pure Phenomenology*. Translated by W. R. Boyce Gibson. London: Routledge.

Merleau-Ponty, Maurice. 2013. *Phenomenology of Perception*. Translated by Donald A. Landes. London: Routledge.

Mulvey, Laura. 2006. *Death 24x a Second: Stillness and the Moving Image.* Reaktion Books.

Nichols, Bill. 2017. Introduction to Documentary. Indiana University Press.

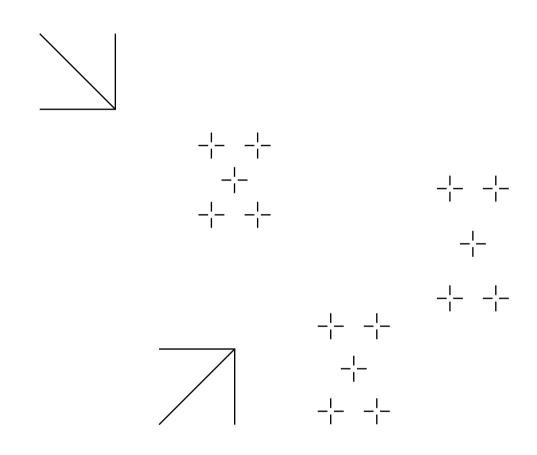
Nogueira, Patrícia, dir. 2021. *Displacement (Im.per.ma.nên.ci.a)*. Independent Production. Film.

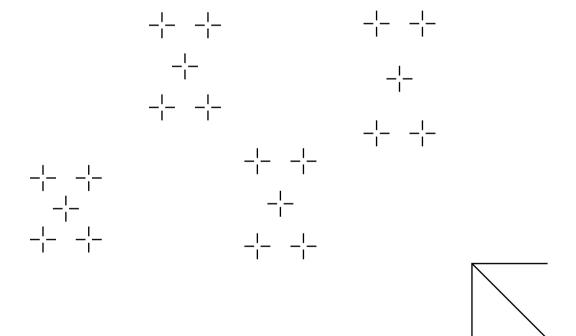
Plantinga, Carl. 2005. "What a Documentary is, After All." The Journal of Aesthetics and Art Criticism 63 (2): 105–17.

Païni, Dominique. 2002. *Le temps exposé: Le cinéma de la salle au musée*. Paris: Cahiers du cinéma. Royoux, Jean-Christophe. 2000. "Cinéma d'exposition : l'espacement de la durée." *Art press*, 262: 36–41.

Rush, Michael. 2005. New Media in Art. London: Thames & Hudson, 2005.

Sobchack, Vivian. 1999. "Toward a Phenomenology of Nonfictional Film Experience." In *Collecting Visible Evidence*, edited by Jane M. Gaines and Michael Renov, 241–54. Minneapolis and London: University of Minnesota Press.



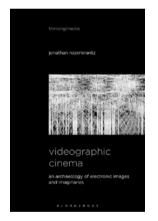


REMANENCES AND FUTURITIES

JONATHAN ROZENKRANTZ: VIDEOGRAPHIC CINEMA

Ervin Török

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Jonathan Rozenkrantz: Videographic Cinema. An Archaeology of Electronic Images and Imaginaries. London: Bloomsbury Academic, 2020. 228 pages. ISBN-13: 978-1-501-36931-5 Jonathan Rozenkrantz's book, *Videographic Cinema* analyses the now obsolete medium of video from a refreshing and exciting perspective. The book focuses primarily on the emergence of analogue video images in theatrically released feature films. Rozenkrantz's approach to the archaeology of video images is carefully balanced between the refusal of ontological idealism on the one hand (exemplified by works of André Bazin and D. N. Rodowick, among others), and on the other, the refusal of the reduction of video images to mere textual signifiers.

Videographic Cinema elaborates the problem of videography as a medium through the mediation of theatrical screenings. The "expressive capital" (54) of video images can be turned into another medium, namely cinema. In this process of mediation, the ever-changing discursive assumptions and the specific qualities of perception are exposed, which frame the rise of electronic images and the process through which video became obsolete. The expectations and fears that accompanied the rise of video technology have a decisive contribution to the perception of video images. Focusing on connotations which surround the electronic image, Rozenkrantz nevertheless emphasises that "the material differences between videographic and photochemical images condition the expressive capacities of each medium" (9), and that the technical conditions, even the know-how of their use delimits the hermeneutic activity of the interpreter.

In Videographic Cinema, video is viewed from the vantage point of "media imaginaries." The book focuses on the imagination and phantasies, which encompass video technologies. However, in a series of clarifications, Rozenkrantz separates the methodology of his book from the seminal *Media Archaeology* (Huhtamo and Parikka 2011), noting that there is a general confusion between "media imaginaries" and "imaginary media"—the latter are fictions, while the former "are the sum of connotations engendered by and with regards to an actual medium" (24). He emphasises that "media imaginaries" are not to be confused with "media fantasies," "media discourses," or the Lacanian "Imaginary." The connotations of video images in cinema are limited by historical conditions—the key terms used here for denoting the prospective and retrospective horizons of the imagination are futurities and remanences, "mnemopticon," and "retrospectacles"—and are all closely tied with the temporal configurations of media technologies.

The call in *Videographic Cinema* for an archaeology of technical media—"the study of media conditions, the study of media images and imaginaries, and historiography theorized/theory historicized" (17)—determines the selection of items from the examined field. From a corpus of films stretching from Georges Méliès's *La Photographie électrique à distance* (1908) to David Sandberg's *Kung Fury* (2014), Rozenkrantz highlights the cases in which the visual form of videographic elements is not only emulated, but in which the material differences between analogue and video technologies also play a key role.

For example, the first film analysed in depth, A Face in the Crowd, a 1957 political satire about the impact of TV shows on the political sphere, was selected because it reflects on the "liveness" of the TV: the protagonist turns the monitor toward a camera, "generating what must be cinema's first videographic hall of mirrors—an effect impossible to achieve by photochemical means as it is conditioned on simultaneous capture and transmission" (72). The "liveness" of TV here is explained by the difference of mode of rhetorical address from that of feature film, for example, in the recurring images of oneself. The imperfect dramatic space of live TV shows, which is due to the immediateness of the capture and transmission, transforms the "ignorance [of the protagonist] into an asset" (72). Such subtle observations make it possible to capture the close relationship between the specific dramatic space induced by broadcasting live and affective structure; between medial condition and revelation of new forms of spontaneity (and its highly ambivalent impact on the sociopolitical sphere).

Surveying the media conditions of videographic images, Rozenkrantz does not concentrate exclusively on artistic applications, but also considers commercial uses, especially surveillance and psychiatric use. Although in *Videographic Cinema* Gene Youngblood's vision of "expanded cinema" is an important point of reference, the experiments of media art are less highlighted. Some of the book's examples come close to experimental film, for example Andy Warhol's famous *Outer and Inner Space*, the *TV Buddha* video-installation by Nam June Paik, and so forth. Among the films analysed in detail, the 1979's film *Anti-Clock* by Jane Arden and Jack Bond can arguably be labelled as such, however Rozenkrantz decides not to follow this line of inquiry. Greater emphasis is placed on the general understanding, the mainstream use, and imagination of video technology. ¹ Foucault uses the technical model borrowed from the eighteenth century philosopher Jeremy Bentham that makes possible paraphrasing Rozenkrantz— "for the few to view the many," and turns it into a model of surveillance based on the asymmetrical relations between the perspectives of the viewer and the viewed.

Rozenkrantz briefly reviews the process through which, from the mid-1930s onward, video was understood as the "visual output of TV reception" (30). The key turning points in the spreading of video technology are the introduction of the first CCTV in a Houston jail in the mid-1950s, the launching of traffic surveillance systems in the UK and Germany. the appearance of the first black-and-white videotape by Ampex, the development of colour video recording by RCA, and the invention of the portable recorder. Videographic Cinema follows the differentiation between TV and video that, after 1965, makes it possible for video technology to spread outside the terrain of broadcasting, and to emerge as a creative medium. This shift in the understanding of the video as a medium, from surveillance technology to art, is treated in detail by drawing attention on the shifting scholarly evaluation of the video, from Rosalind Krauss's essay, "Video: The Aesthetics of Narcissism" (1976) to Lucas Hilderbrand's essay (2009), which lists a large range of negative connotations of video.

The malleable concept of video as mnemonic technology and as art implicitly excludes a large part of its popular use. One of the great achievements of the book is the balanced demonstration of the tensions within the concept of video, from utopic expectancies and experimental applications to morally dangerous mass use that in some cases is considered something that should be legally regulated and restricted.

The prospective horizon of a newly emerged electronic image technology that needs to be appropriated is examined from the perspective of the expanded theory of Foucauldian panopticism. Rozenkrantz follows the sociologist Thomas Matthiesen, who in 1997 introduced the "synoptic" function (the many seeing the few) as a counterpart to the "panoptic" function.¹ To this, *Videographic Cinema* adds the autoptic function (seeing oneself), making a tripartite system of functions (panoptic, synoptic and autoptic) with which it is possible to treat a wide range of media imaginaries.

Departing from a specific hint in Sidney Lumet's *The Anderson Tapes* (1971), Rozenkrantz highlights the now largely forgotten psychiatric use of video techniques as surveillance and "televised therapy sessions" (100) that "recalibrated symbiotic relations centuries old" (102) of spectacle, surveillance and psychiatry. The possibility of self-observing through the lens of another viewer (associated with a huge audience) pairs the autoptic function with the synoptic one. Referring to the techno-philosopher Friedrich Kittler, who made a peculiar equation between technical standards and the human psyche, Rozenkrantz notes:

"So-called Man" may be determined by technical standards, but no more than the standards themselves mediate already established norms. Here, then, is the blind spot of the autoptic gaze: it cannot perceive its own historical conditions." (105)

This subtle critique of the Kittlerian stance makes it possible to extend the inquiry to the increasing correlation between video images and the human psyche from the 1970s onward. In films like Fernando Arrabal's *Viva la muerte* (1971), a film about processing the trauma of the Spanish Civil War, video recordings stand for the envisioned deaths of the protagonist's father. *Videographic Cinema* emphasises the ironic stance of the film, in which the analogue recordings (mixed up with the falsity of cited propaganda) are equated with ordinary perception. In films like *Anti-Clock* or David Lynch's *Lost Highway* (1997) he detects a more complex and twisted relation between memory and video images. Rozenkrantz emphasises that video in *Anti-Clock* functions "as a technology for forgetting" (136), in *Lost Highway* video noises are "the non-representation of the Real." In these films the electronic images are not allegories of personal memory, but mediatisations of perception, in which video estranges the fixed relations between locations and materialised memories, identification and social indoctrination.

The turn in the understanding of video from professional medium suitable for reaching a mass audience into a personal one from the 1980s goes hand in hand with the increasing connection with a psychopathic connotation. Through a series of great analyses from Atom Egoyan's *Family Viewing* (1987) up to Michael Haneke's *Benny's Video* (1992) Rozen-krantz demonstrates the fuzzy interrelation between a new type of experiencing reality "directly" through video and controlling reality: video, through making invisible forces visible (Deleuze), became a dangerous technology, associated among others with pornography and erasure.

After the sudden obsolescence of video in the early 2000s new kinds of nostalgia are attached to electronic images. The noise and decay of videos, and the snowy images became expressions and signifiers of a disappearing analogue physicality. The noisiness of copying and storage shed a new light on the short life span of the electronic images. The problem of authentication, treated in the context of Jaimie Baron's concept of archive effect (Baron 2014) also became important. The remoteness and obsolescence of analogue video technologies make the authentication as an "experience of reception" (Baron 2014) a key problem.

With enlightening references to postmodern theories Rozenkrantz makes readable the two new central sources of joy found in analogue video images. The one is the "pleasure of retrospectacle" (165), exemplified by *Kung Fury*, which exploits the peculiar aesthetics of videogames from the 1980s. "The correlation between the circular form of cultural production and the cyclical form of commodified time," writes Rozenkrantz, "had transformed the culture industry into a millennial retrospectacle." (158) The fusion of retrospection and spectacle, and the looking backwards transform a not "too pleasurable nor very playable" (161) technological environment into a pleasurable spectacle of an aged youth culture "coated with a patina of remanence decay" (162).

The other path followed by Rozenkrantz takes into account another form of retrospection connected with video images. In these films shot on analogue formats the spectator's instinctive choice to detect obsolete formats as signs of documentation are taken into account "blurring the line between fiction and non-fiction" (158). Yet *No*, a film by Pablo Larraín (2012), an example presented in detail, is not simply a mockumentary, but a very complex and breathtaking reflection on (Chilean) history, where the mediatisation of political events can be read from a much more ironic standpoint, when media conditions themselves are changing.

Through a long list of excellent analyses *Videographic Cinema* follows the changing forms of use and apprehension of videographic images—a very suggestive study and a true examination of the theoretical frames conditioning the archaeology of technical images.

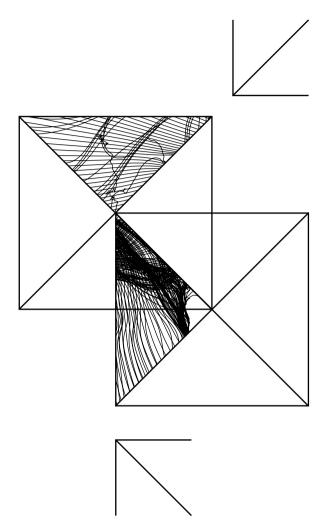
LIST OF REFERENCES:

Baron, Jaimie. 2014. *The Archive Effect: Found Footage and the Audiovisual Experience of History*. Abingdon: Routledge.

Hilderbrand, Lucas. 2009. Inherent Vice: Bootleg Histories of Videotape and Copyright. Durham: Duke University Press.

Huhtamo, Erkki, and Jussi Parikka, eds. 2011. *Media Archaeology: Approaches, Applications, and Implications*. Berkeley: University of California Press.

Krauss, Rosalind. 1976. "Video: The Aesthetics of Narcissism." October 1: 50–64.



A NEW ACCOUNT OF THE RELATION BETWEEN ART, SCIENCE, AND DESIGN

NOAM ANDREWS: THE POLYHEDRISTS

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THE POLYHEDRISTS NOAM ANDREWS

Noam Andrews: The Polyhedrists: Art and Geometry in the Long Sixteenth Century. Cambridge: MIT Press, 2022. 304 pages. ISBN-13: 978-0-26204-664-0

In general, the intertwining of drawing, perspective, instruments, design, and science is still far from being fully understood. In particular, the way mathematical knowledge of solids relates to art is a multidisciplinary endeavour that is hard to grasp without simplifying matters in some way. In his new book titled The Polyhedrists: Art and Geometry in the Long Sixteenth Century, Noam Andrews aims to detail the history of Platonic solids in different domains. Andrews claims that "the visual history of polyhedra is littered with false starts, poignant failures, and allegories unable to convey the weight of their subject matter" (59). This is true, and there are many different reasons why. On the one hand, the categorisation of different disciplines in the sixteenth century was far from the disciplinarity of today. Art, science, and design were much less separated, and consequently, an investigation in any of these fields typically considered phenomena in their complexity. On the other hand, the scientific revolution transformed the way science operated as a social institution, and within these processes, other fields in the humanities also shifted perspective. Lastly, it is hard to grasp the complexity of the epistemic role and relatedness of artefacts.

Fortunately, *The Polyhedrists* does not separate art from design and science, and it therefore reflects the interrelatedness of the three and represents the intertwined relationship of these disciplines and human-made objects (see for instance, the closing chapter titled "Epilogue: Corpora Irregulata et Regulata" and the sections in it on Kepler). Central is the problem of distilling philosophical concepts into tangible things, i.e., drawings and solids. For instance, in the chapter titled "Instruction and Measurement," Andrews starts to discuss Nuremberg's, the great Renaissance city's history, including its material culture, the natural philosophers, scientists, and artists who lived there, in order to portray the rich cultural history of the city. Particular emphasis is placed on Albrecht Dürer, one of the most notable Nurembergers, who was not only a remarkable artist, but also participated in the circulation of philosophical and scientific knowledge as a humanist. Dürer used scientific instruments for measurements, such as compasses and solids, to balance the proportions of the human body, and later, he adapted a Vitruvian system of ratios as well. Dürer became familiar with Euclidian geometry during his trip to Italy, where he also learnt about Piero della Francesca's method of foreshortening. Readers familiar with Erwin Panofsky's work on Dürer may find Andrews descriptions of these an exciting addition to our understanding of the evolution of perspective in Dürer's work.

Indeed, perspective is central to the connection between art and science for both philosophical and instrumental reasons. Being a book about solids and visuality, The Polyhedrists showcases many different illustrations, drawings, and other visual elements to support the book's argument. Accordingly, Polyhedra had a unique role since they served as a basis for exploring three-dimensional abstraction. Thanks to this and a massive amount of technical investment, these solids slowly became the single most recognisable emblems of perspectival measurement tools. Polyhedra were divided into two major groups in Western culture: the regular or Platonic solids and the semiregular or Archimedean solids. The five regular solids—the tetrahedron, the hexahedron, the octahedron, the dodecahedron, and the icosahedron—owe their name to Plato, who in the Timaeus associated four of them with the basic elements, that is, fire, air, water, and earth. In contrast, the dodecahedron is associated with the heavens. Archimedean solids consist of thirteen convex polyhedrons with high symmetry. The difference between Platonic and Archimedean solids is that while the former are a single regular polygon, the latter are comprised of two or more regular polygons. Knowledge of these solids became more and more important in the sixteenth century. Martin Kemp emphasises the role of sensory effects and the particular properties of the eye, and states that "geometrical procedures provided an appropriate means for the representation of three-dimensional objects on a flat surface in such a way that the projection presented essentially the same visual arrangement to the eye as that presented by the original objects" (Kemp 1990, 165).

However, Andrews emphasises that geometrical knowledge was only part of the skill set of Renaissance man. The diverse knowledge about instrument design, mechanics, astronomy, mathematics, arts, architecture, optics, and cartography, to name but a few, was only loosely united by geometrical principles (102). On page 140 of *The Polyhedrists*, Andrews shows a painting of one of the most distinguished goldsmiths of the sixteenth century, *Portrait of the Coldsmith Wenzel* ¹Another critic of Hockney with comparable praxis is the Hungarian graphic artist, animator, and essavist István Orosz, who frequently reflects—by way of art, model reconstructions, and historical analyses—on the intertwinements of technology and symbolic meaning in the era, including Brunelleschi's demonstration of perspective, Dürer's polyhedron in Melancholia, the instruments and the anamorphosis in Holbein's The Ambassadors. See, for example, his 2011 A követ és a fáraó and 2013 Válogatott sejtések (both Budapest: Typotex).—Eds.

Jamnitzer by Nicolas de Neufchatel. There are seven artefacts in the painting next to Jamnitzer: a silver measuring scale, a compass, a prayer book, spectacles, an hourglass, a figure of Neptune, and a drawing of Neptune. Andrews examines these artefacts and claims that "each of the seven items chosen represent the epistemic aspirations of the art and science of goldsmithing at its mid-sixteenth century zenith" (141). These objects are epistemic in that they contribute to the production of both scientific and artistic knowledge, and they also serve as components of learning. They mediate, establish, and affect how artists and scientists measure, purify, observe, and represent the world. Thus, the epistemic role of artefacts cannot be separated from scientific discoveries or the development of particular artistic progress.

The most well-known example of this issue is the book titled Secret Knowledge: Rediscovering the Lost Techniques of the Old Masters by David Hockney ([2001] 2006). Building on his collaboration with physicist Charles M. Falco, Hockney claimed that artists like Caravaggio and Jan van Eyck used concave mirrors, lenses, and other optical devices when making pictures, be it painting or drawing, to project parts of the images illuminated mainly by sunlight onto a canvas or board. Moreover, he claimed that artists started using optical devices as early as the beginning of the Renaissance, thus three hundred years before art historians had suspected it. Even though many have criticised their claims (Stork et al. 2011), their essential claims seem trivial to other historians and philosophers of science and art. Don Ihde claimed that "Hockney did not rediscover the secrets of the Renaissance, he simply republicised them. What may have been forgotten by some critics and historians is how fully technologised the Renaissance and Early Modernity [were]. Might Galileo without his telescope be analogous to Caravaggio without his camera?" (Ihde 2008, 385).1 Thus, the way artists used technological devices for art is similar to how science is deeply rooted in using artefacts. If we accept this claim, the study of the artefacts and critical texts of the scientific revolution can reveal a lot about the art and design of the same period, since they are analogous in many ways.

One of the advantages of the book is not ignoring historiographical issues alongside philosophical and historical accounts. For instance, in the chapter titled "Instruction and Measurement," the author discusses how Dürer might have struggled reading ancient texts and how Pirckheimer, a translator and Dürer's friend, could have influenced Dürer's understanding of ancient texts. This connection is especially relevant since Pirckheimer did not just translate some essential works but also lent his personal library to Dürer and recommended specific works to him. In this way, Pirckheimer nudged Dürer in certain intellectual directions and influenced Dürer's artistic and intellectual praxis.

Through various examples, Andrews emphasises the social aspect of art and design. One of the most important social aspects of art was the existence of many studios and workshops, in which different phases of object production took place. Since drawing was the primary form of communication, goldsmiths such as Jamnitzer had to rely on graphic skills to be able to facilitate the production of certain items. Design sequences display thinking processes that were later handed to goldsmiths, manufacturers, or the commissioner. These examples show that an artist, designer, or scientist rarely worked alone; rather, teamwork is essential in most cases and for many reasons.

In contemporary art, solids still interest artists whose work is connected to science in some way. Attila Csörgő's work titled *Platonic Love* (1997), for instance, plays with time, solids, and movement to slowly transform geometrical forms into new pieces. His makeshift lever and pulley transforms three Platonic solids, a tetrahedron, a cube, and an octahedron, into another Platonic solid, a dodecahedron. Similar problems appear in the Danish-Icelandic artist's Olafur Eliasson's practice, who uses solids and different scientific concept in his work. For instance, in *Your Sound Galaxy* (2012), *Firefly Double-Polyhedron Sphere Experiment* (2020), and in *The Tetrahedral Night* (2017).

The Polyhedrists offers a rich historical, sociological, and theoretical account of geometry in the sixteenth century. The book showcases many images alongside the text: artworks, illustrations, and drawings of devices, solids, and other instruments that support the author's argument. Because of the tremendous amount of information, it can sometimes be heavy going for readers who do not have enough background information or previously did not know anything about the topic, so I would not consider this an easy book for beginners. However, it is an essential read for anyone interested in the intertwined relationship between art, design, and science since it provides an incredible amount of knowledge and interpretation in a beautifully made book.

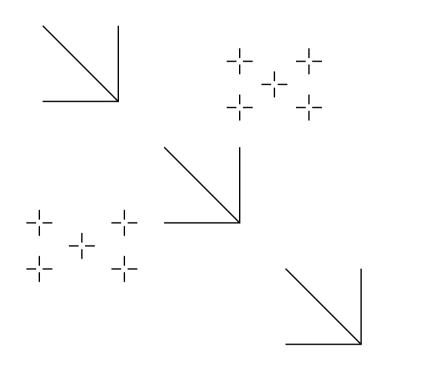
REFERENCES

Hockney, David. (2001) 2006. Secret Knowledge. Rediscovering the Lost Techniques of the Old Masters. Expanded ed. London: Avery.

Ihde, Don. 2008. "Art Precedes Science: Or Did the Camera Obscura Invent Modern Science?" In *Instruments in Art and Science*, 383–93. Berlin: Walter de Gruyter.

Kemp, Martin. 1990. *The Science of Art. Optical Themes in Western Art from Brunelleschi to Seurat*. New Haven and London: Yale University Press.

Stork, David G., Jacob Collins, Marco Duarte, Yasuo Furuichi, David Kale, Ashutosh Kulkarni, M. Dirk Robinson, Sara J. Schechner, W. Christopher Tyler, and Nicholas C. Williams. 2011. "Did Early Renaissance Painters Trace Optically Projected Images? The Conclusion of Independent Scientists, Art Historians, and Artists." In *Digital Imaging for Cultural Heritage Preservation: Analysis, Restoration, and Reconstruction of Ancient Artworks*, 223–51. Boca Raton: CRC Press, Taylor & Francis Group. https://doi.org/10.1201/b11049-8.





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